

*Transportation Analysis*

# Highway 74 Business Tech Park DRI #3628

Town of Tyrone, Fayette County, Georgia

June 2022

*Prepared for:*

EastGroup Properties, LP

*Prepared by:*

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Alpharetta, Georgia 30009  
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6/6/2022

**Kimley»»Horn**

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### **Available Upon Request**

Raw Traffic Count Data  
*Synchro* Capacity Analyses

## EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the proposed *Highway 74 Business Tech Park* development located in the Town of Tyrone, Fayette County, Georgia. The approximate 60.9-acre site is located in the northeast quadrant of the intersection of Joel Cowan Parkway (SR 74) at Jenkins Road. The site is currently vacant.

The proposed development will consist of the following land uses and densities contained in **Table 1**. The project is expected to be completed by 2024 (approximately 2 years).

<b>Table 1: Proposed Land Use and Density</b>	
Warehousing/Technology Park	738,882 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 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 (LOU dated April 19, 2022).

The site was previously reviewed as the *Founders Studio and Founders Square DRI #2830* in August 2018. The project contemplated a 110-acre mixed-use development. At that time, the project went through the DRI review with GRTA/ARC. The ARC Final Report was issued on September 4, 2018, and the GRTA Notice of Decision (NOD) was issued on September 19, 2018. The proposed *Highway 74 Business Tech Park* industrial development is located on 60.9-acres within the original 110-acre site. The remaining acreage is not associated with the new DRI. Upon review of a DRI Determination memorandum dated February 22, 2022, and per a phone conversation on March 2, 2022, ARC concluded a new DRI review would be required for the 60.9-acre *Highway 74 Business Tech Park* development based primarily on a change in the proposed land use type from the previous DRI. It should be noted that the proposed *Highway 74 Business Tech Park DRI #3628* is expected to generate 2% less daily traffic, 23% less AM peak hour traffic, and 15% less PM peak hour traffic than the *Founders Studio and Founders Square DRI #2830*.

Capacity analyses were performed for the study intersections under the Estimated 2022 conditions, the Projected 2024 No-Build conditions, and the Projected 2024 Build conditions.

- Estimated 2022 conditions represent current traffic volumes that were collected in April 2022. (NOTE: Traffic Count methodology was outlined in a memo approved by GRTA in June 2022).
- Projected 2024 No-Build conditions represent the Estimated 2022 traffic volumes grown for two (2) years using a 2.0% per year growth rate.
- Projected 2024 Build conditions represent the Projected 2024 No-Build conditions plus the addition of the project trips that are anticipated to be generated by the *Highway 74 Business Tech Park* development.

### ***Projected 2024 No-Build Conditions (System Improvements)***

The signalized intersections of Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive (Intersection 1) and Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane (Intersection 2) are projected to operate at an acceptable overall LOS under the Projected No-Build 2024 conditions. However, the eastbound approach of the unsignalized intersection of Jenkins Road at Ellison Road (Intersection 3) is projected to operate at LOS E during the AM peak hour under Projected No-Build 2024 conditions.

Per GRTA's DRI guidelines, an improvement should be considered if either the overall intersection, or an individual approach operates at a failing LOS.

In order to improve the approach LOS under the Projected 2024 No-Build conditions, Kimley-Horn considered the following system improvement (shown in red on **Figure 15** and **Figure 16**):

- Jenkins Road at Ellison Road (Intersection 3)
  - Install a southbound right-turn lane along Ellison Road.
    - Construct a southbound right-turn lane creating one (1) left-turn/through lane and one (1) exclusive right-turn lane along Ellison Road.

### ***Projected 2024 Build Conditions***

The signalized intersections of Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive (Intersection 1) and Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane (Intersection 2) are projected to operate at an acceptable overall LOS under the Projected Build 2024 conditions. At the unsignalized intersection of Jenkins Road at Ellison Road (Intersection 3), the eastbound approach is projected to operate at LOS F during the AM peak hour under Projected Build 2024 conditions. With the system improvement under Projected 2024 No-Build conditions (listed above), the intersection will operate at an acceptable overall and approach LOS under Build Improved 2024 conditions.

In order to serve the Site Driveways (A, B, and C), additional intersection or site access improvements are needed (shown in blue on **Figure 16**):

- Joel Cowan Parkway (SR 74) at Site Driveway A (Intersection 4)
  - On the site, construct a full-movement driveway with one (1) ingress lane entering the site, and one (1) egress lane exiting the site.
- Joel Cowan Parkway (SR 74) at Site Driveway B (Intersection 5)
  - On the site, construct a right-in/right-out driveway with one (1) ingress lane entering the site, and one (1) egress lane exiting the site.
  - Construct one (1) northbound right-turn lane along Joel Cowan Parkway (SR 74) into Site Driveway B.
- Jenkins Road at Site Driveway C (Intersection 6)
  - On the site, construct a full-movement driveway with one (1) ingress lane entering the site, and one egress lane exiting the site.

Jenkins Road at Ellison Road (Intersection 3)

Overall LOS Standard: D  
Approach LOS Standard: D

		Ellison Road Northbound			Ellison Road Southbound			Jenkins Road Eastbound			Jenkins Road Westbound			
		L	T	R	L	T	R	L	T	R	L	T	R	
NO-BUILD IMPROVED (TWSC)	AM	Overall LOS	(7.8)											
		Approach LOS	A (8.9)			A (7.3)			C (19.7)			C (18.5)		
		Storage						175						
		50th Queue												
		95th Queue	8			0			95			13		
	PM	Overall LOS	(6.4)											
		Approach LOS	A (8.0)			A (0.0)			B (13.5)			B (11.8)		
		Storage						175						
		50th Queue												
		95th Queue	0			0			55			3		
BUILD IMPROVED (TWSC)	AM	Overall LOS	(7.9)											
		Approach LOS	A (8.9)			A (7.3)			C (20.1)			C (18.9)		
		Storage						175						
		50th Queue												
		95th Queue	8			0			98			13		
	PM	Overall LOS	(6.7)											
		Approach LOS	A (8.0)			A (0.0)			B (13.9)			B (11.8)		
		Storage						175						
		50th Queue												
		95th Queue	0			0			60			3		

With the noted system improvements, the eastbound approach in both No-Build 2024 and Build 2024 scenarios is projected to operate at an acceptable LOS. Therefore, the system improvements are recommended to be conditioned.

Impacted Queue Lengths Exceeding Storage – (Intersection 2)

Intersection	Movement	Storage Length	Projected Build Queue Length (AM / PM)	Recommendation
2. Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane	NBR	180	82 / 43 (50 <sup>th</sup> ) 199 / 109 (95 <sup>th</sup> )	No-Build (System Improvement): Consider extending the northbound right-turn lane storage.

Other movements where the projected queueing exceeds the available storage are not impacted by the proposed development traffic.

## 1.0 PROJECT DESCRIPTION

### 1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the proposed *Highway 74 Business Tech Park* development located in the Town of Tyrone, Fayette County, Georgia. The approximate 60.9-acre site is located in the northeast quadrant of the intersection of Joel Cowan Parkway (SR 74) at Jenkins Road. The project site is currently zoned M1 (Light Industrial) with a PIP (Planned Industrial Park) Overlay. The site is currently compliant with the current zoning classification, with a rezoning being pursued to modify zoning conditions on the property. The rezoning application was approved by Planning Commission on February 24, 2022. **Figure 1** provides a location map of the project site. **Figure 2** provides an aerial view of the project site and surrounding area.

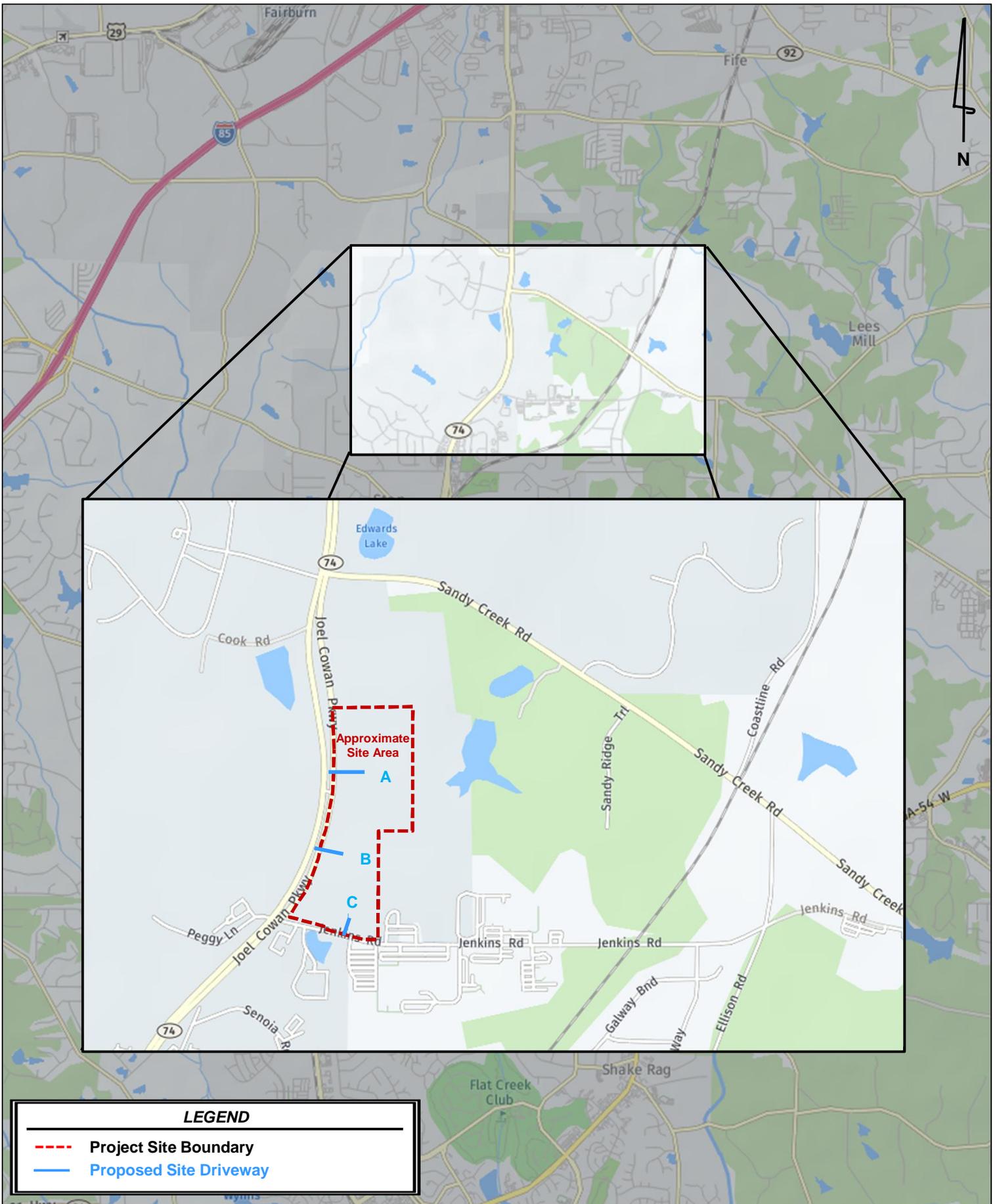
The site is currently undeveloped. The proposed development will consist of the following land uses and densities contained in **Table 2**. The project is expected to be completed by 2024 (approximately 2 years).

Table 2: Proposed Land Use and Density	
Land Use	Proposed
Warehousing/Technology Park	738,882 SF

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.

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 SF of new industrial development within a Developing Suburbs area per the ARC Unified Growth Policy Map. The DRI was formally triggered with the filing of the Initial DRI Information (Form 1) on March 23, 2022 by the Town of Tyrone. 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 April 19, 2022.

The site was previously reviewed as the *Founders Studio and Founders Square DRI #2830* in August 2018. The project contemplated a 110-acre mixed-use development. At that time, the project went through the DRI review with GRTA/ARC. The ARC Final Report was issued on September 4, 2018, and the GRTA Notice of Decision was issued on September 19, 2018. The proposed *Highway 74 Business Tech Park* industrial development is located on 60.9-acres within the original 110-acres site. The remaining acreage is not associated with the new DRI. Upon review of a DRI Determination memorandum dated February 22, 2022, and per a phone conversation on March 2, 2022, ARC concluded a new DRI review would be required for the 60.9-acre *Highway 74 Business Tech Park* development based primarily on a change in the proposed land use type from the previous DRI. It should be noted that the proposed *Highway 74 Business Tech Park DRI #3628* is expected to generate 2% less daily traffic, 23% less AM peak hour traffic, and 15% less PM peak hour traffic than the *Founders Studio and Founders Square DRI #2830*.





## 1.2 Site Access

As currently envisioned, the proposed development will be accessible via three (3) new access points:

1. **Site Driveway A** – a proposed, full-movement driveway located along Joel Cowan Parkway (SR 74) at an existing median opening approximately 1,795 feet north of Jenkins Road that will operate under side-street stop control. Site Driveway A will provide vehicular access to all buildings in the development. Internal, private roadways throughout the site provide access to the building and parking facilities.
2. **Site Driveway B** – a proposed, right-in/right-out (RIRO) driveway located along Joel Cowan Parkway (SR 74) approximately 965 feet north of Jenkins Road that will operate under side-street stop control. Site Driveway B will provide vehicular access to all buildings in the development. Internal, private roadways throughout the site provide access to the building and parking facilities.
3. **Site Driveway C** – a proposed, full-movement driveway located along Jenkins Road approximately 1,055 feet east of Joel Cowan Parkway (SR 74) that will operate under side-street stop control. Site Driveway C will provide vehicular access to all buildings in the development. Internal, private roadways throughout the site provide access to the building and parking facilities.

## 1.3 Internal Circulation Analysis

Internal, private roadways throughout the site provide access to the building and parking facilities.

## 1.4 Parking

The current number of total site parking spaces to be provided are listed below in **Table 3**.

Table 3: Proposed Parking			
Land Use	Minimum	Maximum	Proposed
Warehousing	370 1 per 2,000 SF of GFA	N/A	681 employee spaces

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

## 1.5 Alternative Transportation Facilities

There are no dedicated pedestrian or bicycle facilities along the site frontage, Joel Cowan Parkway (SR 74), Sandy Creek Road, or Jenkins Road. Similarly, there are no transit stops in the vicinity of the site.

## 1.6 Dense Urban Environments Enhanced Focus Area

Per Section 3.2.4.2 of the GRTA *Development of Regional Impact Review Procedures* the *Highway 74 Business Tech Park* development does not qualify for a “Dense Urban Environment Enhanced Focus Area” review, due to its location in the Town of Tyrone.

