

**DEVELOPMENT OF REGIONAL IMPACT
(DRI # 4023)**

**TRAFFIC STUDY
FOR
CYPRESS GROVE DRI (# 4023)

CITY OF ATLANTA, GEORGIA**



Prepared for:

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EXECUTIVE SUMMARY

Traffic impacts were evaluated for the proposed Cypress Grove DRI # 4023 residential development located along Hollywood Road near N. Grand Avenue in City of Atlanta, Georgia.

The development will consist of a total of 193 townhomes and 562 apartments in Pod A, Pod B and Pod C. Pod A consists of 75 townhomes. Pod B consists of 294 mid-rise multi-family apartment units and 86 for-sale townhomes. Pod C consists of 268 mid-rise multi-family apartment units and 32 townhomes. Pod A is located north of Hollywood Road between Gun Club Road to the west, Cato Street to the east and Hollywood Drive to the north and has one full access driveway each on Hollywood Drive and Cato Street. Pod B is on the southeast corner of Hollywood Road and N. Grand Avenue stretching back to the southwest corner of Hollywood Road and Mildred Place. It has one full access driveway on Mildred Place, one full access driveway on Hollywood Road and two full access driveways on N. Grand Avenue. Pod C is in the northwest corner of the intersection of Hollywood Road and N. Grand Avenue and has two full access driveways on N. Grand Avenue.

Existing and future operations during the AM peak hour (7:00 AM – 9:00 AM) and PM peak hour (4:00 PM – 6:00 PM) before and after completion of the project were analyzed at the following intersections:

1. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road
2. Hollywood Road @ Sumlin Avenue / Johnson Road
3. Hollywood Road @ Cato Street
4. Hollywood Road @ Gun Club Road
5. Hollywood Road @ Mildred Place
6. Hollywood Road @ Hollywood Drive
7. Hollywood Road @ Milton Avenue
8. Hollywood Road @ N. Grand Avenue
9. Hollywood Drive @ Gun Club Road
10. Hollywood Drive @ Cato Street
11. Johnson Road @ Hollywood Drive
12. Johnson Road @ Boyd Elementary School Exit-Only Driveway
13. Johnson Road @ Boyd Elementary School Enter-Only Driveway
14. Mildred Place @ Sumlin Avenue
15. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street
16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

Traffic Operations Summary

Table E1 below provides a summary of traffic operations for the “No-Build” and “Build” conditions for the year 2028 with and without system/site improvements. As per GRTA requirements, all approaches that do not meet the level-of-service (LOS) standard (considered failing) are highlighted in Table E1. Table E1 for “Build” conditions also includes the project’s total added trip and the respective percentage of overall total “Build” condition approach traffic volume for all failing LOS approaches after all improvements are completed.

TABLE E1 — FUTURE INTERSECTION OPERATIONS AT FAILING APPROACHES											
Intersection		No-Build Condition: LOS (Delay)		Build Condition: LOS (Delay)							
		NO IMPROVEMENTS		NO IMPROVEMENTS		SITE VOLUMES AT FAILING APPROACH		PERCENT SITE TRIPS OF TOTAL APPROACH TRIPS AT FAILING APPROACHES		95 TH PERCENTILE QUEUE (FT) FOR FAILING APPROACH	
		AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak	AM Peak	PM Peak
1	<u>SR 8US 278 (Donald Lee Hollowell Pkwy) @ Hollywood Rd</u>	<u>C (29.8)</u>	<u>C (22.4)</u>	<u>D (43.0)</u>	<u>C (27.4)</u>						
	-Eastbound Approach	C (34.8)	A (7.9)	D (55.0)	A (9.2)	0	0	0%	0%	-	-
	-Westbound Approach	A (6.5)	C (20.6)	A (8.5)	C (27.0)	28	72	13%	9%	-	-
	-Southbound Approach	D (54.5)	D (54.1)	E (58.4)	D (53.1)	92	47	23%	13%	402'	337'

After the Donald Lee Hollowell Parkway road diet project is completed, there will only be one receiving lane and only one southbound through lane on Hollywood Road. All southbound through queues on Hollywood Road will be accommodated in the southbound through lane. Queue lengths are shown in the table above.

The results of the future “No-Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “C” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours.

The results of the future “Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “D” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours, except the following:

Intersection 1: SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road

The Hollywood Road southbound approach at the signalized intersection of Donald Lee Hollowell Parkway will marginally exceed the LOS D threshold by 3.4 seconds in the AM peak hour due to the Road Diet project. Since the delay is marginal and the Road Diet project is being implemented, no other improvements have been recommended at this intersection.

Intersection 8: Hollywood Road at N. Grand Avenue

The stop-controlled eastbound approach of N. Grand Avenue will operate at LOS “F” in PM peak hour in “Build” scenario.

Recommended Site Mitigation Improvements

Improvements that are identified as “Site Mitigation Improvements” address impacts that are a result of the proposed development’s added traffic. Following are the recommended site improvements:

Intersection 8: Hollywood Road at N. Grand Avenue

We recommend the installation of an eastbound right turn lane on N. Grand Avenue and a northbound left turn lane on Hollywood Road. With implementation of the site improvements, the eastbound approach will operate at a level of service “D” or better in both peak hours.

Recommendation for Site Access Configuration

The following improvements are recommended at the site driveway intersections.

- Site Driveway 1 (Pod A): Full access driveway on Hollywood Drive
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Hollywood Drive remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 2 (Pod A): Full access driveway on Cato Street
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Cato Street remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

- Site Driveway 3 (Pod B): Full access driveway on Mildred Place
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Mildred Place remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 4 (Pod B): Full access driveway on Hollywood Road
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Hollywood Road remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 5 (Pod B, Eastern): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 6 (Pod B, Western): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 7 (Pod C, Eastern): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 8 (Pod C, Western): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

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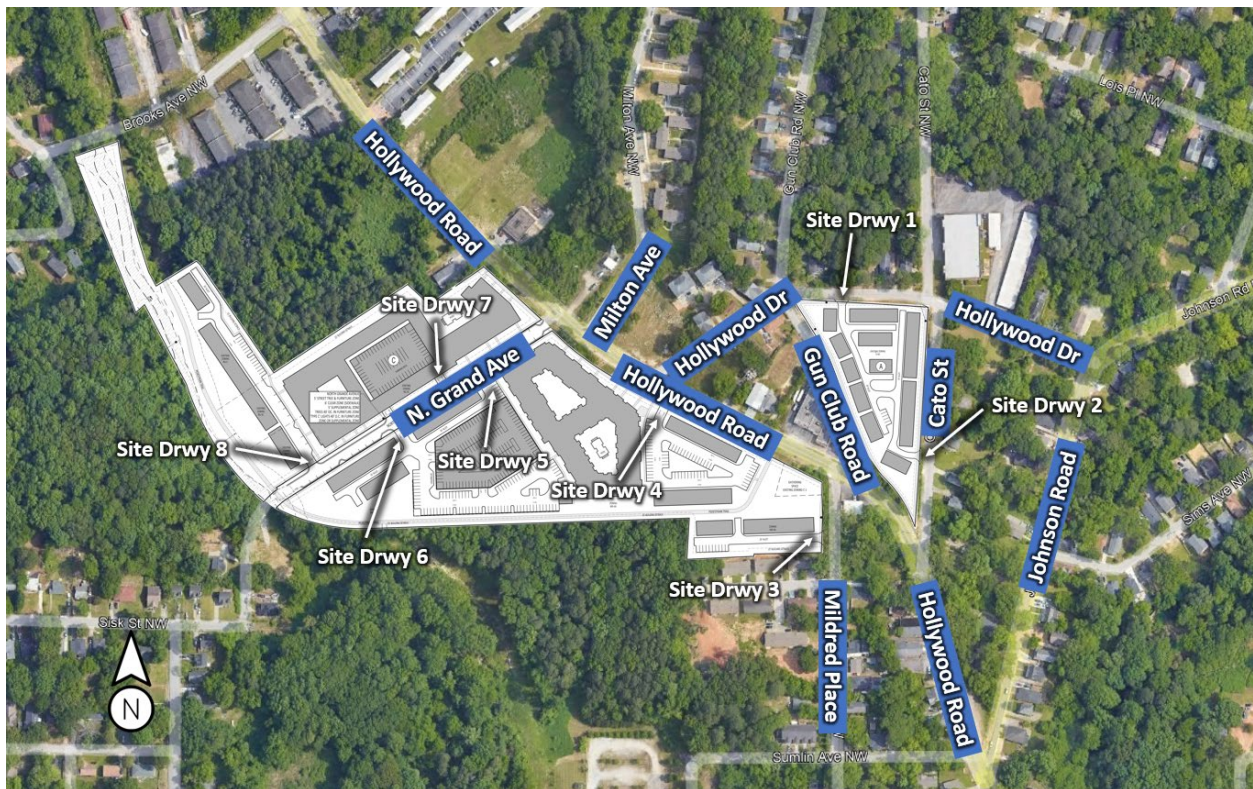
INTRODUCTION

The purpose of this study is to determine the traffic impact that will result from the proposed Cypress Grove DRI # 4023 located along Hollywood Road near N. Grand Avenue in City of Atlanta, Georgia. The traffic analysis evaluates the current operations and the future conditions with the traffic generated by the development. The development will consist of a total of 193 townhomes and 562 apartments in three pods:

Pod A: Located north of Hollywood Road between Gun Club Road to the west, Cato Street to the east and Hollywood Drive to the north, Pod A consists of 75 townhomes.

Pod B: Located in the southeast corner of Hollywood Road and N. Grand Avenue stretching back to the southwest corner of Hollywood Road and Mildred Place, Pod B consists of 294 mid-rise multi-family apartment units and 86 for-sale townhomes.

Pod C: Located in the northwest corner of the intersection of Hollywood Road and N. Grand Avenue, Pod C consists of 268 mid-rise multi-family apartment units and 32 townhomes.



The development proposes access at the following locations:

- Site Driveway 1: Full access driveway on Hollywood Drive for Pod A
- Site Driveway 2: Full access driveway on Cato Street for Pod A
- Site Driveway 3: Full access driveway on Mildred Place for Pod B
- Site Driveway 4: Full access driveway on Hollywood Road for Pod B
- Site Driveway 5: Full access (eastern) driveway on N. Grand Avenue for Pod B
- Site Driveway 6: Full access (western) driveway on N. Grand Avenue for Pod B
- Site Driveway 7: Full access (eastern) driveway on N. Grand Avenue for Pod C
- Site Driveway 8: Full access (western) driveway on N. Grand Avenue for Pod C

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

1. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road
2. Hollywood Road @ Sumlin Avenue / Johnson Road
3. Hollywood Road @ Cato Street
4. Hollywood Road @ Gun Club Road
5. Hollywood Road @ Mildred Place
6. Hollywood Road @ Hollywood Drive
7. Hollywood Road @ Milton Avenue
8. Hollywood Road @ N. Grand Avenue
9. Hollywood Drive @ Gun Club Road
10. Hollywood Drive @ Cato Street
11. Johnson Road @ Hollywood Drive
12. Johnson Road @ Boyd Elementary School Exit-Only Driveway (Western)
13. Johnson Road @ Boyd Elementary School Enter-Only Driveway (Eastern)
14. Mildred Place @ Sumlin Avenue
15. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street
16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report.

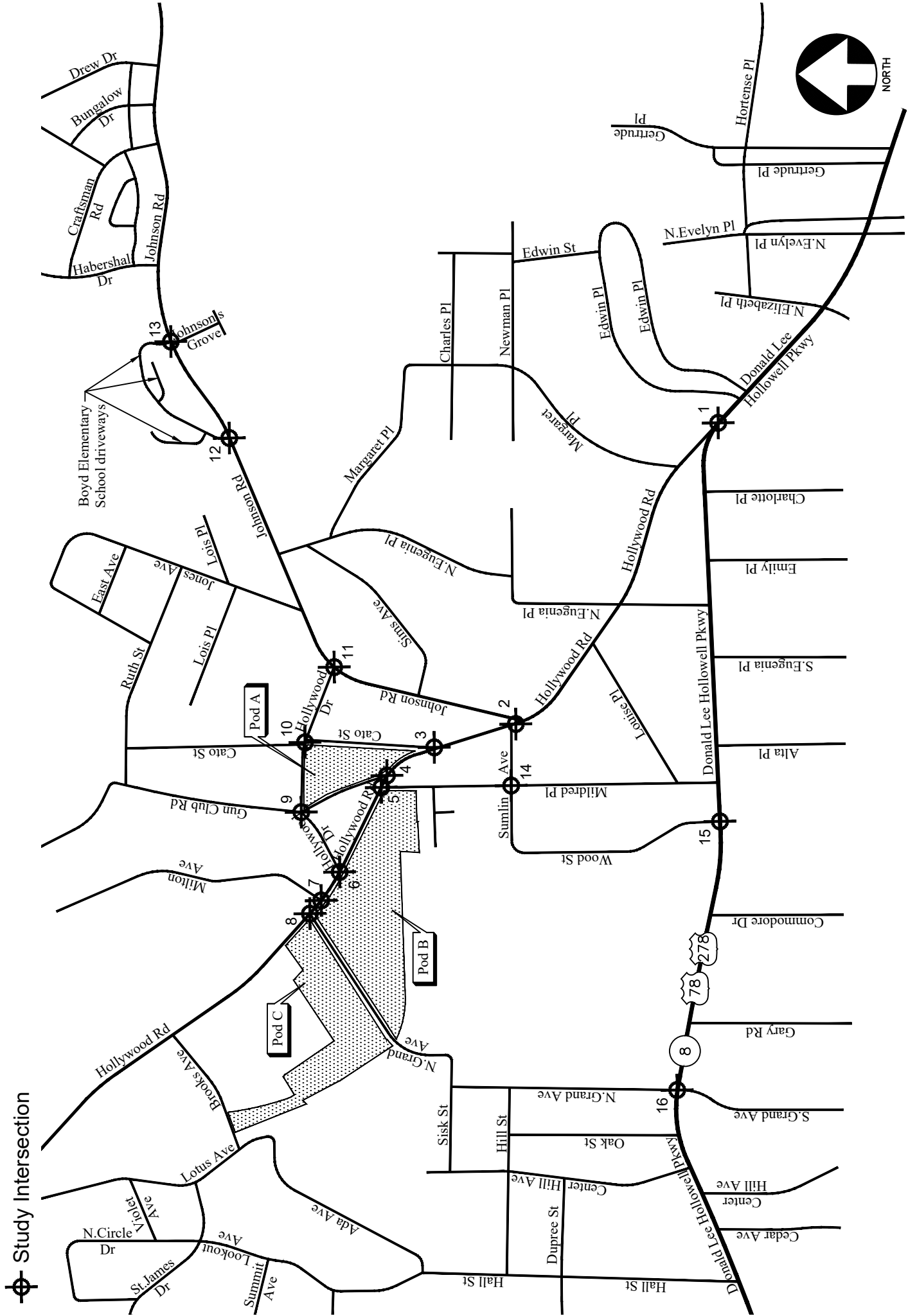
STUDY NETWORK DETERMINATION

The study network was determined by evaluating the amount of traffic that the proposed Cypress Grove DRI # 4023 will add to each roadway segment in the area. According to GRTA requirements, a roadway segment carries a “significant” amount of traffic if the project contributes 7% or more trips to the two-way daily service volumes of the roadway at the appropriate level of service standard. Upon agreement with GRTA a level of service standard of “D” was used for determining the study area network.

The traffic generated by the proposed project was then assigned to the area roadways using the trip distribution to determine the site-generated traffic on each roadway segment. The boundaries of the study network extend to the most distant intersections where at least 7% of the service volumes on the segment are attributed to project traffic. The following study intersections fell within the 7% rule and/or have been selected as being suitable for evaluation and agreed by ARC, GRTA, GDOT and City of Atlanta:

1. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road
2. Hollywood Road @ Sumlin Avenue / Johnson Road
3. Hollywood Road @ Cato Street
4. Hollywood Road @ Gun Club Road
5. Hollywood Road @ Mildred Place
6. Hollywood Road @ Hollywood Drive
7. Hollywood Road @ Milton Avenue
8. Hollywood Road @ N. Grand Avenue
9. Hollywood Drive @ Gun Club Road
10. Hollywood Drive @ Cato Street
11. Johnson Road @ Hollywood Drive
12. Johnson Road @ Boyd Elementary School Exit-Only Driveway (Western)
13. Johnson Road @ Boyd Elementary School Enter-Only Driveway (Eastern)
14. Mildred Place @ Sumlin Avenue
15. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street
16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

The location of the development and the surrounding study network is shown in Figure 1. Other intersections within this corridor, such as unsignalized side streets, right-in / right-out driveways or private driveways have not been included in the study network.



LOCATION MAP AND STUDY INTERSECTIONS

FIGURE 1

EXISTING ROADWAY FACILITIES

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

Hollywood Road

Hollywood Road is a north-south, two-lane, un-divided roadway with a posted speed limit of 35 mph in the vicinity of the site. Georgia Department of Transportation (GDOT) traffic counts (Station ID 121-6258) indicate that the daily traffic volume on Hollywood Road in 2022 was 2,760 vehicles per day southeast of Hightower Road. GDOT classifies Hollywood Road as an Urban Major Collector roadway.

North Grand Avenue

North Grand Avenue is a two-lane, un-divided roadway with an assumed speed limit of 25 mph.

SR 8/US 78/US 278 (Donald Lee Hollowell Parkway)

SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) is an east-west, four-lane, un-divided roadway with a posted speed limit of 35 mph (25 mph when school zone is in effect) in the vicinity of the site. SR 8 is posted with a speed limit of 30 mph between Emily Place and Woods Drive, west of Hollywood Road. GDOT traffic counts (Station ID's 121-5074 & 121-5076) indicate that the daily traffic volume on SR 8 in 2022 was 20,900 vehicles per day west of Hollywood Road and 24,000 vehicles per day east of Hollywood Road. GDOT classifies SR 8 as an Urban Principal Arterial roadway.

Johnson Road

Johnson Road is a north-south, two-lane, un-divided roadway with a posted speed limit of 25 mph (20 mph at curves) in the vicinity of the site. GDOT traffic counts (Station ID 121-0133) indicate that the daily traffic volume on Johnson Road in 2022 was 3,520 vehicles per day northeast of Hollywood Road. GDOT classifies Johnson Road as an Urban Minor Collector roadway.

Hollywood Drive

Hollywood Drive is an east-west, two-lane, un-divided roadway with a posted speed limit of 25 mph.

Mildred Place

Mildred Place is a north-south, two-lane, un-divided roadway with a posted speed limit of 25 mph.

Sumlin Avenue

Sumlin Avenue is an east-west, two-lane, un-divided roadway with an assumed speed limit of 25 mph.

Wood Street

Wood Street is a north-south, two-lane, un-divided roadway with a posted speed limit of 25 mph.

Cato Street

Cato Street is a north-south, two-lane, un-divided roadway with an assumed speed limit of 25 mph.

Gun Club Road

Gun Club Road is a north-south, two-lane, un-divided roadway with a posted speed limit of 25 mph.

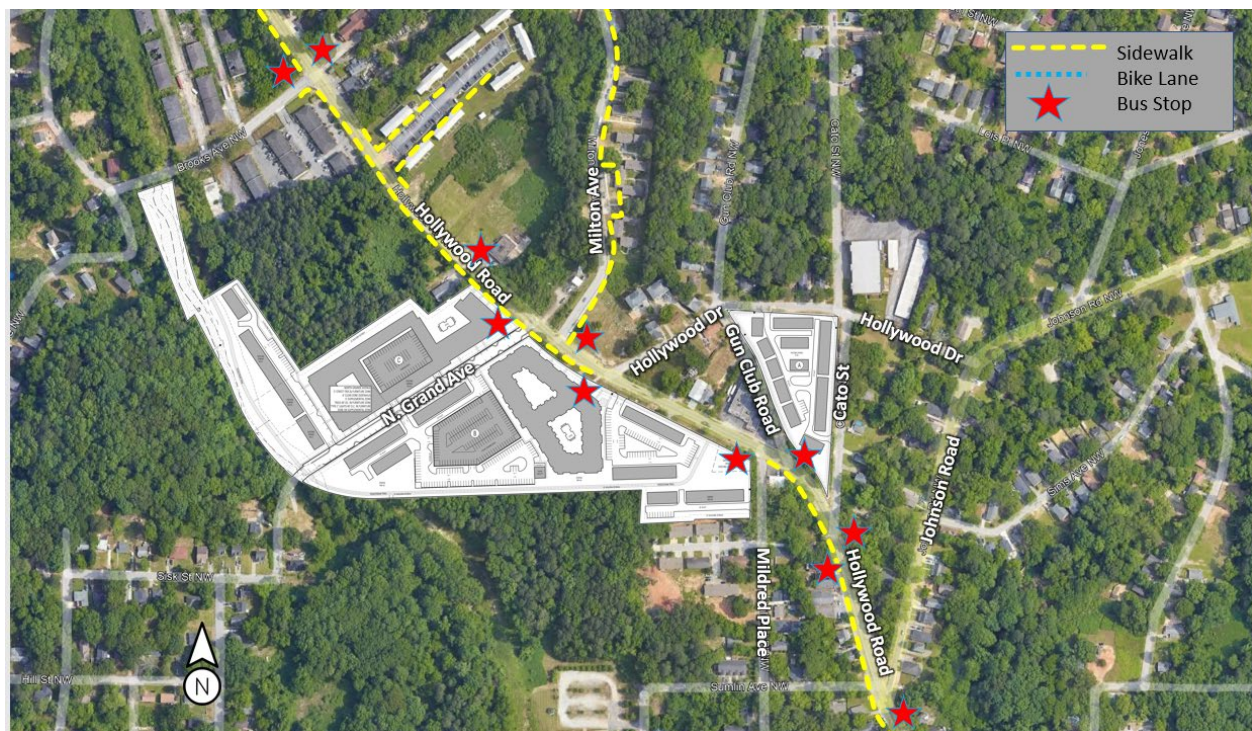
Milton Avenue

Milton Avenue is a two-lane, un-divided roadway with an assumed speed limit of 25 mph.

Existing Bicycle and Pedestrian Facilities

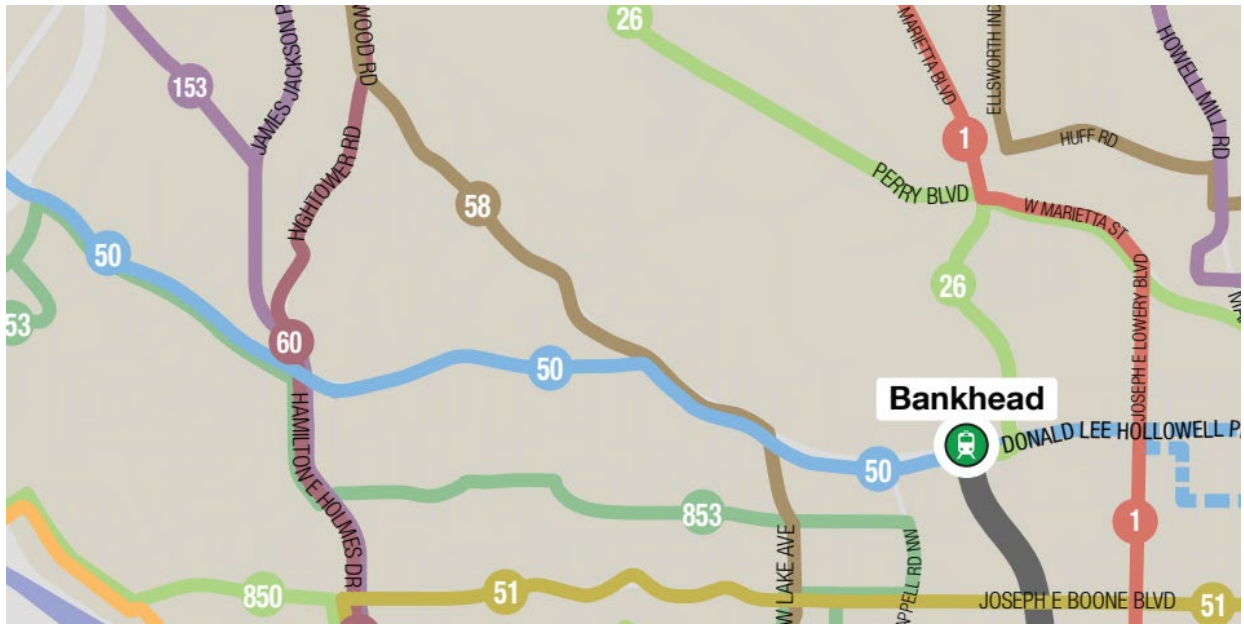
- Sidewalks and bus stops were identified in the vicinity of the proposed development and are shown in the graphic below.
- Crosswalks are present at the intersections of:
 - Hollywood Road and Brooks Avenue on eastbound and southbound approaches
 - Hollywood Road and Sumlin Avenue / Johnson Road on westbound, northbound, and southbound approaches
- Bike paths are not present in the study network.
- MARTA Bus Route 58 serves bus stops along Hollywood Road at Brookes Avenue, N. Grand Avenue, Milton Avenue, Hollywood Drive, Gun Club Road, Mildred Place and Cato Street in the vicinity of the proposed development, all within a quarter of a mile radius. A detailed map that shows adjacent bus routes has been included in the Appendix.

Existing Alternative Transportation Map



Alternative Modes of Access

- MARTA Bus Route 58: This route operates North/South between West End and West Lake station to Bolton Road. along Lucile Avenue, Abernathy Boulevard, West Lake Avenue, Hollowell Parkway, Hollywood Road, Browntown Road., and Bolton Road. Select trips via Lincoln Homes. Point of Interest: Dogwood Senior Center. A map of the bus route is shown below.
- Bankhead high-capacity transit station is located on SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) near Gary Avenue, approximately 1.9 miles from the intersection of Hollywood Road and N. Grand Avenue. The transit station is accessible via bus route 58.



Transit Stop Ridership

Transit ridership data within the study network was obtained from MARTA and is presented in the table included below.

STOP ID	STOP NAME	ROUTE NO.
211561	Hollywood Rd NW & N Grand Ave NW	58
903573	Hollywood Rd NW & Grand Ave NW	58
902409	Hollywood Rd & Milton Ave	58
903574	Hollywood Rd NW & Hollywood Dr NW	58
903575	Hollywood Rd NW & Mildred Pl NW	58
903942	Hollywood Rd NW & Gun Club Rd NW	58
904247, 903576	Hollywood Dr NW & Cato St NW	58
903693	Hollywood Rd NW & Sumlin Ave NW	58
904246	Hollywood Rd NW & Johnson Rd NW	58
904158	Hollywood Rd NW & Louise Pl NW	58
903696, 904157	Hollywood Rd NW & Eugenia Pl NW	58
904156	Hollywood Rd NW & 829	58
903577	Hollywood Rd NW & 843	58
904575	Hollywood Rd NW & Donald L Hollowell Pkwy NW	58
904864	Hollywood Rd NW & Margaret Pl NW	58
904394, 905159	Donald L Hollowell Pkwy & Edwin Pl NW	58,50
903667	Donald L Hollowell Pkwy NW & Hollywood Rd NW	50
903668, 905910	Donald L Hollowell Pkwy & Emily Pl NW	50
903770	Donald L Hollowell Pkwy & Eugenia Pl NW	50
905982	Donald L Hollowell Pkwy NW & Mildred Pl NW	50
903772	Donald L Hollowell Pkwy & Wood St NW	50
903773, 905981	Donald L Hollowell Pkwy & Commodore Dr NW	50
903669, 905980	Donald L Hollowell Pkwy & Gary Rd NW	50
903956, 905861	Donald L Hollowell Pkwy & Oak St NW	50

STUDY METHODOLOGY

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

Unsignalized Intersections

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

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

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

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

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

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

Signalized Intersections

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

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

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

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

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

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

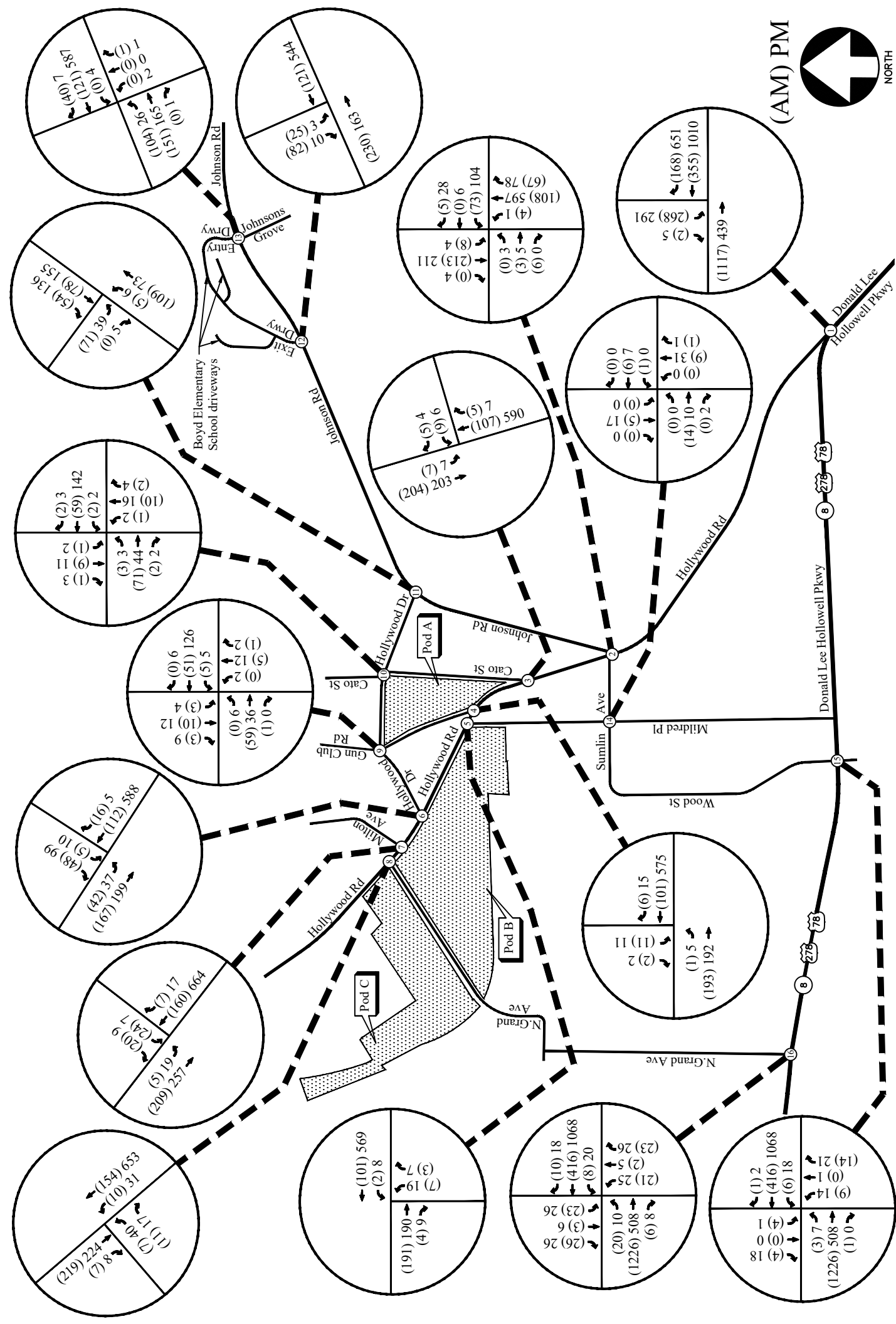
EXISTING 2023 TRAFFIC ANALYSIS

Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

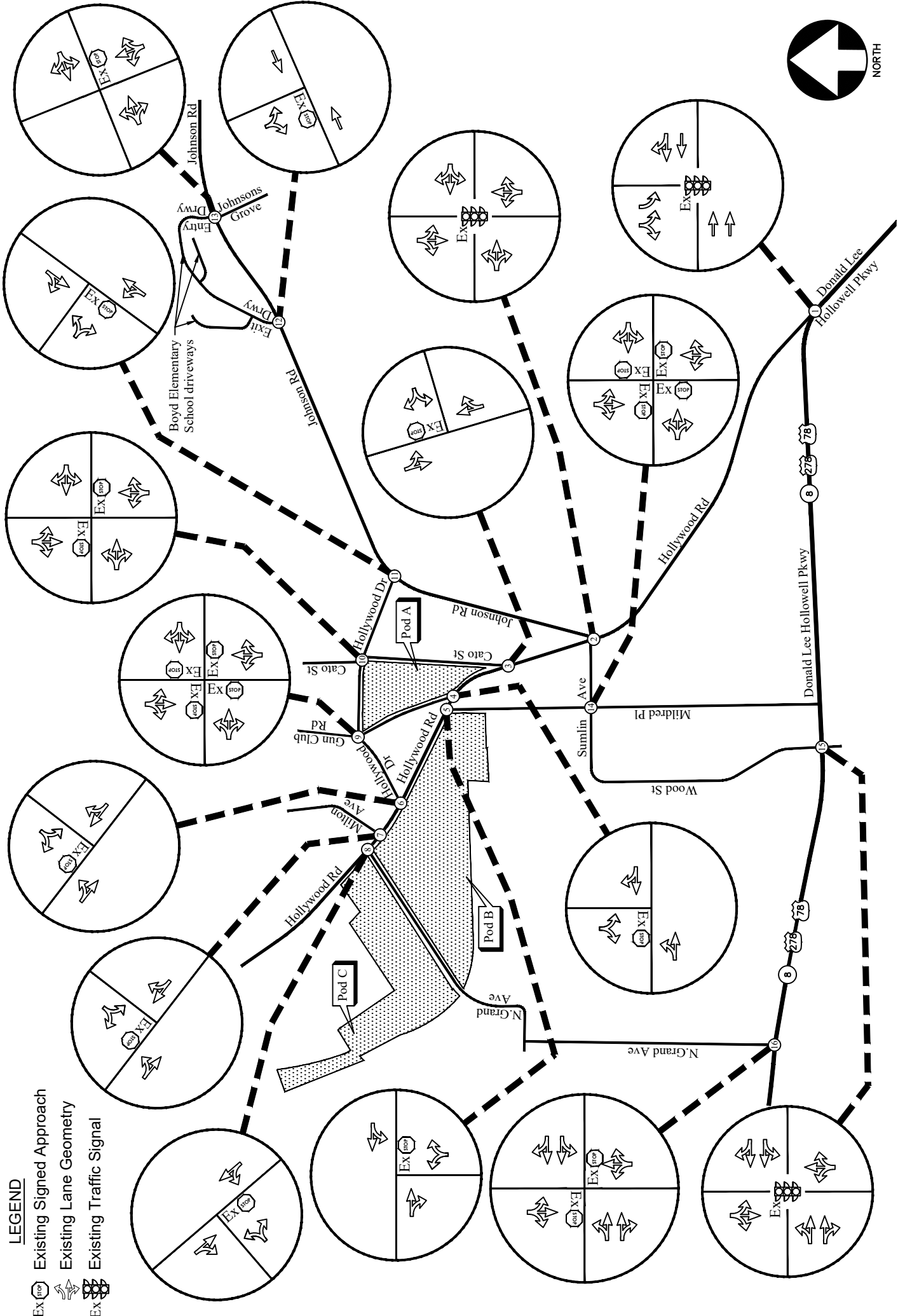
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16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

Turning movement counts were collected on Tuesday, May 16, 2023. At the intersections of Johnson Road at Boyd Elementary School driveways (#12 and #13), the counts were collected on Thursday, August 24, 2023. All turning movement counts were recorded during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that produced the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersections are shown in Figure 3.



EXISTING WEEKDAY PEAK-HOUR VOLUMES

- LEGEND**
- Ex Existing Signed Approach
 - Ex Existing Lane Geometry
 - Ex Existing Traffic Signal



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

A&R Engineering Inc.

Existing Traffic Operations

Existing 2023 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analyses are shown in Table 3.

TABLE 3 — EXISTING INTERSECTION OPERATIONS					
Intersection		Traffic Control	AM Peak	PM Peak	LOS Standard
1	<u>SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road</u>	Signalized	<u>A (7.7)</u>	<u>B (10.8)</u>	<u>D/D</u>
	-Eastbound Approach		A (0.4)	A (0.1)	D/D
	-Westbound Approach		A (3.0)	A (7.1)	D/D
	-Southbound Approach		D (46.8)	D (47.3)	D/D
2	<u>Hollywood Road @ Sumlin Avenue / Johnson Road</u>	Signalized	<u>B (10.3)</u>	<u>B (11.0)</u>	<u>D/D</u>
	-Eastbound Approach		D (42.4)	D (38.3)	D/D
	-Westbound Approach		D (47.2)	D (44.9)	D/D
	-Northbound Approach		A (2.3)	A (6.1)	D/D
	-Southbound Approach		A (2.4)	A (3.5)	D/D
3	<u>Hollywood Road @ Cato Street</u>	Stop Controlled on WB Approach	B (10.1)	C (15.7)	D/D
	-Westbound Approach		A (7.5)	A (9.0)	D/D
4	<u>Hollywood Road @ Gun Club Road</u>	Stop Controlled on SB Approach	A (7.5)	A (8.9)	D/D
	-Eastbound Left		B (10.3)	C (16.4)	D/D
5	<u>Hollywood Road @ Mildred Place</u>	Stop Controlled on NB Approach	A (7.6)	A (7.7)	D/D
	-Westbound Left		B (10.1)	C (15.1)	D/D
6	<u>Hollywood Road @ Hollywood Drive</u>	Stop Controlled on WB Approach	A (9.4)	C (16.8)	D/D
	-Westbound Approach		A (7.6)	A (9.1)	D/D
7	<u>Hollywood Road @ Milton Avenue</u>	Stop Controlled on WB Approach	B (10.5)	C (17.5)	D/D
	-Westbound Approach		A (7.6)	A (9.4)	D/D
8	<u>Hollywood Road @ N. Grand Avenue</u>	Stop Controlled on EB Approach	B (10.4)	C (18.8)	D/D
	-Eastbound Approach		A (7.8)	A (7.8)	D/D
9	<u>Hollywood Drive @ Gun Club Road</u>	All-Way Stop Controlled	<u>A (7.5)</u>	<u>A (7.8)</u>	<u>D/D</u>
	-Eastbound Approach		A (7.5)	A (7.5)	D/D
	-Westbound Approach		A (7.5)	A (8.0)	D/D
	-Northbound Approach		A (7.3)	A (7.5)	D/D
	-Southbound Approach		A (7.4)	A (7.4)	D/D
10	<u>Hollywood Drive @ Cato Street</u>	Stop Controlled on NB and SB Approaches	A (7.4)	A (7.7)	D/D
	-Eastbound Left		A (7.4)	A (7.4)	D/D
	-Westbound Left		A (9.9)	B (11.0)	D/D
	-Northbound Approach		B (10.0)	B (11.1)	D/D
	-Southbound Approach				D/D
11	<u>Johnson Road @ Hollywood Drive</u>	Stop Controlled on EB Approach	B (10.5)	B (11.4)	D/D
	-Eastbound Approach		A (7.5)	A (8.1)	D/D

12	<u>Johnson Road @ Boyd Elementary School Exit-Only Driveway (Western)</u> -Southbound Approach	Stop Controlled on SB Approach	B (10.2)	B (13.5)	D/D
13	<u>Johnson Road @ Boyd Elementary School Enter-Only Driveway (Eastern)</u> -Eastbound Left -Westbound Left -Northbound Approach	Stop Controlled on NB Approach	A (9.2) A (0.0) A (9.2)	A (9.0) A (7.6) B (14.5)	D/D D/D D/D
14	<u>Mildred Place @ Sumlin Avenue</u> -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	All-Way Stop Controlled	<u>A (7.1)</u> A (7.1) A (7.1) A (7.0) A (7.0)	<u>A (7.1)</u> A (7.1) A (7.1) A (7.2) A (7.1)	<u>D/D</u> D/D D/D D/D D/D
15	<u>SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street / Private Driveway</u> -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	Signalized	<u>A (2.7)</u> A (2.5) A (0.2) D (48.4) D (47.0)	<u>A (2.4)</u> A (1.7) A (0.5) D (47.7) D (46.7)	<u>D/D</u> D/D D/D D/D D/D
16	<u>SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue</u> -Eastbound Left -Southbound Approach	Stop Controlled on NB and SB Approaches	A (8.3) C (18.4)	B (10.9) D (28.8)	D/D D/D

* Hollywood Road, a north-south roadway, is modelled as an east-west roadway at its intersections with Gun Club Road and Mildred Place

The results of the existing traffic operations analysis indicate that all the signalized study intersections are operating at an overall level-of-service “B” or better in both the AM and PM peak hours. All the stop-controlled approaches at all un-signalized intersections are operating at level-of-service “D” or better in both the AM and PM peak hours.

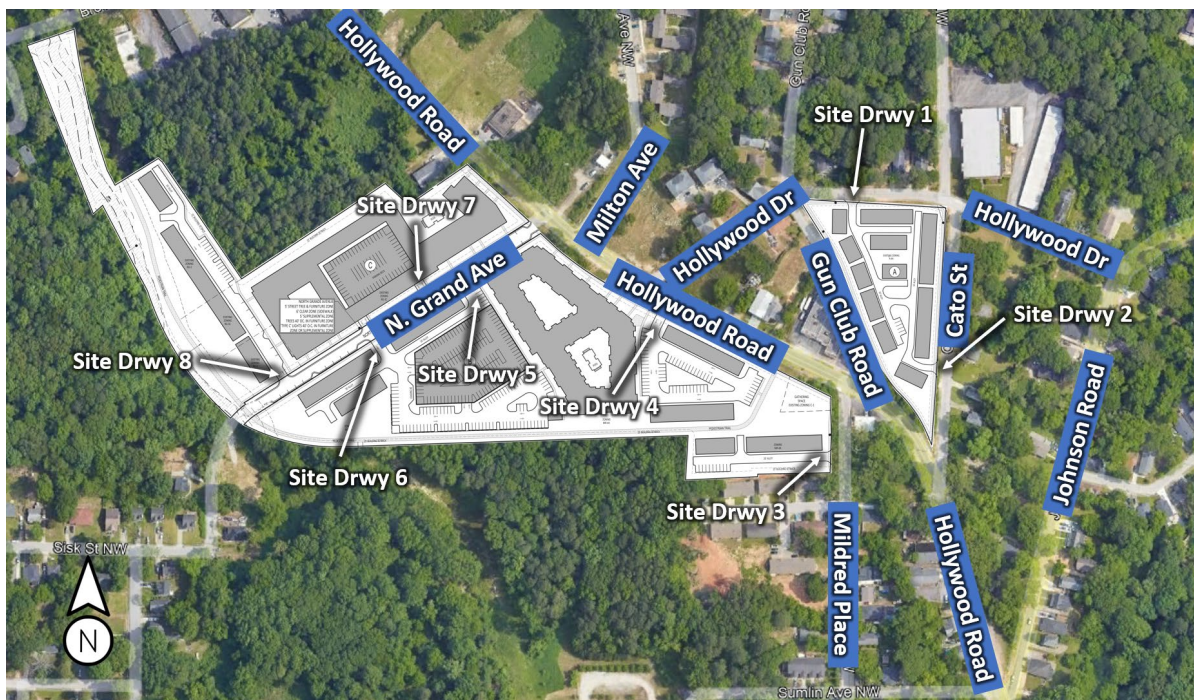
PROJECT DESCRIPTION

The proposed Cypress Grove DRI # 4023 will be located along Hollywood Road near N. Grand Avenue in City of Atlanta, Georgia. The development will consist of three pods:

Pod A: Located north of Hollywood Road between Gun Club Road to the west, Cato Street to the east and Hollywood Drive to the north, Pod A consists of 75 townhomes.

Pod B: Located in the southeast corner of Hollywood Road and N. Grand Avenue stretching back to the southwest corner of Hollywood Road and Mildred Place, Pod B consists of 294 mid-rise multi-family apartment units and 86 for-sale townhomes.

Pod C: Located in the northwest corner of the intersection of Hollywood Road and N. Grand Avenue, Pod C consists of 268 mid-rise multi-family apartment units and 32 townhomes.



The development proposes access at the following locations:

- Site Driveway 1: Full access driveway on Hollywood Drive for Pod A
- Site Driveway 2: Full access driveway on Cato Street for Pod A
- Site Driveway 3: Full access driveway on Mildred Place for Pod B
- Site Driveway 4: Full access driveway on Hollywood Road for Pod B
- Site Driveway 5: Full access (eastern) driveway on N. Grand Avenue for Pod B
- Site Driveway 6: Full access (western) driveway on N. Grand Avenue for Pod B
- Site Driveway 7: Full access (eastern) driveway on N. Grand Avenue for Pod C
- Site Driveway 8: Full access (western) driveway on N. Grand Avenue for Pod C

Site Plan

A site plan is shown in Figure 4. A digital copy of the site plan is also provided with this report.

PROPOSED BUILDING HEIGHTS:

TOWNHOMES: 3 STORIES

CONDO FLATS: 3 STORIES

MULTIFAMILY: 4 STORIES WITH BASEMENT

Development Summary:										
POD	Use	Existing Zoning	Proposed Zoning	Net Lot Area	Units	Max FAR	Allowable Residential SF	Open Space Required	Bldg. Height	Parking
A	Multifamily	R-4A	MR-4B	2.875 ac	75	1.49	186,600 sf	LUJ*	52'	No Min. Required per WPA
B	Multifamily	RG-3	MR-4A	9.887 ac	380	1.49	652,419 sf	LUJ*	80'	No Min. Required per WPA
	Multifamily	C-1	MR-4A	0.165 ac						
C	Multifamily	RG-3	MR-4A	7.552 ac	300	1.49	490,158 sf	LUJ*	80'	No Min. Required per WPA
Totals				20.479 ac	755					

Note: Included in the above 20,479 acres are 3,255 acres owned by Georgia Power. Of these 3,255 acres, 1,686 acres are included in the net lot area for Pod B, and 1,569 acres are included in the net lot area for Pod C.

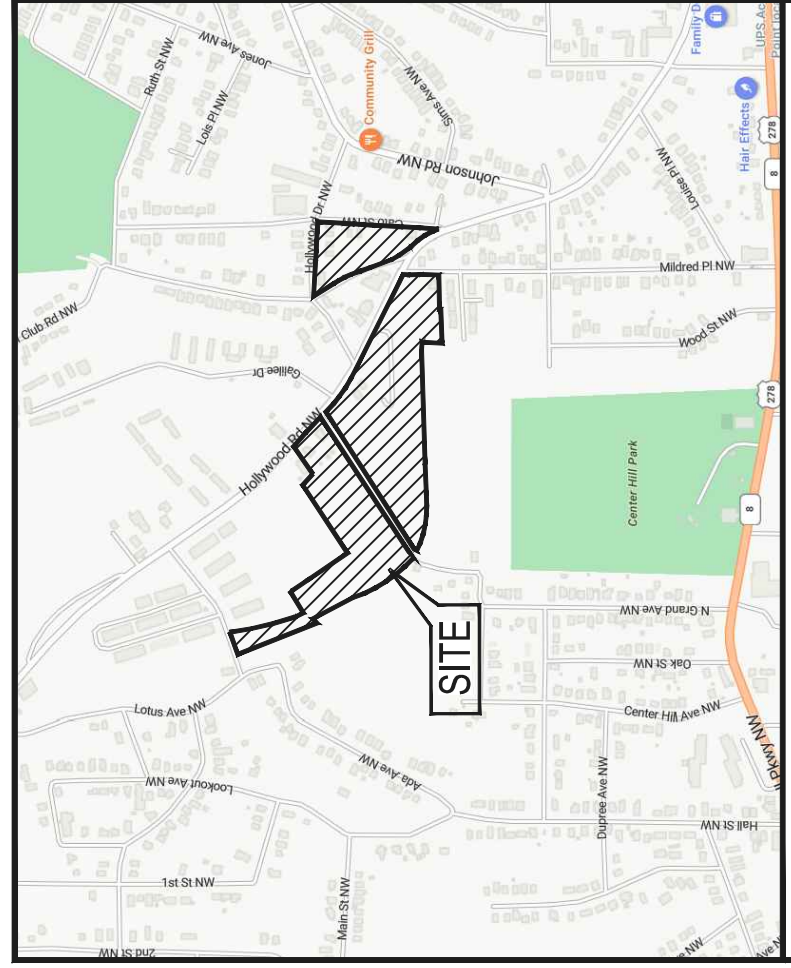
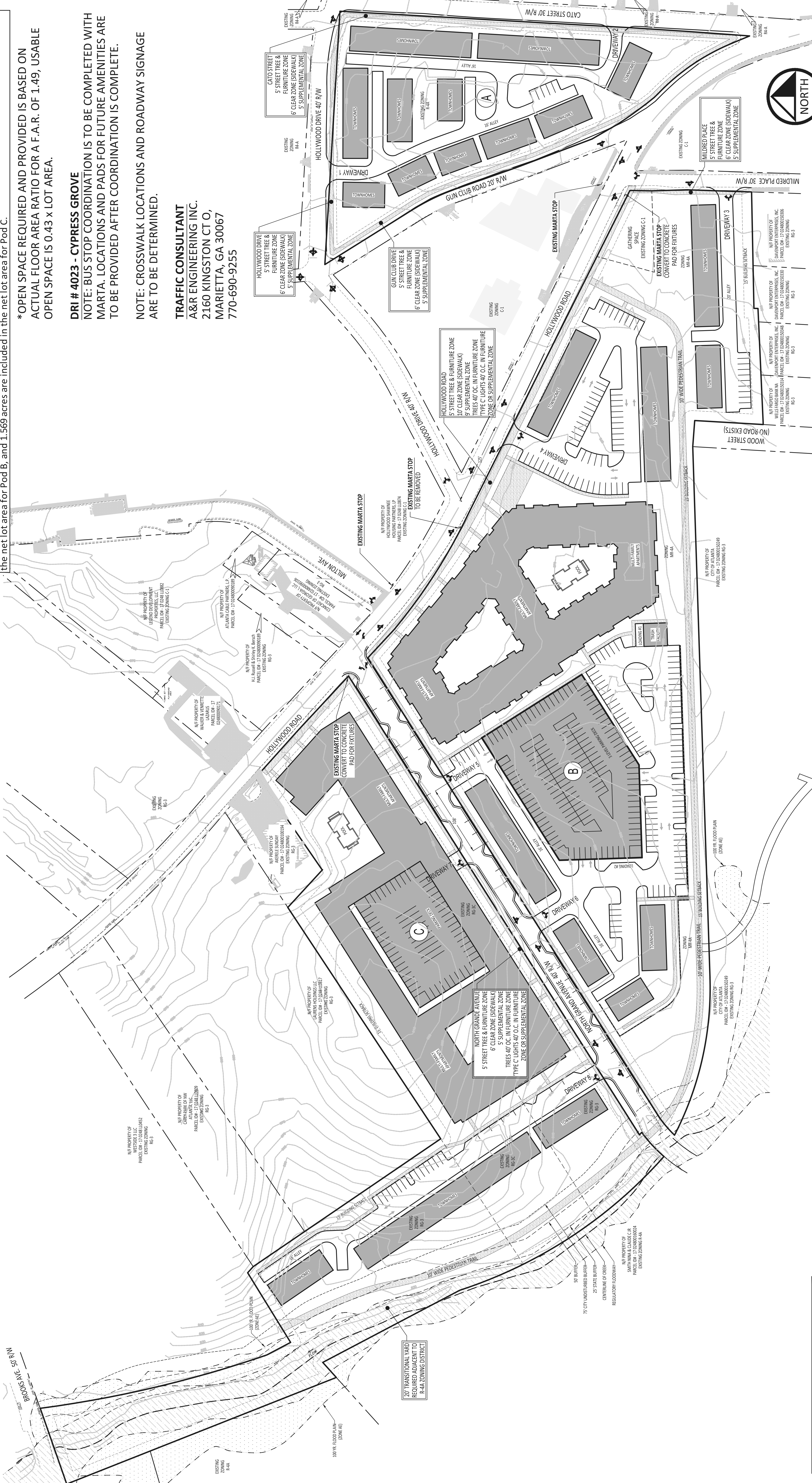
*OPEN SPACE REQUIRED AND PROVIDED IS BASED ON ACTUAL FLOOR AREA RATIO FOR A F.A.R. OF 1.49, USABLE OPEN SPACE IS 0.43 x LOT AREA.

DRI # 4023 - CYPRESS GROVE

NOTE: BUS STOP COORDINATION IS TO BE COMPLETED WITH MARTA. LOCATIONS AND PADS FOR FUTURE AMENITIES ARE TO BE PROVIDED AFTER COORDINATION IS COMPLETE.

NOTE: CROSSWALK LOCATIONS AND ROADWAY SIGNAGE ARE TO BE DETERMINED.

TRAFFIC CONSULTANT
A&R ENGINEERING INC.
2160 KINGSTON CT O,
MARIETTA, GA 30067
770-690-9255



LOCATION MAP

Drawing No.
1 of 1

DRI # 4023 SITE PLAN
CYPRESS GROVE LAND FUND
LAND LOTS 246 & 248 - 17th DISTRICT
CITY OF ATLANTA
FULTON COUNTY, GEORGIA

Project No.	
Design by	
Drawn by	
Checked	
Date:	
Scale:	

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Date	8/8/23	9/11/23					
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Cypress Grove Land Fund LLC
Contact: Collin Curlee
1320 Ellsworth Industrial Blvd.
Suite A1500
Atlanta, GA 30318
706-224-2032



Summit
Engineering Consultants, Inc.
6250 Shiloh Road, Suite 100
Alpharetta, GA 30005
(404) 770-6670



CAUTION

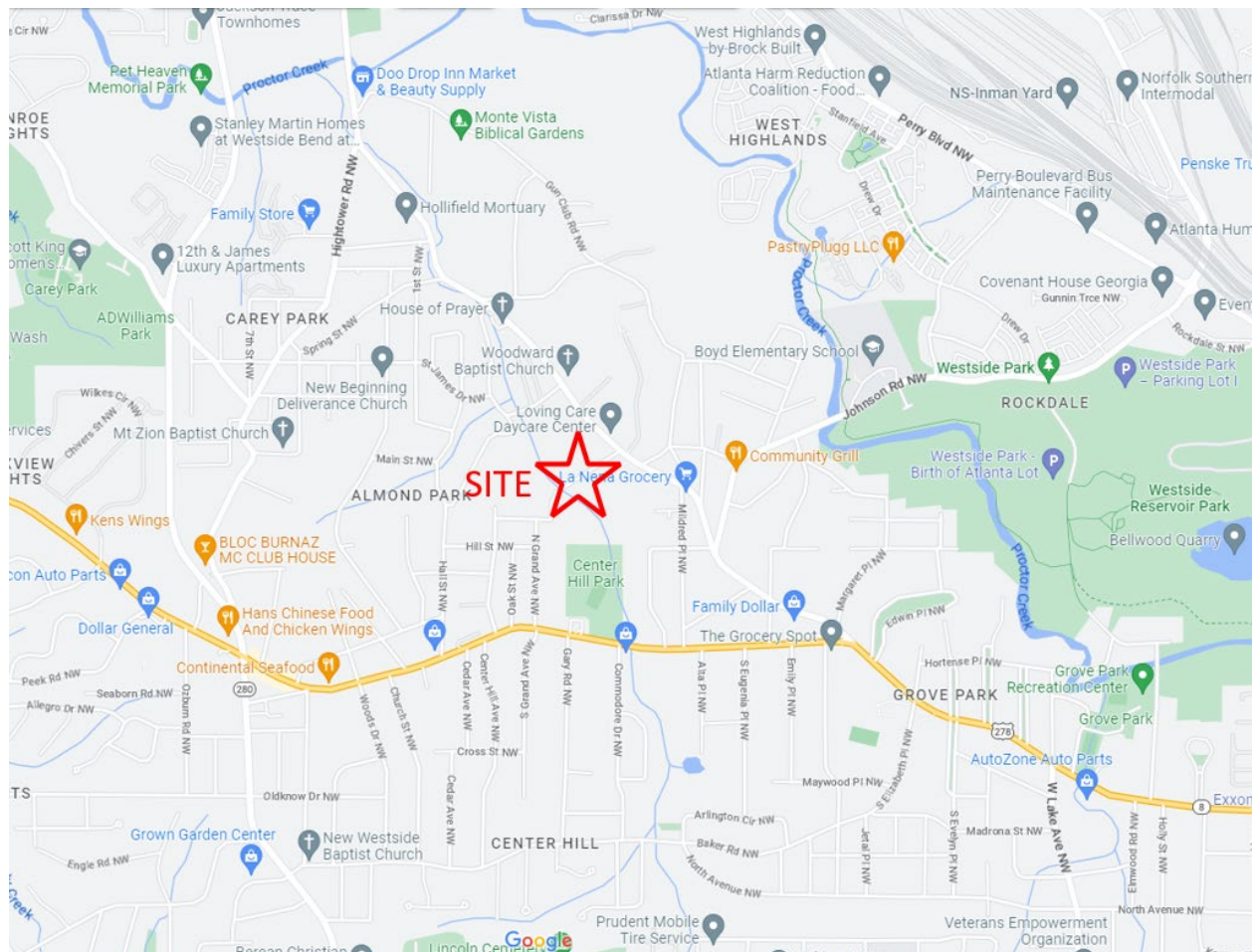
THE UTILITIES SHOWN HEREON ARE FOR THE CONTRACTORS CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE LOCATIONS SHOWN AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

Planned Bicycle and Pedestrian Facilities

- No planned bike routes are stated in the City of Atlanta's Comprehensive Transportation Plan/City Atlanta Phase 2 Study.
- Pedestrian sidewalks will be provided throughout the development. The development proposes a sidewalk along the frontage of the property on Hollywood Road, N. Grand Avenue, Hollywood Drive, Gun Club Road, and Cato Street. A new publicly accessible pedestrian trail is proposed along the southern border of the property between Mildred Place and N Grand Avenue. Path Foundation proposes to connect this trail to Proctor Creek Greenway Trail in the future.

Potential Pedestrian and Bicycle Destinations

Potential pedestrian and bicycle destinations in the vicinity of the proposed development include Mh Super Market, La Nena Grocery and Family Dollar. Additional potential destinations are shown in the aerial below.



- Food: Community Grill, Wings & Philly, Continental Seafood, Hans Chinese Food and Chicken Wings, Checkers, Bloc Burnaz McClub House
- Retail: Mh Super Market, La Nena Grocery, Family Dollar, Chevron, Complete Sound and Protection, Ebony Beauty Supply, The Grocery Spot
- Services: Loving Care Daycare Center, William Children's/Ithan Cook Martin/Harris/Grady hospital, Fresh Blendz Barber Shop, Lavender Etcetera massage therapist
- Churches: House of Prayer, Woodward Baptist Church, New Life Pentecostal Way-Truth, New Vision of Faith Gospel Ministries, Church of the Lord Jesus Christ of the Apostolic Faith
- Parks: Center Hill Park, ADWilliams Park, Westside Park, Grove Park, Westside Reservoir Park, Maddox Park

Planned Transit Facilities

MARTA Bus Route 58 serves bus stops along Hollywood Road at Brookes Avenue, N. Grand Avenue, Milton Avenue, Hollywood Drive, Gun Club Road, Mildred Place and Cato Street in the vicinity of the proposed development, all within a quarter of a mile radius. Sidewalks currently exist on Hollywood Road to the west of Hollywood Drive and east of Mildred Place. The development anticipates providing a sidewalk along the site frontage on Hollywood Road wherever a sidewalk is absent. The existing and proposed sidewalks will provide pedestrian access to the bus stops along Hollywood Road.

