DEVELOPMENT OF REGIONAL IMPACT (DRI #3816)

TRAFFIC STUDY FOR VICTORY LANDING LOGISTICS CENTER AT CONLEY ROAD AND GILBERT ROAD

CLAYTON COUNTY, GEORGIA

Prepared for:

Gilbert Road Joint Venture/ Victory Landing Partners, LLC OA Development, Inc 100 Ashford Ctr N #310, Atlanta, GA 30338

Prepared By:



November 08, 2022 A & R Project # 22-187

EXECUTIVE SUMMARY

Traffic impacts were evaluated for the proposed Victory Landing Logistics Center development that will be located in the region bounded by Gilbert Road in the west, I-285 in the east and Conley Road in the south, in Clayton County, Georgia. The development will consist of 687,250 square feet of warehousing.

The development proposes three full access driveways on Gilbert Road.

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 intersection of Conley Road and Gilbert Road.

Traffic Operations Summary

Results of the traffic operations analysis show that the study intersection of Conley Road and Gilbert Road will continue to operate at level-of-service "B" or better in both the future "No-Build" and "Build" conditions as in existing conditions. All the site driveway intersections will operate at level-of-service "A" or better in both the AM and PM peak hours. The impact of site generated traffic on the traffic operations at the intersection of Conley Road and Gilbert Road is minimal.

Recommendation for Site Access Configuration

The following access configuration is recommended for the site driveway intersections. Adequate sight distance is recommended to be provided at all the site driveways per AASHTO standards.

- Site Driveway 1: Full access (northern) driveway on Gilbert Road
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
- <u>Site Driveway 2: Full access (middle) driveway on Gilbert Road</u>
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
- Site Driveway 3: Full access (southern) driveway on Gilbert Road
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
 - o Right Turn Lane on Gilbert Road for entering traffic

Since all study intersections approaches are operating at a level of service "B" or better in both the future "No-Build" and Build" conditions, the executive summary does not include a table discussing failing approaches.

TABLE OF CONTENTS

Item	Page
Executive Summary	
Traffic Operations Summary	1
Recommendation for Site Access Configuration	1
Introduction	1
Study Network Determination	2
Existing Roadway Facilities	4
Existing Bicycle and Pedestrian Facilities	5
Alternative Modes of Access	5
Study Methodology	6
Unsignalized Intersections	6
Signalized Intersections	7
Existing 2022 Traffic Analysis	8
Existing Traffic Volumes	8
Existing Traffic Operations	11
Project Description	12
Site Plan	12
Planned Bicycle and Pedestrian Facilities	14
Potential Pedestrian and Bicycle Destinations	14
Planned Transit Facilities	14
MARTA stops by ridership on Conley Rd between SR 41 and SR 54	14
Consistency with Adopted Comprehensive Plan	14
Land Use and Zoning	15
Project Phasing	15
Trip Generation	15
Trip Distribution	15
Future 2024 Traffic Analysis	17
Future "No-Build" Conditions	17
Annual Traffic Growth	17
Planned and Programmed Improvements in Study Area	19
Future "Build" Conditions	19
Planned projects	19
Auxiliary Lane Analysis	21
Future Traffic Operations	
Conclusions and Recommendations	24
Recommendation for Site Access Configuration	24
Appendix	

LIST OF TABLES

ltem	Page
Table 1 – Level-of-service Criteria for Unsignalized Intersections	6
Table 2 – Level-of-service Criteria for Signalized Intersections	7
Table 3 – Existing Intersection Operations	11
Table 4 – Trip Generation	15
Table 5 – Planned and Programmed Improvements	19
Table 6 – GDOT Requirements for Deceleration Lanes	21
Table 7 – Future Intersection Operations	22
LIST OF FIGURES Item	Page
Figure 1 – Location Map and Study Intersections	
Figure 2 – Existing Weekday Peak Hour Volumes	9
Figure 3 – Existing Traffic Control and Lane Geometry	10
Figure 4 – Site Plan	13
Figure 5 – Outer Leg Trip Distribution and Site Generated Peak Hour Volumes	16
Figure 6 – Future (No-Build) Peak Hour Volumes	18
Figure 7 – Future (Build) Peak Hour Volumes	20
Figure 8 – Future Traffic Control and Lane Geometry	23

INTRODUCTION

The purpose of this study is to determine the traffic impact from the proposed Victory Landing Logistics Center development that will be located in the region bounded by Gilbert Road in the west, I-285 in the east and Conley Road in the south, in Clayton County, Georgia. The development will consist of 687,250 square feet of warehousing.



The development proposes three full access driveways on Gilbert Road.

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

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

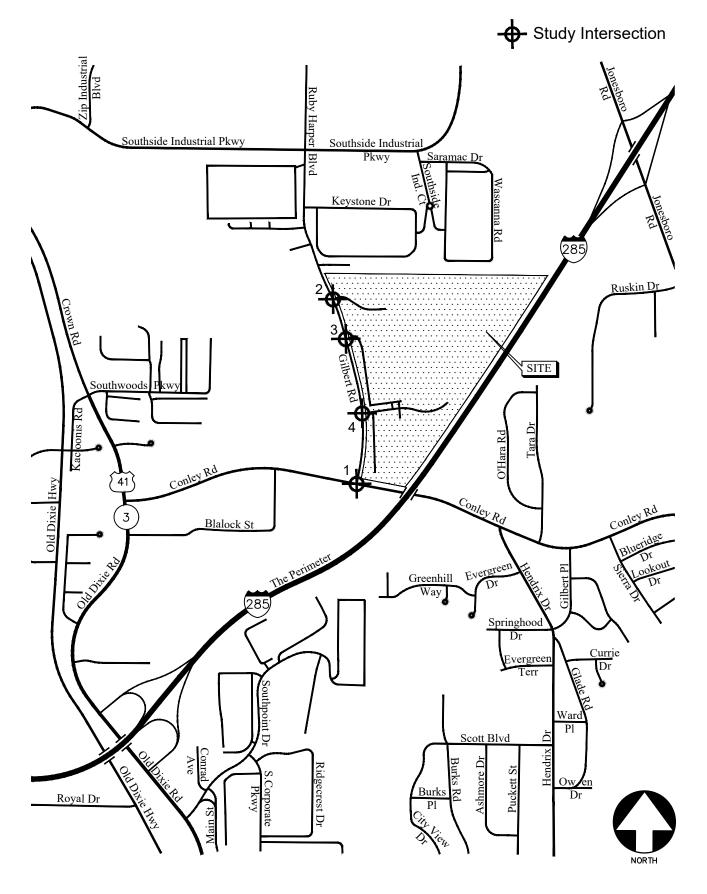
STUDY NETWORK DETERMINATION

The study network was determined by evaluating the amount of traffic that the proposed development 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 in discussions with ARC, GRTA and Clayton County:

1. Conley Road @ Gilbert Road

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:

Conley Road

Conley Road is an east-west, four-lane, median-divided roadway in the vicinity of the site. Conley Road is posted with a speed limit of 35 mph to the east of Gilbert Road and 40 mph to the west of Gilbert Road. Georgia Department of Transportation (GDOT) traffic counts (Station ID's 063-1325 & 063-1327) indicate that the daily traffic volume on Conley Road in 2019 was 6,250 vehicles per day west of Gilbert Road and 5,940 vehicles per day east of Gilbert Road. GDOT classifies Conley Road as an Urban Minor Collector roadway.

Gilbert Road

Gilbert Road is a north-south, two-lane, undivided roadway with a posted speed limit of 35 mph. GDOT traffic counts (Station ID 063-8023) indicate that the daily traffic volume on Gilbert Road in 2019 was 2,060 vehicles per day north of Conley Road. GDOT classifies Gilbert Road as an Urban Local roadway.

Existing Bicycle and Pedestrian Facilities

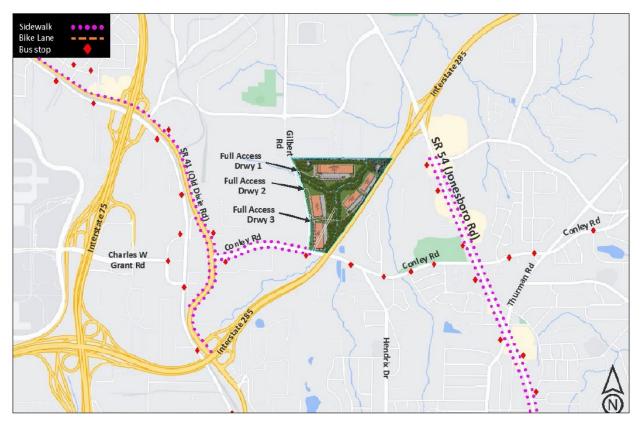
- Sidewalks and bus stops were identified in the vicinity of the proposed development.
- Crosswalks are not present at the intersection of Gilbert Road and Conley Road.
- Bike paths are not present in the study network.

Alternative Modes of Access

- Within a ½ mile radius of the proposed development, MARTA Bus Route 19 serves 6 bus stops along Conley Road to the east and west of I-285. A detailed map that shows adjacent bus routes has been included in the Appendix.
- No high-capacity transit stations were identified in the vicinity of the proposed development.

The graphic below includes the location of existing sidewalks and bus stops in the study network.

Existing Alternative Transportation Map



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 total delays.

Table 1 — Level-of-service Criteria for Unsignalized Intersections									
Control Delay (sec/vehicle)	LOS by Volume-to-Capacity Ratio*								
Control Delay (sec/ venicle)	v/c ≤ 1.0	v/c > 1.0							
≤ 10	А	F							
> 10 and ≤ 15	В	F							
> 15 and ≤ 25	С	F							
> 25 and ≤ 35	D	F							
> 35 and ≤ 50	Е	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*								
Control Delay (sec/venicle)	v/c ≤ 1.0	v/c > 1.0							
≤ 10	А	F							
> 10 and ≤ 20	В	F							
> 20 and ≤ 35	С	F							
> 35 and ≤ 55	D	F							
> 55 and ≤ 80	Е	F							
> 80	F	F							

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

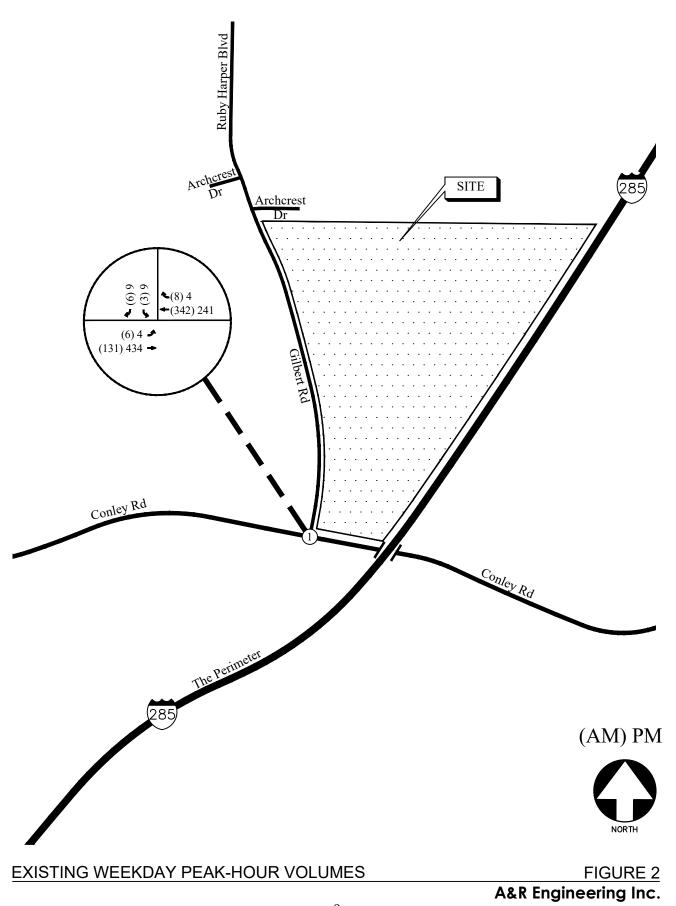
Source: Highway Capacity Manual, 6th edition, Exhibit 19-8 LOS Criteria: Motorized Vehicle Mode