## 1.7 Heavy Vehicle Enhanced Focus Area

Per Section 3.2.4.1 of the GRTA *Development of Regional Impact Review Procedures*, the *Highway 74 Business Tech Park* development qualifies for a “Heavy Vehicle Enhanced Focus Area” review, due to the development generating heavy vehicles.

### 1.7.1 Heavy Vehicle Routing

Figure 3 depicts the proposed truck routes that will serve project traffic (highlighted blue). The following segments are included in the Enhanced Focus Area (highlighted yellow):

- Jenkins Road from Joel Cowan Parkway (SR 74) to Site Driveway C

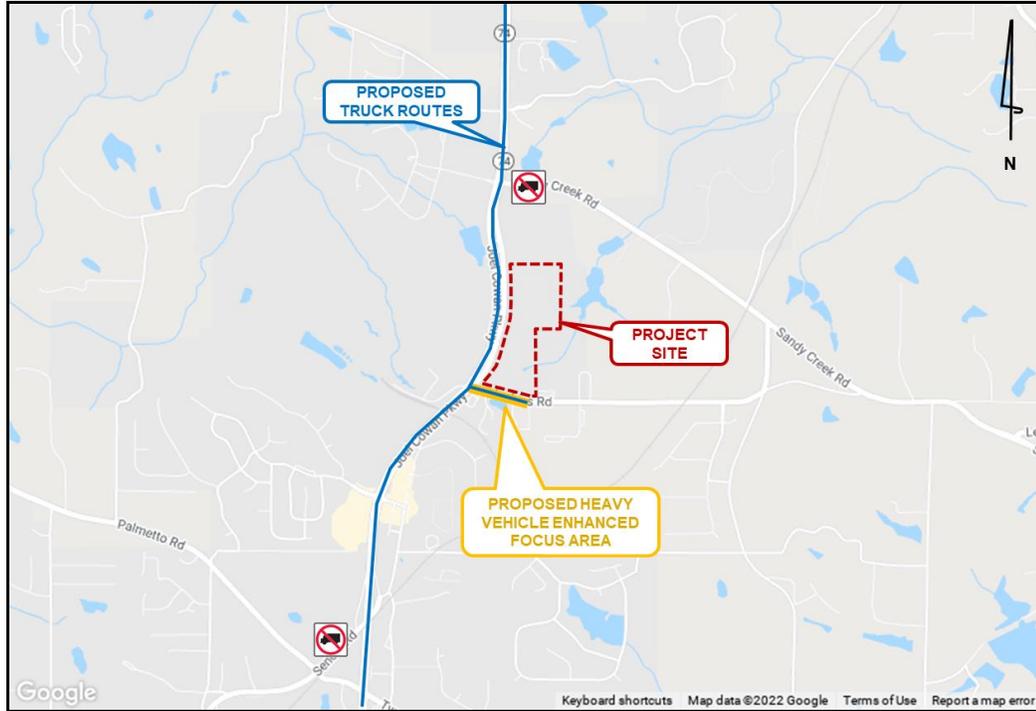


Figure 3: Heavy Vehicle Routing

### 1.7.2 Pavement Condition

A site visit was conducted on May 27, 2022. Pavement conditions within the Enhanced Focus Area were noted during the site visit. Pavement in the Heavy Vehicle focus area is generally in good condition. Minor pavement distress/cracking was observed in three (3) locations, as outlined in Table 4. Figure 4 shows the pavement cracking along the shoulder, along eastbound Jenkins Road, approximately 90 feet east of Joel Cowan Parkway (SR 74). Figure 5 shows the minor pavement cracking along eastbound/westbound Jenkins Road, approximately 90 feet east of Joel Cowan Parkway (SR 74). Figure 6 shows the minor pavement cracking along northbound Joel Cowan Parkway (SR 74), approximately 65 feet south of Jenkins Road.

Table 4: Pavement Condition Observations			
Number	Roadway	Location	Observed Distress
1	Jenkins Road	90 feet east of Joel Cowan Parkway (SR 74)	Shoulder/Pavement Cracking
2	Jenkins Road	Intersection of Joel Cowan Parkway (SR 74)	Minor Pavement Cracking
3	Joel Cowan Parkway (SR 74)	Intersection of Jenkins Road	Minor Pavement Cracking



**Figure 4: Eastbound Jenkins Road Shoulder/Pavement Cracking**



**Figure 5: Eastbound/Westbound Jenkins Road Minor Pavement Cracking**



Figure 6: Northbound Joel Cowan Parkway (SR 74) Minor Pavement Cracking

### 1.7.3 Roadway Width

The lane widths for the Enhanced Focus Area are shown in **Table 5**. The Town of Tyrone roadway width standards were taken from the [Town of Tyrone Unified Development Ordinance](#) document, which notes that “the street paving widths shall be as follows:

1. Major Collector Street – 32 feet, if two lanes, 48 feet if four lanes; minimum median width for divided street 24 feet;
2. Residential Street – 24 feet;
3. Minor Collector Street – 28 feet.

Lane width dimensions were measured on NearMap.

Table 5: Roadway Widths		
Roadway	Lane Width	Lane Width Standard (Town of Tyrone)
Joel Cowan Parkway (SR 74)	12 ft	12 ft desirable
Jenkins Road	12 ft	12 ft desirable

### 1.7.4 Corner Radii

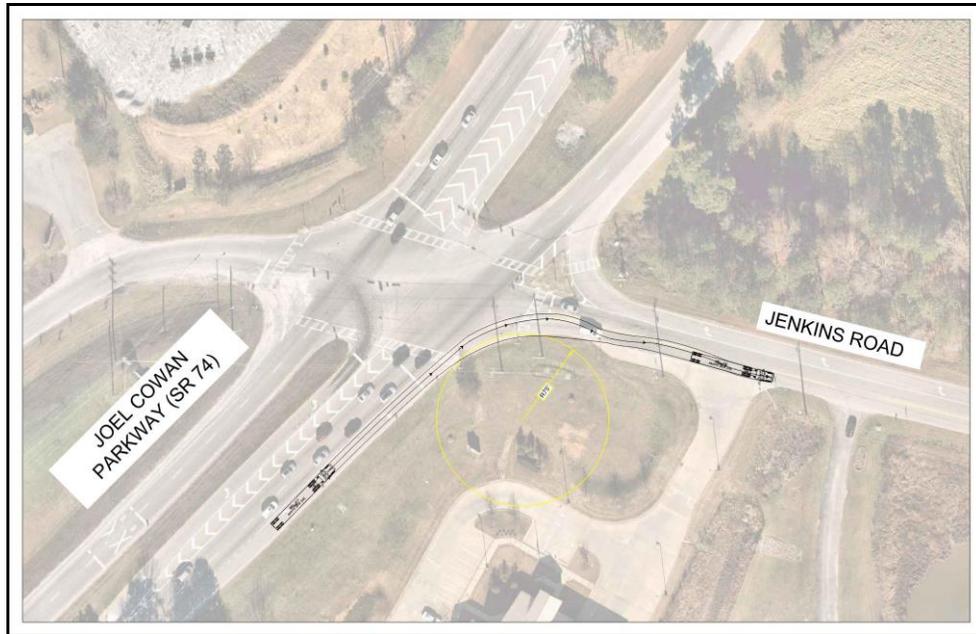
The corner radii of one study intersection was analyzed along the Enhanced Focus Area:

1. Joel Cowan Parkway (SR 74) at Jenkins Road

Note: The *GDOT Regulations for Driveway and Encroachment Control* outlines minimum corner radii for trucks as 75 feet.

**1. Joel Cowan Parkway (SR 74) at Jenkins Road (Entering)**

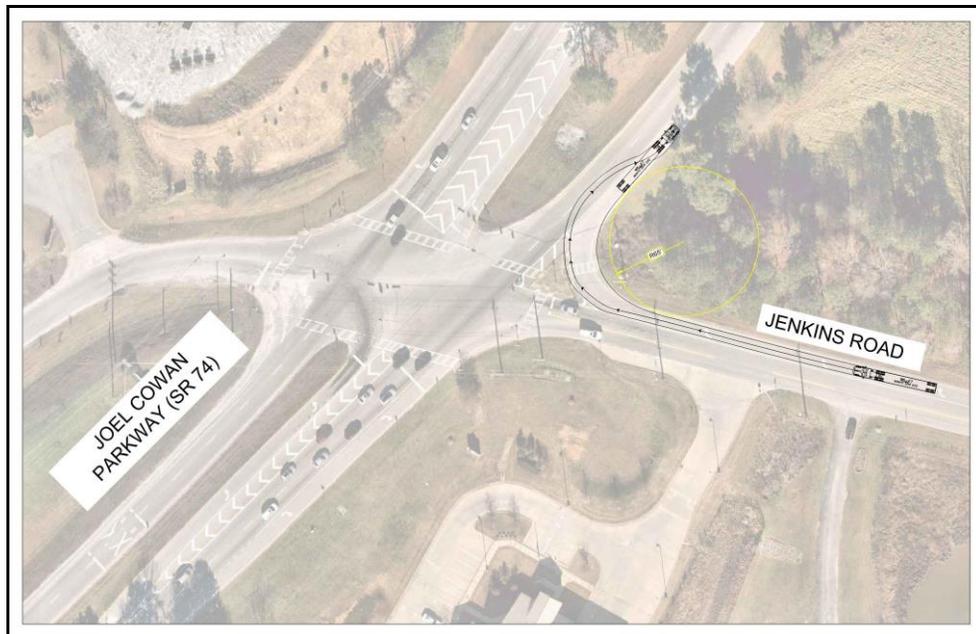
**Figure 7** outlines the anticipated wheel-path for a WB-67 vehicle entering the site by making a northbound right-turn from Joel Cowan Parkway (SR 74) onto Jenkins Road. The existing curb radius is approximately 75 feet. The WB-67 truck slightly impedes with the westbound traffic along Jenkins Road to make the maneuver.



**Figure 7: Joel Cowan Parkway (SR 74) at Jenkins Road – Northbound Right (Turn Maneuver)**

**2. Joel Cowan Parkway (SR 74) at Jenkins Road (Exiting)**

**Figure 8** outlines the anticipated wheel-path for a WB-67 vehicle exiting the site by making a westbound right-turn from Jenkins Road onto Joel Cowan Parkway (SR 74). The existing curb radius is approximately 65 feet. The WB-67 truck does not impede with traffic along Joel Cowan Parkway (SR 74) to make the maneuver.



**Figure 8: Joel Cowan Parkway (SR 74) at Jenkins Road – Westbound Right (Turn Maneuver)**

### 1.7.5 Heavy Vehicle Staging

The site plan includes a designated truck court to accommodate heavy vehicle queueing, staging, and overflow. **Figure 9** indicates the designated truck staging/overflow areas on the site plan.



Figure 9: Heavy Vehicle Staging

### 1.7.6 Pedestrian Safety

There are no sidewalk requirements for non-residential areas, per the Town of Tyrone development ordinances. Therefore, sidewalks are not required along opposing road frontages. The proposed development adds a 10' multi-use path along the eastside of the site which provides connection to Peachtree City. Sidewalks will also be provided adjacent to the buildings and will connect both accessible and non-accessible spaces to the building entrances.

## 2.0 TRAFFIC ANALYSES, METHODOLOGY AND ASSUMPTIONS

### 2.1 Study Network Determination

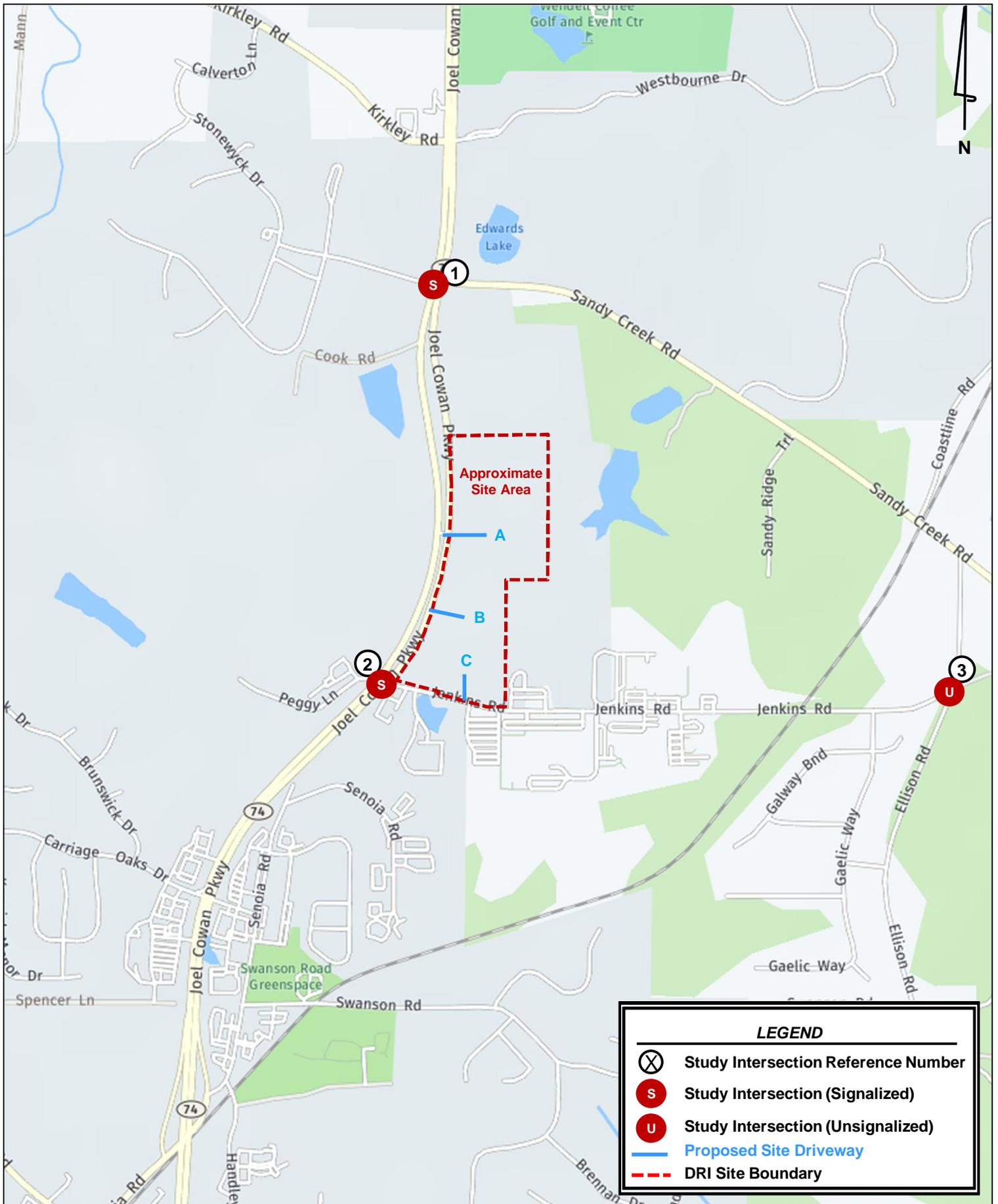
The study area was determined at the methodology meeting with input from GRTA, ARC, and other local agency stakeholders. The study includes the following three (3) off-site intersections described in **Table 6** and shown visually in **Figure 10**.