Consistency with Adopted Comprehensive Plan

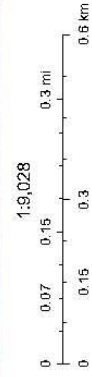
The proposed development will include residential townhomes and apartment buildings. The property consists of 20.479 acres of land. The site is currently zoned as POD A - R-4A, POD B – RG-3 & C-1, & POD C - RG-3 and is requesting a rezoning to POD A – MR-4B, POD B & POD C – MR-4A. A new publicly accessible pedestrian trail is proposed along the southern border of the property between Mildred Place and N Grand Avenue. Path Foundation proposes to connect this trail to Proctor Creek Greenway Trail in the future.

Future Land Use Map

Future Land Use Map Zoning	Maturing Neighborhoods
Atlanta City's goals and strategies for achieving each goal	A SAFE, WELCOMING & INCLUSIVE CITY • <i>Develop a Vision Zero program for Atlanta.</i> • <i>Take every opportunity to make Atlanta's streets safe.</i> • <i>Reduce injuries and fatalities on Atlanta's streets.</i> • <i>Use data to guide Vision Zero street safety interventions.</i> • <i>Develop a safety education and messaging strategy.</i> • <i>Make walking safer and more pleasant.</i> • <i>Make bicycling and micro-mobility safe transportation options for more Atlantans.</i> THRIVING NEIGHBORHOODS, COMMUNITIES & BUSINESSES • <i>Build a 21st century transit network for Atlanta.</i> • <i>Manage public parking to balance the diverse needs of Atlanta's merchants, commuters, and residents.</i> • <i>Leverage technology and partnerships to better manage congestion.</i>

	• <i>Make it easier to access jobs and services without a car.</i> • <i>Implement neighborhood-focused interventions that make our communities safer and more vibrant.</i> • <i>Improve the movement of goods through the city.</i> WORLD CLASS EMPLOYEES, INFRASTRUCTURE & SERVICES • <i>Improve the condition and maintenance of Atlanta's roads.</i> • <i>Make ATLDOT a great place to work.</i> • <i>Recruit a talented and diverse workforce.</i> • <i>Enhance employee safety.</i> • <i>Improve workplace culture and support innovation.</i> • <i>Bring all transportation assets into a state of good repair.</i> • <i>Improve street lighting throughout the city.</i> • <i>Improve the City's response to emergencies.</i> ETHICAL, TRANSPARENT & FISCALLY RESPONSIBLE GOVERNMENT • <i>Plan and distribute resources based on equity, safety, and conditions.</i> • <i>Deliver transportation projects faster and more efficiently</i> <i>Strengthen regional and local partnerships.</i> • <i>Use innovative tools and methods to communicate with and engage the public.</i> • <i>Make city contracts more competitive and consistent.</i> • <i>Improve departmental coordination of work in the city right of way</i>
Relation to Existing Land Use Plans	The proposed development is consistent with the land use vision and goals listed above.

2021 ARC Unified Growth Policy Map



April 13, 2023

Counties

Regional Areas - copy

Maturing Neighborhoods

Esri Community Maps Contributors, City of Atlanta, ©
OpenStreetMap, Microsoft, Esri, HERE, Garmin,
SafeGraph, GeoTechnologies, Inc, METINASA, USGS,
EPA, NPS, US Census Bureau, USDA, Maxar

Project Phasing

This project has been evaluated for the complete build-out of the development in 2028.

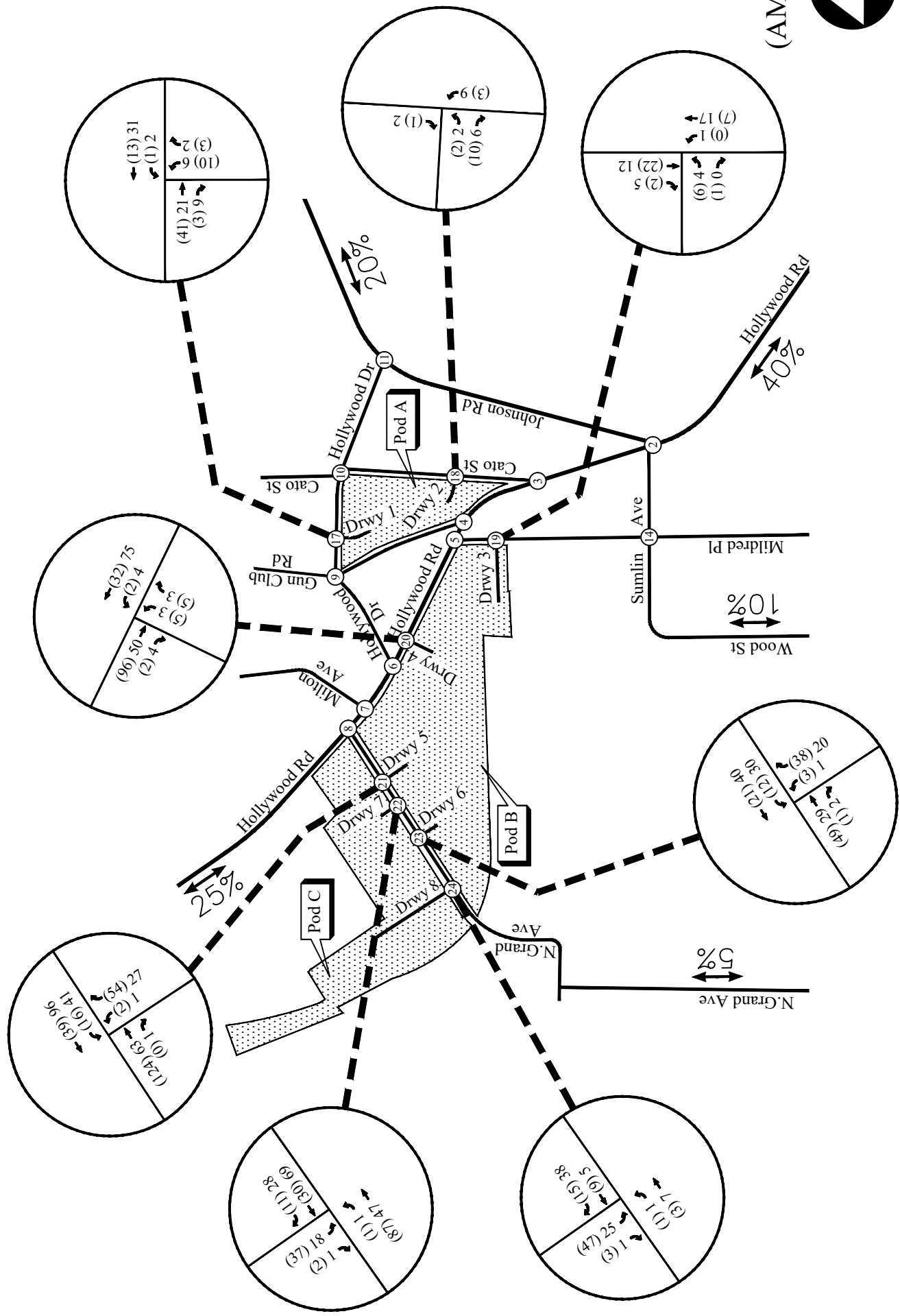
Trip Generation

Trip generation estimates for the project were based on the rates and equations published in the 11th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE *Land Uses*: 215 – *Single-Family Attached Housing* and 221 – *Multifamily Housing (Mid-Rise) - Not Close to Rail Transit*. A 10% alternate mode reduction was also applied due to the proximity of bus route 58 on Hollywood Road. The calculated total trip generation for the proposed development is shown in Table 4.

TABLE 4 – TRIP GENERATION								
Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-way
ITE 215 – Single-Family Attached Housing	193 units	24	71	95	66	46	112	1,420
ITE 221 – Multifamily Housing (Mid-Rise) - Not Close to Rail Transit	562 units	54	182	236	134	86	220	2,634
Total Trips (without Reductions)		78	253	331	200	132	332	4,054
Alternate Mode Reduction (10%)		-8	-25	-33	-20	-13	-33	-405
New External Trips (with Reductions)		70	228	298	180	119	299	3,649

Trip Distribution

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



TRIP DISTRIBUTION AND SITE-GENERATED WEEKDAY PEAK HOUR VOLUMES 2 OF 2

FUTURE 2028 TRAFFIC ANALYSIS

The future 2028 traffic operations are analyzed for the “Build” and “No-Build” conditions. This provides a basis of reference for determining both the contribution of the site to overall traffic conditions and the additional improvements needed to provide sufficient site access and capacity for passing traffic.

Improvements that are identified as “System Improvements” address deficiencies that are found within the existing road network prior to any impacts from the proposed development’s added traffic. Improvements that are identified as “Site Mitigation Improvements” address further impacts that are a result of the proposed development’s added traffic. Note that survey and construction drawings would be needed to verify the feasibility and extent of additional right-of-way required for any recommended improvements.

Future “No-Build” Conditions

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of traffic. The planned Road Diet of SR 8 (Donald Lee Hollowell Parkway) has been assumed built in the “No-Build” conditions analysis.

Annual Traffic Growth

To evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years (2017-2019) revealed growth of approximately 2.6% in the area. This growth factor was applied to the existing traffic volumes to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future “No-Build” volumes on the roadway are shown in Figure 6.

Planned and Programmed Improvements in Study Area

The following improvements have been identified in the Regional Transportation Plan (Plan 2040), GDOT GeoPi, and/or the local comprehensive transportation plan. These improvements are within the vicinity of the proposed development.

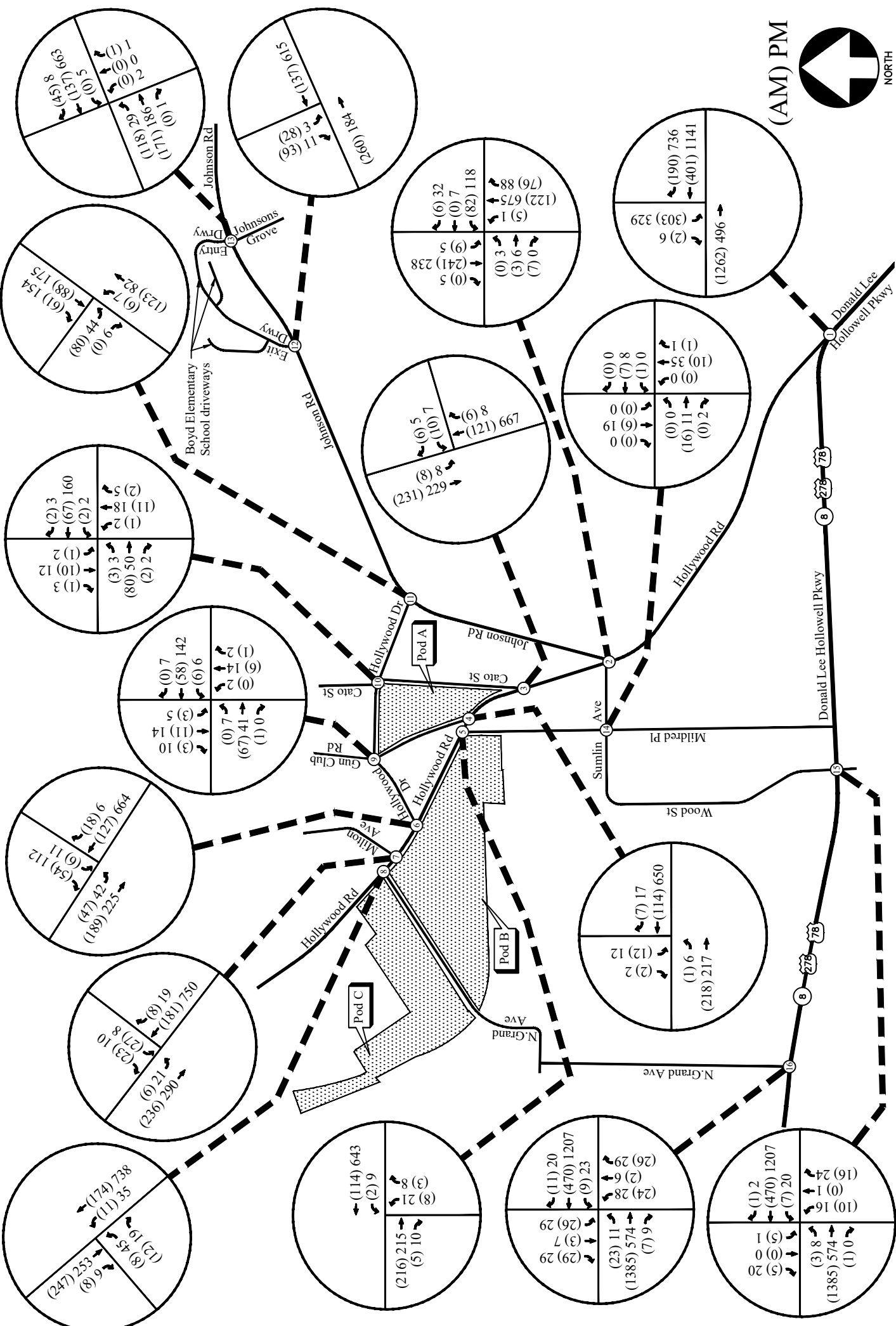
TABLE 5 — PLANNED AND PROGRAMMED IMPROVEMENTS

Item #	Project Name	From / To Points	Sponsor	GDOT PI #	ARC ID #	Design FY	ROW / UTL FY	CST FY
1	I-285 West Wall Maintenance & Reconstruction	This project will repair and resurface I-285 from Collier Drive to Paces Ferry Road for a length of 7.22 miles	GDOT	0018193	AR-285M-2022A	2022	N/A	2024
2	North Avenue Corridor High-Capacity Premium Transit Service	This project will provide high-capacity premium transit service along the North Avenue corridor between MARTA's North Avenue and Bankhead heavy rail stations.	MARTA	N/A	AR-491B	LR 2041-2050		
3	Marietta Road Bridge Replacement on Marietta Road	The proposed project would replace the existing Marietta Road bridge over the former CSX Tilford Yard, with a new structure, pavement, curb, and gutter, and a continuous, 5-foot sidewalk on each side of the bridge from Thomas Street to Perry Boulevard/West Marietta Street	City of Atlanta	N/A	AT-382	2024	2026-2028	TBD
4	SR 8/US 278 (Donald Lee Hollowell Parkway) - Complete Street Retrofit	The project proposes to road diet Donald Lee Howell Parkway from 4 lanes to 3 lanes from SR 280 (Hamilton Holmes Drive) to Stiff Street by re-striping and relocate signal heads within project limits.	GDOT	17926	AT-383	2022	2023	2024
5	West Lake Avenue Bridge Replacement	At CSX Railroad	City of Atlanta	15298	AT-312	2017	2022	2028
6	Operational Improvements Donald Lee Hollowell Parkway/Fulton Industrial Boulevard	From Sandy Creek to SR 8/US 278 (Donald Lee Hollowell Parkway)	City of Atlanta	N/A	AT-323	N/A	N/A	N/A

Since the proposed development is projected to be completed in 2028 and the programmed projects will be completed after 2028, the programmed projects will not be considered in the traffic analysis except for the US 278 (Donald Lee Hollowell Parkway) road diet project which may be completed in 2024 or 2025. We have assumed the Donald Lee Hollowell Parkway Road Diet as implemented in both “No-Build” and “Build” conditions analysis.

Future “Build” Conditions

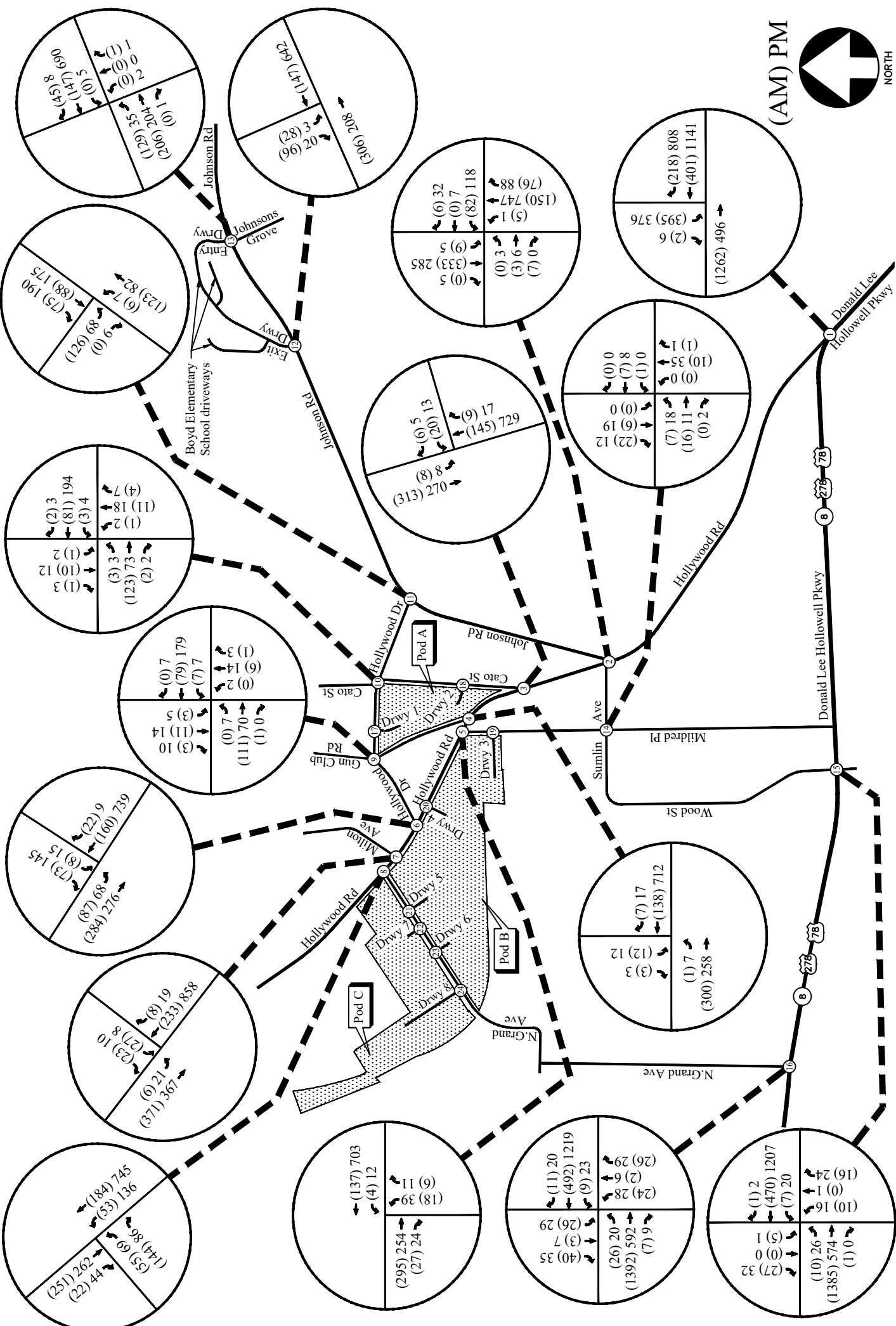
The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions plus the traffic from the proposed development. To evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) were added to base traffic volumes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



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 6

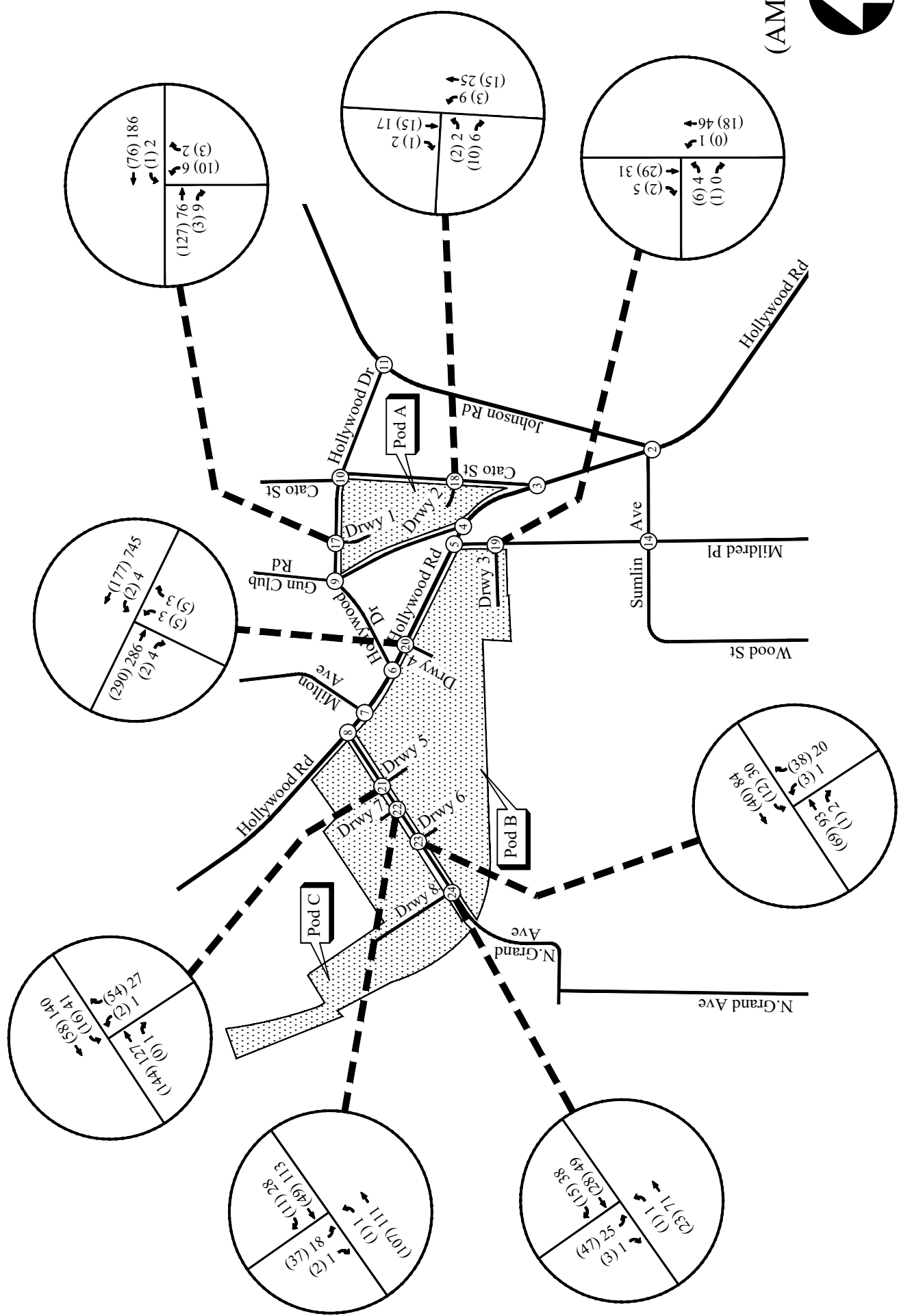
A&R Engineering Inc.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES 1 OF 2

FIGURE 7A

A&R Engineering Inc.



(AM) PM



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES 2 OF 2

FIGURE 7B

A&R Engineering Inc.

Future Traffic Operations

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 6 and Figure 7A & 7B, respectively. The results of the future traffic operations analysis are shown below in Table 8.

TABLE 8 — FUTURE INTERSECTION OPERATIONS					
Intersection		LOS (Delay)			
		NO-BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	<u>SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road</u>	<u>C (29.8)</u>	<u>C (22.4)</u>	<u>D (43.0)</u>	<u>C (27.4)</u>
	-Eastbound Approach	C (34.8)	A (7.9)	D (55.0)	A (9.2)
	-Westbound Approach	A (6.5)	C (20.6)	A (8.5)	C (27.0)
	-Southbound Approach	D (54.5)	D (54.1)	E (58.4)	D (53.1)
2	<u>Hollywood Road @ Sumlin Avenue / Johnson Road</u>	<u>B (10.4)</u>	<u>B (12.1)</u>	<u>A (9.2)</u>	<u>B (12.3)</u>
	-Eastbound Approach	D (41.5)	D (37.0)	D (41.5)	D (37.0)
	-Westbound Approach	D (46.7)	D (44.2)	D (46.8)	D (44.2)
	-Northbound Approach	A (2.6)	A (7.9)	A (2.7)	A (8.9)
	-Southbound Approach	A (2.7)	A (4.0)	A (3.0)	A (4.2)
3	<u>Hollywood Road @ Cato Street</u>				
	-Westbound Approach	B (10.4)	C (17.4)	B (11.7)	C (21.1)
	-Southbound Left	A (7.5)	A (9.3)	A (7.6)	A (9.6)
4	<u>Hollywood Road @ Gun Club Road</u>				
	-Eastbound Left	A (7.5)	A (9.2)	A (7.5)	A (9.5)
	-Southbound Approach	B (10.6)	C (18.5)	B (11.3)	C (20.6)
5	<u>Hollywood Road @ Mildred Place</u>				
	-Westbound Left	A (7.7)	A (7.8)	A (8.0)	A (7.9)
	-Northbound Approach	B (10.4)	C (17.0)	B (11.6)	C (21.7)
6	<u>Hollywood Road @ Hollywood Drive</u>				
	-Westbound Approach	A (9.6)	C (20.1)	B (10.2)	D (29.7)
	-Southbound Left	A (7.6)	A (9.5)	A (7.8)	B (10.1)
7	<u>Hollywood Road @ Milton Avenue</u>				
	-Westbound Approach	B (10.9)	C (20.2)	B (12.3)	C (24.9)
	-Southbound Left	A (7.6)	A (9.8)	A (7.8)	B (10.3)
8	<u>Hollywood Road @ N. Grand Avenue</u>				
	-Eastbound Approach	B (10.8)	C (22.7)	B (13.9)	F (51.3)
	-Northbound Left	A (7.8)	A (7.9)	A (8.0)	A (8.3)
9	<u>Hollywood Drive @ Gun Club Road</u>	<u>A (7.6)</u>	<u>A (8.0)</u>	<u>A (8.0)</u>	<u>A (8.3)</u>
	-Eastbound Approach	A (7.6)	A (7.6)	A (8.1)	A (7.9)
	-Westbound Approach	A (7.6)	A (8.2)	A (7.9)	A (8.6)
	-Northbound Approach	A (7.4)	A (7.6)	A (7.6)	A (7.8)
	-Southbound Approach	A (7.4)	A (7.5)	A (7.7)	A (7.7)
10	<u>Hollywood Drive @ Cato Street</u>				
	-Eastbound Left	A (7.4)	A (7.8)	A (7.4)	A (7.9)
	-Westbound Left	A (7.4)	A (7.4)	A (7.5)	A (7.5)
	-Northbound Approach	B (10.1)	B (11.3)	B (10.4)	B (12.1)
	-Southbound Approach	B (10.1)	B (11.5)	B (10.7)	B (12.4)

11	<u>Johnson Road @ Hollywood Drive</u> -Eastbound Approach -Northbound Left	B (10.9) A (7.6)	B (12.0) A (8.2)	B (11.5) A (7.6)	B (12.8) A (8.3)
12	<u>Johnson Road @ Boyd es Exit-Only Driveway (West)</u> -Southbound Approach	B (10.5)	B (14.6)	B (10.8)	C (15.0)
13	<u>Johnson Road @ Boyd ES Enter-Only Driveway (East)</u> -Eastbound Left -Westbound Left -Northbound Approach	A (8.0) A (0.0) A (9.3)	A (9.3) A (7.6) C (16.1)	A (8.0) A (0.0) A (9.5)	A (9.5) A (7.7) C (17.1)
14	<u>Mildred Place @ Sumlin Avenue</u> -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	<u>A (7.1)</u> A (7.1) A (7.1) A (7.0) A (7.0)	<u>A (7.2)</u> A (7.1) A (7.2) A (7.2) A (7.2)	<u>A (7.0)</u> A (7.2) A (7.1) A (7.1) A (6.7)	<u>A (7.3)</u> A (7.4) A (7.2) A (7.3) A (7.1)
15	<u>SR 8/US 78/US 278 @ Wood Street / Private Drwy</u> -Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach	<u>B (12.0)</u> B (14.9) A (0.7) D (48.2) D (46.7)	<u>A (3.0)</u> A (2.5) A (0.9) D (47.8) D (46.5)	<u>B (13.6)</u> B (3.3) A (16.6) D (46.8) D (47.4)	<u>A (3.0)</u> A (2.6) A (0.6) D (47.3) D (47.1)
16	<u>SR 8/US 78/US 278 @ N. Grand Avenue</u> -Eastbound Left -Southbound Approach	A (8.4) C (22.3)	B (11.7) D (30.5)	A (8.5) C (21.8)	B (11.9) D (32.6)
17	<u>Hollywood Drive @ Site Driveway 1 (Pod A)</u> -Westbound Left -Northbound Approach	-	-	A (7.5) A (9.6)	A (7.4) A (9.9)
18	<u>Cato Street @ Site Driveway 2 (Pod A)</u> -Eastbound Approach -Northbound Left	-	-	A (8.5) A (7.3)	A (8.5) A (7.3)
19	<u>Mildred Place @ Site Driveway 3 (Pod B)</u> -Eastbound Approach -Northbound Left	-	-	A (8.8) A (0.0)	A (9.0) A (7.3)
20	<u>Hollywood Road @ Site Driveway 4 (Pod B)</u> -Eastbound Approach -Northbound Left	-	-	B (11.0) A (7.9)	C (15.7) A (7.9)
21	<u>N. Grand Avenue @ Site Driveway 5 (Pod B, Eastern)</u> -Westbound Left -Northbound Approach	-	-	A (7.6) A (9.4)	A (7.6) A (9.2)
22	<u>N. Grand Avenue @ Site Driveway 7 (Pod C, Eastern)</u> -Eastbound Left -Southbound Approach	-	-	A (7.3) A (9.6)	A (7.5) B (10.0)
23	<u>N. Grand Avenue @ Site Driveway 6 (Pod B, Western)</u> -Westbound Left -Northbound Approach	-	-	A (7.4) A (8.9)	A (7.5) A (8.9)
24	<u>N. Grand Avenue @ Site Driveway 8 (Pod C, Western)</u> -Eastbound Left -Southbound Approach	-	-	A (7.3) A (9.0)	A (7.4) A (9.3)

The results of the future “No-Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “C” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours.

The results of the future “Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “D” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours, except the following:

Intersection 1: SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road

The Hollywood Road southbound approach at the signalized intersection of Donald Lee Hollowell Parkway will marginally exceed the LOS D threshold by 3.4 seconds in the AM peak hour due to the Road Diet project. Since the delay is marginal and the Road Diet project is being implemented, no other improvements have been recommended at this intersection.

Intersection 8: Hollywood Road at N. Grand Avenue

The stop-controlled eastbound approach of N. Grand Avenue will operate at LOS “F” in PM peak hour in “Build” scenario.

Recommended Site Mitigation Improvements

Improvements that are identified as “Site Mitigation Improvements” address impacts that are a result of the proposed development’s added traffic. Following are the recommended site improvements:

Intersection 8: Hollywood Road at N. Grand Avenue

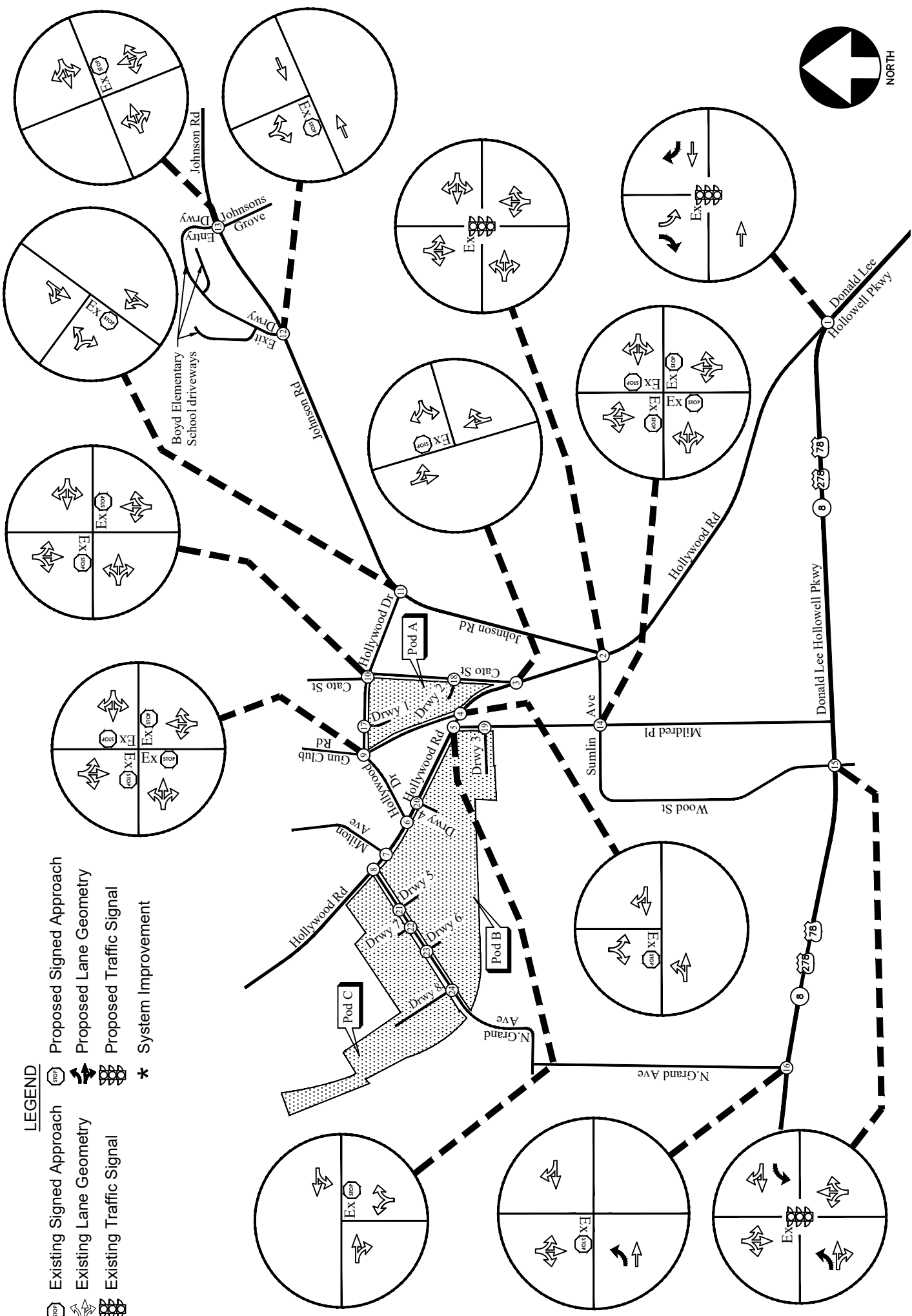
We recommend the installation of an eastbound right turn lane on N. Grand Avenue and a northbound left turn lane on Hollywood Road. With implementation of the site improvements, the eastbound approach will operate at a level of service “D” or better in both peak hours. The results of the future traffic operations analysis with improvements are shown below in Table 9.

TABLE 9 — FUTURE INTERSECTION OPERATIONS WITH IMPROVEMENTS					
Intersection		LOS (Delay)			
		BUILD		BUILD with Site Improvements	
		AM Peak	PM Peak	AM Peak	PM Peak
8	<u>Hollywood Road @ N. Grand Avenue</u>				
	-Eastbound Approach	B (13.9)	F (51.3)	B (12.1)	D (31.1)
	-Northbound Left	A (8.0)	A (8.3)	A (8.0)	A (8.3)

Recommendations for future traffic control and lane geometry are shown in Figures 8A and 8B.

LEGEND

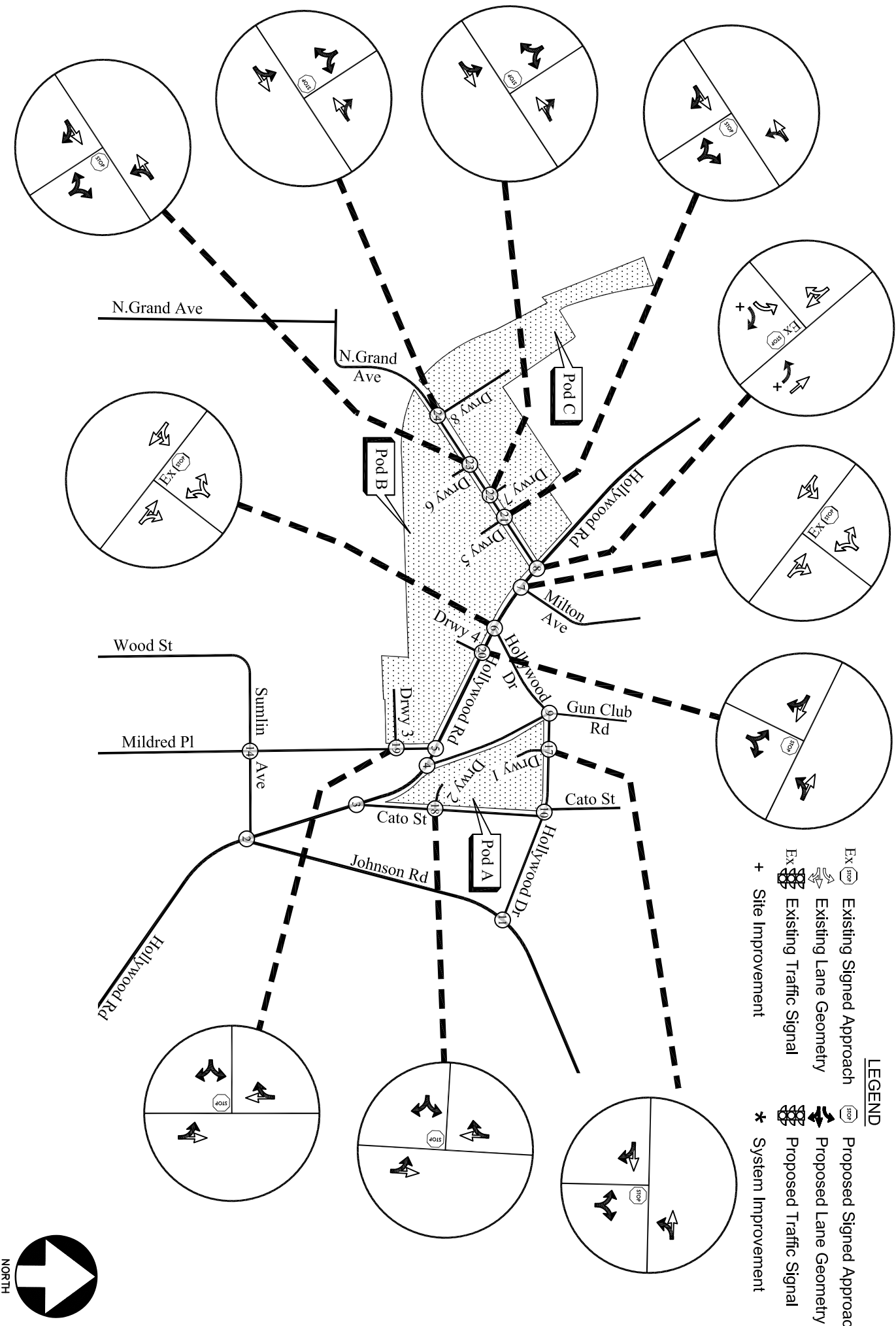
- Ex Existing Signed Approach
- Ex Existing Lane Geometry
- Ex Existing Traffic Signal
- Proposed Signed Approach
- Proposed Lane Geometry
- Proposed Traffic Signal
- * System Improvement



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY 1 OF 2

FIGURE 8A

A&R Engineering Inc.



CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed Cypress Grove residential development located along Hollywood Road near N. Grand Avenue in City of Atlanta, Georgia. The development will consist of a total of 193 townhomes and 562 apartments.

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

1. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road
2. Hollywood Road @ Sumlin Avenue / Johnson Road
3. Hollywood Road @ Cato Street
4. Hollywood Road @ Gun Club Road
5. Hollywood Road @ Mildred Place
6. Hollywood Road @ Hollywood Drive
7. Hollywood Road @ Milton Avenue
8. Hollywood Road @ N. Grand Avenue
9. Hollywood Drive @ Gun Club Road
10. Hollywood Drive @ Cato Street
11. Johnson Road @ Hollywood Drive
12. Johnson Road @ Boyd Elementary School Exit-Only Driveway
13. Johnson Road @ Boyd Elementary School Enter-Only Driveway
14. Mildred Place @ Sumlin Avenue
15. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street
16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in annual growth of through traffic.

The results of the future “No-Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “C” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours.

The results of the future “Build” traffic operations analysis indicate that all the signalized study intersections will be operating at an overall level-of-service “D” or better in both the AM and PM peak hours and stop-controlled approaches at all un-signalized intersections will be operating at level-of-service “D” or better in both the AM and PM peak hours, except the following:

Intersection 1: SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road

The Hollywood Road southbound approach at the signalized intersection of Donald Lee Hollowell Parkway will marginally exceed the LOS D threshold by 3.4 seconds in the AM peak hour due to the Road Diet project. Since the delay is marginal and the Road Diet project is being implemented, no other improvements have been recommended at this intersection.

Intersection 8: Hollywood Road at N. Grand Avenue

The stop-controlled eastbound approach of N. Grand Avenue will operate at LOS “F” in PM peak hour in “Build” scenario.

Recommended Site Mitigation Improvements

Improvements that are identified as “Site Mitigation Improvements” address impacts that are a result of the proposed development’s added traffic. Following are the recommended site improvements:

Intersection 8: Hollywood Road at N. Grand Avenue

We recommend the installation of an eastbound right turn lane on N. Grand Avenue and a northbound left turn lane on Hollywood Road. With implementation of the site improvements, the eastbound approach will operate at a level of service “D” or better in both peak hours.

Recommendation for Site Access Configuration

The following improvements are recommended at the site driveway intersections.

- Site Driveway 1 (Pod A): Full access driveway on Hollywood Drive
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Hollywood Drive remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 2 (Pod A): Full access driveway on Cato Street
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Cato Street remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 3 (Pod B): Full access driveway on Mildred Place
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Mildred Place remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 4 (Pod B): Full access driveway on Hollywood Road
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with Hollywood Road remaining free flow.
 - Provide adequate sight distance per AASHTO standards.
- Site Driveway 5 (Pod B, Eastern): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

- Site Driveway 6 (Pod B, Western): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

- Site Driveway 7 (Pod C, Eastern): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

- Site Driveway 8 (Pod C, Western): Full access driveway on N. Grand Avenue
 - One entering and one exiting lane.
 - Stop-sign controlled on the driveway with N. Grand Avenue remaining free flow.
 - Provide adequate sight distance per AASHTO standards.

Appendix

Existing Intersection Traffic Counts	
Character Areas.....	
GRTA Letter of Understanding.....	
Linear Regression of Daily Traffic.....	
Fact Sheets for Planned and Programmed Improvements.....	
Existing Intersection Analysis.....	
Future “No-Build” Intersection Analysis	
Future “No-Build” Intersection Analysis with Improvements	
Future “Build” Intersections Analysis	
Future “Build” Intersections Analysis with Improvements.....	
Traffic Volume Worksheets	

Existing Intersection Traffic Counts

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
US 78 / SR 8 (Donald Lee Hollowell Pkwy)
@ Hollywood Rd
7-9 am | 4-6 pm

File Name : 20230199
Site Code : 20230199
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Northbound				Hollywood Rd Southbound				US 78 / SR 8 ((Donald Lee Hollowell Pkwy) Eastbound				US 78 / SR 8 ((Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	33	0	1	34	1	175	0	176	0	50	38	88	298
07:15 AM	0	0	0	0	54	0	1	55	0	218	0	218	0	70	36	106	379
07:30 AM	0	0	0	0	54	0	1	55	0	312	0	312	0	67	37	104	471
07:45 AM	0	0	0	0	70	0	0	70	0	278	0	278	0	101	42	143	491
Total	0	0	0	0	211	0	3	214	1	983	0	984	0	288	153	441	1639
08:00 AM	0	0	0	0	82	0	0	82	0	255	0	255	0	106	52	158	495
08:15 AM	0	0	0	0	62	0	1	63	1	271	0	272	0	81	37	118	453
08:30 AM	0	0	0	0	37	0	0	37	0	125	0	125	0	34	17	51	213
08:45 AM	0	0	0	0	52	0	0	52	0	223	0	223	0	85	47	132	407
Total	0	0	0	0	233	0	1	234	1	874	0	875	0	306	153	459	1568
*** BREAK ***																	
04:00 PM	0	0	0	0	78	0	2	80	0	114	0	114	0	327	70	397	591
04:15 PM	0	0	0	0	62	0	2	64	0	112	0	112	0	277	144	421	597
04:30 PM	0	0	0	0	69	0	1	70	0	104	0	104	0	262	159	421	595
04:45 PM	0	0	0	0	84	0	1	85	0	116	0	116	0	229	179	408	609
Total	0	0	0	0	293	0	6	299	0	446	0	446	0	1095	552	1647	2392
05:00 PM	0	0	0	0	76	0	1	77	0	107	0	107	0	242	169	411	595
05:15 PM	0	0	0	0	76	0	1	77	0	157	0	157	0	232	105	337	571
05:30 PM	0	0	0	0	67	0	1	68	0	182	0	182	0	233	65	298	548
05:45 PM	0	0	0	0	45	0	0	45	0	168	0	168	0	196	71	267	480
Total	0	0	0	0	264	0	3	267	0	614	0	614	0	903	410	1313	2194
Grand Total	0	0	0	0	1001	0	13	1014	2	2917	0	2919	0	2592	1268	3860	7793
Apprch %	0	0	0		98.7	0	1.3		0.1	99.9	0		0	67.2	32.8		
Total %	0	0	0	0	12.8	0	0.2	13	0	37.4	0	37.5	0	33.3	16.3	49.5	

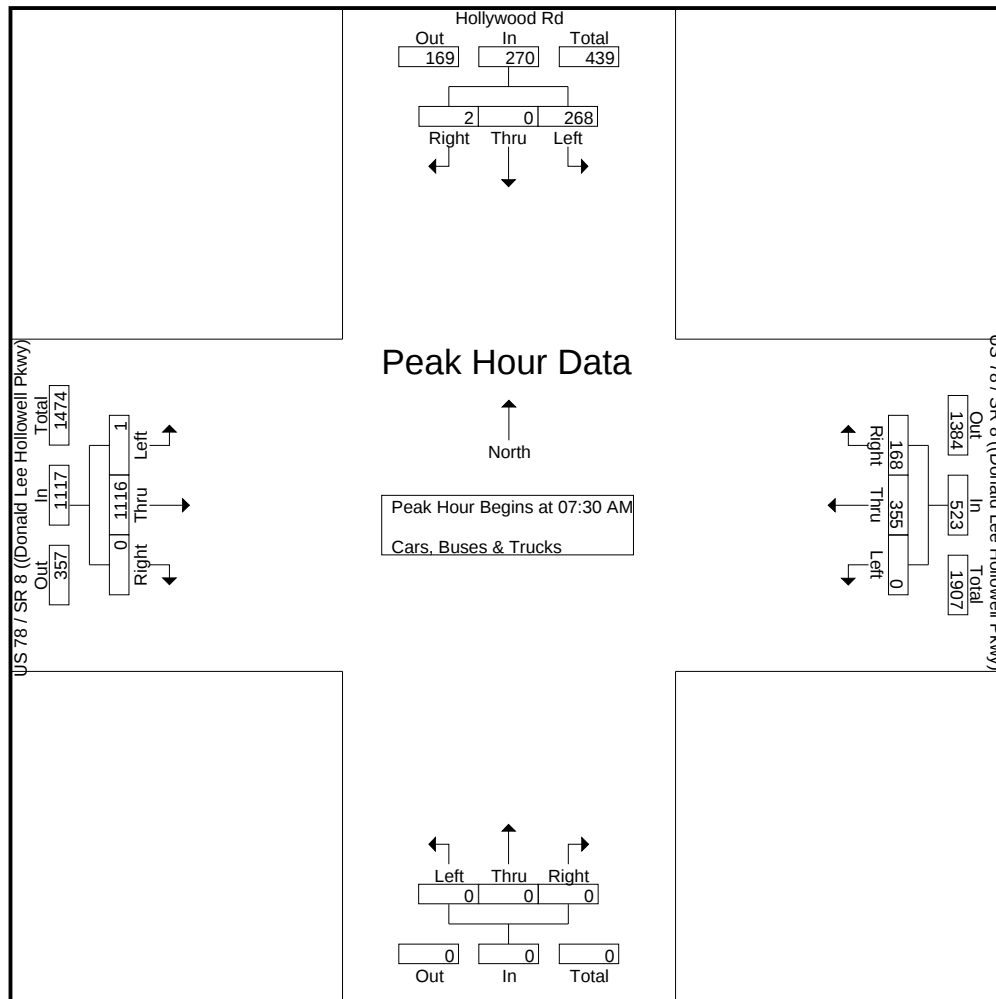
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TMC Data
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Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	54	0	1	55	0	312	0	312	0	67	37	104	471
07:45 AM	0	0	0	0	70	0	0	70	0	278	0	278	0	101	42	143	491
08:00 AM	0	0	0	0	82	0	0	82	0	255	0	255	0	106	52	158	495
08:15 AM	0	0	0	0	62	0	1	63	1	271	0	272	0	81	37	118	453
Total Volume	0	0	0	0	268	0	2	270	1	1116	0	1117	0	355	168	523	1910
% App. Total	0	0	0	0	99.3	0	0.7		0.1	99.9	0		0	67.9	32.1		
PHF	.000	.000	.000	.000	.817	.000	.500	.823	.250	.894	.000	.895	.000	.837	.808	.828	.965



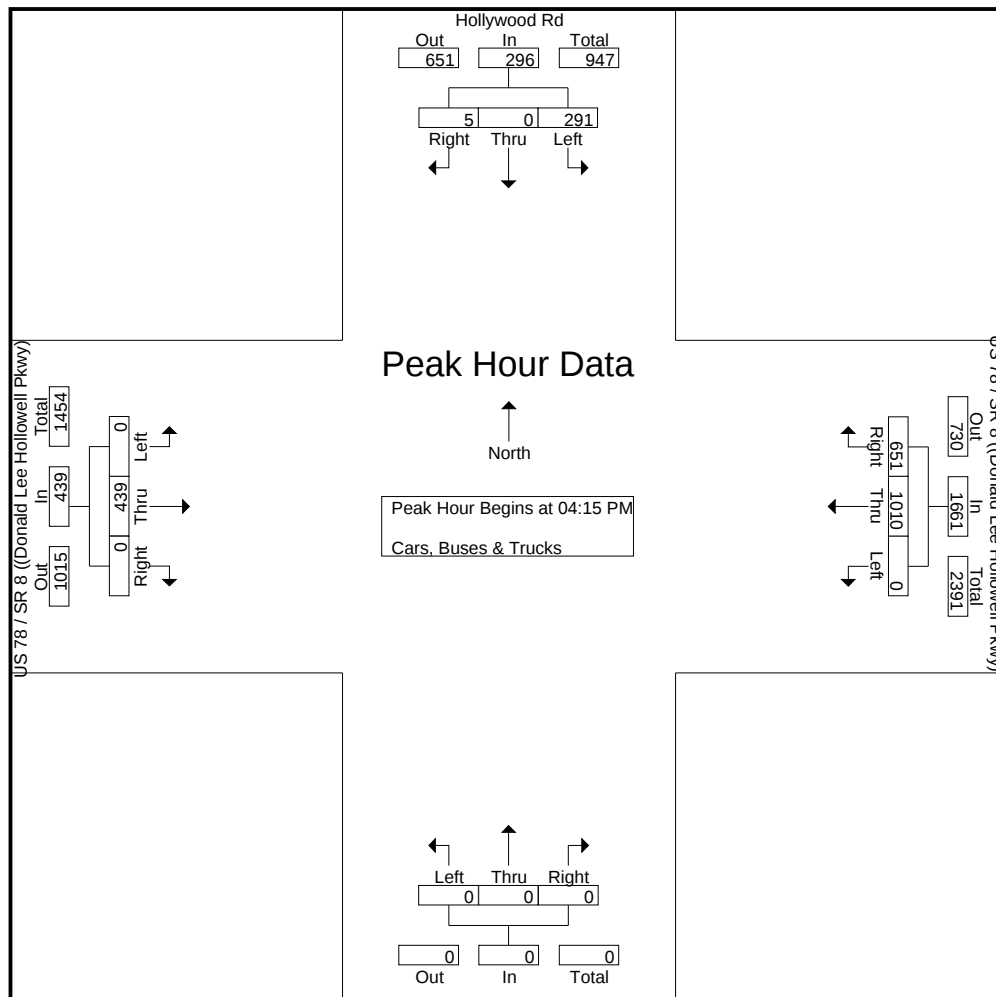
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Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	0	0	0	62	0	2	64	0	112	0	112	0	277	144	421	597
04:30 PM	0	0	0	0	69	0	1	70	0	104	0	104	0	262	159	421	595
04:45 PM	0	0	0	0	84	0	1	85	0	116	0	116	0	229	179	408	609
05:00 PM	0	0	0	0	76	0	1	77	0	107	0	107	0	242	169	411	595
Total Volume	0	0	0	0	291	0	5	296	0	439	0	439	0	1010	651	1661	2396
% App. Total	0	0	0	0	98.3	0	1.7		0	100	0		0	60.8	39.2		
PHF	.000	.000	.000	.000	.866	.000	.625	.871	.000	.946	.000	.946	.000	.912	.909	.986	.984



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TMC Data
Hollywood Rd @ Johnson Rd /
Sumlin Ave
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Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Hollywood Rd Northbound				Hollywood Rd Southbound				Sumlin Ave Eastbound				Johnson Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	15	34	49	1	25	0	26	0	2	1	3	7	0	1	8	86
07:15 AM	1	19	26	46	2	34	0	36	0	1	2	3	22	1	3	26	111
07:30 AM	0	29	24	53	0	33	1	34	1	1	3	5	14	1	0	15	107
07:45 AM	0	27	13	40	1	50	0	51	0	2	1	3	25	0	1	26	120
Total	1	90	97	188	4	142	1	147	1	6	7	14	68	2	5	75	424
08:00 AM	2	29	27	58	3	46	0	49	0	1	2	3	23	0	2	25	135
08:15 AM	2	32	12	46	1	46	0	47	0	0	2	2	10	0	1	11	106
08:30 AM	0	20	15	35	3	71	0	74	0	0	1	1	15	0	1	16	126
08:45 AM	1	27	14	42	1	48	0	49	0	1	0	1	16	1	1	18	110
Total	5	108	68	181	8	211	0	219	0	2	5	7	64	1	5	70	477
*** BREAK ***																	
04:00 PM	2	45	21	68	5	42	2	49	0	1	2	3	21	1	1	23	143
04:15 PM	1	93	16	110	1	33	0	34	0	0	2	2	25	1	5	31	177
04:30 PM	1	160	21	182	1	48	3	52	1	0	0	1	20	3	3	26	261
04:45 PM	0	160	21	181	1	57	1	59	0	2	0	2	37	2	8	47	289
Total	4	458	79	541	8	180	6	194	1	3	4	8	103	7	17	127	870
05:00 PM	0	156	16	172	1	47	0	48	1	1	0	2	25	0	8	33	255
05:15 PM	0	121	20	141	1	59	0	60	1	2	0	3	22	1	9	32	236
05:30 PM	2	72	19	93	1	61	1	63	2	0	1	3	28	0	8	36	195
05:45 PM	0	60	17	77	5	55	0	60	1	0	0	1	29	3	3	35	173
Total	2	409	72	483	8	222	1	231	5	3	1	9	104	4	28	136	859
Grand Total	12	1065	316	1393	28	755	8	791	7	14	17	38	339	14	55	408	2630
Apprch %	0.9	76.5	22.7		3.5	95.4	1		18.4	36.8	44.7		83.1	3.4	13.5		
Total %	0.5	40.5	12	53	1.1	28.7	0.3	30.1	0.3	0.5	0.6	1.4	12.9	0.5	2.1	15.5	

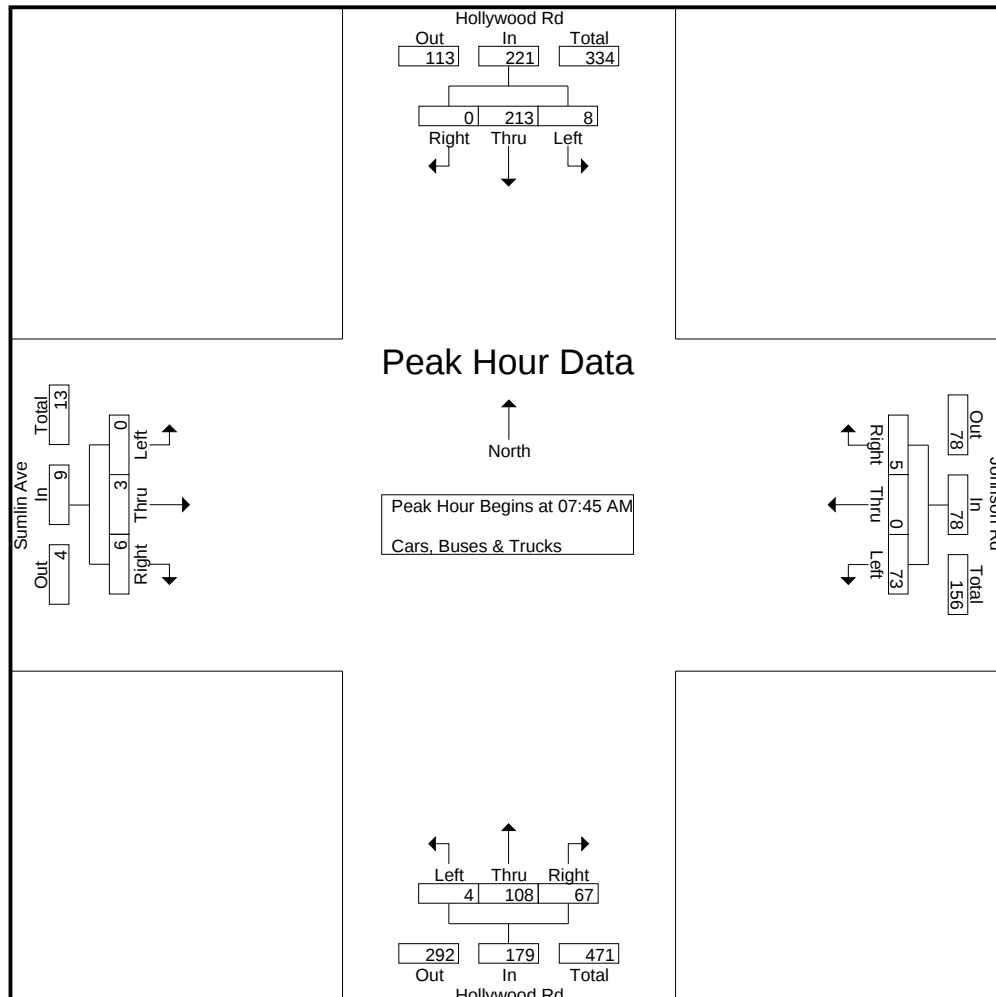
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Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	27	13	40	1	50	0	51	0	2	1	3	25	0	1	26	120
08:00 AM	2	29	27	58	3	46	0	49	0	1	2	3	23	0	2	25	135
08:15 AM	2	32	12	46	1	46	0	47	0	0	2	2	10	0	1	11	106
08:30 AM	0	20	15	35	3	71	0	74	0	0	1	1	15	0	1	16	126
Total Volume	4	108	67	179	8	213	0	221	0	3	6	9	73	0	5	78	487
% App. Total	2.2	60.3	37.4		3.6	96.4	0		0	33.3	66.7		93.6	0	6.4		
PHF	.500	.844	.620	.772	.667	.750	.000	.747	.000	.375	.750	.750	.730	.000	.625	.750	.902



