Transportation Analysis

Project Excalibur
DRI 3813

City of Fayetteville, Georgia
(Fayette County)

November 2022

Prepared for:

National Acquisition Company, LLC

Prepared by:

Kimley-Horn and Associates, Inc.
817 West Peachtree Street, NW
Atlanta, Georgia 30308
014828002

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EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the proposed *Project Excalibur* development located in the City of Fayetteville, Georgia. The approximate 615-acre site is located north of SR 54 along Tyrone Road and Flat Creek Trail in Fayette County. The proposed project site is currently zoned Business Park (BP) (rezoning application submitted July 5, 2022). The site is currently undeveloped.

The proposed development will consist of the following land uses and densities contained in **Table 1**. The project is expected to be completed by 2032 (approximately 10 years).

Table 1: Proposed Land Use and Density	
Data Center	7,000,000 SF

The DRI analysis includes an estimation of the overall vehicle trips projected to be generated by the development, also known as gross trips. Mixed-use, alternative mode, and pass-by reductions to gross trips are not included in the trip generation, as outlined in the Georgia Regional Transportation Authority (GRTA) Letter of Understanding (dated September 21, 2022).

A reference of the proposed site plan is provided in **Appendix A**. A full-sized site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the review package.

Capacity analyses were performed for the study intersections under the Existing 2022 conditions, the Projected 2032 No-Build conditions, and the Projected 2032 Build conditions.

- Existing 2022 conditions represent the turning movements from the traffic counts which were collected at the existing study intersections on October 11, 2022.
- Projected 2032 No-Build conditions represent the Existing 2022 traffic volumes grown for ten (10) years using a 1.0% per year growth rate. Additionally, project trips associated with DRI 3776 *Trilith Expansion* were included.
- Projected 2032 Build conditions represent the Projected 2032 No-Build conditions plus the addition of the project trips that are anticipated to be generated by the *Project Excalibur* development.

Existing 2022 (System Improvements)

Due to the low level-of-service (LOS) at the following intersections under the Existing 2022 conditions, the following intersection improvements are recommended (needed to serve background traffic, without the development, shown in green on **Figure 6**):

- Tyrone Road at Flat Creek Trail (Intersection 2)
    - Construct a modern single-lane roundabout at the intersection

Projected 2032 No-Build (System Improvements)

Due to the low level-of-service (LOS) at the following intersections under the Projected 2032 No-Build conditions, the following intersection improvements are recommended in addition to the previously listed improvements (needed to serve background traffic, without the development, shown in red on **Figure 7**):

- SR 54 at Tyrone Road (Intersection 1)
    - Construct dual southbound left-turn lanes so that the southbound approach consists of two (2) left-turn lanes, one (1) through lane, and one (1) right-turn lane
    - Provide a protected-only left-turn phase for the southbound approach
    - Note: The possible improvements at this intersection are pending GDOT approval

Build 2032 Build Improvements

In addition to the No-Build Improvements, the following should be considered to serve the Projected 2032 Build Conditions. Due to the low level-of-service (LOS) at the following intersections under the Projected 2032 Build conditions, the following Build Improvements are recommended (to serve development traffic, shown in blue on **Figure 8**):

- SR 74 at Tyrone Road (Intersection 4)
    - Provide a protected/permissive left-turn phase for the westbound approach during the PM peak hour
    - Note: The possible improvements at this intersection are pending GDOT approval
- SR 54 at Driveway A (Intersection 5)
    - Construct a right-in/right-out only (RIRO) driveway with one (1) lane entering the site and one (1) lane exiting the site on the north leg (Proposed Driveway A) so that the southbound approach consists of one (1) right-turn lane under sidestreet stop-control
    - Construct a dedicated westbound right-turn lane along SR 54
    - Note: The possible improvements at this intersection are pending GDOT approval
- Tyrone Road at Driveway B (Intersection 6)
    - Construct a conventional full movement driveway with one (1) lane entering the site and two (2) lanes exiting the site on the east leg (Proposed Driveway B) so that the westbound approach consists of one (1) left-turn lane and one (1) right-turn lane under sidestreet stop-control
    - Construct a dedicated northbound right-turn lane along Tyrone Road
    - Construct a dedicated southbound left-turn lane along Tyrone Road
    - Alternatively, consider installing a modern single-lane roundabout at the intersection
- Flat Creek Trail at Driveway C (Intersection 7)
    - Construct a conventional full movement driveway with one (1) lane entering the site and one (1) lane exiting the site on the east leg (Proposed Driveway C) so that the westbound approach consists of one (1) shared left/right-turn lane under sidestreet stop-control

The analysis results for the improved conditions at the above intersections are shown in the tables below. With the improvements listed above, all study intersections are projected to operate at or above their overall and approach LOS standards, except sidestreet approaches in the Projected 2032 Build conditions at Intersection 5 and Intersection 6 (proposed site driveways). Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway.

SR 54 at Tyrone Road (Intersection 1)

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			SR 54 Eastbound			SR 54 Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2032 NO-BUILD IMPROVED SIGNAL	AM	Overall LOS	B (12.9)											
		Approach LOS	A (0)			C (28.3)			B (11.3)			A (8.2)		
		Storage				210		150	175			225		150
		50th Queue				142	0	0	7	253		0	151	27
		95th Queue				196	4	17	23	387		2	234	74
	PM	Overall LOS	B (10.8)											
		Approach LOS	A (0)			C (30.8)			A (7.8)			A (8.3)		
		Storage				210		150	175			225		150
		50th Queue				101	0	8	5	175		0	234	65
		95th Queue				146	0	40	25	267		2	360	154
2032 BUILD IMPROVED SIGNAL	AM	Overall LOS	B (16.4)											
		Approach LOS	A (0)			C (32.7)			B (17.0)			A (8.6)		
		Storage				210		150	175			225		150
		50th Queue				153	0	0	87	264		0	162	32
		95th Queue				209	4	19	260	416		2	258	90
	PM	Overall LOS	B (16.1)											
		Approach LOS	A (0)			C (32.4)			B (12.2)			B (13.4)		
		Storage				210		150	175			225		150
		50th Queue				165	0	19	21	225		0	348	102
		95th Queue				223	0	56	106	354		2	547	233

Tyrone Road at Flat Creek Trail (Intersection 2)

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			Flat Creek Trail Eastbound			Flat Creek Trail Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING IMPROVED Roundabout	**AM**	Overall LOS	A (7.4)											
		Approach LOS	A (6.6)			A (8.6)			A (6.0)			A (5.3)		
		Storage												
		50th Queue												
		95th Queue		52			106			23			15	
	PM	Overall LOS	A (8.4)											
		Approach LOS	A (9.3)			A (8.4)			A (7.0)			A (7.3)		
		Storage												
		50th Queue												
		95th Queue		92			104			40			28	
2032 NO-BUILD IMPROVED Roundabout	**AM**	Overall LOS	A (9.6)											
		Approach LOS	A (7.5)			B (11.7)			A (7.6)			A (5.8)		
		Storage												
		50th Queue												
		95th Queue		67			174			32			18	
	PM	Overall LOS	B (11.1)											
		Approach LOS	B (13.2)			B (10.3)			A (8.4)			A (9.9)		
		Storage												
		50th Queue												
		95th Queue		203			144			51			42	
2032 BUILD IMPROVED Roundabout	**AM**	Overall LOS	B (12.8)											
		Approach LOS	A (7.8)			B (16.4)			A (9.9)			A (5.9)		
		Storage												
		50th Queue												
		95th Queue		73			277			43			18	
	PM	Overall LOS	B (14.2)											
		Approach LOS	B (19.1)			B (10.9)			A (8.8)			B (13.5)		
		Storage												
		50th Queue												
		95th Queue		429			160			53			56	

SR 74 at Tyrone Road (Intersection 4)

Overall LOS Standard: D Approach LOS Standard: D			SR 74 Northbound			SR 74 Southbound			Tyrone Road Eastbound			Tyrone Road Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2032 BUILD IMPROVED SIGNAL	AM	Overall LOS	C (27.5)											
		Approach LOS	C (24.1)			C (25.9)			C (32.9)			C (33.7)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	47	307	0	30	287	0	3	297	33	17	106	0
		95th Queue	86	416	8	60	396	0	15	502	104	57	228	54
	PM	Overall LOS	D (41.6)											
		Approach LOS	C (34.7)			D (39.7)			D (48.8)			D (54.8)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	178	545	0	70	630	0	31	297	24	63	461	0
		95th Queue	331	728	0	128	825	0	61	402	102	105	607	46

SR 54 at Driveway A (Intersection 5)

Overall LOS Standard: D Approach LOS Standard: D			- Northbound			Driveway A Southbound			SR 54 Eastbound			SR 54 Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC - RIRO	AM	Overall LOS	A (0.1)											
		Approach LOS				C (15.6)			A (0.0)			A (0.0)		
		Storage												250
		50th Queue												
		95th Queue						25		0			0	0
	PM	Overall LOS	A (1.9)											
		Approach LOS				F (57.7)			A (0.0)			A (0.0)		
		Storage												250
		50th Queue												
		95th Queue						125		0			0	0

The proposed right-in, right-out only (RIRO) intersection of SR 54 at Driveway A (Intersection 5) is projected to operate at or above its overall LOS standards under the Projected 2032 Build conditions. The southbound approach is projected to operate at LOS F during the PM peak hour under the Projected 2032 Build conditions. Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway.

Tyrone Road at Driveway B (Intersection 6)

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			- Eastbound			Driveway B Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC	AM	Overall LOS	A (2.1)											
		Approach LOS	A (0)			A (1.8)						D (27.6)		
		Storage			150	210						200		
		50th Queue												
		95th Queue		0	0	25	0					25		25
	PM	Overall LOS	E (40.0)											
		Approach LOS	A (0)			A (0.5)						F (175.1)		
		Storage			150	210						200		
		50th Queue												
		95th Queue		0	0	25	0					400		25

The proposed intersection of Tyrone Road at Driveway B (Intersection 6) is projected to operate at or above its overall LOS standards under the Projected 2032 Build conditions during the AM peak hour. During the PM peak hour, the westbound approach and intersection overall is projected to operate at LOS E or F under the Projected 2032 Build conditions. Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway. Alternatively, a modern single-lane roundabout may be considered.

Flat Creek Trail at Driveway C (Intersection 7)

Overall LOS Standard: D Approach LOS Standard: D			Flat Creek Trail Northbound			Flat Creek Trail Southbound			- Eastbound			Driveway C* Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC	AM	Overall LOS	A (0)											
		Approach LOS	A (0)			A (0)						A (0)		
		Storage												
		50th Queue												
		95th Queue		0	0	0	0						0	
	PM	Overall LOS	A (0)											
		Approach LOS	A (0)			A (0)						A (0)		
		Storage												
		50th Queue												
		95th Queue		0	0	0	0						0	

**Driveway C is currently envisioned as emergency access only. No project traffic was assigned to Driveway C in this study.*

1.0 PROJECT DESCRIPTION

1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed *Project Excalibur* development located in the City of Fayetteville, Georgia. The approximate 615-acre site is located north of SR 54 along Tyrone Road and Flat Creek Trail in Fayette County. The proposed project site is currently zoned Business Park (BP) (rezoning application submitted July 5, 2022). The site is currently undeveloped.

Figure 1 provides a location map of the project site. **Figure 2** provides an aerial view of the project site and surrounding area.

The proposed development will consist of the following land uses and densities contained in **Table 1**. The project is expected to be completed by 2032 (approximately 10 years).

Table 2: Proposed Land Use and Density	
Data Center	7,000,000 SF

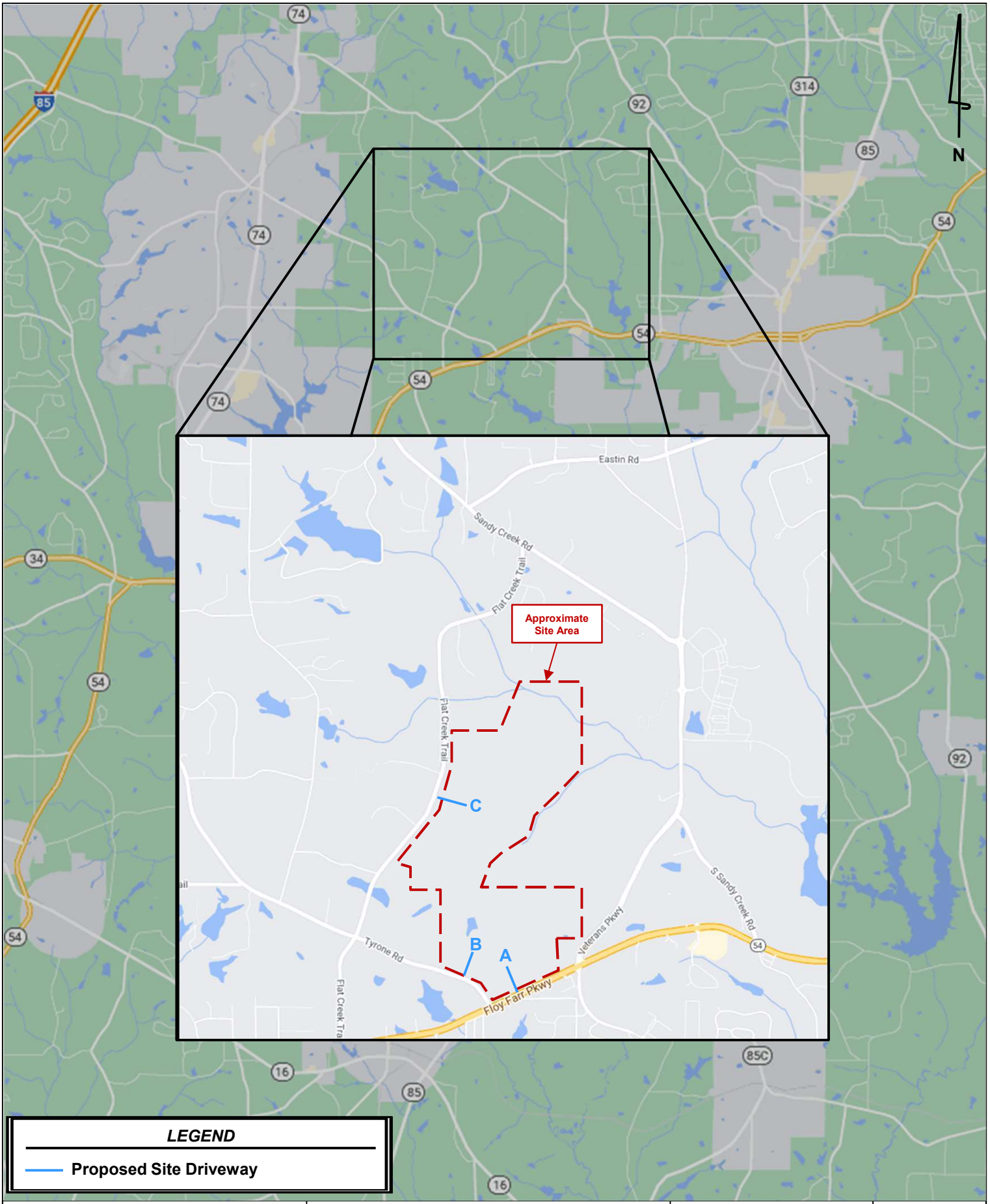
The DRI analysis includes an estimation of the overall vehicle trips projected to be generated by the development, also known as gross trips. Mixed-use, alternative mode, and pass-by reductions to gross trips are not included in the trip generation, as outlined in the Georgia Regional Transportation Authority (GRTA) Letter of Understanding (dated September 21, 2022).