<b>Table 6: Intersection Control Summary</b>		
<b>Intersection</b>	<b>Jurisdiction</b>	<b>Control</b>
1. Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive	GDOT	Signalized RCUT
2. Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane	GDOT	Signalized
3. Jenkins Road at Ellison Road	Fayette County	Unsignalized

### 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 7** (bolded roadways are adjacent to the site).

<b>Table 7: Roadway Classifications</b>				
<b>Roadway</b>	<b>Lanes</b>	<b>Posted Speed Limit</b>	<b>AADT</b>	<b>GDOT Functional Classification</b>
<b>Joel Cowan Parkway</b>	<b>4</b>	<b>55 MPH</b>	<b>37,500</b>	<b>Principal Arterial</b>
<b>Jenkins Road</b>	<b>2</b>	<b>35 MPH</b>	<b>4,340</b>	<b>Local</b>
Sandy Creek Road	2	45 MPH	6,130	Minor Arterial
Ellison Road	2	45 MPH	-	Major Collector
Peggy Lane	2	25 MPH	-	Local
Laurelmont Drive	2	25 MPH	-	Local



### 2.3 Traffic Data Collection and Calibration

Traffic counts were collected at all three (3) existing study intersections on Wednesday, April 27, 2022. The collected counts were then calibrated using calibration factors to account for the potential impacts of COVID-19 to typical traffic volumes and patterns.

The peak hour adjustment factors were determined by comparing the 2019 AM and PM peak hour volumes collected along Joel Cowan Parkway (SR 74) north of Westbourne Drive (to align with the GDOT TADA count station 113-0131) to the collected 2022 AM and PM peak hour volumes in the same location. As a result of this comparison, it was determined that a COVID adjustment factor of 1.13 for the AM peak hour and 1.18 for the PM peak hour should be used at all intersections. The methodologies used in this analysis for traffic count calibration were approved by GRTA and ARC.

Traffic count peak hours for all the study intersections are shown in **Table 8**.

Table 8: Traffic Count Summary			
Intersection	Count Date	AM Peak Hour	PM Peak Hour
1. Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive	4/2022	7:15 AM – 8:15 AM	5:00 PM – 6:00 PM
2. Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane	4/2022	7:30 AM – 8:30 AM	5:00 PM – 6:00 PM
3. Jenkins Road at Ellison Road	4/2022	7:45 AM – 8:45 AM	4:45 PM – 5:45 PM

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

### 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 *Highway 74 Business Tech Park* 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 2.0% per year background traffic growth rate from 2022 to 2024 (2 years) was used for all roadways.

The Projected 2024 No-Build conditions represent the Estimated 2022 traffic volumes grown for two (2) years at 2.0% per year throughout the study network.

The Projected 2024 Build conditions represent the project trips generated by the *Highway 74 Business Tech Park* development (discussed in Section 3.0 and 4.0) added to the Projected 2024 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. One (1) project is currently programmed/planned by GDOT, Fayette County, or the Town of Tyrone in the vicinity of the project site.

The following project shown in **Table 9** is programmed to occur near the development.

Table 9: Programmed Projects							
Project Name	From / To Points:	Sponsor	GDOT PI #	ARC ID # (TIP)	Design FY	ROW / UTL FY	CST FY
I-85 at SR 74	Interchange Improvement	GDOT / City of Fairburn	<a href="#">0007841</a>	<a href="#">FS-AR-182</a>	2012 / 2016	2019 / 2024	2024

\*Project information was obtained from GeoPI (GDOT), the Atlanta Region’s Plan (ARC), and Town of Tyrone SPLOST list.

The I-85 at SR 74 project is considering two alternatives for an interchange redesign – diverging diamond and partial cloverleaf. The project is still in the concept development phase. 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*.

LOS for unsignalized intersections, with stop control on the minor street only, is reported for the side street approaches and the major street left-turn movements. Low LOS for side street approaches is not uncommon, as vehicles may experience delays in turning onto a major roadway.

## 2.7 Level-of-Service Standards

For the purposes of this traffic analysis, a LOS standard of D was assumed for all study intersections per section 3.2.2.1 of the GRTA *Development of Regional Impact Review Procedures* as specified in the LOU.

### 3.0 TRIP GENERATION

Gross trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10<sup>th</sup> Edition, 2017*, using equations where available. Reductions to gross trips including mixed-use reductions and alternative transportation mode reductions are not considered in the analysis based on methodology outlined in the GRTA Letter of Understanding (LOU).

**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 trips were taken for this analysis per the LOU.

**Table 10** summarizes the gross trip generation, reductions, net trip generation, and driveway volumes for the proposed *Highway 74 Business Tech Park* development.

Table 10: Trip Generation								
Land Use	Density	Daily Traffic			AM Peak Hour		PM Peak Hour	
		Total	Enter	Exit	Enter	Exit	Enter	Exit
150 – Warehousing	738,882 SF	1,212	606	606	88	26	31	85
<b>Gross Project Trips</b>		<b>1,212</b>	<b>606</b>	<b>606</b>	<b>88</b>	<b>26</b>	<b>31</b>	<b>85</b>
<i>Mixed-Use Reductions</i>		0	0	0	0	0	0	0
<i>Alternative Mode Reductions</i>		0	0	0	0	0	0	0
<i>Pass-By Reductions</i>		0	0	0	0	0	0	0
<b>New Trips</b>		<b>1,212</b>	<b>606</b>	<b>606</b>	<b>88</b>	<b>26</b>	<b>31</b>	<b>85</b>
<i>Employee (Car Trips)</i>		806	403	403	80	19	20	74
<i>Heavy Vehicle (Trucks)</i>		406	203	203	8	7	11	11

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 for heavy vehicle (truck) trips in **Figure 11**. The anticipated distribution and assignment of the trips throughout the study roadway network is shown for employee (car) trips in **Figure 12**. 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 13**.

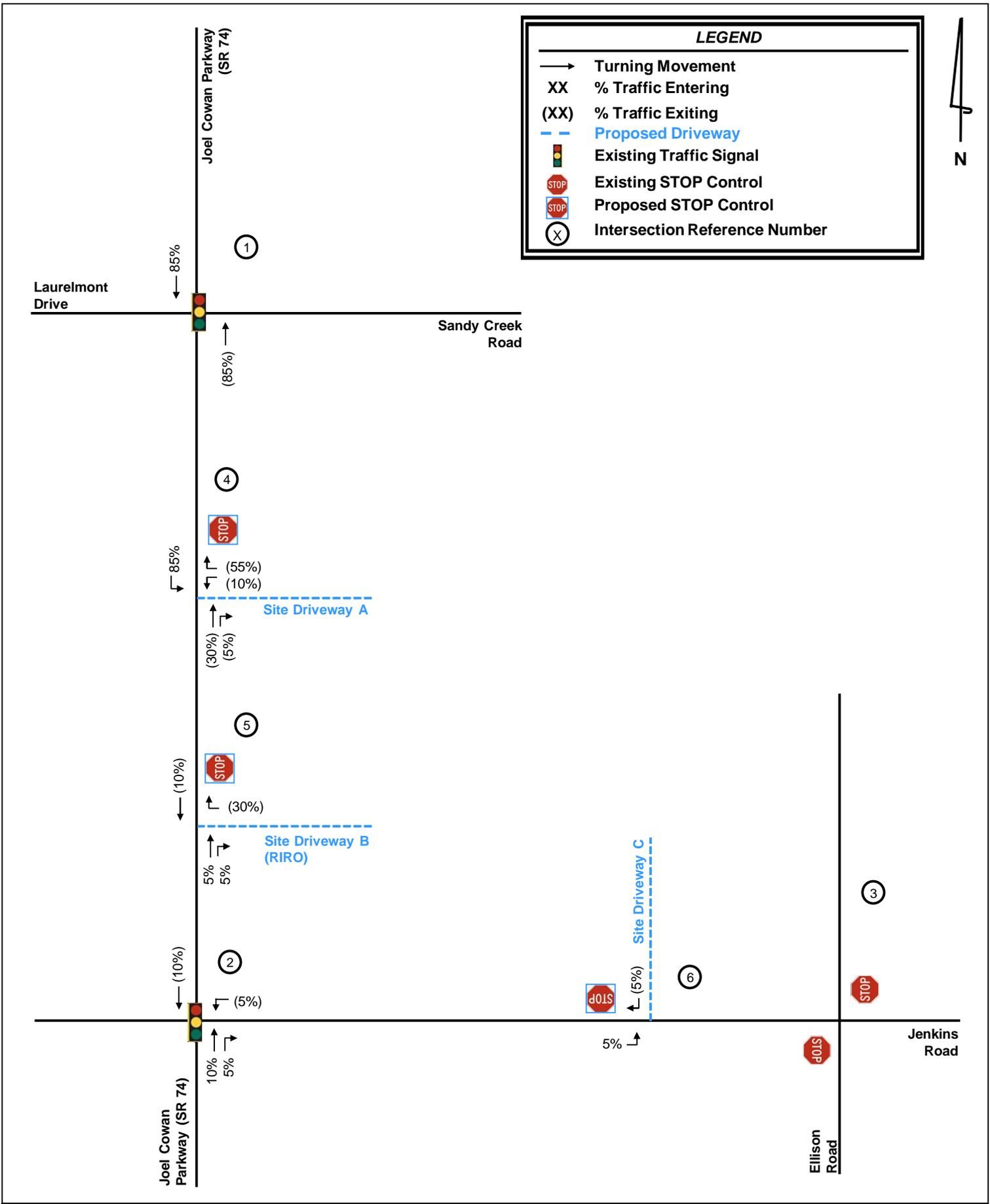
Detailed intersection volume worksheets are provided in Appendix C.

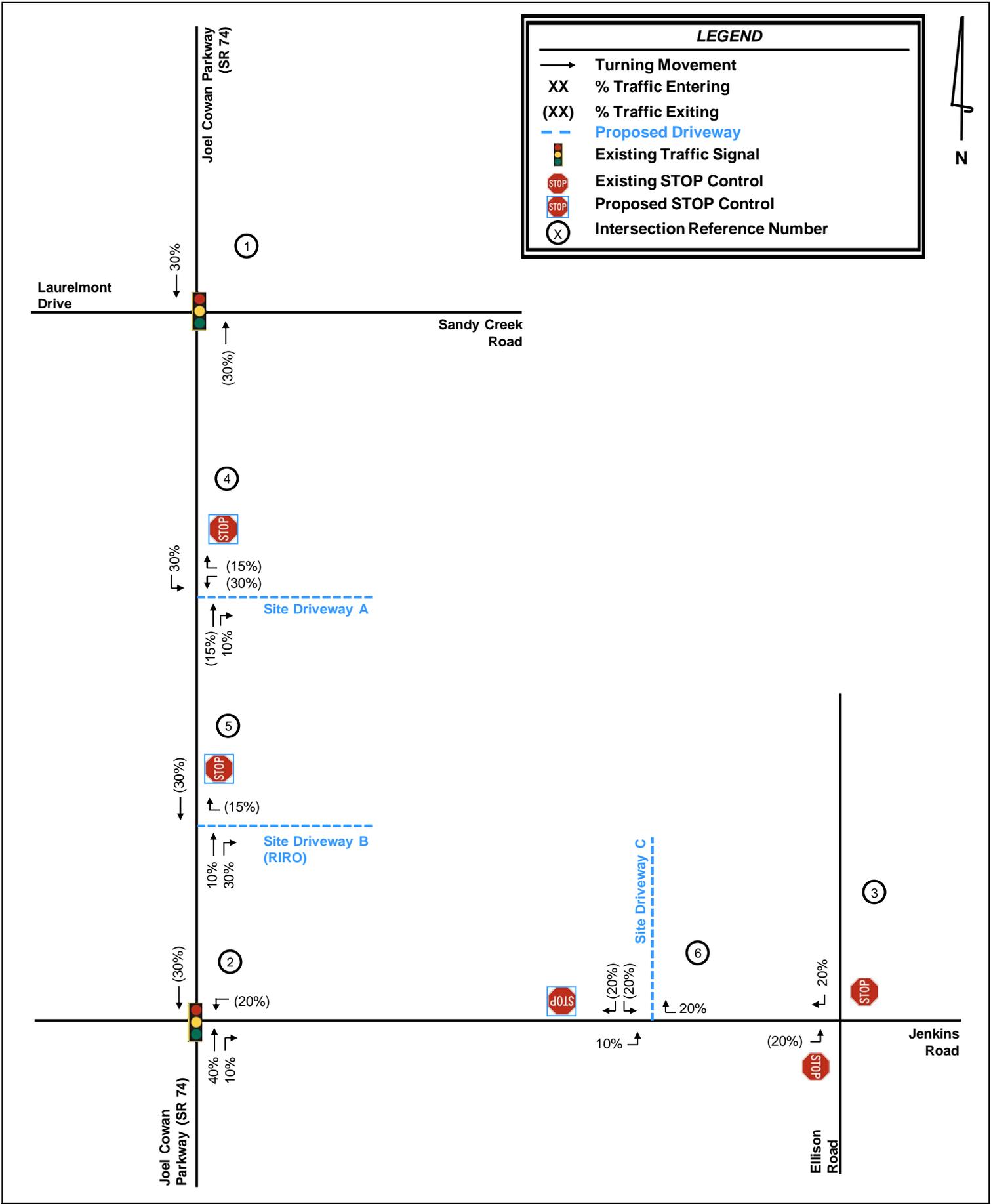
## 5.0 TRAFFIC ANALYSIS

Capacity analyses were performed using *Synchro 11* for the AM and PM peak hours under the Estimated 2022 conditions, Projected 2024 No-Build conditions, and Projected 2024 Build conditions. The capacity analyses were performed using methodologies from the *Highway Capacity Manual (HCM), 6<sup>th</sup> Edition* unless otherwise noted.

These analyses included existing roadway laneage for each of the scenarios. The traffic volumes and roadway laneage used for each scenario are shown visually in **Figure 14** for Estimated 2022 conditions, **Figure 15** for Projected 2024 No-Build conditions, and **Figure 16** for Projected 2024 Build conditions.