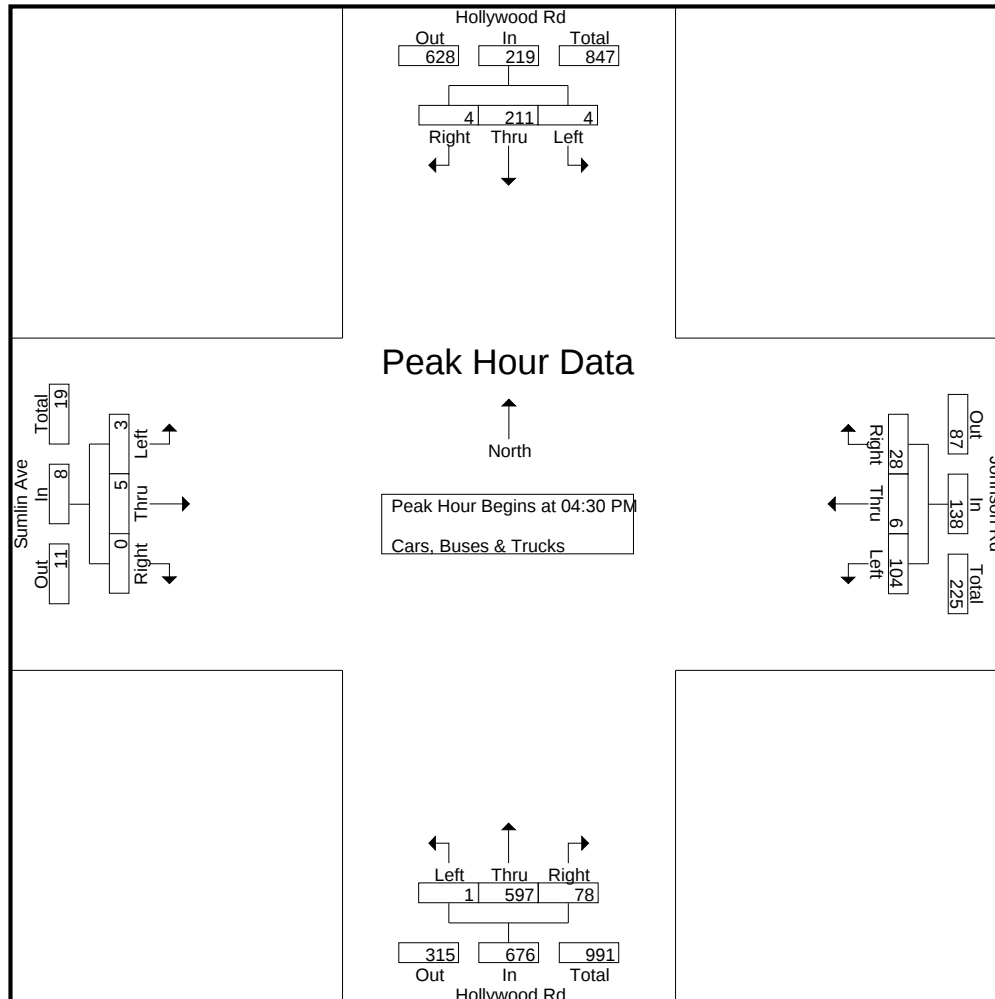
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Hollywood Rd @ Johnson Rd /
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Start Date : 05-16-2023
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	Hollywood Rd Northbound				Hollywood Rd Southbound				Sumlin Ave Eastbound				Johnson Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	160	21	182	1	48	3	52	1	0	0	1	20	3	3	26	261
04:45 PM	0	160	21	181	1	57	1	59	0	2	0	2	37	2	8	47	289
05:00 PM	0	156	16	172	1	47	0	48	1	1	0	2	25	0	8	33	255
05:15 PM	0	121	20	141	1	59	0	60	1	2	0	3	22	1	9	32	236
Total Volume	1	597	78	676	4	211	4	219	3	5	0	8	104	6	28	138	1041
% App. Total	0.1	88.3	11.5		1.8	96.3	1.8		37.5	62.5	0		75.4	4.3	20.3		
PHF	.250	.933	.929	.929	1.00	.894	.333	.913	.750	.625	.000	.667	.703	.500	.778	.734	.901



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Cato St
7-9 am | 4-6 pm

File Name : 20230188
Site Code : 20230188
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Cato St Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	16	1	17	1	23	0	24	0	0	0	0	1	0	1	2	43
07:15 AM	0	19	1	20	1	37	0	38	0	0	0	0	2	0	0	2	60
07:30 AM	0	25	2	27	2	35	0	37	0	0	0	0	1	0	1	2	66
07:45 AM	0	25	1	26	1	47	0	48	0	0	0	0	2	0	1	3	77
Total	0	85	5	90	5	142	0	147	0	0	0	0	6	0	3	9	246
08:00 AM	0	33	1	34	2	43	0	45	0	0	0	0	2	0	2	4	83
08:15 AM	0	27	2	29	1	51	0	52	0	0	0	0	3	0	1	4	85
08:30 AM	0	22	1	23	3	63	0	66	0	0	0	0	2	0	1	3	92
08:45 AM	0	23	1	24	2	44	0	46	0	0	0	0	1	0	1	2	72
Total	0	105	5	110	8	201	0	209	0	0	0	0	8	0	5	13	332
*** BREAK ***																	
04:00 PM	0	44	2	46	3	46	0	49	0	0	0	0	2	0	1	3	98
04:15 PM	0	94	3	97	3	36	0	39	0	0	0	0	3	0	1	4	140
04:30 PM	0	139	2	141	2	44	0	46	0	0	0	0	2	0	0	2	189
04:45 PM	0	161	2	163	2	52	0	54	0	0	0	0	1	0	1	2	219
Total	0	438	9	447	10	178	0	188	0	0	0	0	8	0	3	11	646
05:00 PM	0	172	1	173	1	52	0	53	0	0	0	0	2	0	2	4	230
05:15 PM	0	118	2	120	2	55	0	57	0	0	0	0	1	0	1	2	179
05:30 PM	0	83	3	86	3	66	0	69	0	0	0	0	2	0	1	3	158
05:45 PM	0	60	2	62	2	49	0	51	0	0	0	0	2	0	1	3	116
Total	0	433	8	441	8	222	0	230	0	0	0	0	7	0	5	12	683
Grand Total	0	1061	27	1088	31	743	0	774	0	0	0	0	29	0	16	45	1907
Apprch %	0	97.5	2.5		4	96	0		0	0	0		64.4	0	35.6		
Total %	0	55.6	1.4	57.1	1.6	39	0	40.6	0	0	0	0	1.5	0	0.8	2.4	

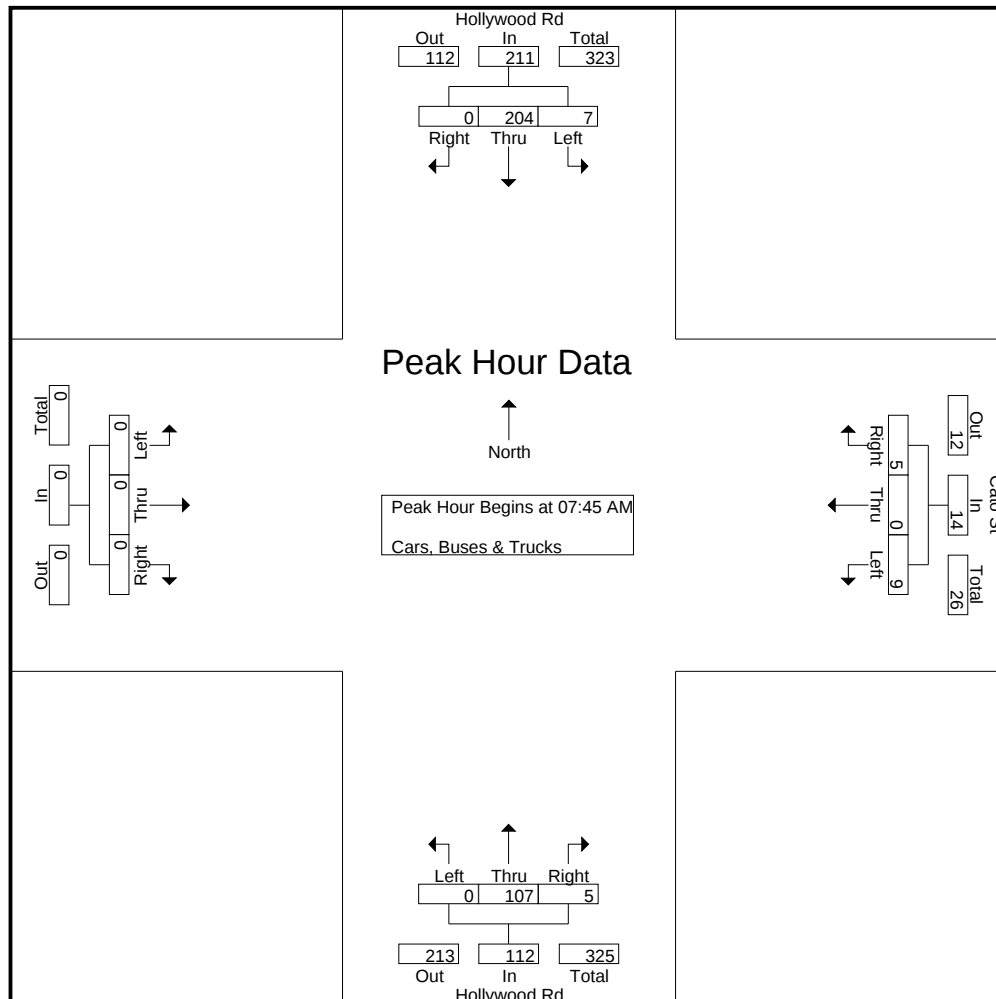
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Cato St
7-9 am | 4-6 pm

File Name : 20230188
Site Code : 20230188
Start Date : 5/16/2023
Page No : 2

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Cato St Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	25	1	26	1	47	0	48	0	0	0	0	2	0	1	3	77
08:00 AM	0	33	1	34	2	43	0	45	0	0	0	0	2	0	2	4	83
08:15 AM	0	27	2	29	1	51	0	52	0	0	0	0	3	0	1	4	85
08:30 AM	0	22	1	23	3	63	0	66	0	0	0	0	2	0	1	3	92
Total Volume	0	107	5	112	7	204	0	211	0	0	0	0	9	0	5	14	337
% App. Total	0	95.5	4.5		3.3	96.7	0		0	0	0		64.3	0	35.7		
PHF	.000	.811	.625	.824	.583	.810	.000	.799	.000	.000	.000	.000	.750	.000	.625	.875	.916



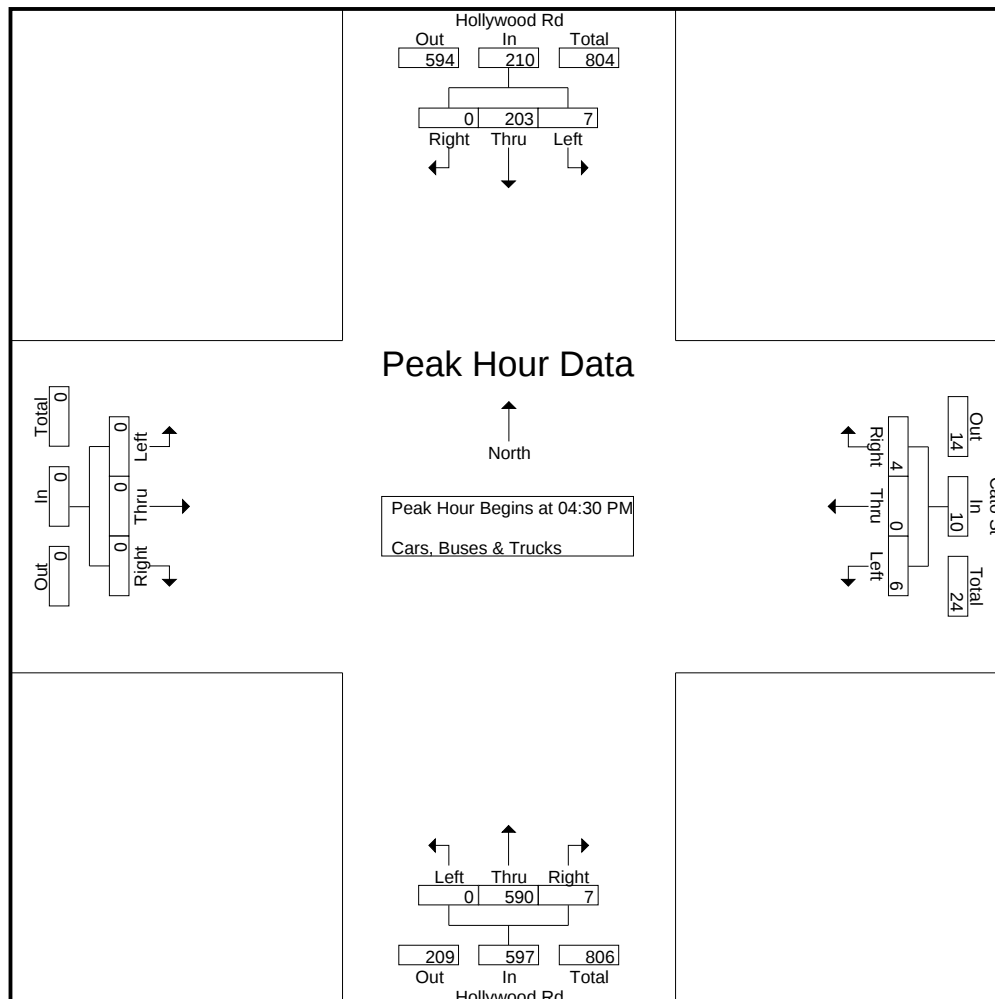
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Cato St
7-9 am | 4-6 pm

File Name : 20230188
Site Code : 20230188
Start Date : 5/16/2023
Page No : 3

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Cato St Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	139	2	141	2	44	0	46	0	0	0	0	2	0	0	2	189
04:45 PM	0	161	2	163	2	52	0	54	0	0	0	0	1	0	1	2	219
05:00 PM	0	172	1	173	1	52	0	53	0	0	0	0	2	0	2	4	230
05:15 PM	0	118	2	120	2	55	0	57	0	0	0	0	1	0	1	2	179
Total Volume	0	590	7	597	7	203	0	210	0	0	0	0	6	0	4	10	817
% App. Total	0	98.8	1.2		3.3	96.7	0		0	0	0		60	0	40		
PHF	.000	.858	.875	.863	.875	.923	.000	.921	.000	.000	.000	.000	.750	.000	.500	.625	.888



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Road @ Mildred Place
7-9 am | 4-6 pm

File Name : 20230190
Site Code : 20230190
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Mildred Place Northbound				Southbound				Hollywood Road Eastbound				Hollywood Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	3	0	2	5	0	0	0	0	0	20	0	20	0	16	0	16	41
07:15 AM	0	0	2	2	0	0	0	0	0	32	0	32	1	18	0	19	53
07:30 AM	1	0	1	2	0	0	0	0	0	31	0	31	0	24	0	24	57
07:45 AM	1	0	0	1	0	0	0	0	0	44	2	46	0	23	0	23	70
Total	5	0	5	10	0	0	0	0	0	127	2	129	1	81	0	82	221
08:00 AM	4	0	0	4	0	0	0	0	0	40	1	41	1	32	0	33	78
08:15 AM	1	0	1	2	0	0	0	0	0	49	0	49	0	26	0	26	77
08:30 AM	1	0	2	3	0	0	0	0	0	58	1	59	1	20	0	21	83
08:45 AM	1	0	0	1	0	0	0	0	0	41	0	41	1	22	0	23	65
Total	7	0	3	10	0	0	0	0	0	188	2	190	3	100	0	103	303
*** BREAK ***																	
04:00 PM	4	0	1	5	0	0	0	0	0	42	1	43	5	39	0	44	92
04:15 PM	2	0	3	5	0	0	0	0	0	32	1	33	1	90	0	91	129
04:30 PM	5	0	3	8	0	0	0	0	0	41	1	42	2	135	0	137	187
04:45 PM	4	0	2	6	0	0	0	0	0	48	2	50	3	156	0	159	215
Total	15	0	9	24	0	0	0	0	0	163	5	168	11	420	0	431	623
05:00 PM	4	0	1	5	0	0	0	0	0	50	4	54	1	164	0	165	224
05:15 PM	6	0	1	7	0	0	0	0	0	51	2	53	2	114	0	116	176
05:30 PM	10	0	3	13	0	0	0	0	0	60	2	62	1	81	0	82	157
05:45 PM	4	0	1	5	0	0	0	0	0	45	3	48	4	55	0	59	112
Total	24	0	6	30	0	0	0	0	0	206	11	217	8	414	0	422	669
Grand Total	51	0	23	74	0	0	0	0	0	684	20	704	23	1015	0	1038	1816
Apprch %	68.9	0	31.1		0	0	0		0	97.2	2.8		2.2	97.8	0		
Total %	2.8	0	1.3	4.1	0	0	0	0	0	37.7	1.1	38.8	1.3	55.9	0	57.2	

A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA

Hollywood Road @ Mildred Place

7-9 am | 4-6 pm

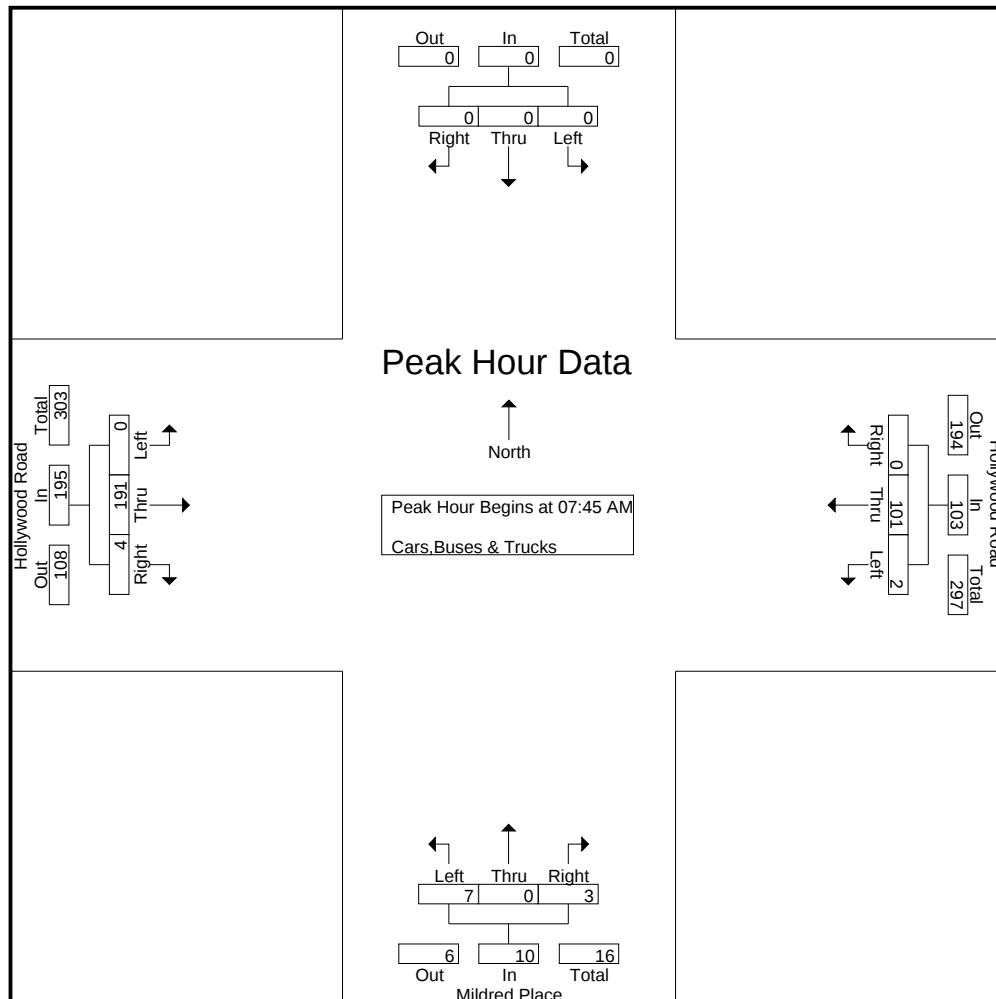
File Name : 20230190

Site Code : 20230190

Start Date : 5/16/2023

Page No : 2

	Mildred Place Northbound				Southbound				Hollywood Road Eastbound				Hollywood Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	1	0	0	1	0	0	0	0	0	44	2	46	0	23	0	23	70
08:00 AM	4	0	0	4	0	0	0	0	0	40	1	41	1	32	0	33	78
08:15 AM	1	0	1	2	0	0	0	0	0	49	0	49	0	26	0	26	77
08:30 AM	1	0	2	3	0	0	0	0	0	58	1	59	1	20	0	21	83
Total Volume	7	0	3	10	0	0	0	0	0	191	4	195	2	101	0	103	308
% App. Total	70	0	30		0	0	0		0	97.9	2.1		1.9	98.1	0		
PHF	.438	.000	.375	.625	.000	.000	.000	.000	.000	.823	.500	.826	.500	.789	.000	.780	.928



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA

Hollywood Road @ Mildred Place

7-9 am | 4-6 pm

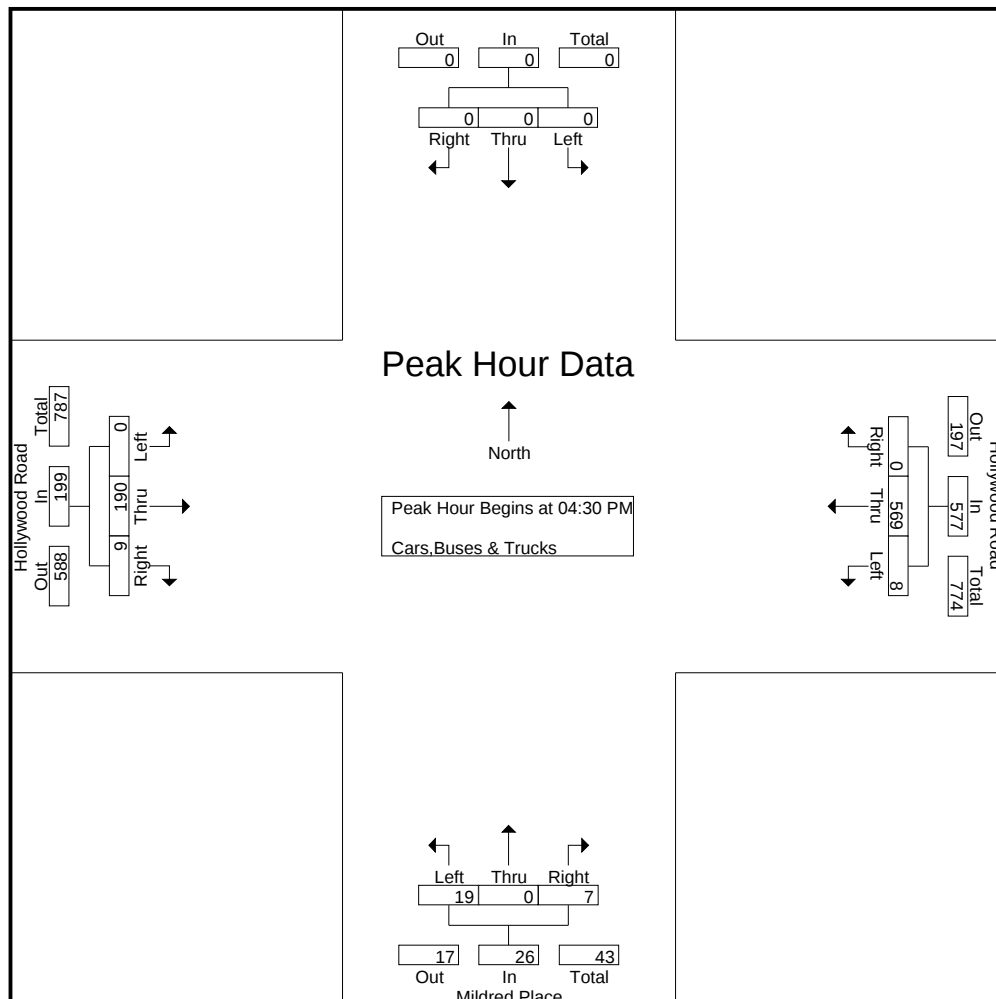
File Name : 20230190

Site Code : 20230190

Start Date : 5/16/2023

Page No : 3

	Mildred Place Northbound				Southbound				Hollywood Road Eastbound				Hollywood Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	0	3	8	0	0	0	0	0	41	1	42	2	135	0	137	187
04:45 PM	4	0	2	6	0	0	0	0	0	48	2	50	3	156	0	159	215
05:00 PM	4	0	1	5	0	0	0	0	0	50	4	54	1	164	0	165	224
05:15 PM	6	0	1	7	0	0	0	0	0	51	2	53	2	114	0	116	176
Total Volume	19	0	7	26	0	0	0	0	0	190	9	199	8	569	0	577	802
% App. Total	73.1	0	26.9		0	0	0		0	95.5	4.5		1.4	98.6	0		
PHF	.792	.000	.583	.813	.000	.000	.000	.000	.000	.931	.563	.921	.667	.867	.000	.874	.895



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Rd @ Gun Club Rd
7-9 am | 4-6 pm

File Name : 20230189
Site Code : 20230189
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Northbound				Gun Club Rd Southbound				Hollywood Rd Eastbound				Hollywood Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	0	0	0	2	0	0	2	1	21	0	22	0	16	0	16	40
07:15 AM	0	0	0	0	5	0	1	6	2	32	0	34	0	18	1	19	59
07:30 AM	0	0	0	0	3	0	0	3	0	32	0	32	0	24	1	25	60
07:45 AM	0	0	0	0	3	0	0	3	0	44	0	44	0	23	2	25	72
Total	0	0	0	0	13	0	1	14	3	129	0	132	0	81	4	85	231
08:00 AM	0	0	0	0	3	0	1	4	0	40	0	40	0	32	1	33	77
08:15 AM	0	0	0	0	2	0	0	2	1	49	0	50	0	26	1	27	79
08:30 AM	0	0	0	0	3	0	1	4	0	60	0	60	0	20	2	22	86
08:45 AM	0	0	0	0	4	0	1	5	1	40	0	41	0	22	1	23	69
Total	0	0	0	0	12	0	3	15	2	189	0	191	0	100	5	105	311
*** BREAK ***																	
04:00 PM	0	0	0	0	3	0	2	5	0	43	0	43	0	42	2	44	92
04:15 PM	0	0	0	0	2	0	1	3	1	34	0	35	0	90	4	94	132
04:30 PM	0	0	0	0	1	0	1	2	1	43	0	44	0	136	3	139	185
04:45 PM	0	0	0	0	5	0	0	5	3	47	0	50	0	159	2	161	216
Total	0	0	0	0	11	0	4	15	5	167	0	172	0	427	11	438	625
05:00 PM	0	0	0	0	1	0	0	1	0	51	0	51	0	165	7	172	224
05:15 PM	0	0	0	0	4	0	1	5	1	51	0	52	0	115	3	118	175
05:30 PM	0	0	0	0	4	0	2	6	1	62	0	63	0	80	3	83	152
05:45 PM	0	0	0	0	3	0	1	4	0	46	0	46	0	58	2	60	110
Total	0	0	0	0	12	0	4	16	2	210	0	212	0	418	15	433	661
Grand Total	0	0	0	0	48	0	12	60	12	695	0	707	0	1026	35	1061	1828
Apprch %	0	0	0		80	0	20		1.7	98.3	0		0	96.7	3.3		
Total %	0	0	0	0	2.6	0	0.7	3.3	0.7	38	0	38.7	0	56.1	1.9	58	

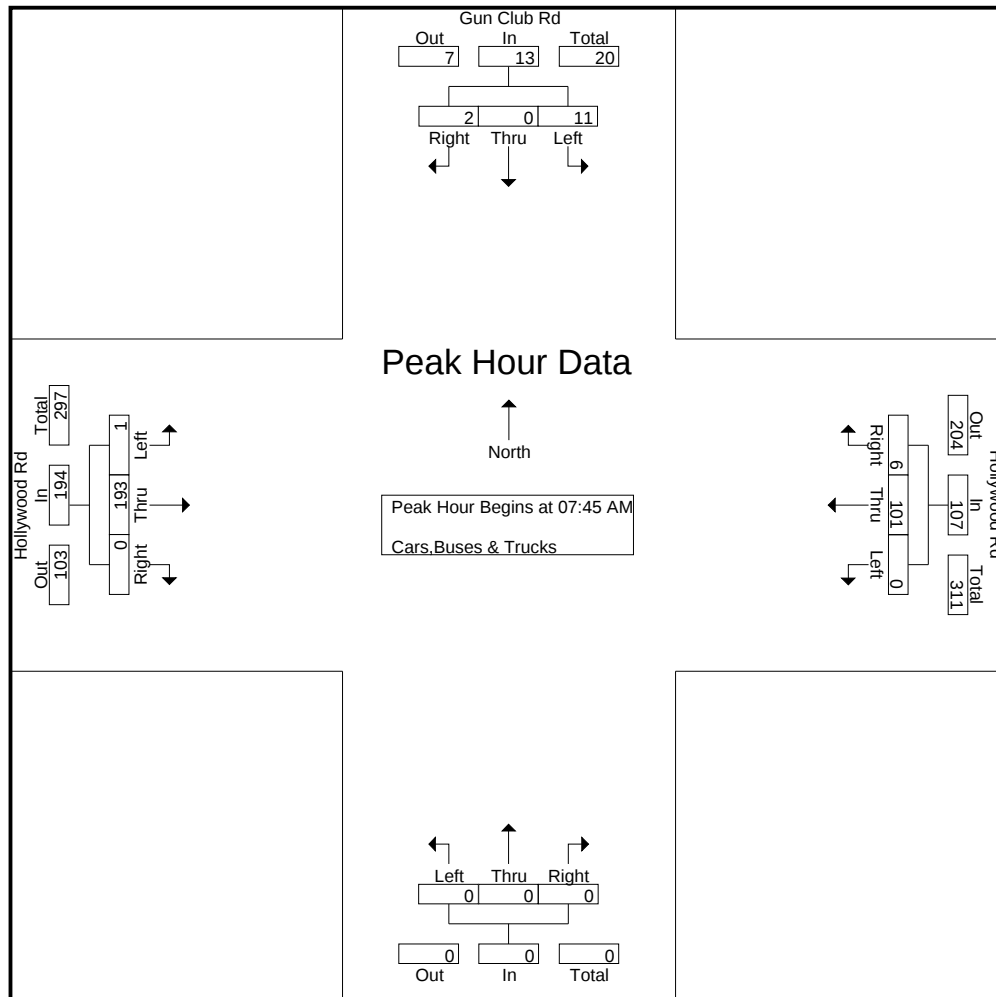
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Rd @ Gun Club Rd
7-9 am | 4-6 pm

File Name : 20230189
Site Code : 20230189
Start Date : 5/16/2023
Page No : 2

	Northbound				Gun Club Rd Southbound				Hollywood Rd Eastbound				Hollywood Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	0	0	0	0	3	0	0	3	0	44	0	44	0	23	2	25	72
08:00 AM	0	0	0	0	3	0	1	4	0	40	0	40	0	32	1	33	77
08:15 AM	0	0	0	0	2	0	0	2	1	49	0	50	0	26	1	27	79
08:30 AM	0	0	0	0	3	0	1	4	0	60	0	60	0	20	2	22	86
Total Volume	0	0	0	0	11	0	2	13	1	193	0	194	0	101	6	107	314
% App. Total	0	0	0		84.6	0	15.4		0.5	99.5	0		0	94.4	5.6		
PHF	.000	.000	.000	.000	.917	.000	.500	.813	.250	.804	.000	.808	.000	.789	.750	.811	.913



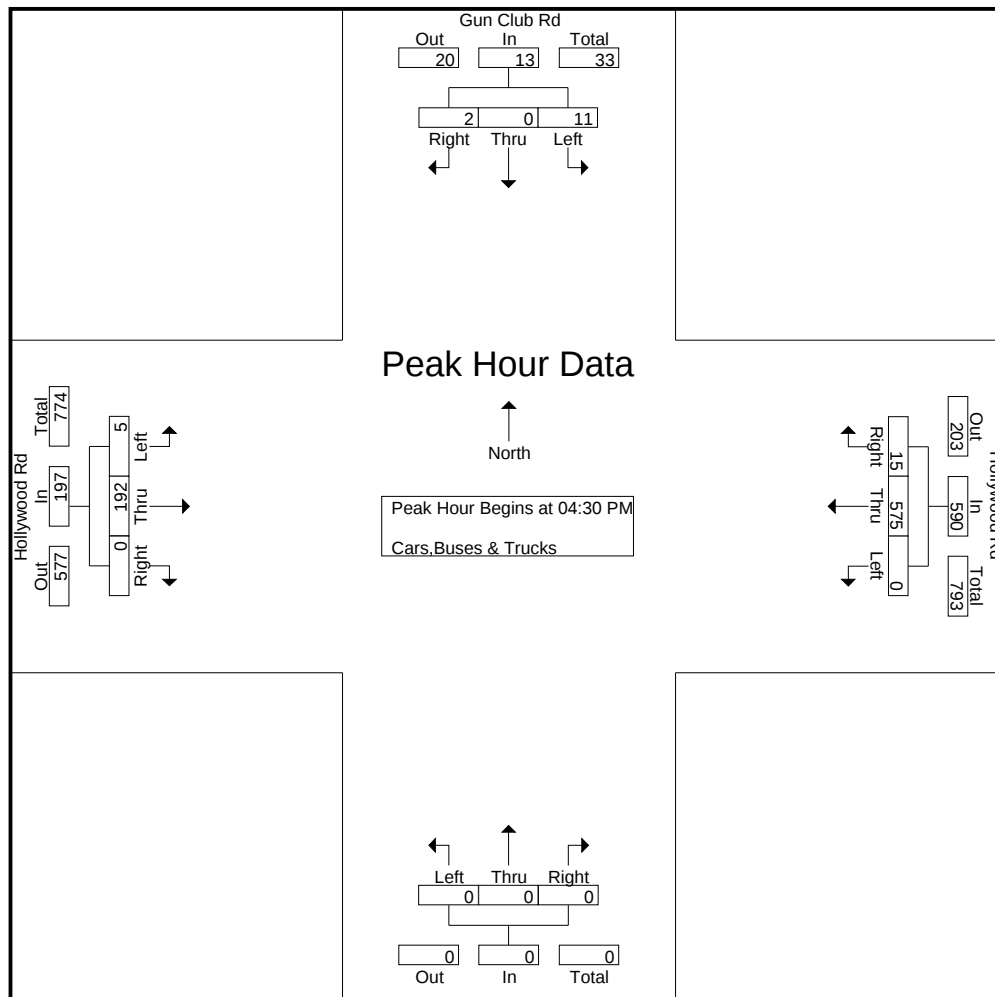
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Rd @ Gun Club Rd
7-9 am | 4-6 pm

File Name : 20230189
Site Code : 20230189
Start Date : 5/16/2023
Page No : 3

	Northbound				Gun Club Rd Southbound				Hollywood Rd Eastbound				Hollywood Rd Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	0	0	0	1	0	1	2	1	43	0	44	0	136	3	139	185
04:45 PM	0	0	0	0	5	0	0	5	3	47	0	50	0	159	2	161	216
05:00 PM	0	0	0	0	1	0	0	1	0	51	0	51	0	165	7	172	224
05:15 PM	0	0	0	0	4	0	1	5	1	51	0	52	0	115	3	118	175
Total Volume	0	0	0	0	11	0	2	13	5	192	0	197	0	575	15	590	800
% App. Total	0	0	0		84.6	0	15.4		2.5	97.5	0		0	97.5	2.5		
PHF	.000	.000	.000	.000	.550	.000	.500	.650	.417	.941	.000	.947	.000	.871	.536	.858	.893



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230191
Site Code : 20230191
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Hollywood Dr Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	19	2	21	13	20	0	33	0	0	0	0	1	0	3	4	58
07:15 AM	0	18	2	20	12	32	0	44	0	0	0	0	1	0	11	12	76
07:30 AM	0	25	8	33	18	31	0	49	0	0	0	0	2	0	19	21	103
07:45 AM	0	24	3	27	7	46	0	53	0	0	0	0	1	0	10	11	91
Total	0	86	15	101	50	129	0	179	0	0	0	0	5	0	43	48	328
08:00 AM	0	36	2	38	8	41	0	49	0	0	0	0	1	0	9	10	97
08:15 AM	0	27	3	30	9	49	0	58	0	0	0	0	1	0	10	11	99
08:30 AM	0	21	1	22	6	59	0	65	0	0	0	0	1	0	3	4	91
08:45 AM	0	23	1	24	6	41	0	47	0	0	0	0	1	0	9	10	81
Total	0	107	7	114	29	190	0	219	0	0	0	0	4	0	31	35	368
*** BREAK ***																	
04:00 PM	0	43	1	44	5	43	0	48	0	0	0	0	1	0	9	10	102
04:15 PM	0	92	2	94	11	33	0	44	0	0	0	0	1	0	18	19	157
04:30 PM	0	140	1	141	9	42	0	51	0	0	0	0	2	0	15	17	209
04:45 PM	0	160	1	161	7	50	0	57	0	0	0	0	2	0	21	23	241
Total	0	435	5	440	32	168	0	200	0	0	0	0	6	0	63	69	709
05:00 PM	0	168	2	170	11	54	0	65	0	0	0	0	3	0	29	32	267
05:15 PM	0	120	1	121	10	53	0	63	0	0	0	0	3	0	34	37	221
05:30 PM	0	91	0	91	10	62	0	72	0	0	0	0	5	0	41	46	209
05:45 PM	0	59	1	60	9	48	0	57	0	0	0	0	2	0	15	17	134
Total	0	438	4	442	40	217	0	257	0	0	0	0	13	0	119	132	831
Grand Total	0	1066	31	1097	151	704	0	855	0	0	0	0	28	0	256	284	2236
Apprch %	0	97.2	2.8		17.7	82.3	0		0	0	0		9.9	0	90.1		
Total %	0	47.7	1.4	49.1	6.8	31.5	0	38.2	0	0	0	0	1.3	0	11.4	12.7	

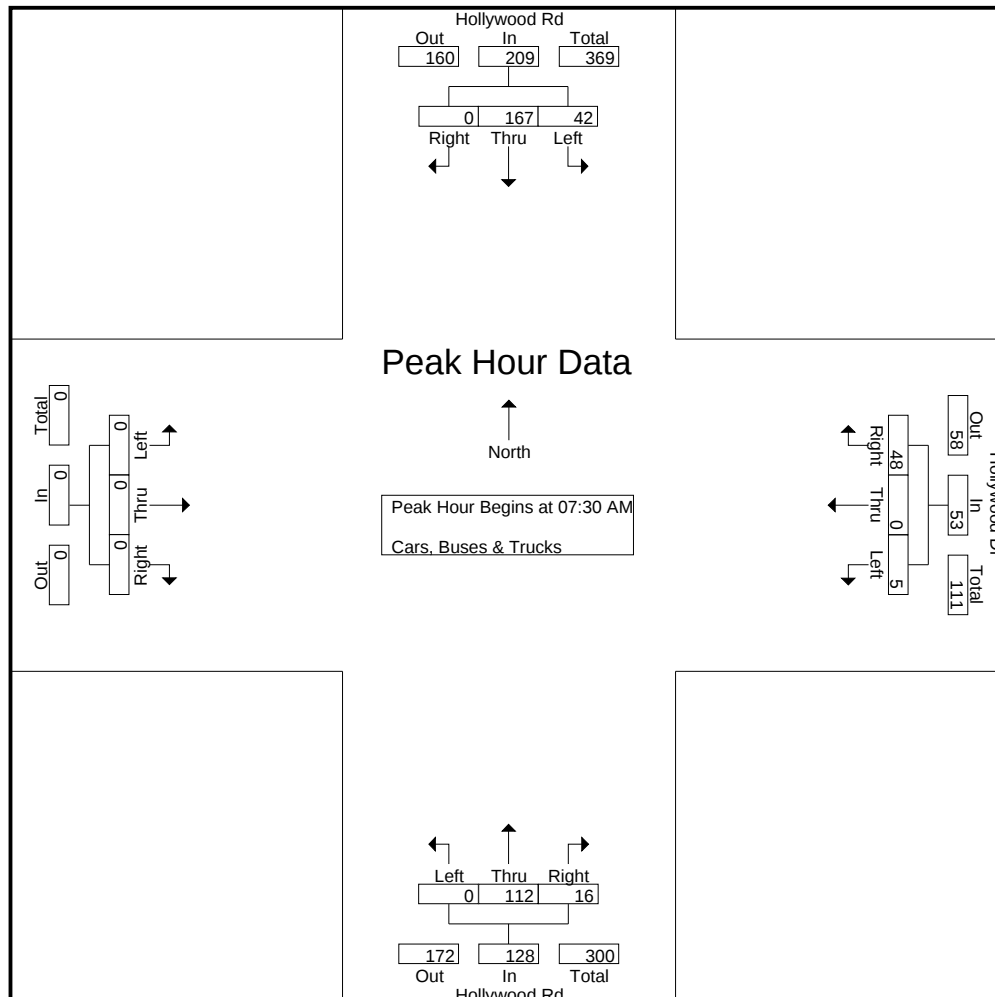
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230191
Site Code : 20230191
Start Date : 5/16/2023
Page No : 2

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	25	8	33	18	31	0	49	0	0	0	0	2	0	19	21	103
07:45 AM	0	24	3	27	7	46	0	53	0	0	0	0	1	0	10	11	91
08:00 AM	0	36	2	38	8	41	0	49	0	0	0	0	1	0	9	10	97
08:15 AM	0	27	3	30	9	49	0	58	0	0	0	0	1	0	10	11	99
Total Volume	0	112	16	128	42	167	0	209	0	0	0	0	5	0	48	53	390
% App. Total	0	87.5	12.5		20.1	79.9	0		0	0	0		9.4	0	90.6		
PHF	.000	.778	.500	.842	.583	.852	.000	.901	.000	.000	.000	.000	.625	.000	.632	.631	.947



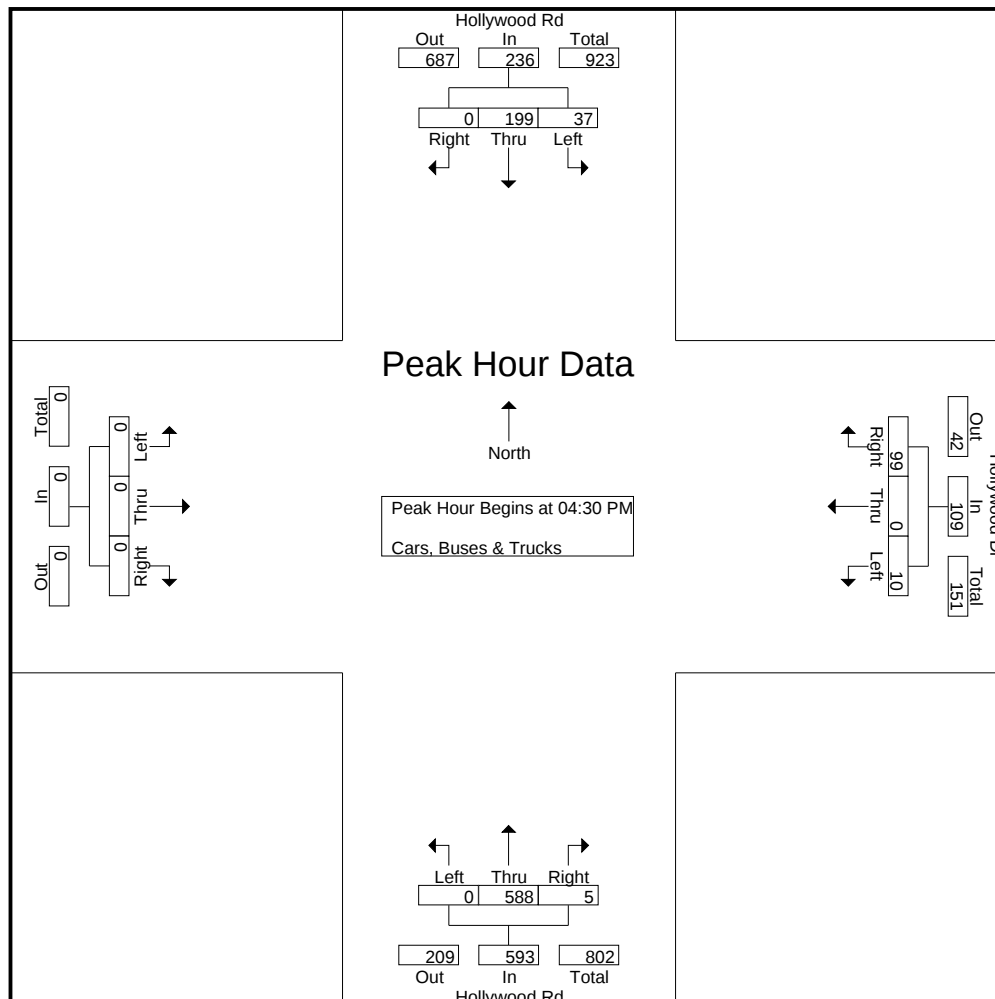
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230191
Site Code : 20230191
Start Date : 5/16/2023
Page No : 3

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	140	1	141	9	42	0	51	0	0	0	0	2	0	15	17	209
04:45 PM	0	160	1	161	7	50	0	57	0	0	0	0	2	0	21	23	241
05:00 PM	0	168	2	170	11	54	0	65	0	0	0	0	3	0	29	32	267
05:15 PM	0	120	1	121	10	53	0	63	0	0	0	0	3	0	34	37	221
Total Volume	0	588	5	593	37	199	0	236	0	0	0	0	10	0	99	109	938
% App. Total	0	99.2	0.8		15.7	84.3	0		0	0	0		9.2	0	90.8		
PHF	.000	.875	.625	.872	.841	.921	.000	.908	.000	.000	.000	.000	.833	.000	.728	.736	.878



A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Milton Ave
7-9 am | 4-6 pm

File Name : 20230192
Site Code : 20230192
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Milton Ave Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	22	1	23	2	33	0	35	0	0	0	0	4	0	4	8	66
07:15 AM	0	29	2	31	1	44	0	45	0	0	0	0	5	0	4	9	85
07:30 AM	0	44	1	45	1	49	0	50	0	0	0	0	6	0	5	11	106
07:45 AM	0	34	2	36	1	53	0	54	0	0	0	0	7	0	5	12	102
Total	0	129	6	135	5	179	0	184	0	0	0	0	22	0	18	40	359
08:00 AM	0	45	2	47	1	49	0	50	0	0	0	0	5	0	4	9	106
08:15 AM	0	37	2	39	2	58	0	60	0	0	0	0	6	0	6	12	111
08:30 AM	0	24	2	26	2	65	0	67	0	0	0	0	7	0	5	12	105
08:45 AM	0	32	1	33	1	47	0	48	0	0	0	0	6	0	3	9	90
Total	0	138	7	145	6	219	0	225	0	0	0	0	24	0	18	42	412
*** BREAK ***																	
04:00 PM	0	52	3	55	4	48	0	52	0	0	0	0	2	0	1	3	110
04:15 PM	0	110	4	114	3	44	0	47	0	0	0	0	1	0	2	3	164
04:30 PM	0	155	3	158	2	51	0	53	0	0	0	0	3	0	1	4	215
04:45 PM	0	181	5	186	4	57	0	61	0	0	0	0	2	0	2	4	251
Total	0	498	15	513	13	200	0	213	0	0	0	0	8	0	6	14	740
05:00 PM	0	197	4	201	5	65	0	70	0	0	0	0	1	0	3	4	275
05:15 PM	0	154	3	157	4	63	0	67	0	0	0	0	2	0	2	4	228
05:30 PM	0	132	5	137	6	72	0	78	0	0	0	0	2	0	2	4	219
05:45 PM	0	74	4	78	4	57	0	61	0	0	0	0	3	0	1	4	143
Total	0	557	16	573	19	257	0	276	0	0	0	0	8	0	8	16	865
Grand Total	0	1322	44	1366	43	855	0	898	0	0	0	0	62	0	50	112	2376
Apprch %	0	96.8	3.2		4.8	95.2	0		0	0	0		55.4	0	44.6		
Total %	0	55.6	1.9	57.5	1.8	36	0	37.8	0	0	0	0	2.6	0	2.1	4.7	

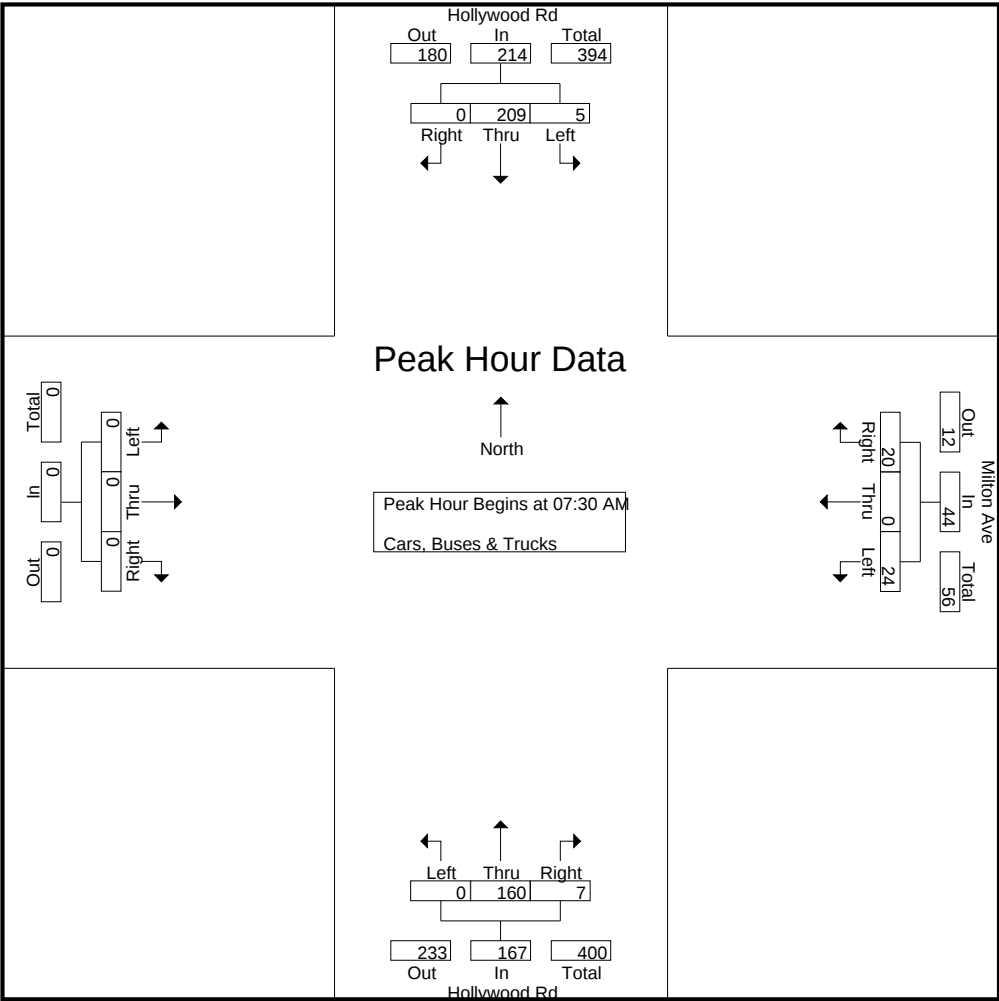
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Milton Ave
7-9 am | 4-6 pm

File Name : 20230192
Site Code : 20230192
Start Date : 05-16-2023
Page No : 2

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Milton Ave Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	44	1	45	1	49	0	50	0	0	0	0	6	0	5	11	106
07:45 AM	0	34	2	36	1	53	0	54	0	0	0	0	7	0	5	12	102
08:00 AM	0	45	2	47	1	49	0	50	0	0	0	0	5	0	4	9	106
08:15 AM	0	37	2	39	2	58	0	60	0	0	0	0	6	0	6	12	111
Total Volume	0	160	7	167	5	209	0	214	0	0	0	0	24	0	20	44	425
% App. Total	0	95.8	4.2		2.3	97.7	0		0	0	0		54.5	0	45.5		
PHF	.000	.889	.875	.888	.625	.901	.000	.892	.000	.000	.000	.000	.857	.000	.833	.917	.957



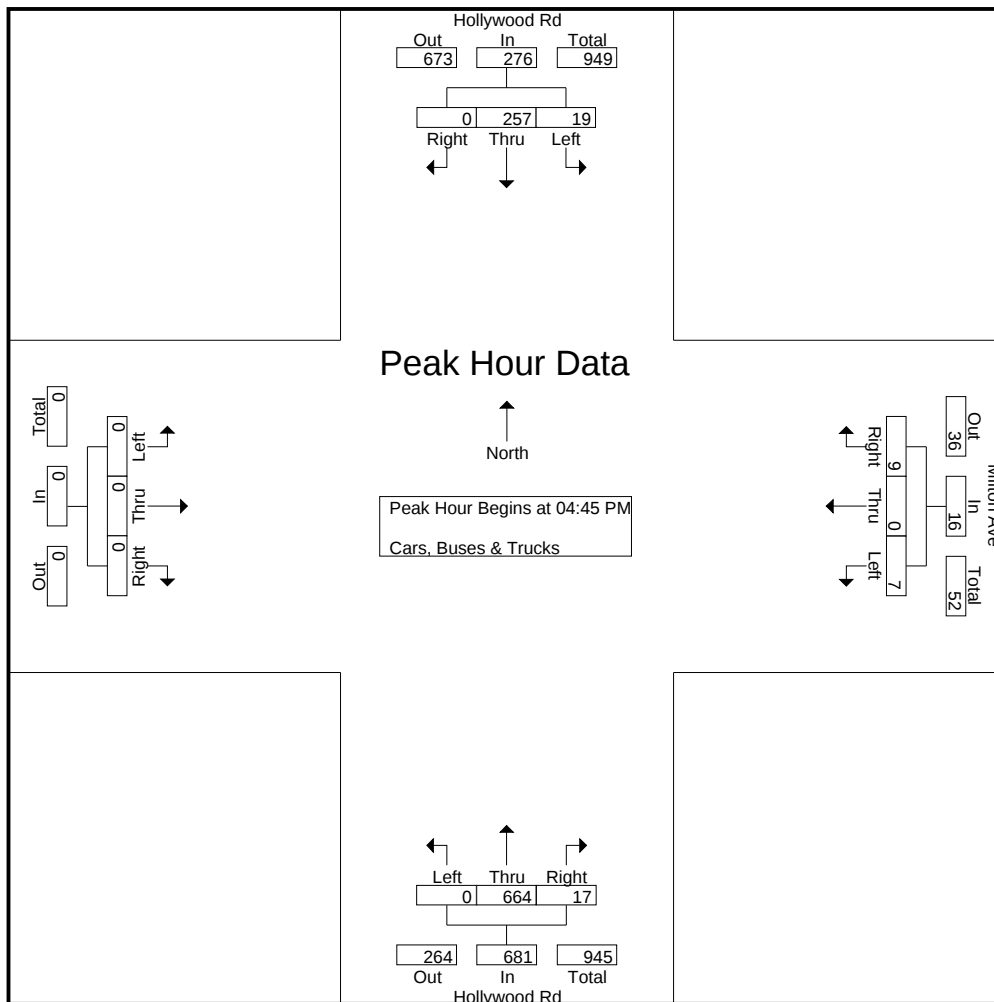
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Rd @ Milton Ave
7-9 am | 4-6 pm

File Name : 20230192
Site Code : 20230192
Start Date : 05-16-2023
Page No : 3

	Hollywood Rd Northbound				Hollywood Rd Southbound				Eastbound				Milton Ave Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	181	5	186	4	57	0	61	0	0	0	0	2	0	2	4	251
05:00 PM	0	197	4	201	5	65	0	70	0	0	0	0	1	0	3	4	275
05:15 PM	0	154	3	157	4	63	0	67	0	0	0	0	2	0	2	4	228
05:30 PM	0	132	5	137	6	72	0	78	0	0	0	0	2	0	2	4	219
Total Volume	0	664	17	681	19	257	0	276	0	0	0	0	7	0	9	16	973
% App. Total	0	97.5	2.5		6.9	93.1	0		0	0	0		43.8	0	56.2		
PHF	.000	.843	.850	.847	.792	.892	.000	.885	.000	.000	.000	.000	.875	.000	.750	1.00	.885



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Road @ N. Grand Avenue
7-9 am | 4-6 pm

File Name : 20230193
Site Code : 20230193
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Hollywood Rd Northbound				Hollywood Rd Southbound				N. Grand Ave Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	22	0	22	0	39	2	41	3	0	0	3	0	0	0	0	66
07:15 AM	5	31	0	36	0	45	3	48	2	0	3	5	0	0	0	0	89
07:30 AM	3	47	0	50	0	56	1	57	2	0	5	7	0	0	0	0	114
07:45 AM	4	32	0	36	0	50	2	52	1	0	2	3	0	0	0	0	91
Total	12	132	0	144	0	190	8	198	8	0	10	18	0	0	0	0	360
08:00 AM	0	44	0	44	0	59	3	62	4	0	3	7	0	0	0	0	113
08:15 AM	3	31	0	34	0	54	1	55	0	0	1	1	0	0	0	0	90
08:30 AM	0	19	0	19	0	64	1	65	2	0	0	2	0	0	0	0	86
08:45 AM	3	36	0	39	0	38	0	38	3	0	1	4	0	0	0	0	81
Total	6	130	0	136	0	215	5	220	9	0	5	14	0	0	0	0	370
*** BREAK ***																	
04:00 PM	7	57	0	64	0	36	0	36	0	0	3	3	0	0	0	0	103
04:15 PM	7	143	0	150	0	46	1	47	0	0	3	3	0	0	0	0	200
04:30 PM	5	165	0	170	0	59	2	61	7	0	5	12	0	0	0	0	243
04:45 PM	3	185	0	188	0	46	0	46	18	0	5	23	0	0	0	0	257
Total	22	550	0	572	0	187	3	190	25	0	16	41	0	0	0	0	803
05:00 PM	11	170	0	181	0	60	6	66	10	0	3	13	0	0	0	0	260
05:15 PM	12	133	0	145	0	59	0	59	5	0	4	9	0	0	0	0	213
05:30 PM	19	94	0	113	0	64	0	64	6	0	7	13	0	0	0	0	190
05:45 PM	6	72	0	78	0	63	0	63	3	0	6	9	0	0	0	0	150
Total	48	469	0	517	0	246	6	252	24	0	20	44	0	0	0	0	813
Grand Total	88	1281	0	1369	0	838	22	860	66	0	51	117	0	0	0	0	2346
Apprch %	6.4	93.6	0		0	97.4	2.6		56.4	0	43.6		0	0	0		
Total %	3.8	54.6	0	58.4	0	35.7	0.9	36.7	2.8	0	2.2	5	0	0	0	0	