A reference of the proposed site plan is provided in **Appendix A**. A full-sized site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the review package.

Capacity analyses were performed for the study intersections under the Existing 2022 conditions, the Projected 2032 No-Build conditions, and the Projected 2032 Build conditions.

- Existing 2022 conditions represent the turning movements from the traffic counts which were collected at the existing study intersections on October 11, 2022.
- Projected 2032 No-Build conditions represent the Existing 2022 traffic volumes grown for ten (10) years using a 1.0% per year growth rate. Additionally, project trips associated with DRI 3776 *Trilith Expansion* were included.
- Projected 2032 Build conditions represent the Projected 2032 No-Build conditions plus the addition of the project trips that are anticipated to be generated by the *Project Excalibur* development.

The project is considered a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review due to the project size exceeding 500,000 square-feet in a new industrial development. The DRI was formally triggered with the filing of the Initial DRI Information (Form 1) on September 12, 2022, by the City of Fayetteville. This transportation analysis includes all inputs and methodologies discussed at the DRI Methodology Meeting with GRTA, ARC, and other stakeholders. The inputs and methodologies are outlined in the GRTA Letter of Understanding (LOU), dated September 21, 2022.



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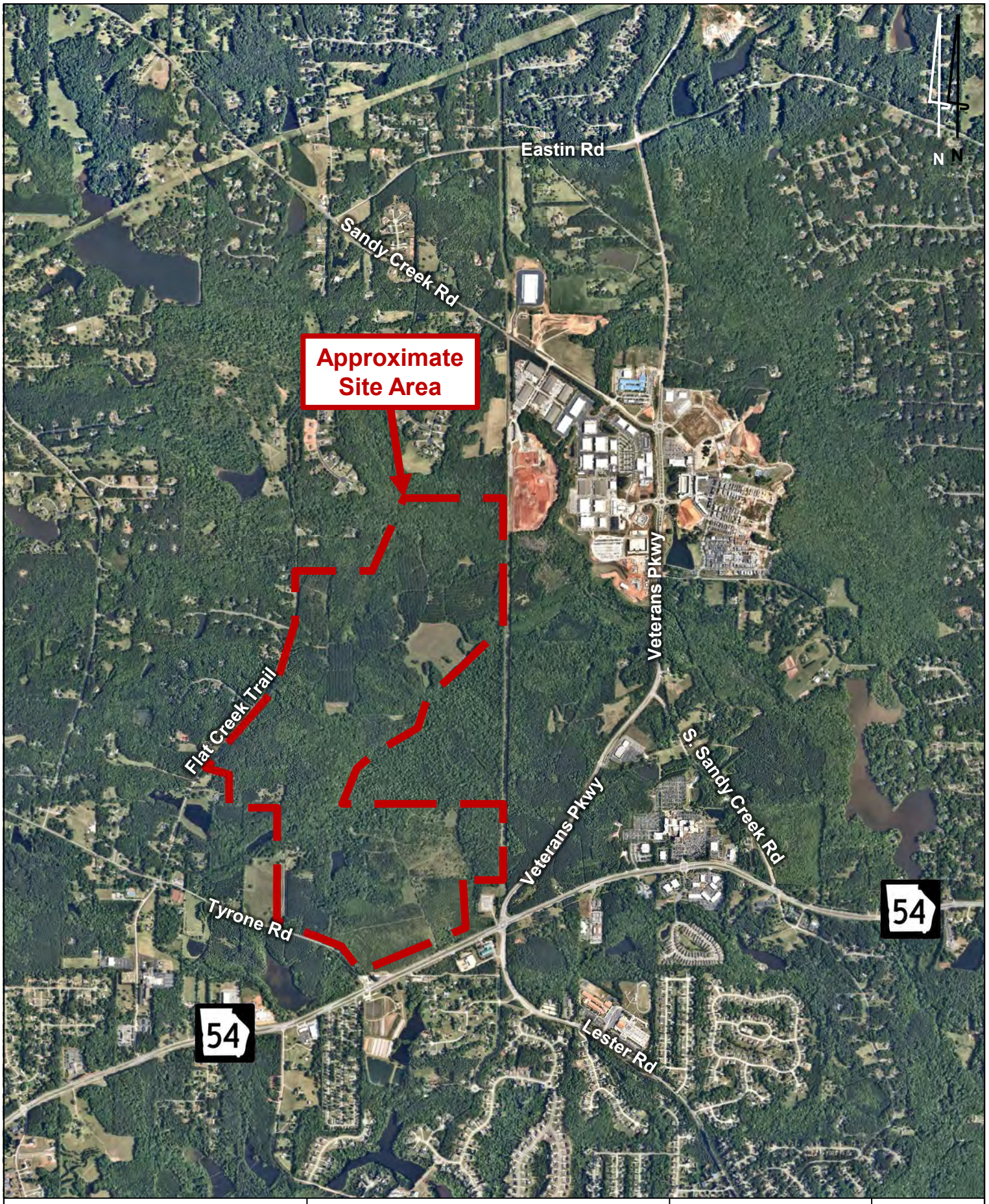

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1.2 Site Access

As currently envisioned, the proposed development will be accessible via 3 proposed access points. The driveways are illustrated on **Figure 1**.

1. **Site Driveway A** (Intersection 5) – a proposed RIRO (right-in/right-out only) driveway located along SR 54 approximately 925 feet east of Tyrone Road and which is proposed to operate under side street stop control.
2. **Site Driveway B** (Intersection 6) – a proposed, full-movement driveway located along Tyrone Road approximately 1,150 feet north of SR 54 and which is proposed to operate under side street stop control.
3. **Site Driveway C** (Intersection 7) – a proposed, full-movement driveway located along Flat Creek Trail approximately 2,500 feet east of Tyrone Road which is proposed to operate under side street stop control. Note: As currently envisioned, Site Driveway C will be emergency access only; therefore, no project traffic is assigned to the driveway in this analysis.

1.3 Internal Circulation Analysis

Internal roadways throughout the site provide vehicular access to all buildings and parking on the site. See referenced site plan in **Appendix A** for a visual representation of vehicular access and circulation throughout the proposed development.

1.4 Parking

The current number of total site parking spaces to be provided are listed below in **Table 3**. The site development is currently in progress and the number of parking provided is subject to change.

Table 3: Proposed Parking

Land Use	Minimum	Maximum	Proposed
Data Center	N/A	*As allowed by maximum impervious percent on-site*	1,420
Total			**1,420** **(subject to change)**

Additional parking details are provided on the proposed site plan in **Appendix A**.

1.5 Alternative Transportation Facilities

Pedestrian sidewalk facilities are not currently provided along site frontages. Pedestrian facilities will be provided throughout the development.

1.6 Enhanced Focus Area for Dense Urban Environments

Per Section 3.2.4.2 of the GRTA *Development of Regional Impact Review Procedures* the *Project Excalibur* development does not qualify for a “Dense Urban Environment Enhanced Focus Area” review, due to its location in the City of Fayetteville.

2.0 TRAFFIC ANALYSES, METHODOLOGY AND ASSUMPTIONS

2.1 Study Network Determination

The study area was determined at the methodology meeting with input from GRTA, ARC, and other local agency stakeholders. The study includes the following four (4) off-site intersections described in **Table 4** and shown visually in **Figure 3**.

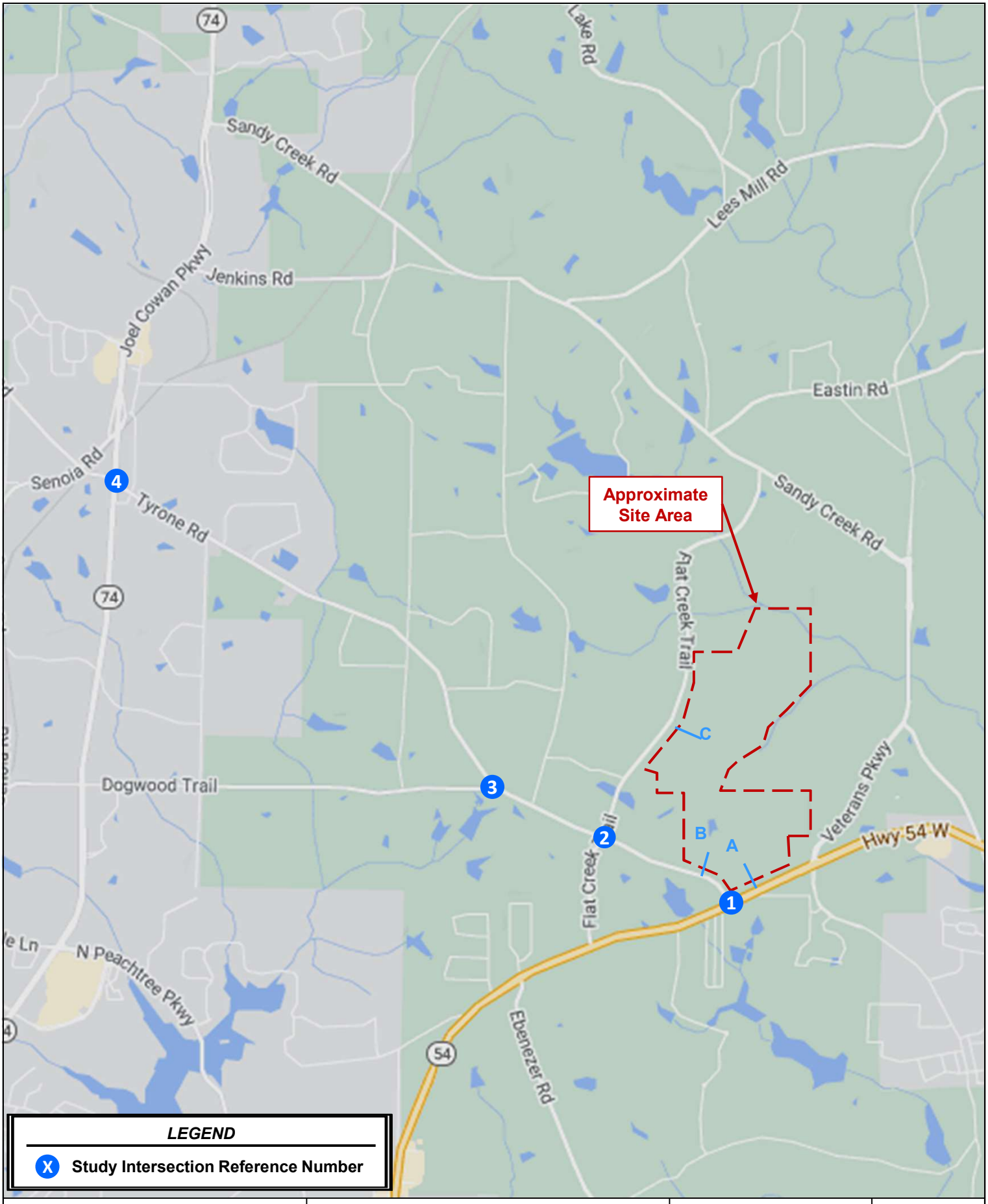
Table 4: Intersection Control Summary		
Intersection	**Jurisdiction**	**Control**
1. SR 54 at Tyrone Road	GDOT	Signalized
2. Tyrone Road at Flat Creek Trail	Fayette County	Unsignalized (AWSC)
3. Tyrone Road at Dogwood Trail	Fayette County	Unsignalized (TWSC)
4. SR 74 at Tyrone Road/Palmetto Road	GDOT	Signalized

Each of the intersections listed in **Table 4** were analyzed for the Existing 2022 conditions, the Projected 2032 No-Build conditions, and the Projected 2032 Build conditions. Proposed site driveways will also be analyzed under the Projected 2032 Build conditions.

2.2 Existing Roadway Facilities

Roadway classification descriptions and estimated Annual Average Daily Traffic (AADT) for roadway segments within the study network are provided in **Table 5** (bolded roadways are adjacent to the site).

Table 5: Roadway Classifications			
Roadway	**Lanes**	**AADT**	**GDOT Functional Classification**
SR 54 (Floy Farr Parkway)	**4**	**32,900**	**Principal Arterial**
Tyrone Road	**2**	**9,760**	**Minor Arterial**
Flat Creek Trail	**2**	**1,430**	**Local Road**
Dogwood Trail	2	3,390	Major Collector
SR 74	4	27,700	Principal Arterial



Kimley»Horn	**Project Excalibur** **DRI # 3813** ***Transportation Analysis***	**Study Intersections**	**Figure 3**
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2.3 Traffic Data Collection

Weekday peak hour turning movement counts were collected on Tuesday, October 11, 2022, at the study intersections and existing site driveways during AM and PM peak periods.

Traffic count peak hours for all the study intersections are shown in **Table 6**.

Table 6: Traffic Count Summary

Intersection	Count Date	AM Peak Hour	PM Peak Hour
1. SR 54 at Tyrone Road	10/2022	7:15 AM – 8:15 AM	4:30 PM – 5:30 PM
2. Tyrone Road at Flat Creek Trail	10/2022	7:45 AM – 8:45 AM	4:45 PM – 5:45 PM
3. Tyrone Road at Dogwood Trail	10/2022	7:45 AM – 8:45 AM	4:30 PM – 5:30 PM
4. SR 74 at Tyrone Road	10/2022	7:30 AM – 8:30 AM	4:45 PM – 5:45 PM

The collected peak hour turning movement traffic counts are available upon request.

Per GDOT Office of Planning memorandum dated July 15, 2022, *"new traffic data collected after the start of the Fall 2022 school year will no longer be required to follow procedures outlined in the COVID-19 policy."* Based on GDOT guidance and the *Project Excalibur DRI 3776* Letter of Understanding (LOU) dated September 21, 2022, the October 2022 turning movement count data represents the Existing 2022 peak hour traffic volumes.

2.4 Background Growth

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed *Project Excalibur* development. Background traffic can include a base growth rate based on historical count data and population growth data as well as trips anticipated from nearby or adjacent other projects. Based on methodology outlined in the GRTA Letter of Understanding (LOU), a 1.0% per year background traffic growth rate from 2022 to 2032 (10 years) was used for roadways in the study network.

In addition to the background growth, the project trips associated with the following development were incorporated into the background traffic:

- DRI 3776 *Trilith Expansion*: approx 5 million SF of Studio/Mixed-Use Development (Build-Out 2032)

The Projected 2032 No-Build conditions represent the Existing 2022 traffic volumes grown for ten (10) years at 1.0% per year throughout the study network, plus the project trips generated by *Trilith Development DRI 3776.*

The Projected 2032 Build conditions represent the project trips generated by the *Project Excalibur* development (discussed in Section 3.0 and 4.0) added to the Projected 2032 No-Build Conditions.

2.5 Programmed and Planned Projects

Programmed and planned projects near the project site were researched to account for any improvements or modifications within the study network before or by the build-out year of the development. The programmed and planned projects were discussed in the methodology meeting with GRTA, ARC, and other local stakeholders. The following projects shown in **Table 7** are programmed to occur near the development beyond the build-out year of the proposed development or are not anticipated to affect the study network.