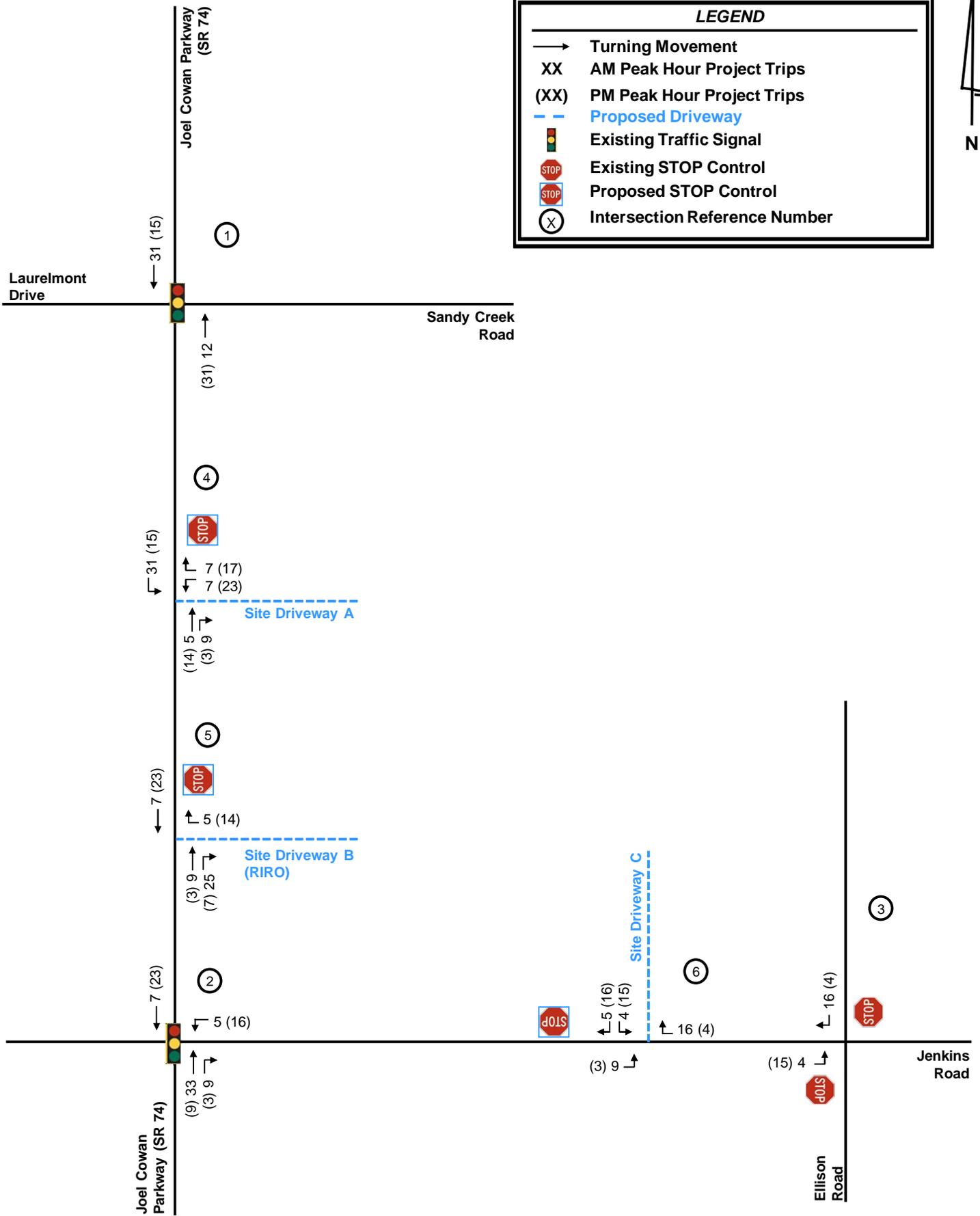
**Sections 5.1 – 5.6** provide the results of the capacity analyses are presented for each study intersection and include projected LOS, delay, and queue lengths.





**LEGEND**

- Turning Movement
- XX AM Peak Hour Project Trips
- (XX) PM Peak Hour Project Trips
- - - Proposed Driveway
- 🚦 Existing Traffic Signal
- 🛑 Existing STOP Control
- 🛑 Proposed STOP Control
- ⓧ Intersection Reference Number



### 5.1 Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive (Intersection 1)

		Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Laurelmont Drive			Sandy Creek Road			
		Northbound			Southbound			Eastbound			Westbound			
		L	T	R	L	T	R			R			R	
ESTIMATED 2022 (SIGNAL)	AM	Overall LOS	B (12.9)											
		Approach LOS	B (12.2)			B (11.2)			C (34.1)			C (26.1)		
		Storage	330		230	295		185						
		50th Queue	3	264	0	141	84	0			0			72
		95th Queue	9	392	14	364	126	1			23			175
	PM	Overall LOS	B (17.0)											
		Approach LOS	C (20.3)			A (6.4)			D (47.9)			D (48.2)		
		Storage	330		230	295		185						
		50th Queue	6	446	2	140	125	0			1			271
		95th Queue	15	542	21	277	188	3			32			539
PROJECTED 2024 NO-BUILD (SIGNAL)	AM	Overall LOS	B (14.6)											
		Approach LOS	B (13.9)			B (12.7)			D (37.3)			C (27.8)		
		Storage	330		230	295		185						
		50th Queue	4	335	0	172	90	0			0			83
		95th Queue	8	417	14	440	143	0			32			197
	PM	Overall LOS	B (18.8)											
		Approach LOS	C (22.9)			A (7.2)			D (49.1)			D (51.9)		
		Storage	330		230	295		185						
		50th Queue	7	481	3	168	136	0			2			311
		95th Queue	15	583	22	305	203	3			33			579
PROJECTED 2024 BUILD (SIGNAL)	AM	Overall LOS	B (14.9)											
		Approach LOS	B (14.3)			B (12.9)			D (37.9)			C (28.3)		
		Storage	330		230	295		185						
		50th Queue	4	342	0	176	94	0			0			85
		95th Queue	8	430	14	442	153	0			35			198
	PM	Overall LOS	B (19.3)											
		Approach LOS	C (23.4)			A (7.3)			D (49.7)			D (53.8)		
		Storage	330		230	295		185						
		50th Queue	7	500	3	173	138	0			2			320
		95th Queue	15	605	22	305	207	3			33			579

\*Intersection analyzed in HCM2000 due to limitations of HCM 6<sup>th</sup> for a signalized RCUT.

The signalized intersection of Joel Cowan Parkway (SR 74) at Sandy Creek Road/Laurelmont Drive (Intersection 1) is projected to operate at an acceptable overall LOS under the Estimated 2022, No-Build 2024, and Build 2024 conditions. Each approach of the intersection is projected to operate acceptably under all studied scenarios. No improvements are recommended to be conditioned.

### 5.2 Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane (Intersection 2)

Overall LOS Standard: D  
Approach LOS Standard: D

		Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Peggy Lane			Jenkins Road			
		Northbound			Southbound			Eastbound			Westbound			
		L	T	R	L	T	R	L	T	R	L	T	R	
ESTIMATED 2022 (SIGNAL)	AM	Overall LOS	B (16.7)											
		Approach LOS	B (16.7)			B (12.7)			D (41.8)			D (35.3)		
		Storage	300		180	265		190						360
		50th Queue	6	479	69	53	236	0		0			154	0
		95th Queue	21	827	171	148	381	7		26			257	57
	PM	Overall LOS	C (21.8)											
		Approach LOS	C (21.5)			B (18.7)			D (38.3)			D (37.4)		
		Storage	300		180	265		190						360
		50th Queue	2	487	37	18	362	0		26			215	0
		95th Queue	8	763	93	45	721	0		66			327	36
PROJECTED 2024 NO-BUILD (SIGNAL)	AM	Overall LOS	B (18.2)											
		Approach LOS	B (18.3)			B (13.7)			D (45.2)			D (37.7)		
		Storage	300		180	265		190						360
		50th Queue	6	528	76	73	254	0		0			161	0
		95th Queue	22	939	187	173	413	8		28			268	58
	PM	Overall LOS	C (24.6)											
		Approach LOS	C (24.5)			C (21.3)			D (42.5)			D (40.1)		
		Storage	300		180	265		190						360
		50th Queue	2	543	41	19	405	0		27			227	0
		95th Queue	9	912	103	52	812	0		68			345	37
PROJECTED 2024 BUILD (SIGNAL)	AM	Overall LOS	B (18.9)											
		Approach LOS	B (19.2)			B (14.1)			D (46.9)			D (39.0)		
		Storage	300		180	265		190						360
		50th Queue	7	560	82	83	262	0		0			166	0
		95th Queue	22	993	199	184	424	8		29			275	57
	PM	Overall LOS	C (26.7)											
		Approach LOS	C (26.6)			C (23.5)			D (44.4)			D (41.2)		
		Storage	300		180	265		190						360
		50th Queue	2	569	43	20	437	0		27			244	0
		95th Queue	9	955	109	58	868	0		67			365	36

The signalized intersection of Joel Cowan Parkway (SR 74) at Jenkins Road/Peggy Lane (Intersection 2) is projected to operate at an acceptable overall LOS under the Estimated 2022, No-Build 2024, and Build 2024 conditions. Each approach of the intersection is projected to operate acceptably under all studied scenarios. No improvements are recommended to be conditioned.

### 5.3 Jenkins Road at Ellison Road (Intersection 3)

		Overall LOS Standard: D		Ellison Road			Ellison Road			Jenkins Road			Jenkins Road		
		Approach LOS Standard: D		Northbound			Southbound			Eastbound			Westbound		
		L	T	R	L	T	R	L	T	R	L	T	R		
ESTIMATED 2022 (TWSC)	AM	Overall LOS	(13.4)												
		Approach LOS	A (8.8)			A (7.3)			E (37.3)			C (17.8)			
		Storage													
		95th Queue	8			0			165			10			
	PM	Overall LOS	(7.1)												
		Approach LOS	A (8.0)			A (0.0)			C (15.2)			B (11.7)			
		Storage													
		95th Queue	0			0			63			3			
PROJECTED 2024 NO-BUILD (TWSC)	AM	Overall LOS	(16.2)												
		Approach LOS	A (8.9)			A (7.3)			E (46.0)			C (18.5)			
		Storage													
		95th Queue	8			0			198			13			
	PM	Overall LOS	(7.4)												
		Approach LOS	A (8.0)			A (0.0)			C (15.8)			B (11.8)			
		Storage													
		95th Queue	0			0			68			3			
PROJECTED 2024 BUILD (TWSC)	AM	Overall LOS	(17.7)												
		Approach LOS	A (8.9)			A (7.3)			F (50.9)			C (19.0)			
		Storage													
		95th Queue	8			0			213			13			
	PM	Overall LOS	(7.9)												
		Approach LOS	A (8.0)			A (0.0)			C (16.6)			B (11.9)			
		Storage													
		95th Queue	0			0			75			3			

The intersection of Jenkins Road at Ellison Road (Intersection 3) is projected to operate at an acceptable overall LOS under the Estimated 2022, No-Build 2024 and Build 2024 conditions. During the AM peak, the eastbound approach operates at LOS E under Estimated 2022 and Projected 2024 No-Build conditions, and at LOS F under Projected 2024 Build conditions.

Per GR TA’s DRI guidelines, an improvement should be considered if either the overall intersection, or an individual approach operates at a failing LOS. In order to improve the approach LOS under the No-Build 2024 and Build 2024 conditions, Kimley-Horn considered the following system improvements (shown in red on **Figure 15** and **Figure 16**):

- Jenkins Road at Ellison Road (Intersection 3)
  - Install a southbound right-turn lane along Ellison Road.
    - Construct a southbound right-turn lane creating one (1) left-turn/through lane and one (1) exclusive right-turn lane along Ellison Road.

The analysis results shown in the table below are for the improved conditions at Jenkins Road at Ellison Road (Intersection 3), which assume the noted geometric changes.

Overall LOS Standard: D  
 Approach LOS Standard: D

		Ellison Road			Ellison Road			Jenkins Road			Jenkins Road			
		Northbound			Southbound			Eastbound			Westbound			
		L	T	R	L	T	R	L	T	R	L	T	R	
PROJECTED 2024 NO-BUILD IMPROVED (TWSC)	AM	Overall LOS	(7.8)											
		Approach LOS	A (8.9)			A (7.3)			C (19.7)			C (18.5)		
		Storage						175						
		50th Queue												
		95th Queue	8			0			95			13		
	PM	Overall LOS	(6.4)											
		Approach LOS	A (8.0)			A (0.0)			B (13.5)			B (11.8)		
		Storage						175						
		50th Queue												
		95th Queue	0			0			55			3		
PROJECTED 2024 BUILD IMPROVED (TWSC)	AM	Overall LOS	(7.9)											
		Approach LOS	A (8.9)			A (7.3)			C (20.1)			C (18.9)		
		Storage						175						
		50th Queue												
		95th Queue	8			0			98			13		
	PM	Overall LOS	(6.7)											
		Approach LOS	A (8.0)			A (0.0)			B (13.9)			B (11.8)		
		Storage						175						
		50th Queue												
		95th Queue	0			0			60			3		

With the noted system improvements, the eastbound approach in both No-Build 2024 and Build 2024 scenarios is projected to operate at an acceptable LOS.

### 5.4 Joel Cowan Parkway (SR 74) at Site Driveway A (Intersection 4)

Overall LOS Standard: D  
 Approach LOS Standard: D

		Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)						Site Driveway A			
		Northbound			Southbound			Eastbound			Westbound			
		L	T	R	L	T	R				L	T	R	
PROJECTED 2024 BUILD (TWSC)	AM	Overall LOS	(0.4)											
		Approach LOS	A (0.0)			C (20.1)						E (40.4)		
		Storage												
		50th Queue												
		95th Queue				10						10		
	PM	Overall LOS	(0.7)											
		Approach LOS	A (0.0)			D (25.3)						E (46.1)		
		Storage												
		50th Queue												
		95th Queue				8						33		

The intersection of Joel Cowan Parkway (SR 74) at Site Driveway A (Intersection 4) is projected to operate at an acceptable overall LOS under the Build 2024 scenario. Although the westbound approach is projected to operate at LOS E, no improvements are recommended to be conditioned as low LOS are not uncommon for side street approaches, as vehicles may experience significant delay turning onto a major roadway. Additionally, a signal would likely not be permitted at the intersection as it does not meet signal warrants. The recommended lane configuration for Site Driveway A is one lane entering the site and one lane exiting the site. The recommended build improvements are shown in blue on **Figure 16**.