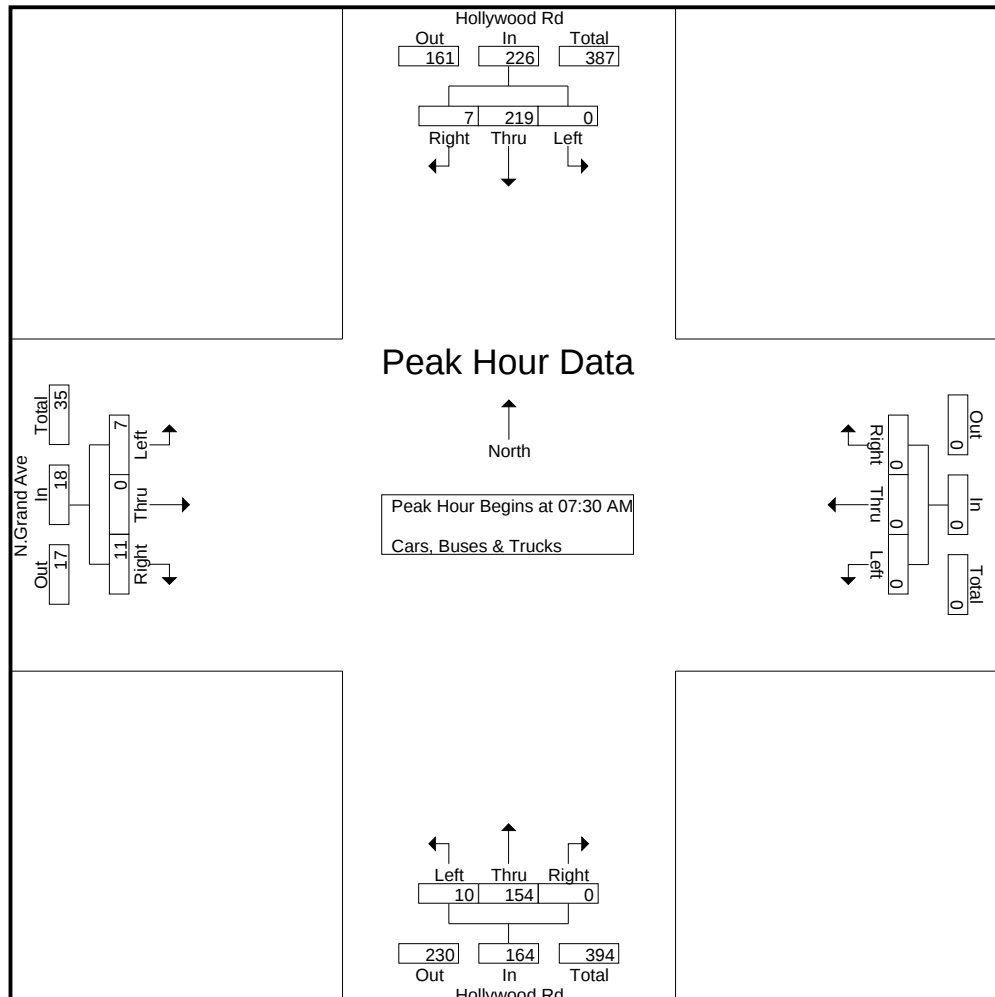
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Road @ N. Grand Avenue
7-9 am | 4-6 pm

File Name : 20230193
Site Code : 20230193
Start Date : 05-16-2023
Page No : 2

	Hollywood Rd Northbound				Hollywood Rd Southbound				N. Grand Ave Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	3	47	0	50	0	56	1	57	2	0	5	7	0	0	0	0	114
07:45 AM	4	32	0	36	0	50	2	52	1	0	2	3	0	0	0	0	91
08:00 AM	0	44	0	44	0	59	3	62	4	0	3	7	0	0	0	0	113
08:15 AM	3	31	0	34	0	54	1	55	0	0	1	1	0	0	0	0	90
Total Volume	10	154	0	164	0	219	7	226	7	0	11	18	0	0	0	0	408
% App. Total	6.1	93.9	0		0	96.9	3.1		38.9	0	61.1		0	0	0		
PHF	.625	.819	.000	.820	.000	.928	.583	.911	.438	.000	.550	.643	.000	.000	.000	.000	.895



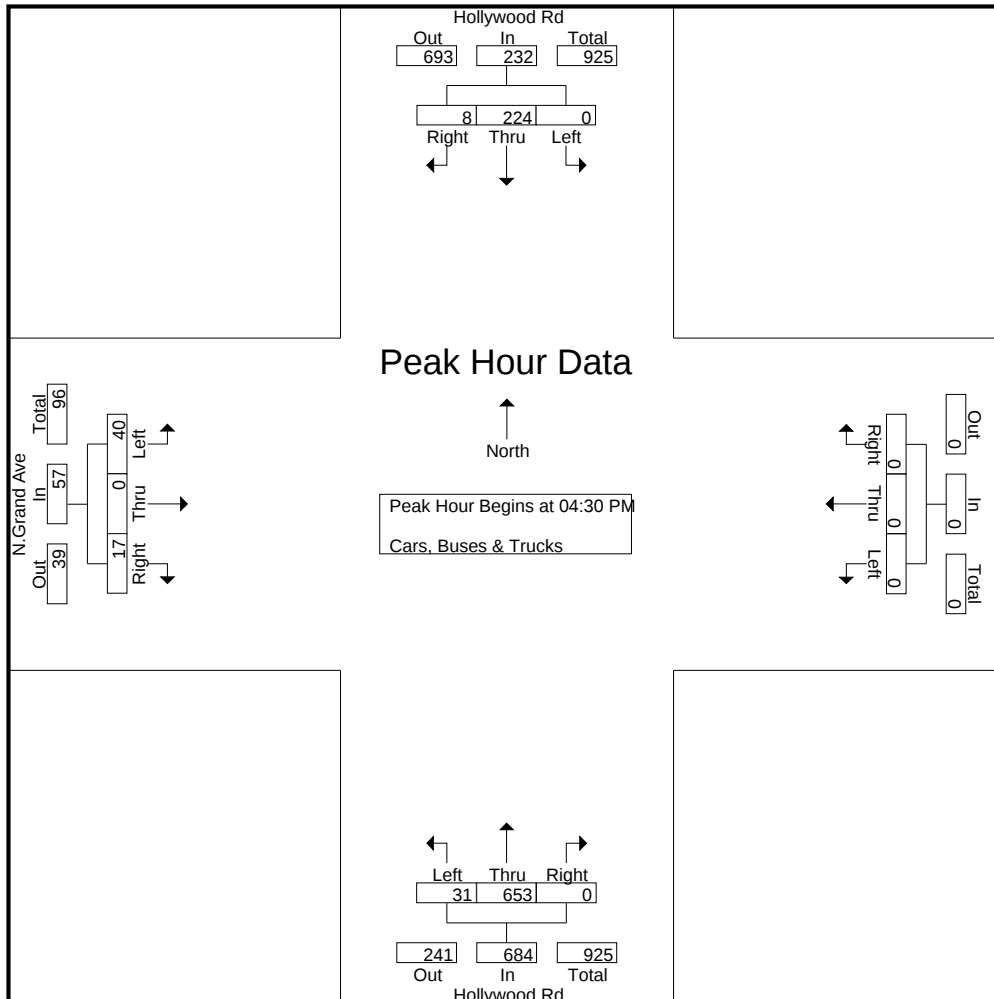
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Hollywood Road @ N. Grand Avenue
7-9 am | 4-6 pm

File Name : 20230193
Site Code : 20230193
Start Date : 05-16-2023
Page No : 3

	Hollywood Rd Northbound				Hollywood Rd Southbound				N. Grand Ave Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	5	165	0	170	0	59	2	61	7	0	5	12	0	0	0	0	243
04:45 PM	3	185	0	188	0	46	0	46	18	0	5	23	0	0	0	0	257
05:00 PM	11	170	0	181	0	60	6	66	10	0	3	13	0	0	0	0	260
05:15 PM	12	133	0	145	0	59	0	59	5	0	4	9	0	0	0	0	213
Total Volume	31	653	0	684	0	224	8	232	40	0	17	57	0	0	0	0	973
% App. Total	4.5	95.5	0		0	96.6	3.4		70.2	0	29.8		0	0	0		
PHF	.646	.882	.000	.910	.000	.933	.333	.879	.556	.000	.850	.620	.000	.000	.000	.000	.936



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Gun Club Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230194
Site Code : 20230194
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Gun Club Rd Northbound				Gun Club Rd Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	0	1	1	1	0	2	1	14	0	15	0	4	0	4	22
07:15 AM	0	3	0	3	1	2	1	4	0	13	1	14	3	11	0	14	35
07:30 AM	0	0	0	0	1	2	1	4	0	26	0	26	1	20	0	21	51
07:45 AM	0	1	1	2	0	4	1	5	0	10	0	10	1	10	0	11	28
Total	0	5	1	6	3	9	3	15	1	63	1	65	5	45	0	50	136
08:00 AM	0	1	0	1	1	2	0	3	0	10	0	10	0	10	0	10	24
08:15 AM	0	2	0	2	0	2	0	2	0	12	0	12	0	11	0	11	27
08:30 AM	0	4	0	4	1	2	1	4	0	7	0	7	1	3	0	4	19
08:45 AM	0	1	0	1	0	4	0	4	1	6	0	7	1	10	0	11	23
Total	0	8	0	8	2	10	1	13	1	35	0	36	2	34	0	36	93
*** BREAK ***																	
04:00 PM	0	1	0	1	1	1	0	2	1	4	0	5	3	10	1	14	22
04:15 PM	1	5	0	6	1	1	1	3	2	11	0	13	1	17	1	19	41
04:30 PM	0	4	1	5	2	2	0	4	0	10	0	10	0	17	1	18	37
04:45 PM	1	1	1	3	1	3	0	4	1	7	0	8	1	22	1	24	39
Total	2	11	2	15	5	7	1	13	4	32	0	36	5	66	4	75	139
05:00 PM	1	4	0	5	1	4	1	6	3	10	0	13	0	29	4	33	57
05:15 PM	0	5	1	6	0	1	4	5	1	10	0	11	2	33	1	36	58
05:30 PM	0	2	0	2	2	4	4	10	1	9	0	10	2	42	0	44	66
05:45 PM	0	2	0	2	3	2	3	8	0	10	0	10	1	14	1	16	36
Total	1	13	1	15	6	11	12	29	5	39	0	44	5	118	6	129	217
Grand Total	3	37	4	44	16	37	17	70	11	169	1	181	17	263	10	290	585
Apprch %	6.8	84.1	9.1		22.9	52.9	24.3		6.1	93.4	0.6		5.9	90.7	3.4		
Total %	0.5	6.3	0.7	7.5	2.7	6.3	2.9	12	1.9	28.9	0.2	30.9	2.9	45	1.7	49.6	

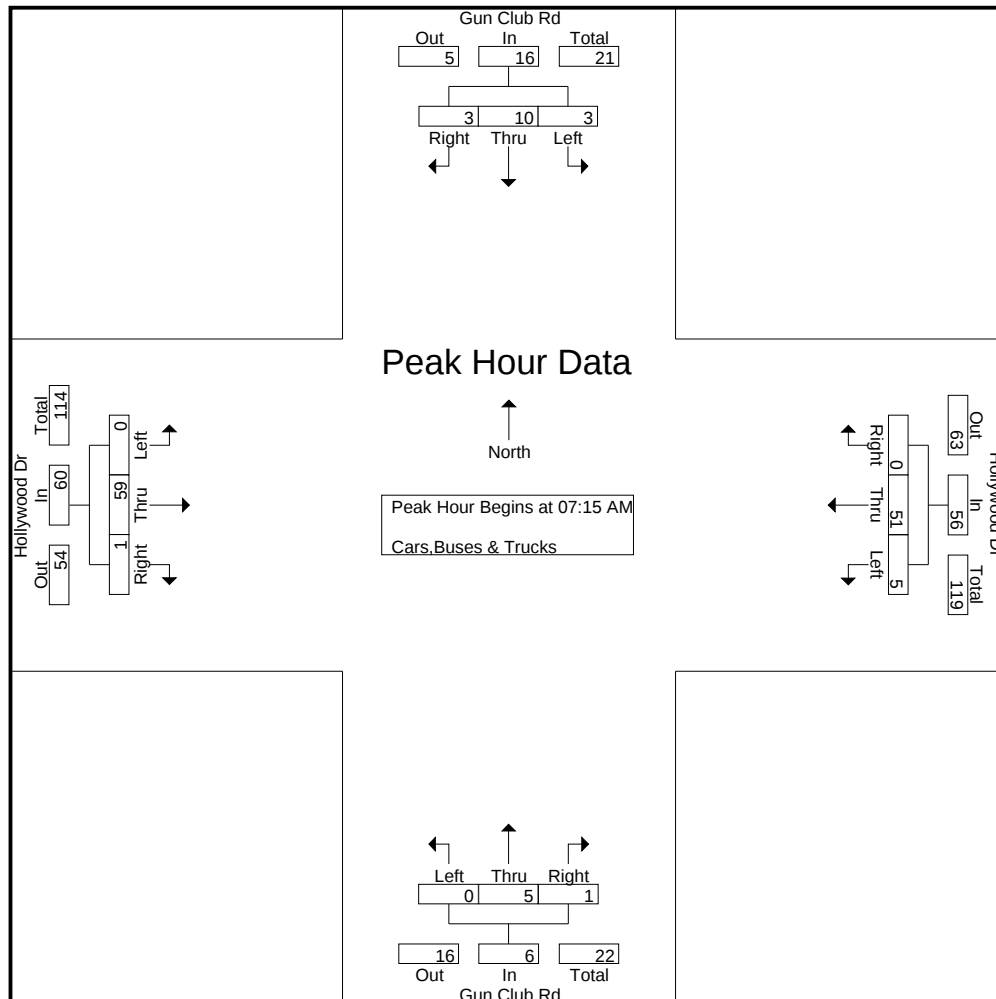
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Gun Club Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230194
Site Code : 20230194
Start Date : 5/16/2023
Page No : 2

	Gun Club Rd Northbound				Gun Club Rd Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	3	0	3	1	2	1	4	0	13	1	14	3	11	0	14	35
07:30 AM	0	0	0	0	1	2	1	4	0	26	0	26	1	20	0	21	51
07:45 AM	0	1	1	2	0	4	1	5	0	10	0	10	1	10	0	11	28
08:00 AM	0	1	0	1	1	2	0	3	0	10	0	10	0	10	0	10	24
Total Volume	0	5	1	6	3	10	3	16	0	59	1	60	5	51	0	56	138
% App. Total	0	83.3	16.7		18.8	62.5	18.8		0	98.3	1.7		8.9	91.1	0		
PHF	.000	.417	.250	.500	.750	.625	.750	.800	.000	.567	.250	.577	.417	.638	.000	.667	.676



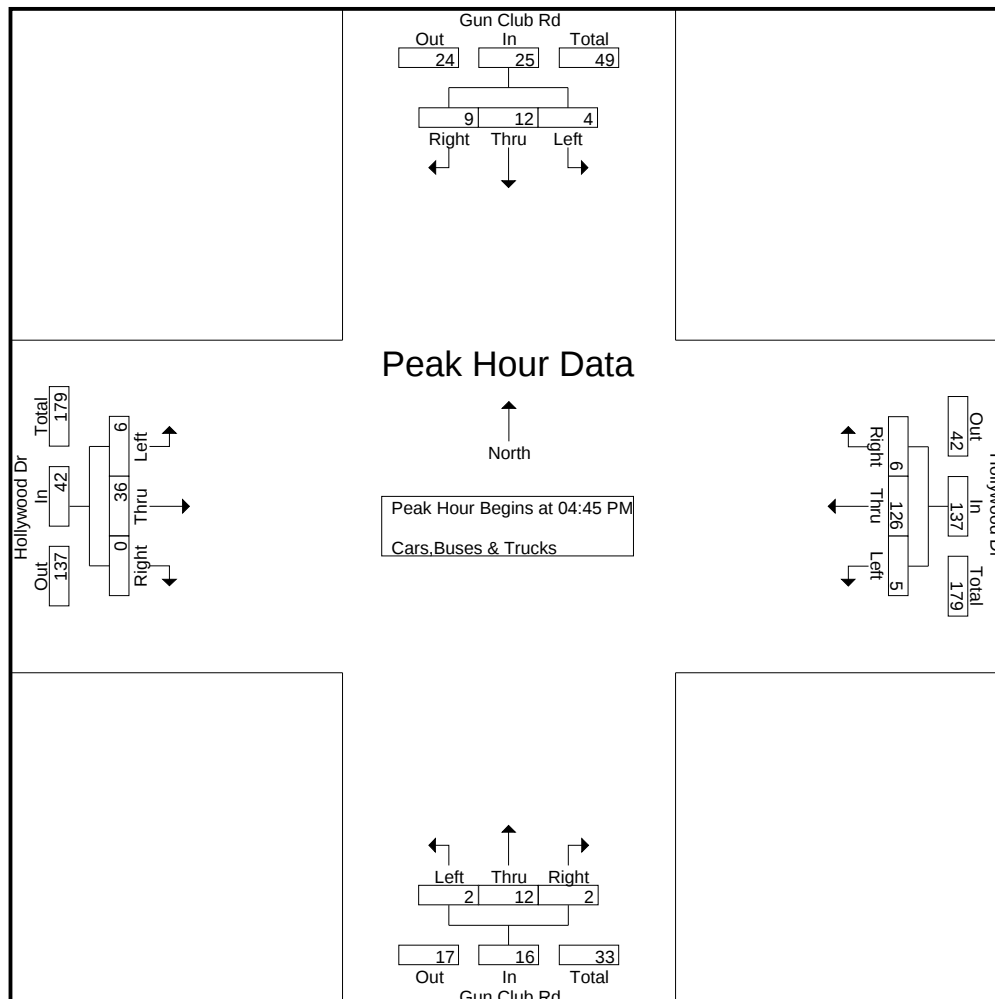
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Gun Club Rd @ Hollywood Dr
7-9 am | 4-6 pm

File Name : 20230194
Site Code : 20230194
Start Date : 5/16/2023
Page No : 3

	Gun Club Rd Northbound				Gun Club Rd Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	1	1	1	3	1	3	0	4	1	7	0	8	1	22	1	24	39
05:00 PM	1	4	0	5	1	4	1	6	3	10	0	13	0	29	4	33	57
05:15 PM	0	5	1	6	0	1	4	5	1	10	0	11	2	33	1	36	58
05:30 PM	0	2	0	2	2	4	4	10	1	9	0	10	2	42	0	44	66
Total Volume	2	12	2	16	4	12	9	25	6	36	0	42	5	126	6	137	220
% App. Total	12.5	75	12.5		16	48	36		14.3	85.7	0		3.6	92	4.4		
PHF	.500	.600	.500	.667	.500	.750	.563	.625	.500	.900	.000	.808	.625	.750	.375	.778	.833



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Dr @ Cato St
7-9 am | 4-6 pm

File Name : 20230195
Site Code : 20230195
Start Date : 5/16/2023
Page No : 1

Groups Printed- Cars,Buses & Trucks

	Cato St Northbound				Cato St Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	2	0	2	0	2	0	2	1	19	0	20	0	12	0	12	36
07:15 AM	0	2	1	3	0	2	1	3	1	21	1	23	1	19	1	21	50
07:30 AM	1	4	0	5	0	2	0	2	1	18	1	20	1	17	1	19	46
07:45 AM	0	2	1	3	1	3	0	4	0	13	0	13	0	11	0	11	31
Total	1	10	2	13	1	9	1	11	3	71	2	76	2	59	2	63	163
08:00 AM	0	3	0	3	1	4	1	6	0	13	1	14	0	9	0	9	32
08:15 AM	0	3	0	3	1	4	0	5	1	11	0	12	0	14	1	15	35
08:30 AM	1	4	1	6	0	3	0	3	1	8	0	9	1	7	1	9	27
08:45 AM	0	3	0	3	0	2	1	3	0	5	0	5	0	8	0	8	19
Total	1	13	1	15	2	13	2	17	2	37	1	40	1	38	2	41	113
*** BREAK ***																	
04:00 PM	1	5	1	7	1	3	0	4	1	3	0	4	1	9	2	12	27
04:15 PM	1	6	1	8	0	4	1	5	0	8	1	9	0	18	0	18	40
04:30 PM	1	4	0	5	1	2	0	3	1	12	1	14	1	13	1	15	37
04:45 PM	0	4	1	5	0	2	1	3	1	10	0	11	0	25	1	26	45
Total	3	19	3	25	2	11	2	15	3	33	2	38	2	65	4	71	149
05:00 PM	0	2	1	3	1	4	1	6	0	12	1	13	1	23	0	24	46
05:15 PM	1	4	1	6	0	2	0	2	1	7	0	8	0	30	1	31	47
05:30 PM	1	6	1	8	1	3	1	5	1	15	1	17	1	64	1	66	96
05:45 PM	1	4	1	6	0	3	0	3	1	6	0	7	0	28	0	28	44
Total	3	16	4	23	2	12	2	16	3	40	2	45	2	145	2	149	233
Grand Total	8	58	10	76	7	45	7	59	11	181	7	199	7	307	10	324	658
Apprch %	10.5	76.3	13.2		11.9	76.3	11.9		5.5	91	3.5		2.2	94.8	3.1		
Total %	1.2	8.8	1.5	11.6	1.1	6.8	1.1	9	1.7	27.5	1.1	30.2	1.1	46.7	1.5	49.2	

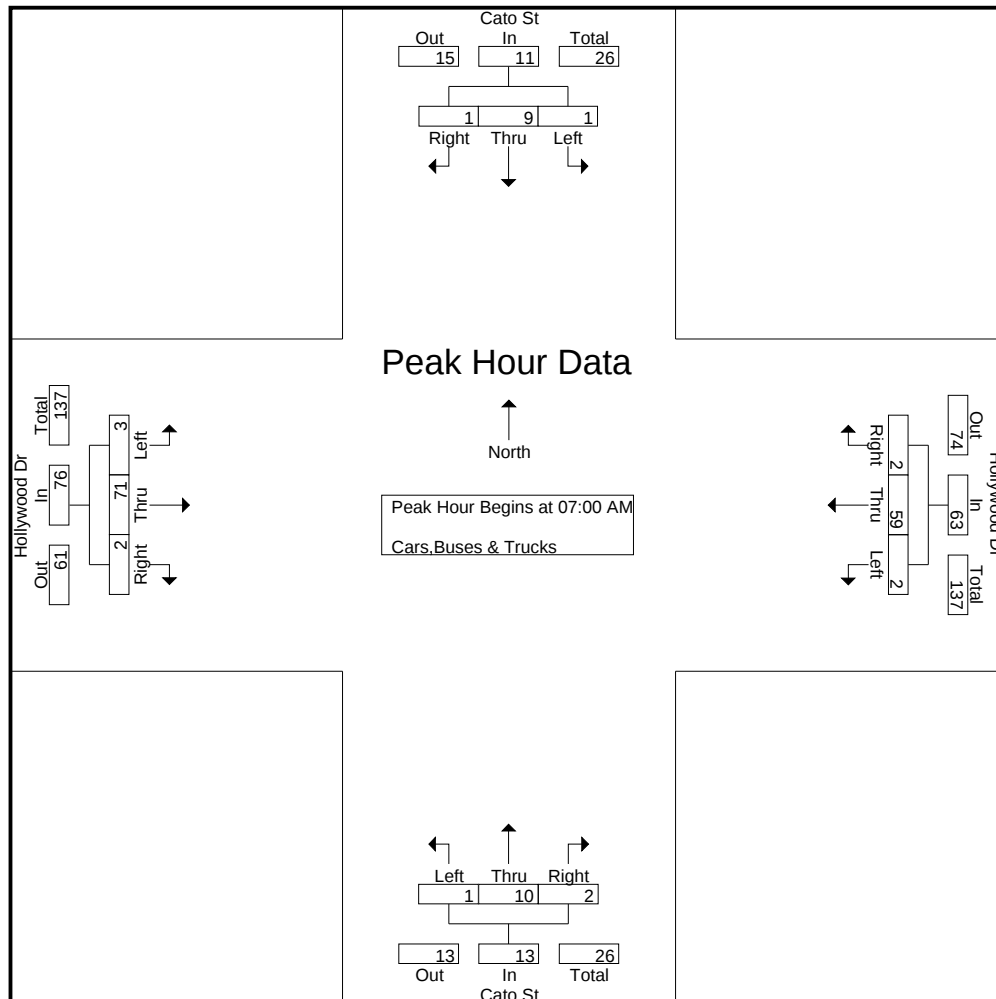
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Dr @ Cato St
7-9 am | 4-6 pm

File Name : 20230195
Site Code : 20230195
Start Date : 5/16/2023
Page No : 2

	Cato St Northbound				Cato St Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	2	0	2	0	2	0	2	1	19	0	20	0	12	0	12	36
07:15 AM	0	2	1	3	0	2	1	3	1	21	1	23	1	19	1	21	50
07:30 AM	1	4	0	5	0	2	0	2	1	18	1	20	1	17	1	19	46
07:45 AM	0	2	1	3	1	3	0	4	0	13	0	13	0	11	0	11	31
Total Volume	1	10	2	13	1	9	1	11	3	71	2	76	2	59	2	63	163
% App. Total	7.7	76.9	15.4		9.1	81.8	9.1		3.9	93.4	2.6		3.2	93.7	3.2		
PHF	.250	.625	.500	.650	.250	.750	.250	.688	.750	.845	.500	.826	.500	.776	.500	.750	.815



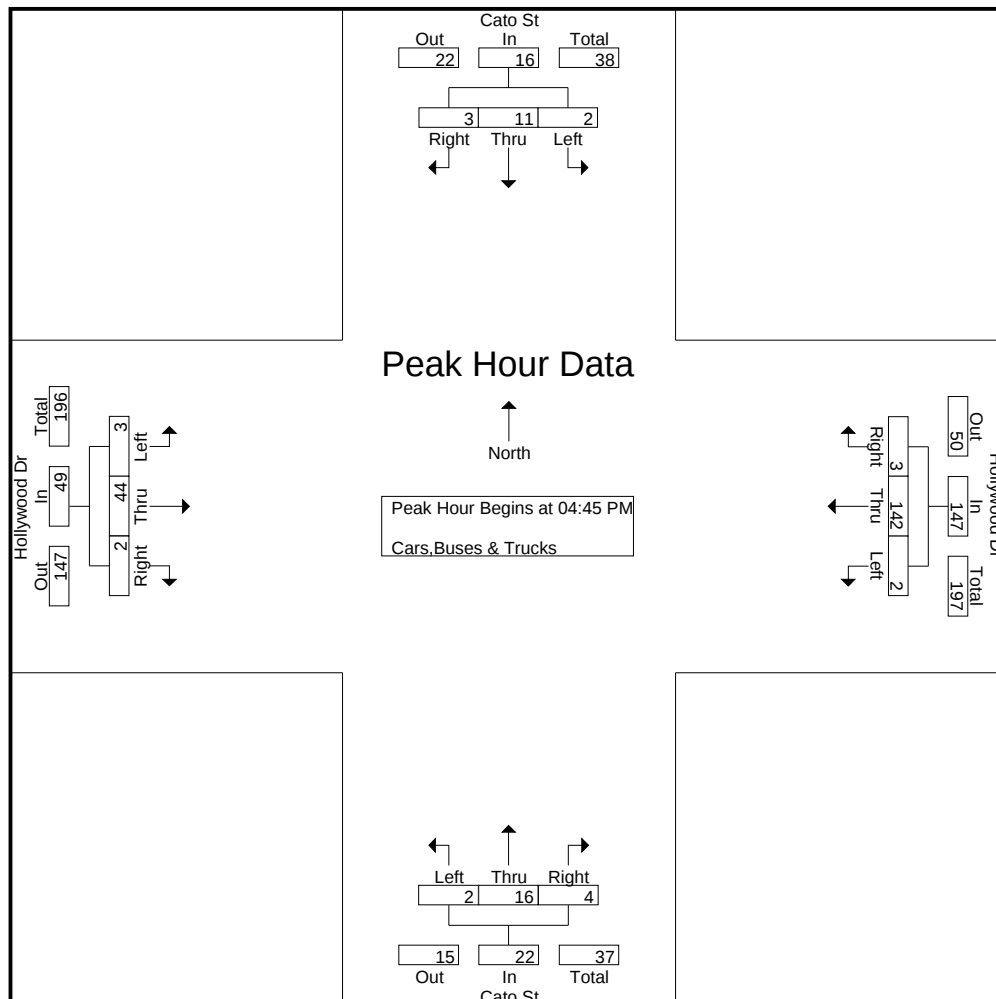
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
Hollywood Dr @ Cato St
7-9 am | 4-6 pm

File Name : 20230195
Site Code : 20230195
Start Date : 5/16/2023
Page No : 3

	Cato St Northbound				Cato St Southbound				Hollywood Dr Eastbound				Hollywood Dr Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	4	1	5	0	2	1	3	1	10	0	11	0	25	1	26	45
05:00 PM	0	2	1	3	1	4	1	6	0	12	1	13	1	23	0	24	46
05:15 PM	1	4	1	6	0	2	0	2	1	7	0	8	0	30	1	31	47
05:30 PM	1	6	1	8	1	3	1	5	1	15	1	17	1	64	1	66	96
Total Volume	2	16	4	22	2	11	3	16	3	44	2	49	2	142	3	147	234
% App. Total	9.1	72.7	18.2		12.5	68.8	18.8		6.1	89.8	4.1		1.4	96.6	2		
PHF	.500	.667	1.00	.688	.500	.688	.750	.667	.750	.733	.500	.721	.500	.555	.750	.557	.609



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Hollywood Drive
7-9 am | 4-6 pm

File Name : 20230196
Site Code : 20230196
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Johnson Rd Northbound				Johnson Rd Southbound				Hollywood Dr Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	2	35	0	37	0	23	10	33	19	0	0	19	0	0	0	0	89
07:15 AM	0	30	0	30	0	15	19	34	21	0	0	21	0	0	0	0	85
07:30 AM	1	15	0	16	0	24	16	40	18	0	0	18	0	0	0	0	74
07:45 AM	2	29	0	31	0	16	9	25	13	0	0	13	0	0	0	0	69
Total	5	109	0	114	0	78	54	132	71	0	0	71	0	0	0	0	317
08:00 AM	1	12	0	13	0	19	8	27	12	0	1	13	0	0	0	0	53
08:15 AM	0	18	0	18	0	15	14	29	11	0	0	11	0	0	0	0	58
08:30 AM	1	13	0	14	0	14	6	20	7	0	1	8	0	0	0	0	42
08:45 AM	1	14	0	15	0	11	7	18	4	0	1	5	0	0	0	0	38
Total	3	57	0	60	0	59	35	94	34	0	3	37	0	0	0	0	191
*** BREAK ***																	
04:00 PM	1	17	0	18	0	23	8	31	3	0	0	3	0	0	0	0	52
04:15 PM	4	21	0	25	0	28	14	42	6	0	2	8	0	0	0	0	75
04:30 PM	1	15	0	16	0	25	12	37	11	0	1	12	0	0	0	0	65
04:45 PM	2	25	0	27	0	47	23	70	9	0	1	10	0	0	0	0	107
Total	8	78	0	86	0	123	57	180	29	0	4	33	0	0	0	0	299
05:00 PM	1	12	0	13	0	35	22	57	11	0	1	12	0	0	0	0	82
05:15 PM	1	22	0	23	0	34	29	63	5	0	2	7	0	0	0	0	93
05:30 PM	2	14	0	16	0	39	62	101	14	0	1	15	0	0	0	0	132
05:45 PM	1	26	0	27	0	38	27	65	5	0	1	6	0	0	0	0	98
Total	5	74	0	79	0	146	140	286	35	0	5	40	0	0	0	0	405
Grand Total	21	318	0	339	0	406	286	692	169	0	12	181	0	0	0	0	1212
Apprch %	6.2	93.8	0		0	58.7	41.3		93.4	0	6.6		0	0	0		
Total %	1.7	26.2	0	28	0	33.5	23.6	57.1	13.9	0	1	14.9	0	0	0	0	

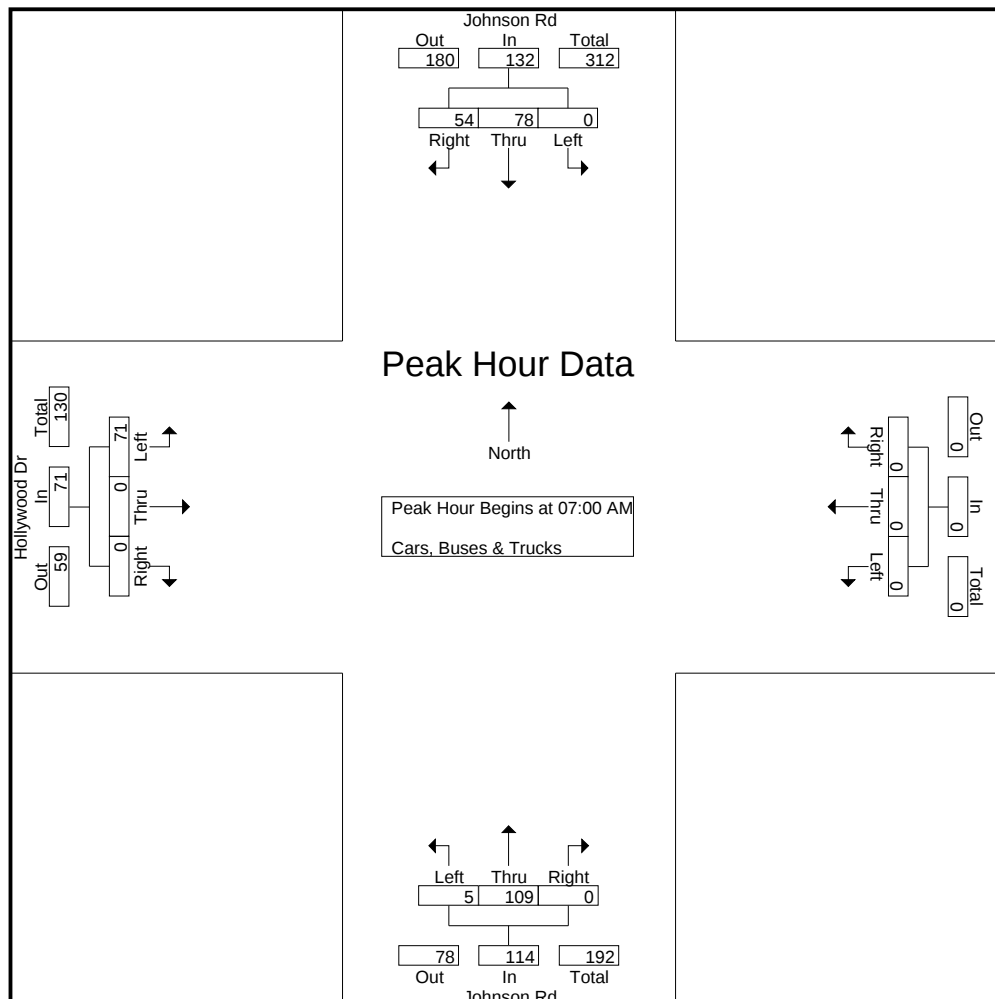
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Hollywood Drive
7-9 am | 4-6 pm

File Name : 20230196
Site Code : 20230196
Start Date : 05-16-2023
Page No : 2

	Johnson Rd Northbound				Johnson Rd Southbound				Hollywood Dr Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	2	35	0	37	0	23	10	33	19	0	0	19	0	0	0	0	89
07:15 AM	0	30	0	30	0	15	19	34	21	0	0	21	0	0	0	0	85
07:30 AM	1	15	0	16	0	24	16	40	18	0	0	18	0	0	0	0	74
07:45 AM	2	29	0	31	0	16	9	25	13	0	0	13	0	0	0	0	69
Total Volume	5	109	0	114	0	78	54	132	71	0	0	71	0	0	0	0	317
% App. Total	4.4	95.6	0		0	59.1	40.9		100	0	0		0	0	0		
PHF	.625	.779	.000	.770	.000	.813	.711	.825	.845	.000	.000	.845	.000	.000	.000	.000	.890



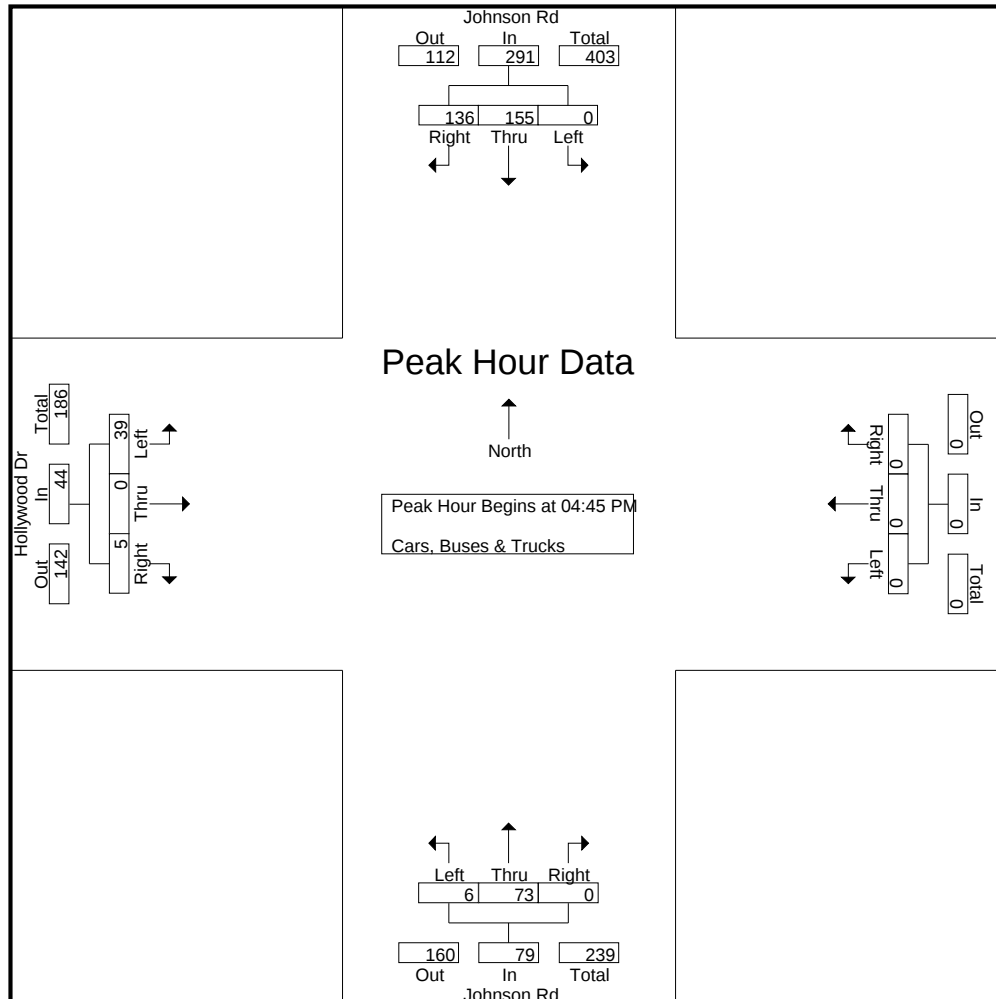
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Hollywood Drive
7-9 am | 4-6 pm

File Name : 20230196
Site Code : 20230196
Start Date : 05-16-2023
Page No : 3

	Johnson Rd Northbound				Johnson Rd Southbound				Hollywood Dr Eastbound				Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	2	25	0	27	0	47	23	70	9	0	1	10	0	0	0	0	107
05:00 PM	1	12	0	13	0	35	22	57	11	0	1	12	0	0	0	0	82
05:15 PM	1	22	0	23	0	34	29	63	5	0	2	7	0	0	0	0	93
05:30 PM	2	14	0	16	0	39	62	101	14	0	1	15	0	0	0	0	132
Total Volume	6	73	0	79	0	155	136	291	39	0	5	44	0	0	0	0	414
% App. Total	7.6	92.4	0		0	53.3	46.7		88.6	0	11.4		0	0	0		
PHF	.750	.730	.000	.731	.000	.824	.548	.720	.696	.000	.625	.733	.000	.000	.000	.000	.784



A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Mildred PI @ Sumlin Ave
7-9 am | 4-6 pm

File Name : 20230197
Site Code : 20230197
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Mildred PI Northbound				Mildred PI Southbound				Sumlin Ave Eastbound				Sumlin Ave Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	5	1	6	0	0	0	0	0	3	0	3	1	0	0	1	10
07:15 AM	0	2	0	2	0	1	0	1	0	3	0	3	0	2	0	2	8
07:30 AM	0	2	1	3	0	0	0	0	0	5	0	5	0	2	0	2	10
07:45 AM	0	1	0	1	0	2	0	2	0	3	0	3	1	0	0	1	7
Total	0	10	2	12	0	3	0	3	0	14	0	14	2	4	0	6	35
08:00 AM	0	4	0	4	0	2	0	2	0	3	0	3	0	2	0	2	11
08:15 AM	0	2	0	2	0	0	0	0	0	2	0	2	0	2	0	2	6
08:30 AM	0	3	1	4	0	2	0	2	0	1	0	1	0	0	0	0	7
08:45 AM	0	1	0	1	0	1	0	1	0	1	0	1	1	2	0	3	6
Total	0	10	1	11	0	5	0	5	0	7	0	7	1	6	0	7	30
*** BREAK ***																	
04:00 PM	0	5	0	5	0	6	0	6	0	3	0	3	0	5	0	5	19
04:15 PM	0	5	1	6	0	2	0	2	0	2	1	3	0	2	0	2	13
04:30 PM	0	8	0	8	0	3	0	3	0	1	0	1	0	7	0	7	19
04:45 PM	0	6	0	6	0	5	0	5	0	2	0	2	0	3	0	3	16
Total	0	24	1	25	0	16	0	16	0	8	1	9	0	17	0	17	67
05:00 PM	0	5	0	5	0	5	0	5	0	2	1	3	0	0	0	0	13
05:15 PM	0	7	1	8	0	4	0	4	0	3	0	3	0	1	0	1	16
05:30 PM	0	13	0	13	0	3	0	3	0	3	1	4	0	3	0	3	23
05:45 PM	0	5	0	5	0	7	0	7	0	1	0	1	0	3	0	3	16
Total	0	30	1	31	0	19	0	19	0	9	2	11	0	7	0	7	68
Grand Total	0	74	5	79	0	43	0	43	0	38	3	41	3	34	0	37	200
Apprch %	0	93.7	6.3		0	100	0		0	92.7	7.3		8.1	91.9	0		
Total %	0	37	2.5	39.5	0	21.5	0	21.5	0	19	1.5	20.5	1.5	17	0	18.5	

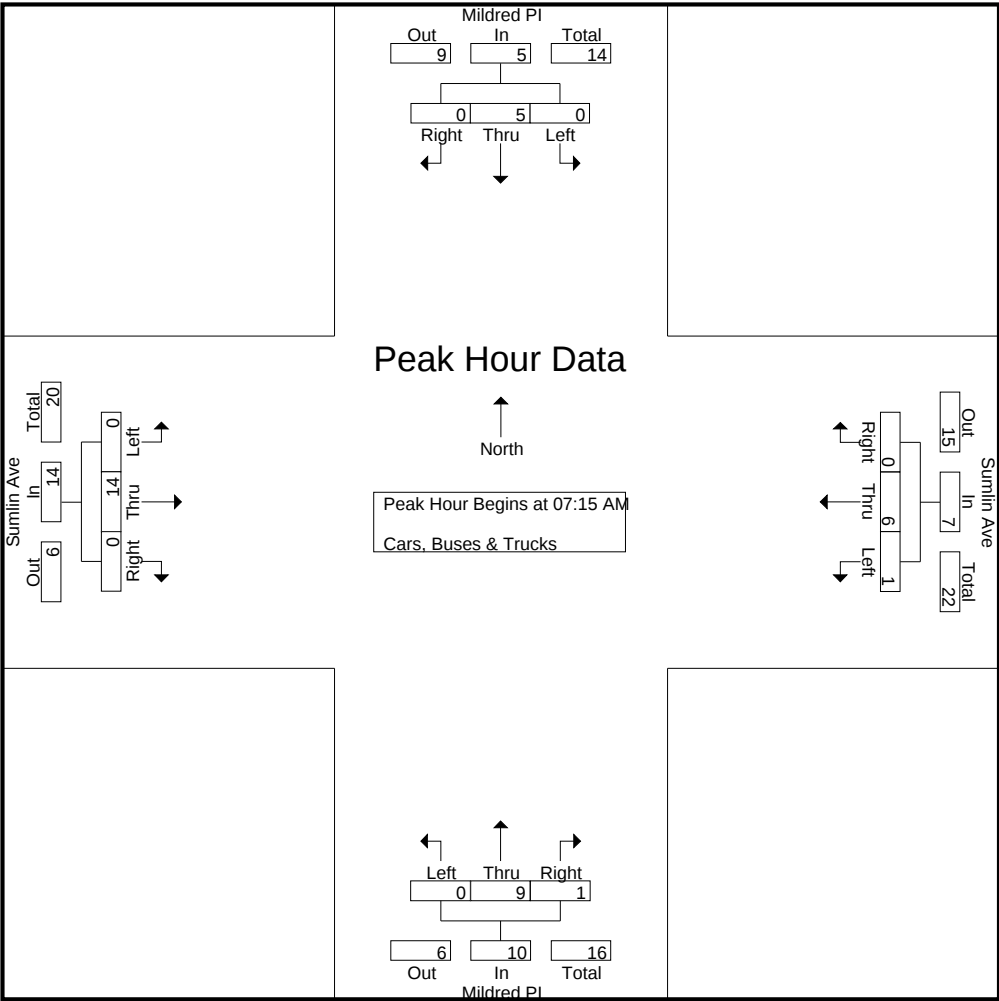
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Mildred PI @ Sumlin Ave
7-9 am | 4-6 pm

File Name : 20230197
Site Code : 20230197
Start Date : 05-16-2023
Page No : 2

	Mildred PI Northbound				Mildred PI Southbound				Sumlin Ave Eastbound				Sumlin Ave Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	2	0	2	0	1	0	1	0	3	0	3	0	2	0	2	8
07:30 AM	0	2	1	3	0	0	0	0	0	5	0	5	0	2	0	2	10
07:45 AM	0	1	0	1	0	2	0	2	0	3	0	3	1	0	0	1	7
08:00 AM	0	4	0	4	0	2	0	2	0	3	0	3	0	2	0	2	11
Total Volume	0	9	1	10	0	5	0	5	0	14	0	14	1	6	0	7	36
% App. Total	0	90	10		0	100	0		0	100	0		14.3	85.7	0		
PHF	.000	.563	.250	.625	.000	.625	.000	.625	.000	.700	.000	.700	.250	.750	.000	.875	.818



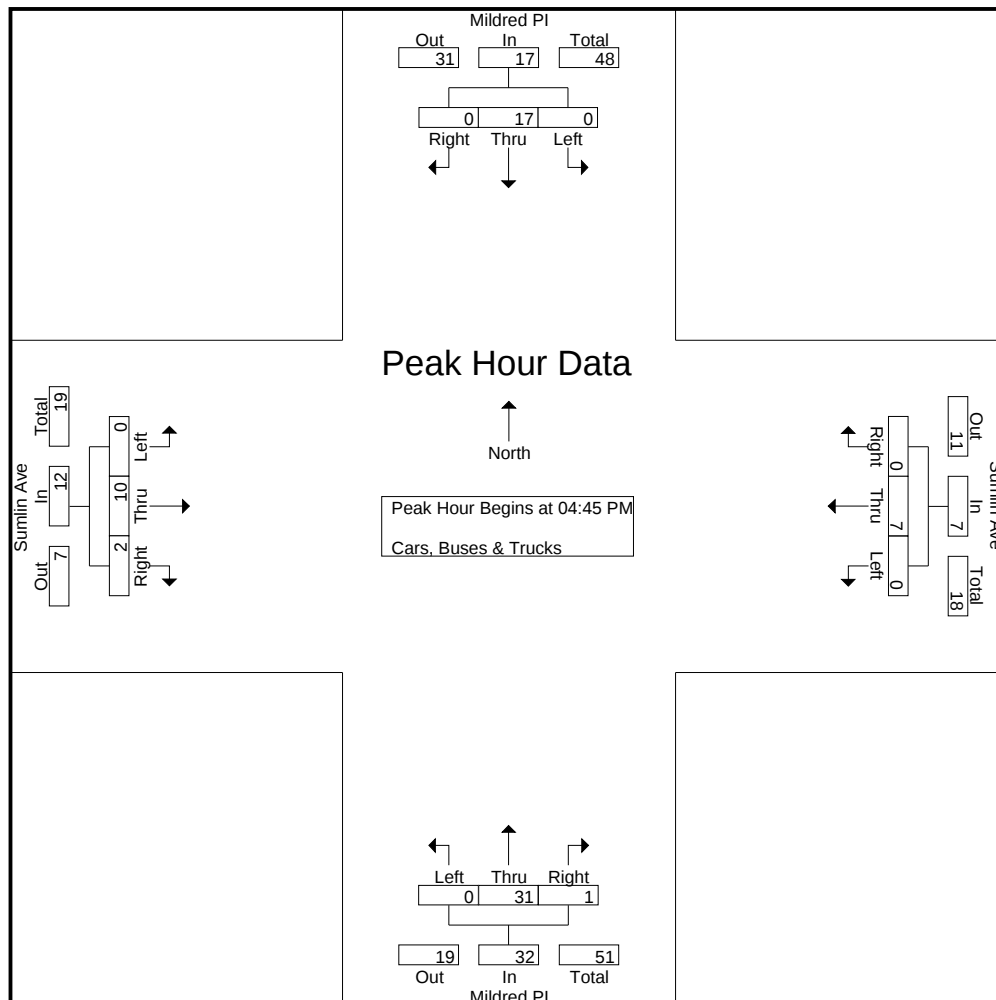
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Mildred PI @ Sumlin Ave
7-9 am | 4-6 pm

File Name : 20230197
Site Code : 20230197
Start Date : 05-16-2023
Page No : 3

	Mildred PI Northbound				Mildred PI Southbound				Sumlin Ave Eastbound				Sumlin Ave Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	6	0	6	0	5	0	5	0	2	0	2	0	3	0	3	16
05:00 PM	0	5	0	5	0	5	0	5	0	2	1	3	0	0	0	0	13
05:15 PM	0	7	1	8	0	4	0	4	0	3	0	3	0	1	0	1	16
05:30 PM	0	13	0	13	0	3	0	3	0	3	1	4	0	3	0	3	23
Total Volume	0	31	1	32	0	17	0	17	0	10	2	12	0	7	0	7	68
% App. Total	0	96.9	3.1		0	100	0		0	83.3	16.7		0	100	0		
PHF	.000	.596	.250	.615	.000	.850	.000	.850	.000	.833	.500	.750	.000	.583	.000	.583	.739



A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
US 78 /SR 9 (Donald Lee Hollowell Pkwy)
@ Wood St
7-9 am | 4-6 pm

File Name : 20230198
Site Code : 20230198
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

	Intrada Drwy Northbound				Wood Street Southbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	0	4	9	0	0	3	3	2	195	0	197	0	67	0	67	276
07:15 AM	3	0	2	5	0	0	5	5	2	267	0	269	2	86	0	88	367
07:30 AM	2	0	3	5	0	0	2	2	1	323	0	324	3	80	0	83	414
07:45 AM	4	0	7	11	1	0	2	3	0	310	0	310	0	117	0	117	441
Total	14	0	16	30	1	0	12	13	5	1095	0	1100	5	350	0	355	1498
08:00 AM	3	0	2	5	1	0	0	1	2	291	1	294	1	121	0	122	422
08:15 AM	0	0	2	2	2	0	0	2	0	302	0	302	2	98	1	101	407
08:30 AM	1	0	1	2	0	1	1	2	1	299	0	300	1	77	0	78	382
08:45 AM	2	1	1	4	0	0	4	4	1	270	0	271	2	101	0	103	382
Total	6	1	6	13	3	1	5	9	4	1162	1	1167	6	397	1	404	1593
*** BREAK ***																	
04:00 PM	4	0	4	8	0	0	10	10	3	128	1	132	4	260	0	264	414
04:15 PM	3	0	2	5	0	0	7	7	3	123	0	126	5	259	0	264	402
04:30 PM	3	0	5	8	1	0	4	5	2	115	0	117	4	276	0	280	410
04:45 PM	6	1	7	14	0	0	5	5	1	130	0	131	3	276	0	279	429
Total	16	1	18	35	1	0	26	27	9	496	1	506	16	1071	0	1087	1655
05:00 PM	2	0	7	9	0	0	2	2	1	140	0	141	6	257	2	265	417
05:15 PM	5	0	2	7	1	0	2	3	1	134	0	135	3	233	1	237	382
05:30 PM	6	0	5	11	1	0	5	6	3	144	0	147	5	255	0	260	424
05:45 PM	2	0	4	6	0	0	4	4	4	149	0	153	4	249	2	255	418
Total	15	0	18	33	2	0	13	15	9	567	0	576	18	994	5	1017	1641
Grand Total	51	2	58	111	7	1	56	64	27	3320	2	3349	45	2812	6	2863	6387
Apprch %	45.9	1.8	52.3		10.9	1.6	87.5		0.8	99.1	0.1		1.6	98.2	0.2		
Total %	0.8	0	0.9	1.7	0.1	0	0.9	1	0.4	52	0	52.4	0.7	44	0.1	44.8	

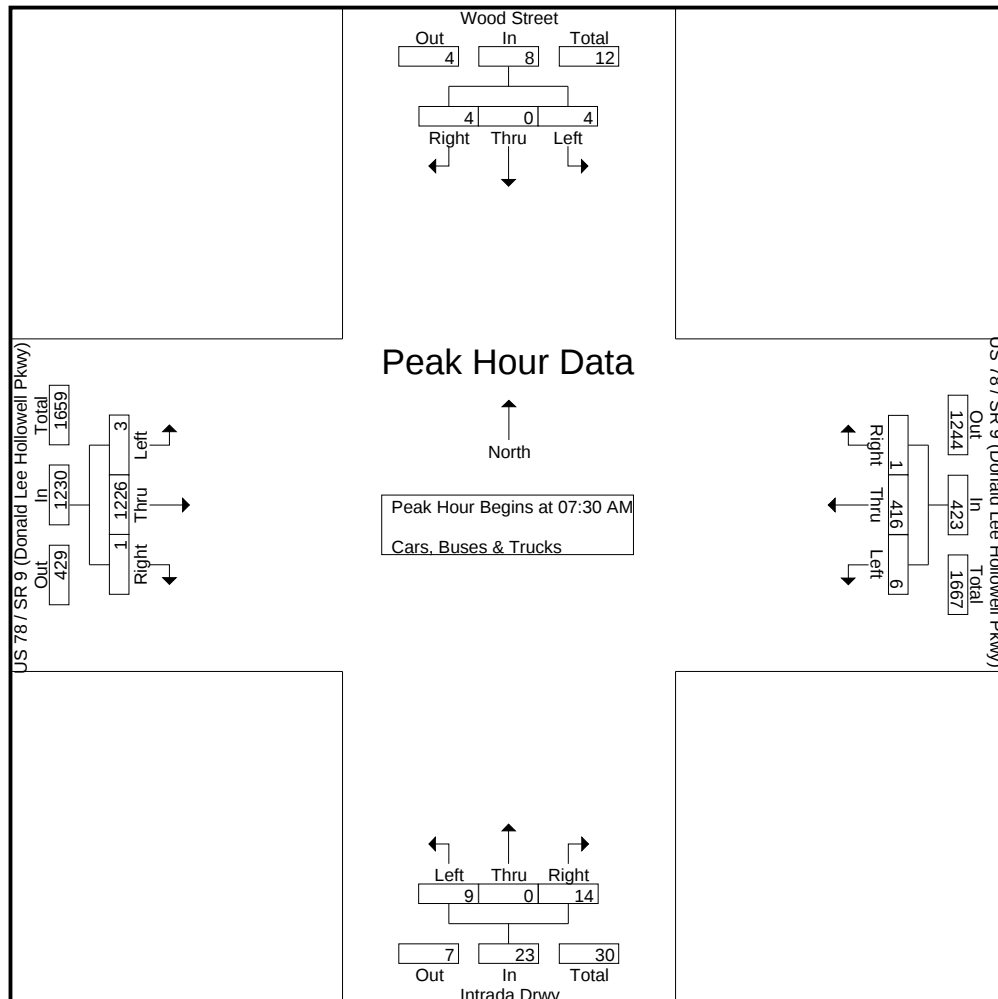
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
US 78 /SR 9 (Donald Lee Hollowell Pkwy)
@ Wood St
7-9 am | 4-6 pm

File Name : 20230198
Site Code : 20230198
Start Date : 05-16-2023
Page No : 2

	Intrada Drwy Northbound				Wood Street Southbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	2	0	3	5	0	0	2	2	1	323	0	324	3	80	0	83	414
07:45 AM	4	0	7	11	1	0	2	3	0	310	0	310	0	117	0	117	441
08:00 AM	3	0	2	5	1	0	0	1	2	291	1	294	1	121	0	122	422
08:15 AM	0	0	2	2	2	0	0	2	0	302	0	302	2	98	1	101	407
Total Volume	9	0	14	23	4	0	4	8	3	1226	1	1230	6	416	1	423	1684
% App. Total	39.1	0	60.9		50	0	50		0.2	99.7	0.1		1.4	98.3	0.2		
PHF	.563	.000	.500	.523	.500	.000	.500	.667	.375	.949	.250	.949	.500	.860	.250	.867	.955