Table 7: Programmed Projects							
Project Name	**From / To Points:**	**Sponsor**	**GDOT PI**	**ARC ID (TIP)**	**Design FY**	**ROW / UTL FY**	**CST FY**
Fayetteville Multi-Use Bridge and Paths	From Piedmont Fayette Hospital to Lester Road over SR 54	Fayette County	PI 0012878	FA-353	2016	2017	2023
Fayette County Resurfacing Program – Phase 2	Throughout County	Fayette County	PI 0016083 PI 0017812	FA-100C	2021	2022	2023
I-85 at SR 74/Senoia Rd Interchange Improvements	NB/SB Ramps and SR 74 Bridge Widening	City of Fairburn	PI 0007841	FS-AR-182	2020	2024	2024
Palmetto Rd/ Collinsworth Rd Reconstruction	From I-85 to SR 74	GDOT	PI 0007837	-	2051	2051	2051

**Project information was obtained from GeoPI (GDOT), the Atlanta Region's Plan (ARC), Fayette County, City of Fayetteville Transportation Plans.*

Available fact sheets for projects listed in the table above can be found in **Appendix D**.

2.6 Level-of-Service Overview

Level-of-service (LOS) is used to describe the operating characteristics of a road segment or intersection in relation to its capacity. LOS is defined as a qualitative measure that describes operational conditions and motorists' perceptions within a traffic stream. The *Highway Capacity Manual* defines six levels-of-service, LOS A through LOS F, with A being the best and F being the worst. LOS analyses were conducted at all intersections within the study network using *Synchro 11*. Existing traffic signal phasing and timing data were retrieved for available intersections. Roundabouts were analyzed using *SIDRA INTERSECTION 9.0*. *SIDRA* uses the gap acceptance methodology for the roundabout capacity model.

LOS for signalized intersections and roundabouts are reported for the intersection as a whole. One or more movements at an intersection may experience a low LOS, while the intersection as a whole may operate at an acceptable LOS.

2.7 Level-of-Service Standards

For the purposes of this traffic analysis, a LOS standard of D was assumed for all other intersections and segments within the study network. If, however, an intersection or approach currently operates at LOS F during an existing peak period, the LOS standard for the intersection during that peak period becomes LOS E, consistent with the GRTA Letter of Understanding.

3.0 TRIP GENERATION

Gross trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition*, *2021*, using equations where available. Reductions to gross trips were not considered in the analysis based on the nature of the proposed land uses.

Mixed-use reductions occur when a site has a combination of different land uses that interact with one another. For example, people living in a residential development may walk to the restaurants and retail instead of driving off-site or to the site. This reduces the number of vehicle trips that will be made on the roadway, thus reducing traffic congestion. No mixed-use reductions were taken in this analysis per the LOU.

Alternative modes reductions are taken when a site can be accessed by modes other than vehicles (walking, bicycling, transit, etc.). No alternative modes reductions were taken in this analysis per the LOU.

Pass-by reductions are taken for a site when traffic normally traveling along a roadway may choose to visit a retail or restaurant establishment that is along the vehicle's path. These trips were already on the road and would therefore only be new trips on the driveways. No pass-by reductions were taken in this analysis per the LOU.

Based on the LOU, ITE land use code (LUC) 710 (General Office Building) was utilized to estimate the trip generation for the proposed *Project Excalibur* development. ITE LUC 710 is proposed for the office component of each data center (approximately 2,500 SF per building). This approach recognizes that the office/personnel areas are the primary trip generators for the site.

Table 8 summarizes the gross trip generation, reductions, net trip generation, and driveway volumes for the proposed *Project Excalibur* development.

Table 8: Trip Generation

Land Use Code	Density	Daily Traffic			AM Peak Hour		PM Peak Hour	
		Total	Enter	Exit	Enter	Exit	Enter	Exit
710 (General Office Building)	400,000 SF	4,336	2,168	2,168	608	535	73	576
Gross Project Trips		**4,336**	**2,168**	**2,168**	**608**	**535**	**73**	**576**
Mixed-Use Reductions		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pass-By Reductions		*0*	*0*	*0*	*0*	*0*	*0*	*0*
Net New Trips		**4,336**	**2,168**	**2,168**	**608**	**535**	**73**	**576**

A more detailed trip generation analysis summary table is provided in **Appendix B**.

4.0 TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of new project trips was based on the project land uses, a review of land use densities and road facilities in the area, engineering judgement, and methodology discussions with GRTA, ARC, and other local stakeholders.

The anticipated distribution and assignment of the trips throughout the study roadway network is shown in **Figure 4.** These trip assignment percentages were applied to the net project trips expected to be generated by the development, and the volumes were assigned to the roadway network. The peak hour project trips are shown by turning movement throughout the study network in **Figure 5**.

Detailed intersection volume worksheets are provided in **Appendix C**.

5.0 TRAFFIC ANALYSIS

Capacity analyses were performed using *Synchro 11* and *SIDRA 9.0* for the AM and PM peak hours under the Existing 2022 conditions, Projected 2032 No-Build conditions, and Projected 2032 Build conditions. The capacity analyses were performed using methodologies from the *Highway Capacity Manual (HCM), 6th Edition* unless otherwise noted.

These analyses included existing roadway laneage and signal timing data for each of the scenarios. The traffic volumes and roadway laneage used for each scenario are shown visually in **Figure 6** for Existing 2022 conditions, **Figure 7** for Projected 2032 No-Build conditions, and **Figure 8** for Projected 2032 Build conditions.

Sections 5.1 – 5.7 provide the results of the capacity analyses are presented for each study intersection and include projected LOS, delay, and queue lengths.

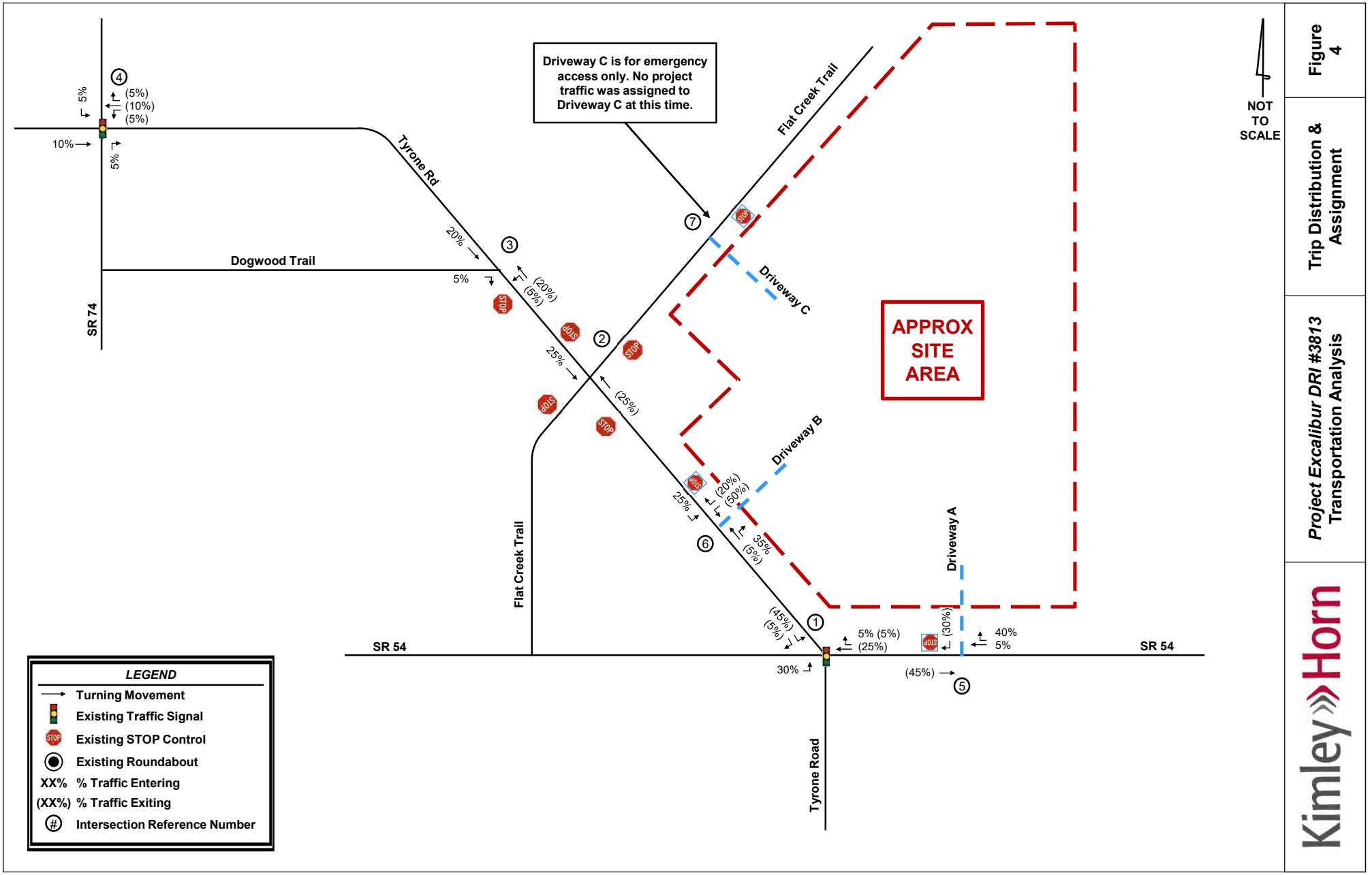


Figure 4

Trip Distribution & Assignment

Project Excalibur DRI #3813
Transportation Analysis

Kimley»Horn

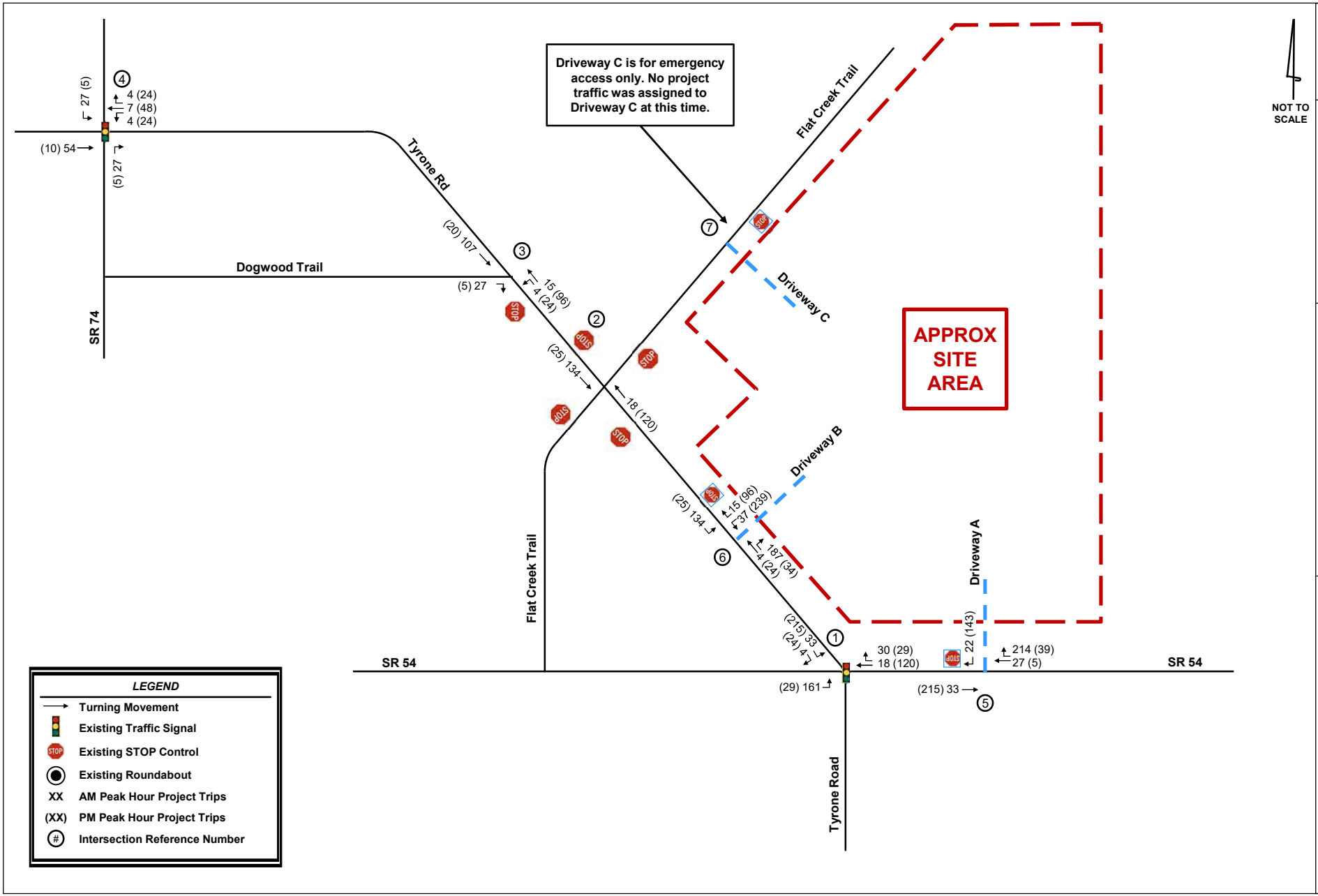


Figure 5

Project Trips

Project Excalibur DRI #3813
Transportation Analysis

Kimley»Horn

5.1 SR 54 at Tyrone Road (Intersection 1)

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			SR 54 Eastbound			SR 54 Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING SIGNAL	AM	Overall LOS	B (18.1)											
		Approach LOS	A (0)			C (26.2)			B (17.7)			B (15.3)		
		Storage						150	175			225		150
		50th Queue					219	0	11	280		0	215	3
		95th Queue					484	10	29	347		3	270	45
	PM	Overall LOS	B (16.1)											
		Approach LOS	A (0)			C (30.0)			B (14.1)			B (14.1)		
		Storage						150	175			225		150
		50th Queue					207	2	9	227		0	261	36
		95th Queue					333	31	31	345		3	394	113
2032 NO-BUILD SIGNAL	AM	Overall LOS	C (33.0)											
		Approach LOS	A (0)			E (69.8)			C (30.5)			C (20.4)		
		Storage						150	175			225		150
		50th Queue					528	0	13	485		0	290	26
		95th Queue					745	14	35	588		3	357	78
	PM	Overall LOS	C (25.9)											
		Approach LOS	A (0)			D (42.6)			C (22.3)			C (24.5)		
		Storage						150	175			225		150
		50th Queue					291	7	14	407		0	547	127
		95th Queue					475	38	66	496		3	664	236
2032 BUILD SIGNAL	AM	Overall LOS	D (47.3)											
		Approach LOS	A (0)			F (90.8)			D (54.0)			C (20.8)		
		Storage						150	175			225		150
		50th Queue					575	0	203	494		0	303	33
		95th Queue					797	17	245	601		3	374	93
	PM	Overall LOS	D (46.7)											
		Approach LOS	A (0)			F (119.4)			C (29.3)			C (34.9)		
		Storage						150	175			225		150
		50th Queue					619	20	42	407		0	630	152
		95th Queue					844	57	137	496		3	820	272

The signalized intersection of SR 54 at Tyrone Road (Intersection 1) operates at an acceptable overall and approach LOS under the Existing 2022 conditions during the AM and PM peak hours. Under the Projected 2032 No-Build conditions, the intersection is anticipated to operate at an acceptable LOS per approach during the peak hours except the southbound approach during the AM peak hour which is projected to operate at LOS E. Under the Projected 2032 Build conditions, the southbound approach is anticipated to operate at LOS F during the AM and PM peak hours. The intersection is projected to operate at an acceptable overall LOS under all scenarios during both the AM and PM peak hours.