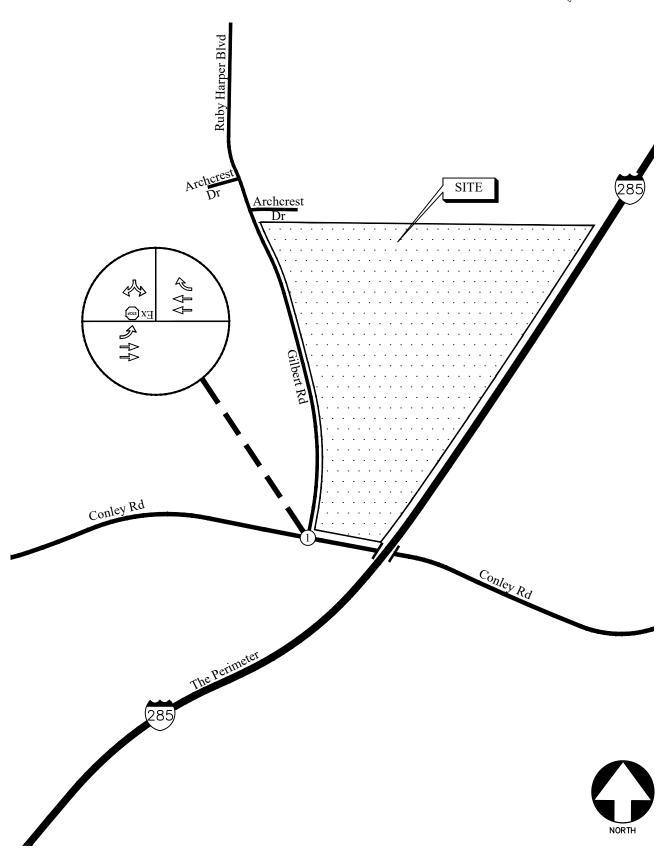
LOS A is typically assigned when the volume-to-capacity (v/c) ratio is low and either progression is exceptionally favorable, or the cycle length is very short. LOS B is typically assigned when the v/c ratio is low and either progression is highly favorable, or the cycle length is short. However, more 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 2022 TRAFFIC ANALYSIS

Existing Traffic Volumes

Existing traffic counts were collected at the intersection of Conley Road and Gilbert Road on Thursday, September 22, 2022 during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. Truck data was included separately in the counts. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersection were then determined. These volumes make up the peak hour traffic volumes for the intersection counted and are shown in Figure 2. The existing traffic control and lane geometry for the intersection are shown in Figure 3.





EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3
A&R Engineering Inc.

Existing Traffic Operations

Existing 2022 traffic operations were analyzed at the study intersection 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 Stand											
1	Conley Road @ Gilbert Road -Eastbound Left -Southbound Approach	Stop Controlled on SB Approach	A (8.1) B (11.9)	A (7.8) B (11.0)	D/D D/D						

The results of existing traffic operations analysis indicate that the study intersection is operating at level-of-service "B" or better in both the AM and PM peak hours.

PROJECT DESCRIPTION

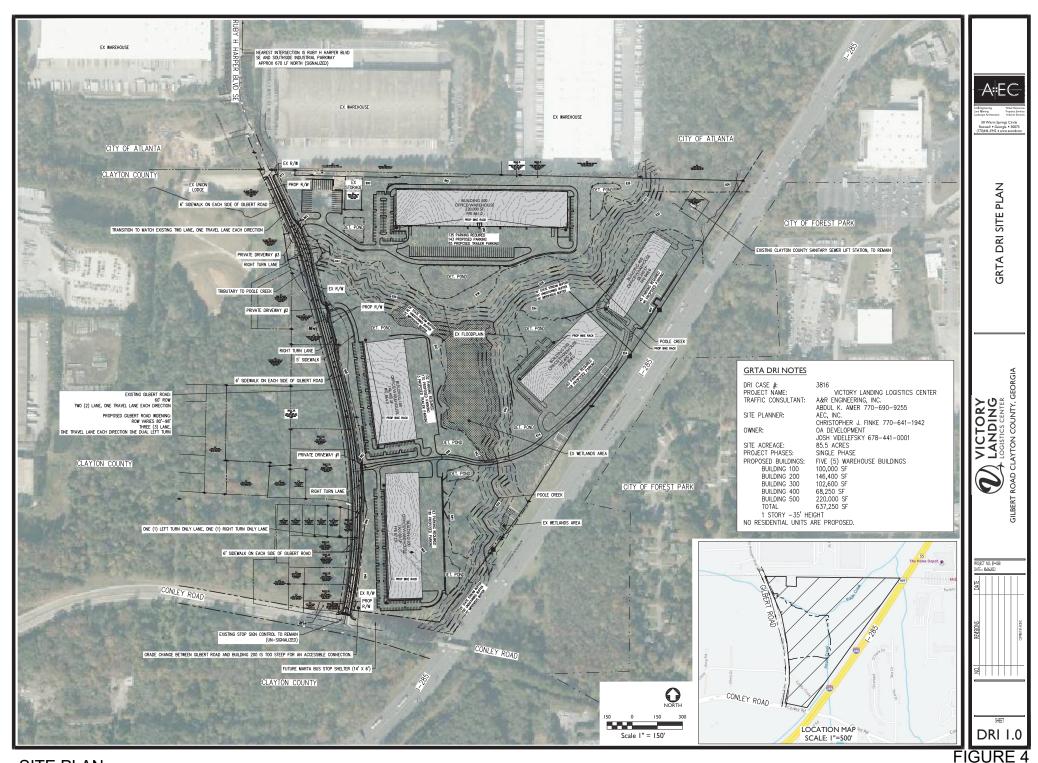
The proposed Victory Landing Logistics Center development will be located in the region bounded by Gilbert Road in the west, I-285 in the east and Conley Road in the south, in Clayton County, Georgia. The development will consist of 687,250 square feet of warehousing.



The development proposes three full access driveways on Gilbert Road.

Site Plan

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



Planned Bicycle and Pedestrian Facilities

Pedestrian sidewalks are proposed along the site frontage on Conley.

Potential Pedestrian and Bicycle Destinations

Potential pedestrian and bicycle destinations in the vicinity of the proposed development include Conley Road Park and Harper Park.

Planned Transit Facilities

The development proposes a sidewalk along the site frontage on Conley Road. The proposed sidewalk will provide pedestrian access to the bus stops along Conley Road. Sidewalks currently exist on Conley Road west of Gilbert Road.

MARTA stops by ridership on Conley Rd between SR 41 and SR 54

Department of Planning Project Development marta 🔪 MARTA stops by ridership on Conley Rd between SR 41 and SR 54 **September 19, 2022** *Ridership from APC weekday average for Dec - April 2022 Stop √1 Stop Name Direction 🔻 Location 🔻 Route ▼ Boarding 🔻 Stop Type 🔻 212721 CONLEY RD & JONESBORO RD Far Side Shelter 194 15 212722 CONLEY RD & SIERRA DR Sign On Post 1 Far Side SW 194 0 212723 CONLEY RD & TARA DR Near Side NW Sign On Post 194 5 0 212737 CONLEY RD & TARA DR Near Side SE Sign On Post 194 1 5 212738 CONLEY RD & SIERRA DR Near Side NE Sign On Post 194 0 1 212739 CONLEY RD & JONESBORO RD Near Side Ε Sign On Post 194 11 14 212724 CONLEY RD & HENDRIX DR Far Side Sign On Post 194 212731 CONLEY RD & OLD DIXIE RD Ε Sign On Post 194 2 2 212736 CONLEY RD & HENDRIX DR Near Side SE Sign On Post 194 212836 CONLEY RD & GILBERT RD Near Side W Sign On Post 194 0 0 212837 CONLEY RD & GILBERT RD Near Side E 194 Strapped Sign 213635 CONLEY RD & CLOUDLAND DR Far Side W Sign On Post 194 0 0 213636 CONLEY RD & CLOUDLAND DR Near Side Ε Sign On Post 194 0 0

Consistency with Adopted Comprehensive Plan

The proposed development will include 5 warehousing buildings. The property includes 85.5 acres of land. The site is currently zoned as INDP for all buildings except for a small area of Building 200 which is zoned as MVMUR. The development is requesting a rezoning for Building 200's small area zoned as MVMUR to INDP.

Land Use and Zoning

Existing Zoning	INDP						
Future Land Use Map	INDP						
Zoning							
Land Use Vision and Goals	The vision for the Clayton County Comprehensive Plan is to:						
for Clayton County	Improve employment options for residents						
	 Undertake business development and promotion 						
	Improve coordination of economic development and planning						
	 Improve and maintain the quality of educational services 						
	Clayton County strives to create a community where business and residents						
	thrive.						
Relation to Existing Land	The proposed Victory Landing Logistics Center development is consistent						
Use Plans	with the land use vision and goals included by Clayton County by improving						
	the employment options for residents and increase opportunities for						
	workforce development.						

Project Phasing

This project has been evaluated for the complete build-out of the development in 2024.

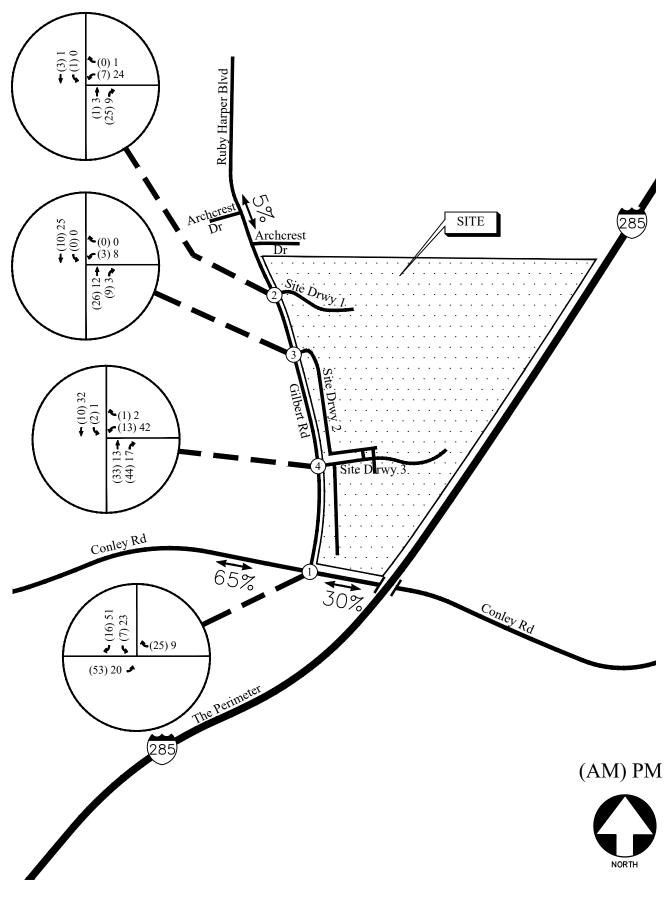
Trip Generation

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 Use:* 150 – Warehousing. 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		
Land Ose	3126	Enter	Exit	Total	Enter	Exit	Total	2-way		
ITE 150 – Warehousing	687,250 sf	82	24	106	31	78	109	1,124		

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 Figure 5.