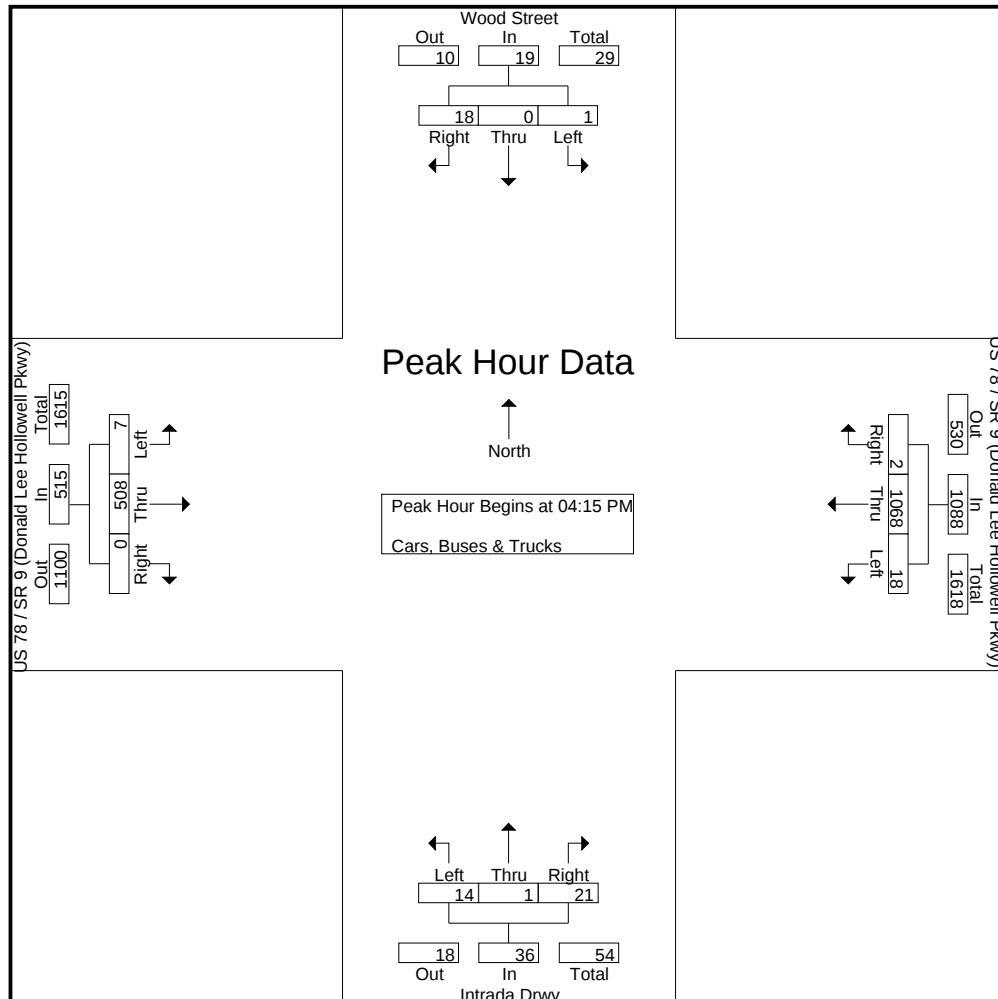
A & R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
US 78 /SR 9 (Donald Lee Hollowell Pkwy)
@ Wood St
7-9 am | 4-6 pm

File Name : 20230198
Site Code : 20230198
Start Date : 05-16-2023
Page No : 3

	Intrada Drwy Northbound				Wood Street Southbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 / SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	0	2	5	0	0	7	7	3	123	0	126	5	259	0	264	402
04:30 PM	3	0	5	8	1	0	4	5	2	115	0	117	4	276	0	280	410
04:45 PM	6	1	7	14	0	0	5	5	1	130	0	131	3	276	0	279	429
05:00 PM	2	0	7	9	0	0	2	2	1	140	0	141	6	257	2	265	417
Total Volume	14	1	21	36	1	0	18	19	7	508	0	515	18	1068	2	1088	1658
% App. Total	38.9	2.8	58.3		5.3	0	94.7		1.4	98.6	0		1.7	98.2	0.2		
PHF	.583	.250	.750	.643	.250	.000	.643	.679	.583	.907	.000	.913	.750	.967	.250	.971	.966



A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Eastern Driveway
7-9 am | 4-6 pm

File Name : 20230281
Site Code : 20230281
Start Date : 08-24-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Johnson Grove Northbound				Boyd ES Eastern Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	23	22	0	45	0	25	4	29	75
07:15 AM	0	0	0	0	0	0	0	0	14	34	0	48	0	40	4	44	92
07:30 AM	0	0	0	0	0	0	0	0	11	38	0	49	0	33	5	38	87
07:45 AM	0	0	0	0	0	0	0	0	15	50	0	65	0	31	11	42	107
Total	0	0	0	0	0	0	1	1	63	144	0	207	0	129	24	153	361
08:00 AM	0	0	1	1	0	0	0	0	11	29	0	40	0	33	4	37	78
08:15 AM	0	0	3	3	1	0	0	1	6	21	0	27	0	29	0	29	60
08:30 AM	1	0	1	2	0	0	0	0	1	39	0	40	1	19	2	22	64
08:45 AM	0	0	1	1	0	0	0	0	3	26	0	29	1	13	0	14	44
Total	1	0	6	7	1	0	0	1	21	115	0	136	2	94	6	102	246
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	0	0	1	35	0	36	0	50	0	50	86
04:15 PM	0	0	0	0	0	0	0	0	1	32	0	33	0	45	0	45	78
04:30 PM	0	0	0	0	0	0	0	0	1	36	0	37	1	58	0	59	96
04:45 PM	1	0	1	2	0	0	0	0	0	36	1	37	0	104	1	105	144
Total	1	0	1	2	0	0	0	0	3	139	1	143	1	257	1	259	404
05:00 PM	0	0	0	0	0	0	0	0	1	36	0	37	1	136	0	137	174
05:15 PM	2	0	0	2	0	0	0	0	3	33	1	37	2	151	1	154	193
05:30 PM	0	0	0	0	0	0	0	0	10	44	0	54	1	150	2	153	207
05:45 PM	0	0	1	1	0	0	0	0	12	52	0	64	0	150	4	154	219
Total	2	0	1	3	0	0	0	0	26	165	1	192	4	587	7	598	793
Grand Total	4	0	8	12	1	0	1	2	113	563	2	678	7	1067	38	1112	1804
Apprch %	33.3	0	66.7		50	0	50		16.7	83	0.3		0.6	96	3.4		
Total %	0.2	0	0.4	0.7	0.1	0	0.1	0.1	6.3	31.2	0.1	37.6	0.4	59.1	2.1	61.6	

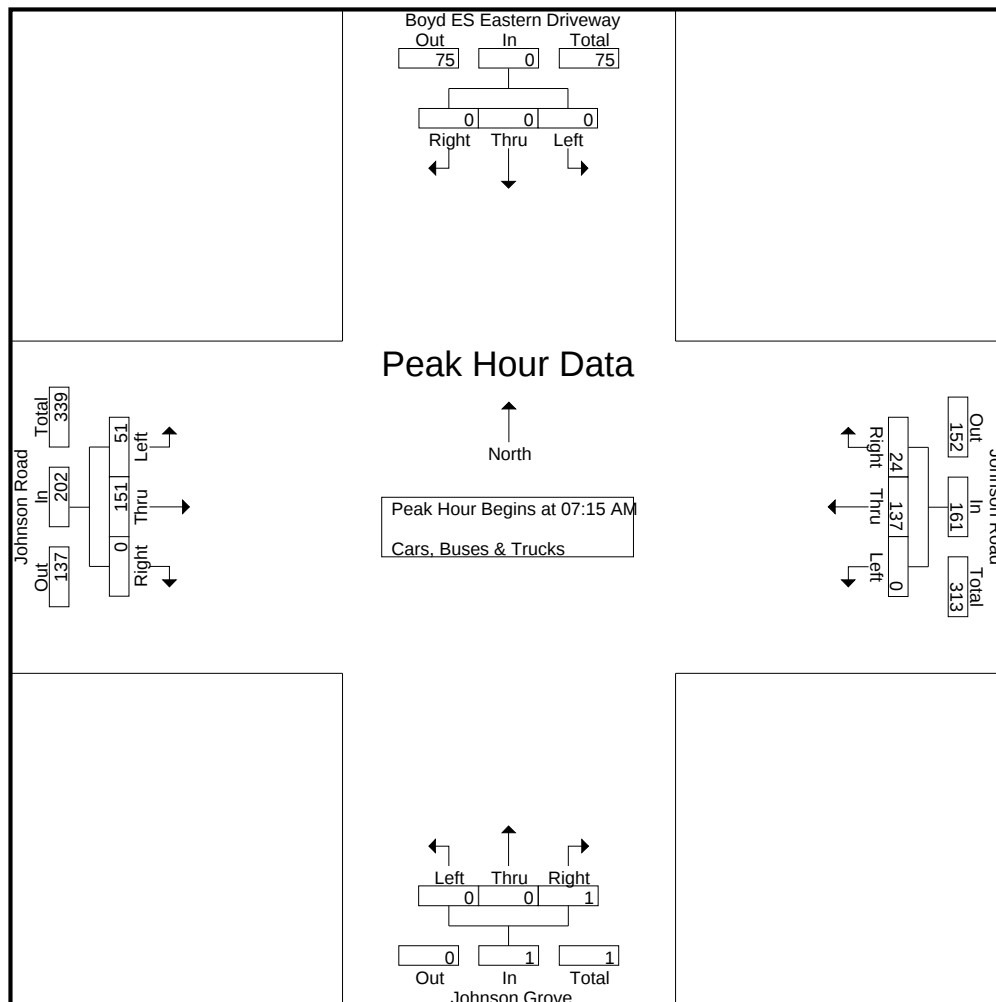
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Eastern Driveway
7-9 am | 4-6 pm

File Name : 20230281
Site Code : 20230281
Start Date : 08-24-2023
Page No : 2

	Johnson Grove Northbound				Boyd ES Eastern Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	0	0	14	34	0	48	0	40	4	44	92
07:30 AM	0	0	0	0	0	0	0	0	11	38	0	49	0	33	5	38	87
07:45 AM	0	0	0	0	0	0	0	0	15	50	0	65	0	31	11	42	107
08:00 AM	0	0	1	1	0	0	0	0	11	29	0	40	0	33	4	37	78
Total Volume	0	0	1	1	0	0	0	0	51	151	0	202	0	137	24	161	364
% App. Total	0	0	100		0	0	0		25.2	74.8	0		0	85.1	14.9		
PHF	.000	.000	.250	.250	.000	.000	.000	.000	.850	.755	.000	.777	.000	.856	.545	.915	.850



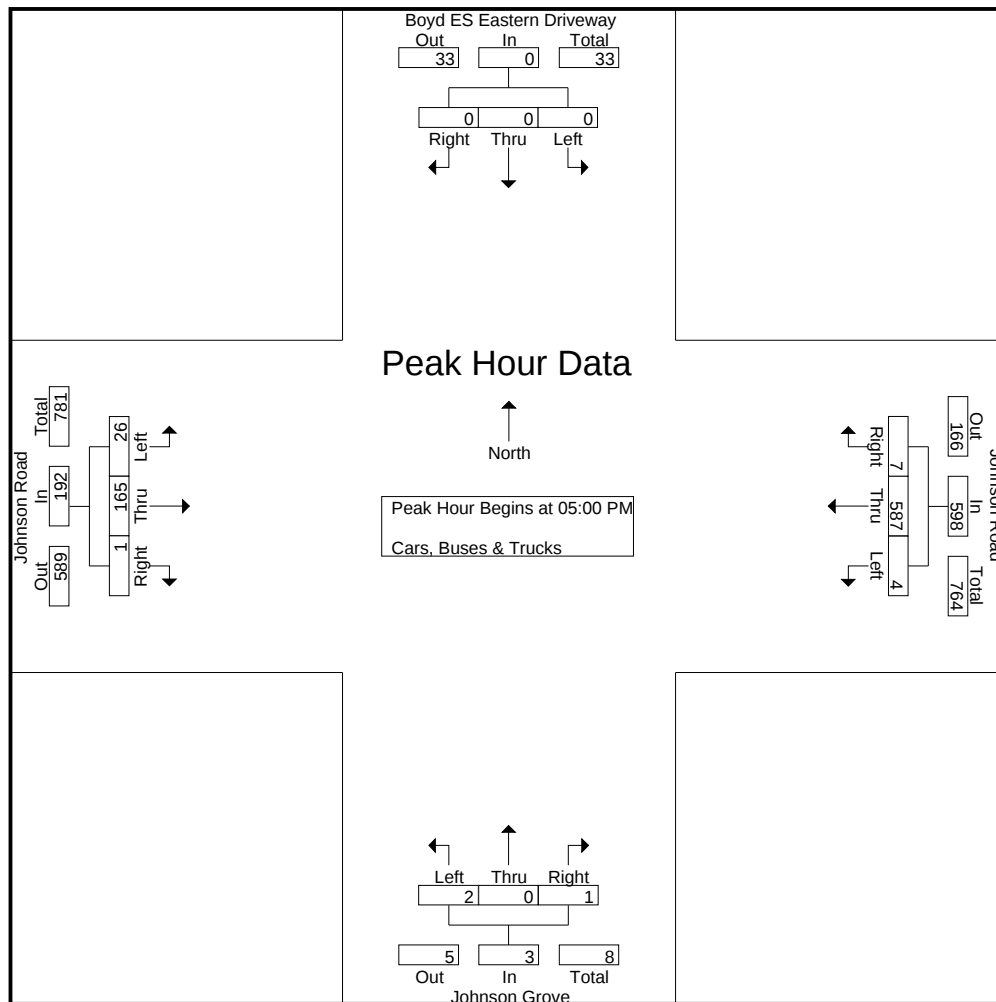
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Eastern Driveway
7-9 am | 4-6 pm

File Name : 20230281
Site Code : 20230281
Start Date : 08-24-2023
Page No : 3

	Johnson Grove Northbound				Boyd ES Eastern Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	0	0	0	0	1	36	0	37	1	136	0	137	174
05:15 PM	2	0	0	2	0	0	0	0	3	33	1	37	2	151	1	154	193
05:30 PM	0	0	0	0	0	0	0	0	10	44	0	54	1	150	2	153	207
05:45 PM	0	0	1	1	0	0	0	0	12	52	0	64	0	150	4	154	219
Total Volume	2	0	1	3	0	0	0	0	26	165	1	192	4	587	7	598	793
% App. Total	66.7	0	33.3		0	0	0		13.5	85.9	0.5		0.7	98.2	1.2		
PHF	.250	.000	.250	.375	.000	.000	.000	.000	.542	.793	.250	.750	.500	.972	.438	.971	.905



A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Western Driveway
7-9 am | 4-6 pm

File Name : 20230282
Site Code : 20230282
Start Date : 08-24-2023
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Northbound				Boyd ES Western Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	0	0	1	1	4	45	0	49	0	24	2	26	76
07:15 AM	0	0	0	0	0	0	10	10	15	48	0	63	0	35	5	40	113
07:30 AM	0	0	0	0	10	0	28	38	24	39	0	63	0	26	7	33	134
07:45 AM	0	0	0	0	11	0	25	36	14	54	0	68	0	29	2	31	135
Total	0	0	0	0	21	0	64	85	57	186	0	243	0	114	16	130	458
08:00 AM	0	0	0	0	4	0	19	23	0	36	0	36	0	31	2	33	92
08:15 AM	0	0	0	0	2	0	10	12	1	25	0	26	0	29	0	29	67
08:30 AM	0	0	0	0	0	0	3	3	0	40	0	40	0	20	0	20	63
08:45 AM	0	0	0	0	0	0	2	2	0	29	0	29	0	13	0	13	44
Total	0	0	0	0	6	0	34	40	1	130	0	131	0	93	2	95	266
*** BREAK ***																	
04:00 PM	0	0	0	0	1	0	8	9	0	35	0	35	0	50	0	50	94
04:15 PM	0	0	0	0	0	0	2	2	0	33	0	33	0	45	0	45	80
04:30 PM	0	0	0	0	0	0	2	2	0	37	0	37	0	58	0	58	97
04:45 PM	0	0	0	0	2	0	1	3	0	35	0	35	0	104	1	105	143
Total	0	0	0	0	3	0	13	16	0	140	0	140	0	257	1	258	414
05:00 PM	0	0	0	0	1	0	1	2	1	36	0	37	0	136	0	136	175
05:15 PM	0	0	0	0	0	0	4	4	0	37	0	37	0	153	0	153	194
05:30 PM	0	0	0	0	0	0	4	4	0	54	0	54	0	150	0	150	208
05:45 PM	0	0	0	0	0	0	2	2	0	64	0	64	0	149	1	150	216
Total	0	0	0	0	1	0	11	12	1	191	0	192	0	588	1	589	793
06:00 PM	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	4
Grand Total	0	0	0	0	31	0	126	157	59	647	0	706	0	1052	20	1072	1935
Apprch %	0	0	0		19.7	0	80.3		8.4	91.6	0		0	98.1	1.9		
Total %	0	0	0	0	1.6	0	6.5	8.1	3	33.4	0	36.5	0	54.4	1	55.4	

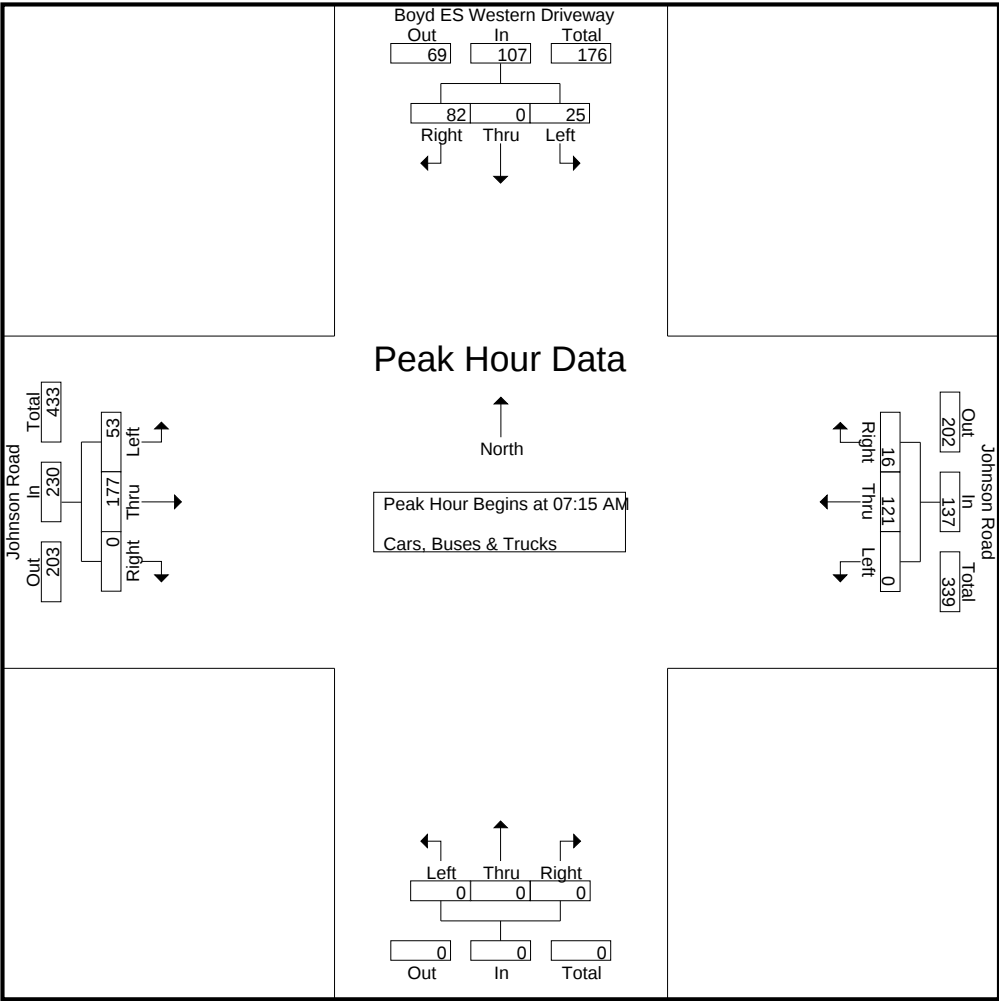
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Western Driveway
7-9 am | 4-6 pm

File Name : 20230282
Site Code : 20230282
Start Date : 08-24-2023
Page No : 2

	Northbound				Boyd ES Western Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	0	0	0	0	10	10	15	48	0	63	0	35	5	40	113
07:30 AM	0	0	0	0	10	0	28	38	24	39	0	63	0	26	7	33	134
07:45 AM	0	0	0	0	11	0	25	36	14	54	0	68	0	29	2	31	135
08:00 AM	0	0	0	0	4	0	19	23	0	36	0	36	0	31	2	33	92
Total Volume	0	0	0	0	25	0	82	107	53	177	0	230	0	121	16	137	474
% App. Total	0	0	0	0	23.4	0	76.6		23	77	0		0	88.3	11.7		
PHF	.000	.000	.000	.000	.568	.000	.732	.704	.552	.819	.000	.846	.000	.864	.571	.856	.878



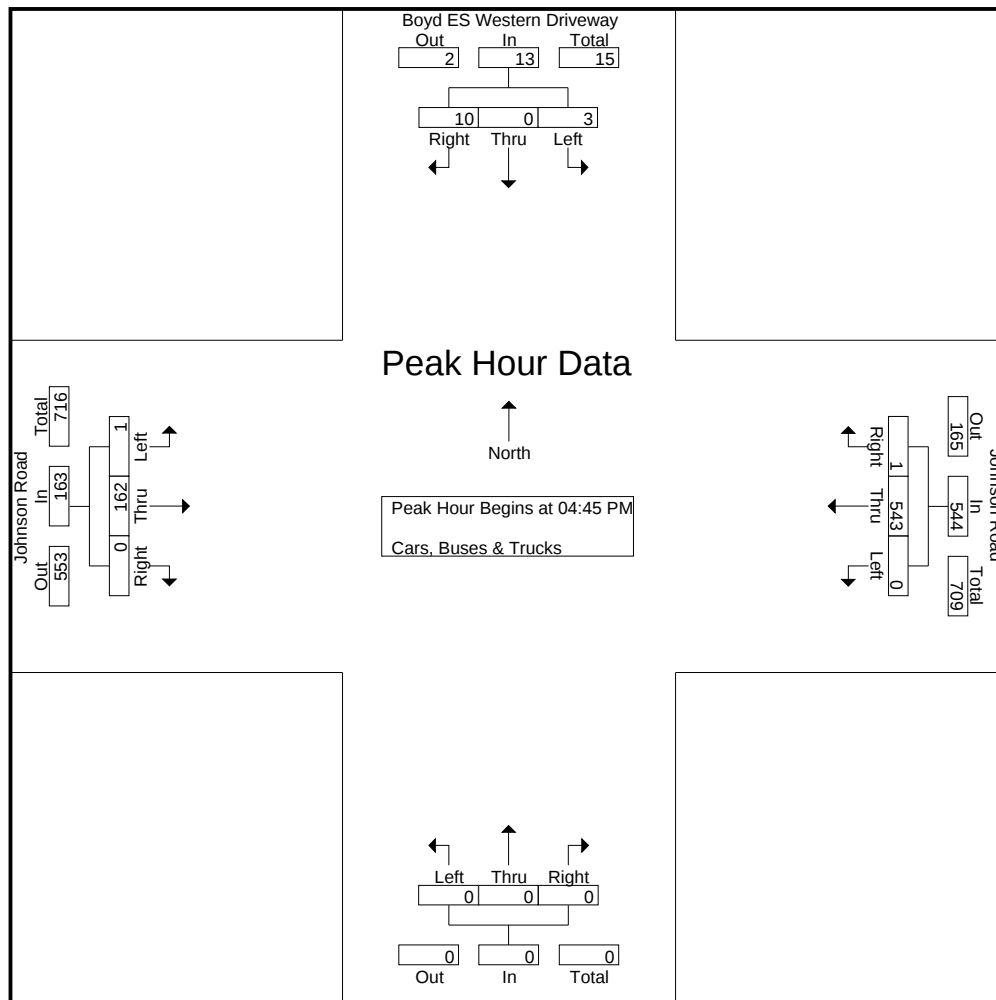
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC Data
Johnson Road @ Boyd ES Western Driveway
7-9 am | 4-6 pm

File Name : 20230282
Site Code : 20230282
Start Date : 08-24-2023
Page No : 3

	Northbound				Boyd ES Western Driveway Southbound				Johnson Road Eastbound				Johnson Road Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	2	0	1	3	0	35	0	35	0	104	1	105	143
05:00 PM	0	0	0	0	1	0	1	2	1	36	0	37	0	136	0	136	175
05:15 PM	0	0	0	0	0	0	4	4	0	37	0	37	0	153	0	153	194
05:30 PM	0	0	0	0	0	0	4	4	0	54	0	54	0	150	0	150	208
Total Volume	0	0	0	0	3	0	10	13	1	162	0	163	0	543	1	544	720
% App. Total	0	0	0	0	23.1	0	76.9		0.6	99.4	0		0	99.8	0.2		
PHF	.000	.000	.000	.000	.375	.000	.625	.813	.250	.750	.000	.755	.000	.887	.250	.889	.865



A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Donald Lee Hollowell Pkwy) @
N. Grand Avenue
7-9 am | 4-6 pm

File Name : 20230279
Site Code : 20230279
Start Date : 05-16-2023
Page No : 1

Groups Printed- Cars,Buses & Trucks

	N. Grand Avenue Northbound				N. Grand Avenue Southbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	5	0	4	9	5	1	7	13	5	195	1	201	1	67	3	71	294
07:15 AM	5	1	6	12	6	2	5	13	6	267	1	274	2	86	2	90	389
07:30 AM	6	1	5	12	5	0	8	13	5	323	2	330	3	80	4	87	442
07:45 AM	4	0	7	11	7	1	6	14	4	310	1	315	2	117	2	121	461
Total	20	2	22	44	23	4	26	53	20	1095	5	1120	8	350	11	369	1586
08:00 AM	6	1	5	12	5	1	7	13	5	291	1	297	1	121	3	125	447
08:15 AM	5	0	6	11	6	1	5	12	6	302	2	310	2	98	1	101	434
08:30 AM	7	0	5	12	5	1	6	12	3	299	1	303	3	77	2	82	409
08:45 AM	5	1	1	7	4	1	5	10	4	270	2	276	2	101	1	104	397
Total	23	2	17	42	20	4	23	47	18	1162	6	1186	8	397	7	412	1687
*** BREAK ***																	
04:00 PM	4	1	4	9	5	1	10	16	3	128	1	132	4	260	4	268	425
04:15 PM	7	1	7	15	5	2	7	14	3	123	1	127	5	259	3	267	423
04:30 PM	5	1	5	11	6	1	8	15	2	115	2	119	4	276	6	286	431
04:45 PM	6	2	7	15	7	1	5	13	1	130	3	134	5	276	5	286	448
Total	22	5	23	50	23	5	30	58	9	496	7	512	18	1071	18	1107	1727
05:00 PM	7	1	7	15	8	2	6	16	4	140	2	146	6	257	4	267	444
05:15 PM	5	1	8	14	5	1	7	13	2	134	1	137	5	233	5	243	407
05:30 PM	6	2	5	13	4	3	5	12	3	144	2	149	5	255	6	266	440
05:45 PM	4	1	4	9	4	2	7	13	4	149	1	154	6	249	2	257	433
Total	22	5	24	51	21	8	25	54	13	567	6	586	22	994	17	1033	1724
Grand Total	87	14	86	187	87	21	104	212	60	3320	24	3404	56	2812	53	2921	6724
Apprch %	46.5	7.5	46		41	9.9	49.1		1.8	97.5	0.7		1.9	96.3	1.8		
Total %	1.3	0.2	1.3	2.8	1.3	0.3	1.5	3.2	0.9	49.4	0.4	50.6	0.8	41.8	0.8	43.4	

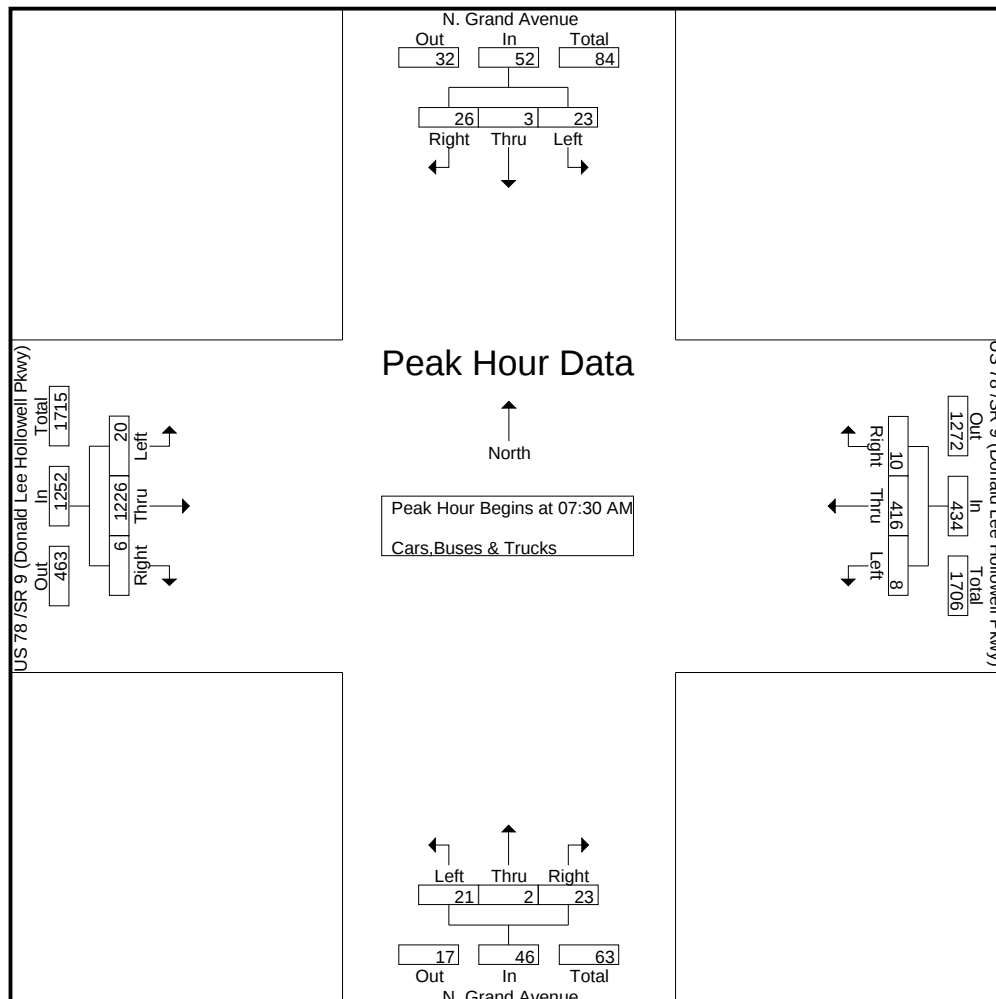
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Donald Lee Hollowell Pkwy) @
N. Grand Avenue
7-9 am | 4-6 pm

File Name : 20230279
Site Code : 20230279
Start Date : 05-16-2023
Page No : 2

	N. Grand Avenue Northbound				N. Grand Avenue Southbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	6	1	5	12	5	0	8	13	5	323	2	330	3	80	4	87	442
07:45 AM	4	0	7	11	7	1	6	14	4	310	1	315	2	117	2	121	461
08:00 AM	6	1	5	12	5	1	7	13	5	291	1	297	1	121	3	125	447
08:15 AM	5	0	6	11	6	1	5	12	6	302	2	310	2	98	1	101	434
Total Volume	21	2	23	46	23	3	26	52	20	1226	6	1252	8	416	10	434	1784
% App. Total	45.7	4.3	50		44.2	5.8	50		1.6	97.9	0.5		1.8	95.9	2.3		
PHF	.875	.500	.821	.958	.821	.750	.813	.929	.833	.949	.750	.948	.667	.860	.625	.868	.967



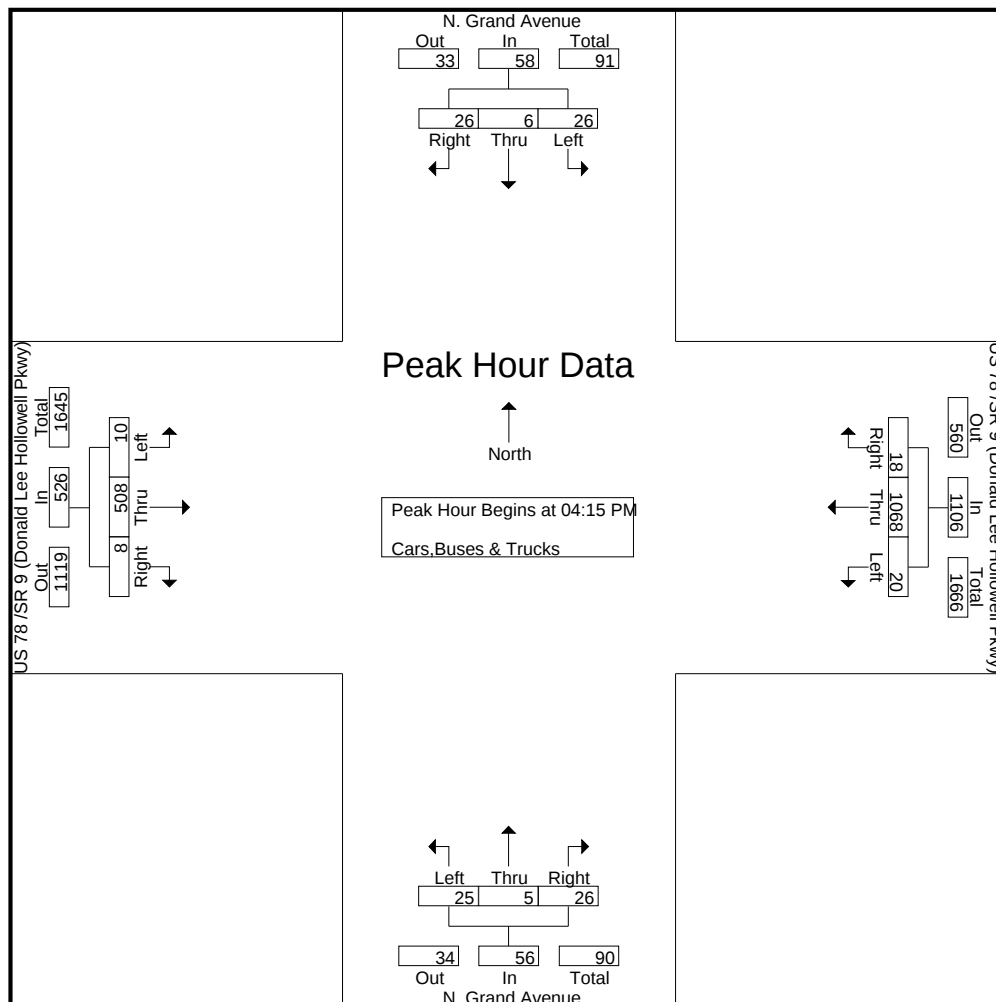
A&R Engineering, Inc.

2160 Kingston Court Suite 'O'
Marietta, GA 30067

TMC DATA
SR 8 (Donald Lee Hollowell Pkwy) @
N. Grand Avenue
7-9 am | 4-6 pm

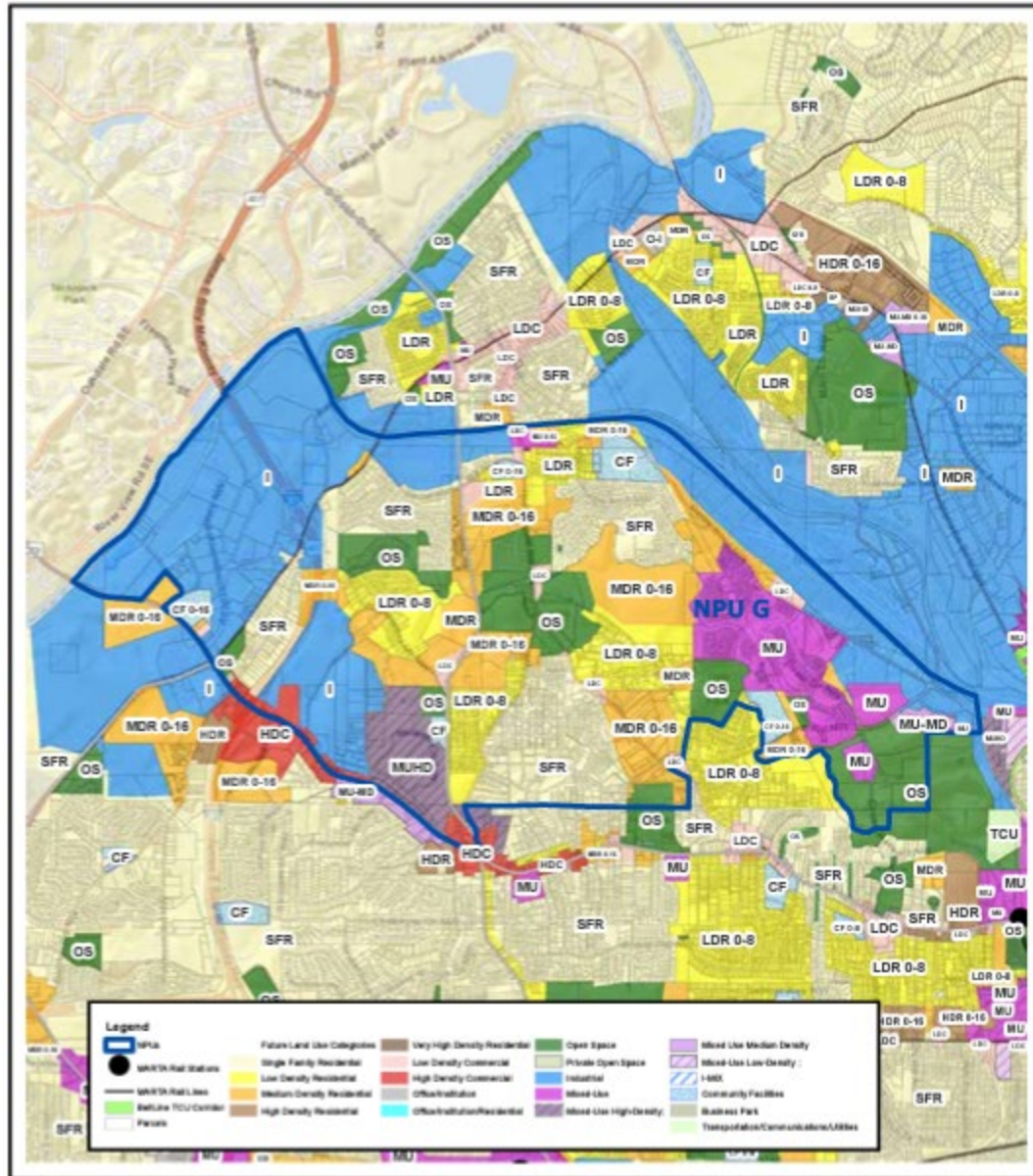
File Name : 20230279
Site Code : 20230279
Start Date : 05-16-2023
Page No : 3

	N. Grand Avenue Northbound				N. Grand Avenue Southbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Eastbound				US 78 /SR 9 (Donald Lee Hollowell Pkwy) Westbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	7	1	7	15	5	2	7	14	3	123	1	127	5	259	3	267	423
04:30 PM	5	1	5	11	6	1	8	15	2	115	2	119	4	276	6	286	431
04:45 PM	6	2	7	15	7	1	5	13	1	130	3	134	5	276	5	286	448
05:00 PM	7	1	7	15	8	2	6	16	4	140	2	146	6	257	4	267	444
Total Volume	25	5	26	56	26	6	26	58	10	508	8	526	20	1068	18	1106	1746
% App. Total	44.6	8.9	46.4		44.8	10.3	44.8		1.9	96.6	1.5		1.8	96.6	1.6		
PHF	.893	.625	.929	.933	.813	.750	.813	.906	.625	.907	.667	.901	.833	.967	.750	.967	.974



Character Areas

NPU-G: FUTURE LAND USE



THIS MAP IS PROVIDED AS A PUBLIC SERVICE. The City of Atlanta has made every effort to ensure the accuracy of the data and information presented on this map. However, the City of Atlanta does not warrant the accuracy or completeness of the data and information presented on this map. The City of Atlanta is not responsible for any errors or omissions on this map. The City of Atlanta is not responsible for any damages or losses resulting from the use of this map. The City of Atlanta is not responsible for any claims or liabilities arising from the use of this map.

GRTA Letter of Understanding



LETTER OF UNDERSTANDING

August 14, 2023

Cypress Grove Land Fund LLC
1320 Ellsworth Industrial Boulevard, Suite A- 1500
Atlanta, GA 30318

RE: **Cypress Grove (DRI#: 4023)**

Dear Cypress Grove Land Fund:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on August 7, 2023 regarding **Cypress Grove DRI #4023** Development of Regional Impact (DRI). The *GRTA DRI Review Procedures*, as well as the inputs and parameters documented in this Letter of Understanding and the revised Methodology Meeting Packet, shall be adhered to in preparing the GRTA required Transportation Study.

PROJECT OVERVIEW

- The proposed site is located along Hollywood Road near N. Grand Avenue in the City of Atlanta. In general, the site is located to the east of I-285 and north of SR 8.
- The proposed development includes 193 townhome units and 562 multifamily housing units.
- The projected build-out is one phase to be completed by 2028.
- The proposed development includes (9) site accesses along Hollywood Drive, Cato Street, Mildred Place and N. Grand Avenue.
- The DRI trigger for this development is a rezoning.
- The vehicular trip generation is estimated to be 3,851 net daily trips based on the *ITE Trip Generation Manual 11th edition*.
- The applicant is applying for approval under GRTA's non-expedited Traffic Impact Study review process.

STUDY NETWORK

1. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Hollywood Road
2. Hollywood Road @ Sumlin Avenue / Johnson Road
3. Hollywood Road @ Cato Street
4. Hollywood Road @ Gun Club Road
5. Hollywood Road @ Mildred Place
6. Hollywood Road @ Hollywood Drive
7. Hollywood Road @ Milton Avenue
8. Hollywood Road @ N. Grand Avenue
9. Hollywood Drive @ Gun Club Road
10. Hollywood Drive @ Cato Street
11. Johnson Road @ Hollywood Drive
12. Johnson Road @ Boyd Elementary School Exit-Only Driveway
13. Johnson Road @ Boyd Elementary School Enter-Only Driveway
14. Mildred Place @ Sumlin Avenue
15. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ Wood Street
16. SR 8/US 78/US 278 (Donald Lee Hollowell Parkway) @ N. Grand Avenue

METHODOLOGY MEETING PACKET INPUTS & PARAMETERS

- The Site Plan shall meet all the applicable requirements in Section 7.1 of the *GRTA DRI Review Procedures*.
- All Study Network intersections shall be analyzed during the AM and PM peak hours for (1) existing conditions, (2) future “no-build” conditions, and (3) future “build” conditions as specified in the *GRTA DRI Review Procedures*.
- This DRI shall be modeled and reviewed in one phase to be completed by 2028.
- The Level of Service (LOS) standard for all analysis shall be LOS D unless specified otherwise in Section 3.2.2.1. For example, a LOS E standard is allowed if the existing LOS for the intersection or approach is a LOS F.
- Default values should not be assumed in the traffic modeling. Existing conditions shall be taken into account as required in Section 3.2.2.
- The trip generation calculations in the revised Methodology Meeting Packet shall be used in the Transportation Study. Mixed-use reductions are allowed for this site. Pass-by reductions shall not exceed 15% of a roadway's traffic volume standard established in Appendix 7.2.
- The trip assignment approach in the revised Methodology Meeting Packet shall be utilized for all Study Network intersection movements.
- The applicant shall research TIP, STIP, RTP and GDOT's construction work program, as well as any local government and transit operator plans (SPLOST, CIP, etc.), to determine the open date, sponsor, cost of the project, funding source(s), for future roadway projects in the project vicinity. Programmed transportation projects anticipated to open on or before the Build Out year of the DRI Project shall be modeled as completed in the No-Build and Build conditions unless approved otherwise.
- A 2.6% annual traffic Background Growth Rate shall be used for all roadways.
- Capacity analysis shall be based on turning movement counts collected not more than 12-months prior to the date of the actual DRI submittal to GRTA, unless specified otherwise. As specified in Section 2.3, turning movement counts shall be collected while local schools are in session, on a Tuesday, Wednesday or Thursday (unless approved otherwise) and not during holiday periods (weeks of July 4th, Thanksgiving and +/- 5 days of Christmas).
- If the *GRTA DRI Review Procedures* requires an Enhanced Focus Area for Heavy Vehicles or an Enhanced Focus Area for Dense Urban Environments, the Transportation Study shall incorporate the inputs and parameters agreed to at the Methodology Meeting and documented in the revised Methodology Meeting Packet. These inputs may include a Heavy Vehicle modeling percentages, a Heavy Vehicle route map, a pedestrian crosswalk delay adjustment and a bus blockage adjustment factor.

ADDITIONAL REQUIREMENTS

All applicable requirements of the *GRTA DRI Review Procedures* must be met for the Transportation Study to be considered complete. The *GRTA DRI Review Procedures* are located on GRTA's DRI website: <https://www.srta.ga.gov/programs-projects/dev-of-regional-impact/> Contact GRTA staff if you have any questions on these requirements.

The Transportation Study shall also include as attachments the native LOS modeling file (i.e., Synchro modeling files) as well as the modeling reports (PDFs) for all Study Network intersections for the Existing, No-Build and Build conditions for all phases. The PDF reports shall be numbered (in page headers) and organized in order according to the Study Network numbering sequence in this Letter of Understanding. The reports shall also be organized in the following sequence: *Existing condition AM, Existing condition PM, No-build condition AM, No-Build condition*

PM, Build condition AM, Build condition PM. If improvements are modeled, those PDFs shall be labeled as such and follow the appropriate condition's applicable peak period.

The Transportation Study appendices shall also include all turning movement count data, regardless of if using historic data or newly collected turning movement counts.

When documenting any Queue Length impacts required in Section 3.2.3.6, the TIS Executive Summary shall also note any individual *movements* not meeting the LOS standard where the DRI Project adds trips in the Build condition and exceeds available storage capacity for that movement.

When identifying mitigations in the existing, no-build and build conditions, the mitigations identified in preceding conditions shall not be modeled as complete when conducting the LOS analysis. The same mitigation may still be proposed as mitigation in the subsequent condition but it shall not be included as completed in the default analysis. For example, a turn lane may be identified as a needed improvement in the no-build condition. The turn lane should not be modeled as completed in the build condition. The turn lane should only be modeled as complete in the no-build with improvements condition and the build with improvements condition.

DRI REVIEW PACKAGE SUBMITTAL

GRTA will begin reviewing the DRI once the DRI Review Package is submitted and deemed complete. The DRI Review Package includes: the permitting Local Government inputting both Department of Community Affairs (DCA) forms into the DCA DRI website; and the **Traffic Engineer submittal of the GRTA Transportation Study (including LOS appendices, traffic count data and any other required attachments) and Site Plan to GRTA staff and ALL stakeholders included in the CC list of this Letter of Understanding.**

All DRI Review Packages shall be submitted electronically via email to all stakeholders in the CC list of the Letter of Understanding. If the DRI Review Package total file size is greater than 10 MB, the DRI Review Package shall be submitted via email with a FTP link provided for downloading the files.

Please contact me if you have any questions about the Letter of Understanding or the *GRTA DRI Review Procedures*.

Sincerely,

Beth Davis
Planning Manager

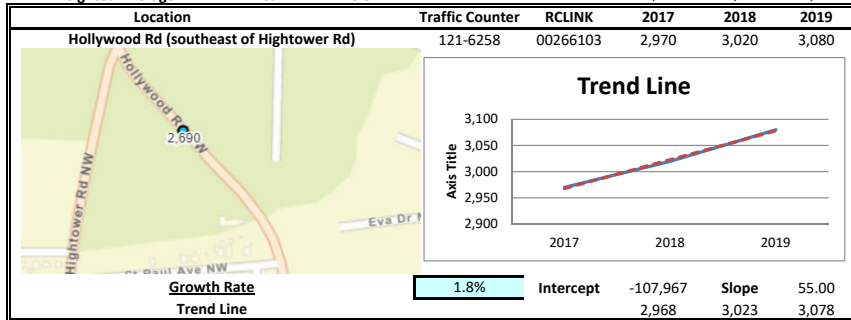
Cc:

DCA
SRTA/GRTA/ATL
Regional Commission
Local Government(s)
GDOT
CID
Transit Operator
TMA

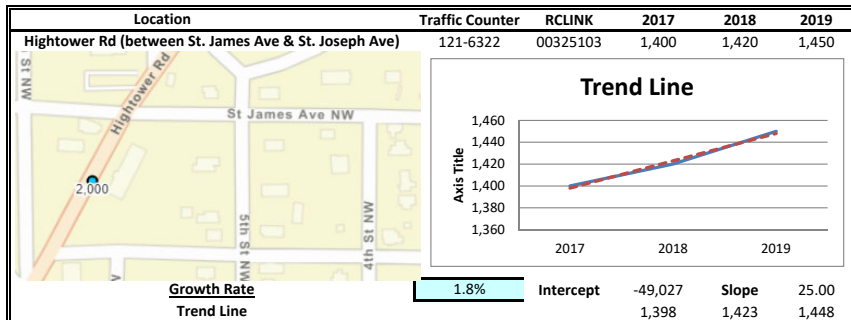
Traffic Engineers
Developer
Lawyers
Site Designers

Linear Regression of Daily Traffic

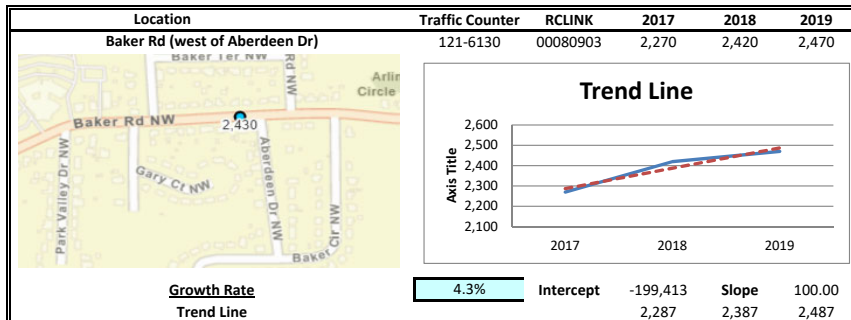
Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019	2020	2021
Hollywood Rd (southeast of Hightower Rd)	1.8%	1.00	121-6258	00266103	2,970	3,020	3,080	2,860	2,690
Hightower Rd (between St. James Ave & St. Joseph Ave)	1.8%	0.99	121-6322	00325103	1,400	1,420	1,450	1,880	2,000
Baker Rd (west of Aberdeen Dr)	4.3%	0.92	121-6130	00080903	2,270	2,420	2,470	2,290	2,430
SR 8/US 78/US 278 (between Dobbs St & Chappell Rd)	2.5%	0.82	121-5076	00000800	21,200	22,200	22,300	23,000	24,800
Weighted Average	2.6%	0.87	Sum of Count Stations =		27,840	29,060	29,300		



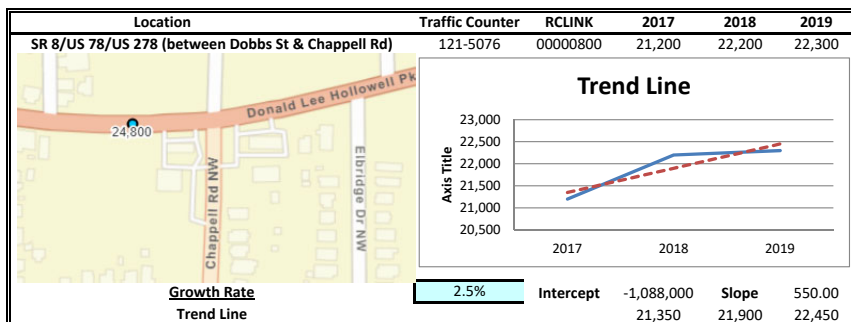
2021
2,690



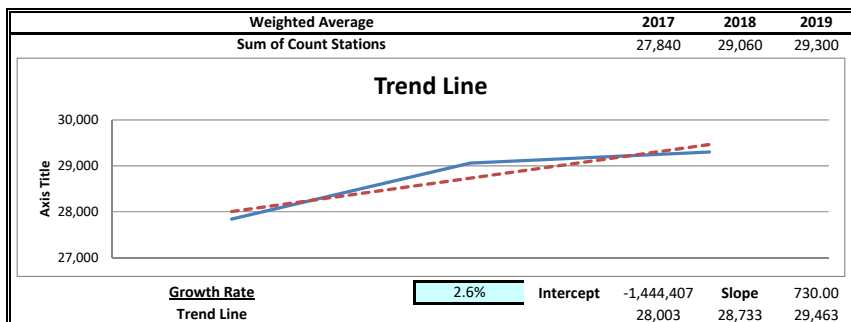
2021
2,000



2021
2,430



2021
24,800



**Fact Sheets for Planned and Programmed
Improvements**

Short Title

MARIETTA ROAD BRIDGE REPLACEMENT ON MARIETTA ROAD FROM THOMAS STREET TO PERRY BOULEVARD/WEST MARIETTA STREET

GDOT Project No.

N/A

Federal ID No.

N/A

Status

Programmed

Service Type

Roadway / Maintenance

Sponsor

City of Atlanta

Jurisdiction

City of Atlanta

Analysis Level

Exempt from Air Quality Analysis (40 CFR 93)

Existing Thru Lane

2

LCI

☐

Planned Thru Lane

2

Flex

☐

Network Year

TBD

Corridor Length

0.8 miles



Detailed Description and Justification

The proposed project would replace the existing Marietta Road bridge over the former CSX Tilford Yard, with a new structure, pavement, curb and gutter, and a continuous, 5-foot sidewalk on each side of the bridge. The improvements would maintain the existing lane widths (11 to 12 feet) on the bridge. The bridge is currently not up to current design standards for freight, although the bridge is along a local, regional, and national freight route. The new bridge would consist of a two-lane section with one lane in each direction and 5-foot sidewalks on both sides. The proposed project also includes a continuous standard 5-foot sidewalk along Marietta Road from the south of the bridge to Perry Boulevard/West Marietta Street (about 0.8 mile segment). The sidewalk will be provided on the east (right) side of Marietta Road to take advantage of existing patches of sidewalks.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2024	\$1,500,000	\$1,200,000	\$0,000	\$0,000	\$300,000
ROW	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2026	\$2,000,000	\$1,600,000	\$0,000	\$0,000	\$400,000
UTL	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2028	\$2,000,000	\$1,600,000	\$0,000	\$0,000	\$400,000
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)		2028	\$11,000,000	\$8,800,000	\$0,000	\$0,000	\$2,200,000
				\$16,500,000	\$13,200,000	\$0,000	\$0,000	\$3,300,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases



For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.



Short Title

I-285 WEST WALL MAINTENANCE & RECONSTRUCTION FROM COLLIER DRIVE TO PACES FERRY ROAD

GDOT Project No.

0018193

Federal ID No.

N/A

Status

Programmed

Service Type

Roadway / Maintenance

Sponsor

GDOT

Jurisdiction

Regional - West

Analysis Level

Exempt from Air Quality Analysis (40 CFR 93)

Existing Thru Lane

N/A

LCI

☐

Network Year

TBD

Planned Thru Lane

N/A

Flex

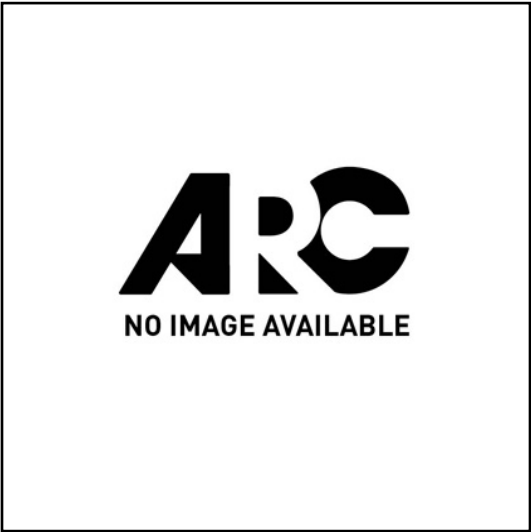
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Corridor Length

7.22 miles

Detailed Description and Justification

This project will repair and resurface I-285 from Collier Drive to Paces Ferry Road.



Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	National Highway Performance Program (NHPP)	AUTH	2022	\$1,500,000	\$1,200,000	\$300,000	\$0,000	\$0,000
CST	National Highway Performance Program (NHPP)		2024	\$147,762,102	\$118,209,682	\$29,552,420	\$0,000	\$0,000
				\$149,262,102	\$119,409,682	\$29,852,420	\$0,000	\$0,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

Short Title

NORTH AVENUE CORRIDOR HIGH CAPACITY PREMIUM TRANSIT SERVICE FROM MARTA NORTH AVENUE RAIL STATION TO MARTA BANKHEAD RAIL STATION

GDOT Project No.

N/A

Federal ID No.

N/A

Status

Long Range

Service Type

Transit / Bus Capital

Sponsor

MARTA

Jurisdiction

City of Atlanta

Analysis Level

In the Region's Air Quality Conformity Analysis

Existing Thru Lane

N/A

LCI

☐

Planned Thru Lane

N/A

Flex

☐

Network Year

2050

Corridor Length

TBD miles



Detailed Description and Justification

This project will provide high capacity premium transit service along the North Avenue corridor between MARTA's North Avenue and Bankhead heavy rail stations.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
ALL	Local Jurisdiction/Municipality Funds		LR 2041-2050	\$62,900,000	\$0,000	\$0,000	\$0,000	\$62,900,000
				\$62,900,000	\$0,000	\$0,000	\$0,000	\$62,900,000

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquisition
 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases



For additional information about this project, please call (404) 463-3100 or email transportation@atlantaregional.com.