In order to meet GRTA's LOS requirements under the Projected 2032 No-Build and Projected 2032 Build conditions, the following system improvements (needed to serve background traffic, without the development) are recommended (shown in red on **Figure 7** and **Figure 8**):

- Construct dual southbound left-turn lanes so that the southbound approach consists of two (2) left-turn lanes, one (1) through lane, and one (1) right-turn lane
- Provide a protected-only left-turn phase for the southbound approach

The analysis results for the improved conditions at Intersection 1 are shown in the table below.

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			SR 54 Eastbound			SR 54 Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2032 NO-BUILD IMPROVED SIGNAL	AM	Overall LOS	B (12.9)											
		Approach LOS	A (0)			C (28.3)			B (11.3)			A (8.2)		
		Storage				210		150	175			225		150
		50th Queue				142	0	0	7	253		0	151	27
		95th Queue				196	4	17	23	387		2	234	74
	PM	Overall LOS	B (10.8)											
		Approach LOS	A (0)			C (30.8)			A (7.8)			A (8.3)		
		Storage				210		150	175			225		150
		50th Queue				101	0	8	5	175		0	234	65
		95th Queue				146	0	40	25	267		2	360	154
2032 BUILD IMPROVED SIGNAL	AM	Overall LOS	B (16.4)											
		Approach LOS	A (0)			C (32.7)			B (17.0)			A (8.6)		
		Storage				210		150	175			225		150
		50th Queue				153	0	0	87	264		0	162	32
		95th Queue				209	4	19	260	416		2	258	90
	PM	Overall LOS	B (16.1)											
		Approach LOS	A (0)			C (32.4)			B (12.2)			B (13.4)		
		Storage				210		150	175			225		150
		50th Queue				165	0	19	21	225		0	348	102
		95th Queue				223	0	56	106	354		2	547	233

With the improvements listed above, the intersection of SR 54 at Tyrone Road (Intersection 1) is projected to operate at or above its overall and approach LOS standards under the Projected 2032 No-Build Improved and Projected 2032 Build Improved conditions.

GDOT Policy 6785-2 provides guidance on the left-turn volumes necessary to warrant protected left-turn phases at a signalized intersection. To warrant a protected left-turn phase, one of the following volume thresholds must be met:

1. The cross-product of is greater than 50,000 for a leading left-turn phase or greater than the 30,000 for a lagging left-turn phase, utilizing the following formula.

$$Cross\ Product = Left\ Turn\ Volume\left(\frac{Opposing\ Through\ Volume}{Number\ of\ Opposing\ Through\ Lanes}\right)$$

2. The left-turn volume is 125 vehicles or greater per hour for a leading left-turn phase or is 75 vehicles or greater per hour for a lagging left-turn phase.

Table 9 summarizes the results of the cross-product for the southbound left-turn movement. **Table 10** summarizes the traffic volumes for the southbound left-turn movement. The southbound left-turn phasing calculations were based on Projected 2032 No-Build traffic volumes.

Table 9: Intersection 1 Cross-Product Results				
Movement	**AM Peak**	**Satisfied?**	**PM Peak**	**Satisfied?**
SB Left/NB Through	0	No	0	No

Table 10: Intersection 1 Southbound Left-Turn Volumes				
Movement	**AM Peak**	**Satisfied?**	**PM Peak**	**Satisfied?**
SB Left	518	Yes – lead/lag	409	Yes – lead/lag

Based on **Table 9** and **Table 10,** a protected left-turn phase is warranted along the southbound approach during the AM and PM peak hours. A protected-only left-turn phase is recommended to serve the proposed dual southbound left-turn lanes.

Note: The possible improvements at this intersection are pending GDOT approval

5.2 *Tyrone Road at Flat Creek Trail (Intersection 2)*

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			Flat Creek Trail Eastbound			Flat Creek Trail Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING AWSC	AM	Overall LOS	C (16.3)											
		Approach LOS	B (13.0)			C (20.4)			B (11.4)			B (10.5)		
		Storage												
		50th Queue												
		95th Queue		75			175			25			25	
	PM	Overall LOS	E (36.2)											
		Approach LOS	E (36.1)			E (49.3)			C (17.1)			B (13.8)		
		Storage												
		50th Queue												
		95th Queue		250			325			75			50	
2032 NO-BUILD AWSC	AM	Overall LOS	E (36.6)											
		Approach LOS	C (17.1)			F (55.6)			B (13.0)			B (11.9)		
		Storage												
		50th Queue												
		95th Queue		100			400			50			25	
	PM	Overall LOS	F (96.9)											
		Approach LOS	F (114.9)			F (125.5)			C (21.1)			C (16.3)		
		Storage												
		50th Queue												
		95th Queue		525			575			100			50	
2032 BUILD AWSC	AM	Overall LOS	F (80.8)											
		Approach LOS	C (18.3)			F (129.9)			B (13.6)			B (12.4)		
		Storage												
		50th Queue												
		95th Queue		125			725			50			25	
	PM	Overall LOS	F (143.1)											
		Approach LOS	F (206.1)			F (142.5)			C (22.1)			C (17.1)		
		Storage												
		50th Queue												
		95th Queue		825			600			100			50	

The intersection of Tyrone Road at Flat Creek Trail (Intersection 2) is projected to operate at an acceptable LOS overall and per approach under the Existing 2022 conditions during the AM peak hour and at LOS E overall and for the northbound and southbound approaches during the PM peak hour. Under the Projected 2032 No-Build and Projected 2032 Build conditions, Intersection 2 is anticipated to operate at an unacceptable LOS overall during the AM and PM peak hours. Under the future (No-Build and Build) conditions, the southbound approach is projected to operate at LOS F during the AM peak hour and the northbound and southbound approaches are projected to operate at LOS F during the PM peak hour.

In order to meet GRTA's LOS requirements under the Existing 2022, Projected 2032 No-Build, and Projected 2032 Build conditions, the following system improvements (needed to serve background traffic, without the development) are recommended (shown in green on **Figure 6**, **Figure 7**, and **Figure 8**):

- Construct a modern single-lane roundabout at the intersection

The analysis results for the improved conditions at Intersection 2 are shown in the table below.

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			Flat Creek Trail Eastbound			Flat Creek Trail Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING IMPROVED Roundabout	AM	Overall LOS	A (7.4)											
		Approach LOS	A (6.6)			A (8.6)			A (6.0)			A (5.3)		
		Storage												
		50th Queue												
		95th Queue		52			106			23			15	
	PM	Overall LOS	A (8.4)											
		Approach LOS	A (9.3)			A (8.4)			A (7.0)			A (7.3)		
		Storage												
		50th Queue												
		95th Queue		92			104			40			28	
2032 NO-BUILD IMPROVED Roundabout	AM	Overall LOS	A (9.6)											
		Approach LOS	A (7.5)			B (11.7)			A (7.6)			A (5.8)		
		Storage												
		50th Queue												
		95th Queue		67			174			32			18	
	PM	Overall LOS	B (11.1)											
		Approach LOS	B (13.2)			B (10.3)			A (8.4)			A (9.9)		
		Storage												
		50th Queue												
		95th Queue		203			144			51			42	
2032 BUILD IMPROVED Roundabout	AM	Overall LOS	B (12.8)											
		Approach LOS	A (7.8)			B (16.4)			A (9.9)			A (5.9)		
		Storage												
		50th Queue												
		95th Queue		73			277			43			18	
	PM	Overall LOS	B (14.2)											
		Approach LOS	B (19.1)			B (10.9)			A (8.8)			B (13.5)		
		Storage												
		50th Queue												
		95th Queue		429			160			53			56	

With the improvements listed above, the intersection of Tyrone Road at Flat Creek Trail (Intersection 2) is projected to operate at or above its overall and approach LOS standards under the Existing Improved 2022, Projected 2032 No-Build Improved, and Projected 2032 Build Improved conditions.

5.3 Tyrone Road at Dogwood Trail (Intersection 3)

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			Dogwood Trail Eastbound			- Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING TWSC	AM	Overall LOS	A (4.6)											
		Approach LOS	A (3.7)			A (0)			B (13.3)					
		Storage												
		50th Queue												
		95th Queue	25	0			0	0		50				
	PM	Overall LOS	A (4.1)											
		Approach LOS	A (3.4)			A (0)			B (12.4)					
		Storage												
		50th Queue												
		95th Queue	25	0			0	0		50				
2032 NO-BUILD TWSC	AM	Overall LOS	A (5.1)											
		Approach LOS	A (3.9)			A (0)			C (17.2)					
		Storage												
		50th Queue												
		95th Queue	25	0			0	0		75				
	PM	Overall LOS	A (4.1)											
		Approach LOS	A (3.2)			A (0)			B (14.1)					
		Storage												
		50th Queue												
		95th Queue	25	0			0	0		50				
2032 BUILD TWSC	AM	Overall LOS	A (6.4)											
		Approach LOS	A (4.1)			A (0)			C (24.7)					
		Storage												
		50th Queue												
		95th Queue	50	0			0	0		125				
	PM	Overall LOS	A (4.1)											
		Approach LOS	A (3.1)			A (0)			B (14.9)					
		Storage												
		50th Queue												
		95th Queue	50	0			0	0		75				

The intersection of Tyrone Road at Dogwood Trail (Intersection 3) is projected to operate at an acceptable LOS overall under the Existing 2022, Projected 2032 No-Build, and Projected 2032 Build conditions during the AM and PM peak hours. Each approach of the intersection is projected to operate at an acceptable LOS under all studied scenarios. No improvements are needed or recommended to be conditioned.

5.4 SR 74 at Tyrone Road (Intersection 4)

Overall LOS Standard: D Approach LOS Standard: D			SR 74 Northbound			SR 74 Southbound			Tyrone Road Eastbound			Tyrone Road Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2022 EXISTING SIGNAL	AM	Overall LOS	C (21.1)											
		Approach LOS	B (17.1)			B (18.5)			C (27.6)			C (33.5)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	27	190	0	12	181	0	2	130	0	10	65	0
		95th Queue	68	320	0	36	311	0	12	259	51	41	167	41
	PM	Overall LOS	C (27.7)											
		Approach LOS	C (22.9)			C (25.9)			C (32.2)			D (43.1)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	77	354	0	43	398	0	24	139	0	41	217	0
		95th Queue	176	529	0	89	603	0	58	236	58	93	359	13
2032 NO-BUILD SIGNAL	AM	Overall LOS	C (25.2)											
		Approach LOS	C (21.3)			C (23.3)			C (31.1)			C (33.6)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	42	277	0	18	264	0	3	239	22	14	96	0
		95th Queue	93	438	0	48	426	0	15	441	92	51	226	51
	PM	Overall LOS	D (36.4)											
		Approach LOS	C (31.1)			D (35.4)			D (35.9)			D (53.3)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	160	515	0	63	602	0	31	221	0	53	393	0
		95th Queue	283	676	0	106	733	0	62	308	59	100	556	22
2032 BUILD SIGNAL	AM	Overall LOS	C (27.3)											
		Approach LOS	C (24.0)			C (25.8)			C (32.1)			C (33.7)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	47	307	0	30	287	0	3	297	33	17	106	0
		95th Queue	105	496	6	74	473	0	15	531	108	58	239	53
	PM	Overall LOS	D (40.2)											
		Approach LOS	C (34.9)			D (39.3)			D (35.9)			E (57.4)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	172	532	0	68	616	0	31	231	0	76	461	0
		95th Queue	298	676	0	114	733	0	62	321	59	134	680	49

The signalized intersection of SR 74 at Tyrone Road (Intersection 4) operates at an acceptable overall and approach LOS under the Existing 2022 and Projected 2032 No-Build conditions during the AM and PM peak hours. Under the Projected 2032 Build conditions, the intersection is anticipated to operate at an acceptable LOS overall and per approach during the AM and PM peak hours except for the westbound approach during the PM peak hour which is projected to operate at LOS E.

In order to meet GRTA's LOS requirements under the Projected 2032 Build conditions, the following Build improvements (needed to serve development traffic) are recommended (shown in blue on **Figure 8**):

- Provide a protected/permissive left-turn phase for the westbound approach during the PM peak hour

The analysis results for the improved conditions at Intersection 4, are shown in the table below.

Overall LOS Standard: D Approach LOS Standard: D			SR 74 Northbound			SR 74 Southbound			Tyrone Road Eastbound			Tyrone Road Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2032 BUILD IMPROVED SIGNAL	AM	Overall LOS	C (27.5)											
		Approach LOS	C (24.1)			C (25.9)			C (32.9)			C (33.7)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	47	307	0	30	287	0	3	297	33	17	106	0
		95th Queue	86	416	8	60	396	0	15	502	104	57	228	54
	PM	Overall LOS	D (41.6)											
		Approach LOS	C (34.7)			D (39.7)			D (48.8)			D (54.8)		
		Storage	500		275	500		175	200		200	215		185
		50th Queue	178	545	0	70	630	0	31	297	24	63	461	0
		95th Queue	331	728	0	128	825	0	61	402	102	105	607	46

With the improvements listed above, the intersection of SR 74 at Tyrone Road (Intersection 4) is projected to operate at or above its overall and approach LOS standards under the Projected 2032 Build Improved conditions.

GDOT Policy 6785-2 provides guidance on the left-turn volumes necessary to warrant protected left-turn phases at a signalized intersection. To warrant a protected left-turn phase, one of the following volume thresholds must be met:

3. The cross-product of is greater than 50,000 for a leading left-turn phase or greater than the 30,000 for a lagging left-turn phase, utilizing the following formula.

$$Cross\ Product = Left\ Turn\ Volume\left(\frac{Opposing\ Through\ Volume}{Number\ of\ Opposing\ Through\ Lanes}\right)$$

4. The left-turn volume is 125 vehicles or greater per hour for a leading left-turn phase or is 75 vehicles or greater per hour for a lagging left-turn phase.

Table 11 summarizes the results of the cross-product for the westbound left-turn movement. **Table 12** summarizes the traffic volumes for the westbound left-turn movement. The westbound left-turn phasing calculations were based on Projected 2032 Build traffic volumes.

Table 11: Intersection 4 Cross-Product Results

Movement	AM Peak	Satisfied?	PM Peak	Satisfied?
WB Left/EB Through	13,671	No	21,995	No

Table 12: Intersection 4 Westbound Left-Turn Volumes

Movement	AM Peak	Satisfied?	PM Peak	Satisfied?
WB Left	31	No	83	Yes - lagging

Based on **Table 11** and **Table 12,** a lagging left-turn phase is warranted along the westbound approach during the PM peak hour only. A Flashing Yellow Arrow (FYA) is recommended to allow for flexibility in lead/lag and permissive- or protected-only phasing by time-of-day.