TRIP DISTRIBUTION AND NEW SITE-GENERATED

FIGURE 5
A&R Engineering Inc.

FUTURE 2024 TRAFFIC ANALYSIS

The future 2024 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. 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.

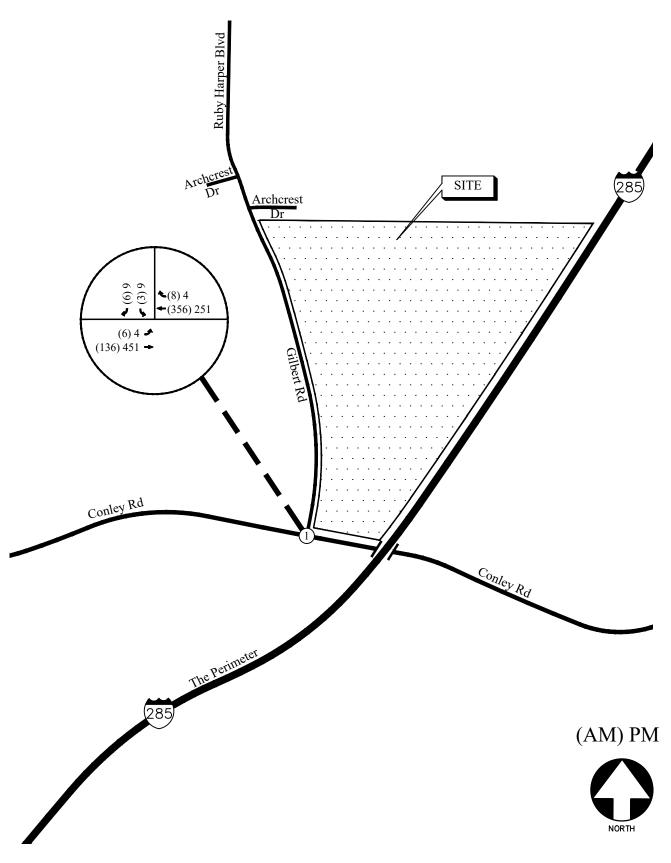
Improvements that are identified as "System Improvements" address deficiencies that are found within the existing road network prior to any impacts from the proposed development's added traffic. Improvements that are identified as "Site Mitigation Improvements" address further impacts that are a result of the proposed development's added traffic.

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.

Annual Traffic Growth

In order 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 (2017-2019) years revealed growth of approximately 2% 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.



FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

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										
Project Name	From / To Points	Sponsor	GDOT PI#	ARC ID #	Design FY	ROW / UTL FY	CST FY			
Clayton County High-Capacity Transit Initiative - Phase 1	From East Point Marta Rail Station to Jonesboro	MARTA	N/A	N/A	2	020-2030				

Since the network year for the Clayton County High-Capacity Transit Initiative - Phase 1 is 2030 and the proposed development is planned to be completed by 2024, the planned project was not considered in this study.

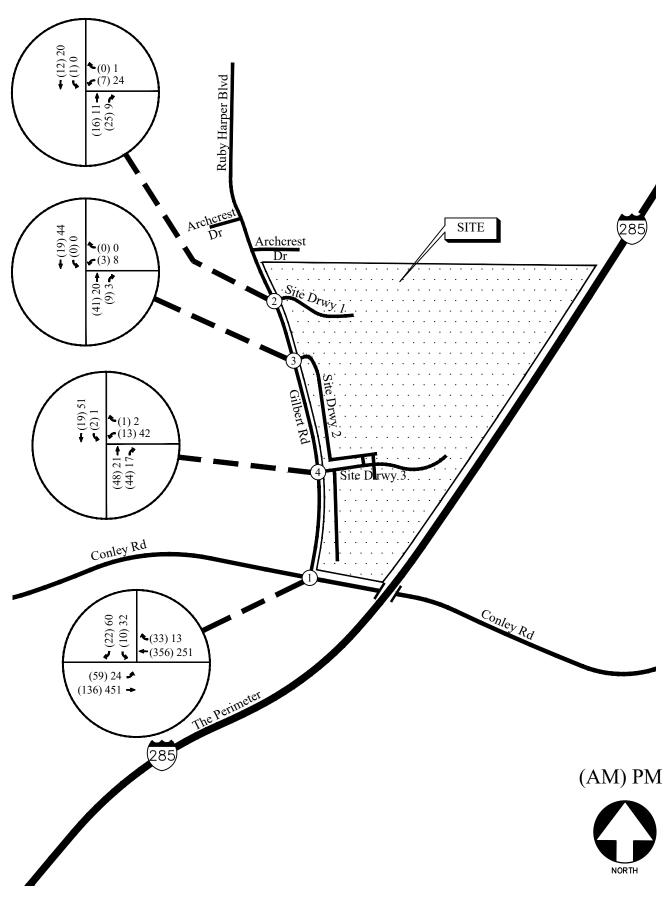
Future "Build" Conditions

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

Planned projects

- A widening project is scheduled in the vicinity of the study network. Gilbert Road will be widened from 2 lanes to 3 lanes with the center lane being a two-way turn by the applicant.
- The MTB Atlanta Aerotropolis CID Greenway Path is a planned project along Gilbert Road and Conley Road. The applicant will coordinate with the ATL Atlanta Community Improvement Districts for the completion of the project.

The widening of Gilbert Road to include a two-way left-turn lane was incorporated in the future "Build" conditions analysis.



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

Auxiliary Lane Analysis

Included below are analyses for deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in the Trip Distribution section. According to the trip distribution, the 24-hour two-way volume entering and exiting the proposed site is 1,124 vehicles. As a two-way left-turn lane is planned to be included on Gilbert Road, all left-turns will be made from this two-way left-turn-lane. Therefore, a left turn lane analysis was not done.

Deceleration Turn Lane Analysis

For two lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 35 mph, the daily site generated traffic right-turn movements threshold to warrant a deceleration lane is 200 right turning vehicles a day. The projected right-turn volumes per day for each driveway is included in Table 6.

TABLE 6 — GDOT REQUIREMENTS FOR DECELERATION LANES											
Intersection	Right-turn traffic (% total entering)	Right-turn Volume (vehicles/day)	Roadway Speed/# Ianes / ADT	GDOT Threshold (vehicles/day)	Warrants met?						
Gilbert Rd @ Site Driveway 1 (Northern)	30.4% Northbound Right	171 (total trips) ÷ 2 × 0.304 = (1,124) ÷ 2 × 0.304 = 171	35 mph / 2-Lane / < 6,000	200	No						
Gilbert Rd @ Site Driveway 2 (Middle)	10.45% Northbound Right	59 (total trips) ÷ 2 × 0.1045 = (1,124) ÷ 2 × 0.1045 = 59	35 mph / 2-Lane / < 6,000	200	No						
Gilbert Rd @ Site Driveway 3 (Southern)	54.15% Northbound Right	304 (total trips) \div 2 × 0.5415 = (1,124) \div 2 × 0.5415 = 304	35 mph / 2-Lane / < 6,000	200	Yes						

Per GDOT standards, a deceleration lane is warranted at Site Driveway 3 (southern) and not at Site Driveway 1 or Site Driveway 2.

Future Traffic Operations

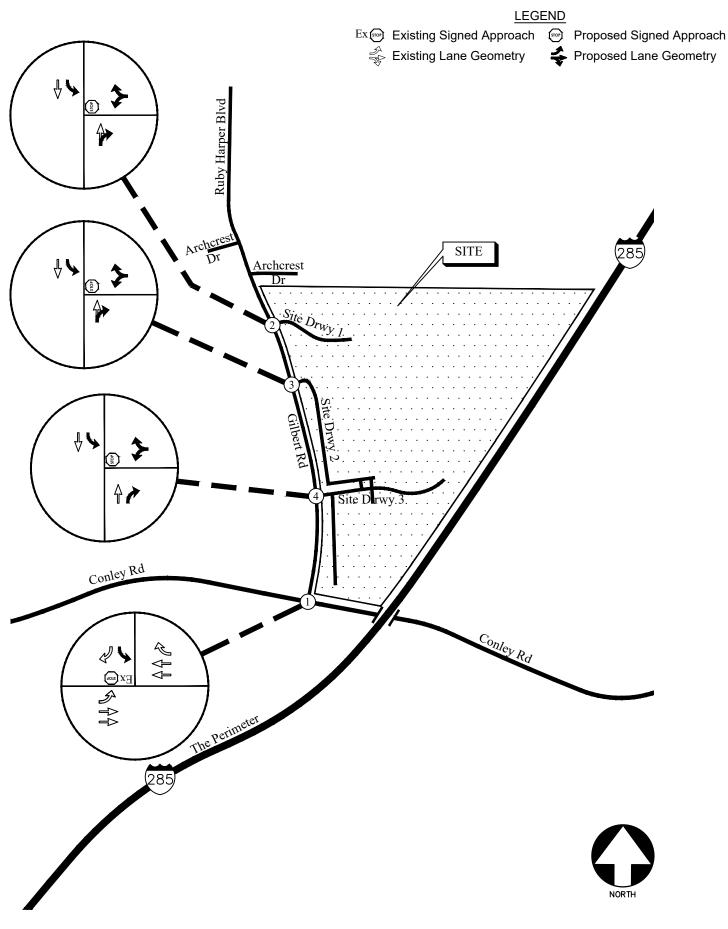
The future "No-Build" and "Build" traffic operations were analyzed using the volumes in Figure 6 and Figure 7, respectively. The results of the future traffic operations analysis are shown below in Table 7.

Table 7 — Future Intersection Operations									
		LOS (Delay)							
	Intersection	NO-E	BUILD	BU	IILD				
		AM Peak	PM Peak	AM Peak	PM Peak				
	Conley Road @ Gilbert Road								
1	-Eastbound Left	A (8.1)	A (7.8)	A (8.4)	A (7.9)				
	-Southbound Approach	B (12.0)	B (11.2)	B (10.5)	B (10.4)				
	Gilbert Road @ Site Driveway 1 (Northern)								
2	-Westbound Approach	-	-	A (9.3)	A (9.2)				
	-Southbound Left			A (7.3)	A (0.0)				
	Gilbert Road @ Site Driveway 2 (Middle)								
3	-Westbound Approach	-	-	A (9.4)	A (9.3)				
	-Southbound Left			A (0.0)	A (0.0)				
	Gilbert Road @ Site Driveway 3 (Southern)								
4	-Westbound Approach	-	-	A (9.4)	A (9.5)				
	-Southbound Left			A (7.4)	A (7.3)				

^{*} Gilbert Road includes two-way left-turn lane in "Build" conditions

Results of the future traffic operations analysis show that the study intersection of Conley Road and Gilbert Road will continue to operate at level-of-service "B" or better in both the future "No-Build" and "Build" conditions as in existing conditions. All the site driveway intersections will operate at level-of-service "A" or better in both the AM and PM peak hours. The impact of site generated traffic on the traffic operations at the intersection of Conley Road and Gilbert Road is minimal.