Existing Intersection Analysis

Timings

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

1a. Existing 2023 AM

09/05/2023



Lane Group	EBT	WBT	SBL
Lane Configurations	↑↑	↑↑	↑↑
Traffic Volume (vph)	1117	355	268
Future Volume (vph)	1117	355	268
Lane Group Flow (vph)	1164	545	281
Turn Type	NA	NA	Prot
Protected Phases	6	2	7
Permitted Phases			
Detector Phase	6	2	7
Switch Phase			
Minimum Initial (s)	15.0	15.0	5.0
Minimum Split (s)	28.5	28.5	15.0
Total Split (s)	74.0	74.0	26.0
Total Split (%)	74.0%	74.0%	26.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Min	C-Min	None
v/c Ratio	0.44	0.21	0.61
Control Delay	5.2	2.7	50.7
Queue Delay	0.0	0.0	0.0
Total Delay	5.2	2.7	50.7
Queue Length 50th (ft)	116	27	90
Queue Length 95th (ft)	175	50	129
Internal Link Dist (ft)	2151	1251	1021
Turn Bay Length (ft)			
Base Capacity (vph)	2675	2589	705
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.44	0.21	0.40

Intersection Summary

Cycle Length: 100

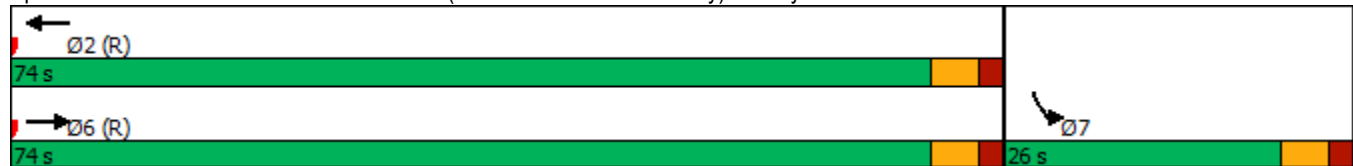
Actuated Cycle Length: 100

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

Natural Cycle: 45

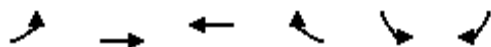
Control Type: Actuated-Coordinated

Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



HCM 6th Signalized Intersection Summary
1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

1a. Existing 2023 AM
09/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (veh/h)	0	1117	355	168	268	2
Future Volume (veh/h)	0	1117	355	168	268	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1164	370	175	281	0
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	2794	1851	862	370	164
Arrive On Green	0.00	1.00	0.79	0.79	0.10	0.00
Sat Flow, veh/h	0	3741	2447	1096	3563	1585
Grp Volume(v), veh/h	0	1164	278	267	281	0
Grp Sat Flow(s),veh/h/ln	0	1777	1777	1673	1781	1585
Q Serve(g_s), s	0.0	0.0	4.0	4.1	7.7	0.0
Cycle Q Clear(g_c), s	0.0	0.0	4.0	4.1	7.7	0.0
Prop In Lane	0.00			0.66	1.00	1.00
Lane Grp Cap(c), veh/h	0	2794	1397	1315	370	164
V/C Ratio(X)	0.00	0.42	0.20	0.20	0.76	0.00
Avail Cap(c_a), veh/h	0	2794	1397	1315	730	325
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.91	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	2.7	2.7	43.6	0.0
Incr Delay (d2), s/veh	0.0	0.4	0.3	0.3	3.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.2	1.2	1.2	3.5	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.4	3.0	3.1	46.8	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		1164	545		281	
Approach Delay, s/veh		0.4	3.0		46.8	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		84.1		15.9		84.1
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		68.5		20.5		68.5
Max Q Clear Time (g_c+I1), s		6.1		9.7		2.0
Green Ext Time (p_c), s		8.5		0.7		27.3
Intersection Summary						
HCM 6th Ctrl Delay			7.7			
HCM 6th LOS			A			
Notes						
User approved volume balancing among the lanes for turning movement.						

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

1a. Existing 2023 AM
09/05/2023

	→	↖	←	↙	↑	↘	↓
Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↕		↕		↕		↕
Traffic Volume (vph)	3	73	0	4	108	8	213
Future Volume (vph)	3	73	0	4	108	8	213
Lane Group Flow (vph)	10	0	87	0	198	0	246
Turn Type	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	4		8		6		2
Permitted Phases		8		6		2	
Detector Phase	4	8	8	6	6	2	2
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	43.0	43.0	43.0	57.0	57.0	57.0	57.0
Total Split (%)	43.0%	43.0%	43.0%	57.0%	57.0%	57.0%	57.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0		0.0
Total Lost Time (s)	5.5		5.5		5.5		5.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.06		0.54		0.14		0.16
Control Delay	25.9		42.1		2.4		3.0
Queue Delay	0.0		0.0		0.0		0.0
Total Delay	25.9		42.1		2.4		3.0
Queue Length 50th (ft)	2		37		18		29
Queue Length 95th (ft)	17		82		42		63
Internal Link Dist (ft)	287		989		861		425
Turn Bay Length (ft)							
Base Capacity (vph)	636		525		1459		1519
Starvation Cap Reductn	0		0		0		0
Spillback Cap Reductn	0		0		0		0
Storage Cap Reductn	0		0		0		0
Reduced v/c Ratio	0.02		0.17		0.14		0.16

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary 2: Hollywood Rd & Sumlin Ave/Johnson Rd

1a. Existing 2023 AM
09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3	6	73	0	5	4	108	67	8	213	0
Future Volume (veh/h)	0	3	6	73	0	5	4	108	67	8	213	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3	7	81	0	6	4	120	74	9	237	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	42	98	173	0	8	46	872	526	64	1465	0
Arrive On Green	0.00	0.08	0.08	0.08	0.00	0.08	0.81	0.81	0.81	0.81	0.81	0.00
Sat Flow, veh/h	0	498	1163	1231	2	91	11	1082	652	33	1818	0
Grp Volume(v), veh/h	0	0	10	87	0	0	198	0	0	246	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1661	1325	0	0	1746	0	0	1851	0	0
Q Serve(g_s), s	0.0	0.0	0.6	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	6.6	0.0	0.0	2.5	0.0	0.0	2.9	0.0	0.0
Prop In Lane	0.00		0.70	0.93		0.07	0.02		0.37	0.04		0.00
Lane Grp Cap(c), veh/h	0	0	140	181	0	0	1443	0	0	1529	0	0
V/C Ratio(X)	0.00	0.00	0.07	0.48	0.00	0.00	0.14	0.00	0.00	0.16	0.00	0.00
Avail Cap(c_a), veh/h	0	0	623	593	0	0	1443	0	0	1529	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	42.2	45.2	0.0	0.0	2.1	0.0	0.0	2.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.0	0.0	0.0	0.2	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.2	2.2	0.0	0.0	0.6	0.0	0.0	0.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	42.4	47.2	0.0	0.0	2.3	0.0	0.0	2.4	0.0	0.0
LnGrp LOS	A	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	10			87			198			246		
Approach Delay, s/veh	42.4			47.2			2.3			2.4		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	86.1			13.9			86.1			13.9		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	51.5			37.5			51.5			37.5		
Max Q Clear Time (g_c+I1), s	4.9			2.6			4.5			8.6		
Green Ext Time (p_c), s	3.1			0.0			2.5			0.5		
Intersection Summary												
HCM 6th Ctrl Delay	10.3											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	9	5	107	5	7	204
Future Vol, veh/h	9	5	107	5	7	204
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	5	116	5	8	222
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	357	119	0	0	121	0
Stage 1	119	-	-	-	-	-
Stage 2	238	-	-	-	-	-
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	641	933	-	-	1467	-
Stage 1	906	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	637	933	-	-	1467	-
Mov Cap-2 Maneuver	637	-	-	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.1	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	718	1467	-	
HCM Lane V/C Ratio	-	-	0.021	0.005	-	
HCM Control Delay (s)	-	-	10.1	7.5	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	193	101	6	11	2
Future Vol, veh/h	1	193	101	6	11	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	212	111	7	12	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	118	0	-	0	329	115
Stage 1	-	-	-	-	115	-
Stage 2	-	-	-	-	214	-
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	1470	-	-	-	665	937
Stage 1	-	-	-	-	910	-
Stage 2	-	-	-	-	822	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1470	-	-	-	664	937
Mov Cap-2 Maneuver	-	-	-	-	664	-
Stage 1	-	-	-	-	909	-
Stage 2	-	-	-	-	822	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1470	-	-	-	695	
HCM Lane V/C Ratio	0.001	-	-	-	0.021	
HCM Control Delay (s)	7.5	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	191	4	2	101	7	3
Future Vol, veh/h	191	4	2	101	7	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	205	4	2	109	8	3
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	209	0	320	207
Stage 1	-	-	-	-	207	-
Stage 2	-	-	-	-	113	-
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	-	-	1362	-	673	833
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	912	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1362	-	672	833
Mov Cap-2 Maneuver	-	-	-	-	672	-
Stage 1	-	-	-	-	828	-
Stage 2	-	-	-	-	910	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		10.1	
HCM LOS	B					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	713	-	-	1362	-	
HCM Lane V/C Ratio	0.015	-	-	0.002	-	
HCM Control Delay (s)	10.1	-	-	7.6	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0	-	-	0	-	

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	5	48	112	16	42	167
Future Vol, veh/h	5	48	112	16	42	167
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	51	118	17	44	176
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	391	127	0	0	135	0
Stage 1	127	-	-	-	-	-
Stage 2	264	-	-	-	-	-
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	613	923	-	-	1449	-
Stage 1	899	-	-	-	-	-
Stage 2	780	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	592	923	-	-	1449	-
Mov Cap-2 Maneuver	592	-	-	-	-	-
Stage 1	899	-	-	-	-	-
Stage 2	753	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	9.4	0	1.5			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	877	1449	-	
HCM Lane V/C Ratio	-	-	0.064	0.031	-	
HCM Control Delay (s)	-	-	9.4	7.6	0	
HCM Lane LOS	-	-	A	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	20	160	7	5	209
Future Vol, veh/h	24	20	160	7	5	209
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	25	21	167	7	5	218

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	399	171	0
Stage 1	171	-	-
Stage 2	228	-	-
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	607	873	-
Stage 1	859	-	-
Stage 2	810	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	605	873	-
Mov Cap-2 Maneuver	605	-	-
Stage 1	859	-	-
Stage 2	807	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	703	1403
HCM Lane V/C Ratio	-	-	0.065	0.004
HCM Control Delay (s)	-	-	10.5	7.6
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	11	10	154	219	7
Future Vol, veh/h	7	11	10	154	219	7
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	12	11	171	243	8
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	440	247	251	0	-	0
Stage 1	247	-	-	-	-	-
Stage 2	193	-	-	-	-	-
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	574	792	1314	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	569	792	1314	-	-	-
Mov Cap-2 Maneuver	569	-	-	-	-	-
Stage 1	787	-	-	-	-	-
Stage 2	840	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.4	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1314	-	687	-	-	
HCM Lane V/C Ratio	0.008	-	0.029	-	-	
HCM Control Delay (s)	7.8	0	10.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection	
Intersection Delay, s/veh	7.5
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	59	1	5	51	0	0	5	1	3	10	3
Future Vol, veh/h	0	59	1	5	51	0	0	5	1	3	10	3
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	87	1	7	75	0	0	7	1	4	15	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	7.5	7.3	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	9%	19%
Vol Thru, %	83%	98%	91%	62%
Vol Right, %	17%	2%	0%	19%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	6	60	56	16
LT Vol	0	0	5	3
Through Vol	5	59	51	10
RT Vol	1	1	0	3
Lane Flow Rate	9	88	82	24
Geometry Grp	1	1	1	1
Degree of Util (X)	0.01	0.099	0.093	0.027
Departure Headway (Hd)	4.145	4.042	4.075	4.158
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	851	885	878	850
Service Time	2.229	2.075	2.108	2.238
HCM Lane V/C Ratio	0.011	0.099	0.093	0.028
HCM Control Delay	7.3	7.5	7.5	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.3	0.3	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	71	2	2	59	2	1	10	2	1	9	1
Future Vol, veh/h	3	71	2	2	59	2	1	10	2	1	9	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	88	2	2	73	2	1	12	2	1	11	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	75	0	0	90	0	0	181	176	89	182	176	74
Stage 1	-	-	-	-	-	-	97	97	-	78	78	-
Stage 2	-	-	-	-	-	-	84	79	-	104	98	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1524	-	-	1505	-	-	781	717	969	779	717	988
Stage 1	-	-	-	-	-	-	910	815	-	931	830	-
Stage 2	-	-	-	-	-	-	924	829	-	902	814	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1524	-	-	1505	-	-	769	714	969	764	714	988
Mov Cap-2 Maneuver	-	-	-	-	-	-	769	714	-	764	714	-
Stage 1	-	-	-	-	-	-	907	813	-	928	829	-
Stage 2	-	-	-	-	-	-	910	828	-	883	812	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.2			9.9			10		
HCM LOS							A			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	748	1524	-	-	1505	-	-	737				
HCM Lane V/C Ratio	0.021	0.002	-	-	0.002	-	-	0.018				
HCM Control Delay (s)	9.9	7.4	0	-	7.4	0	-	10				
HCM Lane LOS	A	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	71	0	5	109	78	54
Future Vol, veh/h	71	0	5	109	78	54
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	80	0	6	122	88	61

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	253	119	149	0	-	0
Stage 1	119	-	-	-	-	-
Stage 2	134	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	736	933	1432	-	-	-
Stage 1	906	-	-	-	-	-
Stage 2	892	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	733	933	1432	-	-	-
Mov Cap-2 Maneuver	733	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	892	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.5	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1432	-	733	-	-
HCM Lane V/C Ratio	0.004	-	0.109	-	-
HCM Control Delay (s)	7.5	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	230	121	0	25	82
Future Vol, veh/h	0	230	121	0	25	82
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	261	138	0	28	93
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	-	0	-	0	399	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	261	-
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	-	-	0	607	910
Stage 1	0	-	-	0	889	-
Stage 2	0	-	-	0	783	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	607	910
Mov Cap-2 Maneuver	-	-	-	-	607	-
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	783	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.2		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	815			
HCM Lane V/C Ratio	-	-	0.149			
HCM Control Delay (s)	-	-	10.2			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.5			

Intersection

Int Delay, s/veh 2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	104	151	0	0	121	40	0	0	1	0	0	0
Future Vol, veh/h	104	151	0	0	121	40	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	122	178	0	0	142	47	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	189	0	0	178	0	0	588	611	178
Stage 1	-	-	-	-	-	-	422	422	-
Stage 2	-	-	-	-	-	-	166	189	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1385	-	-	1398	-	-	471	409	865
Stage 1	-	-	-	-	-	-	662	588	-
Stage 2	-	-	-	-	-	-	863	744	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1385	-	-	1398	-	-	425	0	865
Mov Cap-2 Maneuver	-	-	-	-	-	-	425	0	-
Stage 1	-	-	-	-	-	-	597	0	-
Stage 2	-	-	-	-	-	-	863	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.2	0	9.2
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	865	1385	-	-	1398	-	-
HCM Lane V/C Ratio	0.001	0.088	-	-	-	-	-
HCM Control Delay (s)	9.2	7.9	0	-	0	-	-
HCM Lane LOS	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0	0.3	-	-	0	-	-

Intersection												
Intersection Delay, s/veh	7.1											
Intersection LOS	A											

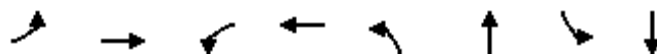
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	14	0	1	6	0	0	9	1	0	5	0
Future Vol, veh/h	0	14	0	1	6	0	0	9	1	0	5	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	17	0	1	7	0	0	11	1	0	6	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	14%	0%
Vol Thru, %	90%	100%	86%	100%
Vol Right, %	10%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	10	14	7	5
LT Vol	0	0	1	0
Through Vol	9	14	6	5
RT Vol	1	0	0	0
Lane Flow Rate	12	17	9	6
Geometry Grp	1	1	1	1
Degree of Util (X)	0.013	0.019	0.01	0.007
Departure Headway (Hd)	3.923	3.972	4.007	3.988
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	915	904	896	900
Service Time	1.937	1.982	2.018	2.002
HCM Lane V/C Ratio	0.013	0.019	0.01	0.007
HCM Control Delay	7	7.1	7.1	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0	0

Timings
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

1a. Existing 2023 AM
09/05/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔↔		↔↔		↔		↔
Traffic Volume (vph)	3	1226	6	416	9	0	4	0
Future Volume (vph)	3	1226	6	416	9	0	4	0
Lane Group Flow (vph)	0	1295	0	445	0	24	0	8
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.0	69.0	69.0	69.0	31.0	31.0	31.0	31.0
Total Split (%)	69.0%	69.0%	69.0%	69.0%	31.0%	31.0%	31.0%	31.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio		0.41		0.14		0.18		0.07
Control Delay		1.8		1.1		18.3		45.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		1.8		1.1		18.3		45.0
Queue Length 50th (ft)		0		0		0		5
Queue Length 95th (ft)		122		33		23		20
Internal Link Dist (ft)		1471		2151		68		1164
Turn Bay Length (ft)								
Base Capacity (vph)		3132		3083		447		442
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.41		0.14		0.05		0.02

Intersection Summary

Cycle Length: 100

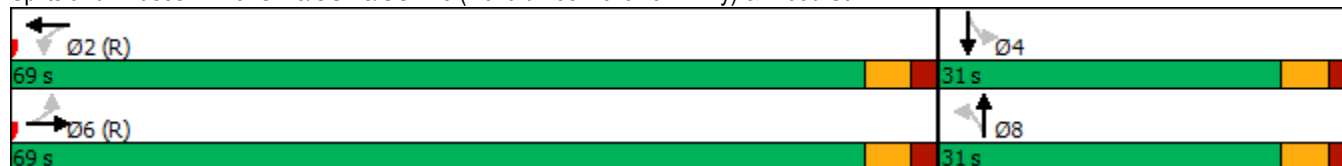
Actuated Cycle Length: 100

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

1a. Existing 2023 AM

09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1226	1	6	416	1	9	0	14	4	0	4
Future Volume (veh/h)	3	1226	1	6	416	1	9	0	14	4	0	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	1291	1	6	438	1	9	0	15	4	0	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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	37	3048	2	53	2977	7	67	3	34	75	7	28
Arrive On Green	0.85	0.85	0.85	1.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	1	3567	3	18	3483	8	493	83	961	596	206	802
Grp Volume(v), veh/h	678	0	617	230	0	215	24	0	0	8	0	0
Grp Sat Flow(s),veh/h/ln	1869	0	1702	1809	0	1701	1537	0	0	1604	0	0
Q Serve(g_s), s	0.0	0.0	8.3	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	8.3	0.0	8.3	0.0	0.0	0.0	1.5	0.0	0.0	0.5	0.0	0.0
Prop In Lane	0.00		0.00	0.03		0.00	0.37		0.62	0.50		0.50
Lane Grp Cap(c), veh/h	1634	0	1454	1583	0	1453	104	0	0	111	0	0
V/C Ratio(X)	0.41	0.00	0.42	0.15	0.00	0.15	0.23	0.00	0.00	0.07	0.00	0.00
Avail Cap(c_a), veh/h	1634	0	1454	1583	0	1453	437	0	0	437	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.99	0.00	0.99	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.7	0.0	1.7	0.0	0.0	0.0	47.2	0.0	0.0	46.7	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	0.9	0.2	0.0	0.2	1.1	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.0	1.5	0.1	0.0	0.1	0.6	0.0	0.0	0.2	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	2.4	0.0	2.6	0.2	0.0	0.2	48.4	0.0	0.0	47.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h	1295				445		24				8	
Approach Delay, s/veh	2.5				0.2		48.4				47.0	
Approach LOS	A				A		D				D	
Timer - Assigned Phs	2		4		6		8					
Phs Duration (G+Y+Rc), s	91.0		9.0		91.0		9.0					
Change Period (Y+Rc), s	5.5		5.5		5.5		5.5					
Max Green Setting (Gmax), s	63.5		25.5		63.5		25.5					
Max Q Clear Time (g_c+I1), s	2.0		2.5		10.3		3.5					
Green Ext Time (p_c), s	6.3		0.0		27.0		0.1					
Intersection Summary												
HCM 6th Ctrl Delay			2.7									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	1226	416	10	23	26
Future Vol, veh/h	20	1226	416	10	23	26
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	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	1264	429	10	24	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	439	0	-	0	1108	220
Stage 1	-	-	-	-	434	-
Stage 2	-	-	-	-	674	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	1117	-	-	-	204	784
Stage 1	-	-	-	-	621	-
Stage 2	-	-	-	-	468	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1117	-	-	-	191	784
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	582	-
Stage 2	-	-	-	-	468	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		18.4		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1117	-	-	-	319	
HCM Lane V/C Ratio	0.018	-	-	-	0.158	
HCM Control Delay (s)	8.3	0.3	-	-	18.4	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6	

Timings

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

1b. Existing 2023 PM

09/05/2023



Lane Group	EBT	WBT	SBL
Lane Configurations	↑↑	↑↑	↑↑
Traffic Volume (vph)	439	1010	291
Future Volume (vph)	439	1010	291
Lane Group Flow (vph)	448	1695	302
Turn Type	NA	NA	Prot
Protected Phases	6	2	7
Permitted Phases			
Detector Phase	6	2	7
Switch Phase			
Minimum Initial (s)	15.0	15.0	5.0
Minimum Split (s)	28.5	28.5	15.0
Total Split (s)	78.0	78.0	22.0
Total Split (%)	78.0%	78.0%	22.0%
Yellow Time (s)	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5
Lead/Lag			
Lead-Lag Optimize?			
Recall Mode	C-Min	C-Min	None
v/c Ratio	0.17	0.65	0.64
Control Delay	3.8	6.0	52.4
Queue Delay	0.0	0.0	0.0
Total Delay	3.8	6.0	52.4
Queue Length 50th (ft)	35	169	99
Queue Length 95th (ft)	54	255	141
Internal Link Dist (ft)	2151	1251	1021
Turn Bay Length (ft)			
Base Capacity (vph)	2664	2600	567
Starvation Cap Reductn	0	0	0
Spillback Cap Reductn	0	0	0
Storage Cap Reductn	0	0	0
Reduced v/c Ratio	0.17	0.65	0.53

Intersection Summary

Cycle Length: 100

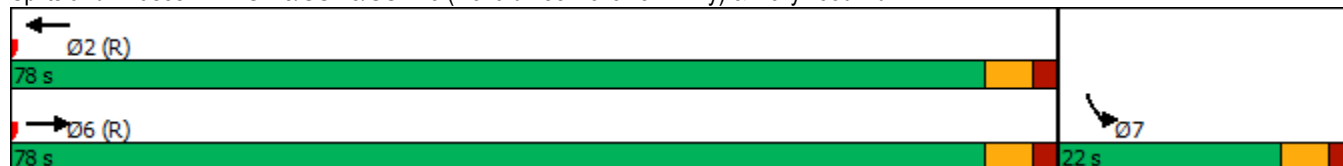
Actuated Cycle Length: 100

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

Natural Cycle: 55

Control Type: Actuated-Coordinated

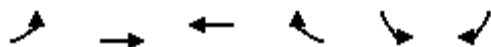
Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



HCM 6th Signalized Intersection Summary
1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

1b. Existing 2023 PM

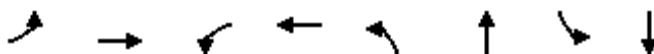
09/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Volume (veh/h)	0	439	1010	651	291	5
Future Volume (veh/h)	0	439	1010	651	291	5
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	448	1031	664	302	0
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	2779	1661	1009	385	171
Arrive On Green	0.00	1.00	0.78	0.78	0.11	0.00
Sat Flow, veh/h	0	3741	2218	1290	3563	1585
Grp Volume(v), veh/h	0	448	852	843	302	0
Grp Sat Flow(s),veh/h/ln	0	1777	1777	1638	1781	1585
Q Serve(g_s), s	0.0	0.0	20.1	23.1	8.3	0.0
Cycle Q Clear(g_c), s	0.0	0.0	20.1	23.1	8.3	0.0
Prop In Lane	0.00			0.79	1.00	1.00
Lane Grp Cap(c), veh/h	0	2779	1389	1281	385	171
V/C Ratio(X)	0.00	0.16	0.61	0.66	0.78	0.00
Avail Cap(c_a), veh/h	0	2779	1389	1281	588	262
HCM Platoon Ratio	1.00	2.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.99	1.00	1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	4.6	4.9	43.5	0.0
Incr Delay (d2), s/veh	0.0	0.1	2.0	2.7	3.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	6.4	6.9	3.8	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	0.1	6.6	7.6	47.3	0.0
LnGrp LOS	A	A	A	A	D	A
Approach Vol, veh/h		448	1695		302	
Approach Delay, s/veh		0.1	7.1		47.3	
Approach LOS		A	A		D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		83.7		16.3		83.7
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		72.5		16.5		72.5
Max Q Clear Time (g_c+I1), s		25.1		10.3		2.0
Green Ext Time (p_c), s		37.5		0.6		7.2
Intersection Summary						
HCM 6th Ctrl Delay			10.8			
HCM 6th LOS			B			
Notes						
User approved volume balancing among the lanes for turning movement.						

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

1b. Existing 2023 PM
09/05/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Traffic Volume (vph)	3	5	104	6	1	597	4	211
Future Volume (vph)	3	5	104	6	1	597	4	211
Lane Group Flow (vph)	0	9	0	154	0	751	0	242
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	32.0	32.0	32.0	32.0	68.0	68.0	68.0	68.0
Total Split (%)	32.0%	32.0%	32.0%	32.0%	68.0%	68.0%	68.0%	68.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.03		0.68		0.56		0.18
Control Delay		32.8		50.8		9.2		5.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		32.8		50.8		9.2		5.0
Queue Length 50th (ft)		5		87		178		39
Queue Length 95th (ft)		18		142		367		83
Internal Link Dist (ft)		287		989		861		425
Turn Bay Length (ft)								
Base Capacity (vph)		449		380		1350		1355
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.02		0.41		0.56		0.18

Intersection Summary

Cycle Length: 100

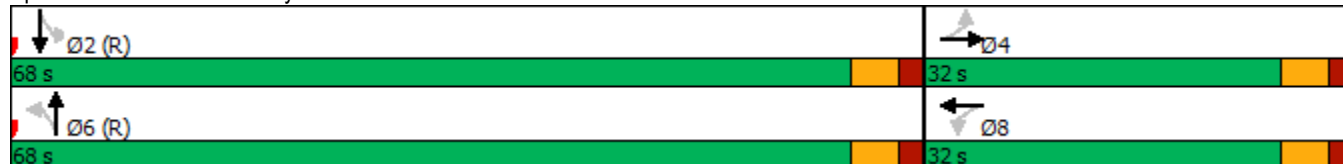
Actuated Cycle Length: 100

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

Natural Cycle: 70

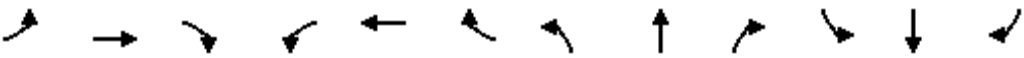
Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary
2: Hollywood Rd & Sumlin Ave/Johnson Rd

1b. Existing 2023 PM
09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Volume (veh/h)	3	5	0	104	6	28	1	597	78	4	211	4
Future Volume (veh/h)	3	5	0	104	6	28	1	597	78	4	211	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	6	0	116	7	31	1	663	87	4	234	4
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	100	173	0	202	10	38	36	1235	162	43	1383	23
Arrive On Green	0.13	0.13	0.00	0.13	0.13	0.13	0.76	0.76	0.76	0.76	0.76	0.76
Sat Flow, veh/h	407	1357	0	1095	79	296	0	1619	212	8	1813	31
Grp Volume(v), veh/h	9	0	0	154	0	0	751	0	0	242	0	0
Grp Sat Flow(s),veh/h/ln	1764	0	0	1470	0	0	1832	0	0	1852	0	0
Q Serve(g_s), s	0.0	0.0	0.0	9.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.4	0.0	0.0	10.2	0.0	0.0	16.5	0.0	0.0	3.5	0.0	0.0
Prop In Lane	0.33		0.00	0.75		0.20	0.00		0.12	0.02		0.02
Lane Grp Cap(c), veh/h	273	0	0	250	0	0	1433	0	0	1449	0	0
V/C Ratio(X)	0.03	0.00	0.00	0.62	0.00	0.00	0.52	0.00	0.00	0.17	0.00	0.00
Avail Cap(c_a), veh/h	502	0	0	451	0	0	1433	0	0	1449	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	38.3	0.0	0.0	42.5	0.0	0.0	4.8	0.0	0.0	3.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.5	0.0	0.0	1.4	0.0	0.0	0.2	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	3.9	0.0	0.0	5.0	0.0	0.0	1.1	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	0.0	44.9	0.0	0.0	6.1	0.0	0.0	3.5	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		9			154			751			242	
Approach Delay, s/veh		38.3			44.9			6.1			3.5	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		81.8		18.2		81.8		18.2				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		62.5		26.5		62.5		26.5				
Max Q Clear Time (g_c+I1), s		5.5		2.4		18.5		12.2				
Green Ext Time (p_c), s		3.1		0.0		13.4		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				11.0								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	4	590	7	7	203
Future Vol, veh/h	6	4	590	7	7	203
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	4	663	8	8	228
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	911	667	0	0	671	0
Stage 1	667	-	-	-	-	-
Stage 2	244	-	-	-	-	-
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	304	459	-	-	919	-
Stage 1	510	-	-	-	-	-
Stage 2	797	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	301	459	-	-	919	-
Mov Cap-2 Maneuver	301	-	-	-	-	-
Stage 1	510	-	-	-	-	-
Stage 2	789	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	15.7	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	349	919	-	
HCM Lane V/C Ratio	-	-	0.032	0.009	-	
HCM Control Delay (s)	-	-	15.7	9	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.1	0	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	5	192	575	15	11	2
Future Vol, veh/h	5	192	575	15	11	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	216	646	17	12	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	663	0	-	0	883	655
Stage 1	-	-	-	-	655	-
Stage 2	-	-	-	-	228	-
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	926	-	-	-	316	466
Stage 1	-	-	-	-	517	-
Stage 2	-	-	-	-	810	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	926	-	-	-	314	466
Mov Cap-2 Maneuver	-	-	-	-	314	-
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	810	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		16.4		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	926	-	-	-	331	
HCM Lane V/C Ratio	0.006	-	-	-	0.044	
HCM Control Delay (s)	8.9	0	-	-	16.4	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	190	9	8	569	19	7
Future Vol, veh/h	190	9	8	569	19	7
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	211	10	9	632	21	8
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	221	0	866	216
Stage 1	-	-	-	-	216	-
Stage 2	-	-	-	-	650	-
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	-	-	1348	-	324	824
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	520	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1348	-	321	824
Mov Cap-2 Maneuver	-	-	-	-	321	-
Stage 1	-	-	-	-	820	-
Stage 2	-	-	-	-	515	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		15.1	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	384	-	-	1348	-	
HCM Lane V/C Ratio	0.075	-	-	0.007	-	
HCM Control Delay (s)	15.1	-	-	7.7	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	2.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	99	588	5	37	199
Future Vol, veh/h	10	99	588	5	37	199
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	113	668	6	42	226
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	981	671	0	0	674	0
Stage 1	671	-	-	-	-	-
Stage 2	310	-	-	-	-	-
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	277	456	-	-	917	-
Stage 1	508	-	-	-	-	-
Stage 2	744	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	263	456	-	-	917	-
Mov Cap-2 Maneuver	263	-	-	-	-	-
Stage 1	508	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	16.8	0	1.4			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	427	917	-	
HCM Lane V/C Ratio	-	-	0.29	0.046	-	
HCM Control Delay (s)	-	-	16.8	9.1	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1.2	0.1	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	9	664	17	19	257
Future Vol, veh/h	7	9	664	17	19	257
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	10	746	19	21	289
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1087	756	0	0	765	0
Stage 1	756	-	-	-	-	-
Stage 2	331	-	-	-	-	-
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	239	408	-	-	848	-
Stage 1	464	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	232	408	-	-	848	-
Mov Cap-2 Maneuver	232	-	-	-	-	-
Stage 1	464	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	17.5	0	0.6			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	306	848	-	
HCM Lane V/C Ratio	-	-	0.059	0.025	-	
HCM Control Delay (s)	-	-	17.5	9.4	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.2	0.1	-	

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	40	17	31	653	224	8
Future Vol, veh/h	40	17	31	653	224	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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	43	18	33	695	238	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1004	243	247	0	-	0
Stage 1	243	-	-	-	-	-
Stage 2	761	-	-	-	-	-
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	268	796	1319	-	-	-
Stage 1	797	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	257	796	1319	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	764	-	-	-	-	-
Stage 2	461	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	18.8	0.4		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1319	-	322	-	-	
HCM Lane V/C Ratio	0.025	-	0.188	-	-	
HCM Control Delay (s)	7.8	0	18.8	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	0.7	-	-	

Intersection	
Intersection Delay, s/veh	7.8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	36	0	5	126	6	2	12	2	4	12	9
Future Vol, veh/h	6	36	0	5	126	6	2	12	2	4	12	9
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	7	43	0	6	152	7	2	14	2	5	14	11
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.5	8	7.5	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	12%	14%	4%	16%
Vol Thru, %	75%	86%	92%	48%
Vol Right, %	12%	0%	4%	36%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	16	42	137	25
LT Vol	2	6	5	4
Through Vol	12	36	126	12
RT Vol	2	0	6	9
Lane Flow Rate	19	51	165	30
Geometry Grp	1	1	1	1
Degree of Util (X)	0.023	0.059	0.185	0.035
Departure Headway (Hd)	4.388	4.174	4.039	4.242
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	821	851	885	849
Service Time	2.388	2.235	2.079	2.242
HCM Lane V/C Ratio	0.023	0.06	0.186	0.035
HCM Control Delay	7.5	7.5	8	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.7	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	44	2	2	142	3	2	16	4	2	11	3
Future Vol, veh/h	3	44	2	2	142	3	2	16	4	2	11	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	72	3	3	233	5	3	26	7	3	18	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	238	0	0	75	0	0	337	328	74	342	327	236
Stage 1	-	-	-	-	-	-	84	84	-	242	242	-
Stage 2	-	-	-	-	-	-	253	244	-	100	85	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1329	-	-	1524	-	-	617	591	988	612	591	803
Stage 1	-	-	-	-	-	-	924	825	-	762	705	-
Stage 2	-	-	-	-	-	-	751	704	-	906	824	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1329	-	-	1524	-	-	596	587	988	584	587	803
Mov Cap-2 Maneuver	-	-	-	-	-	-	596	587	-	584	587	-
Stage 1	-	-	-	-	-	-	920	822	-	759	704	-
Stage 2	-	-	-	-	-	-	726	703	-	868	821	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.5			0.1			11			11.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	635	1329	-	-	1524	-	-	618				
HCM Lane V/C Ratio	0.057	0.004	-	-	0.002	-	-	0.042				
HCM Control Delay (s)	11	7.7	0	-	7.4	0	-	11.1				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	39	5	6	73	155	136
Future Vol, veh/h	39	5	6	73	155	136
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	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	50	6	8	94	199	174
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	396	286	373	0	-	0
Stage 1	286	-	-	-	-	-
Stage 2	110	-	-	-	-	-
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	609	753	1185	-	-	-
Stage 1	763	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	605	753	1185	-	-	-
Mov Cap-2 Maneuver	605	-	-	-	-	-
Stage 1	758	-	-	-	-	-
Stage 2	915	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.4	0.6		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1185	-	619	-	-	
HCM Lane V/C Ratio	0.006	-	0.091	-	-	
HCM Control Delay (s)	8.1	0	11.4	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.3	-	-	

Intersection						
Int Delay, s/veh	0.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	163	544	0	3	10
Future Vol, veh/h	0	163	544	0	3	10
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	190	633	0	3	12
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	823	633
Stage 1	-	-	-	-	633	-
Stage 2	-	-	-	-	190	-
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	-	-	0	343	480
Stage 1	0	-	-	0	529	-
Stage 2	0	-	-	0	842	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	343	480
Mov Cap-2 Maneuver	-	-	-	-	343	-
Stage 1	-	-	-	-	529	-
Stage 2	-	-	-	-	842	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		13.5		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	439			
HCM Lane V/C Ratio	-	-	0.034			
HCM Control Delay (s)	-	-	13.5			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	26	165	1	4	587	7	2	0	1	0	0	0
Future Vol, veh/h	26	165	1	4	587	7	2	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	29	181	1	4	645	8	2	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	653	0	0	182	0	0	897	901	182
Stage 1	-	-	-	-	-	-	240	240	-
Stage 2	-	-	-	-	-	-	657	661	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	934	-	-	1393	-	-	310	278	861
Stage 1	-	-	-	-	-	-	800	707	-
Stage 2	-	-	-	-	-	-	516	460	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	934	-	-	1393	-	-	298	0	861
Mov Cap-2 Maneuver	-	-	-	-	-	-	298	0	-
Stage 1	-	-	-	-	-	-	772	0	-
Stage 2	-	-	-	-	-	-	513	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.2	0.1	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	381	934	-	-	1393	-	-
HCM Lane V/C Ratio	0.009	0.031	-	-	0.003	-	-
HCM Control Delay (s)	14.5	9	0	-	7.6	0	-
HCM Lane LOS	B	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	10	2	0	7	0	0	31	1	0	17	0
Future Vol, veh/h	0	10	2	0	7	0	0	31	1	0	17	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	14	3	0	9	0	0	42	1	0	23	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7.2	7.1
HCM LOS	A	A	A	A

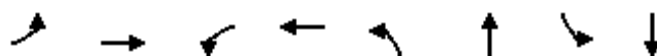
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	97%	83%	100%	100%
Vol Right, %	3%	17%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	32	12	7	17
LT Vol	0	0	0	0
Through Vol	31	10	7	17
RT Vol	1	2	0	0
Lane Flow Rate	43	16	9	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.048	0.018	0.011	0.026
Departure Headway (Hd)	3.975	3.954	4.059	4.009
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	902	903	879	893
Service Time	1.994	1.988	2.094	2.031
HCM Lane V/C Ratio	0.048	0.018	0.01	0.026
HCM Control Delay	7.2	7.1	7.1	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.1

Timings

15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

1b. Existing 2023 PM

09/05/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔↔		↔↔		↔		↔
Traffic Volume (vph)	7	508	18	1068	14	1	1	0
Future Volume (vph)	7	508	18	1068	14	1	1	0
Lane Group Flow (vph)	0	531	0	1122	0	37	0	20
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.0	69.0	69.0	69.0	31.0	31.0	31.0	31.0
Total Split (%)	69.0%	69.0%	69.0%	69.0%	31.0%	31.0%	31.0%	31.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio		0.18		0.38		0.29		0.18
Control Delay		1.7		3.8		30.5		46.6
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		1.7		3.8		30.5		46.6
Queue Length 50th (ft)		26		98		9		12
Queue Length 95th (ft)		44		213		40		35
Internal Link Dist (ft)		1471		2151		68		1164
Turn Bay Length (ft)								
Base Capacity (vph)		2953		2956		395		405
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.18		0.38		0.09		0.05

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 60

Control Type: Actuated-Coordinated

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

1b. Existing 2023 PM

09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔			↔↔			↔			↔	
Traffic Volume (veh/h)	7	508	0	18	1068	2	14	1	21	1	0	18
Future Volume (veh/h)	7	508	0	18	1068	2	14	1	21	1	0	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	7	524	0	19	1101	2	14	1	22	1	0	19
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	2885	0	60	2953	5	72	8	44	40	2	72
Arrive On Green	0.84	0.84	0.00	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	17	3510	0	28	3506	6	463	172	930	40	39	1506
Grp Volume(v), veh/h	282	249	0	583	0	539	37	0	0	20	0	0
Grp Sat Flow(s),veh/h/ln	1825	1617	0	1839	0	1701	1565	0	0	1585	0	0
Q Serve(g_s), s	0.0	2.9	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.8	2.9	0.0	0.0	0.0	0.0	2.2	0.0	0.0	1.2	0.0	0.0
Prop In Lane	0.02		0.00	0.03		0.00	0.38		0.59	0.05		0.95
Lane Grp Cap(c), veh/h	1574	1362	0	1586	0	1433	124	0	0	113	0	0
V/C Ratio(X)	0.18	0.18	0.00	0.37	0.00	0.38	0.30	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	1574	1362	0	1586	0	1433	438	0	0	440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.71	0.00	0.71	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.5	1.5	0.0	0.0	0.0	0.0	46.4	0.0	0.0	45.9	0.0	0.0
Incr Delay (d2), s/veh	0.2	0.3	0.0	0.5	0.0	0.5	1.3	0.0	0.0	0.7	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	0.5	0.0	0.2	0.0	0.2	0.9	0.0	0.0	0.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.7	1.8	0.0	0.5	0.0	0.5	47.7	0.0	0.0	46.7	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h		531			1122			37			20	
Approach Delay, s/veh		1.7			0.5			47.7			46.7	
Approach LOS		A			A			D			D	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		89.7		10.3		89.7		10.3				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		63.5		25.5		63.5		25.5				
Max Q Clear Time (g_c+I1), s		2.0		3.2		4.9		4.2				
Green Ext Time (p_c), s		22.9		0.1		7.7		0.1				
Intersection Summary												
HCM 6th Ctrl Delay			2.4									
HCM 6th LOS			A									

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	508	1068	18	26	26
Future Vol, veh/h	10	508	1068	18	26	26
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	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	524	1101	19	27	27
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1120	0	-	0	1393	560
Stage 1	-	-	-	-	1111	-
Stage 2	-	-	-	-	282	-
Critical Hdwy	4.14	-	-	-	6.84	6.94
Critical Hdwy Stg 1	-	-	-	-	5.84	-
Critical Hdwy Stg 2	-	-	-	-	5.84	-
Follow-up Hdwy	2.22	-	-	-	3.52	3.32
Pot Cap-1 Maneuver	619	-	-	-	133	472
Stage 1	-	-	-	-	277	-
Stage 2	-	-	-	-	741	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	619	-	-	-	130	472
Mov Cap-2 Maneuver	-	-	-	-	130	-
Stage 1	-	-	-	-	271	-
Stage 2	-	-	-	-	741	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		28.8		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	619	-	-	-	204	
HCM Lane V/C Ratio	0.017	-	-	-	0.263	
HCM Control Delay (s)	10.9	0.1	-	-	28.8	
HCM Lane LOS	B	A	-	-	D	
HCM 95th %tile Q(veh)	0.1	-	-	-	1	

Future “No-Build” Intersection Analysis

Timings

2a. No-Build 2028 AM

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

09/05/2023



Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↰	↰	↰
Traffic Volume (vph)	1262	401	190	303	2
Future Volume (vph)	1262	401	190	303	2
Lane Group Flow (vph)	1315	418	198	316	2
Turn Type	NA	NA	Perm	Prot	Perm
Protected Phases	6	2		7	
Permitted Phases			2		7
Detector Phase	6	2	2	7	7
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	28.5	15.0	15.0
Total Split (s)	68.0	68.0	68.0	32.0	32.0
Total Split (%)	68.0%	68.0%	68.0%	32.0%	32.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
v/c Ratio	1.06	0.34	0.18	0.81	0.01
Control Delay	56.3	8.6	1.5	59.6	34.0
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	56.3	8.6	1.5	59.6	34.0
Queue Length 50th (ft)	~925	105	0	199	0
Queue Length 95th (ft)	m#1222	175	25	298	m5
Internal Link Dist (ft)	2151	1251		1021	
Turn Bay Length (ft)			250		50
Base Capacity (vph)	1246	1246	1124	469	420
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.06	0.34	0.18	0.67	0.00

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

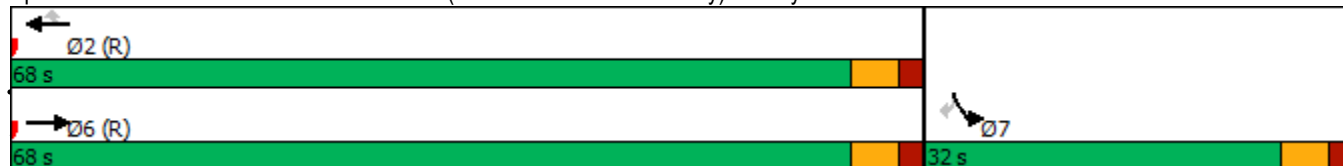
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

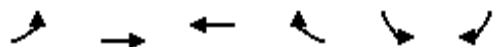
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



HCM 6th Signalized Intersection Summary
1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

2a. No-Build 2028 AM
09/05/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Volume (veh/h)	0	1262	401	190	303	2
Future Volume (veh/h)	0	1262	401	190	303	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1315	418	198	316	2
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	1293	1293	1096	354	315
Arrive On Green	0.00	0.69	0.69	0.69	0.20	0.20
Sat Flow, veh/h	0	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	0	1315	418	198	316	2
Grp Sat Flow(s),veh/h/ln	0	1870	1870	1585	1781	1585
Q Serve(g_s), s	0.0	69.1	8.9	4.4	17.3	0.1
Cycle Q Clear(g_c), s	0.0	69.1	8.9	4.4	17.3	0.1
Prop In Lane	0.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1293	1293	1096	354	315
V/C Ratio(X)	0.00	1.02	0.32	0.18	0.89	0.01
Avail Cap(c_a), veh/h	0	1293	1293	1096	472	420
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.36	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	15.4	6.1	5.4	39.0	32.2
Incr Delay (d2), s/veh	0.0	19.4	0.7	0.4	15.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	31.7	3.4	1.4	8.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	34.8	6.8	5.8	54.6	32.2
LnGrp LOS	A	F	A	A	D	C
Approach Vol, veh/h		1315	616		318	
Approach Delay, s/veh		34.8	6.5		54.5	
Approach LOS		C	A		D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		74.6		25.4		74.6
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		62.5		26.5		62.5
Max Q Clear Time (g_c+I1), s		10.9		19.3		71.1
Green Ext Time (p_c), s		8.5		0.6		0.0
Intersection Summary						
HCM 6th Ctrl Delay			29.8			
HCM 6th LOS			C			

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

2a. No-Build 2028 AM
09/05/2023

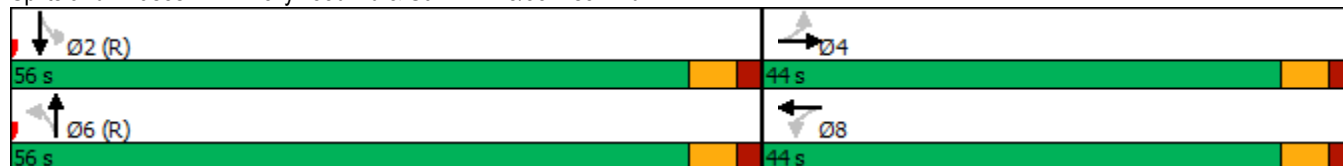


Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↔		↔		↔		↔
Traffic Volume (vph)	3	82	0	5	122	9	241
Future Volume (vph)	3	82	0	5	122	9	241
Lane Group Flow (vph)	11	0	98	0	226	0	278
Turn Type	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	4		8		6		2
Permitted Phases		8		6		2	
Detector Phase	4	8	8	6	6	2	2
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	44.0	44.0	44.0	56.0	56.0	56.0	56.0
Total Split (%)	44.0%	44.0%	44.0%	56.0%	56.0%	56.0%	56.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0		0.0
Total Lost Time (s)	5.5		5.5		5.5		5.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.06		0.58		0.16		0.18
Control Delay	24.2		43.6		2.8		3.4
Queue Delay	0.0		0.0		0.0		0.0
Total Delay	24.2		43.6		2.8		3.4
Queue Length 50th (ft)	2		43		22		36
Queue Length 95th (ft)	18		91		52		76
Internal Link Dist (ft)	287		989		861		425
Turn Bay Length (ft)							
Base Capacity (vph)	651		537		1441		1504
Starvation Cap Reductn	0		0		0		0
Spillback Cap Reductn	0		0		0		0
Storage Cap Reductn	0		0		0		0
Reduced v/c Ratio	0.02		0.18		0.16		0.18

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary 2: Hollywood Rd & Sumlin Ave/Johnson Rd

2a. No-Build 2028 AM
09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3	7	82	0	6	5	122	76	9	241	0
Future Volume (veh/h)	0	3	7	82	0	6	5	122	76	9	241	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3	8	91	0	7	6	136	84	10	268	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	42	113	185	0	9	51	856	515	63	1448	0
Arrive On Green	0.00	0.09	0.09	0.09	0.00	0.09	0.80	0.80	0.80	0.80	0.80	0.00
Sat Flow, veh/h	0	451	1203	1229	3	95	18	1076	647	32	1819	0
Grp Volume(v), veh/h	0	0	11	98	0	0	226	0	0	278	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1654	1327	0	0	1742	0	0	1851	0	0
Q Serve(g_s), s	0.0	0.0	0.6	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	7.4	0.0	0.0	3.0	0.0	0.0	3.6	0.0	0.0
Prop In Lane	0.00		0.73	0.93		0.07	0.03		0.37	0.04		0.00
Lane Grp Cap(c), veh/h	0	0	156	194	0	0	1423	0	0	1510	0	0
V/C Ratio(X)	0.00	0.00	0.07	0.50	0.00	0.00	0.16	0.00	0.00	0.18	0.00	0.00
Avail Cap(c_a), veh/h	0	0	637	606	0	0	1423	0	0	1510	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	41.3	44.6	0.0	0.0	2.4	0.0	0.0	2.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.0	0.0	0.0	0.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	2.5	0.0	0.0	0.8	0.0	0.0	1.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.5	46.7	0.0	0.0	2.6	0.0	0.0	2.7	0.0	0.0
LnGrp LOS	A	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	11		98			226			278			
Approach Delay, s/veh	41.5		46.7			2.6			2.7			
Approach LOS	D		D			A			A			
Timer - Assigned Phs	2		4			6			8			
Phs Duration (G+Y+Rc), s	85.1		14.9			85.1			14.9			
Change Period (Y+Rc), s	5.5		5.5			5.5			5.5			
Max Green Setting (Gmax), s	50.5		38.5			50.5			38.5			
Max Q Clear Time (g_c+I1), s	5.6		2.6			5.0			9.4			
Green Ext Time (p_c), s	3.5		0.0			2.9			0.5			
Intersection Summary												
HCM 6th Ctrl Delay	10.4											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	10	6	121	6	8	231
Future Vol, veh/h	10	6	121	6	8	231
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	7	132	7	9	251

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	405	136	0
Stage 1	136	-	-
Stage 2	269	-	-
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	602	913	-
Stage 1	890	-	-
Stage 2	776	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	598	913	-
Mov Cap-2 Maneuver	598	-	-
Stage 1	890	-	-
Stage 2	771	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	687	1445
HCM Lane V/C Ratio	-	-	0.025	0.006
HCM Control Delay (s)	-	-	10.4	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	218	114	7	12	2
Future Vol, veh/h	1	218	114	7	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	240	125	8	13	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	133	0	-	0	371	129
Stage 1	-	-	-	-	129	-
Stage 2	-	-	-	-	242	-
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	1452	-	-	-	630	921
Stage 1	-	-	-	-	897	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1452	-	-	-	629	921
Mov Cap-2 Maneuver	-	-	-	-	629	-
Stage 1	-	-	-	-	896	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1452	-	-	-	659	
HCM Lane V/C Ratio	0.001	-	-	-	0.023	
HCM Control Delay (s)	7.5	0	-	-	10.6	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	216	5	2	114	8	3
Future Vol, veh/h	216	5	2	114	8	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	232	5	2	123	9	3
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	237	0	362	235
Stage 1	-	-	-	-	235	-
Stage 2	-	-	-	-	127	-
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	-	-	1330	-	637	804
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	899	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1330	-	636	804
Mov Cap-2 Maneuver	-	-	-	-	636	-
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	897	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		10.4	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	674	-	-	1330	-	
HCM Lane V/C Ratio	0.018	-	-	0.002	-	
HCM Control Delay (s)	10.4	-	-	7.7	0	
HCM Lane LOS	B	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	2.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	6	54	127	18	47	189
Future Vol, veh/h	6	54	127	18	47	189
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	57	134	19	49	199
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	441	144	0	0	153	0
Stage 1	144	-	-	-	-	-
Stage 2	297	-	-	-	-	-
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	574	903	-	-	1428	-
Stage 1	883	-	-	-	-	-
Stage 2	754	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	552	903	-	-	1428	-
Mov Cap-2 Maneuver	552	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	725	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	9.6	0		1.5		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		849	1428	
HCM Lane V/C Ratio	-	-		0.074	0.035	
HCM Control Delay (s)	-	-		9.6	7.6	
HCM Lane LOS	-	-		A	A	
HCM 95th %tile Q(veh)	-	-		0.2	0.1	

Intersection						
Int Delay, s/veh	1.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	23	181	8	6	236
Future Vol, veh/h	27	23	181	8	6	236
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	24	189	8	6	246
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	451	193	0	0	197	0
Stage 1	193	-	-	-	-	-
Stage 2	258	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	566	849	-	-	1376	-
Stage 1	840	-	-	-	-	-
Stage 2	785	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	563	849	-	-	1376	-
Mov Cap-2 Maneuver	563	-	-	-	-	-
Stage 1	840	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	10.9	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	666	1376	-	
HCM Lane V/C Ratio	-	-	0.078	0.005	-	
HCM Control Delay (s)	-	-	10.9	7.6	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	12	11	174	247	8
Future Vol, veh/h	8	12	11	174	247	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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	13	12	193	274	9
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	496	279	283	0	-	0
Stage 1	279	-	-	-	-	-
Stage 2	217	-	-	-	-	-
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	533	760	1279	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	527	760	1279	-	-	-
Mov Cap-2 Maneuver	527	-	-	-	-	-
Stage 1	760	-	-	-	-	-
Stage 2	819	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.8	0.5		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1279	-	646	-	-	
HCM Lane V/C Ratio	0.01	-	0.034	-	-	
HCM Control Delay (s)	7.8	0	10.8	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection	
Intersection Delay, s/veh	7.6
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	67	1	6	58	0	0	6	1	3	11	3
Future Vol, veh/h	0	67	1	6	58	0	0	6	1	3	11	3
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	99	1	9	85	0	0	9	1	4	16	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	7.6	7.4	7.4
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	9%	18%
Vol Thru, %	86%	99%	91%	65%
Vol Right, %	14%	1%	0%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	68	64	17
LT Vol	0	0	6	3
Through Vol	6	67	58	11
RT Vol	1	1	0	3
Lane Flow Rate	10	100	94	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.012	0.113	0.107	0.029
Departure Headway (Hd)	4.202	4.057	4.089	4.205
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	838	880	873	838
Service Time	2.298	2.096	2.129	2.297
HCM Lane V/C Ratio	0.012	0.114	0.108	0.03
HCM Control Delay	7.4	7.6	7.6	7.4
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.4	0.4	0.1

Intersection												
Int Delay, s/veh	1.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	80	2	2	67	2	1	11	2	1	10	1
Future Vol, veh/h	3	80	2	2	67	2	1	11	2	1	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	99	2	2	83	2	1	14	2	1	12	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	85	0	0	101	0	0	203	197	100	204	197	84
Stage 1	-	-	-	-	-	-	108	108	-	88	88	-
Stage 2	-	-	-	-	-	-	95	89	-	116	109	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1512	-	-	1491	-	-	755	699	956	754	699	975
Stage 1	-	-	-	-	-	-	897	806	-	920	822	-
Stage 2	-	-	-	-	-	-	912	821	-	889	805	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1512	-	-	1491	-	-	741	696	956	739	696	975
Mov Cap-2 Maneuver	-	-	-	-	-	-	741	696	-	739	696	-
Stage 1	-	-	-	-	-	-	894	804	-	917	821	-
Stage 2	-	-	-	-	-	-	896	820	-	869	803	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.2			10.1			10.1		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	727	1512	-	-	1491	-	-	717				
HCM Lane V/C Ratio	0.024	0.002	-	-	0.002	-	-	0.021				
HCM Control Delay (s)	10.1	7.4	0	-	7.4	0	-	10.1				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	2.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	80	0	6	123	88	61
Future Vol, veh/h	80	0	6	123	88	61
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	0	7	138	99	69
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	286	134	168	0	-	0
Stage 1	134	-	-	-	-	-
Stage 2	152	-	-	-	-	-
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	704	915	1410	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	700	915	1410	-	-	-
Mov Cap-2 Maneuver	700	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	10.9	0.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1410	-	700	-	-	
HCM Lane V/C Ratio	0.005	-	0.128	-	-	
HCM Control Delay (s)	7.6	0	10.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

Intersection						
Int Delay, s/veh	2.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	260	137	0	28	93
Future Vol, veh/h	0	260	137	0	28	93
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	295	156	0	32	106
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	451	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	295	-
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	-	-	0	566	890
Stage 1	0	-	-	0	872	-
Stage 2	0	-	-	0	755	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	566	890
Mov Cap-2 Maneuver	-	-	-	-	566	-
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	755	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.5		
HCM LOS	B					
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	786			
HCM Lane V/C Ratio	-	-	0.175			
HCM Control Delay (s)	-	-	10.5			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.6			

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	118	171	0	0	137	45	0	0	1	0	0	0
Future Vol, veh/h	118	171	0	0	137	45	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	139	201	0	0	161	53	0	0	1	0	0	0
Major/Minor	Major1			Major2			Minor1					
Conflicting Flow All	214	0	0	201	0	0	667	693	201			
Stage 1	-	-	-	-	-	-	479	479	-			
Stage 2	-	-	-	-	-	-	188	214	-			
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22			
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-			
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-			
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318			
Pot Cap-1 Maneuver	1356	-	-	1371	-	-	424	367	840			
Stage 1	-	-	-	-	-	-	623	555	-			
Stage 2	-	-	-	-	-	-	844	725	-			
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1356	-	-	1371	-	-	375	0	840			
Mov Cap-2 Maneuver	-	-	-	-	-	-	375	0	-			
Stage 1	-	-	-	-	-	-	551	0	-			
Stage 2	-	-	-	-	-	-	844	0	-			
Approach	EB			WB			NB					
HCM Control Delay, s	3.2			0			9.3					
HCM LOS							A					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR					
Capacity (veh/h)	840	1356	-	-	1371	-	-					
HCM Lane V/C Ratio	0.001	0.102	-	-	-	-	-					
HCM Control Delay (s)	9.3	8	0	-	0	-	-					
HCM Lane LOS	A	A	A	-	A	-	-					
HCM 95th %tile Q(veh)	0	0.3	-	-	0	-	-					

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	16	0	1	7	0	0	10	1	0	6	0
Future Vol, veh/h	0	16	0	1	7	0	0	10	1	0	6	0
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	20	0	1	9	0	0	12	1	0	7	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.1	7	7
HCM LOS	A	A	A	A

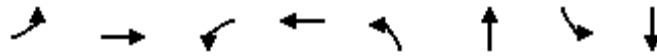
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	12%	0%
Vol Thru, %	91%	100%	88%	100%
Vol Right, %	9%	0%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	16	8	6
LT Vol	0	0	1	0
Through Vol	10	16	7	6
RT Vol	1	0	0	0
Lane Flow Rate	13	20	10	7
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.022	0.011	0.008
Departure Headway (Hd)	3.936	3.979	4.01	3.995
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	911	903	895	898
Service Time	1.951	1.988	2.023	2.011
HCM Lane V/C Ratio	0.014	0.022	0.011	0.008
HCM Control Delay	7	7.1	7.1	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0	0

Timings

15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

2a. No-Build 2028 AM

09/05/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	3	1385	7	470	10	0	5	0
Future Volume (vph)	3	1385	7	470	10	0	5	0
Lane Group Flow (vph)	3	1459	7	496	0	28	0	10
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.5	69.5	69.5	69.5	30.5	30.5	30.5	30.5
Total Split (%)	69.5%	69.5%	69.5%	69.5%	30.5%	30.5%	30.5%	30.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio	0.00	0.88	0.07	0.30		0.23		0.11
Control Delay	1.7	14.5	4.6	2.8		21.7		46.0
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	1.7	14.5	4.6	2.8		21.7		46.0
Queue Length 50th (ft)	0	520	1	52		1		6
Queue Length 95th (ft)	2	#1199	m4	133		28		23
Internal Link Dist (ft)		1471		2151		68		1164
Turn Bay Length (ft)	250		250					
Base Capacity (vph)	797	1662	96	1662		391		359
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.00	0.88	0.07	0.30		0.07		0.03