Note: The possible improvements at this intersection are pending GDOT approval

5.5 SR 54 at Proposed Driveway A (Intersection 5)

Overall LOS Standard: D Approach LOS Standard: D			-			Driveway A			SR 54			SR 54		
			Northbound			Southbound			Eastbound			Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC - RIRO	AM	Overall LOS	A (0.1)											
		Approach LOS				C (15.6)			A (0.0)			A (0.0)		
		Storage												250
		50th Queue												
		95th Queue						25		0			0	0
	PM	Overall LOS	A (1.9)											
		Approach LOS				F (57.7)			A (0.0)			A (0.0)		
		Storage												250
		50th Queue												
		95th Queue						125		0			0	0

The proposed right-in, right-out only (RIRO) intersection of SR 54 at Driveway A (Intersection 5) is projected to operate at or above its overall LOS standards under the Projected 2032 Build conditions. The southbound approach is projected to operate at LOS F during the PM peak hour under the Projected 2032 Build conditions. Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway.

Per GDOT's Intersection Control Evaluation (ICE) Policy, an ICE analysis is required for the proposed driveway along SR 54. As Site Driveway A is a proposed right-in/right-out driveway, an ICE waiver can be submitted in lieu of a full ICE analysis. The ICE waiver for the proposed intersection of SR 54 at Site Driveway A is provided in **Appendix E**.

The following Build improvements (needed to serve the development traffic) are recommended (shown in blue on **Figure 8**):

- Construct a right-in/right-out only (RIRO) driveway with one (1) lane entering the site and one (1) lane exiting the site on the north leg (Proposed Driveway A) so that the southbound approach consists of one (1) right-turn lane under sidestreet stop-control
- Construct a dedicated westbound right-turn lane along SR 54

Note: The possible improvements at this intersection are pending GDOT approval.

5.6 *Tyrone Road at Proposed Driveway B (Intersection 6)*

Overall LOS Standard: D Approach LOS Standard: D			Tyrone Road Northbound			Tyrone Road Southbound			- Eastbound			Driveway B Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC	AM	Overall LOS	A (2.1)											
		Approach LOS	A (0)			A (1.8)						D (27.6)		
		Storage			150	210						200		
		50th Queue												
		95th Queue		0	0	25	0					25		25
	PM	Overall LOS	E (40.0)											
		Approach LOS	A (0)			A (0.5)						F (175.1)		
		Storage			150	210						200		
		50th Queue												
		95th Queue		0	0	25	0					400		25

The proposed intersection of Tyrone Road at Driveway B (Intersection 6) is projected to operate at or above its overall LOS standards under the Projected 2032 Build conditions during the AM peak hour. During the PM peak hour, the westbound approach and intersection overall is projected to operate at LOS F under the Projected 2032 Build conditions. Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway. Alternatively, a modern single-lane roundabout may be considered.

The following Build improvements (needed to serve the development traffic) are recommended (shown in blue on **Figure 8**):

- Construct a conventional full movement driveway with one (1) lane entering the site and two (2) lanes exiting the site on the east leg (Proposed Driveway B) so that the westbound approach consists of one (1) left-turn lane and one (1) right-turn lane under sidestreet stop-control
- Construct a dedicated northbound right-turn lane along Tyrone Road
- Construct a dedicated southbound left-turn lane along Tyrone Road
- Alternatively, consider installing a modern single-lane roundabout at the intersection

5.7 Flat Creek Trail at Proposed Driveway C (Intersection 7)

Overall LOS Standard: D Approach LOS Standard: D			Flat Creek Trail Northbound			Flat Creek Trail Southbound			- Eastbound			Driveway C* Westbound		
			L	T	R	L	T	R	L	T	R	L	T	R
2025 BUILD TWSC	AM	Overall LOS	A (0)											
		Approach LOS	A (0)			A (0)						A (0)		
		Storage												
		50th Queue												
		95th Queue		0	0	0	0						0	
	PM	Overall LOS	A (0)											
		Approach LOS	A (0)			A (0)						A (0)		
		Storage												
		50th Queue												
		95th Queue		0	0	0	0						0	

**Driveway C is currently envisioned as emergency access only. No project traffic was assigned to Driveway C in this study.*

The proposed intersection of Flat Creek Trail at Driveway C (Intersection 7) is anticipated to operate at an acceptable LOS overall and per approach under the Projected 2032 Build conditions.

The following Build improvements (needed to serve the development traffic) are recommended (shown in blue on **Figure 8**):

- Construct a conventional full movement driveway with one (1) lane entering the site and one (1) lane exiting the site on the east leg (Proposed Driveway C) so that the westbound approach consists of one (1) shared left/right-turn lane under sidestreet stop-control