Recommendations for future traffic control and lane geometry are shown in Figure 8.



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

CONCLUSIONS AND RECOMMENDATIONS

Traffic impacts were evaluated for the proposed Victory Landing Logistics Center development that will be located in the region bounded by Gilbert Road in the west, I-285 in the east and Conley Road in the south, in Clayton County, Georgia. The development will consist of 687,250 square feet of warehousing.

The development proposes three full access driveways on Gilbert Road.

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 intersection of Conley Road and Gilbert Road.

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. Results of the traffic operations analysis show that the study intersection of Conley Road and Gilbert Road will continue to operate at level-of-service "B" or better in both the future "No-Build" and "Build" conditions as in existing conditions. All the site driveway intersections will operate at level-of-service "A" or better in both the AM and PM peak hours. The impact of site generated traffic on the traffic operations at the intersection of Conley Road and Gilbert Road is minimal.

Recommendation for Site Access Configuration

The following access configuration is recommended for the site driveway intersections. Adequate sight distance is recommended to be provided at all the site driveways per AASHTO standards.

- Site Driveway 1: Full access (northern) driveway on Gilbert Road
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
- Site Driveway 2: Full access (middle) driveway on Gilbert Road
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
- Site Driveway 3: Full access (southern) driveway on Gilbert Road
 - Driveway approach to consist of one entering and one exiting lanes and to be stop-sign controlled
 - o Right Turn Lane on Gilbert Road for entering traffic

Appendix

Existing intersection framic 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 "Build" Intersections Analysis
Traffic Volume Worksheets

Existing Intersection Traffic Counts

2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Riverside Pkwy 7-9 am I 4-6 pm File Name : 20220432 Site Code : 20220432 Start Date : 9/22/2022

Groups Printed- Cars & Buses - Trucks																	
	Factory Shoals Rd Factory Shoals Rd							Riverside Pkwy				Riverside Pkwy					
			bound					,									
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	7	64	39	110	55	62	6	123	21	74	15	110	36	23	81	140	483
07:15 AM	9	68	38	115	81	73	11	165	19	90	11	120	36	35	78	149	549
07:30 AM	10	62	47	119	101	97	19	217	22	86	18	126	48	44	69	161	623
07:45 AM	11	42	55	108	66	71	8	145	20	107	13	140	42	42	52	136	529
Total	37	236	179	452	303	303	44	650	82	357	57	496	162	144	280	586	2184
08:00 AM	5	44	47	96	69	59	11	139	12	113	11	136	39	35	57	131	502
08:15 AM	7	49	78	134	42	43	14	99	9	120	9	138	33	41	53	127	498
08:30 AM	9	49	59	117	58	66	12	136	12	136	9	157	44	30	55	129	539
08:45 AM	5	45	49	99	51	55	12	118	9	110	9	128	28	43	49	120	465
Total	26	187	233	446	220	223	49	492	42	479	38	559	144	149	214	507	2004
*** BREAK ***																	
04:00 PM	22	106	50	178	55	66	25	146	15	62	4	81	41	52	83	176	581
04:15 PM	18	99	45	162	51	61	29	141	19	59	8	86	43	54	88	185	574
04:30 PM	20	100	54	174	53	67	31	151	17	65	7	89	50	59	85	194	608
04:45 PM	23	108	57	188	59	72	35	166	21	67	9	97	50	63	93	206	657
Total	83	413	206	702	218	266	120	604	72	253	28	353	184	228	349	761	2420
05:00 PM	25	112	65	202	64	76	39	179	26	65	11	102	45	68	94	207	690
05:15 PM	20	119	58	197	69	83	43	195	29	72	13	114	52	62	87	201	707
05:30 PM	17	106	54	177	63	75	37	175	24	69	10	103	42	57	81	180	635
05:45 PM	15	94	45	154	56	72	32	160	19	61	8	88	32	55	72	159	561
Total	77	431	222	730	252	306	151	709	98	267	42	407	171	242	334	747	2593
Grand Total	223	1267	840	2330	993	1098	364	2455	294	1356	165	1815	661	763	1177	2601	9201
Apprch %	9.6	54.4	36.1		40.4	44.7	14.8		16.2	74.7	9.1		25.4	29.3	45.3		
Total %	2.4	13.8	9.1	25.3	10.8	11.9	4	26.7	3.2	14.7	1.8	19.7	7.2	8.3	12.8	28.3	
Cars & Buses	219	1239	725	2183	983	1055	363	2401	294	1322	160	1776	540	752	1169	2461	8821
% Cars & Buses	98.2	97.8	86.3	93.7	99	96.1	99.7	97.8	100	97.5	97	97.9	81.7	98.6	99.3	94.6	95.9
Trucks	4	28	115	147	10	43	1	54	0	34	5	39	121	11	8	140	380
% Trucks	1.8	2.2	13.7	6.3	1	3.9	0.3	2.2	0	2.5	3	2.1	18.3	1.4	0.7	5.4	4.1

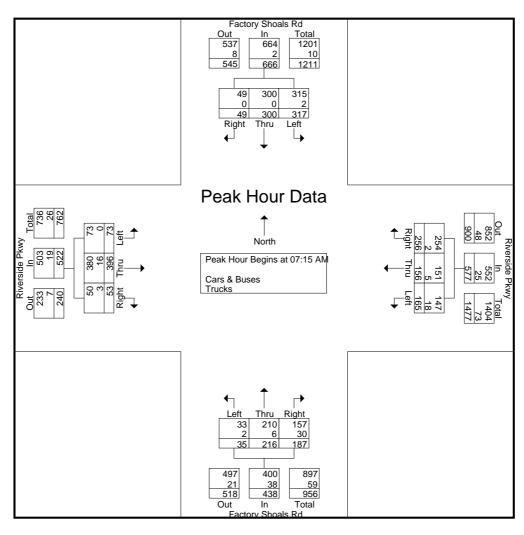
2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Riverside Pkwy 7-9 am I 4-6 pm

Site Code : 20220432 Start Date : 9/22/2022

File Name: 20220432

	Fa	actory S	Shoals	Rd	F	actory	Shoals	Rd		Riversi	de Pkw	ry		Riversi	de Pkw	y	
		North	bound			Sout	hbond			East	bound						
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 An	alysis F	rom 07	7:00 AN	1 to 08:4	5 AM -	Peak 1	of 1										
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	9	68	38	115	81	73	11	165	19	90	11	120	36	35	78	149	549
07:30 AM	10	62	47	119	101	97	19	217	22	86	18	126	48	44	69	161	623
07:45 AM	11	42	55	108	66	71	8	145	20	107	13	140	42	42	52	136	529
08:00 AM	5	44	47	96	69	59	11	139	12	113	11_	136	39	35	57	131	502
Total Volume	35	216	187	438	317	300	49	666	73	396	53	522	165	156	256	577	2203
% App. Total	8	49.3	42.7		47.6	45	7.4		14	75.9	10.2		28.6	27	44.4		
PHF	.795	.794	.850	.920	.785	.773	.645	.767	.830	.876	.736	.932	.859	.886	.821	.896	.884
Cars & Buses	33	210	157	400	315	300	49	664	73	380	50	503	147	151	254	552	2119
% Cars & Buses	94.3	97.2	84.0	91.3	99.4	100	100	99.7	100	96.0	94.3	96.4	89.1	96.8	99.2	95.7	96.2
Trucks	2	6	30	38	2	0	0	2	0	16	3	19	18	5	2	25	84
% Trucks	5.7	2.8	16.0	8.7	0.6	0	0	0.3	0	4.0	5.7	3.6	10.9	3.2	8.0	4.3	3.8



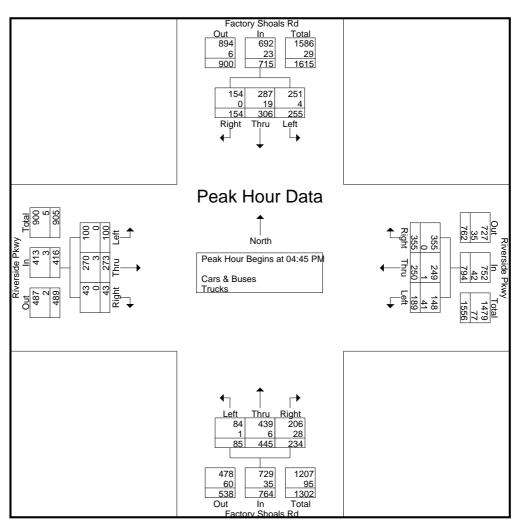
2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Riverside Pkwy 7-9 am I 4-6 pm

Site Code : 20220432 Start Date : 9/22/2022

File Name: 20220432

	F	actory S	Shoals	Rd	Factory Shoals Rd Riv						de Pkw	y	Riverside Pkwy					
		North	bound		Southbond					East	bound							
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 An	alysis F	rom 04	1:00 PN	1 to 05:4	5 PM -	Peak 1	of 1											
Peak Hour for Entire Intersection Begins at 04:45 PM																		
04:45 PM	23	108	57	188	59	72	35	166	21	67	9	97	50	63	93	206	657	
05:00 PM	25	112	65	202	64	76	39	179	26	65	11	102	45	68	94	207	690	
05:15 PM	20	119	58	197	69	83	43	195	29	72	13	114	52	62	87	201	707	
05:30 PM	17	106	54	177	63	75	37	175	24	69	10	103	42	57	81	180	635	
Total Volume	85	445	234	764	255	306	154	715	100	273	43	416	189	250	355	794	2689	
% App. Total	11.1	58.2	30.6		35.7	42.8	21.5		24	65.6	10.3		23.8	31.5	44.7			
PHF	.850	.935	.900	.946	.924	.922	.895	.917	.862	.948	.827	.912	.909	.919	.944	.959	.951	
Cars & Buses	84	439	206	729	251	287	154	692	100	270	43	413	148	249	355	752	2586	
% Cars & Buses	98.8	98.7	88.0	95.4	98.4	93.8	100	96.8	100	98.9	100	99.3	78.3	99.6	100	94.7	96.2	
Trucks	1	6	28	35	4	19	0	23	0	3	0	3	41	1	0	42	103	
% Trucks	1.2	1.3	12.0	4.6	1.6	6.2	0	3.2	0	1.1	0	0.7	21.7	0.4	0	5.3	3.8	



2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Thornton Rd 7-9 am I 4-6 pm

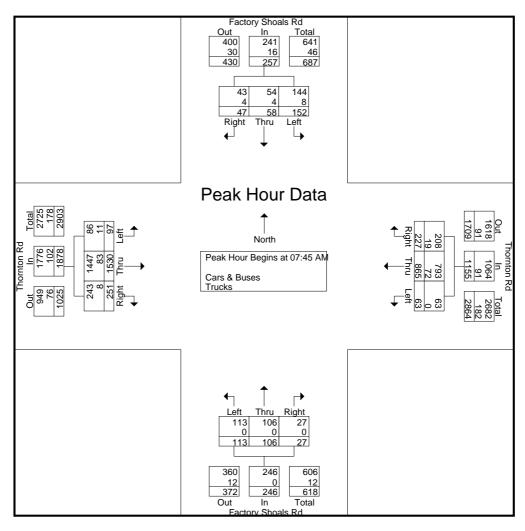
File Name: 20220433 Site Code : 20220433 Start Date : 9/22/2022