### 5.5 Joel Cowan Parkway (SR 74) at Site Driveway B (Intersection 5)

Overall LOS Standard: D  
 Approach LOS Standard: D

		Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)						Site Driveway B			
		Northbound			Southbound			Eastbound			Westbound			
		L	T	R	L	T	R				L	T	R	
PROJECTED 2024 BUILD (TWSC)	AM	Overall LOS	(0.0)											
		Approach LOS	A (0.0)			A (0.0)						C (21.4)		
		Storage												
		50th Queue												
		95th Queue												3
	PM	Overall LOS	(0.1)											
		Approach LOS	A (0.0)			A (0.0)						C (18.9)		
		Storage												
		50th Queue												
		95th Queue												5

The intersection of Joel Cowan Parkway (SR 74) at Site Driveway B (Intersection 5) is projected to operate at an acceptable overall LOS under the Build 2024 scenario. Each approach of the intersection is projected to operate acceptably under all studied scenarios. The recommended lane configuration for Site Driveway B is a right-in/right-out with one lane entering the site and one lane exiting the site. Additionally, the a northbound right-turn lane should be constructed along Joel Cowan Parkway (SR 74) into Site Driveway B. The recommended build improvements are shown in blue on **Figure 16**.

### 5.6 Jenkins Road at Site Driveway C (Intersection 6)

Overall LOS Standard: D  
 Approach LOS Standard: D

					Site Driveway C			Jenkins Road			Jenkins Road			
		Northbound			Southbound			Eastbound			Westbound			
					L	T	R	L	T	R	L	T	R	
PROJECTED 2024 BUILD (TWSC)	AM	Overall LOS	(0.3)											
		Approach LOS				B (13.3)			A (8.2)			A (0.0)		
		Storage												
		50th Queue												
		95th Queue				3			0					
	PM	Overall LOS	(0.6)											
		Approach LOS				B (12.0)			A (8.0)			A (0.0)		
		Storage												
		50th Queue												
		95th Queue				5			0					

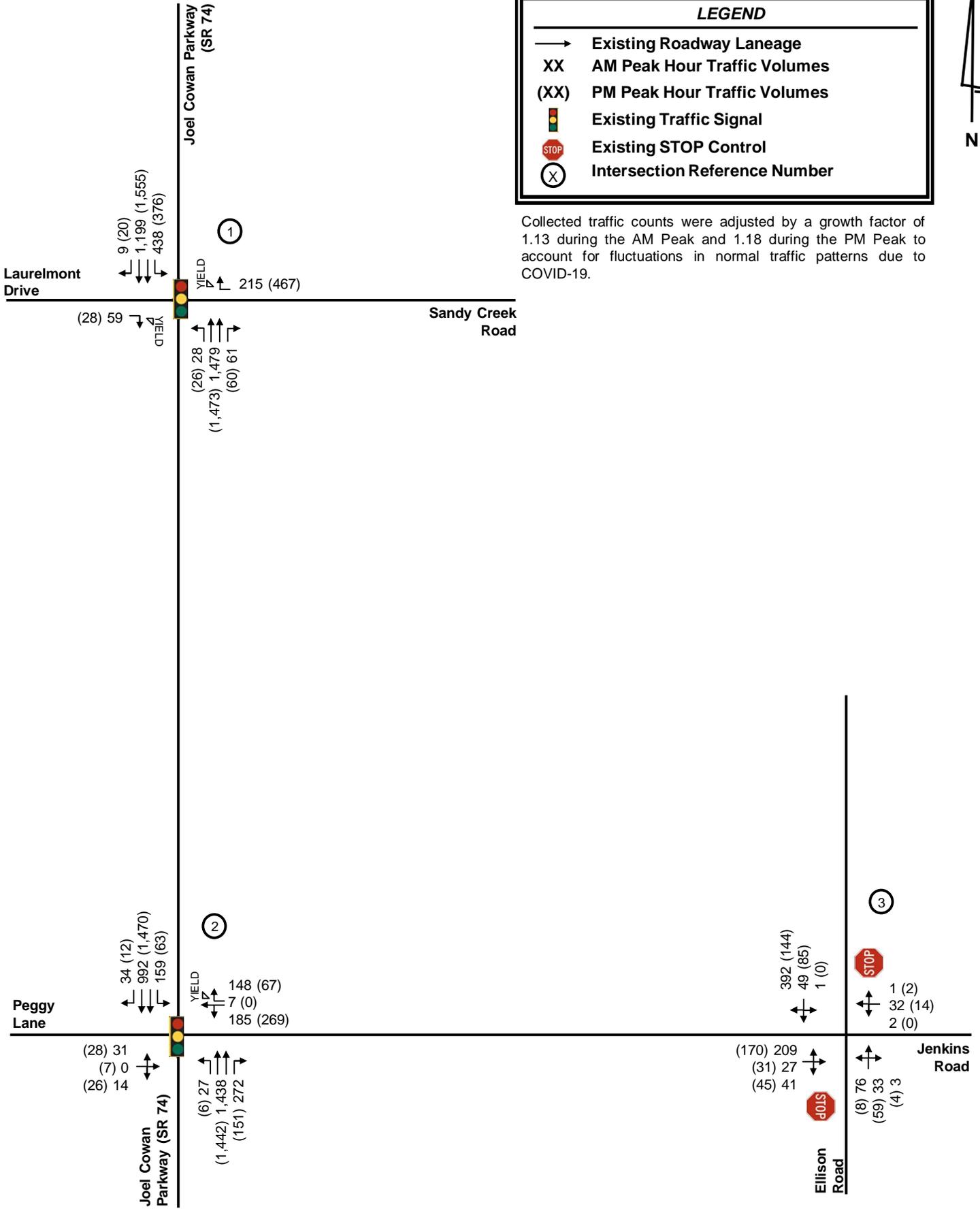
The intersection of Jenkins Road at Site Driveway C (Intersection 6) is projected to operate at an acceptable overall LOS under the Build 2024 scenario. Each approach of the intersection is projected to operate acceptably under all studied scenarios. The recommended lane configuration for Site Driveway C is one lane entering the site and one lane exiting the site. The recommended build improvements are shown in blue on **Figure 16**.

**LEGEND**

- Existing Roadway Laneage
- XX AM Peak Hour Traffic Volumes
- (XX) PM Peak Hour Traffic Volumes
- 🚦 Existing Traffic Signal
- 🛑 Existing STOP Control
- ⓧ Intersection Reference Number



Collected traffic counts were adjusted by a growth factor of 1.13 during the AM Peak and 1.18 during the PM Peak to account for fluctuations in normal traffic patterns due to COVID-19.

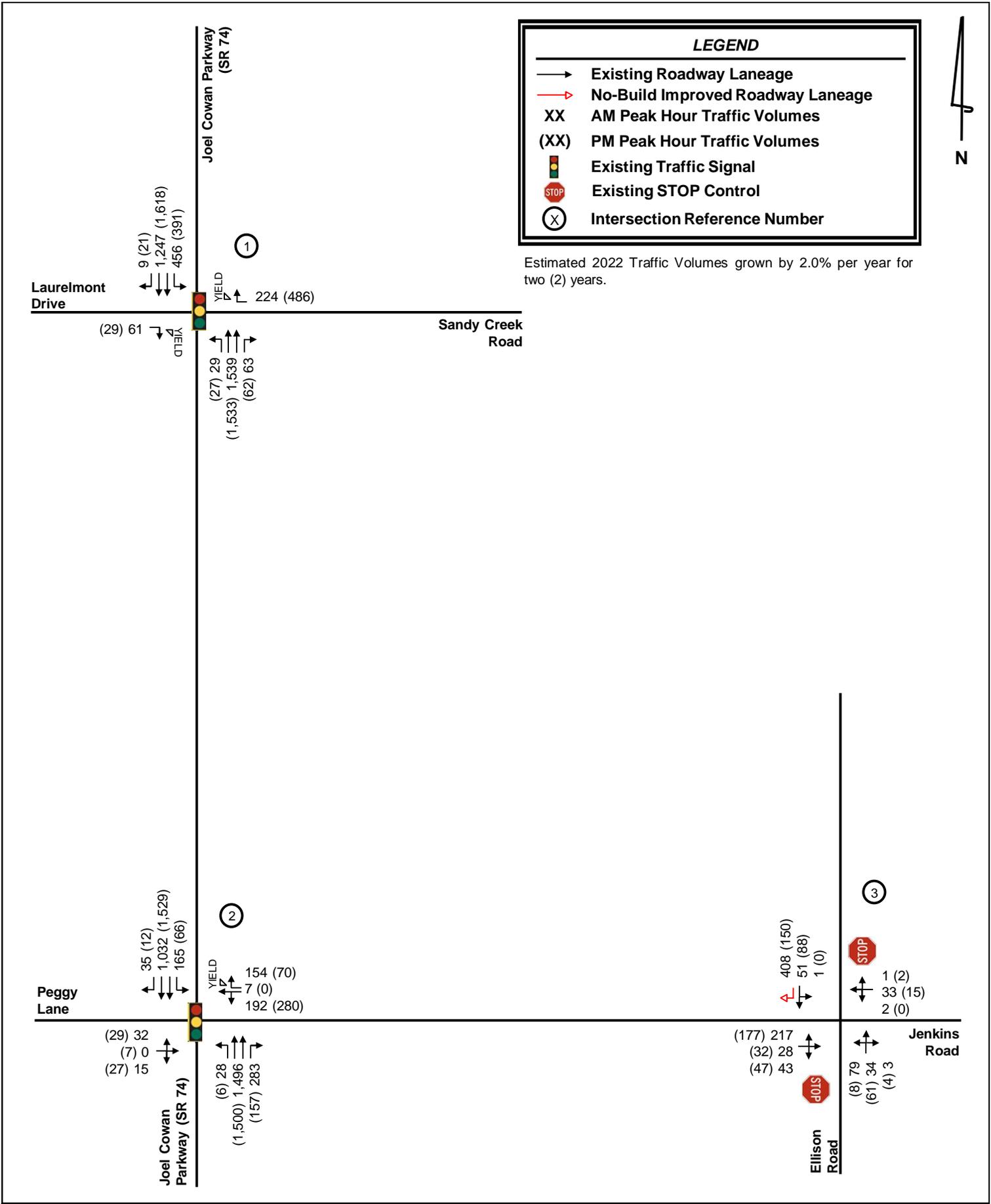


**LEGEND**

-  Existing Roadway Laneage
-  No-Build Improved Roadway Laneage
- XX** AM Peak Hour Traffic Volumes
- (XX)** PM Peak Hour Traffic Volumes
-  Existing Traffic Signal
-  Existing STOP Control
-  Intersection Reference Number

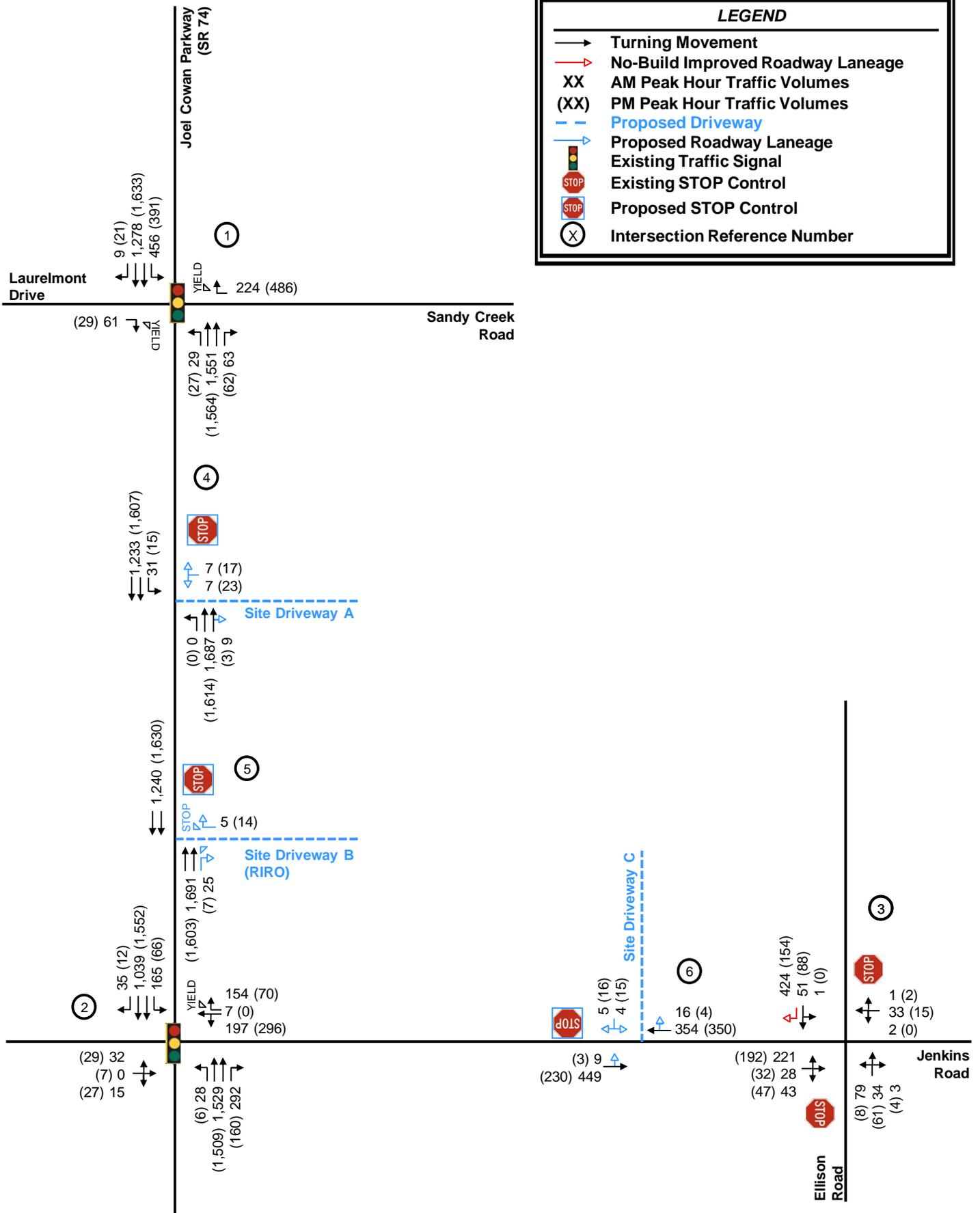


Estimated 2022 Traffic Volumes grown by 2.0% per year for two (2) years.