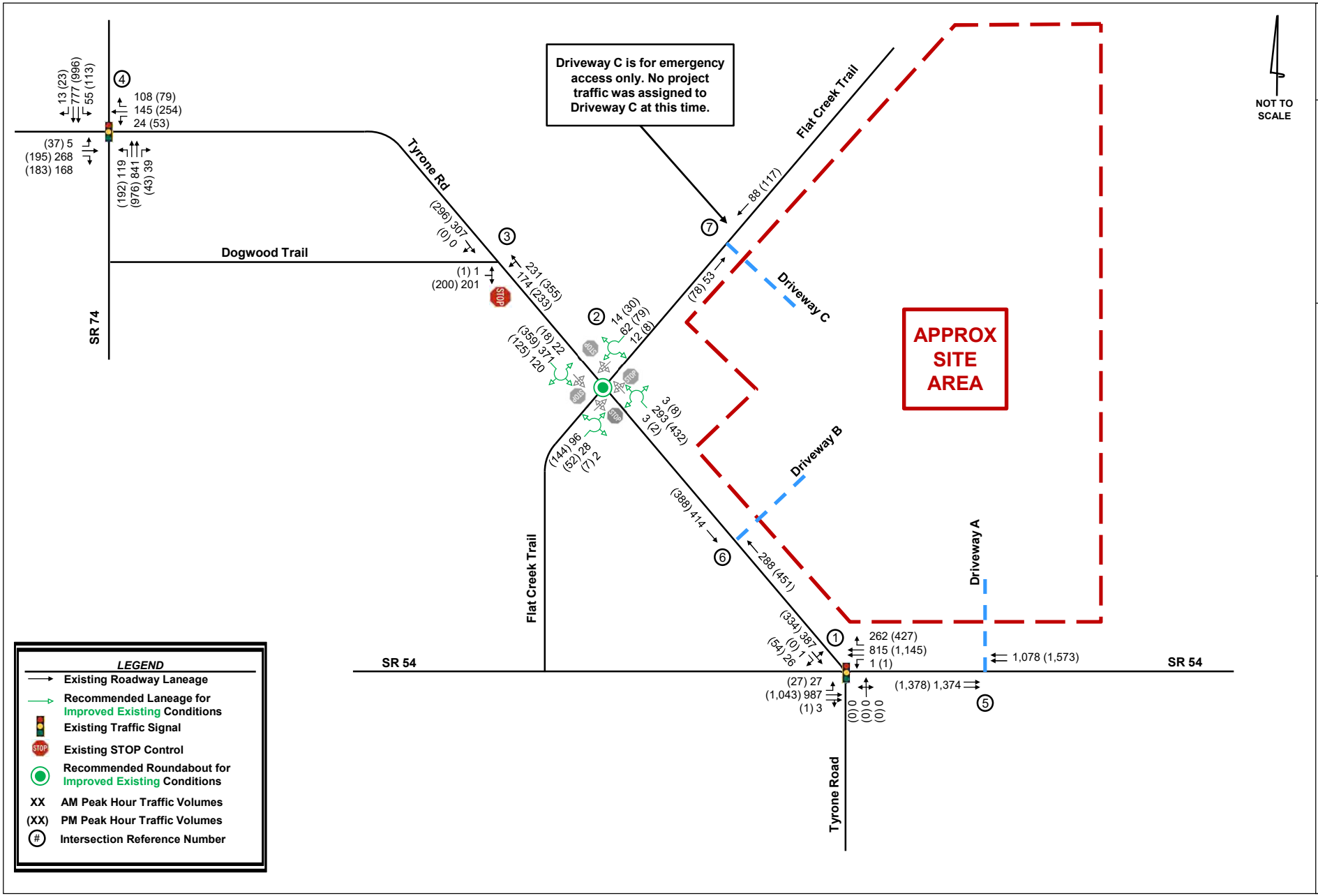


Figure 6

Existing 2022 Traffic Conditions

Project Excalibur DRI #3813 Transportation Analysis

Kimley»Horn

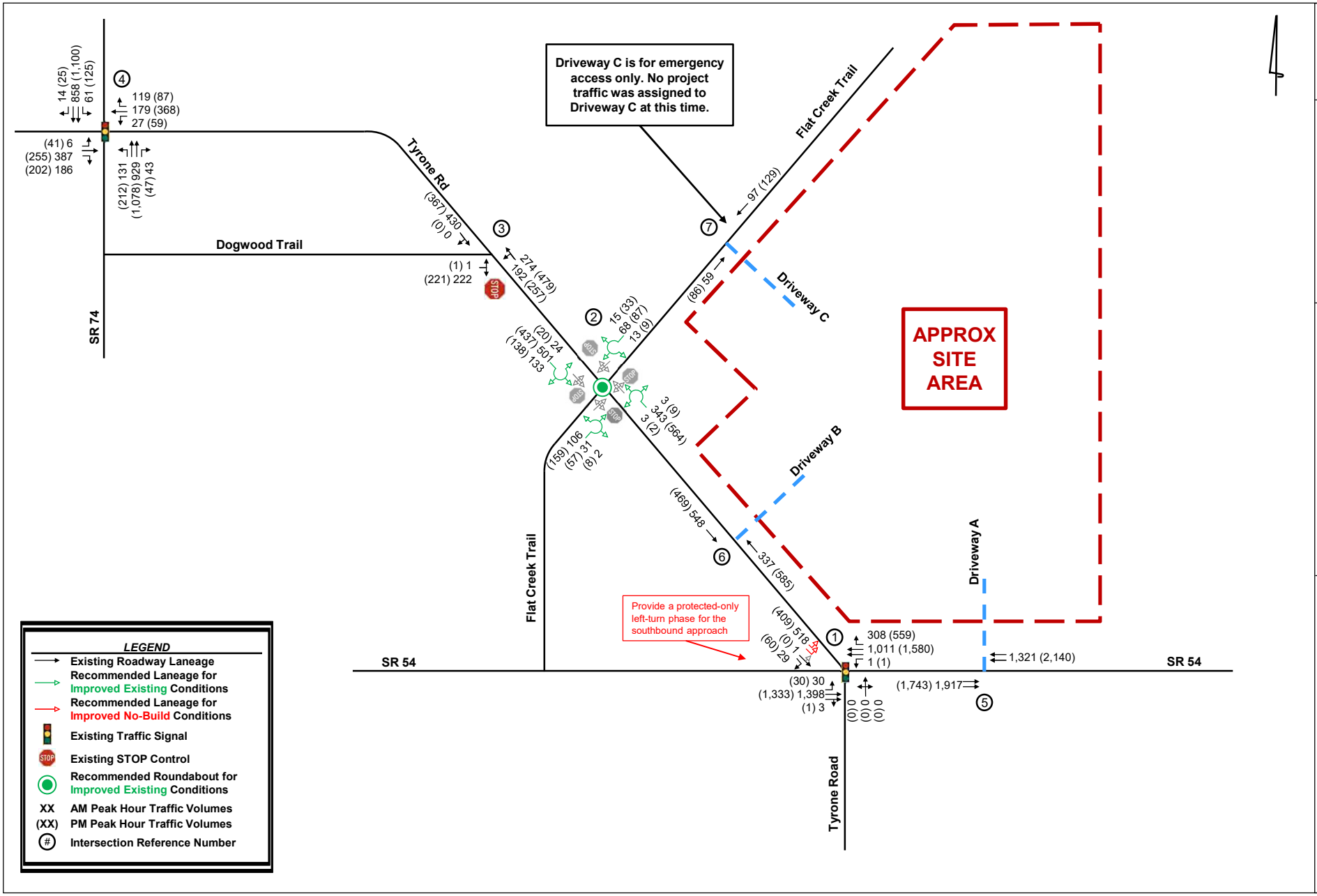


Figure 7

Projected 2032 No-Build Conditions

Project Excalibur DRI #3813 Transportation Analysis

Kimley»Horn

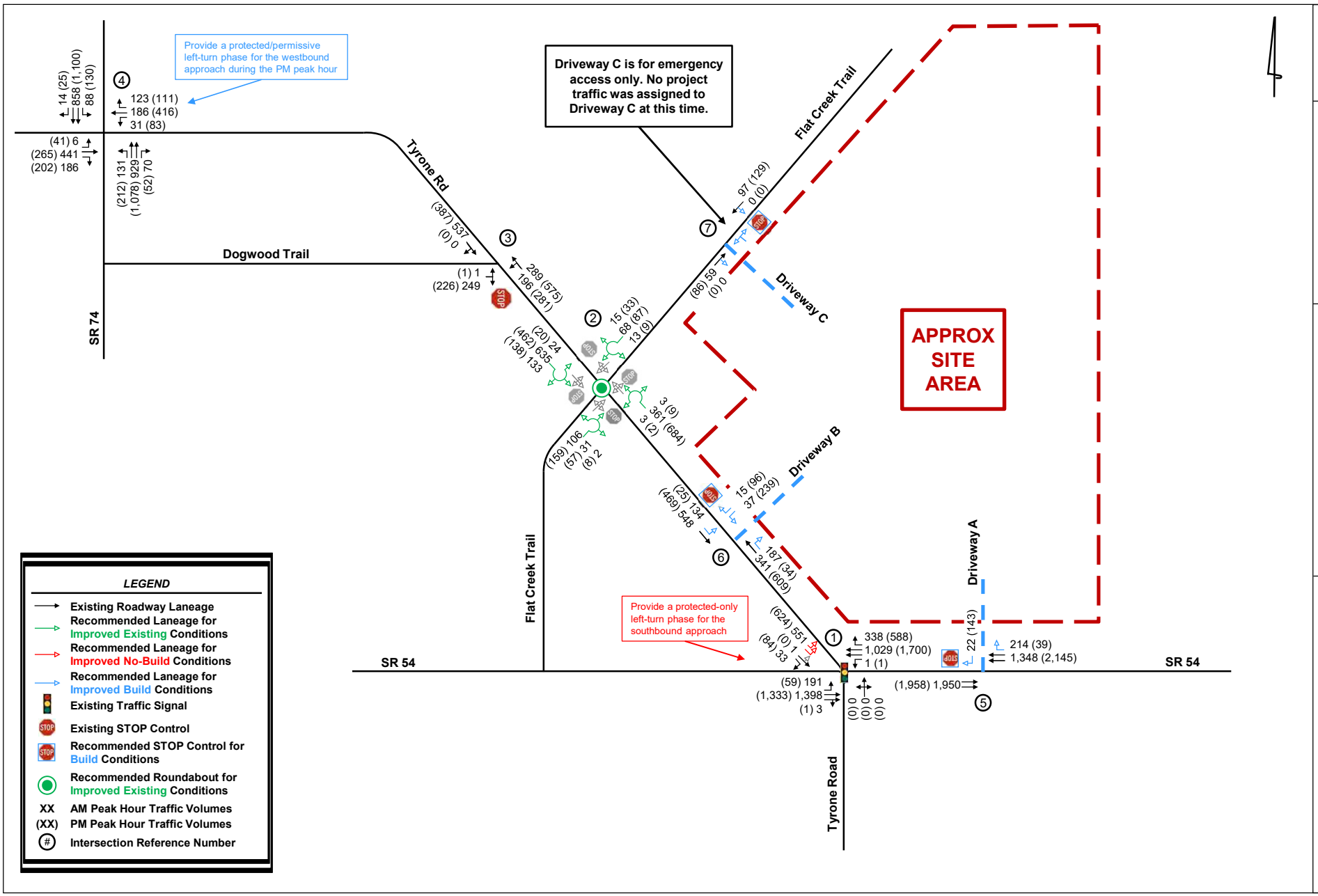


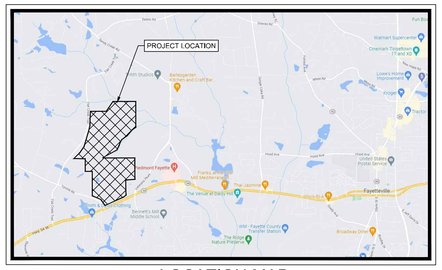
Figure 8

Projected 2032 Build Conditions

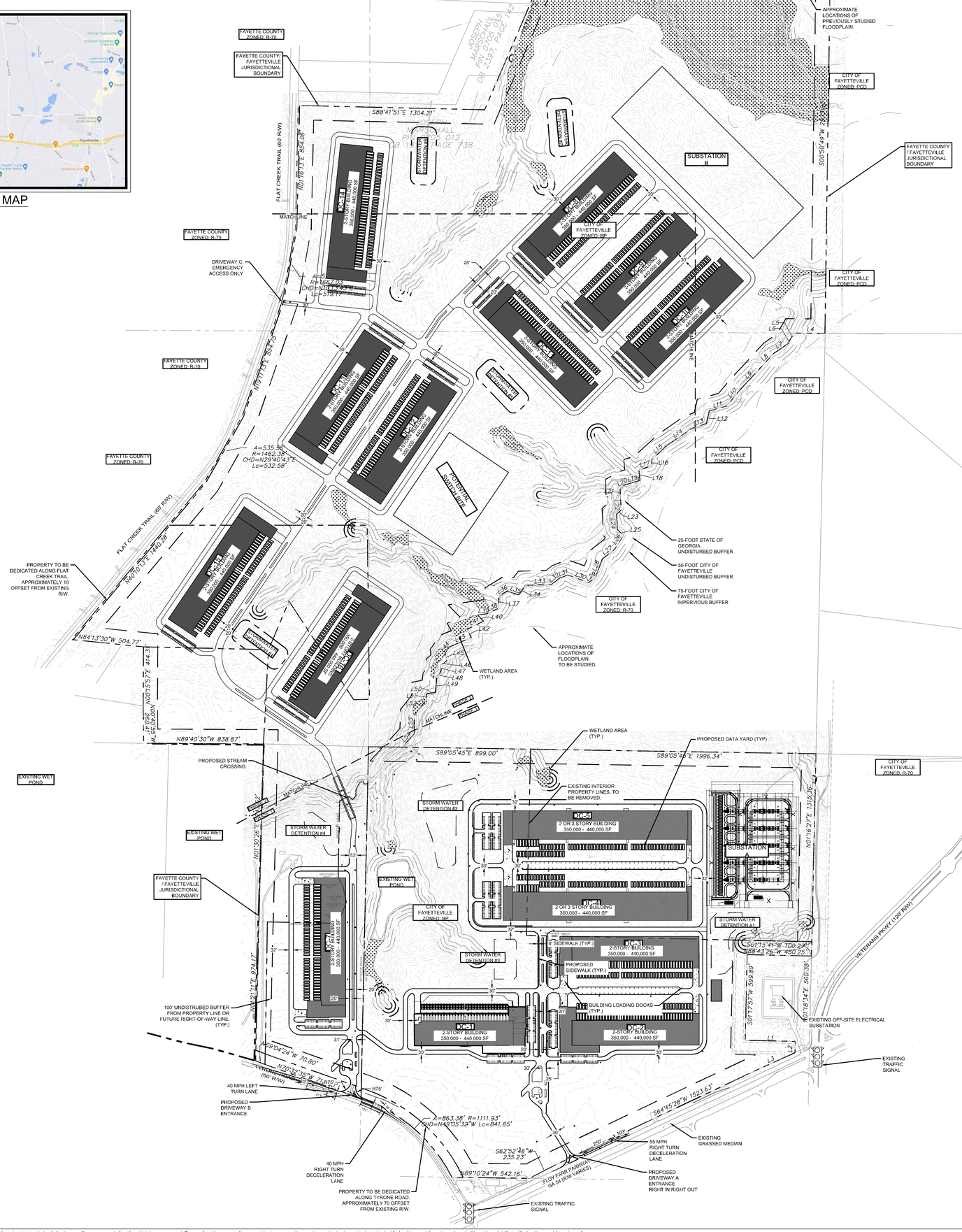
Project Excalibur DRI #3813 Transportation Analysis

Kimley»Horn

Appendix A – Proposed Site Plan



LOCATION MAP
N.T.S.



DEVELOPMENT SUMMARY:

SITE SUMMARY:

CURRENT ZONING:	BP	
SITE AREA:	615.36	ACRES
ROW DEDICATION (FLAT CREEK):	0.96	ACRES
ROW DEDICATION (TYRONE:	2.74	ACRES
ADJUSTED SITE AREA:	611.66	ACRES

LAND LOTS 23, 24, 25, 40, 41, and 42.
7th DISTRICT

ALL BUILDINGS ARE ASSUMED TO BE 2-STORIES. DC-4 & DC-5 MAY BE 3 STORIES.

EXISTING LAND USES:
SINGLE FAMILY HOME WITH AGRICULTURE

PROPOSED LAND USES & DENSITIES:
15 PROPOSED BUILDINGS INCLUDING:

DATA CENTER	6,600,000 SF
DATA CENTER OFFICE	400,000 SF

DENSITY: 11,444 SF PER ACRE
FLOOR AREA RATIO: 0.26

SITE PARKING:
MINIMUM REQUIREMENTS: 0 SPACES
MAXIMUM SPACES: AS ALLOWED BY MAXIMUM IMPERVIOUS ON-SITE.

PROVIDED SPACES: 1,420 TOTAL SPACES
DC-1 & DC-2: 150 SPACES PER BUILDING
DC-3 THROUGH DC-16: 80 SPACES PER BUILDING

SITE PLAN LEGEND:

- PROPERTY LINE
- 100 FT UNDISTURBED SETBACK
- HEAVY DUTY ASPHALT PAVEMENT
- HEAVY DUTY CONCRETE PAVEMENT
- EXISTING WETLANDS

SITE CONTACTS:

OWNER:
NATIONAL ACQUISITION COMPANY, LLC
12851 FOSTER STREET
OVERLAND PARK, KS 68213
CONTACT: CARTER CROMLEY
703.861.7245
CARTER.CROMLEY@QTSDATACENTERS.COM

CIVIL ENGINEER:
KIMLEY-HORN
11720 AMBER PARK DRIVE, SUITE 600
ALPHARETTA, GA 30009
CONTACT: JOSH REYNOLDS, P.E.
470.273.3265
JOSH.REYNOLDS@KIMLEY-HORN.COM

TRAFFIC ENGINEER:
KIMLEY-HORN
817 WEST PEACHTREE STREET NW
THE BILTMORE, SUITE 601
ATLANTA, GA 30308
CONTACT: MATT FLYNN, P.E.
404.900.7005
MATT.FLYNN@KIMLEY-HORN.COM

CORGAN

ISSUES

1	11/9/2022	DRI SITE PLAN

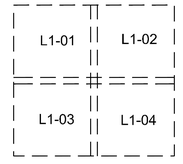
REVISIONS

Project Excalibur

GA HWY 54, Fayetteville, GA 30214

DRI #3813

KEYPLAN



Sheet Name

DRI OVERALL SITE PLAN

JOB 014828001
DATE 09/01/2022
SHEET C0-20

GRAPHIC SCALE IN FEET
0 150 300 600

GEORGIA811. Utility Protection Center, Inc. Know what's below. Call before you dig.

Drawing name: C:\Users\MICHAE~1.FRE\AppData\Local\Temp\AcPublish_12704\C0-20 - PRELIMINARY SITE PLANS.dwg C0-20 DRI OVERALL SITE PLAN Nov 09, 2022, 3:06pm by Michael.Frere


LOCATION MAP
N.T.S.
PROJECT LOCATION
APPROXIMATE LOCATIONS OF PREVIOUSLY STUDIED FLOODPLAIN.
FAYETTE COUNTY ZONED: C-S
FAYETTE COUNTY ZONED: R-70
FAYETTE COUNTY/ FAYETTEVILLE JURISDICTIONAL BOUNDARY
CITY OF FAYETTEVILLE ZONED: PCD
CITY OF FAYETTEVILLE ZONED: BP
CITY OF FAYETTEVILLE ZONED: R-70
SUBSTATION B
SUBSTATION A
DRIVEWAY C EMERGENCY ACCESS ONLY
PROPERTY TO BE DEDICATED ALONG FLAT CREEK TRAIL APPROXIMATELY 10 OFFSET FROM EXISTING R/W.
25-FOOT STATE OF GEORGIA UNDISTURBED BUFFER
50-FOOT CITY OF FAYETTEVILLE UNDISTURBED BUFFER
75-FOOT CITY OF FAYETTEVILLE IMPERVIOUS BUFFER
APPROXIMATE LOCATIONS OF FLOODPLAIN. TO BE STUDIED.
WETLAND AREA (TYP.)
PROPOSED DATA YARD (TYP)
PROPOSED STREAM CROSSING.
EXISTING WET POND
EXISTING INTERIOR PROPERTY LINES, TO BE REMOVED.
STORM WATER DETENTION #1
STORM WATER DETENTION #2
STORM WATER DETENTION #3
STORM WATER DETENTION #4
2 OR 3 STORY BUILDING 350,000 - 440,000 SF
2-STORY BUILDING 350,000 - 440,000 SF
8' SIDEWALK (TYP.)
PROPOSED SIDEWALK (TYP.)
BUILDING LOADING DOCKS (TYP.)
100' UNDISTRUBED BUFFER FROM PROPERTY LINE OR FUTURE RIGHT-OF-WAY LINE. (TYP.)
EXISTING OFF-SITE ELECTRICAL SUBSTATION
EXISTING TRAFFIC SIGNAL
40 MPH LEFT TURN LANE
PROPOSED DRIVEWAY B ENTRANCE
40 MPH RIGHT TURN DECELERATION LANE
PROPERTY TO BE DEDICATED ALONG TYRONE ROAD. APPROXIMATELY 70 OFFSET FROM EXISTING R/W.
55 MPH RIGHT TURN DECELERATION LANE
PROPOSED DRIVEWAY A ENTRANCE RIGHT IN RIGHT OUT
EXISTING GRASSED MEDIAN
MATCHLINE
GRAPHIC SCALE IN FEET
0 150 300 600

DEVELOPMENT SUMMARY:

SITE SUMMARY:

CURRENT ZONING: BP

SITE AREA: 615.36 ACRES
ROW DEDICATION (FLAT CREEK): 0.96 ACRES
ROW DEDICATION (TYRONE: 2.74 ACRES
ADJUSTED SITE AREA: 611.66 ACRES

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DATA CENTER 6,600,000 SF
DATA CENTER OFFICE 400,000 SF

DENSITY: 11,444 SF PER ACRE
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THE BILTMORE, SUITE 601
ATLANTA, GA 30308
CONTACT: MATT FLYNN, P.E.
404.900.7005
MATT.FLYNN@KIMLEY-HORN.COM

CORGAN

ISSUES

1	11/9/2022	DRI SITE PLAN

REVISIONS

Project Excalibur

GA HWY 54, Fayetteville, GA 30214

DRI #3813

KEYPLAN

L1-01	L1-02
L1-03	L1-04

GEORGIA811 Utilities Protection Center, Inc. Know what's below. Call before you dig.

Sheet Name

DRI OVERALL SITE PLAN

JOB 014828001
DATE 09/01/2022
SHEET
C0-20

Drawing name: C:\Users\MICHAE~1.FRE\AppData\Local\Temp\AcPublish_12704\C0-20 - PRELIMINARY SITE PLANS.dwg C0-20 DRI OVERALL SITE PLAN AERIAL Nov 09, 2022 3:09pm by: Michael Frere

Appendix B – Trip Generation Analysis

Trip Generation Analysis (11th Ed. With *2nd Edition Handbook* Daily IC & *3rd Edition* AM/PM IC)
Project Excalibur
Fayetteville, GA

Land Use	Setting	Density	Daily Trips			AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out	Total	In	Out
Proposed Project Trips											
710 General Office Building	General Urban/Suburban	400,000 Sq. Ft. GFA	4,336	2,168	2,168	608	535	73	576	98	478
Gross Project Trips			**4,336**	**2,168**	**2,168**	**608**	**535**	**73**	**576**	**98**	**478**
Mixed-Use Reductions - TOTAL			*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Alternative Mode Reductions - TOTAL			*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
Pass-By Reductions - TOTAL			*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
New Trips			**4,336**	**2,168**	**2,168**	**608**	**535**	**73**	**576**	**98**	**478**
Driveway Volumes											

Appendix C – Intersection Volume Worksheets

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #1

GA-54 Floy Farr Pkwy (West)/GA-54 Floy Farr Pkwy (East) at Tyrone Rd (South)/Tyrone Rd (North)

AM PEAK HOUR

	Tyrone Rd (South) Northbound				Tyrone Rd (North) Southbound				GA-54 Floy Farr Pkwy (West) Eastbound				GA-54 Floy Farr Pkwy (East) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	387	1	26	1	26	987	3	0	1	815	262
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	0	0	0	27	0	4	0	2	22	0	0	0	23	21
Heavy Vehicle %	2%	2%	2%	2%	2%	7%	2%	15%	2%	8%	2%	2%	2%	2%	3%	8%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**387**	**1**	**26**	**1**	**26**	**987**	**3**	**0**	**1**	**815**	**262**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	0	0	0	40	0	3	0	3	103	0	0	0	85	27
Trilith DRI #3776 Project Trips						91					308				111	19
Total Approved Development Trips	0	0	0	0	0	91	0	0	0	0	308	0	0	0	111	19
2032 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**518**	**1**	**29**	**1**	**29**	**1,398**	**3**	**0**	**1**	**1,011**	**308**
2032 No-Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**7%**	**2%**	**15%**	**2%**	**8%**	**2%**	**2%**	**2%**	**2%**	**3%**	**8%**
Trip Distribution IN						5%				5%	25%					5%
Trip Distribution OUT						(45%)		(5%)							(25%)	(5%)
Balancing Adjustment																
Office Trips	0	0	0	0	0	60	0	4	0	27	134	0	0	0	18	30
Total Primary Site Trips	0	0	0	0	0	60	0	4	0	27	134	0	0	0	18	30
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	60	0	4	0	27	134	0	0	0	18	30
2032 Build Traffic	**0**	**0**	**0**	**0**	**0**	**578**	**1**	**33**	**1**	**56**	**1,532**	**3**	**0**	**1**	**1,029**	**338**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**7%**	**2%**	**15%**	**2%**	**8%**	**2%**	**2%**	**2%**	**2%**	**3%**	**8%**