						Group	s Printe	ed- Cars	& Buse	es - Tru	ıcks						
	F	actory	Shoals	Rd	F	actory	Shoals	Rd		Thorr	nton Rd			Thorr	nton Rd		
		North	bound			Sout	hbond			East	bound						
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	8	8	4	20	30	16	9	55	31	388	72	491	19	156	36	211	777
07:15 AM	16	14	3	33	30	16	12	58	22	367	49	438	10	199	37	246	775
07:30 AM	22	20	6	48	32	10	9	51	24	380	56	460	11	212	47	270	829
07:45 AM	25	23	5	53	34	13	10	57	25	385	61	471	13	220	55	288	869
Total	71	65	18	154	126	55	40	221	102	1520	238	1860	53	787	175	1015	3250
08:00 AM	29	27	8	64	38	18	11	67	28	395	65	488	17	227	57	301	920
08:15 AM	32	31	7	70	42	15	11	68	23	382	66	471	19	217	59	295	904
08:30 AM	27	25	7	59	38	12	15	65	21	368	59	448	14	201	56	271	843
08:45 AM	22	18	5	45	29	10	10	49	20	361	49	430	11	189	49	249	773
Total	110	101	27	238	147	55	47	249	92	1506	239	1837	61	834	221	1116	3440
*** BREAK ***																	
04:00 PM	42	19	12	73	28	4	19	51	24	205	14	243	7	391	61	459	826
04:15 PM	38	17	16	71	27	3	15	45	19	200	12	231	9	392	55	456	803
04:30 PM	41	21	14	76	31	6	19	56	22	206	14	242	6	394	57	457	831
04:45 PM	46	26	19	91	34	5	25	64	28	212	12_	252	8	404	63	475	882
Total	167	83	61	311	120	18	78	216	93	823	52	968	30	1581	236	1847	3342
05:00 PM	53	31	15	99	35	4	27	66	28	212	11	251	11	407	68	486	902
05:15 PM	58	27	17	102	28	6	21	55	24	206	13	243	10	389	71	470	870
05:30 PM	49	22	14	85	27	5	20	52	18	199	13	230	7	379	60	446	813
05:45 PM	42	17	11	70	20	4	17	41	16	188	10	214	6	371	50	427	752
Total	202	97	57	356	110	19	85	214	86	805	47	938	34	1546	249	1829	3337
Grand Total	550	346	163	1059	503	147	250	900	373	4654	576	5603	178	4748	881	5807	13369
Apprch %	51.9	32.7	15.4		55.9	16.3	27.8		6.7	83.1	10.3		3.1	81.8	15.2		
Total %	4.1	2.6	1.2	7.9	3.8	1.1	1.9	6.7	2.8	34.8	4.3	41.9	1.3	35.5	6.6	43.4	
Cars & Buses	550	346	163	1059	475	134	230	839	315	4348	520	5183	178	4443	812	5433	12514
% Cars & Buses	100	100	100	100	94.4	91.2	92	93.2	84.5	93.4	90.3	92.5	100	93.6	92.2	93.6	93.6
Trucks	0	0	0	0	28	13	20	61	58	306	56	420	0	305	69	374	855
% Trucks	0	0	0	0	5.6	8.8	8	6.8	15.5	6.6	9.7	7.5	0	6.4	7.8	6.4	6.4

2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Thornton Rd 7-9 am I 4-6 pm File Name : 20220433 Site Code : 20220433 Start Date : 9/22/2022

	F		Shoals F	Rd	Fa	Factory Shoals Rd Thornton Rd Thornton Rd Southbond Eastbound Westbond											
		North	bound			Sout	<u>hbond</u>			East	bound						
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 An							of 1										
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	25	23	5	53	34	13	10	57	25	385	61	471	13	220	55	288	869
08:00 AM	29	27	8	64	38	18	11	67	28	395	65	488	17	227	57	301	920
08:15 AM	32	31	7	70	42	15	11	68	23	382	66	471	19	217	59	295	904
08:30 AM	27	25	7	59	38	12	15	65	21	368	59	448	14	201	56	271	843
Total Volume	113	106	27	246	152	58	47	257	97	1530	251	1878	63	865	227	1155	3536
% App. Total	45.9	43.1	11_		59.1	22.6	18.3		5.2	81.5	13.4		5.5	74.9	19.7		
PHF	.883	.855	.844	.879	.905	.806	.783	.945	.866	.968	.951	.962	.829	.953	.962	.959	.961
Cars & Buses	113	106	27	246	144	54	43	241	86	1447	243	1776	63	793	208	1064	3327
% Cars & Buses	100	100	100	100	94.7	93.1	91.5	93.8	88.7	94.6	96.8	94.6	100	91.7	91.6	92.1	94.1
Trucks	0	0	0	0	8	4	4	16	11	83	8	102	0	72	19	91	209
% Trucks	0	0	0	0	5.3	6.9	8.5	6.2	11.3	5.4	3.2	5.4	0	8.3	8.4	7.9	5.9



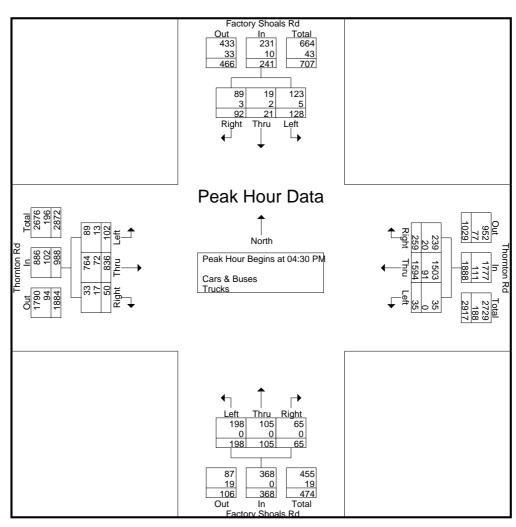
2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Thornton Rd 7-9 am I 4-6 pm

Site Code : 20220433 Start Date : 9/22/2022

File Name: 20220433

	Fa	actory S	Shoals I	₹d	Factory Shoals Rd					Thorr	nton Rd						
		North	bound			Sout	hbond			bound							
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	Peak Hour for Entire Intersection Begins at 04:30 PM																
04:30 PM	41	21	14	76	31	6	19	56	22	206	14	242	6	394	57	457	831
04:45 PM	46	26	19	91	34	5	25	64	28	212	12	252	8	404	63	475	882
05:00 PM	53	31	15	99	35	4	27	66	28	212	11	251	11	407	68	486	902
05:15 PM	58	27	17	102	28	6	21	55	24	206	13	243	10	389	71	470	870
Total Volume	198	105	65	368	128	21	92	241	102	836	50	988	35	1594	259	1888	3485
% App. Total	53.8	28.5	17.7		53.1	8.7	38.2		10.3	84.6	5.1		1.9	84.4	13.7		
PHF	.853	.847	.855	.902	.914	.875	.852	.913	.911	.986	.893	.980	.795	.979	.912	.971	.966
Cars & Buses	198	105	65	368	123	19	89	231	89	764	33	886	35	1503	239	1777	3262
% Cars & Buses	100	100	100	100	96.1	90.5	96.7	95.9	87.3	91.4	66.0	89.7	100	94.3	92.3	94.1	93.6
Trucks	0	0	0	0	5	2	3	10	13	72	17	102	0	91	20	111	223
% Trucks	0	0	0	0	3.9	9.5	3.3	4.1	12.7	8.6	34.0	10.3	0	5.7	7.7	5.9	6.4



A & R Engineering, Inc.

2160 Kinston Court Suite 'o' Marietta, GA 30067

TMC Data Factory Shoals Rd @ Bob White Rd 7-9 am I 4-6 pm

File Name: 20220434 Site Code : 20220434 Start Date : 9/22/2022

Page No : 1

						Grou	ps Print	ted- Cars	,Buses	& Tru	cks						
	F	actory	Shoals	Rd	F	actory	Shoals	Rd		Bob V	Vhite Ro	t		Bob W	/hite Ro	t	
		North	bound			Sout	thbond			East	bound			Wes	tbond		
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	97	3	100	4	86	2	92	3	0	0	3	4	2	15	21	216
07:15 AM	0	93	6	99	7	97	1	105	5	0	0	5	9	0	14	23	232
07:30 AM	3	84	1	88	16	121	4	141	3	0	0	3	5	0	37	42	274
07:45 AM	1	68	3	72	12	111	1	124	5	0	1	6	7	2	41	50	252
Total	4	342	13	359	39	415	8	462	16	0	1	17	25	4	107	136	974
08:00 AM	2	59	2	63	16	91	2	109	4	0	2	6	6	1	46	53	231
08:15 AM	0	68	5	73	19	75	2	96	6	0	1	7	7	0	42	49	225
08:30 AM	1	72	5	78	17	91	1	109	5	0	0	5	4	2	39	45	237
08:45 AM	2	57	3	62	14	83	3	100	3	0	1_	4	3	1	35	39	205
Total	5	256	15	276	66	340	8	414	18	0	4	22	20	4	162	186	898
*** BREAK ***																	
DI (L) (I (
04:00 PM	3	116	4	123	7	82	5	94	6	0	0	6	5	0	23	28	251
04:15 PM	3	114	3	120	12	83	6	101	1	0	1	2	6	0	18	24	247
04:30 PM	2	119	4	125	16	86	4	106	4	0	0	4	9	1	22	32	267
04:45 PM	1	123	6	130	14	91	8	113	3	0	1	4	7	0	27	34	281
Total	9	472	17	498	49	342	23	414	14	0	2	16	27	1	90	118	1046
05:00 PM	3	134	5	142	18	96	7	121	5	0	2	7	11	2	25	38	308
05:15 PM	4	132	3	139	19	102	9	130	5	0	0	5	9	0	21	30	304
05:30 PM	3	124	5	132	22	93	7	122	4	0	2	6	10	1	17	28	288
05:45 PM	2	115	4	121	14	89	5	108	2	0	1	3	7	0	15	22	254
Total	12	505	17	534	73	380	28	481	16	0	5	21	37	3	78	118	1154
												'	-	_			
Grand Total	30	1575	62	1667	227	1477	67	1771	64	0	12	76	109	12	437	558	4072
Apprch %	1.8	94.5	3.7		12.8	83.4	3.8		84.2	0	15.8		19.5	2.2	78.3		
Total %	0.7	38.7	1.5	40.9	5.6	36.3	1.6	43.5	1.6	0	0.3	1.9	2.7	0.3	10.7	13.7	

A & R Engineering, Inc.