**LEGEND**

-  Turning Movement
-  No-Build Improved Roadway Laneage
- XX** AM Peak Hour Traffic Volumes
- (XX)** PM Peak Hour Traffic Volumes
-  Proposed Driveway
-  Proposed Roadway Laneage
-  Existing Traffic Signal
-  Existing STOP Control
-  Proposed STOP Control
-  Intersection Reference Number



## 6.0 INTERSECTION CONTROL EVALUATION (ICE)

Per GDOT’s Policy, Intersection Control Evaluation (ICE) was performed at the following locations:

- Joel Cowan Parkway (SR 74) at Site Driveway A (Intersection 4)

The intent of ICE is to determine the most effective intersection design/traffic control at a given intersection.

Note: ICE not provided for Joel Cowan Parkway (SR 74) at Site Driveway B (Intersection 5), as the proposed access will be limited to RIRO with a closed median.

### 6.1 ICE Stage 1

Stage 1 is conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to eliminate non-competitive options and identify which alternatives merit further considerations based on their practical feasibility.

### 6.2 ICE Stage 2

Stage 2 involves a more detailed evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 considers the construction cost, operational efficiency, safety considerations, and public opinion.

The intersection delays and v/c (volume-capacity) ratios were calculated at the study intersections during the AM and PM peak hour using Synchro Professional, Version 11.0, which uses methodologies contained in the 6th Edition Highway Capacity Manual to determine the operating characteristics of an intersection.

Per ICE Stage 1, the following alternatives were compared, and the ICE Stage 2 scores are shown in **Table 11**. GDOT’s ICE Stage 1 and Stage 2 are provided in **Appendix F**.

<b>Table 11: ICE Alternative Selection Decision</b>			
<i>Joel Cowan Parkway (SR 74) at Site Driveway A – Intersection 4</i>			
<b>ICE Stage 2</b>	<b>Conventional (Minor Stop)</b>	<b>RIRO w/down stream U-Turn</b>	<b>RCUT (Stop Control)</b>
Score	5.5	5.3	4.8
Rank	1	2	3

From **Table 11**, the unsignalized full-movement sidestreet stop (Conventional (Minor Stop)) is the highest ranking (per the site plan).

# Proposed Site Plan





# Trip Generation Analysis

**Trip Generation Analysis (10th Ed. with *2nd Edition Handbook Daily IC & 3rd Edition AM/PM IC*)**  
**Highway 74 Business Tech Park DRI #3628**  
**Town of Tyrone, GA**

Land Use	Intensity	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total	In	Out	Total	In	Out
<b>Proposed Site Traffic</b>								
150 Warehousing	738,882 s.f.	1,212	114	88	26	116	31	85
<b>Gross Trips</b>		<b>1,212</b>	<b>114</b>	<b>88</b>	<b>26</b>	<b>116</b>	<b>31</b>	<b>85</b>
Truck Trips (ITE 10th Edition Supplement)		406	15	8	7	22	11	11
<i>Mixed-Use Reductions</i>		0	0	0	0	0	0	0
<i>Alternative Mode Reductions</i>		0	0	0	0	0	0	0
Adjusted Truck Trips		406	15	8	7	22	11	11
Car Trips (Total Non-Truck Trips)		806	99	80	19	94	20	74
<i>Mixed-Use Reductions</i>		0	0	0	0	0	0	0
<i>Alternative Mode Reductions</i>		0	0	0	0	0	0	0
Adjusted Car Trips		806	99	80	19	94	20	74
<i>Mixed-Use Reductions - TOTAL</i>		0	0	0	0	0	0	0
<i>Alternative Mode Reductions - TOTAL</i>		0	0	0	0	0	0	0
<i>Pass-By Reductions - TOTAL</i>		0	0	0	0	0	0	0
<b>New Trips</b>		<b>1,212</b>	<b>114</b>	<b>88</b>	<b>26</b>	<b>116</b>	<b>31</b>	<b>85</b>
<b>Driveway Volumes</b>		<b>1,212</b>	<b>114</b>	<b>88</b>	<b>26</b>	<b>116</b>	<b>31</b>	<b>85</b>

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# Intersection Volume Worksheets

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #1: Joel Cowan Parkway (SR 74) @ Laurelmont Drive / Sandy Creek Road  
AM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Laurelmont Drive			Sandy Creek Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	25	1,309	54	388	1,061	8	0	0	52	0	0	190
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	97	2	9	89	0	0	0	3	0	0	4
Heavy Vehicle %	2%	7%	4%	2%	8%	2%	0%	0%	6%	0%	0%	2%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	28	1479	61	438	1199	9	0	0	59	0	0	215
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	29	1,539	63	456	1,247	9	0	0	61	0	0	224
2024 No-Build Heavy Vehicle %	2%	7%	4%	2%	8%	2%	0%	0%	6%	0%	0%	2%
<b>Project Trips</b>												
Trip Distribution IN					85%							
Trip Distribution OUT		85%										
Truck Trips	0	6	0	0	7	0	0	0	0	0	0	0
Trip Distribution IN					30%							
Trip Distribution OUT		30%										
Car Trips	0	6	0	0	24	0	0	0	0	0	0	0
Total Project Trips	0	12	0	0	31	0	0	0	0	0	0	0
<b>2024 Buildout Total</b>	<b>29</b>	<b>1,551</b>	<b>63</b>	<b>456</b>	<b>1,278</b>	<b>9</b>	<b>0</b>	<b>0</b>	<b>61</b>	<b>0</b>	<b>0</b>	<b>224</b>
<b>2024 Build Heavy Vehicle %</b>	<b>2%</b>	<b>8%</b>	<b>4%</b>	<b>2%</b>	<b>9%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>6%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>

**PM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Laurelmont Drive			Sandy Creek Road		
	Northbound			Southbound			Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	22	1,248	51	319	1,318	17	0	0	24	0	0	396
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	58	0	7	39	0	0	0	0	0	0	16
Heavy Vehicle %	2%	5%	2%	2%	3%	2%	0%	0%	2%	0%	0%	4%
Peak Hour Factor	0.97			0.97			0.97			0.97		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	26	1473	60	376	1555	20	0	0	28	0	0	467
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	27	1,533	62	391	1,618	21	0	0	29	0	0	486
2024 No-Build Heavy Vehicle %	2%	5%	2%	2%	3%	2%	0%	0%	2%	0%	0%	4%
<b>Project Trips</b>												
Trip Distribution IN					85%							
Trip Distribution OUT		85%										
Truck Trips	0	9	0	0	9	0	0	0	0	0	0	0
Trip Distribution IN					30%							
Trip Distribution OUT		30%										
Car Trips	0	22	0	0	6	0	0	0	0	0	0	0
Total Project Trips	0	31	0	0	15	0	0	0	0	0	0	0
<b>2024 Buildout Total</b>	<b>27</b>	<b>1,564</b>	<b>62</b>	<b>391</b>	<b>1,633</b>	<b>21</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>0</b>	<b>0</b>	<b>486</b>
<b>2024 Build Heavy Vehicle %</b>	<b>2%</b>	<b>5%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #2: Joel Cowan Parkway (SR 74) @ Peggy Lane / Jenkins Road  
AM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74) Northbound			Joel Cowan Parkway (SR 74) Southbound			Peggy Lane Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	24	1,273	241	141	878	30	27	0	12	164	6	131
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	13	74	8	6	83	20	26	0	9	4	2	7
Heavy Vehicle %	54%	6%	3%	4%	9%	67%	96%	0%	75%	2%	33%	5%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	27	1438	272	159	992	34	31	0	14	185	7	148
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	28	1,496	283	165	1,032	35	32	0	15	192	7	154
2024 No-Build Heavy Vehicle %	54%	6%	3%	4%	9%	67%	97%	0%	73%	2%	35%	5%
<b>Project Trips</b>												
Trip Distribution IN		10%	5%									
Trip Distribution OUT					10%					5%		
Truck Trips	0	1	1	0	1	0	0	0	0	1	0	0
Trip Distribution IN		40%	10%									
Trip Distribution OUT					30%					20%		
Car Trips	0	32	8	0	6	0	0	0	0	4	0	0
Total Project Trips	0	33	9	0	7	0	0	0	0	5	0	0
2024 Buildout Total	28	1,529	292	165	1,039	35	32	0	15	197	7	154
2024 Build Heavy Vehicle %	54%	6%	4%	4%	9%	67%	97%	0%	73%	3%	35%	5%

**PM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74) Northbound			Joel Cowan Parkway (SR 74) Southbound			Peggy Lane Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	5	1,222	128	53	1,246	10	24	6	22	228	0	57
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	56	2	0	25	6	4	0	6	3	0	0
Heavy Vehicle %	2%	5%	2%	2%	2%	60%	17%	2%	27%	2%	0%	2%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	6	1442	151	63	1470	12	28	7	26	269	0	67
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	6	1,500	157	66	1,529	12	29	7	27	280	0	70
2024 No-Build Heavy Vehicle %	2%	5%	2%	2%	2%	62%	17%	2%	27%	2%	0%	2%
<b>Project Trips</b>												
Trip Distribution IN		10%	5%									
Trip Distribution OUT					10%					5%		
Truck Trips	0	1	1	0	1	0	0	0	0	1	0	0
Trip Distribution IN		40%	10%									
Trip Distribution OUT					30%					20%		
Car Trips	0	8	2	0	22	0	0	0	0	15	0	0
Total Project Trips	0	9	3	0	23	0	0	0	0	16	0	0
2024 Buildout Total	6	1,509	160	66	1,552	12	29	7	27	296	0	70
2024 Build Heavy Vehicle %	2%	5%	3%	2%	2%	62%	17%	2%	27%	2%	0%	2%

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #3: Ellison Road @ Jenkins Road  
AM PEAK HOUR**

Description	Ellison Road Northbound			Ellison Road Southbound			Jenkins Road Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	67	29	3	1	43	347	185	24	36	2	28	1
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	2	0	0	0	1	9	6	0	3	0	0	0
Heavy Vehicle %	3%	2%	2%	2%	2%	3%	3%	2%	8%	2%	2%	2%
Peak Hour Factor	0.85			0.85			0.85			0.85		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	76	33	3	1	49	392	209	27	41	2	32	1
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	79	34	3	1	51	408	217	28	43	2	33	1
2024 No-Build Heavy Vehicle %	3%	2%	2%	2%	2%	3%	3%	2%	8%	2%	2%	2%
<b>Project Trips</b>												
Trip Distribution IN												
Trip Distribution OUT												
Truck Trips	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN						20%						
Trip Distribution OUT							20%					
Car Trips	0	0	0	0	0	16	4	0	0	0	0	0
Total Project Trips	0	0	0	0	0	16	4	0	0	0	0	0
<b>2024 Buildout Total</b>	<b>79</b>	<b>34</b>	<b>3</b>	<b>1</b>	<b>51</b>	<b>424</b>	<b>221</b>	<b>28</b>	<b>43</b>	<b>2</b>	<b>33</b>	<b>1</b>
<b>2024 Build Heavy Vehicle %</b>	<b>3%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>	<b>3%</b>	<b>2%</b>	<b>8%</b>	<b>2%</b>	<b>2%</b>	<b>2%</b>

**PM PEAK HOUR**

Description	Ellison Road Northbound			Ellison Road Southbound			Jenkins Road Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	7	50	3	0	72	122	144	26	38	0	12	2
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	1	3	2	0	1	8	6	1	1	0	2	0
Heavy Vehicle %	14%	6%	67%	0%	2%	7%	4%	4%	3%	0%	17%	2%
Peak Hour Factor	0.81			0.81			0.81			0.81		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	8	59	4	0	85	144	170	31	45	0	14	2
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	8	61	4	0	88	150	177	32	47	0	15	2
2024 No-Build Heavy Vehicle %	15%	6%	69%	0%	2%	7%	4%	4%	3%	0%	16%	2%
<b>Project Trips</b>												
Trip Distribution IN												
Trip Distribution OUT												
Truck Trips	0	0	0	0	0	0	0	0	0	0	0	0
Trip Distribution IN						20%						
Trip Distribution OUT							20%					
Car Trips	0	0	0	0	0	4	15	0	0	0	0	0
Total Project Trips	0	0	0	0	0	4	15	0	0	0	0	0
<b>2024 Buildout Total</b>	<b>8</b>	<b>61</b>	<b>4</b>	<b>0</b>	<b>88</b>	<b>154</b>	<b>192</b>	<b>32</b>	<b>47</b>	<b>0</b>	<b>15</b>	<b>2</b>
<b>2024 Build Heavy Vehicle %</b>	<b>15%</b>	<b>6%</b>	<b>69%</b>	<b>0%</b>	<b>2%</b>	<b>6%</b>	<b>4%</b>	<b>4%</b>	<b>3%</b>	<b>0%</b>	<b>16%</b>	<b>2%</b>

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #4: Joel Cowan Parkway (SR 74) @ Site Driveway A  
AM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Eastbound			Site Driveway A Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	1,431	0	0	1,049	0	0	0	0	0	0	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles	0	107	0	0	109	0	0	0	0	0	0	0
Heavy Vehicle %	0%	7%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	0	1617	0	0	1185	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	1,682	0	0	1,233	0	0	0	0	0	0	0
2024 No-Build Heavy Vehicle %	0%	7%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
<b>Project Trips</b>												
Trip Distribution IN			5%	85%								
Trip Distribution OUT		30%								10%		55%
Truck Trips	0	2	1	7	0	0	0	0	0	1	0	4
Trip Distribution IN			10%	30%								
Trip Distribution OUT		15%								30%		15%
Car Trips	0	3	8	24	0	0	0	0	0	6	0	3
Total Project Trips	0	5	9	31	0	0	0	0	0	7	0	7
<b>2024 Buildout Total</b>	<b>0</b>	<b>1,687</b>	<b>9</b>	<b>31</b>	<b>1,233</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>7</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>8%</b>	<b>11%</b>	<b>23%</b>	<b>10%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>14%</b>	<b>0%</b>	<b>57%</b>

**PM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Eastbound			Site Driveway A Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	1,303	0	0	1,309	0	0	0	0	0	0	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles	0	60	0	0	31	0	0	0	0	0	0	0
Heavy Vehicle %	0%	5%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	0	1538	0	0	1545	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	1,600	0	0	1,607	0	0	0	0	0	0	0
2024 No-Build Heavy Vehicle %	0%	5%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
<b>Project Trips</b>												
Trip Distribution IN			5%	85%								
Trip Distribution OUT		30%								10%		55%
Truck Trips	0	3	1	9	0	0	0	0	0	1	0	6
Trip Distribution IN			10%	30%								
Trip Distribution OUT		15%								30%		15%
Car Trips	0	11	2	6	0	0	0	0	0	22	0	11
Total Project Trips	0	14	3	15	0	0	0	0	0	23	0	17
<b>2024 Buildout Total</b>	<b>0</b>	<b>1,614</b>	<b>3</b>	<b>15</b>	<b>1,607</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>17</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>5%</b>	<b>33%</b>	<b>60%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>	<b>0%</b>	<b>35%</b>