PM PEAK HOUR

	Tyrone Rd (South) Northbound				Tyrone Rd (North) Southbound				GA-54 Floy Farr Pkwy (West) Eastbound				GA-54 Floy Farr Pkwy (East) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	334	0	54	3	24	1,043	1	1	0	1,145	427
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	0	0	0	5	0	2	1	1	12	0	0	0	13	4
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	4%	33%	4%	2%	2%	2%	2%	2%	2%
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	0.97	0.97	0.97	0.97
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**334**	**0**	**54**	**3**	**24**	**1,043**	**1**	**1**	**0**	**1,145**	**427**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	0	0	0	35	0	6	0	3	109	0	0	0	120	45
Trilith DRI #3776 Project Trips						40					181				315	87
Total Approved Development Trips	0	0	0	0	0	40	0	0	0	0	181	0	0	0	315	87
2032 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**409**	**0**	**60**	**3**	**27**	**1,333**	**1**	**1**	**0**	**1,580**	**559**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN						5%				5%	25%					5%
Trip Distribution OUT						(45%)		(5%)							(25%)	(5%)
Balancing Adjustment																
Office Trips	0	0	0	0	0	220	0	24	0	5	25	0	0	0	120	29
Total Primary Site Trips	0	0	0	0	0	220	0	24	0	5	25	0	0	0	120	29
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	220	0	24	0	5	25	0	0	0	120	29
2032 Build Traffic	**0**	**0**	**0**	**0**	**0**	**629**	**0**	**84**	**3**	**32**	**1,358**	**1**	**1**	**0**	**1,700**	**588**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**4%**	**33%**	**4%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #2

Flat Creek Trail (South)/Flat Creek Trail (North) at Tyrone Rd (East)/Tyrone Rd (West)

AM PEAK HOUR

	Tyrone Rd (East) Northbound				Tyrone Rd (West) Southbound				Flat Creek Trail (South) Eastbound				Flat Creek Trail (North) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	3	293	3	0	22	371	120	0	96	28	2	0	12	62	14
Pedestrians			0				0				0				0	
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	24	0	0	0	34	2	0	2	0	2	0	0	0	0
Heavy Vehicle %	2%	2%	8%	2%	2%	2%	9%	2%	2%	2%	2%	100%	2%	2%	2%	2%
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	0.97	0.97	0.97	0.97
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**3**	**293**	**3**	**0**	**22**	**371**	**120**	**0**	**96**	**28**	**2**	**0**	**12**	**62**	**14**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	31	0	0	2	39	13	0	10	3	0	0	1	6	1
Trilith DRI #3776 Project Trips			19				91									
Total Approved Development Trips	0	0	19	0	0	0	91	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**3**	**343**	**3**	**0**	**24**	**501**	**133**	**0**	**106**	**31**	**2**	**0**	**13**	**68**	**15**
2032 No-Build Heavy Vehicle %	**2%**	**2%**	**8%**	**2%**	**2%**	**2%**	**9%**	**2%**	**2%**	**2%**	**2%**	**100%**	**2%**	**2%**	**2%**	**2%**
Trip Distribution IN							25%									
Trip Distribution OUT			(25%)													
Balancing Adjustment																
Office Trips	0	0	18	0	0	0	134	0	0	0	0	0	0	0	0	0
Total Primary Site Trips	0	0	18	0	0	0	134	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	18	0	0	0	134	0	0	0	0	0	0	0	0	0
2032 Build Traffic	**0**	**3**	**361**	**3**	**0**	**24**	**635**	**133**	**0**	**106**	**31**	**2**	**0**	**13**	**68**	**15**
2032 Build Heavy Vehicle %	**2%**	**2%**	**8%**	**2%**	**2%**	**2%**	**9%**	**2%**	**2%**	**2%**	**2%**	**100%**	**2%**	**2%**	**2%**	**2%**

PM PEAK HOUR

	Tyrone Rd (East) Northbound				Tyrone Rd (West) Southbound				Flat Creek Trail (South) Eastbound				Flat Creek Trail (North) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	2	432	8	0	18	359	125	0	144	52	7	0	8	79	30
Pedestrians			0				0				0				0	
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	3	0	0	1	6	1	0	2	1	1	0	0	2	0
Heavy Vehicle %	2%	2%	2%	2%	2%	6%	2%	2%	2%	2%	2%	14%	2%	2%	3%	2%
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**2**	**432**	**8**	**0**	**18**	**359**	**125**	**0**	**144**	**52**	**7**	**0**	**8**	**79**	**30**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	45	1	0	2	38	13	0	15	5	1	0	1	8	3
Trilith DRI #3776 Project Trips			87				40									
Total Approved Development Trips	0	0	87	0	0	0	40	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**2**	**564**	**9**	**0**	**20**	**437**	**138**	**0**	**159**	**57**	**8**	**0**	**9**	**87**	**33**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN							25%									
Trip Distribution OUT			(25%)													
Balancing Adjustment																
Office Trips	0	0	120	0	0	0	25	0	0	0	0	0	0	0	0	0
Total Primary Site Trips	0	0	120	0	0	0	25	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	120	0	0	0	25	0	0	0	0	0	0	0	0	0
2032 Build Traffic	**0**	**2**	**684**	**9**	**0**	**20**	**462**	**138**	**0**	**159**	**57**	**8**	**0**	**9**	**87**	**33**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**6%**	**2%**	**2%**	**2%**	**2%**	**2%**	**14%**	**2%**	**2%**	**3%**	**2%**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #3

Dogwood Trail at Tyrone Rd (East)/Tyrone Rd (West)

AM PEAK HOUR

	Tyrone Rd (East) Northbound				Tyrone Rd (West) Southbound				Dogwood Trail Eastbound				Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	174	231	0	0	0	307	0	0	1	0	201	0	0	0	0
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	14	12	0	0	0	20	0	0	0	0	19	0	0	0	0
Heavy Vehicle %	2%	8%	5%	2%	2%	2%	7%	2%	2%	2%	2%	9%	2%	2%	2%	2%
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**174**	**231**	**0**	**0**	**0**	**307**	**0**	**0**	**1**	**0**	**201**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	18	24	0	0	0	32	0	0	0	0	21	0	0	0	0
Trilith DRI #3776 Project Trips			19				91									
Total Approved Development Trips	0	0	19	0	0	0	91	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**192**	**274**	**0**	**0**	**0**	**430**	**0**	**0**	**1**	**0**	**222**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**2%**	**8%**	**5%**	**2%**	**2%**	**2%**	**7%**	**2%**	**2%**	**2%**	**2%**	**9%**	**2%**	**2%**	**2%**	**2%**
Trip Distribution IN							20%					5%				
Trip Distribution OUT		(5%)	(20%)													
Balancing Adjustment																
Office Trips	0	4	15	0	0	0	107	0	0	0	0	27	0	0	0	0
Total Primary Site Trips	0	4	15	0	0	0	107	0	0	0	0	27	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	4	15	0	0	0	107	0	0	0	0	27	0	0	0	0
2032 Build Traffic	**0**	**196**	**289**	**0**	**0**	**0**	**537**	**0**	**0**	**1**	**0**	**249**	**0**	**0**	**0**	**0**
2032 Build Heavy Vehicle %	**2%**	**8%**	**5%**	**2%**	**2%**	**2%**	**7%**	**2%**	**2%**	**2%**	**2%**	**9%**	**2%**	**2%**	**2%**	**2%**

PM PEAK HOUR

	Tyrone Rd (East) Northbound				Tyrone Rd (West) Southbound				Dogwood Trail Eastbound				Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	233	355	0	0	0	296	0	0	1	0	200	0	0	0	0
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	3	9	0	0	0	6	0	0	0	0	4	0	0	0	0
Heavy Vehicle %	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**233**	**355**	**0**	**0**	**0**	**296**	**0**	**0**	**1**	**0**	**200**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	24	37	0	0	0	31	0	0	0	0	21	0	0	0	0
Trilith DRI #3776 Project Trips			87				40									
Total Approved Development Trips	0	0	87	0	0	0	40	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**257**	**479**	**0**	**0**	**0**	**367**	**0**	**0**	**1**	**0**	**221**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN							20%					5%				
Trip Distribution OUT		(5%)	(20%)													
Balancing Adjustment																
Office Trips	0	24	96	0	0	0	20	0	0	0	0	5	0	0	0	0
Total Primary Site Trips	0	24	96	0	0	0	20	0	0	0	0	5	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		24	96	0	0	0	20	0	0	0	0	5	0	0	0	0
2032 Build Traffic	**0**	**281**	**575**	**0**	**0**	**0**	**387**	**0**	**0**	**1**	**0**	**226**	**0**	**0**	**0**	**0**
2032 Build Heavy Vehicle %	**2%**	**2%**	**3%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #4

Tyrone Rd (West)/Tyrone Rd (East) at GA-74 Joel Cowan Pkwy (South)/GA-74 Joel Cowan Pkwy (North)

AM PEAK HOUR

	GA-74 Joel Cowan Pkwy (South) Northbound				GA-74 Joel Cowan Pkwy (North) Southbound				Tyrone Rd (West) Eastbound				Tyrone Rd (East) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	1	118	841	39	0	55	777	13	0	5	268	168	0	24	145	108
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	9	55	0	0	4	86	3	0	1	11	8	0	0	6	9
Heavy Vehicle %	2%	8%	7%	2%	2%	7%	11%	23%	2%	20%	4%	5%	2%	2%	4%	8%
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**1**	**118**	**841**	**39**	**0**	**55**	**777**	**13**	**0**	**5**	**268**	**168**	**0**	**24**	**145**	**108**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	12	88	4	0	6	81	1	0	1	28	18	0	3	15	11
Trilith DRI #3776 Project Trips											91				19	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	91	0	0	0	19	0
2032 No-Build Traffic	**1**	**130**	**929**	**43**	**0**	**61**	**858**	**14**	**0**	**6**	**387**	**186**	**0**	**27**	**179**	**119**
2032 No-Build Heavy Vehicle %	**2%**	**8%**	**7%**	**2%**	**2%**	**7%**	**11%**	**23%**	**2%**	**20%**	**4%**	**5%**	**2%**	**2%**	**4%**	**8%**
Trip Distribution IN				5%		5%					10%					
Trip Distribution OUT														(5%)	(10%)	(5%)
Balancing Adjustment																
Office Trips	0	0	0	27	0	27	0	0	0	0	54	0	0	4	7	4
Total Primary Site Trips	0	0	0	27	0	27	0	0	0	0	54	0	0	4	7	4
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	27	0	27	0	0	0	0	54	0	0	4	7	4
2032 Build Traffic	**1**	**130**	**929**	**70**	**0**	**88**	**858**	**14**	**0**	**6**	**441**	**186**	**0**	**31**	**186**	**123**
2032 Build Heavy Vehicle %	**2%**	**8%**	**7%**	**2%**	**2%**	**7%**	**11%**	**23%**	**2%**	**20%**	**4%**	**5%**	**2%**	**2%**	**4%**	**8%**

PM PEAK HOUR

	GA-74 Joel Cowan Pkwy (South) Northbound				GA-74 Joel Cowan Pkwy (North) Southbound				Tyrone Rd (West) Eastbound				Tyrone Rd (East) Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	1	191	976	43	3	110	996	23	0	37	195	183	0	53	254	79
Pedestrians		0				0				0				0		
Conflicting Pedestrians		0		0		0		0		0		0		0		0
Heavy Vehicles	0	0	34	0	0	2	33	1	0	0	5	2	0	0	5	1
Heavy Vehicle %	2%	2%	3%	2%	2%	2%	3%	4%	2%	2%	3%	2%	2%	2%	2%	2%
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	0.95	0.95	0.95	0.95
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**1**	**191**	**976**	**43**	**3**	**110**	**996**	**23**	**0**	**37**	**195**	**183**	**0**	**53**	**254**	**79**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	20	102	4	0	12	104	2	0	4	20	19	0	6	27	8
Trilith DRI #3776 Project Trips											40				87	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	40	0	0	0	87	0
2032 No-Build Traffic	**1**	**211**	**1,078**	**47**	**3**	**122**	**1,100**	**25**	**0**	**41**	**255**	**202**	**0**	**59**	**368**	**87**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN				5%		5%					10%					
Trip Distribution OUT														(5%)	(10%)	(5%)
Balancing Adjustment																
Office Trips	0	0	0	5	0	5	0	0	0	0	10	0	0	24	48	24
Total Primary Site Trips	0	0	0	5	0	5	0	0	0	0	10	0	0	24	48	24
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	5	0	5	0	0	0	0	10	0	0	24	48	24
2032 Build Traffic	**1**	**211**	**1,078**	**52**	**3**	**127**	**1,100**	**25**	**0**	**41**	**265**	**202**	**0**	**83**	**416**	**111**
2032 Build Heavy Vehicle %	**2%**	**2%**	**3%**	**2%**	**2%**	**2%**	**3%**	**4%**	**2%**	**2%**	**3%**	**2%**	**2%**	**2%**	**2%**	**2%**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #5

SR 54 at Proposed Driveway A

AM PEAK HOUR

	Northbound				Proposed Driveway A Southbound				SR 54 Eastbound				SR 54 Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	0	0	0	0	1,374	0	0	0	1,078	0
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles											49				44	
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	4%	2%	2%	2%	4%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,374**	**0**	**0**	**0**	**1,078**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	0	0	0	0	0	0	0	0	144	0	0	0	113	0
Trilith DRI #3776 Project Trips											399				130	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	399	0	0	0	130	0
2032 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,917**	**0**	**0**	**0**	**1,321**	**0**
2032 No-Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**4%**	**2%**	**2%**	**2%**	**4%**	**2%**
Trip Distribution IN										30%					5%	40%
Trip Distribution OUT								(30%)			(45%)					
Balancing Adjustment																
Office Trips	0	0	0	0	0	0	0	22	0	161	33	0	0	0	27	214
Total Primary Site Trips	0	0	0	0	0	0	0	22	0	161	33	0	0	0	27	214
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	0	0	22	0	161	33	0	0	0	27	214
2032 Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**22**	**0**	**161**	**1,950**	**0**	**0**	**0**	**1,348**	**214**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**4%**	**2%**	**2%**	**2%**	**4%**	**2%**

PM PEAK HOUR

	Northbound				Proposed Driveway A Southbound				SR 54 Eastbound				SR 54 Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes											1,378				1,573	
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles											17				17	
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,378**	**0**	**0**	**0**	**1,573**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	0	0	0	0	0	0	0	0	144	0	0	0	165	0
Trilith DRI #3776 Project Trips											221				402	
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	221	0	0	0	402	0
2032 No-Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**1,743**	**0**	**0**	**0**	**2,140**	**0**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN										30%					5%	40%
Trip Distribution OUT								(30%)			(45%)					
Balancing Adjustment																
Office Trips	0	0	0	0	0	0	0	143	0	29	215	0	0	0	5	39
Total Primary Site Trips	0	0	0	0	0	0	0	143	0	29	215	0	0	0	5	39
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	0	0	143	0	29	215	0	0	0	5	39
2032 Build Traffic	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**143**	**0**	**29**	**1,958**	**0**	**0**	**0**	**2,145**	**39**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