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 150

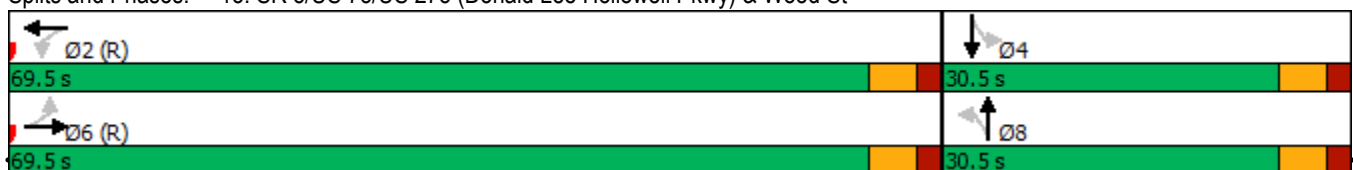
Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



A&R Engineering

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

Synchro 11 Report

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HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

2a. No-Build 2028 AM
09/05/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	1385	1	7	470	1	10	0	16	5	0	5
Future Volume (veh/h)	3	1385	1	7	470	1	10	0	16	5	0	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	1458	1	7	495	1	11	0	17	5	0	5
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	839	1590	1	189	1588	3	70	4	37	76	9	31
Arrive On Green	0.85	0.85	0.85	1.00	1.00	1.00	0.04	0.00	0.04	0.04	0.00	0.04
Sat Flow, veh/h	901	1869	1	364	1866	4	503	102	934	573	231	803
Grp Volume(v), veh/h	3	0	1459	7	0	496	28	0	0	10	0	0
Grp Sat Flow(s),veh/h/ln	901	0	1870	364	0	1870	1539	0	0	1607	0	0
Q Serve(g_s), s	0.0	0.0	52.9	1.2	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	52.9	54.1	0.0	0.0	1.7	0.0	0.0	0.6	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.39		0.61	0.50		0.50
Lane Grp Cap(c), veh/h	839	0	1591	189	0	1591	110	0	0	117	0	0
V/C Ratio(X)	0.00	0.00	0.92	0.04	0.00	0.31	0.25	0.00	0.00	0.09	0.00	0.00
Avail Cap(c_a), veh/h	839	0	1591	189	0	1591	429	0	0	430	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.95	0.00	0.95	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.1	0.0	5.1	16.8	0.0	0.0	47.0	0.0	0.0	46.4	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	9.9	0.3	0.0	0.5	1.2	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	12.8	0.1	0.0	0.2	0.7	0.0	0.0	0.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.1	0.0	14.9	17.2	0.0	0.5	48.2	0.0	0.0	46.7	0.0	0.0
LnGrp LOS	A	A	B	B	A	A	D	A	A	D	A	A
Approach Vol, veh/h	1462			503			28			10		
Approach Delay, s/veh	14.9			0.7			48.2			46.7		
Approach LOS	B			A			D			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	90.6			9.4			90.6			9.4		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	64.0			25.0			64.0			25.0		
Max Q Clear Time (g_c+I1), s	56.1			2.6			54.9			3.7		
Green Ext Time (p_c), s	3.2			0.0			8.7			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	12.0											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	1385	470	11	26	29
Future Vol, veh/h	23	1385	470	11	26	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	24	1428	485	11	27	30
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	496	0	-	0	1967	491
Stage 1	-	-	-	-	491	-
Stage 2	-	-	-	-	1476	-
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	1068	-	-	-	69	578
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	209	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1068	-	-	-	67	578
Mov Cap-2 Maneuver	-	-	-	-	164	-
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	209	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		22.3		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1068	-	-	-	264	
HCM Lane V/C Ratio	0.022	-	-	-	0.215	
HCM Control Delay (s)	8.4	-	-	-	22.3	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8	

Timings

2b. No-Build 2028 PM

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

09/06/2023



Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↗	↘	↗
Traffic Volume (vph)	496	1141	736	329	6
Future Volume (vph)	496	1141	736	329	6
Lane Group Flow (vph)	506	1164	751	336	6
Turn Type	NA	NA	Perm	Prot	Perm
Protected Phases	6	2		7	
Permitted Phases			2		7
Detector Phase	6	2	2	7	7
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	28.5	15.0	15.0
Total Split (s)	67.0	67.0	67.0	33.0	33.0
Total Split (%)	67.0%	67.0%	67.0%	33.0%	33.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
v/c Ratio	0.41	0.95	0.59	0.82	0.02
Control Delay	9.7	34.4	3.5	56.8	25.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	9.7	34.4	3.5	56.8	25.8
Queue Length 50th (ft)	138	628	19	213	2
Queue Length 95th (ft)	218	#1038	72	304	m10
Internal Link Dist (ft)	2151	1251		1021	
Turn Bay Length (ft)			250		50
Base Capacity (vph)	1226	1226	1268	486	437
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.41	0.95	0.59	0.69	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 90

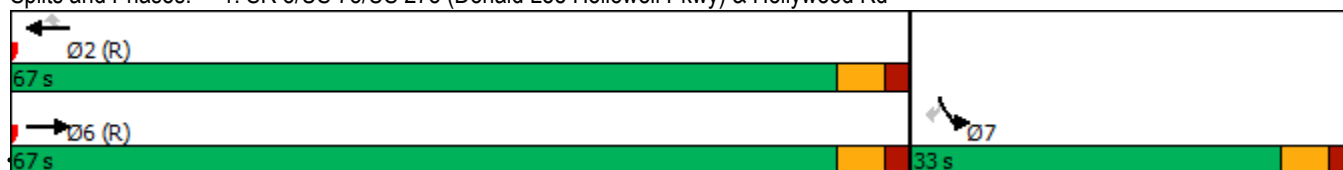
Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



A&R Engineering

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

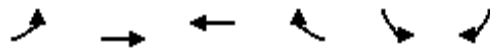
Synchro 11 Report

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HCM 6th Signalized Intersection Summary
 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

2b. No-Build 2028 PM

09/06/2023

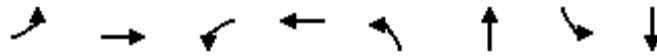


Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Volume (veh/h)	0	496	1141	736	329	6
Future Volume (veh/h)	0	496	1141	736	329	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	506	1164	751	336	6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	1272	1272	1078	374	333
Arrive On Green	0.00	0.68	0.68	0.68	0.21	0.21
Sat Flow, veh/h	0	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	0	506	1164	751	336	6
Grp Sat Flow(s),veh/h/ln	0	1870	1870	1585	1781	1585
Q Serve(g_s), s	0.0	11.9	52.7	28.8	18.4	0.3
Cycle Q Clear(g_c), s	0.0	11.9	52.7	28.8	18.4	0.3
Prop In Lane	0.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1272	1272	1078	374	333
V/C Ratio(X)	0.00	0.40	0.92	0.70	0.90	0.02
Avail Cap(c_a), veh/h	0	1272	1272	1078	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	7.0	13.5	9.7	38.5	31.3
Incr Delay (d2), s/veh	0.0	0.9	11.7	3.7	16.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	4.6	23.3	10.0	9.5	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	7.9	25.2	13.5	54.5	31.4
LnGrp LOS	A	A	C	B	D	C
Approach Vol, veh/h		506	1915		342	
Approach Delay, s/veh		7.9	20.6		54.1	
Approach LOS		A	C		D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		73.5		26.5		73.5
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		61.5		27.5		61.5
Max Q Clear Time (g_c+I1), s		54.7		20.4		13.9
Green Ext Time (p_c), s		6.5		0.6		8.1
Intersection Summary						
HCM 6th Ctrl Delay			22.4			
HCM 6th LOS			C			

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

2b. No-Build 2028 PM

09/06/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↕		↕		↕		↕
Traffic Volume (vph)	3	6	118	7	1	675	5	238
Future Volume (vph)	3	6	118	7	1	675	5	238
Lane Group Flow (vph)	0	10	0	175	0	849	0	276
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.5	31.5	31.5	31.5	68.5	68.5	68.5	68.5
Total Split (%)	31.5%	31.5%	31.5%	31.5%	68.5%	68.5%	68.5%	68.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.03		0.71		0.64		0.21
Control Delay		31.4		51.1		10.0		5.7
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		31.4		51.1		10.0		5.7
Queue Length 50th (ft)		5		99		234		49
Queue Length 95th (ft)		18		158		372		101
Internal Link Dist (ft)		287		989		861		425
Turn Bay Length (ft)								
Base Capacity (vph)		445		373		1325		1319
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.02		0.47		0.64		0.21

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 75

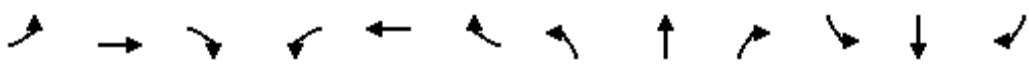
Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary 2: Hollywood Rd & Sumlin Ave/Johnson Rd

2b. No-Build 2028 PM
09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	3	6	0	118	7	32	1	675	88	5	238	5
Future Volume (veh/h)	3	6	0	118	7	32	1	675	88	5	238	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	7	0	131	8	36	1	750	98	6	264	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	200	0	219	10	43	36	1212	158	46	1336	30
Arrive On Green	0.14	0.14	0.00	0.14	0.14	0.14	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	361	1407	0	1096	72	302	0	1620	211	13	1787	40
Grp Volume(v), veh/h	10	0	0	175	0	0	849	0	0	276	0	0
Grp Sat Flow(s),veh/h/ln	1768	0	0	1470	0	0	1832	0	0	1839	0	0
Q Serve(g_s), s	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.0	11.6	0.0	0.0	21.8	0.0	0.0	4.4	0.0	0.0
Prop In Lane	0.30		0.00	0.75		0.21	0.00		0.12	0.02		0.02
Lane Grp Cap(c), veh/h	298	0	0	272	0	0	1406	0	0	1412	0	0
V/C Ratio(X)	0.03	0.00	0.00	0.64	0.00	0.00	0.60	0.00	0.00	0.20	0.00	0.00
Avail Cap(c_a), veh/h	496	0	0	444	0	0	1406	0	0	1412	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.0	0.0	0.0	41.7	0.0	0.0	5.9	0.0	0.0	3.7	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.5	0.0	0.0	1.9	0.0	0.0	0.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	4.4	0.0	0.0	6.9	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	0.0	0.0	44.2	0.0	0.0	7.9	0.0	0.0	4.0	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		10			175			849			276	
Approach Delay, s/veh		37.0			44.2			7.9			4.0	
Approach LOS		D			D			A			A	
Timer - Assigned Phs		2		4		6		8				
Phs Duration (G+Y+Rc), s		80.3		19.7		80.3		19.7				
Change Period (Y+Rc), s		5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s		63.0		26.0		63.0		26.0				
Max Q Clear Time (g_c+I1), s		6.4		2.5		23.8		13.6				
Green Ext Time (p_c), s		3.7		0.0		15.7		0.7				
Intersection Summary												
HCM 6th Ctrl Delay				12.1								
HCM 6th LOS				B								

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	5	667	8	8	229
Future Vol, veh/h	7	5	667	8	8	229
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	6	749	9	9	257
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1029	754	0	0	758	0
Stage 1	754	-	-	-	-	-
Stage 2	275	-	-	-	-	-
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	259	409	-	-	853	-
Stage 1	465	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	256	409	-	-	853	-
Mov Cap-2 Maneuver	256	-	-	-	-	-
Stage 1	465	-	-	-	-	-
Stage 2	762	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	17.4	0		0.3		
HCM LOS	C					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	303	853	-
HCM Lane V/C Ratio		-	-	0.044	0.011	-
HCM Control Delay (s)		-	-	17.4	9.3	0
HCM Lane LOS		-	-	C	A	A
HCM 95th %tile Q(veh)		-	-	0.1	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	6	217	650	17	12	2
Future Vol, veh/h	6	217	650	17	12	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	244	730	19	13	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	749	0	-	0	998	740
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	258	-
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	860	-	-	-	270	417
Stage 1	-	-	-	-	472	-
Stage 2	-	-	-	-	785	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	860	-	-	-	268	417
Mov Cap-2 Maneuver	-	-	-	-	268	-
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	785	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		18.5		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	860	-	-	-	282	
HCM Lane V/C Ratio	0.008	-	-	-	0.056	
HCM Control Delay (s)	9.2	0	-	-	18.5	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	215	10	9	643	21	8
Future Vol, veh/h	215	10	9	643	21	8
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	239	11	10	714	23	9

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	250	0	979
Stage 1	-	-	-	-	245
Stage 2	-	-	-	-	734
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	-	-	1316	-	277
Stage 1	-	-	-	-	796
Stage 2	-	-	-	-	475
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1316	-	273
Mov Cap-2 Maneuver	-	-	-	-	273
Stage 1	-	-	-	-	796
Stage 2	-	-	-	-	469

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	333	-	-	1316	-
HCM Lane V/C Ratio	0.097	-	-	0.008	-
HCM Control Delay (s)	17	-	-	7.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

Intersection						
Int Delay, s/veh	2.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	112	664	6	42	225
Future Vol, veh/h	11	112	664	6	42	225
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	127	755	7	48	256
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1111	759	0	0	762	0
Stage 1	759	-	-	-	-	-
Stage 2	352	-	-	-	-	-
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	231	406	-	-	850	-
Stage 1	462	-	-	-	-	-
Stage 2	712	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	216	406	-	-	850	-
Mov Cap-2 Maneuver	216	-	-	-	-	-
Stage 1	462	-	-	-	-	-
Stage 2	665	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	20.1	0		1.5		
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	376	850	-	
HCM Lane V/C Ratio	-	-	0.372	0.056	-	
HCM Control Delay (s)	-	-	20.1	9.5	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	1.7	0.2	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	10	750	19	21	290
Future Vol, veh/h	8	10	750	19	21	290
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	843	21	24	326
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1228	854	0	0	864	0
Stage 1	854	-	-	-	-	-
Stage 2	374	-	-	-	-	-
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	197	358	-	-	779	-
Stage 1	417	-	-	-	-	-
Stage 2	696	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	190	358	-	-	779	-
Mov Cap-2 Maneuver	190	-	-	-	-	-
Stage 1	417	-	-	-	-	-
Stage 2	670	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	20.2	0	0.7			
HCM LOS	C					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	257	779	-	
HCM Lane V/C Ratio	-	-	0.079	0.03	-	
HCM Control Delay (s)	-	-	20.2	9.8	0	
HCM Lane LOS	-	-	C	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0.1	-	

Intersection						
Int Delay, s/veh	1.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	45	19	35	738	253	9
Future Vol, veh/h	45	19	35	738	253	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	48	20	37	785	269	10
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1133	274	279	0	-	0
Stage 1	274	-	-	-	-	-
Stage 2	859	-	-	-	-	-
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	224	765	1284	-	-	-
Stage 1	772	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	213	765	1284	-	-	-
Mov Cap-2 Maneuver	213	-	-	-	-	-
Stage 1	733	-	-	-	-	-
Stage 2	415	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	22.7	0.4		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1284	-	271	-	-	
HCM Lane V/C Ratio	0.029	-	0.251	-	-	
HCM Control Delay (s)	7.9	0	22.7	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.1	-	1	-	-	

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	41	0	6	142	7	2	14	2	5	14	10
Future Vol, veh/h	7	41	0	6	142	7	2	14	2	5	14	10
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	49	0	7	171	8	2	17	2	6	17	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.6	8.2	7.6	7.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	15%	4%	17%
Vol Thru, %	78%	85%	92%	48%
Vol Right, %	11%	0%	5%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	18	48	155	29
LT Vol	2	7	6	5
Through Vol	14	41	142	14
RT Vol	2	0	7	10
Lane Flow Rate	22	58	187	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0.027	0.068	0.21	0.042
Departure Headway (Hd)	4.464	4.203	4.056	4.321
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	807	842	880	833
Service Time	2.465	2.279	2.108	2.322
HCM Lane V/C Ratio	0.027	0.069	0.212	0.042
HCM Control Delay	7.6	7.6	8.2	7.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.8	0.1

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	50	2	2	160	3	2	18	5	2	12	3
Future Vol, veh/h	3	50	2	2	160	3	2	18	5	2	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	82	3	3	262	5	3	30	8	3	20	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	267	0	0	85	0	0	377	367	84	384	366	265
Stage 1	-	-	-	-	-	-	94	94	-	271	271	-
Stage 2	-	-	-	-	-	-	283	273	-	113	95	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1297	-	-	1512	-	-	580	562	975	574	562	774
Stage 1	-	-	-	-	-	-	913	817	-	735	685	-
Stage 2	-	-	-	-	-	-	724	684	-	892	816	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1297	-	-	1512	-	-	559	559	975	544	559	774
Mov Cap-2 Maneuver	-	-	-	-	-	-	559	559	-	544	559	-
Stage 1	-	-	-	-	-	-	909	814	-	732	684	-
Stage 2	-	-	-	-	-	-	697	683	-	849	813	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.1			11.3			11.5		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	611	1297	-	-	1512	-	-	586				
HCM Lane V/C Ratio	0.067	0.004	-	-	0.002	-	-	0.048				
HCM Control Delay (s)	11.3	7.8	0	-	7.4	0	-	11.5				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	44	6	7	82	175	154
Future Vol, veh/h	44	6	7	82	175	154
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	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	56	8	9	105	224	197
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	446	323	421	0	-	0
Stage 1	323	-	-	-	-	-
Stage 2	123	-	-	-	-	-
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	570	718	1138	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	565	718	1138	-	-	-
Mov Cap-2 Maneuver	565	-	-	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12	0.6		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1138	-	580	-	-	
HCM Lane V/C Ratio	0.008	-	0.111	-	-	
HCM Control Delay (s)	8.2	0	12	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.4	-	-	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	184	615	0	3	11
Future Vol, veh/h	0	184	615	0	3	11
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	214	715	0	3	13
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	929	715
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	214	-
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	-	-	0	297	431
Stage 1	0	-	-	0	485	-
Stage 2	0	-	-	0	822	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	297	431
Mov Cap-2 Maneuver	-	-	-	-	297	-
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	822	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		14.6		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	393			
HCM Lane V/C Ratio	-	-	0.041			
HCM Control Delay (s)	-	-	14.6			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.1			

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	29	186	1	5	663	8	2	0	1	0	0	0
Future Vol, veh/h	29	186	1	5	663	8	2	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	204	1	5	729	9	2	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	738	0	0	205	0	0	1013	1017	205
Stage 1	-	-	-	-	-	-	269	269	-
Stage 2	-	-	-	-	-	-	744	748	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	868	-	-	1366	-	-	265	238	836
Stage 1	-	-	-	-	-	-	776	687	-
Stage 2	-	-	-	-	-	-	470	420	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	868	-	-	1366	-	-	252	0	836
Mov Cap-2 Maneuver	-	-	-	-	-	-	252	0	-
Stage 1	-	-	-	-	-	-	743	0	-
Stage 2	-	-	-	-	-	-	467	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.2	0.1	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	328	868	-	-	1366	-	-
HCM Lane V/C Ratio	0.01	0.037	-	-	0.004	-	-
HCM Control Delay (s)	16.1	9.3	0	-	7.6	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

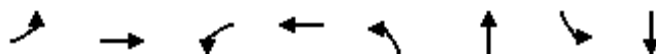
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	11	2	0	8	0	0	35	1	0	19	0
Future Vol, veh/h	0	11	2	0	8	0	0	35	1	0	19	0
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	15	3	0	11	0	0	47	1	0	26	0
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.2	7.2	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	0%	0%
Vol Thru, %	97%	85%	100%	100%
Vol Right, %	3%	15%	0%	0%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	13	8	19
LT Vol	0	0	0	0
Through Vol	35	11	8	19
RT Vol	1	2	0	0
Lane Flow Rate	49	18	11	26
Geometry Grp	1	1	1	1
Degree of Util (X)	0.054	0.019	0.012	0.029
Departure Headway (Hd)	3.988	3.979	4.077	4.021
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	900	897	876	891
Service Time	2.002	2.014	2.112	2.04
HCM Lane V/C Ratio	0.054	0.02	0.013	0.029
HCM Control Delay	7.2	7.1	7.2	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.1	0	0.1

Timings
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

2b. No-Build 2028 PM
09/06/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	8	574	20	1207	16	1	1	0
Future Volume (vph)	8	574	20	1207	16	1	1	0
Lane Group Flow (vph)	8	592	21	1246	0	42	0	22
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.0	69.0	69.0	69.0	31.0	31.0	31.0	31.0
Total Split (%)	69.0%	69.0%	69.0%	69.0%	31.0%	31.0%	31.0%	31.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio	0.03	0.36	0.03	0.76		0.32		0.19
Control Delay	2.4	2.7	3.1	15.0		30.4		46.7
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	2.4	2.7	3.1	15.0		30.4		46.7
Queue Length 50th (ft)	1	71	3	640		10		14
Queue Length 95th (ft)	4	128	m4	m741		43		37
Internal Link Dist (ft)		1471		2151		68		1164
Turn Bay Length (ft)	250		250					
Base Capacity (vph)	252	1649	707	1649		396		405
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.03	0.36	0.03	0.76		0.11		0.05

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

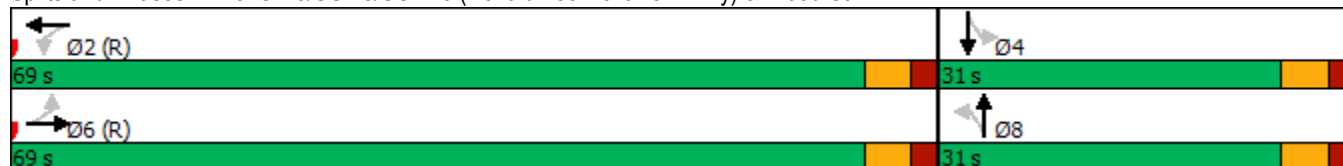
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

2b. No-Build 2028 PM

09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	574	0	20	1207	2	16	1	24	1	0	20
Future Volume (veh/h)	8	574	0	20	1207	2	16	1	24	1	0	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	8	592	0	21	1244	2	16	1	25	1	0	21
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	447	1571	0	704	1568	3	73	8	47	39	2	75
Arrive On Green	0.84	0.84	0.00	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	446	1870	0	825	1867	3	472	163	933	35	37	1514
Grp Volume(v), veh/h	8	592	0	21	0	1246	42	0	0	22	0	0
Grp Sat Flow(s),veh/h/ln	446	1870	0	825	0	1870	1568	0	0	1586	0	0
Q Serve(g_s), s	0.3	7.4	0.0	0.2	0.0	0.0	1.2	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.3	7.4	0.0	7.6	0.0	0.0	2.5	0.0	0.0	1.3	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.38		0.60	0.05		0.95
Lane Grp Cap(c), veh/h	447	1571	0	704	0	1571	128	0	0	117	0	0
V/C Ratio(X)	0.02	0.38	0.00	0.03	0.00	0.79	0.33	0.00	0.00	0.19	0.00	0.00
Avail Cap(c_a), veh/h	447	1571	0	704	0	1571	438	0	0	440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.22	0.00	0.22	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.3	1.9	0.0	0.3	0.0	0.0	46.3	0.0	0.0	45.8	0.0	0.0
Incr Delay (d2), s/veh	0.1	0.7	0.0	0.0	0.0	1.0	1.5	0.0	0.0	0.8	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	1.6	0.0	0.0	0.0	0.4	1.1	0.0	0.0	0.6	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.4	2.6	0.0	0.4	0.0	1.0	47.8	0.0	0.0	46.5	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h	600			1267				42			22	
Approach Delay, s/veh	2.5			0.9				47.8			46.5	
Approach LOS	A			A				D			D	
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	89.5			10.5			89.5			10.5		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	63.5			25.5			63.5			25.5		
Max Q Clear Time (g_c+I1), s	9.6			3.3			9.4			4.5		
Green Ext Time (p_c), s	37.5			0.1			10.2			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	3.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	574	1207	20	29	29
Future Vol, veh/h	11	574	1207	20	29	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	11	592	1244	21	30	30
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	1265	0	-	0	1869	1255
Stage 1	-	-	-	-	1255	-
Stage 2	-	-	-	-	614	-
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	549	-	-	-	79	209
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	540	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	549	-	-	-	77	209
Mov Cap-2 Maneuver	-	-	-	-	191	-
Stage 1	-	-	-	-	263	-
Stage 2	-	-	-	-	540	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		30.5		
HCM LOS	D					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	549	-	-	-	200	
HCM Lane V/C Ratio	0.021	-	-	-	0.299	
HCM Control Delay (s)	11.7	-	-	-	30.5	
HCM Lane LOS	B	-	-	-	D	
HCM 95th %tile Q(veh)	0.1	-	-	-	1.2	

Future “Build” Intersections Analysis

Timings

3a. Build 2028 AM

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

09/06/2023



Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↶	↷	↷
Traffic Volume (vph)	1262	401	218	395	2
Future Volume (vph)	1262	401	218	395	2
Lane Group Flow (vph)	1288	409	222	403	2
Turn Type	NA	NA	Perm	Prot	Perm
Protected Phases	6	2		7	
Permitted Phases			2		7
Detector Phase	6	2	2	7	7
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	28.5	15.0	15.0
Total Split (s)	67.0	67.0	67.0	33.0	33.0
Total Split (%)	67.0%	67.0%	67.0%	33.0%	33.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
v/c Ratio	1.09	0.35	0.20	0.89	0.00
Control Delay	71.8	10.0	1.6	60.4	22.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	71.8	10.0	1.6	60.4	22.5
Queue Length 50th (ft)	~949	118	0	249	0
Queue Length 95th (ft)	m#1172	175	27	#402	m3
Internal Link Dist (ft)	2151	1251		1021	
Turn Bay Length (ft)			250		
Base Capacity (vph)	1180	1180	1085	486	436
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.09	0.35	0.20	0.83	0.00

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 140

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

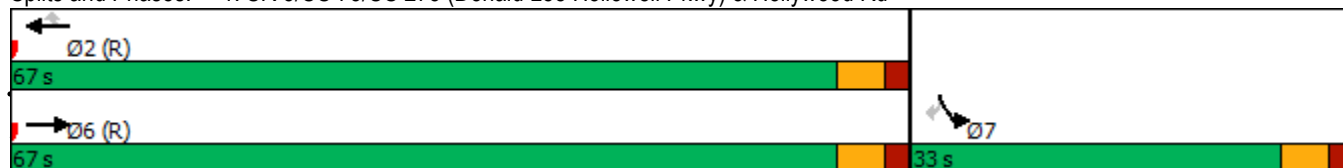
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

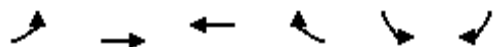
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



HCM 6th Signalized Intersection Summary
1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

3a. Build 2028 AM
09/06/2023



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Volume (veh/h)	0	1262	401	218	395	2
Future Volume (veh/h)	0	1262	401	218	395	2
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1288	409	222	403	2
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	1206	1206	1022	437	389
Arrive On Green	0.00	0.64	0.64	0.64	0.25	0.25
Sat Flow, veh/h	0	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	0	1288	409	222	403	2
Grp Sat Flow(s),veh/h/ln	0	1870	1870	1585	1781	1585
Q Serve(g_s), s	0.0	64.5	9.9	5.8	22.1	0.1
Cycle Q Clear(g_c), s	0.0	64.5	9.9	5.8	22.1	0.1
Prop In Lane	0.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1206	1206	1022	437	389
V/C Ratio(X)	0.00	1.07	0.34	0.22	0.92	0.01
Avail Cap(c_a), veh/h	0	1206	1206	1022	490	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.34	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	17.8	8.1	7.3	36.8	28.5
Incr Delay (d2), s/veh	0.0	37.2	0.8	0.5	21.8	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	37.0	4.0	2.0	11.9	0.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	55.0	8.8	7.8	58.6	28.5
LnGrp LOS	A	F	A	A	E	C
Approach Vol, veh/h		1288	631		405	
Approach Delay, s/veh		55.0	8.5		58.4	
Approach LOS		D	A		E	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		70.0		30.0		70.0
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		61.5		27.5		61.5
Max Q Clear Time (g_c+I1), s		11.9		24.1		66.5
Green Ext Time (p_c), s		8.6		0.5		0.0
Intersection Summary						
HCM 6th Ctrl Delay			43.0			
HCM 6th LOS			D			

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

3a. Build 2028 AM
09/06/2023



Lane Group	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations	↔		↔		↔		↔
Traffic Volume (vph)	3	82	0	5	150	9	333
Future Volume (vph)	3	82	0	5	150	9	333
Lane Group Flow (vph)	11	0	98	0	257	0	380
Turn Type	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases	4		8		6		2
Permitted Phases		8		6		2	
Detector Phase	4	8	8	6	6	2	2
Switch Phase							
Minimum Initial (s)	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	35.0	35.0	35.0	65.0	65.0	65.0	65.0
Total Split (%)	35.0%	35.0%	35.0%	65.0%	65.0%	65.0%	65.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0		0.0		0.0		0.0
Total Lost Time (s)	5.5		5.5		5.5		5.5
Lead/Lag							
Lead-Lag Optimize?							
Recall Mode	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio	0.06		0.57		0.18		0.25
Control Delay	24.1		43.3		2.9		3.7
Queue Delay	0.0		0.0		0.0		0.0
Total Delay	24.1		43.3		2.9		3.7
Queue Length 50th (ft)	2		43		27		52
Queue Length 95th (ft)	18		91		61		106
Internal Link Dist (ft)	287		989		861		425
Turn Bay Length (ft)							
Base Capacity (vph)	501		417		1449		1506
Starvation Cap Reductn	0		0		0		0
Spillback Cap Reductn	0		0		0		0
Storage Cap Reductn	0		0		0		0
Reduced v/c Ratio	0.02		0.24		0.18		0.25

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary 2: Hollywood Rd & Sumlin Ave/Johnson Rd

3a. Build 2028 AM
09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	3	7	82	0	6	5	150	76	9	333	0
Future Volume (veh/h)	0	3	7	82	0	6	5	150	76	9	333	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	3	8	91	0	7	6	167	84	10	370	0
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	42	113	184	0	9	48	929	457	52	1465	0
Arrive On Green	0.00	0.09	0.09	0.09	0.00	0.09	0.80	0.80	0.80	0.80	0.80	0.00
Sat Flow, veh/h	0	451	1203	1229	1	95	15	1167	574	19	1839	0
Grp Volume(v), veh/h	0	0	11	98	0	0	257	0	0	380	0	0
Grp Sat Flow(s),veh/h/ln	0	0	1654	1324	0	0	1755	0	0	1858	0	0
Q Serve(g_s), s	0.0	0.0	0.6	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.6	7.4	0.0	0.0	3.5	0.0	0.0	5.2	0.0	0.0
Prop In Lane	0.00		0.73	0.93		0.07	0.02		0.33	0.03		0.00
Lane Grp Cap(c), veh/h	0	0	155	193	0	0	1434	0	0	1517	0	0
V/C Ratio(X)	0.00	0.00	0.07	0.51	0.00	0.00	0.18	0.00	0.00	0.25	0.00	0.00
Avail Cap(c_a), veh/h	0	0	488	478	0	0	1434	0	0	1517	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	0.00	0.00	1.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	41.4	44.7	0.0	0.0	2.4	0.0	0.0	2.6	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.2	2.0	0.0	0.0	0.3	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.3	2.5	0.0	0.0	0.9	0.0	0.0	1.4	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	41.5	46.8	0.0	0.0	2.7	0.0	0.0	3.0	0.0	0.0
LnGrp LOS	A	A	D	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	11		98			257			380			
Approach Delay, s/veh	41.5		46.8			2.7			3.0			
Approach LOS	D		D			A			A			
Timer - Assigned Phs	2		4			6			8			
Phs Duration (G+Y+Rc), s	85.1		14.9			85.1			14.9			
Change Period (Y+Rc), s	5.5		5.5			5.5			5.5			
Max Green Setting (Gmax), s	59.5		29.5			59.5			29.5			
Max Q Clear Time (g_c+I1), s	7.2		2.6			5.5			9.4			
Green Ext Time (p_c), s	5.2		0.0			3.4			0.4			
Intersection Summary												
HCM 6th Ctrl Delay	9.2											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	20	6	145	9	8	313
Future Vol, veh/h	20	6	145	9	8	313
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	22	7	158	10	9	340
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	521	163	0	0	168	0
Stage 1	163	-	-	-	-	-
Stage 2	358	-	-	-	-	-
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	516	882	-	-	1410	-
Stage 1	866	-	-	-	-	-
Stage 2	707	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	512	882	-	-	1410	-
Mov Cap-2 Maneuver	512	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	701	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.7	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-		567	1410	
HCM Lane V/C Ratio	-	-		0.05	0.006	
HCM Control Delay (s)	-	-		11.7	7.6	
HCM Lane LOS	-	-		B	A	
HCM 95th %tile Q(veh)	-	-		0.2	0	

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	300	138	7	12	3
Future Vol, veh/h	1	300	138	7	12	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	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	330	152	8	13	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	160	0	-	0	488	156
Stage 1	-	-	-	-	156	-
Stage 2	-	-	-	-	332	-
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	1419	-	-	-	539	890
Stage 1	-	-	-	-	872	-
Stage 2	-	-	-	-	727	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1419	-	-	-	538	890
Mov Cap-2 Maneuver	-	-	-	-	538	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	727	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		11.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1419	-	-	-	584	
HCM Lane V/C Ratio	0.001	-	-	-	0.028	
HCM Control Delay (s)	7.5	0	-	-	11.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	295	27	4	137	18	6
Future Vol, veh/h	295	27	4	137	18	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	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	93	93	93	93	93	93
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	317	29	4	147	19	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	346
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.12
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.218
Pot Cap-1 Maneuver	-	-	1213
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	1213
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	11.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	573	-	-	1213	-
HCM Lane V/C Ratio	0.045	-	-	0.004	-
HCM Control Delay (s)	11.6	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

Intersection						
Int Delay, s/veh	2.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	73	160	22	87	284
Future Vol, veh/h	8	73	160	22	87	284
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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	77	168	23	92	299
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	663	180	0	0	191	0
Stage 1	180	-	-	-	-	-
Stage 2	483	-	-	-	-	-
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	426	863	-	-	1383	-
Stage 1	851	-	-	-	-	-
Stage 2	620	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	392	863	-	-	1383	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	851	-	-	-	-	-
Stage 2	570	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.2	0		1.8		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	-	771	1383	-	
HCM Lane V/C Ratio	-	-	0.111	0.066	-	
HCM Control Delay (s)	-	-	10.2	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.4	0.2	-	

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	27	23	233	8	6	371
Future Vol, veh/h	27	23	233	8	6	371
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	24	243	8	6	386
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	645	247	0	0	251	0
Stage 1	247	-	-	-	-	-
Stage 2	398	-	-	-	-	-
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	437	792	-	-	1314	-
Stage 1	794	-	-	-	-	-
Stage 2	678	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	434	792	-	-	1314	-
Mov Cap-2 Maneuver	434	-	-	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	674	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	12.3	0		0.1		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	548	1314	-	
HCM Lane V/C Ratio	-	-	0.095	0.005	-	
HCM Control Delay (s)	-	-	12.3	7.8	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0.3	0	-	

Intersection						
Int Delay, s/veh	4.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	144	53	184	251	22
Future Vol, veh/h	55	144	53	184	251	22
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	160	59	204	279	24
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	613	291	303	0	-	0
Stage 1	291	-	-	-	-	-
Stage 2	322	-	-	-	-	-
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	456	748	1258	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	432	748	1258	-	-	-
Mov Cap-2 Maneuver	432	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	13.9	1.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1258	-	622	-	-	
HCM Lane V/C Ratio	0.047	-	0.355	-	-	
HCM Control Delay (s)	8	0	13.9	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0.1	-	1.6	-	-	

Intersection	
Intersection Delay, s/veh	8
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	0	111	1	7	79	0	0	6	1	3	11	3
Future Vol, veh/h	0	111	1	7	79	0	0	6	1	3	11	3
Peak Hour Factor	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	163	1	10	116	0	0	9	1	4	16	4
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	8.1	7.9	7.6	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	0%	8%	18%
Vol Thru, %	86%	99%	92%	65%
Vol Right, %	14%	1%	0%	18%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	7	112	86	17
LT Vol	0	0	7	3
Through Vol	6	111	79	11
RT Vol	1	1	0	3
Lane Flow Rate	10	165	126	25
Geometry Grp	1	1	1	1
Degree of Util (X)	0.013	0.187	0.145	0.031
Departure Headway (Hd)	4.51	4.084	4.135	4.507
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	798	873	860	799
Service Time	2.511	2.138	2.196	2.508
HCM Lane V/C Ratio	0.013	0.189	0.147	0.031
HCM Control Delay	7.6	8.1	7.9	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.7	0.5	0.1

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	123	2	3	81	2	1	11	4	1	10	1
Future Vol, veh/h	3	123	2	3	81	2	1	11	4	1	10	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	152	2	4	100	2	1	14	5	1	12	1
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	102	0	0	154	0	0	277	271	153	280	271	101
Stage 1	-	-	-	-	-	-	161	161	-	109	109	-
Stage 2	-	-	-	-	-	-	116	110	-	171	162	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1490	-	-	1426	-	-	675	636	893	672	636	954
Stage 1	-	-	-	-	-	-	841	765	-	896	805	-
Stage 2	-	-	-	-	-	-	889	804	-	831	764	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1490	-	-	1426	-	-	661	632	893	655	632	954
Mov Cap-2 Maneuver	-	-	-	-	-	-	661	632	-	655	632	-
Stage 1	-	-	-	-	-	-	838	763	-	893	803	-
Stage 2	-	-	-	-	-	-	872	802	-	809	762	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			10.4			10.7		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	684	1490	-	-	1426	-	-	652				
HCM Lane V/C Ratio	0.029	0.002	-	-	0.003	-	-	0.023				
HCM Control Delay (s)	10.4	7.4	0	-	7.5	0	-	10.7				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.1	0	-	-	0	-	-	0.1				

Intersection						
Int Delay, s/veh	3.6					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	126	0	6	123	88	75
Future Vol, veh/h	126	0	6	123	88	75
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	142	0	7	138	99	84
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	293	141	183	0	-	0
Stage 1	141	-	-	-	-	-
Stage 2	152	-	-	-	-	-
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	698	907	1392	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	695	907	1392	-	-	-
Mov Cap-2 Maneuver	695	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	876	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	11.5	0.4		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1392	-	695	-	-	
HCM Lane V/C Ratio	0.005	-	0.204	-	-	
HCM Control Delay (s)	7.6	0	11.5	-	-	
HCM Lane LOS	A	A	B	-	-	
HCM 95th %tile Q(veh)	0	-	0.8	-	-	

Intersection						
Int Delay, s/veh	2.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	306	147	0	28	96
Future Vol, veh/h	0	306	147	0	28	96
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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	348	167	0	32	109
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	515	167
Stage 1	-	-	-	-	167	-
Stage 2	-	-	-	-	348	-
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	-	-	0	520	877
Stage 1	0	-	-	0	863	-
Stage 2	0	-	-	0	715	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	520	877
Mov Cap-2 Maneuver	-	-	-	-	520	-
Stage 1	-	-	-	-	863	-
Stage 2	-	-	-	-	715	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		10.8		
HCM LOS				B		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	759			
HCM Lane V/C Ratio	-	-	0.186			
HCM Control Delay (s)	-	-	10.8			
HCM Lane LOS	-	-	B			
HCM 95th %tile Q(veh)	-	-	0.7			

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	129	206	0	0	147	45	0	0	1	0	0	0
Future Vol, veh/h	129	206	0	0	147	45	0	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	152	242	0	0	173	53	0	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	226	0	0	242	0	0	746	772	242
Stage 1	-	-	-	-	-	-	546	546	-
Stage 2	-	-	-	-	-	-	200	226	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	1342	-	-	1324	-	-	381	330	797
Stage 1	-	-	-	-	-	-	580	518	-
Stage 2	-	-	-	-	-	-	834	717	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1342	-	-	1324	-	-	331	0	797
Mov Cap-2 Maneuver	-	-	-	-	-	-	331	0	-
Stage 1	-	-	-	-	-	-	504	0	-
Stage 2	-	-	-	-	-	-	834	0	-

Approach	EB	WB	NB
HCM Control Delay, s	3.1	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	797	1342	-	-	1324	-	-
HCM Lane V/C Ratio	0.001	0.113	-	-	-	-	-
HCM Control Delay (s)	9.5	8	0	-	0	-	-
HCM Lane LOS	A	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0	0.4	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	7	16	0	1	7	0	0	10	1	0	6	22
Future Vol, veh/h	7	16	0	1	7	0	0	10	1	0	6	22
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	9	20	0	1	9	0	0	12	1	0	7	27
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.1	7.1	6.7
HCM LOS	A	A	A	A

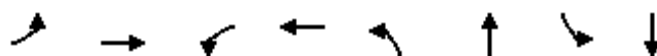
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	30%	12%	0%
Vol Thru, %	91%	70%	88%	21%
Vol Right, %	9%	0%	0%	79%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	11	23	8	28
LT Vol	0	7	1	0
Through Vol	10	16	7	6
RT Vol	1	0	0	22
Lane Flow Rate	13	28	10	34
Geometry Grp	1	1	1	1
Degree of Util (X)	0.015	0.032	0.011	0.034
Departure Headway (Hd)	3.971	4.085	4.062	3.539
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	902	878	882	1012
Service Time	1.992	2.1	2.082	1.559
HCM Lane V/C Ratio	0.014	0.032	0.011	0.034
HCM Control Delay	7.1	7.2	7.1	6.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0	0.1	0	0.1

Timings

15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

3a. Build 2028 AM

09/06/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	10	1385	7	470	10	0	5	0
Future Volume (vph)	10	1385	7	470	10	0	5	0
Lane Group Flow (vph)	11	1459	7	496	0	28	0	33
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.5	69.5	69.5	69.5	30.5	30.5	30.5	30.5
Total Split (%)	69.5%	69.5%	69.5%	69.5%	30.5%	30.5%	30.5%	30.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio	0.01	0.89	0.09	0.30		0.21		0.28
Control Delay	2.1	16.3	6.0	3.3		20.1		48.8
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	2.1	16.3	6.0	3.3		20.1		48.8
Queue Length 50th (ft)	1	586	1	59		1		20
Queue Length 95th (ft)	4	#1223	m4	147		27		50
Internal Link Dist (ft)		1480		2151		68		1164
Turn Bay Length (ft)	250		250					
Base Capacity (vph)	785	1642	78	1642		386		387
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.01	0.89	0.09	0.30		0.07		0.09

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 150

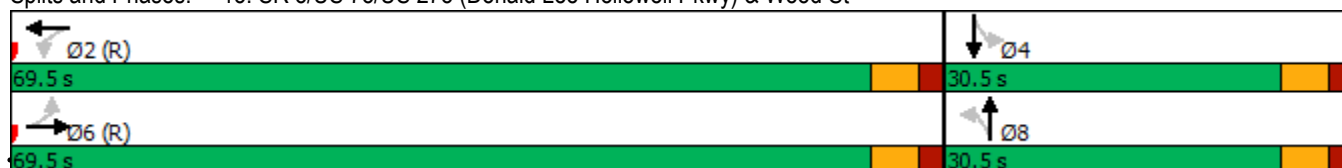
Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



A&R Engineering

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

Synchro 11 Report

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HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

3a. Build 2028 AM

09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	10	1385	1	7	470	1	10	0	16	5	0	27
Future Volume (veh/h)	10	1385	1	7	470	1	10	0	16	5	0	27
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	11	1458	1	7	495	1	11	0	17	5	0	28
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	830	1572	1	173	1569	3	73	8	47	49	4	66
Arrive On Green	0.84	0.84	0.84	1.00	1.00	1.00	0.05	0.00	0.05	0.05	0.00	0.05
Sat Flow, veh/h	901	1869	1	364	1866	4	457	170	969	148	91	1340
Grp Volume(v), veh/h	11	0	1459	7	0	496	28	0	0	33	0	0
Grp Sat Flow(s),veh/h/ln	901	0	1870	364	0	1870	1596	0	0	1579	0	0
Q Serve(g_s), s	0.2	0.0	56.4	1.3	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0
Cycle Q Clear(g_c), s	0.2	0.0	56.4	57.7	0.0	0.0	1.6	0.0	0.0	2.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.39		0.61	0.15		0.85
Lane Grp Cap(c), veh/h	830	0	1573	173	0	1572	128	0	0	119	0	0
V/C Ratio(X)	0.01	0.00	0.93	0.04	0.00	0.32	0.22	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	830	0	1573	173	0	1572	430	0	0	431	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	0.00	1.00	0.95	0.00	0.95	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.3	0.0	5.7	19.4	0.0	0.0	46.0	0.0	0.0	46.2	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	11.0	0.4	0.0	0.5	0.8	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	14.9	0.1	0.0	0.2	0.7	0.0	0.0	0.8	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.3	0.0	16.7	19.8	0.0	0.5	46.8	0.0	0.0	47.4	0.0	0.0
LnGrp LOS	A	A	B	B	A	A	D	A	A	D	A	A
Approach Vol, veh/h	1470				503				28			
Approach Delay, s/veh	16.6				0.8				46.8			
Approach LOS	B				A				D			
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	89.6			10.4			89.6			10.4		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	64.0			25.0			64.0			25.0		
Max Q Clear Time (g_c+I1), s	59.7			4.0			58.4			3.6		
Green Ext Time (p_c), s	1.9			0.1			5.4			0.1		
Intersection Summary												
HCM 6th Ctrl Delay	13.6											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	1392	492	11	26	40
Future Vol, veh/h	26	1392	492	11	26	40
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	27	1435	507	11	27	41
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	518	0	-	0	2002	513
Stage 1	-	-	-	-	513	-
Stage 2	-	-	-	-	1489	-
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	1048	-	-	-	66	561
Stage 1	-	-	-	-	601	-
Stage 2	-	-	-	-	206	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1048	-	-	-	64	561
Mov Cap-2 Maneuver	-	-	-	-	160	-
Stage 1	-	-	-	-	585	-
Stage 2	-	-	-	-	206	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.2	0		21.8		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1048	-	-	-	282	
HCM Lane V/C Ratio	0.026	-	-	-	0.241	
HCM Control Delay (s)	8.5	-	-	-	21.8	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9	

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	3	1	76	10	3
Future Vol, veh/h	127	3	1	76	10	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	-
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	138	3	1	83	11	3
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	141	0	225	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	85	-
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	-	-	1442	-	763	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	938	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1442	-	762	908
Mov Cap-2 Maneuver	-	-	-	-	762	-
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	937	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		9.6	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	791	-	-	1442	-	
HCM Lane V/C Ratio	0.018	-	-	0.001	-	
HCM Control Delay (s)	9.6	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	2.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	10	3	15	15	1
Future Vol, veh/h	2	10	3	15	15	1
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	11	3	16	16	1
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	39	17	17	0	-	0
Stage 1	17	-	-	-	-	-
Stage 2	22	-	-	-	-	-
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	973	1062	1600	-	-	-
Stage 1	1006	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	971	1062	1600	-	-	-
Mov Cap-2 Maneuver	971	-	-	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	1001	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	1.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1600	-	1046	-	-	
HCM Lane V/C Ratio	0.002	-	0.012	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	1	0	18	29	2
Future Vol, veh/h	6	1	0	18	29	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	1	0	20	32	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	53	33	34
Stage 1	33	-	-
Stage 2	20	-	-
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	955	1041	1578
Stage 1	989	-	-
Stage 2	1003	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	955	1041	1578
Mov Cap-2 Maneuver	955	-	-
Stage 1	989	-	-
Stage 2	1003	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1578	-	966	-	-
HCM Lane V/C Ratio	-	-	0.008	-	-
HCM Control Delay (s)	0	-	8.8	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	5	5	2	177	290	2
Future Vol, veh/h	5	5	2	177	290	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	5	5	2	192	315	2

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	512	316	317
Stage 1	316	-	-
Stage 2	196	-	-
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	522	724	1243
Stage 1	739	-	-
Stage 2	837	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	521	724	1243
Mov Cap-2 Maneuver	521	-	-
Stage 1	738	-	-
Stage 2	837	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1243	-	606	-	-
HCM Lane V/C Ratio	0.002	-	0.018	-	-
HCM Control Delay (s)	7.9	0	11	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Intersection						
Int Delay, s/veh	2.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	144	0	16	58	2	54
Future Vol, veh/h	144	0	16	58	2	54
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	157	0	17	63	2	59
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	157	0	254	157
Stage 1	-	-	-	-	157	-
Stage 2	-	-	-	-	97	-
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	-	-	1423	-	735	889
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	927	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1423	-	726	889
Mov Cap-2 Maneuver	-	-	-	-	726	-
Stage 1	-	-	-	-	871	-
Stage 2	-	-	-	-	916	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	1.6		9.4		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	882	-	-	1423	-	
HCM Lane V/C Ratio	0.069	-	-	0.012	-	
HCM Control Delay (s)	9.4	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	107	49	11	37	2
Future Vol, veh/h	1	107	49	11	37	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	116	53	12	40	2
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	65	0	-	0	177	59
Stage 1	-	-	-	-	59	-
Stage 2	-	-	-	-	118	-
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	1537	-	-	-	813	1007
Stage 1	-	-	-	-	964	-
Stage 2	-	-	-	-	907	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1537	-	-	-	812	1007
Mov Cap-2 Maneuver	-	-	-	-	812	-
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	907	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		9.6		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1537	-	-	-	820	
HCM Lane V/C Ratio	0.001	-	-	-	0.052	
HCM Control Delay (s)	7.3	0	-	-	9.6	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	2.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	1	12	40	3	38
Future Vol, veh/h	69	1	12	40	3	38
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	75	1	13	43	3	41
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	76	0	145	76
Stage 1	-	-	-	-	76	-
Stage 2	-	-	-	-	69	-
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	-	-	1523	-	847	985
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	954	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1523	-	839	985
Mov Cap-2 Maneuver	-	-	-	-	839	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	945	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.7		8.9	
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	973	-	-	1523	-	
HCM Lane V/C Ratio	0.046	-	-	0.009	-	
HCM Control Delay (s)	8.9	-	-	7.4	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0	-	

Intersection						
Int Delay, s/veh	3.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	23	28	15	47	3
Future Vol, veh/h	1	23	28	15	47	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	-
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	1	25	30	16	51	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	46	0	-	0	65	38
Stage 1	-	-	-	-	38	-
Stage 2	-	-	-	-	27	-
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	1562	-	-	-	941	1034
Stage 1	-	-	-	-	984	-
Stage 2	-	-	-	-	996	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1562	-	-	-	940	1034
Mov Cap-2 Maneuver	-	-	-	-	940	-
Stage 1	-	-	-	-	983	-
Stage 2	-	-	-	-	996	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		9		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1562	-	-	-	945	
HCM Lane V/C Ratio	0.001	-	-	-	0.058	
HCM Control Delay (s)	7.3	0	-	-	9	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Timings

3b. Build 2028 PM

1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

09/06/2023



Lane Group	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↑	↑	↗	↖	↗
Traffic Volume (vph)	496	1141	808	376	6
Future Volume (vph)	496	1141	808	376	6
Lane Group Flow (vph)	506	1164	824	384	6
Turn Type	NA	NA	Perm	Prot	Perm
Protected Phases	6	2		7	
Permitted Phases			2		7
Detector Phase	6	2	2	7	7
Switch Phase					
Minimum Initial (s)	15.0	15.0	15.0	5.0	5.0
Minimum Split (s)	28.5	28.5	28.5	15.0	15.0
Total Split (s)	64.0	64.0	64.0	36.0	36.0
Total Split (%)	64.0%	64.0%	64.0%	36.0%	36.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5
Lead/Lag					
Lead-Lag Optimize?					
Recall Mode	C-Min	C-Min	C-Min	None	None
v/c Ratio	0.43	0.99	0.66	0.84	0.01
Control Delay	11.7	44.6	5.1	54.2	17.8
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	44.6	5.1	54.2	17.8
Queue Length 50th (ft)	151	~694	36	241	1
Queue Length 95th (ft)	258	#1075	139	337	m8
Internal Link Dist (ft)	2151	1251		1021	
Turn Bay Length (ft)			250		
Base Capacity (vph)	1176	1176	1248	539	486
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.43	0.99	0.66	0.71	0.01

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

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

Natural Cycle: 90

Control Type: Actuated-Coordinated

~ Volume exceeds capacity, queue is theoretically infinite.

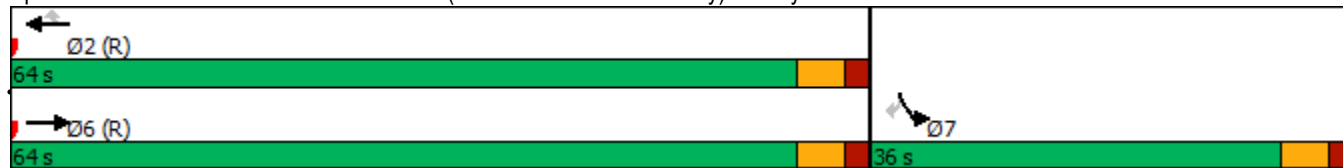
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

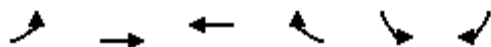
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd



HCM 6th Signalized Intersection Summary
1: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Hollywood Rd

3b. Build 2028 PM
09/06/2023



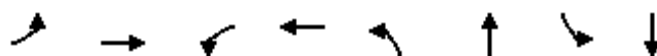
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑	↑	↑	↑
Traffic Volume (veh/h)	0	496	1141	808	376	6
Future Volume (veh/h)	0	496	1141	808	376	6
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	506	1164	824	384	6
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2
Cap, veh/h	0	1221	1221	1035	423	376
Arrive On Green	0.00	0.65	0.65	0.65	0.24	0.24
Sat Flow, veh/h	0	1870	1870	1585	1781	1585
Grp Volume(v), veh/h	0	506	1164	824	384	6
Grp Sat Flow(s),veh/h/ln	0	1870	1870	1585	1781	1585
Q Serve(g_s), s	0.0	12.9	57.2	37.6	21.0	0.3
Cycle Q Clear(g_c), s	0.0	12.9	57.2	37.6	21.0	0.3
Prop In Lane	0.00			1.00	1.00	1.00
Lane Grp Cap(c), veh/h	0	1221	1221	1035	423	376
V/C Ratio(X)	0.00	0.41	0.95	0.80	0.91	0.02
Avail Cap(c_a), veh/h	0	1221	1221	1035	543	483
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.94	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	0.0	8.3	16.0	12.6	37.1	29.2
Incr Delay (d2), s/veh	0.0	1.0	16.8	6.4	16.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	5.2	27.3	13.8	10.8	0.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	0.0	9.2	32.7	18.9	53.4	29.2
LnGrp LOS	A	A	C	B	D	C
Approach Vol, veh/h		506	1988		390	
Approach Delay, s/veh		9.2	27.0		53.1	
Approach LOS		A	C		D	
Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		70.8		29.2		70.8
Change Period (Y+Rc), s		5.5		5.5		5.5
Max Green Setting (Gmax), s		58.5		30.5		58.5
Max Q Clear Time (g_c+I1), s		59.2		23.0		14.9
Green Ext Time (p_c), s		0.0		0.8		8.0
Intersection Summary						
HCM 6th Ctrl Delay			27.4			
HCM 6th LOS			C			

Notes

User approved volume balancing among the lanes for turning movement.