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #5: Joel Cowan Parkway (SR 74) @ Site Driveway B  
AM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Eastbound			Site Driveway B Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	1,431	0	0	1,049	0	0	0	0	0	0	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles	0	107	0	0	109	0	0	0	0	0	0	0
Heavy Vehicle %	0%	7%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	0	1617	0	0	1185	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	1,682	0	0	1,233	0	0	0	0	0	0	0
2024 No-Build Heavy Vehicle %	0%	7%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%
<b>Project Trips</b>												
Trip Distribution IN		5%	5%									
Trip Distribution OUT					10%							30%
Truck Trips	0	1	1	0	1	0	0	0	0	0	0	2
Trip Distribution IN		10%	30%									
Trip Distribution OUT					30%							15%
Car Trips	0	8	24	0	6	0	0	0	0	0	0	3
Total Project Trips	0	9	25	0	7	0	0	0	0	0	0	5
<b>2024 Buildout Total</b>	<b>0</b>	<b>1,691</b>	<b>25</b>	<b>0</b>	<b>1,240</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>5</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>7%</b>	<b>4%</b>	<b>0%</b>	<b>10%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>40%</b>

**PM PEAK HOUR**

Description	Joel Cowan Parkway (SR 74)			Joel Cowan Parkway (SR 74)			Eastbound			Site Driveway B Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	1,303	0	0	1,309	0	0	0	0	0	0	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles	0	60	0	0	31	0	0	0	0	0	0	0
Heavy Vehicle %	0%	5%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	0	1538	0	0	1545	0	0	0	0	0	0	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	1,600	0	0	1,607	0	0	0	0	0	0	0
2024 No-Build Heavy Vehicle %	0%	5%	0%	0%	2%	0%	0%	0%	0%	0%	0%	0%
<b>Project Trips</b>												
Trip Distribution IN		5%	5%									
Trip Distribution OUT					10%							30%
Truck Trips	0	1	1	0	1	0	0	0	0	0	0	3
Trip Distribution IN		10%	30%									
Trip Distribution OUT					30%							15%
Car Trips	0	2	6	0	22	0	0	0	0	0	0	11
Total Project Trips	0	3	7	0	23	0	0	0	0	0	0	14
<b>2024 Buildout Total</b>	<b>0</b>	<b>1,603</b>	<b>7</b>	<b>0</b>	<b>1,630</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>14</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>5%</b>	<b>14%</b>	<b>0%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>21%</b>

**INTERSECTION VOLUME DEVELOPMENT**

**Intersection #6: Jenkins Road @ Site Driveway C  
AM PEAK HOUR**

Description	Northbound			Site Driveway C Southbound			Jenkins Road Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	0	382	0	0	301	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	14	0	0	13	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	4%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13
Adjusted 2022 Volumes	0	0	0	0	0	0	0	432	0	0	340	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	0	0	0	0	0	0	449	0	0	354	0
2024 No-Build Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	4%	0%
<b>Project Trips</b>												
Trip Distribution IN								5%				
Trip Distribution OUT						5%						
Truck Trips	0	0	0	0	0	1	1	0	0	0	0	0
Trip Distribution IN								10%				20%
Trip Distribution OUT				20%		20%						
Car Trips	0	0	0	4	0	4	8	0	0	0	0	16
Total Project Trips	0	0	0	4	0	5	9	0	0	0	0	16
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>5</b>	<b>9</b>	<b>449</b>	<b>0</b>	<b>0</b>	<b>354</b>	<b>16</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>	<b>0%</b>	<b>20%</b>	<b>11%</b>	<b>4%</b>	<b>0%</b>	<b>0%</b>	<b>4%</b>	<b>2%</b>

**PM PEAK HOUR**

Description	Northbound			Site Driveway C Southbound			Jenkins Road Eastbound			Jenkins Road Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Observed 2022 Traffic Volumes	0	0	0	0	0	0	0	187	0	0	285	0
Pedestrians	0			0			0			0		
Conflicting Pedestrians	0		0	0		0	0		0	0		0
Heavy Vehicles	0	0	0	0	0	0	0	2	0	0	3	0
Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
Peak Hour Factor	0.96			0.96			0.96			0.96		
Covid Calibration Factor	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18	1.18
Adjusted 2022 Volumes	0	0	0	0	0	0	0	221	0	0	336	0
Annual Growth Rate	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Growth Factor	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040	1.040
2024 Background Traffic	0	0	0	0	0	0	0	230	0	0	350	0
2024 No-Build Heavy Vehicle %	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	2%	0%
<b>Project Trips</b>												
Trip Distribution IN								5%				
Trip Distribution OUT						5%						
Truck Trips	0	0	0	0	0	1	1	0	0	0	0	0
Trip Distribution IN								10%				20%
Trip Distribution OUT				20%		20%						
Car Trips	0	0	0	15	0	15	2	0	0	0	0	4
Total Project Trips	0	0	0	15	0	16	3	0	0	0	0	4
<b>2024 Buildout Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15</b>	<b>0</b>	<b>16</b>	<b>3</b>	<b>230</b>	<b>0</b>	<b>0</b>	<b>350</b>	<b>4</b>
<b>2024 Build Heavy Vehicle %</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>	<b>0%</b>	<b>6%</b>	<b>33%</b>	<b>2%</b>	<b>0%</b>	<b>0%</b>	<b>2%</b>	<b>2%</b>

# Programmed Project Fact Sheets

**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



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**Existing Thru Lane**  **LCI**

**Planned Thru Lane**  **Flex**

**Network Year**

**Corridor Length**  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

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

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



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



## I-85 @ SR 74/SENOIA ROAD

Project ID: **0007841**

Project Manager: Olusola T. Adekonojo

Office: Program Delivery

County: Fulton

Congressional District: 013

State Senate District.: 035

State House District: 064, 065

Project Type: Reconstruction/Rehabilitation

Project Status: Construction Work Program

Right of Way Authorization: 4/1/2019

Notice to Proceed Date:

Construction Percent Complete: %

Current Completion Date:

Work Completion Date:

Construction Contract Amount:

Construction Contractor:

[Preconstruction Status Report](#)

[Construction Status Report](#)

[Contact Us](#)

### Project Description:

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. Two alternatives are proposed: Diverging Diamond Interchange (DDI) and Partial cloverleaf interchange (ParClo).

Activity	Program Year	Cost Estimate	Date of Last Estimate
SCP (Scoping)	2011	\$50,000.00	
PE (Preliminary Engineering)	2012	\$1,463,376.93	4/29/2021
PE (Preliminary Engineering)	2016	\$1,614,466.00	4/29/2021
ROW (Right of Way)	2019	\$16,693,863.00	8/13/2018
ROW (Right of Way)	2020	\$13,666,137.00	8/13/2018
UTL (Utilities)	2024	\$374,850.00	10/29/2021
CST (Construction)	2024	\$45,232,450.73	1/6/2022

Project Documents
Approved Concept Reports
<a href="#">0007841_CR_AUG2014.pdf</a>
<a href="#">0007841_L&amp;D_AUG2018.pdf</a>
<a href="#">0007841_Ads_GA_Public_SEP2018.pdf</a>
Project Outreach Archive
Handout.pdf
<a href="#">0007841_NEPA_PIOH Layout 2_2012.2.28.pdf</a>
<a href="#">0007841_NEPA_PIOH Handout_2012.2.28.pdf</a>
<a href="#">0007841_NEPA_PIOH Layout 1_2012.2.28.pdf</a>

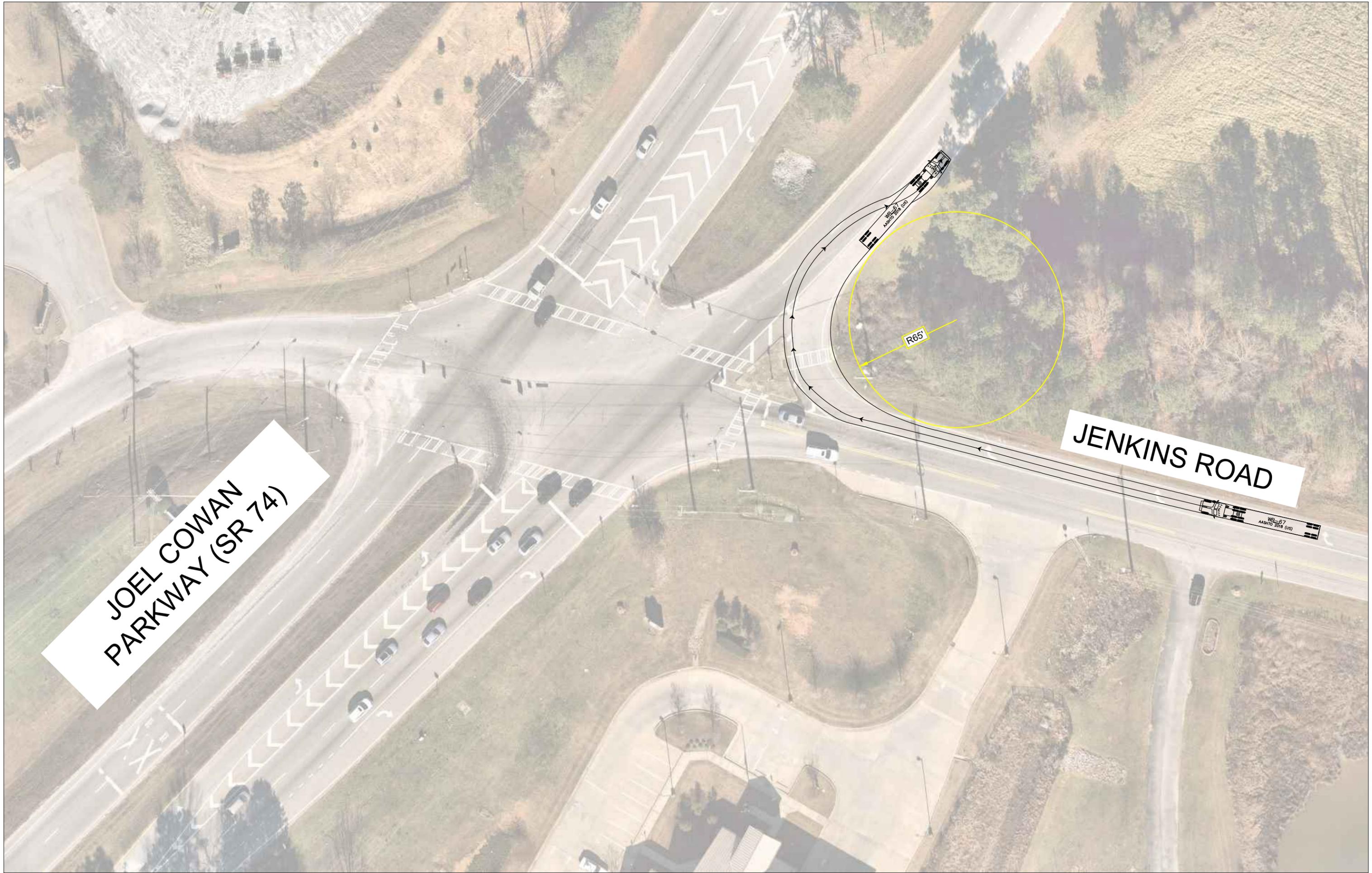
# Full Page Truck Exhibits

JOEL COWAN  
PARKWAY (SR 74)

JENKINS ROAD

R65'

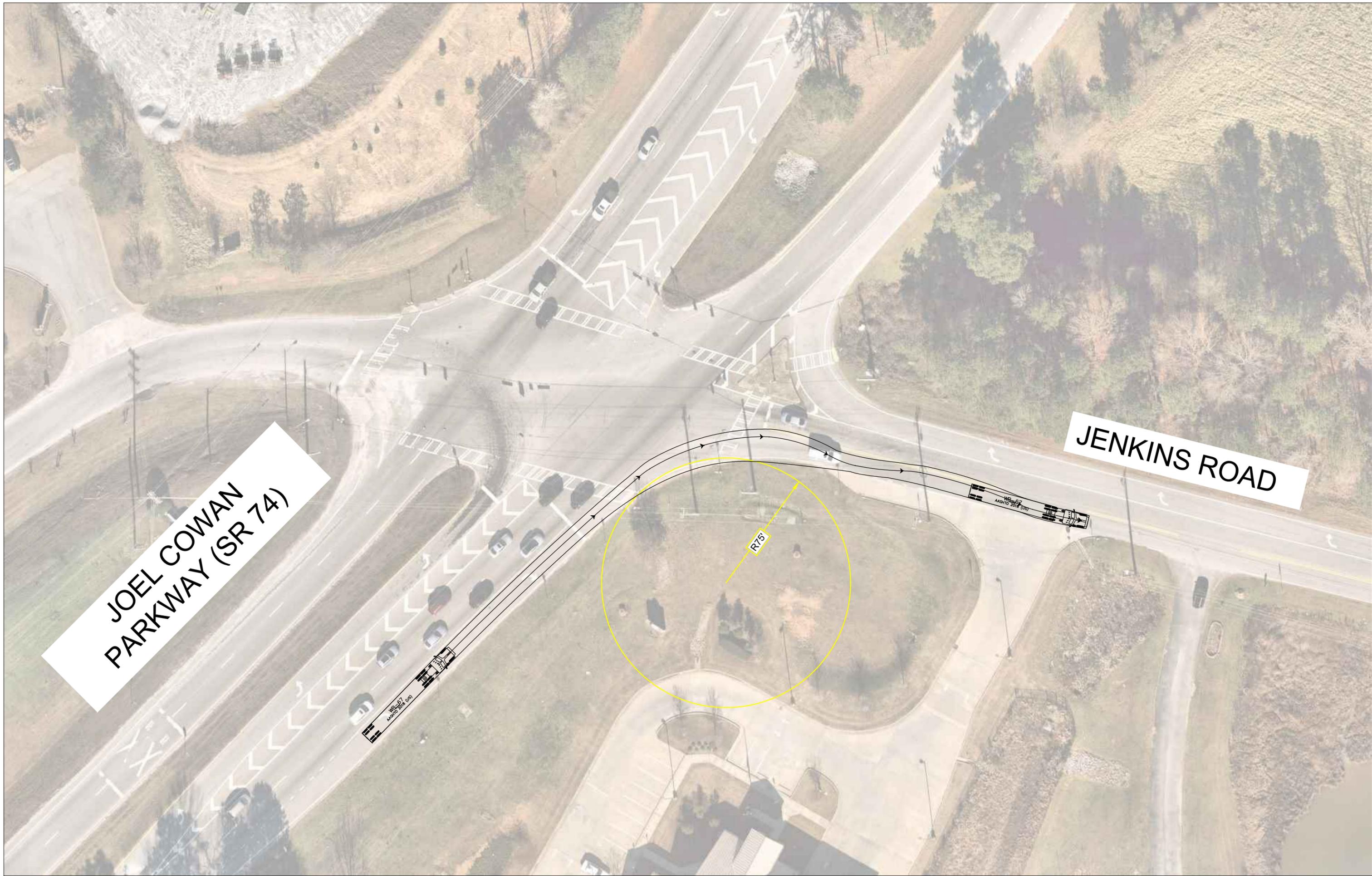
WB-67  
AASHTO 2018 (US)