INTERSECTION VOLUME DEVELOPMENT

INTERSECTION #6

Proposed Driveway B at Tyrone Road

AM PEAK HOUR

	Tyrone Road Northbound				Tyrone Road Southbound				Eastbound				Proposed Driveway B Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	288	0	0	0	414	0	0	0	0	0	0	0	0	0
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles			23				31									
Heavy Vehicle %	2%	2%	8%	2%	2%	2%	7%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**288**	**0**	**0**	**0**	**414**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	30	0	0	0	43	0	0	0	0	0	0	0	0	0
Trilith DRI #3776 Project Trips			19				91									
Total Approved Development Trips	0	0	19	0	0	0	91	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**0**	**337**	**0**	**0**	**0**	**548**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**2%**	**2%**	**8%**	**2%**	**2%**	**2%**	**7%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**
Trip Distribution IN				10%		20%	5%									
Trip Distribution OUT			(5%)											(50%)		(20%)
Balancing Adjustment																
Office Trips	0	0	4	54	0	107	27	0	0	0	0	0	0	37	0	15
Total Primary Site Trips	0	0	4	54	0	107	27	0	0	0	0	0	0	37	0	15
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	4	54	0	107	27	0	0	0	0	0	0	37	0	15
2032 Build Traffic	**0**	**0**	**341**	**54**	**0**	**107**	**575**	**0**	**0**	**0**	**0**	**0**	**0**	**37**	**0**	**15**
2032 Build Heavy Vehicle %	**2%**	**2%**	**8%**	**2%**	**2%**	**2%**	**7%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

PM PEAK HOUR

	Tyrone Road Northbound				Tyrone Road Southbound				Eastbound				Proposed Driveway B Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes			451				388									
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles			5				7									
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**451**	**0**	**0**	**0**	**388**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	47	0	0	0	41	0	0	0	0	0	0	0	0	0
Trilith DRI #3776 Project Trips			87				40									
Total Approved Development Trips	0	0	87	0	0	0	40	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**0**	**585**	**0**	**0**	**0**	**469**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN				10%		20%	5%									
Trip Distribution OUT			(5%)											(50%)		(20%)
Balancing Adjustment																
Office Trips	0	0	24	10	0	20	5	0	0	0	0	0	0	239	0	96
Total Primary Site Trips	0	0	24	10	0	20	5	0	0	0	0	0	0	239	0	96
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	24	10	0	20	5	0	0	0	0	0	0	239	0	96
2032 Build Traffic	**0**	**0**	**609**	**10**	**0**	**20**	**474**	**0**	**0**	**0**	**0**	**0**	**0**	**239**	**0**	**96**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

INTERSECTION VOLUME DEVELOPMENT
INTERSECTION #7
Proposed Driveway C at Flat Creek Trail

AM PEAK HOUR

	Flat Creek Trail Northbound				Flat Creek Trail Southbound				Eastbound				Proposed Driveway C Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	53	0	0	0	88	0	0	0	0	0	0	0	0	0
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles			0				0									
Heavy Vehicle %	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**53**	**0**	**0**	**0**	**88**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	6	0	0	0	9	0	0	0	0	0	0	0	0	0
Trilith DRI #3776 Project Trips																
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**0**	**59**	**0**	**0**	**0**	**97**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**
Trip Distribution IN																
Trip Distribution OUT																
Balancing Adjustment																
Office Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Primary Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2032 Build Traffic	**0**	**0**	**59**	**0**	**0**	**0**	**97**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 Build Heavy Vehicle %	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

PM PEAK HOUR

	Flat Creek Trail Northbound				Flat Creek Trail Southbound				0 Eastbound				Proposed Driveway C Westbound			
	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right	U-Turn	Left	Through	Right
Observed 2022 Traffic Volumes			78				117									
Pedestrians																
Conflicting Pedestrians																
Heavy Vehicles			2				2									
Heavy Vehicle %	2%	2%	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Peak Hour Factor																
Adjustment Factor	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Adjusted 2022 Volumes	**0**	**0**	**78**	**0**	**0**	**0**	**117**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Growth Factor	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Background Growth Trips	0	0	8	0	0	0	12	0	0	0	0	0	0	0	0	0
Trilith DRI #3776 Project Trips																
Total Approved Development Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2032 No-Build Traffic	**0**	**0**	**86**	**0**	**0**	**0**	**129**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 No-Build Heavy Vehicle %	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Trip Distribution IN																
Trip Distribution OUT																
Balancing Adjustment																
Office Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Primary Site Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pass-By Trips	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Vehicular Project Trips		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2032 Build Traffic	**0**	**0**	**86**	**0**	**0**	**0**	**129**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2032 Build Heavy Vehicle %	**2%**	**2%**	**3%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**	**2%**

Appendix D – Programmed Project Factsheets

FA-353

Atlanta Region's Plan RTP (2020) PROJECT FACT SHEET

Short Title	FAYETTEVILLE MULTI-USE BRIDGE AND PATHS
GDOT Project No.	0012878
Federal ID No.	N/A
Status	Programmed
Service Type	Last Mile Connectivity / Sidepaths and Trails
Sponsor	Fayette County
Jurisdiction	Fayette County
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**		**Corridor Length**	0.8 miles

Detailed Description and Justification

This project is for the design and construction of a multi-use bridge over SR 54 near the hospital in Fayetteville. The project also include multi-use path construction that connects the bridge to subdivisions, healthcare facilities, schools, retirement communities, and shopping/restuarant plazas. The path system is part of a larger effort by Fayetteville to expand bicycle, pedestrian and golf-cart mobility.

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
PE	TAP - Urban (>200K) (ARC)	AUTH	2014	**$936,250**	~~$749,000~~	~~$0,000~~	~~$0,000~~	~~$187,250~~
PE	TAP - Urban (>200K) (ARC)	AUTH	2016	**$400,000**	~~$320,000~~	~~$0,000~~	~~$0,000~~	~~$80,000~~
ROW	Transportation Alternatives (Section 133(h)) - Urban (>200K) (ARC)	AUTH	2017	**$840,000**	~~$672,000~~	~~$0,000~~	~~$0,000~~	~~$168,000~~
UTL	Local Jurisdiction/Municipality Funds	AUTH	2021	**$100,000**	~~$0,000~~	~~$0,000~~	~~$0,000~~	~~$100,000~~
CST	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2021	**$3,547,600**	~~$2,838,080~~	~~$0,000~~	~~$0,000~~	~~$709,520~~
CST	Transportation Alternatives (Section 133(h)) - Urban (>200K) (ARC)		2022	**$652,400**	$521,920	$0,000	$0,000	$130,480
				$6,476,250	**$5,101,000**	**$0,000**	**$0,000**	**$1,375,250**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
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.

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FA-100C

Atlanta Region's Plan RTP (2020) PROJECT FACT SHEET

Short Title	FAYETTE COUNTY RESURFACING PROGRAM - PHASE 2 AT VARIOUS SEGMENTS IN FAYETTE COUNTY
GDOT Project No.	0017812
Federal ID No.	N/A
Status	Programmed
Service Type	Roadway / Maintenance
Sponsor	Fayette County
Jurisdiction	Fayette County
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**		**Corridor Length**	12.39 miles

Detailed Description and Justification

This project will resurface the following corridors within Fayette County:

85 Connector (from SR 85 to Woods Road)
New Hope Road (from SR 92 to City Limit)
Jimmy Mayfield Blvd (from SR 92 to S. Jeff Davis Drive)
S. Jeff Davis Drive (from Jimmy Mayfield to N. Jeff Davis Drive)
Huddleston Road (from SR 54 to Dividend Drive)
Kelly Drive (From SR 74 to Planterra Way)
McIntosh Trail (Peachtree Parkway to Robinson Road)
Ebenezer Road (Robinson Road to City Limit)
Dogwood Trail (from Senoia Road to Farr 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	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2021	**$224,274**	~~$179,419~~	~~$0,000~~	~~$0,000~~	~~$44,855~~
CST	Local Jurisdiction/Municipality Funds		2022	**$2,658,348**	$0,000	$0,000	$0,000	$2,658,348
				$2,882,622	**$179,419**	**$0,000**	**$0,000**	**$2,703,203**

SCP: Scoping PE: Preliminary engineering / engineering / design / planning PE-OV: GDOT oversight services for engineering ROW: Right-of-way Acquistion
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.

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FS-AR-182

Atlanta Region's Plan RTP (2020) PROJECT FACT SHEET

Short Title	I-85 SOUTH INTERCHANGE IMPROVEMENTS AT SR 74 (SENOIA ROAD)
GDOT Project No.	0007841
Federal ID No.	CSNHS-0007-00(841)
Status	Programmed
Service Type	Roadway / Interchange Capacity
Sponsor	City of Fairburn
Jurisdiction	Regional - Southwest
Analysis Level	In the Region's Air Quality Conformity Analysis

Existing Thru Lane	Var	**LCI**	
Planned Thru Lane	Var	**Flex**	

Network Year	2030
Corridor Length	0.4 miles

Detailed Description and Justification

This is an interchange reconstruction to reduce congestion and provide capacity to the I-85 @ SR 74. The project involves adding turn lanes at the ends of the exit ramps and widening the SR 74 bridge to include turn lanes. The interchange will be a partial cloverleaf design as recommended in the Interchange Modification Report (IMR).

Phase Status & Funding Information		Status	FISCAL YEAR	TOTAL PHASE COST	BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE			
					FEDERAL	STATE	BONDS	LOCAL/PRIVATE
SCP	National Highway System	AUTH	2011	**$50,000**	~~$40,000~~	~~$10,000~~	~~$0,000~~	~~$0,000~~
PE	National Highway System	AUTH	2012	**$1,463,377**	~~$1,170,702~~	~~$292,675~~	~~$0,000~~	~~$0,000~~
PE	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2016	**$852,000**	~~$681,600~~	~~$170,400~~	~~$0,000~~	~~$0,000~~
PE	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2017	**$187,500**	~~$150,000~~	~~$37,500~~	~~$0,000~~	~~$0,000~~
PE	Surface Transportation Block Grant (STBG) Program - Urban (>200K) (ARC)	AUTH	2021	**$574,966**	~~$459,973~~	~~$114,993~~	~~$0,000~~	~~$0,000~~
ROW	National Highway Performance Program (NHPP)	AUTH	2019	**$16,693,863**	~~$13,355,090~~	~~$3,338,773~~	~~$0,000~~	~~$0,000~~
ROW	National Highway Performance Program (NHPP)	AUTH	2020	**$13,666,137**	~~$10,932,910~~	~~$2,733,227~~	~~$0,000~~	~~$0,000~~
UTL	National Highway Performance Program (NHPP)		2024	**$382,347**	$305,878	$76,469	$0,000	$0,000

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

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CST	Highway Infrastructure – COVID Supplemental – 23 U.S.C. 133(b) activities in urbanized areas with a population > 200,000 (Z972)		2024	**$9,102,672**	$9,102,672	$0,000	$0,000	$0,000
CST	National Highway Performance Program (NHPP)		2024	**$46,515,125**	$37,212,100	$9,303,025	$0,000	$0,000
				$89,487,987	**$73,410,925**	**$16,077,062**	**$0,000**	**$0,000**

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

PROJECT LOCATION
I-85 at SR 74
Interchange Modification

PROJECT CSNHS-0007-00(841)
FULTON COUNTY, GA

N

Appendix E – Intersection Control Evaluation (ICE) Waiver

GDOT INTERSECTION CONTROL EVALUATION (ICE) WAIVER FORM

ICE Version 2.22 | Revised 5/6/2022

Waiver Request - Level 2 / 3

In certain circumstances where an ICE would otherwise be required, an ICE may be waived based on appropriate evidence presented with a written request. Scenarios in which an ICE waiver request may be considered include:

1. Proposed improvements do not substantially alter the character of the intersection, and are considered minor in nature, such as extending existing turn lane(s) or modifying signal phasing at an existing traffic signal
2. The intersection consists of a public roadway intersecting a divided, multilane roadway where the access will be limited to a closed median with only right-in/right-out access that will operate acceptably; or
3. The intersection is along an undivided, two-lane roadway that will not be widened and meets the following criteria:
   - Low risk in terms of exposure (total intersection entering volume less than 1,000 vehicles /day)
   - Latest 5 years of crash history is not indicative of a crash problem (no discernible crash patterns coupled with low crash frequency and severity)
   - Layout has no unusual or undesirable geometric features (such as restricted sight distance)
   - The proposed changes are not expected to adversely affect safety

If only one alternative is determined to be feasible from the ICE Stage 1, then a waiver may be submitted in lieu of completing ICE Stage 2. The waiver must clearly explain why there is no other feasible alternative. A Waiver Form should also be submitted to document an agreed upon decision to select a preferred alternative other than the highest scoring alternative in Stage 2.

ICE waiver forms with supporting documentation should be submitted for approval to the Office of Traffic Operations or District Engineer (depending on Waiver level). Questions regarding the waiver process should be routed to the State Traffic Engineer.

Project Information:

Location: SR 54 @ Site Driveway A
County: Fayette
GDOT District: 3 - Thomaston
Area Type: Rural
Existing Intersection Control: New Intersection or Other

GDOT PI # (or N/A): N/A
Requested By: Kimley-Horn
Prepared By: Kimley-Horn
Date: 11/7/2022
Waiver Request Type: Driveway Permit

Traffic and Operations Data:[1,2]

Intersection meets signal/AWS warrants?	None	
Traffic Analysis Type:	Intersection Delay	
Existing Major Street Avg Daily Traffic (ADT):	32,900	
Existing Minor Street Avg Daily Traffic (ADT):	0	
Analysis Period:	AM Peak	PM Peak
2032 Opening Yr Peak Hour Intersection Delay:	15.6 sec	57.5 sec
2032 Opening Yr Peak Hour Intersection V/C:	0.07	0.72
2032 Design Yr Peak Hour Intersection Delay:	15.6 sec	57.5 sec
2032 Design Yr Peak Hour Intersection V/C:	0.07	0.72

Crash Data (Required):[3]

Crash Data: Enter most recent 5 years of crash data	Crash Severity K*	A*	B*	C*	O	Years: 5
Crash Type: Angle	0	0	0	0	0	0%
Head-On	0	0	0	0	0	0%
Rear End	0	0	0	0	6	60%
Sideswipe - same	0	0	0	0	1	10%
Sideswipe - opposite	0	0	0	0	0	0%
Not Collision w/Motor Veh	0	0	0	0	3	30%
TOTALS:	0	0	0	0	10	10

* Number of crashes resulting in injuries / fatalities, not number of persons

Description of Work / Justification for Waiver (Required): An ICE waiver is requested for the proposed RIRO driveway along SR 54. The proposed driveway is located along a four-lane divided roadway and is proposed to restrict access to right-in/right-out only. Full movement access is not feasible due to proximity to the existing signalized intersection of SR 54 at Tyrone Road. The analysis results are presented for the stop controlled (southbound) approach of the site driveway.

Proposed Intersection Control: RIRO w/down stream U-Turn

REQUESTED BY: Matt Flynn, P.E. Date: 11/7/2022

Title: Project Traffic Engineer

APPROVED BY: _____ Date: _____

Name: _____

District Engineer or (Approved Delegate)

[1] *Analysis data input on this worksheet is for proposed control & configuration on form, not the No-Build data shown on the top of Stage 2*

[2] *ADT's required if available (from data collected or nearest GDOT count station site); Capacity data optional unless needed to justify basis of the waiver request.*

[3] *Crash data (required for all existing intersections) must be entered here independent from Stage 2 worksheet inputs (not linked)*