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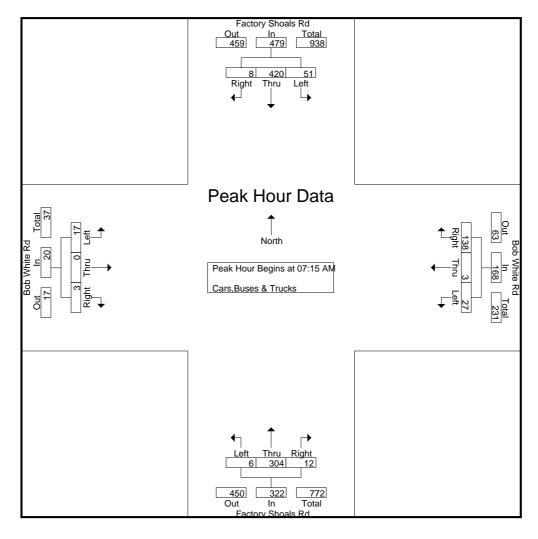
TMC Data Factory Shoals Rd @ Bob White Rd 7-9 am I 4-6 pm

Site Code : 20220434 Start Date : 9/22/2022

File Name: 20220434

Page No : 2

	Fa	actory S	Shoals	Rd	F	actory :	Shoals	Rd		Bob V	/hite Ro	t		Bob V	/hite Ro	t	
		North	bound			Sout	hbond			East	bound			Wes	tbond		
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 An	alysis F	rom 07	7:00 AN	/I to 08:4	5 AM -	Peak 1	of 1										
Peak Hour for	Entire	Interse	ction B	egins at	07:15 A	M											
07:15 AM	0	93	6	99	7	97	1	105	5	0	0	5	9	0	14	23	232
07:30 AM	3	84	1	88	16	121	4	141	3	0	0	3	5	0	37	42	274
07:45 AM	1	68	3	72	12	111	1	124	5	0	1	6	7	2	41	50	252
08:00 AM	2	59	2	63	16	91	2	109	4	0	2	6	6	1	46	53	231
Total Volume	6	304	12	322	51	420	8	479	17	0	3	20	27	3	138	168	989
% App. Total	1.9	94.4	3.7		10.6	87.7	1.7		85	0	15_		16.1	1.8	82.1		
PHF	.500	.817	.500	.813	.797	.868	.500	.849	.850	.000	.375	.833	.750	.375	.750	.792	.902



A & R Engineering, Inc.

2160 Kinston Court Suite 'o' Marietta, GA 30067

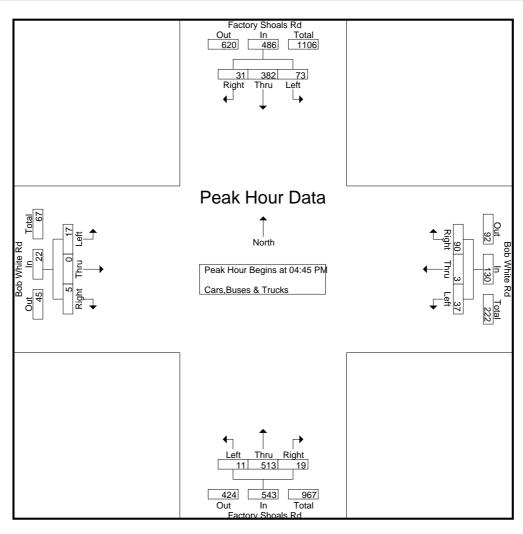
TMC Data Factory Shoals Rd @ Bob White Rd 7-9 am I 4-6 pm

Site Code : 20220434 Start Date : 9/22/2022

File Name: 20220434

Page No : 3

	F	actory	Shoals	Rd	F	actory \$	Shoals	Rd		Bob V	/hite Ro	ı		Bob V	/hite Ro	t	
		North	bound			Sout	hbond			East	bound			Wes	tbond		
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 An	alysis F	rom 04	1:00 PM	1 to 05:4	5 PM -	Peak 1	of 1										
Peak Hour for	Entire	Interse	ction B	egins at (04:45 P	M											
04:45 PM	1	123	6	130	14	91	8	113	3	0	1	4	7	0	27	34	281
05:00 PM	3	134	5	142	18	96	7	121	5	0	2	7	11	2	25	38	308
05:15 PM	4	132	3	139	19	102	9	130	5	0	0	5	9	0	21	30	304
05:30 PM	3	124	5	132	22	93	7	122	4	0	2	6	10	1	17	28	288
Total Volume	11	513	19	543	73	382	31	486	17	0	5	22	37	3	90	130	1181
% App. Total	2	94.5	3.5		15	78.6	6.4		77.3	0	22.7		28.5	2.3	69.2		
PHF	.688	.957	.792	.956	.830	.936	.861	.935	.850	.000	.625	.786	.841	.375	.833	.855	.959



GRTA Letter of Understanding



LETTER OF UNDERSTANDING

September 23, 2022

Josh Videlefsky OA Development, Inc 100 Asford Ctr N #310 Atlanta, GA 30338

RE: Victory Landing Logistics Center (DRI#: 3816)

Dear Josh Videlefsky:

The purpose of this Letter of Understanding is to document the discussions during the Methodology Meeting held virtually on September 19, 2022, regarding **DRI # 3816 Victory Landing Logistics Center** 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 between Gilbert Road and I-285 and north of Conley Road.
- The proposed development includes 687,250 square feet of warehousing.
- The projected build-out is one phase to be completed by 2024.
- The proposed development includes (3) full site accesses along Gilbert Road.
- The DRI trigger for this development is a land disturbance permit.
- The vehicular trip generation is estimated to be 1,124 net daily trips based on the ITE Trip Generation Manual 11th edition.
- The applicant is applying for approval under GRTA's expedited Traffic Impact Study review process.

STUDY NETWORK

1. Conley Road and Gilbert Road

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 <u>AM and PM peak hours</u> 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 2024.
- 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, pass-by, and alternative mode reductions <u>are not</u> 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 2.0% 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. 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 <u>ALL</u> 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.

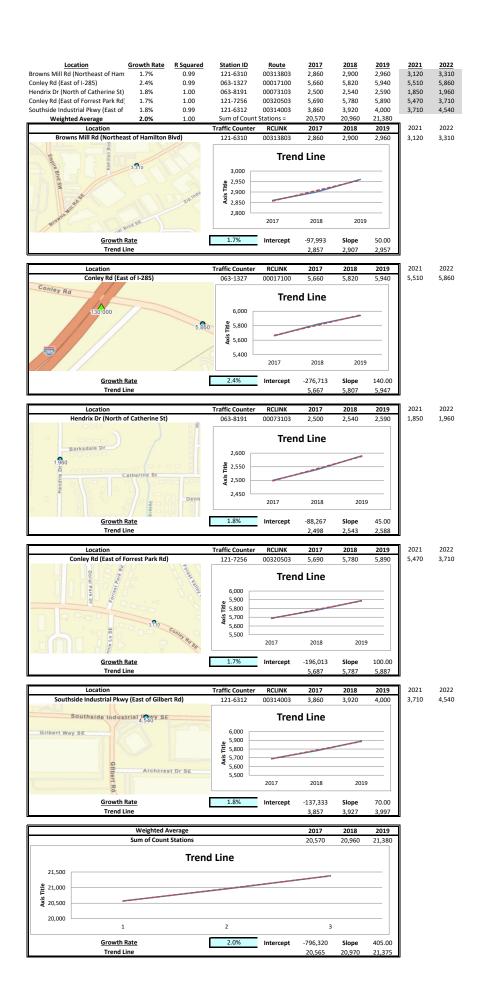
Sincerely,

Beth Davis Senior Planner

Cc:

Donald Shockey, ARC
Reginald James, ARC
Marquitrice Mangham, ARC
Keyetta Holmes, City of Atlanta
Nursef Kedir, City of Atlanta
Mark A. Tai, City of Atlanta
Patrick Ejike, Clayton County
Tiras Petrea, Clayton County
Cheryl Brooks, Clayton County
Caitlyn Chandler, Forest Park
Megan R Wilson, GDOT
December Weir, GRTA\ATL
Natavis Harris, MARTA
Ezekiel Guza, MARTA
Charles Rosa, MARTA

Abdul Amer, A&R Engineering Jack Walz, JWAPM Cody Neptune, Randall Paulson Christopher Finke, AEC Linear Regression of Daily Traffic



Existing Intersection Analysis

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ኘ	^	^	7	¥	OBIT
Traffic Vol, veh/h	6	131	342	8	3	6
Future Vol, veh/h	6	131	342	8	3	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	210	-	_	100	0	-
Veh in Median Storage,		0	0	-	0	_
Grade, %	<i>"</i> -	0	0	_	0	_
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	38	33	100
Mymt Flow	7	144	376	9	3	7
WWITH TOW	- 1	177	370	3	J	1
Major/Minor M	1ajor1	N	Major2	N	/linor2	
Conflicting Flow All	385	0	-	0	462	188
Stage 1	-	-	-	-	376	-
Stage 2	-	-	-	-	86	-
Critical Hdwy	4.14	-	-	-	7.46	8.9
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	-	-	_	-	6.46	_
Follow-up Hdwy	2.22	-	-	-	3.83	4.3
	1170	-	-	-	457	587
Stage 1	-	-	-	-	581	-
Stage 2	-	_	-	_	843	-
Platoon blocked, %		_	-	_		
	1170	_	_	_	454	587
Mov Cap-2 Maneuver	-	_	_	_	454	-
Stage 1	_	_	_	_	578	_
Stage 2	_		_		843	_
Olago Z					070	_
Approach	EB		WB		SB	
HCM Control Delay, s	0.4		0		11.9	
HCM LOS					В	
HCIVI LOS						
HCIVI LOS						
		EDI	EDT	WDT	WDD	2DL n1
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR	
Minor Lane/Major Mvmt Capacity (veh/h)		1170	-	-	-	535
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio	:	1170 0.006	-	-	-	535 0.018
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio HCM Control Delay (s)		1170 0.006 8.1	- - -	- - -	- - -	535 0.018 11.9
Minor Lane/Major Mvmt Capacity (veh/h) HCM Lane V/C Ratio		1170 0.006	-	-	-	535 0.018

Intersection						
Int Delay, s/veh	0.3					
		FDT	WDT	WED	CDI	CDD
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	7	^	^	7	¥	^
Traffic Vol, veh/h	4	434	241	4	9	9
Future Vol, veh/h	4	434	241	4	9	9
Conflicting Peds, #/hr	_ 0	_ 0	_ 0	_ 0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length	210	-	-	100	0	-
Veh in Median Storage	e, # -	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	1	1	0	11	0
Mvmt Flow	4	477	265	4	10	10
Majar/Minar	N/a:au/		4-1-10		Aire and	
	Major1		Major2		/linor2	
Conflicting Flow All	269	0	-	0	512	133
Stage 1	-	-	-	-	265	-
Stage 2	-	-	-	-	247	-
Critical Hdwy	4.1	-	-	-	7.02	6.9
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.2	-	-	-	3.61	3.3
Pot Cap-1 Maneuver	1306	-	-	-	470	898
Stage 1	-	-	-	-	729	-
Stage 2	-	-	-	-	745	-
Platoon blocked, %		-	-	_		
Mov Cap-1 Maneuver	1306	-	-	-	469	898
Mov Cap-2 Maneuver	-	_	_	_	469	-
Stage 1	_	_	_	_	727	_
Stage 2	_	_	_	_	745	_
Olage 2					170	
Approach	EB		WB		SB	
HCM Control Delay, s	0.1		0		11	
HCM LOS					В	
		ED!		MAIDT	MES	ODI 4
Minor Lane/Major Mvm	nt	EBL	EBT	WBT	WBR:	
Capacity (veh/h)		1306	-	-	-	616
HCM Lane V/C Ratio		0.003	-	-	-	0.032
HCM Control Delay (s)		7.8	-	-	-	11
HCM Lane LOS		Α	-	-	-	В
HCM 95th %tile Q(veh))	0	-	-	-	0.1