Timings 2: Hollywood Rd & Sumlin Ave/Johnson Rd

3b. Build 2028 PM
09/06/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations		↔		↔		↔		↔
Traffic Volume (vph)	3	6	118	7	1	747	5	285
Future Volume (vph)	3	6	118	7	1	747	5	285
Lane Group Flow (vph)	0	10	0	175	0	929	0	329
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		4		8		6		2
Permitted Phases	4		8		6		2	
Detector Phase	4	4	8	8	6	6	2	2
Switch Phase								
Minimum Initial (s)	6.0	6.0	6.0	6.0	15.0	15.0	15.0	15.0
Minimum Split (s)	31.5	31.5	30.5	30.5	28.5	28.5	28.5	28.5
Total Split (s)	31.5	31.5	31.5	31.5	68.5	68.5	68.5	68.5
Total Split (%)	31.5%	31.5%	31.5%	31.5%	68.5%	68.5%	68.5%	68.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0		0.0		0.0
Total Lost Time (s)		5.5		5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	None	None	None	None	C-Min	C-Min	C-Min	C-Min
v/c Ratio		0.03		0.71		0.70		0.25
Control Delay		31.4		51.1		11.3		6.0
Queue Delay		0.0		0.0		0.0		0.0
Total Delay		31.4		51.1		11.3		6.0
Queue Length 50th (ft)		5		99		267		61
Queue Length 95th (ft)		18		158		433		122
Internal Link Dist (ft)		287		989		861		425
Turn Bay Length (ft)								
Base Capacity (vph)		445		373		1327		1322
Starvation Cap Reductn		0		0		0		0
Spillback Cap Reductn		0		0		0		0
Storage Cap Reductn		0		0		0		0
Reduced v/c Ratio		0.02		0.47		0.70		0.25

Intersection Summary

Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 0 (0%), Referenced to phase 2:SBTL and 6:NBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated

Splits and Phases: 2: Hollywood Rd & Sumlin Ave/Johnson Rd



HCM 6th Signalized Intersection Summary 2: Hollywood Rd & Sumlin Ave/Johnson Rd

3b. Build 2028 PM
09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	6	0	118	7	32	1	747	88	5	285	5
Future Volume (veh/h)	3	6	0	118	7	32	1	747	88	5	285	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	3	7	0	131	8	36	1	830	98	6	317	6
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	200	0	219	10	43	36	1227	145	44	1347	25
Arrive On Green	0.14	0.14	0.00	0.14	0.14	0.14	0.75	0.75	0.75	0.75	0.75	0.75
Sat Flow, veh/h	361	1407	0	1096	72	302	0	1642	194	9	1802	34
Grp Volume(v), veh/h	10	0	0	175	0	0	929	0	0	329	0	0
Grp Sat Flow(s),veh/h/ln	1768	0	0	1470	0	0	1835	0	0	1845	0	0
Q Serve(g_s), s	0.0	0.0	0.0	11.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.5	0.0	0.0	11.6	0.0	0.0	25.8	0.0	0.0	5.4	0.0	0.0
Prop In Lane	0.30		0.00	0.75		0.21	0.00		0.11	0.02		0.02
Lane Grp Cap(c), veh/h	298	0	0	272	0	0	1408	0	0	1416	0	0
V/C Ratio(X)	0.03	0.00	0.00	0.64	0.00	0.00	0.66	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	496	0	0	444	0	0	1408	0	0	1416	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	37.0	0.0	0.0	41.7	0.0	0.0	6.4	0.0	0.0	3.9	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	2.5	0.0	0.0	2.4	0.0	0.0	0.4	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	4.4	0.0	0.0	8.3	0.0	0.0	1.7	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.0	0.0	0.0	44.2	0.0	0.0	8.9	0.0	0.0	4.2	0.0	0.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h	10			175			929			329		
Approach Delay, s/veh	37.0			44.2			8.9			4.2		
Approach LOS	D			D			A			A		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	80.3			19.7			80.3			19.7		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	63.0			26.0			63.0			26.0		
Max Q Clear Time (g_c+I1), s	7.4			2.5			27.8			13.6		
Green Ext Time (p_c), s	4.5			0.0			17.1			0.7		
Intersection Summary												
HCM 6th Ctrl Delay	12.3											
HCM 6th LOS	B											

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	13	5	729	17	8	270
Future Vol, veh/h	13	5	729	17	8	270
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	15	6	819	19	9	303

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	1150	829	0	0	838
Stage 1	829	-	-	-	-
Stage 2	321	-	-	-	-
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	219	370	-	-	796
Stage 1	429	-	-	-	-
Stage 2	735	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	216	370	-	-	796
Mov Cap-2 Maneuver	216	-	-	-	-
Stage 1	429	-	-	-	-
Stage 2	725	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	21.1	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	244	796
HCM Lane V/C Ratio	-	-	0.083	0.011
HCM Control Delay (s)	-	-	21.1	9.6
HCM Lane LOS	-	-	C	A
HCM 95th %tile Q(veh)	-	-	0.3	0

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	7	258	712	17	12	3
Future Vol, veh/h	7	258	712	17	12	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	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	290	800	19	13	3
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	819	0	-	0	1116	810
Stage 1	-	-	-	-	810	-
Stage 2	-	-	-	-	306	-
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	810	-	-	-	230	380
Stage 1	-	-	-	-	438	-
Stage 2	-	-	-	-	747	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	810	-	-	-	227	380
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	433	-
Stage 2	-	-	-	-	747	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		20.6		
HCM LOS				C		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	810	-	-	-	247	
HCM Lane V/C Ratio	0.01	-	-	-	0.068	
HCM Control Delay (s)	9.5	0	-	-	20.6	
HCM Lane LOS	A	A	-	-	C	
HCM 95th %tile Q(veh)	0	-	-	-	0.2	

Intersection						
Int Delay, s/veh	1.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	254	24	12	703	39	11
Future Vol, veh/h	254	24	12	703	39	11
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	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	282	27	13	781	43	12
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	309	0	1103	296
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	807	-
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	-	-	1252	-	234	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1252	-	230	743
Mov Cap-2 Maneuver	-	-	-	-	230	-
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	431	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		21.7	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	271	-	-	1252	-	
HCM Lane V/C Ratio	0.205	-	-	0.011	-	
HCM Control Delay (s)	21.7	-	-	7.9	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.8	-	-	0	-	

Intersection						
Int Delay, s/veh	4.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	15	145	739	9	68	276
Future Vol, veh/h	15	145	739	9	68	276
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	165	840	10	77	314
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1313	845	0	0	850	0
Stage 1	845	-	-	-	-	-
Stage 2	468	-	-	-	-	-
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	175	363	-	-	788	-
Stage 1	421	-	-	-	-	-
Stage 2	630	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	154	363	-	-	788	-
Mov Cap-2 Maneuver	154	-	-	-	-	-
Stage 1	421	-	-	-	-	-
Stage 2	556	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	29.7	0	2			
HCM LOS	D					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	322	788	-	
HCM Lane V/C Ratio	-	-	0.565	0.098	-	
HCM Control Delay (s)	-	-	29.7	10.1	0	
HCM Lane LOS	-	-	D	B	A	
HCM 95th %tile Q(veh)	-	-	3.3	0.3	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	8	10	858	19	21	367
Future Vol, veh/h	8	10	858	19	21	367
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	9	11	964	21	24	412
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	1435	975	0	0	985	0
Stage 1	975	-	-	-	-	-
Stage 2	460	-	-	-	-	-
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	147	305	-	-	701	-
Stage 1	366	-	-	-	-	-
Stage 2	636	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	141	305	-	-	701	-
Mov Cap-2 Maneuver	141	-	-	-	-	-
Stage 1	366	-	-	-	-	-
Stage 2	608	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	24.9	0		0.6		
HCM LOS	C					
Minor Lane/Major Mvmt		NBT	NBRWBLn1	SBL	SBT	
Capacity (veh/h)		-	-	201	701	-
HCM Lane V/C Ratio		-	-	0.101	0.034	-
HCM Control Delay (s)		-	-	24.9	10.3	0
HCM Lane LOS		-	-	C	B	A
HCM 95th %tile Q(veh)		-	-	0.3	0.1	-

Intersection						
Int Delay, s/veh	6.8					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	86	136	745	262	44
Future Vol, veh/h	69	86	136	745	262	44
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	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	91	145	793	279	47

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	1386	303	326	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
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	158	737	1234	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	125	737	1234	-	-	-
Mov Cap-2 Maneuver	125	-	-	-	-	-
Stage 1	592	-	-	-	-	-
Stage 2	325	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	51.3	1.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1234	-	232	-	-
HCM Lane V/C Ratio	0.117	-	0.711	-	-
HCM Control Delay (s)	8.3	0	51.3	-	-
HCM Lane LOS	A	A	F	-	-
HCM 95th %tile Q(veh)	0.4	-	4.7	-	-

Intersection	
Intersection Delay, s/veh	8.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	70	0	7	179	7	2	14	3	5	14	10
Future Vol, veh/h	7	70	0	7	179	7	2	14	3	5	14	10
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	84	0	8	216	8	2	17	4	6	17	12
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.9	8.6	7.8	7.7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	11%	9%	4%	17%
Vol Thru, %	74%	91%	93%	48%
Vol Right, %	16%	0%	4%	34%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	77	193	29
LT Vol	2	7	7	5
Through Vol	14	70	179	14
RT Vol	3	0	7	10
Lane Flow Rate	23	93	233	35
Geometry Grp	1	1	1	1
Degree of Util (X)	0.029	0.109	0.264	0.044
Departure Headway (Hd)	4.614	4.229	4.089	4.5
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	780	834	870	800
Service Time	2.616	2.323	2.156	2.502
HCM Lane V/C Ratio	0.029	0.112	0.268	0.044
HCM Control Delay	7.8	7.9	8.6	7.7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.4	1.1	0.1

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	73	2	4	194	3	2	18	7	2	12	3
Future Vol, veh/h	3	73	2	4	194	3	2	18	7	2	12	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	61	61	61	61	61	61	61	61	61	61	61	61
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	120	3	7	318	5	3	30	11	3	20	5
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	323	0	0	123	0	0	479	469	122	487	468	321
Stage 1	-	-	-	-	-	-	132	132	-	335	335	-
Stage 2	-	-	-	-	-	-	347	337	-	152	133	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1237	-	-	1464	-	-	497	492	929	491	493	720
Stage 1	-	-	-	-	-	-	871	787	-	679	643	-
Stage 2	-	-	-	-	-	-	669	641	-	850	786	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1237	-	-	1464	-	-	475	487	929	459	488	720
Mov Cap-2 Maneuver	-	-	-	-	-	-	475	487	-	459	488	-
Stage 1	-	-	-	-	-	-	868	784	-	676	639	-
Stage 2	-	-	-	-	-	-	640	637	-	805	783	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.1			12.1			12.4		
HCM LOS							B			B		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1				
Capacity (veh/h)	554	1237	-	-	1464	-	-	513				
HCM Lane V/C Ratio	0.08	0.004	-	-	0.004	-	-	0.054				
HCM Control Delay (s)	12.1	7.9	0	-	7.5	0	-	12.4				
HCM Lane LOS	B	A	A	-	A	A	-	B				
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.2				

Intersection						
Int Delay, s/veh	1.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	68	6	7	82	175	190
Future Vol, veh/h	68	6	7	82	175	190
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	78	78	78	78	78	78
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	87	8	9	105	224	244

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	469	346	468
Stage 1	346	-	-
Stage 2	123	-	-
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	553	697	1094
Stage 1	716	-	-
Stage 2	902	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	548	697	1094
Mov Cap-2 Maneuver	548	-	-
Stage 1	710	-	-
Stage 2	902	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.8	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1094	-	558	-	-
HCM Lane V/C Ratio	0.008	-	0.17	-	-
HCM Control Delay (s)	8.3	0	12.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.6	-	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↓	↓
Traffic Vol, veh/h	0	208	642	0	3	20
Future Vol, veh/h	0	208	642	0	3	20
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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	242	747	0	3	23
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	-	0	-	0	989	747
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	242	-
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	-	-	0	274	413
Stage 1	0	-	-	0	468	-
Stage 2	0	-	-	0	798	-
Platoon blocked, %		-	-			
Mov Cap-1 Maneuver	-	-	-	-	274	413
Mov Cap-2 Maneuver	-	-	-	-	274	-
Stage 1	-	-	-	-	468	-
Stage 2	-	-	-	-	798	-
Approach	EB	WB		SB		
HCM Control Delay, s	0	0		15		
HCM LOS				C		
Minor Lane/Major Mvmt	EBT	WBT	SBLn1			
Capacity (veh/h)	-	-	387			
HCM Lane V/C Ratio	-	-	0.069			
HCM Control Delay (s)	-	-	15			
HCM Lane LOS	-	-	C			
HCM 95th %tile Q(veh)	-	-	0.2			

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	35	204	1	5	690	8	2	0	1	0	0	0
Future Vol, veh/h	35	204	1	5	690	8	2	0	1	0	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	38	224	1	5	758	9	2	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	767	0	0	225	0	0	1074	1078	225
Stage 1	-	-	-	-	-	-	301	301	-
Stage 2	-	-	-	-	-	-	773	777	-
Critical Hdwy	4.12	-	-	4.12	-	-	6.42	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	5.42	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.42	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318
Pot Cap-1 Maneuver	847	-	-	1344	-	-	243	219	814
Stage 1	-	-	-	-	-	-	751	665	-
Stage 2	-	-	-	-	-	-	455	407	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	847	-	-	1344	-	-	229	0	814
Mov Cap-2 Maneuver	-	-	-	-	-	-	229	0	-
Stage 1	-	-	-	-	-	-	713	0	-
Stage 2	-	-	-	-	-	-	452	0	-

Approach	EB	WB	NB
HCM Control Delay, s	1.4	0.1	17.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	301	847	-	-	1344	-	-
HCM Lane V/C Ratio	0.011	0.045	-	-	0.004	-	-
HCM Control Delay (s)	17.1	9.5	0	-	7.7	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-

Intersection	
Intersection Delay, s/veh	7.3
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	18	11	2	0	8	0	0	35	1	0	19	12
Future Vol, veh/h	18	11	2	0	8	0	0	35	1	0	19	12
Peak Hour Factor	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74	0.74
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	15	3	0	11	0	0	47	1	0	26	16
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.4	7.2	7.3	7.1
HCM LOS	A	A	A	A

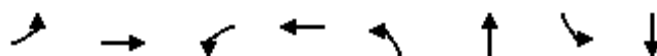
Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	0%	58%	0%	0%
Vol Thru, %	97%	35%	100%	61%
Vol Right, %	3%	6%	0%	39%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	36	31	8	31
LT Vol	0	18	0	0
Through Vol	35	11	8	19
RT Vol	1	2	0	12
Lane Flow Rate	49	42	11	42
Geometry Grp	1	1	1	1
Degree of Util (X)	0.055	0.049	0.012	0.045
Departure Headway (Hd)	4.041	4.176	4.122	3.83
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	884	855	863	931
Service Time	2.075	2.216	2.171	1.868
HCM Lane V/C Ratio	0.055	0.049	0.013	0.045
HCM Control Delay	7.3	7.4	7.2	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.2	0.2	0	0.1

Timings

15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

3b. Build 2028 PM

09/06/2023



Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT
Lane Configurations								
Traffic Volume (vph)	26	574	20	1207	16	1	1	0
Future Volume (vph)	26	574	20	1207	16	1	1	0
Lane Group Flow (vph)	27	592	21	1246	0	42	0	34
Turn Type	Perm	NA	Perm	NA	Perm	NA	Perm	NA
Protected Phases		6		2		8		4
Permitted Phases	6		2		8		4	
Detector Phase	6	6	2	2	8	8	4	4
Switch Phase								
Minimum Initial (s)	15.0	15.0	15.0	15.0	6.0	6.0	6.0	6.0
Minimum Split (s)	28.5	28.5	28.5	28.5	30.5	30.5	30.5	30.5
Total Split (s)	69.0	69.0	69.0	69.0	31.0	31.0	31.0	31.0
Total Split (%)	69.0%	69.0%	69.0%	69.0%	31.0%	31.0%	31.0%	31.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0		0.0		0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5		5.5		5.5
Lead/Lag								
Lead-Lag Optimize?								
Recall Mode	C-Min	C-Min	C-Min	C-Min	None	None	None	None
v/c Ratio	0.11	0.36	0.03	0.76		0.31		0.28
Control Delay	3.2	2.8	3.5	15.8		29.5		48.5
Queue Delay	0.0	0.0	0.0	0.0		0.0		0.0
Total Delay	3.2	2.8	3.5	15.8		29.5		48.5
Queue Length 50th (ft)	3	76	3	637		10		21
Queue Length 95th (ft)	10	132	m4	m706		43		51
Internal Link Dist (ft)		1480		2151		68		1164
Turn Bay Length (ft)	250		250					
Base Capacity (vph)	246	1642	702	1642		394		407
Starvation Cap Reductn	0	0	0	0		0		0
Spillback Cap Reductn	0	0	0	0		0		0
Storage Cap Reductn	0	0	0	0		0		0
Reduced v/c Ratio	0.11	0.36	0.03	0.76		0.11		0.08

Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

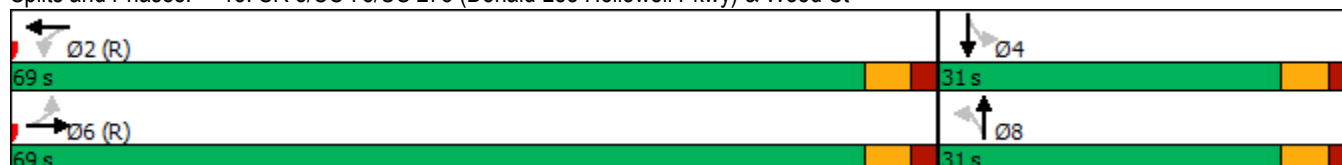
Offset: 0 (0%), Referenced to phase 2:WBTL and 6:EBTL, Start of Green

Natural Cycle: 110

Control Type: Actuated-Coordinated

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St



HCM 6th Signalized Intersection Summary
15: SR 8/US 78/US 278 (Donald Lee Hollowell Pkwy) & Wood St

3b. Build 2028 PM
09/06/2023

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	26	574	0	20	1207	2	16	1	24	1	0	32
Future Volume (veh/h)	26	574	0	20	1207	2	16	1	24	1	0	32
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	27	592	0	21	1244	2	16	1	25	1	0	33
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	446	1566	0	700	1563	3	75	9	50	38	1	81
Arrive On Green	0.84	0.84	0.00	1.00	1.00	1.00	0.05	0.05	0.05	0.05	0.00	0.05
Sat Flow, veh/h	446	1870	0	825	1867	3	470	178	953	22	25	1539
Grp Volume(v), veh/h	27	592	0	21	0	1246	42	0	0	34	0	0
Grp Sat Flow(s),veh/h/ln	446	1870	0	825	0	1870	1602	0	0	1586	0	0
Q Serve(g_s), s	1.0	7.5	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.0	7.5	0.0	7.8	0.0	0.0	2.4	0.0	0.0	2.1	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.00	0.38		0.60	0.03		0.97
Lane Grp Cap(c), veh/h	446	1566	0	700	0	1566	134	0	0	121	0	0
V/C Ratio(X)	0.06	0.38	0.00	0.03	0.00	0.80	0.31	0.00	0.00	0.28	0.00	0.00
Avail Cap(c_a), veh/h	446	1566	0	700	0	1566	438	0	0	440	0	0
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(l)	1.00	1.00	0.00	0.13	0.00	0.13	1.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	1.4	1.9	0.0	0.3	0.0	0.0	46.0	0.0	0.0	45.8	0.0	0.0
Incr Delay (d2), s/veh	0.3	0.7	0.0	0.0	0.0	0.6	1.3	0.0	0.0	1.3	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	1.7	0.0	0.0	0.0	0.3	1.1	0.0	0.0	0.9	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	1.7	2.6	0.0	0.4	0.0	0.6	47.3	0.0	0.0	47.1	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	D	A	A	D	A	A
Approach Vol, veh/h	619			1267			42			34		
Approach Delay, s/veh	2.6			0.6			47.3			47.1		
Approach LOS	A			A			D			D		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	89.2			10.8			89.2			10.8		
Change Period (Y+Rc), s	5.5			5.5			5.5			5.5		
Max Green Setting (Gmax), s	63.5			25.5			63.5			25.5		
Max Q Clear Time (g_c+I1), s	9.8			4.1			9.5			4.4		
Green Ext Time (p_c), s	37.4			0.1			10.9			0.2		
Intersection Summary												
HCM 6th Ctrl Delay	3.0											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	20	592	1219	20	29	35
Future Vol, veh/h	20	592	1219	20	29	35
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	250	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	21	610	1257	21	30	36
Major/Minor	Major1	Major2	Minor2			
Conflicting Flow All	1278	0	-	0	1920	1268
Stage 1	-	-	-	-	1268	-
Stage 2	-	-	-	-	652	-
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	543	-	-	-	74	206
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	518	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	543	-	-	-	71	206
Mov Cap-2 Maneuver	-	-	-	-	184	-
Stage 1	-	-	-	-	255	-
Stage 2	-	-	-	-	518	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.4	0		32.6		
HCM LOS				D		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	543	-	-	-	195	
HCM Lane V/C Ratio	0.038	-	-	-	0.338	
HCM Control Delay (s)	11.9	-	-	-	32.6	
HCM Lane LOS	B	-	-	-	D	
HCM 95th %tile Q(veh)	0.1	-	-	-	1.4	

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	76	9	2	186	6	2
Future Vol, veh/h	76	9	2	186	6	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	83	10	2	202	7	2

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	93	0	294	88
Stage 1	-	-	-	-	88	-
Stage 2	-	-	-	-	206	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1501	-	697	970
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	829	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1501	-	696	970
Mov Cap-2 Maneuver	-	-	-	-	696	-
Stage 1	-	-	-	-	935	-
Stage 2	-	-	-	-	827	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	9.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	749	-	-	1501	-
HCM Lane V/C Ratio	0.012	-	-	0.001	-
HCM Control Delay (s)	9.9	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	2.2					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	2	6	9	25	17	2
Future Vol, veh/h	2	6	9	25	17	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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	7	10	27	18	2
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	66	19	20	0	-	0
Stage 1	19	-	-	-	-	-
Stage 2	47	-	-	-	-	-
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	939	1059	1596	-	-	-
Stage 1	1004	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	933	1059	1596	-	-	-
Mov Cap-2 Maneuver	933	-	-	-	-	-
Stage 1	998	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.5	1.9		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1596	-	1024	-	-	
HCM Lane V/C Ratio	0.006	-	0.008	-	-	
HCM Control Delay (s)	7.3	0	8.5	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	4	0	1	46	31	5
Future Vol, veh/h	4	0	1	46	31	5
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	0	1	50	34	5
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	89	37	39	0	-	0
Stage 1	37	-	-	-	-	-
Stage 2	52	-	-	-	-	-
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	912	1035	1571	-	-	-
Stage 1	985	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	911	1035	1571	-	-	-
Mov Cap-2 Maneuver	911	-	-	-	-	-
Stage 1	984	-	-	-	-	-
Stage 2	970	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	9	0.2		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1571	-	911	-	-	
HCM Lane V/C Ratio	0.001	-	0.005	-	-	
HCM Control Delay (s)	7.3	0	9	-	-	
HCM Lane LOS	A	A	A	-	-	
HCM 95th %tile Q(veh)	0	-	0	-	-	

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	3	4	745	286	4
Future Vol, veh/h	3	3	4	745	286	4
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	3	4	810	311	4
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1131	313	315	0	-	0
Stage 1	313	-	-	-	-	-
Stage 2	818	-	-	-	-	-
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	225	727	1245	-	-	-
Stage 1	741	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	224	727	1245	-	-	-
Mov Cap-2 Maneuver	224	-	-	-	-	-
Stage 1	737	-	-	-	-	-
Stage 2	434	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	15.7	0		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1245	-	342	-	-	
HCM Lane V/C Ratio	0.003	-	0.019	-	-	
HCM Control Delay (s)	7.9	0	15.7	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0	-	0.1	-	-	

Intersection						
Int Delay, s/veh	1.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	127	1	41	140	1	27
Future Vol, veh/h	127	1	41	140	1	27
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	138	1	45	152	1	29
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	139	0	381	139
Stage 1	-	-	-	-	139	-
Stage 2	-	-	-	-	242	-
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	-	-	1445	-	621	909
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	798	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1445	-	600	909
Mov Cap-2 Maneuver	-	-	-	-	600	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	771	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		1.7		9.2	
HCM LOS					A	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	893	-	-	1445	-	
HCM Lane V/C Ratio	0.034	-	-	0.031	-	
HCM Control Delay (s)	9.2	-	-	7.6	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	111	113	28	18	1
Future Vol, veh/h	1	111	113	28	18	1
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	1	121	123	30	20	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	153	0	-	0	261	138
Stage 1	-	-	-	-	138	-
Stage 2	-	-	-	-	123	-
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	1428	-	-	-	728	910
Stage 1	-	-	-	-	889	-
Stage 2	-	-	-	-	902	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1428	-	-	-	727	910
Mov Cap-2 Maneuver	-	-	-	-	727	-
Stage 1	-	-	-	-	888	-
Stage 2	-	-	-	-	902	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		10		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1428	-	-	-	735	
HCM Lane V/C Ratio	0.001	-	-	-	0.028	
HCM Control Delay (s)	7.5	0	-	-	10	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Intersection						
Int Delay, s/veh	1.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	93	2	30	84	1	20
Future Vol, veh/h	93	2	30	84	1	20
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	101	2	33	91	1	22
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	103	0	259	102
Stage 1	-	-	-	-	102	-
Stage 2	-	-	-	-	157	-
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	-	-	1489	-	730	953
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	871	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1489	-	713	953
Mov Cap-2 Maneuver	-	-	-	-	713	-
Stage 1	-	-	-	-	922	-
Stage 2	-	-	-	-	851	-
Approach	EB	WB		NB		
HCM Control Delay, s	0	2		8.9		
HCM LOS	A					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	938	-	-	1489	-	
HCM Lane V/C Ratio	0.024	-	-	0.022	-	
HCM Control Delay (s)	8.9	-	-	7.5	0	
HCM Lane LOS	A	-	-	A	A	
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-	

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	1	71	49	38	25	1
Future Vol, veh/h	1	71	49	38	25	1
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	1	77	53	41	27	1
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	94	0	-	0	153	74
Stage 1	-	-	-	-	74	-
Stage 2	-	-	-	-	79	-
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	1500	-	-	-	839	988
Stage 1	-	-	-	-	949	-
Stage 2	-	-	-	-	944	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1500	-	-	-	838	988
Mov Cap-2 Maneuver	-	-	-	-	838	-
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	944	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.1	0		9.4		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1500	-	-	-	843	
HCM Lane V/C Ratio	0.001	-	-	-	0.034	
HCM Control Delay (s)	7.4	0	-	-	9.4	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

Future “Build” Intersections Analysis with Improvements

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	55	144	53	184	251	22
Future Vol, veh/h	55	144	53	184	251	22
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	75	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	61	160	59	204	279	24
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	613	291	303	0	-	0
Stage 1	291	-	-	-	-	-
Stage 2	322	-	-	-	-	-
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	456	748	1258	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	435	748	1258	-	-	-
Mov Cap-2 Maneuver	435	-	-	-	-	-
Stage 1	723	-	-	-	-	-
Stage 2	735	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	12.1	1.8		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1258	-	435	748	-	-
HCM Lane V/C Ratio	0.047	-	0.14	0.214	-	-
HCM Control Delay (s)	8	-	14.6	11.1	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.8	-	-

Intersection						
Int Delay, s/veh	4.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	69	86	136	745	262	44
Future Vol, veh/h	69	86	136	745	262	44
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	75	0	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	73	91	145	793	279	47
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	1386	303	326	0	-	0
Stage 1	303	-	-	-	-	-
Stage 2	1083	-	-	-	-	-
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	158	737	1234	-	-	-
Stage 1	749	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	139	737	1234	-	-	-
Mov Cap-2 Maneuver	139	-	-	-	-	-
Stage 1	661	-	-	-	-	-
Stage 2	325	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	31.1	1.3		0		
HCM LOS	D					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	EBLn2	SBT	SBR
Capacity (veh/h)	1234	-	139	737	-	-
HCM Lane V/C Ratio	0.117	-	0.528	0.124	-	-
HCM Control Delay (s)	8.3	-	56.7	10.6	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.4	-	2.6	0.4	-	-

Traffic Volume Worksheets

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

A&R Engineering
September 2023

Traffic Volumes

1. SR 8 @ Hollywood Rd

A.M. Peak Hour

Condition	-				Hollywood Road				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	268	0	2	270	0	1117	0	1117	0	355	168	523
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	303	0	2	305	0	1262	0	1262	0	401	190	591
New Apartment Trips:	0	0	0	0	66	0	0	66	0	0	0	0	0	0	19	19
New Townhome Trips:	0	0	0	0	26	0	0	26	0	0	0	0	0	0	9	9
Total New Trips:	0	0	0	0	92	0	0	92	0	0	0	0	0	0	28	28
Future 2028 Traffic Volumes:	0	0	0	0	395	0	2	397	0	1262	0	1262	0	401	218	619

P.M. Peak Hour

Condition	-						Hollywood Road						SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)						SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)					
	Northbound						Southbound						Eastbound						Westbound					
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot				
Existing 2023 Traffic Counts:	0	0	0	0	291	0	5	296					0	439	0	439	0	1010	651	1661				
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6						2.6	2.6	2.6		2.6	2.6	2.6					
No-Build 2028 Volumes:	0	0	0	0	329	0	6	335					0	496	0	496	0	1141	736	1877				
New Apartment Trips:	0	0	0	0	31	0	0	31					0	0	0	0	0	0	48	48				
New Townhome Trips:	0	0	0	0	16	0	0	16					0	0	0	0	0	0	24	24				
Total New Trips:	0	0	0	0	47	0	0	47					0	0	0	0	0	0	72	72				
Future 2028 Traffic Volumes:	0	0	0	0	376	0	6	382					0	496	0	496	0	1141	808	1949				

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

2. Hollywood Rd @ Johnson Rd

A.M. Peak Hour

Condition	Hollywood Road Northbound				Hollywood Road Southbound				Sumlin Avenue Eastbound				Johnson Road Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	4	108	67	179	8	213	0	221	0	3	6	9	73	0	5	78
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	5	122	76	203	9	241	0	250	0	3	7	10	82	0	6	88
New Apartment Trips:	0	19	0	19	0	66	0	66	0	0	0	0	0	0	0	0
New Townhome Trips:	0	9	0	9	0	26	0	26	0	0	0	0	0	0	0	0
Total New Trips:	0	28	0	28	0	92	0	92	0	0	0	0	0	0	0	0
Future 2028 Traffic Volumes:	5	150	76	231	9	333	0	342	0	3	7	10	82	0	6	88

P.M. Peak Hour

Condition	Hollywood Road Northbound				Hollywood Road Southbound				Sumlin Avenue Eastbound				Johnson Road Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	1	597	78	676	4	211	4	219	3	5	0	8	104	6	28	138
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	1	675	88	764	5	238	5	248	3	6	0	9	118	7	32	157
New Apartment Trips:	0	48	0	48	0	31	0	31	0	0	0	0	0	0	0	0
New Townhome Trips:	0	24	0	24	0	16	0	16	0	0	0	0	0	0	0	0
Total New Trips:	0	72	0	72	0	47	0	47	0	0	0	0	0	0	0	0
Future 2028 Traffic Volumes:	1	747	88	836	5	285	5	295	3	6	0	9	118	7	32	157

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

A&R Engineering
September 2023

3. Hollywood Rd @ Cato St

A.M. Peak Hour

Condition	Hollywood Road Northbound					Hollywood Road Southbound					- Eastbound					Cato Street Westbound										
	L		T		R		L		T		R		L		T		R		L		T		R		Tot	
Existing 2023 Traffic Counts:	0	107	5	112				7	204	0	211				0	0	0	0				9	0	5	14	
	2.6	2.6	2.6				2.6	2.6	2.6				2.6	2.6	2.6	2.6						2.6	2.6	2.6		
Growth Factor (%):																										
No-Build 2028 Volumes:	0	121	6	127				8	231	0	239				0	0	0	0				10	0	6	16	
New Apartment Trips:	0	19	0	19				0	66	0	66				0	0	0	0				0	0	0	0	
New Townhome Trips:	0	5	3	8				0	16	0	16				0	0	0	0				10	0	0	10	
Total New Trips:	0	24	3	27				0	82	0	82				0	0	0	0				10	0	0	10	
Future 2028 Traffic Volumes:	0	145	9	154				8	313	0	321				0	0	0	0				20	0	6	26	

P.M. Peak Hour

Condition	Hollywood Road Northbound					Hollywood Road Southbound					- Eastbound					Cato Street Westbound								
	L			T		R		Tot	L			T		R		Tot	L			T		R		Tot
	L	T	R	T	R	T	R	Tot	L	T	R	T	R	Tot	L	T	R	Tot	L	T	R	Tot		
Existing 2023 Traffic Counts:	0	590	7	597					7	203	0	210							6	0	4	10		
	2.6	2.6	2.6						2.6	2.6	2.6				2.6	2.6	2.6		2.6	2.6	2.6			
Growth Factor (%):																								
No-Build 2028 Volumes:	0	667	8	675					8	229	0	237							7	0	5	12		
New Apartment Trips:	0	48	0	48					0	31	0	31							0	0	0	0		
New Townhome Trips:	0	14	9	23					0	10	0	10							6	0	0	6		
Total New Trips:	0	62	9	71					0	41	0	41							6	0	0	6		
Future 2028 Traffic Volumes:	0	729	17	746					8	270	0	278							13	0	5	18		

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
September 2023

4. Hollywood Rd @ Gun Club Rd
A.M. Peak Hour

Condition	-				Gun Club Road				Hollywood Road				Hollywood Road			
	Northbound		Southbound		Southbound		Eastbound		Westbound		Westbound					
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	11	0	2	13	1	193	0	194	0	101	6	107
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	12	0	2	14	1	218	0	219	0	114	7	121
New Apartment Trips:	0	0	0	0	0	0	0	0	0	66	0	66	0	19	0	19
New Townhome Trips:	0	0	0	0	0	0	1	1	0	16	0	16	0	5	0	5
Total New Trips:	0	0	0	0	0	0	1	1	0	82	0	82	0	24	0	24
Future 2028 Traffic Volumes:	0	0	0	0	12	0	3	15	1	300	0	301	0	138	7	145

P.M. Peak Hour

Condition	-				Gun Club Road				Hollywood Road				Hollywood Road			
	Northbound		Southbound		Southbound		Eastbound		Westbound		Westbound		Tot			
Existing 2023 Traffic Counts:	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
	0	0	0	0	11	0	2	13	5	192	0	197	0	575	15	590
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	12	0	2	14	6	217	0	223	0	650	17	667
New Apartment Trips:	0	0	0	0	0	0	0	0	0	31	0	31	0	48	0	48
New Townhome Trips:	0	0	0	0	0	0	1	1	1	10	0	11	0	14	0	14
Total New Trips:	0	0	0	0	0	0	1	1	1	41	0	42	0	62	0	62
Future 2028 Traffic Volumes:	0	0	0	0	12	0	3	15	7	258	0	265	0	712	17	729

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
September 2023

5. Hollywood Rd @ Mildred Pl

A.M. Peak Hour

Condition	Mildred Place Northbound			-			Hollywood Road Eastbound			Hollywood Road Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	7	0	3	10					0	191	4	195
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	8	0	3	11	0	0	0	0	0	216	5	221
New Apartment Trips:	5	0	0	5	0	0	0	0	0	66	16	82
New Townhome Trips:	5	0	3	8	0	0	0	0	0	13	6	19
Total New Trips:	10	0	3	13	0	0	0	0	0	79	22	101
Future 2028 Traffic Volumes:	18	0	6	24	0	0	0	0	0	295	27	322

P.M. Peak Hour

Condition	Mildred Place Northbound			-			Hollywood Road Eastbound			Hollywood Road Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	19	0	7	26	0	0	0	0	0	190	9	199
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	21	0	8	29	0	0	0	0	0	215	10	225
New Apartment Trips:	12	0	0	12	0	0	0	0	0	31	8	39
New Townhome Trips:	6	0	3	9	0	0	0	0	0	8	6	14
Total New Trips:	18	0	3	21	0	0	0	0	0	39	14	53
Future 2028 Traffic Volumes:	39	0	11	50	0	0	0	0	0	254	24	278

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

A&R Engineering
September 2023

6. Hollywood Rd @ Hollywood Dr

A.M. Peak Hour

Condition	Hollywood Road Northbound			Hollywood Road Southbound			- Eastbound			Hollywood Drive Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	112	16	128	42	167	0	209	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	127	18	145	47	189	0	236	0	0	0	0
New Apartment Trips:	0	24	0	24	33	82	0	115	0	0	0	0
New Townhome Trips:	0	9	4	13	7	13	0	20	0	0	0	0
Total New Trips:	0	33	4	37	40	95	0	135	0	0	0	0
Future 2028 Traffic Volumes:	0	160	22	182	87	284	0	371	0	0	0	0

P.M. Peak Hour

Condition	Hollywood Road Northbound			Hollywood Road Southbound			- Eastbound			Hollywood Drive Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	588	5	593	37	199	0	236	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	664	6	670	42	225	0	267	0	0	0	0
New Apartment Trips:	0	61	0	61	16	39	0	55	0	0	0	0
New Townhome Trips:	0	14	3	17	10	12	0	22	0	0	0	0
Total New Trips:	0	75	3	78	26	51	0	77	0	0	0	0
Future 2028 Traffic Volumes:	0	739	9	748	68	276	0	344	0	0	0	0

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
September 2023

7. Hollywood Rd @ Milton Ave

A.M. Peak Hour

Condition	Hollywood Road Northbound				Hollywood Road Southbound				- Eastbound				Milton Avenue Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	160	7	167	5	209	0	214	0	0	0	0	24	0	20	44
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	181	8	189	6	236	0	242	0	0	0	0	27	0	23	50
New Apartment Trips:	0	34	0	34	0	115	0	115	0	0	0	0	0	0	0	0
New Townhome Trips:	0	18	0	18	0	20	0	20	0	0	0	0	0	0	0	0
Total New Trips:	0	52	0	52	0	135	0	135	0	0	0	0	0	0	0	0
Future 2028 Traffic Volumes:	0	233	8	241	6	371	0	377	0	0	0	0	27	0	23	50

P.M. Peak Hour

Condition	Hollywood Road Northbound				Hollywood Road Southbound				- Eastbound				Milton Avenue Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	664	17	681	19	257	0	276	0	0	0	0	7	0	9	16
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	750	19	769	21	290	0	311	0	0	0	0	8	0	10	18
New Apartment Trips:	0	85	0	85	0	55	0	55	0	0	0	0	0	0	0	0
New Townhome Trips:	0	23	0	23	0	22	0	22	0	0	0	0	0	0	0	0
Total New Trips:	0	108	0	108	0	77	0	77	0	0	0	0	0	0	0	0
Future 2028 Traffic Volumes:	0	858	19	877	21	367	0	388	0	0	0	0	8	0	10	18

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A.M. Peak Hour

Condition	Hollywood Road Northbound				Hollywood Road Southbound				N. Grand Avenue Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	10	154	0	164	0	219	7	226	7	0	11	18	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	11	174	0	185	0	247	8	255	8	0	12	20	0	0	0	0
New Apartment Trips:	34	0	0	34	0	0	12	12	41	0	115	156	0	0	0	0
New Townhome Trips:	8	10	0	18	0	4	2	6	6	0	17	23	0	0	0	0
Total New Trips:	42	10	0	52	0	4	14	18	47	0	132	179	0	0	0	0
Future 2028 Traffic Volumes:	53	184	0	237	0	251	22	273	55	0	144	199	0	0	0	0

P.M. Peak Hour

	Hollywood Road Northbound				Hollywood Road Southbound				N. Grand Avenue Eastbound				- Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Condition																
Existing 2023 Traffic Counts:	31	653	0	684	0	224	8	232	40	0	17	57	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	35	738	0	773	0	253	9	262	45	0	19	64	0	0	0	0
New Apartment Trips:	85	0	0	85	0	0	30	30	20	0	55	75	0	0	0	0
New Townhome Trips:	16	7	0	23	0	9	5	14	4	0	12	16	0	0	0	0
Total New Trips:	101	7	0	108	0	9	35	44	24	0	67	91	0	0	0	0
Future 2028 Traffic Volumes:	136	745	0	881	0	262	44	306	69	0	86	155	0	0	0	0

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A.M. Peak Hour

Condition	Gun Club Road Northbound					Gun Club Road Southbound					Hollywood Drive Eastbound					Hollywood Drive Westbound				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2023 Traffic Counts:	2	12	2	16		4	12	9	25		6	36	0	42		5	126	6	137	
Growth Factor (%):	2.6	2.6	2.6			2.6	2.6	2.6			2.6	2.6	2.6			2.6	2.6	2.6		
No-Build 2028 Volumes:	2	14	2	18		5	14	10	29		7	41	0	48		6	142	7	155	
New Apartment Trips:	0	0	0	0		0	0	0	0		0	16	0	16		0	24	0	24	
New Townhome Trips:	0	0	1	1		0	0	0	0		0	13	0	13		1	13	0	14	
Total New Trips:	0	0	1	1		0	0	0	0		0	29	0	29		1	37	0	38	
Future 2028 Traffic Volumes:	2	14	3	19		5	14	10	29		7	70	0	77		7	179	7	193	

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Traffic Volumes

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10. Hollywood Dr @ Cato St

A.M. Peak Hour

Condition	Cato Street Northbound			Cato Street Southbound			Hollywood Drive Eastbound			Hollywood Drive Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	1	10	2	13	1	9	1	11	3	71	2	76
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	1	11	2	14	1	10	1	12	3	80	2	85
New Apartment Trips:	0	0	0	0	0	0	0	0	0	33	0	33
New Townhome Trips:	0	0	2	2	0	0	0	0	0	10	0	10
Total New Trips:	0	0	2	2	0	0	0	0	0	43	0	43
Future 2028 Traffic Volumes:	1	11	4	16	1	10	1	12	3	123	2	128

P.M. Peak Hour

Condition	Cato Street Northbound			Cato Street Southbound			Hollywood Drive Eastbound			Hollywood Drive Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	2	16	4	22	2	11	3	16	3	44	2	49
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	2	18	5	25	2	12	3	17	3	50	2	55
New Apartment Trips:	0	0	0	0	0	0	0	0	0	16	0	16
New Townhome Trips:	0	0	2	2	0	0	0	0	0	7	0	7
Total New Trips:	0	0	2	2	0	0	0	0	0	23	0	23
Future 2028 Traffic Volumes:	2	18	7	27	2	12	3	17	3	73	2	78

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11. Johnson Rd @ Hollywood Dr

A.M. Peak Hour

Condition	Johnson Road Northbound			Johnson Road Southbound			Hollywood Drive Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	5	109	0	114	0	78	54	132	71	0	0	71
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	6	123	0	129	0	88	61	149	80	0	0	80
New Apartment Trips:	0	0	0	0	0	0	10	10	33	0	0	33
New Townhome Trips:	0	0	0	0	0	0	4	4	13	0	0	13
Total New Trips:	0	0	0	0	0	0	14	14	46	0	0	46
Future 2028 Traffic Volumes:	6	123	0	129	0	88	75	163	126	0	0	126

P.M. Peak Hour

Condition	Johnson Road Northbound			Johnson Road Southbound			Hollywood Drive Eastbound			Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	6	73	0	79	0	155	136	291	39	0	5	44
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	7	82	0	89	0	175	154	329	44	0	6	50
New Apartment Trips:	0	0	0	0	0	0	24	24	16	0	0	16
New Townhome Trips:	0	0	0	0	0	0	12	12	8	0	0	8
Total New Trips:	0	0	0	0	0	0	36	36	24	0	0	24
Future 2028 Traffic Volumes:	7	82	0	89	0	175	190	365	68	0	6	74

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Traffic Volumes

12. Johnson Rd @ Boyd ES Exit

A.M. Peak Hour

Condition	-				Boyd Elementary School Driveway (Western, Exit-Only)				Johnson Road				Johnson Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	25	0	82	107	0	230	0	230	0	121	0	121
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	28	0	93	121	0	260	0	260	0	137	0	137
New Apartment Trips:	0	0	0	0	0	0	2	2	0	33	0	33	0	7	0	7
New Townhome Trips:	0	0	0	0	0	0	1	1	0	13	0	13	0	3	0	3
Total New Trips:	0	0	0	0	0	0	3	3	0	46	0	46	0	10	0	10
Future 2028 Traffic Volumes:	0	0	0	0	28	0	96	124	0	306	0	306	0	147	0	147

P.M. Peak Hour

Condition	-				Boyd Elementary School Driveway (Western, Exit-Only)				Johnson Road				Johnson Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	3	0	10	13	0	163	0	163	0	544	0	544
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	3	0	11	14	0	184	0	184	0	615	0	615
New Apartment Trips:	0	0	0	0	0	0	6	6	0	16	0	16	0	18	0	18
New Townhome Trips:	0	0	0	0	0	0	3	3	0	8	0	8	0	9	0	9
Total New Trips:	0	0	0	0	0	0	9	9	0	24	0	24	0	27	0	27
Future 2028 Traffic Volumes:	0	0	0	0	3	0	20	23	0	208	0	208	0	642	0	642

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Traffic Volumes

13. Johnson Rd @ Boyd ES Entry

A.M. Peak Hour

Condition	Johnsons Grove				Boyd Elementary School Driveway (Eastern, Entry-Only)				Johnson Road				Johnson Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	1	1	0	0	0	0	104	151	0	255	0	121	40	161
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	1	1	0	0	0	0	118	171	0	289	0	137	45	182
New Apartment Trips:	0	0	0	0	0	0	0	0	8	25	0	33	0	7	0	7
New Townhome Trips:	0	0	0	0	0	0	0	0	3	10	0	13	0	3	0	3
Total New Trips:	0	0	0	0	0	0	0	0	11	35	0	46	0	10	0	10
Future 2028 Traffic Volumes:	0	0	1	1	0	0	0	0	129	206	0	335	0	147	45	192

P.M. Peak Hour

Condition	Johnsons Grove				Boyd Elementary School Driveway (Eastern, Entry-Only)				Johnson Road				Johnson Road			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	2	0	1	3	0	0	0	0	26	165	1	192	4	587	7	598
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	2	0	1	3	0	0	0	0	29	186	1	216	5	663	8	676
New Apartment Trips:	0	0	0	0	0	0	0	0	4	12	0	16	0	18	0	18
New Townhome Trips:	0	0	0	0	0	0	0	0	2	6	0	8	0	9	0	9
Total New Trips:	0	0	0	0	0	0	0	0	6	18	0	24	0	27	0	27
Future 2028 Traffic Volumes:	2	0	1	3	0	0	0	0	35	204	1	240	5	690	8	703

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Traffic Volumes

A&R Engineering
 September 2023

14. Mildred Pl @ Sumlin Ave

A.M. Peak Hour

Condition	Mildred Place Northbound			Mildred Place Southbound			Sumlin Avenue Eastbound			Sumlin Avenue Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	9	1	10	0	5	0	5	0	14	0	14
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	10	1	11	0	6	0	6	0	16	0	16
New Apartment Trips:	0	0	0	0	0	0	16	16	5	0	0	5
New Townhome Trips:	0	0	0	0	0	0	6	6	2	0	0	2
Total New Trips:	0	0	0	0	0	0	22	22	7	0	0	7
Future 2028 Traffic Volumes:	0	10	1	11	0	6	22	28	7	16	0	23
									1	7	0	8

P.M. Peak Hour

Condition	Mildred Place Northbound			Mildred Place Southbound			Sumlin Avenue Eastbound			Sumlin Avenue Westbound		
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	31	1	32	0	17	0	17	0	10	2	12
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	35	1	36	0	19	0	19	0	11	2	13
New Apartment Trips:	0	0	0	0	0	0	8	8	12	0	0	12
New Townhome Trips:	0	0	0	0	0	0	4	4	6	0	0	6
Total New Trips:	0	0	0	0	0	0	12	12	18	0	0	18
Future 2028 Traffic Volumes:	0	35	1	36	0	19	12	31	18	11	2	31
									0	8	0	8

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)

A&R Engineering
September 2023

Traffic Volumes

15. SR 8 @ Wood St

A.M. Peak Hour

Condition	Intrada Driveway					Wood Street					SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)					SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)				
	Northbound					Southbound					Eastbound					Westbound				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2023 Traffic Counts:	9	0	14	23		4	0	4	8		3	1226	1	1230		6	416	1	423	
Growth Factor (%):	2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6	
No-Build 2028 Volumes:	10	0	16	26		5	0	5	10		3	1385	1	1389		7	470	1	478	
New Apartment Trips:	0	0	0	0		0	0	0	16		5	0	0	5		0	0	0	0	
New Townhome Trips:	0	0	0	0		0	0	0	6		2	0	0	2		0	0	0	0	
Total New Trips:	0	0	0	0		0	0	0	22		7	0	0	7		0	0	0	0	
Future 2028 Traffic Volumes:	10	0	16	26		5	0	27	32		10	1385	1	1396		7	470	1	478	

P.M. Peak Hour

Condition	Intrada Driveway					Wood Street					SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)					SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)				
	Northbound					Southbound					Eastbound					Westbound				
	L	T	R	Tot		L	T	R	Tot		L	T	R	Tot		L	T	R	Tot	
Existing 2023 Traffic Counts:	14	1	21	36		1	0	18	19		7	508	0	515		18	1068	2	1088	
Growth Factor (%):	2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6		2.6	2.6	2.6	2.6	
No-Build 2028 Volumes:	16	1	24	41		1	0	20	21		8	574	0	582		20	1207	2	1229	
New Apartment Trips:	0	0	0	0		0	0	8	8		12	0	0	12		0	0	0	0	
New Townhome Trips:	0	0	0	0		0	0	4	4		6	0	0	6		0	0	0	0	
Total New Trips:	0	0	0	0		0	0	12	12		18	0	0	18		0	0	0	0	
Future 2028 Traffic Volumes:	16	1	24	41		1	0	32	33		26	574	0	600		20	1207	2	1229	

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

16. SR 8 @ N Grand Ave

A.M. Peak Hour

Condition	South Grand Avenue				North Grand Avenue				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	21	2	23	46	23	3	26	52	20	1226	6	1252	8	416	10	434
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	24	2	26	52	26	3	29	58	23	1385	7	1415	9	470	11	490
New Apartment Trips:	0	0	0	0	0	0	8	8	2	5	0	7	0	16	0	16
New Townhome Trips:	0	0	0	0	0	0	3	3	1	2	0	3	0	6	0	6
Total New Trips:	0	0	0	0	0	0	11	11	3	7	0	10	0	22	0	22
Future 2028 Traffic Volumes:	24	2	26	52	26	3	40	69	26	1392	7	1425	9	492	11	512

P.M. Peak Hour

Condition	South Grand Avenue				North Grand Avenue				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)				SR 8 / US 78 / US 278 (Donald Lee Hollowell Parkway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	25	5	26	56	26	6	26	58	10	508	8	526	20	1068	18	1106
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	28	6	29	63	29	7	29	65	11	574	9	594	23	1207	20	1250
New Apartment Trips:	0	0	0	0	0	0	4	4	6	12	0	18	0	8	0	8
New Townhome Trips:	0	0	0	0	0	0	2	2	3	6	0	9	0	4	0	4
Total New Trips:	0	0	0	0	0	0	6	6	9	18	0	27	0	12	0	12
Future 2028 Traffic Volumes:	28	6	29	63	29	7	35	71	20	592	9	621	23	1219	20	1262

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
September 2023

17. Hollywood Dr @ Drwy A1

A.M. Peak Hour

Condition	Site Driveway 1 (Pod A)						-						Hollywood Drive						Hollywood Drive					
	Northbound			Southbound			Eastbound						Westbound											
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot								
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	76	0	76	0	76	0	56	0	56	0	56				
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6				
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	86	0	86	0	86	0	63	0	63	0	63				
New Apartment Trips:	0	0	0	0	0	0	0	0	0	33	0	33	0	33	0	10	0	10	0	10				
New Townhome Trips:	10	0	3	13	0	0	0	0	0	8	3	11	0	8	3	1	3	0	4	4				
Total New Trips:	10	0	3	13	0	0	0	0	0	41	3	44	0	41	3	1	13	0	14	14				
Future 2028 Traffic Volumes:	10	0	3	13	0	0	0	0	0	127	3	130	0	127	3	1	76	0	77	77				

P.M. Peak Hour

Condition	Site Driveway 1 (Pod A)						-						Hollywood Drive						Hollywood Drive					
	Northbound			Southbound			Eastbound						Westbound											
	L	T	R	L	T	R	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot						
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	0	0	49	0	49	0	49	0	137	0	137				
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6				
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	0	0	55	0	55	0	55	0	155	0	155				
New Apartment Trips:	0	0	0	0	0	0	0	0	0	0	0	16	0	16	0	16	0	24	0	24				
New Townhome Trips:	6	0	2	8	0	0	0	0	0	0	0	5	9	14	0	5	9	2	7	0	9			
Total New Trips:	6	0	2	8	0	0	0	0	0	0	0	21	9	30	0	21	9	2	31	0	33			
Future 2028 Traffic Volumes:	6	0	2	8	0	0	0	0	0	0	0	76	9	85	0	76	9	2	186	0	188			

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

18. Cato St @ Drwy A2

A.M. Peak Hour

Condition	Cato Street Northbound			Cato Street Southbound			Site Driveway 2 (Pod A) Eastbound			- Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	13	0	13	0	13	0	0	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	15	0	15	0	15	0	0	0	0	0	0
New Apartment Trips:	0	0	0	0	0	0	0	0	0	0	0	0
New Townhome Trips:	3	0	0	3	0	1	2	0	10	0	0	0
Total New Trips:	3	0	0	3	0	1	2	0	10	0	0	0
Future 2028 Traffic Volumes:	3	15	0	18	0	15	2	0	10	0	0	0

P.M. Peak Hour

Condition	Cato Street Northbound			Cato Street Southbound			Site Driveway 2 (Pod A) Eastbound			- Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	22	0	22	0	15	0	0	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	25	0	25	0	17	0	0	0	0	0	0
New Apartment Trips:	0	0	0	0	0	0	0	0	0	0	0	0
New Townhome Trips:	9	0	0	9	0	2	2	0	6	0	0	0
Total New Trips:	9	0	0	9	0	2	2	0	6	0	0	0
Future 2028 Traffic Volumes:	9	25	0	34	0	17	2	0	6	0	0	0

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

19. Mildred Pl @ Drwy B3

A.M. Peak Hour

Condition	Mildred Place Northbound			Mildred Place Southbound			Site Driveway 3 (Pod B) Eastbound			Road D Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	10	0	10	0	6	0	0	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	11	0	11	0	7	0	0	0	0	0	0
New Apartment Trips:	0	5	0	5	0	16	0	0	0	0	0	0
New Townhome Trips:	0	2	0	2	0	6	2	8	6	0	1	7
Total New Trips:	0	7	0	7	0	22	2	24	6	0	1	7
Future 2028 Traffic Volumes:	0	18	0	18	0	29	2	31	6	0	1	7

P.M. Peak Hour

Condition	Mildred Place Northbound			Mildred Place Southbound			Site Driveway 3 (Pod B) Eastbound			Road D Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	26	0	26	0	17	0	17	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	29	0	29	0	19	0	19	0	0	0	0
New Apartment Trips:	0	12	0	12	0	8	0	8	0	0	0	0
New Townhome Trips:	1	5	0	6	0	4	5	9	4	0	0	4
Total New Trips:	1	17	0	18	0	12	5	17	4	0	0	4
Future 2028 Traffic Volumes:	1	46	0	47	0	31	5	36	4	0	0	4

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

20. Hollywood Rd @ Drwy B4

A.M. Peak Hour

Condition	Hollywood Road Northbound			Hollywood Road Southbound			Site Driveway 4 (Pod B) Eastbound			- Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	128	0	128	0	172	0	172	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6		2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	145	0	145	0	194	0	194	0	0	0	0
New Apartment Trips:	0	24	0	24	0	82	0	82	0	0	0	0
New Townhome Trips:	2	8	0	10	0	14	2	16	5	0	5	10
Total New Trips:	2	32	0	34	0	96	2	98	5	0	5	10
Future 2028 Traffic Volumes:	2	177	0	179	0	290	2	292	5	0	5	10

P.M. Peak Hour

Condition	Hollywood Road Northbound			Hollywood Road Southbound			Site Driveway 4 (Pod B) Eastbound			- Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
	Tot			Tot			Tot			Tot		
Existing 2023 Traffic Counts:	0	593	0	593	0	209	0	209	0	0	0	0
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6		2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	670	0	670	0	236	0	236	0	0	0	0
New Apartment Trips:	0	61	0	61	0	39	0	39	0	0	0	0
New Townhome Trips:	4	14	0	18	0	11	4	15	3	0	3	6
Total New Trips:	4	75	0	79	0	50	4	54	3	0	3	6
Future 2028 Traffic Volumes:	4	745	0	749	0	286	4	290	3	0	3	6

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

21. N. Grand Ave @ Drwy B5 (E)

A.M. Peak Hour

Condition	Site Driveway 5 (Pod B Eastern Driveway)				-				N. Grand Avenue				N. Grand Avenue			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	18	0	18	0	17	0	17
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	20	0	20	0	19	0	19
New Apartment Trips:	2	0	50	52	0	0	0	0	0	106	0	106	0	15	31	46
New Townhome Trips:	0	0	4	4	0	0	0	0	0	18	0	18	0	1	8	9
Total New Trips:	2	0	54	56	0	0	0	0	0	124	0	124	0	16	39	55
Future 2028 Traffic Volumes:	2	0	54	56	0	0	0	0	0	144	0	144	0	16	58	74

P.M. Peak Hour

Condition	Site Driveway 5 (Pod B Eastern Driveway)				-				N. Grand Avenue				N. Grand Avenue					
	Northbound				Southbound				Eastbound				Westbound					
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot		
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	57	0	57	0	39	0	39	0	39
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	64	0	64	0	44	0	44	0	44
New Apartment Trips:	1	0	24	25	0	0	0	0	0	50	1	51	37	78	0	115		
New Townhome Trips:	0	0	3	3	0	0	0	0	0	13	0	13	4	18	0	22		
Total New Trips:	1	0	27	28	0	0	0	0	0	63	1	64	41	96	0	137		
Future 2028 Traffic Volumes:	1	0	27	28	0	0	0	0	0	127	1	128	41	140	0	181		

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

22. N. Grand Ave @ Drwy C7 (E)

A.M. Peak Hour

Condition	-			Site Driveway 7 (Pod C Eastern Driveway)			N. Grand Avenue			N. Grand Avenue		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	18	0	0	17	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	0	0	0	0	0	0	20	0	0	19	0
New Apartment Trips:	0	0	0	37	0	2	1	69	0	0	22	11
New Townhome Trips:	0	0	0	0	0	0	0	18	0	0	8	0
Total New Trips:	0	0	0	37	0	2	1	87	0	0	30	11
Future 2028 Traffic Volumes:	0	0	0	37	0	2	1	107	0	0	49	11

P.M. Peak Hour

Condition	-			Site Driveway 7 (Pod C Eastern Driveway)			N. Grand Avenue			N. Grand Avenue		
	Northbound			Southbound			Eastbound			Westbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	57	0	0	39	0
Growth Factor (%):	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
No-Build 2028 Volumes:	0	0	0	0	0	0	0	64	0	0	44	0
New Apartment Trips:	0	0	0	18	0	1	1	34	0	0	51	28
New Townhome Trips:	0	0	0	0	0	0	0	13	0	0	18	0
Total New Trips:	0	0	0	18	0	1	1	47	0	0	69	28
Future 2028 Traffic Volumes:	0	0	0	18	0	1	1	111	0	0	113	28

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

23. N. Grand @ Drwy B6 (W)

A.M. Peak Hour

Condition	Site Driveway 6 (Pod B Western Driveway)				-				N. Grand Avenue				N. Grand Avenue			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	18	0	18	0	17	0	17
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	20	0	20	0	19	0	19
New Apartment Trips:	3	0	31	34	0	0	0	0	0	38	1	39	0	15	0	24
New Townhome Trips:	0	0	7	7	0	0	0	0	0	11	0	11	0	3	6	9
Total New Trips:	3	0	38	41	0	0	0	0	0	49	1	50	0	21	0	33
Future 2028 Traffic Volumes:	3	0	38	41	0	0	0	0	0	69	1	70	0	12	40	52

P.M. Peak Hour

Condition	Site Driveway 6 (Pod B Western Driveway)				-				N. Grand Avenue				N. Grand Avenue			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	57	0	57	0	39	0	39
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	64	0	64	0	44	0	44
New Apartment Trips:	1	0	15	16	0	0	0	0	0	20	2	22	23	29	0	52
New Townhome Trips:	0	0	5	5	0	0	0	0	0	9	0	9	7	11	0	18
Total New Trips:	1	0	20	21	0	0	0	0	0	29	2	31	30	40	0	70
Future 2028 Traffic Volumes:	1	0	20	21	0	0	0	0	0	93	2	95	30	84	0	114

23-050 Cypress Grove Resi Dev at Hollywood Rd & N. Grand Ave - Atlanta, GA (DRI # 4023)
Traffic Volumes

A&R Engineering
 September 2023

24. N. Grand Ave @ Drwy C8 (W)

A.M. Peak Hour

Condition	-				Site Driveway 8 (Pod C Western Driveway)				N. Grand Avenue				N. Grand Avenue			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	18	0	18	0	17	0	17
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	20	0	20	0	19	0	19
New Apartment Trips:	0	0	0	0	37	0	2	39	1	2	0	3	0	6	11	17
New Townhome Trips:	0	0	0	0	10	0	1	11	0	1	0	1	0	3	4	7
Total New Trips:	0	0	0	0	47	0	3	50	1	3	0	4	0	9	15	24
Future 2028 Traffic Volumes:	0	0	0	0	47	0	3	50	1	23	0	24	0	28	15	43

P.M. Peak Hour

Condition	-				Site Driveway 8 (Pod C Western Driveway)				N. Grand Avenue				N. Grand Avenue			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2023 Traffic Counts:	0	0	0	0	0	0	0	0	0	57	0	57	0	39	0	39
Growth Factor (%):	2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6		2.6	2.6	2.6	
No-Build 2028 Volumes:	0	0	0	0	0	0	0	0	0	64	0	64	0	44	0	44
New Apartment Trips:	0	0	0	0	18	0	1	19	1	5	0	6	0	3	28	31
New Townhome Trips:	0	0	0	0	7	0	0	7	0	2	0	2	0	2	10	12
Total New Trips:	0	0	0	0	25	0	1	26	1	7	0	8	0	5	38	43
Future 2028 Traffic Volumes:	0	0	0	0	25	0	1	26	1	71	0	72	0	49	38	87