Future "No-Build" Intersection Analysis

Int Delay, s/veh Movement	0.3					
Movement						
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	ሻ	^	^	7	W	
Traffic Vol, veh/h	6	136	356	8	3	6
Future Vol, veh/h	6	136	356	8	3	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length	210	-	-	100	0	-
Veh in Median Storage		0	0	-	0	_
Grade, %	-	0	0	_	0	_
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	38	33	100
Mvmt Flow	7	149	391	9	3	7
IVIVIIIL I IOW	1	173	001	3	J	1
Major/Minor I	Major1	l N	/lajor2	N	/linor2	
Conflicting Flow All	400	0	-	0	480	196
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	89	-
Critical Hdwy	4.14	-	-	_	7.46	8.9
Critical Hdwy Stg 1	-	-	-	-	6.46	-
Critical Hdwy Stg 2	_	_	-	-	6.46	-
Follow-up Hdwy	2.22	_	-	_	3.83	4.3
Pot Cap-1 Maneuver	1155	_	_	_	444	578
Stage 1	-	_	_	_	570	-
Stage 2	_	_	_	_	840	_
Platoon blocked, %		_	_	_	0+0	
Mov Cap-1 Maneuver	1155	_		_	441	578
Mov Cap-1 Maneuver		_	_	_	441	J/ 0 -
	-	_	-		567	
Stage 1	-	-	-	-		-
Stage 2	-	-	-	-	840	-
Approach	EB		WB		SB	
HCM Control Delay, s	0.3		0		12	
HCM LOS			*		В	
Minor Lane/Major Mvm	ıt	EBL	EBT	WBT	WBR S	
Capacity (veh/h)		1155	-	-	-	524
HCM Lane V/C Ratio		0.006	-	-	-	0.019
HCM Control Delay (s)		8.1	-	-	-	12
HCM Lane LOS		Α	-	-	-	В
HCM 95th %tile Q(veh)		0	-	-	-	0.1

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	*	^	^	7	Y	
Traffic Vol, veh/h	4	451	251	4	9	9
Future Vol, veh/h	4	451	251	4	9	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-		-	None
Storage Length	210	-	_	100	0	-
Veh in Median Storage		0	0	-	0	_
Grade, %	, <i>''</i>	0	0	_	0	_
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	0	1	1	0	11	0
Mymt Flow	4	496	276	4	10	10
IVIVIII(I IOW	7	430	210	7	10	10
Major/Minor N	Major1	N	Major2	N	/linor2	
Conflicting Flow All	280	0	-	0	532	138
Stage 1	-	-	-	-	276	-
Stage 2	-	-	-	-	256	-
Critical Hdwy	4.1	-	-	_	7.02	6.9
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	2.2	-	_	-	3.61	3.3
Pot Cap-1 Maneuver	1294	_	_	_	456	891
Stage 1	-	_	_	_	720	-
Stage 2	_	_	_	_	737	_
Platoon blocked, %		_	_	_	101	
Mov Cap-1 Maneuver	1294	_	_	_	455	891
Mov Cap-2 Maneuver	-	_	_	_	455	-
Stage 1	_			_	718	_
Stage 2	_		_	_	737	_
Stage 2	-	-	-	-	131	_
Approach	EB		WB		SB	
HCM Control Delay, s	0.1		0		11.2	
HCM LOS					В	
N. 1		ED!	ГОТ	MOT	MES	ODI 4
Minor Lane/Major Mvm	t	EBL	EBT	WBT	WBR :	
Capacity (veh/h)		1294	-	-	-	602
HCM Lane V/C Ratio		0.003	-	-		0.033
HCM Control Delay (s)		7.8	-	-	-	11.2
HCM Lane LOS		A 0	-	-	-	0.1
HCM 95th %tile Q(veh)			_	_	_	0.4

Future "Build" Intersections Analysis

10/31/2022

Intersection						
Int Delay, s/veh	1.3					
Movement	EBL	EDT	WBT	WBR	SBL	SBR
Lane Configurations	EBL Š	EBT		WBR	SBL	SBR
Traffic Vol, veh/h	7 59	↑↑ 136	↑↑ 356	33	10	22
Future Vol, veh/h	59	136	356	33	10	22
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	- Clop	None
Storage Length	210	-	_	100	25	0
Veh in Median Storage,		0	0	-	1	-
Grade, %	-	0	0	_	0	_
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	5	2	2	2	2
Mymt Flow	65	149	391	36	11	24
WWWIICTIOW	00	170	001	00		
	1ajor1		Major2		/linor2	
Conflicting Flow All	427	0	-	0	596	196
Stage 1	-	-	-	-	391	-
Stage 2	-	-	-	-	205	-
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	1129	-	-	-	435	812
Stage 1	-	-	-	-	653	-
Stage 2	-	-	-	-	809	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1129	-	-	-	410	812
Mov Cap-2 Maneuver	-	-	-	-	498	-
Stage 1	-	-	-	-	615	-
Stage 2	-	-	-	-	809	-
Approach	EB		WB		SB	
HCM Control Delay, s	2.5		0		10.5	
HCM LOS	2.5		U		10.5 B	
TICIVI LOS					ь	
Minor Lane/Major Mvmt		EBL	EBT	WBT	WBR:	SBLn1 S
Capacity (veh/h)		1129	-	-	-	498
HCM Lane V/C Ratio		0.057	-	-	-	0.022
HCM Control Delay (s)		8.4	-	-	-	12.4
HCM Lane LOS		Α	-	-	-	В
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	¥		f)		7	
Traffic Vol, veh/h	7	0	16	25	1	12
Future Vol, veh/h	7	0	16	25	1	12
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	-	-	-	25	-
Veh in Median Storage	e, # 1	-	0	_	-	0
Grade, %	0	_	0	_	_	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	28	2	2	9	2	2
Mymt Flow	8	0	17	27	1	13
IVIVIII(I IOVV	U	U	11	21		10
Major/Minor	Minor1		Major1	l	Major2	
Conflicting Flow All	46	31	0	0	44	0
Stage 1	31	_	-	-	-	-
Stage 2	15	-	-	_	-	-
Critical Hdwy	6.68	6.22	-	_	4.12	_
Critical Hdwy Stg 1	5.68	-	_	_	_	_
Critical Hdwy Stg 2	5.68	_	_	_	_	_
Follow-up Hdwy	3.752	3 318	_	_	2.218	_
Pot Cap-1 Maneuver	902	1043	_	_	1564	_
Stage 1	929	-	_	_	-	_
Stage 2	944	-	_	_	_	-
Platoon blocked, %	344	_		-	_	
	004	1010	-	_	1501	-
Mov Cap-1 Maneuver	901	1043	-	-	1564	-
Mov Cap-2 Maneuver	838	-	-	-	-	-
Stage 1	929	-	-	-	-	-
Stage 2	943	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		0.6	
HCM LOS	9.5 A		U		0.0	
HOW LOS	A					
Minor Lane/Major Mvn	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		_		838	1564	_
HCM Lane V/C Ratio		_	_	0.009		_
HCM Control Delay (s)		_	_	9.3	7.3	_
HCM Lane LOS		_	_	A	A	_
HCM 95th %tile Q(veh)	_		0	0	-
HOW Jour Joure Q(Veri	1			U	U	_

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	WDL	WDIX	1\D1	NOI	JDL	<u>361</u>
Traffic Vol, veh/h	3	0	41	9	0	T
Future Vol, veh/h	3	0	41	9	0	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control RT Channelized	Stop -	Stop None	Free	Free None	Free	Free None
	0	None -	-		25	
Storage Length			-	-		-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	28	2	2	9	2	2
Mvmt Flow	3	0	45	10	0	21
Major/Minor	Minor1	N	Major1		Major2	
Conflicting Flow All	71	50	0	0	55	0
Stage 1	50	50	U	U	- -	-
Stage 2	21	_	-	-	_	_
	6.68	6.22	-	_	4.12	
Critical Hdwy	5.68	0.22	_	_	4.12	
Critical Hdwy Stg 1			-	-		-
Critical Hdwy Stg 2	5.68	-	-	-	- 040	-
Follow-up Hdwy	3.752		-	_	2.218	-
Pot Cap-1 Maneuver	873	1018	-	-	1550	-
Stage 1	910	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	873	1018	-	-	1550	-
Mov Cap-2 Maneuver	818	-	-	-	-	-
Stage 1	910	-	-	-	-	-
Stage 2	938	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.4		0		0	
HCM LOS	Α					
Minor Lane/Major Mvm	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		_	_		1550	_
HCM Lane V/C Ratio		_		0.004	-	_
HCM Control Delay (s)		_	_		0	_
HCM Lane LOS		_	_	Α	A	_
HCM 95th %tile Q(veh)	_	_	0	0	_
1.5W 0001 70010 Q(VOII	1					

Intersection						
Int Delay, s/veh	1.2					
		WDD	NDT	NDD	CDI	ODT
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		↑	7	<u> ነ</u>	†
Traffic Vol, veh/h	13	1	48	44	2	19
Future Vol, veh/h	13	1	48	44	2	19
Conflicting Peds, #/hr	0	0	_ 0	_ 0	_ 0	_ 0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-		-	None
Storage Length	0	-	-	100	25	-
Veh in Median Storage,		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	28	2	2	9	2	2
Mvmt Flow	14	1	52	48	2	21
Major/Minor N	/linor1		Major1		Major2	
	77	52		0	100	0
Conflicting Flow All			0			
Stage 1	52	-	-	-	-	-
Stage 2	25	-	-	-	- 4.40	-
Critical Hdwy	6.68	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.68	-	-	-	-	-
Critical Hdwy Stg 2	5.68	-	-	-	-	-
	3.752		-	-	2.218	-
Pot Cap-1 Maneuver	866	1016	-	-	1493	-
Stage 1	908	-	-	-	-	-
Stage 2	934	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	865	1016	-	-	1493	-
Mov Cap-2 Maneuver	814	-	-	-	-	-
Stage 1	908	-	-	-	-	-
Stage 2	933	-	-	-	-	-
Ŭ						
A	MD		ND		OB	
Approach	WB		NB		SB	
HCM Control Delay, s	9.4		0		0.7	
HCM LOS	Α					
Minor Lane/Major Mvm	t	NBT	NRRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	-		1493	-
HCM Lane V/C Ratio		_		0.018		_
HCM Control Delay (s)		_	_	9.4	7.4	
HCM Lane LOS		_		9.4 A	7.4 A	_
HCM 95th %tile Q(veh)		_		0.1	0	<u>-</u>
HOW SOUT MILE Q(VEIT)		_	-	0.1	U	_

Intersection							
Int Delay, s/veh	1.4						
Movement	EBL	EBT	WBT	WBR	SBL	SBR	
Lane Configurations	ሻ	^	^	7	ሻ	7	
Traffic Vol, veh/h	24	451	251	13	32	60	
Future Vol, veh/h	24	451	251	13	32	60	
Conflicting Peds, #/hr	0	0	0	0	0	0	
Sign Control	Free	Free	Free	Free	Stop	Stop	
RT Channelized	-	None	-		-	None	
Storage Length	210	-	_	100	25	0	
Veh in Median Storage,		0	0	-	1	-	
Grade, %	, π - -	0	0	_	0	<u>-</u>	
Peak Hour Factor	91	91	91	91	91	91	
Heavy Vehicles, %	2	2	2	2	2	2	
Mvmt Flow	26	496	276	14	35	66	
IVIVIIIL I IOW	20	730	210	14	33	00	
	/lajor1		Major2		Minor2		
Conflicting Flow All	290	0	-	0	576	138	
Stage 1	-	-	-	-	276	-	
Stage 2	-	-	-	-	300	-	
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	1269	-	-	-	448	885	
Stage 1	-	-	-	-	746	-	
Stage 2	-	-	-	-	725	-	
Platoon blocked, %		-	-	-			
Mov Cap-1 Maneuver	1269	-	-	-	439	885	
Mov Cap-2 Maneuver	-	_	-	-	533	-	
Stage 1	-	-	-	_	731	_	
Stage 2	_	_	_	_	725	_	
0 kg 0 2					. 20		
Approach	EB		WB		SB		
HCM Control Delay, s	0.4		0		10.4		
HCM LOS					В		
Minor Lane/Major Mvm	t	EBL	EBT	WBT	WRR	SBLn1 S	SBI n2
Capacity (veh/h)		1269		1101	-	533	885
HCM Lane V/C Ratio		0.021	<u>-</u>	-		0.066	
HCM Control Delay (s)		7.9			-		9.4
HCM Lane LOS		7.9 A	-	-	-	12.2 B	9.4 A
HCM 95th %tile Q(veh)		0.1		-		0.2	0.2
How som while Q(ven)		U. I	-	-	-	U.Z	0.2

Intersection						
Int Delay, s/veh	3.5					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	¥		f		*	
Traffic Vol, veh/h	24	1	11	9	0	20
Future Vol, veh/h	24	1	11	9	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- -	None	-	None	-	None
Storage Length	0	-	_	-	25	-
Veh in Median Storage	-	_	0	_	-	0
Grade, %	0	<u>-</u>	0	<u> </u>	_	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	35	2	2
	26		12		0	22
Mvmt Flow	26	1	12	10	U	22
Major/Minor I	Minor1	N	Major1	ľ	Major2	
Conflicting Flow All	39	17	0	0	22	0
Stage 1	17	_	_	-		_
Stage 2	22	_	_	_	_	_
Critical Hdwy	6.52	6.22	_	_	4.12	_
Critical Hdwy Stg 1	5.52	-	_	_	- 1.12	<u>-</u>
Critical Hdwy Stg 2	5.52	_		_	_	_
Follow-up Hdwy	3.608		_	_	2.218	_
Pot Cap-1 Maneuver	948	1062	_	_	1593	
Stage 1	980	1002	_	_	1000	_
				_	-	
Stage 2	975	-	-	-	-	-
Platoon blocked, %	0.40	4000	-	-	4500	-
Mov Cap-1 Maneuver	948	1062	-	-	1593	-
Mov Cap-2 Maneuver	879	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	975	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.2		0		0	
HCM LOS	9.2 A		U		U	
HCWI LOS	A					
Minor Lane/Major Mvm	nt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	_	885	1593	_
HCM Lane V/C Ratio		_	_	0.031	_	-
HCM Control Delay (s)		-	_	9.2	0	-
HCM Lane LOS		-	-	Α	A	-
HCM 95th %tile Q(veh))	_	_	0.1	0	-
222 70000 21(100)						

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	₩.	WDIX		NDIX	JDL Š	<u>361</u>
Traffic Vol, veh/h	T	Λ	₽	3	0	T 44
Future Vol, veh/h	8	0	20	3	0	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control				Free	Free	Free
RT Channelized	Stop	Stop	Free			None
	-		-		-	
Storage Length	0	-	-	-	25	-
Veh in Median Storage		-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	35	2	2
Mvmt Flow	9	0	22	3	0	48
Major/Minor N	Minor1		Major1		Major2	
Conflicting Flow All	72	24	0	0	25	0
Stage 1	24		-	-	-	-
Stage 2	48	<u>-</u>	_	_	_	_
Critical Hdwy	6.52	6.22	_	_	4.12	_
Critical Hdwy Stg 1	5.52	- 0.22	_	_	7.12	_
Critical Hdwy Stg 2	5.52	_	-	_	_	-
	3.608		-	_	2.218	
Follow-up Hdwy			-	-	1589	-
Pot Cap-1 Maneuver	908	1052	-	-		-
Stage 1	973	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Platoon blocked, %	•	10==	-	-	4===	-
Mov Cap-1 Maneuver	908	1052	-	-	1589	-
Mov Cap-2 Maneuver	852	-	-	-	-	-
Stage 1	973	-	-	-	-	-
Stage 2	949	-	-	-	-	-
Approach	WB		NB		SB	
HCM Control Delay, s	9.3		0		0	
HCM LOS	9.3 A		U		U	
HOW LOS	А					
Minor Lane/Major Mvm	ıt	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	-	852	1589	-
HCM Lane V/C Ratio		-	-	0.01	-	-
HCM Control Delay (s)		-	-	9.3	0	-
HCM Lane LOS		-	-	Α	Α	-
HCM 95th %tile Q(veh)		-	-	0	0	-

Intersection						
Int Delay, s/veh	3.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	**	WDIX	↑	7	ሻ	<u>□ □ □ ↑</u>
Traffic Vol, veh/h	42	2	21	17	1	51
Future Vol, veh/h	42	2	21	17	1	51
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	- Olop	None	-	None	-	None
Storage Length	0	-	_	100	25	-
Veh in Median Storage			0	-	-	0
	, # 1		0			0
Grade, %		-		- 00	-	
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	12	2	2	35	2	2
Mvmt Flow	46	2	23	18	1	55
Major/Minor N	/linor1	_ N	Major1		Major2	
Conflicting Flow All	80	23	0	0	41	0
Stage 1	23	-	-	-	-	-
Stage 2	57	<u>-</u>	_	_	_	_
Critical Hdwy	6.52	6.22	_	_	4.12	_
Critical Hdwy Stg 1	5.52	-	_	_	7.12	_
Critical Hdwy Stg 2	5.52	_	_	_	_	_
Follow-up Hdwy	3.608			_	2.218	_
	898	1054			1568	
Pot Cap-1 Maneuver	974		-	-	1000	-
Stage 1		-	-	-	_	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %	007	1051	-	-	4500	-
Mov Cap-1 Maneuver	897	1054	-	-	1568	-
Mov Cap-2 Maneuver	844	-	-	-	-	-
Stage 1	974	-	-	-	-	-
Stage 2	940	-	-	-	-	-
Approach	WB		NB		SB	
	9.5		0		0.1	
HCM Control Delay, s			U		0.1	
HCM LOS	Α					
Minor Lane/Major Mvm	t	NBT	NBRV	VBLn1	SBL	SBT
Capacity (veh/h)		-	_	852	1568	-
HCM Lane V/C Ratio		_	_	0.056		_
HCM Control Delay (s)		-	-	9.5	7.3	-
HCM Lane LOS		_	_	A	A	_
HCM 95th %tile Q(veh)		-	-	0.2	0	-
				V		



A&R Engineering October 2022

1. Conley Rd @ Gilbert Rd

A.M. Peak Hour

			-		5. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0.	Gilbe	rt Road			Conley	7 Road			Conle	y Road	
		North	bound		6 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	South	bound			Eastb	ound			Westl	ound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	0	0	0	3	0	6	9	6	131	0	137	0	342	8	350
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	0	0	0	3	0	6	9	6	136	0	142	0	356	8	364
Proposed Development Trips:	0	0	0	0	7	0	16	23	53	0	0	53	0	0	25	25
Future 2024 Traffic Volumes:	0	0	0	0	10	0	22	32	59	136	0	195	0	356	33	389

			_			Gilber	t Road			Con	ley Road			Conle	y Road	
		North	bound			South	bound			Eas	tbound			Westl	ound	
Condition	L	T	R	Tot	L	Т	R	Tot	I	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	0	0	0	9	0	9	18	4	434	0	438	0	241	4	245
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	0	0	0	9	0	9	18	4	451	0	455	0	251	4	255
Proposed Development Trips:	0	0	0	0	23	0	51	74	20	0	0	20	0	0	9	9
Future 2024 Traffic Volumes:	0	0	0	0	32	0	60	92	24	451	0	475	0	251	13	264

A&R Engineering October 2022

2. Gilbert Rd @ Drwy 1 (N)

A.M. Peak Hour

		Gilber	rt Road			Gilbe	rt Road				-		Site I	Orivewa	y 1 (Nor	rthern)
		North	bound			South	nbound			East	bound			West	bound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	14	0	14	0	9	0	9	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	15	0	15	0	9	0	9	0	0	0	0	0	0	0	0
Proposed Development Trips:	0	1	25	26	1	3	0	4	0	0	0	0	7	0	0	7
Future 2024 Traffic Volumes:	0	16	25	41	1	12	0	13	0	0	0	0	7	0	0	7

		Gilber	t Road			Gilber	rt Road				-		Site D	riveway	y 1 (Nor	thern)
		North	bound			South	bound			East	ound			Westl	bound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	8	0	8	0	18	0	18	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	8	0	8	0	19	0	19	0	0	0	0	0	0	0	0
Proposed Development Trips:	0	3	9	12	0	1	0	1	0	0	0	0	24	0	1	25
Future 2024 Traffic Volumes:	0	11	9	20	0	20	0	20	0	0	0	0	24	0	1	25

A&R Engineering October 2022

3. Gilbert Rd @ Drwy 2 (M)

A.M. Peak Hour

		Gilber	rt Road			Gilbe	rt Road				-		Site	Drivew	ay 2 (Mi	ddle)
		North	bound			South	bound			East	bound			West	bound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	14	0	14	0	9	0	9	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	15	0	15	0	9	0	9	0	0	0	0	0	0	0	0
Proposed Development Trips:	0	26	9	35	0	10	0	10	0	0	0	0	3	0	0	3
Future 2024 Traffic Volumes:	0	41	9	50	0	19	0	19	0	0	0	0	3	0	0	3

		Gilber	t Road			Gilbe	rt Road				-		Site 1	Drivewa	ay 2 (Mi	ddle)
		North	bound			South	nbound			Eas	tbound			Westl	oound	
Condition	L	T	R	Tot	L	T	R	Tot	1	. Т	R	Tot	L	Т	R	Tot
Existing 2022 Traffic Counts:	0	8	0	8	0	18	0	18	C	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	8	0	8	0	19	0	19	C	0	0	0	0	0	0	0
Proposed Development Trips:	0	12	3	15	0	25	0	25	C	0	0	0	8	0	0	8
Future 2024 Traffic Volumes:	0	20	3	23	0	44	0	44	C	0	0	0	8	0	0	8

A&R Engineering October 2022

4. Gilbert Rd @ Drwy 3 (S)

A.M. Peak Hour

		Gilber	rt Road			Gilber	rt Road				-		Site I	Orivewa	ıy 3 (Sou	ıthern)
		North	bound			South	bound			Eas	tbound			West	bound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	14	0	14	0	9	0	9	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	15	0	15	0	9	0	9	0	0	0	0	0	0	0	0
Proposed Development Trips:	0	33	44	77	2	10	0	12	0	0	0	0	13	0	1	14
Future 2024 Traffic Volumes:	0	48	44	92	2	19	0	21	0	0	0	0	13	0	1	14

		Gilber	t Road			Gilber	t Road				-		Site D	rivewa	y 3 (Sou	thern)
		North	bound			South	bound			Eastb	ound			Westl	oound	
Condition	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2022 Traffic Counts:	0	8	0	8	0	18	0	18	0	0	0	0	0	0	0	0
Growth Factor (%):	2	2	2		2	2	2		2	2	2		2	2	2	
No-Build 2024 Volumes:	0	8	0	8	0	19	0	19	0	0	0	0	0	0	0	0
Proposed Development Trips:	0	13	17	30	1	32	0	33	0	0	0	0	42	0	2	44
Future 2024 Traffic Volumes:	0	21	17	38	1	51	0	52	0	0	0	0	42	0	2	44