JOEL COWAN  
PARKWAY (SR 74)

JENKINS ROAD

R75



# Intersection Control Evaluation (ICE)

GDOT PI#:  Request By:   
 County:  GDOT District:   
 Major Road:  Road Class:  Speed Limit:   
 Crossing Road:  Road Class:  Speed Limit:   
 Major Rd Direction:  Area Type:   
 Intersection Control:  Project ID:   
 Prepared By:  Date:   
 Project Purpose:

**2022 EXISTING YEAR VOLUMES**

APPROACH SPLITS:  
SR 74: 50%  
Site Dwy A: 50%

		0 (0) [0]						
		(0)	(0)	(0)	(0)			
		0	0	0	0	WB Site Dwy A		
0  (0) 0	SB SR 74	Peds	↖	↓	↘	↔	0	(0)
	2022 Intersection Daily Entering Volume (est):					↖	0	(0)
	0					↔	0	(0)
						↘	0	(0)
EB Site Dwy A		0	0	0	0	NB SR 74		
		(0)	(0)	(0)	(0)	0 (0) [0]		
		0 (0) [0]						

PEAK HR % TRUCKS:

EB	WB	NB	SB
0%	0%	0%	0%

Existing Data Year:   
 Project Opening Year:   
 Project Design Year:   
 Annual Growth Rate:   
 K Factor\*:

\* K Factor = Proportion of average annual daily traffic occurring in the highest one hour of the day

**2024 OPENING YEAR VOLUMES**

		1264 (1622) [32500]						
		(0)	(0)	(1607)	(15)			
		0	0	1,233	31	WB Site Dwy A		
0  (0) 0	SB SR 74	Peds	↖	↓	↘	↔	0	(0)
	2024 Intersection Daily Entering Volume (est):					↖	7	(17)
	32,800					↔	0	(0)
						↘	7	(23)
EB Site Dwy A		0	1,687	9	0	NB SR 74		
		(0)	(1614)	(3)	(0)	14 (40) [600]		
		1696 (1617) [32500]						

**2044 DESIGN YEAR VOLUMES**

		1863 (2404) [48100]						
		(0)	(0)	(2389)	(15)			
		0	0	1,832	31	WB Site Dwy A		
0  (0) 0	SB SR 74	Peds	↖	↓	↘	↔	0	(0)
	2044 Intersection Daily Entering Volume (est):					↖	7	(17)
	48,400					↔	0	(0)
						↘	7	(23)
EB Site Dwy A		0	2,505	9	0	NB SR 74		
		(0)	(2392)	(3)	(0)	14 (40) [600]		
		2514 (2395) [48100]						

**LEGEND:**  
 000 = AM Peak Approach Volume  
 (000) = PM Peak Approach Volume  
 [000] = ADT Volume (Estimate)

**Introduction** In 2005, SAFETEA-LU established the Highway Safety Improvement Program (HSIP) and mandated that each state prepare a Strategic Highway Safety Plan (SHSP) to prioritize safety funding investments. Intersections quickly became a common component of most states' SHSP emphasis areas and HSIP project lists, including Georgia's SHSP. Intersection Control Evaluation (ICE) policies and procedures represent a traceable and transparent procedure to streamline the evaluation of intersection control alternatives, and further leverage safety advancements for intersection improvements beyond just the safety program. Approximately one-third of all traffic fatalities and roughly seventy five percent of all traffic crashes in Georgia occur at or adjacent to intersections. Accordingly, the Georgia SHSP includes an emphasis on enhancing intersection safety to advance the **Toward Zero Deaths** vision embraced by the Georgia Governor's Office of Highway Safety (GOHS). This ICE tool was developed to support the ICE policy, developed and adopted to help ensure that intersection investments across the entire Georgia highway system are selected, prioritized and implemented with defensible benefits for safety towards those ends.

**Tool Goal** The goal of this ICE tool is to provide a simplified and consistent way of importing traffic, safety, cost, environmental impact and stakeholder posture data to assess and quantify intersection control improvement benefits. The tool supports the ICE policy and procedures to provide traceability, transparency, consistency and accountability when identifying and selecting an intersection control solution that both meets project purpose and reflects overall best value in terms of specific performance-based criteria.

**Requirements** An ICE is required for any intersection improvement (e.g. new or modified intersection, widening/reconstruction or corridor project, or work accomplished through a driveway or encroachment permit that affects an intersection) **when** the intersection includes at least one roadway designated as a State Route (State Highway System) or as part of the National Highway System; **or** the intersection will be designed or constructed using State or Federal funding. In certain circumstances where an ICE would otherwise be required, the requirement **may** be waived based on appropriate evidence presented with a written request. (**See** the Waiver tab to review criteria that may make a project waiver eligible and for instructions to submit a waiver request to the Department). An ICE is not required when the proposed work does not include any changes to the intersection design, involves only routine traffic signal timing and equipment maintenance, or for driveway permits where the driveway is not a new leg to an already existing intersection on either 1) a divided, multi-lane highway with a closed median and only right-in/right-out access or 2) an undivided roadway where the development is not required to construct left and/or right turn lanes (as per the Driveway Manual and District Traffic Engineer).

**Two-Stage Process** A complete ICE process consists of two (2) distinct stages, and it is expected that the respective level of effort for completing both stages of ICE will correspond to the magnitude and complexity of the intersection. Prior to starting an ICE, the District Traffic Engineer and/or State Traffic Engineer should be consulted for advice on an appropriate level of effort. The Stage 1 and Stage 2 ICE forms are designed minimize required data inputs using drop-down menu choices and limiting text entry. All fields shaded grey include drop down menu choices and all fields shaded blue require data entry. All other cells in the worksheet are locked.

**Stage 1 Screening** Stage 1 should be conducted early in the project development process and is intended to inform which alternatives are worthy of further evaluation in Stage 2. Stage 1 serves as a screening effort meant to **eliminate** non-competitive options and identify which alternatives merit further considerations based on their practical feasibility. Users should use good engineering judgement in responding to the seven policy questions by selecting "Yes" or "No" in the drop-down boxes. Alternatives should not be summarily eliminated without due consideration, and reasons for eliminating or advancing an alternative should be documented in the "Screening Decision Justification" column.

**Stage 2 Alternative Selector** Stage 2 involves a more detailed and familiar evaluation of the alternatives identified in Stage 1 in order to support the selection of a preferred alternative that may be advanced to detailed design. Stage 2 data entry may require the use of external analysis tools to determine costs, operations and/or safety data that, combined with environmental and stakeholder posture data, form the basis of the ICE evaluation. A separate "CostEst" worksheet tab helps users develop pre-planning-level cost estimates for each Stage 2 alternative evaluated, and a separate Users Guide has been prepared to give guidance on Stage 1 and Stage 2 data entry. Once all data is entered, each alternative is scored and ranked, with the results reported at the bottom of the Stage 2 worksheet to inform on the best of the intersection controls evaluated for project recommendation.

**Documentation** A complete ICE document consists of the combination of the outputs from either a completed and signed waiver form or both Stage 1 and Stage 2 worksheets (along with supporting costing and/or environmental documentation), to be included in the approved project Concept Report (or equivalent) or as a stand-alone document.

GDOT PI #	N/A	<p>Note: Up to 5 alternatives may be selected and evaluated; Use this ICE Stage 1 to screen 5 or fewer alternatives to evaluate in Stage 2</p> <p style="font-size: small; text-align: center;">             1. Does alternative address the project need in a balanced manner and in scale with the project?              2. Does alternative improve safety performance in terms of reducing severe crashes?              3. Does alternative incorporate safety, convenience operations (congestion, delay, reliability, etc.)?              4. Does alternative improve (or preserve) traffic characteristics, constraints &amp; location context?              5. Does alternative appear feasible given the site respect to other project factors?              6. Does alternative appear feasible with respect to other project factors?              7. Overall feasible alternative (select alternative for further evaluation in Stage 2)?           </p>							
Project Location:	SR 74 @ Site Dwy A								
Existing Control:	New Intersection or Other								
Prepared by:	KHA								
Date:	5/26/2022								
<p>Answer "Yes" or "No" to each policy question for each control type to identify which alternatives should be evaluated in the Stage 2 Decision Record; enter justification in the rightmost column</p>		<p style="text-align: right;">Screening Decision Justification:</p>							
<p>Intersection Alternative (see "Intersections" tab for detailed description of intersection/interchange type)</p>									
Unsignalized Intersections	Conventional (Minor Stop)	Yes	Yes	Yes	No	Yes	Yes	Yes	Consider for Stage 2 Analysis
	Conventional (All-Way Stop)	No	Yes	No	No	No	No	No	AWS not viable due to speeds and volumes on mainline
	Mini Roundabout	No	No	No	No	No	No	No	Control not appropriate for high-speed roadway
	Single Lane Roundabout	No	Yes	No	Yes	No	No	No	Sidestreet less than 10% of overall intersection volume
	Multilane Roundabout	Yes	Yes	No	Yes	No	No	No	Sidestreet less than 10% of overall intersection volume
	RCUT (stop control)	Yes	Yes	No	Yes	Yes	Yes	Yes	Consider for Stage 2 Analysis
	RIRO w/down stream U-Turn	Yes	Yes	No	Yes	Yes	Yes	Yes	Consider for Stage 2 Analysis
	High-T (unsignalized)	No	No	No	No	No	No	No	Not a T-intersection
	Offset-T Intersections	No	No	No	No	No	No	No	Purpose to align with existing median across street
	Diamond Interch (Stop Control)	No	No	No	No	No	No	No	Not a grade separated interchange
	Diamond Interch (RAB Control)	No	No	No	No	No	No	No	Not a grade separated interchange
	No LT Lane Improvements	No	No	No	No	No	No	No	N/A
	No RT Lane Improvements	No	No	No	No	No	No	No	N/A
	Other unsignalized (provide description):	No	No	No	No	No	No	No	N/A
Signalized Intersections	Traffic Signal	Yes	No	Yes	No	Yes	No	No	Intersection does not meet signal warrants.
	Median U-Turn (Indirect Left)	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	RCUT (signalized)	Yes	No	Yes	No	Yes	No	No	Intersection does not meet signal warrants.
	Displaced Left Turn (CFI)	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Continuous Green-T	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Jughandle	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Quadrant Roadway	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Diamond Interch (Signal Control)	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Diverging Diamond	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	Single Point Interchange	No	No	No	No	No	No	No	Intersection does not meet signal warrants.
	No LT Lane Improvements	No	No	No	No	No	No	No	N/A
	No RT Lane Improvements	No	No	No	No	No	No	No	N/A
Other Signalized (provide description):	No	No	No	No	No	No	No	N/A	

☐ = Intersection type selected for more detailed analysis in Stage 2 Alternative Selection Decision Record



# GDOT ICE STAGE 2: ALTERNATIVE SELECTION DECISION RECORD

ICE Version 2.21 | Revised 2/4/2022

Project Location: SR 74 @ Site Dwy A  
 Existing Intersection Control: New Intersection or Other  
 Type of Analysis: Conventional Non-Safety Funded Project

District: 3 - Thomaston  
 County: Fayette  
 Area: Rural

GDOT PI #: N/A  
 Prepared by: KHA  
 Date: 5/26/2022

### Opening / Design Year Traffic Operations

Intersection meets signal/AWS warrants?	None	Complete Streets Warrants Met? <input type="checkbox"/> PEDESTRIANS <input type="checkbox"/> BICYCLES <input type="checkbox"/> TRANSIT
Traffic Analysis Measure of Effectiveness	Intersection Delay	
Traffic Analysis Software Used	Synchro	
Analysis Time Period	AM Peak Hr    PM Peak Hr	
2024 Opening Yr No-Build Peak Hr Intersection Delay	0.0 sec    0.0 sec	
2024 Opening Yr No-Build Peak Hr Intersection V/C	0.00    0.00	
2044 Design Yr No-Build Peak Hr Intersection Delay	0.0 sec    0.0 sec	
2044 Design Yr No-Build Peak Hr Intersection V/C ratio	0.00    0.00	

Crash Data: Enter most recent 5 years of crash data	Crash Severity					Years:
	K*	A*	B*	C*	O	5
Angle	0	0	0	0	0	#DIV/0!
Head-On	0	0	0	0	0	#DIV/0!
Rear End	0	0	0	0	0	#DIV/0!
Sideswipe - same	0	0	0	0	0	#DIV/0!
Sideswipe - opposite	0	0	0	0	0	#DIV/0!
Not Collision w/Motor Veh	0	0	0	0	0	#DIV/0!
<b>TOTALS:</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

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

### Alternatives Analysis:

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Proposed Control Type/Improvement:	Conventional (Minor Stop)	RCUT (stop control)	RIRO w/down stream U-Turn	N/A	N/A
<b>Project Cost: (From CostEst Worksheet)</b>	<i>Additional description here</i>	<i>Additional description here</i>	<i>Additional description here</i>		
Construction Cost	\$200,000	\$597,000	\$479,000		
ROW Cost	\$0	\$381,000	\$381,000		
Environmental Cost	\$0	\$0	\$0		
Reimbursable Utility Cost	\$0	\$8,000	\$7,000		
Design & Contingency Cost	\$0	\$154,000	\$124,000		
Cost Adjustment (justification req'd)	0%	0%	0%		
<b>Total Cost</b>	<b>\$200,000</b>	<b>\$1,140,000</b>	<b>\$991,000</b>		

### Traffic Operations:

	Synchro		Synchro		Synchro				
	AM Peak Hr	PM Peak Hr	AM Peak Hr	PM Peak Hr	AM Peak Hr	PM Peak Hr			
	Traffic Analysis Software Used	Synchro		Synchro		Synchro			
Analysis Period									
2044 Design Yr Build Intersection Delay	130.8 sec	215.8 sec	110.0 sec	122.9 sec	109.0 sec	122.9 sec			
2044 Design Yr Build Intersection V/C	0.35	0.85	0.19	0.36	0.19	0.36			

### Safety Analysis:

Predefined CRF: PDO	0%	0%	0%		
Predefined CRF: Fatal/Inj	0%	0%	0%		
Predefined CRF Source:	CRF unavailable; provide user defined CRF below	CRF unavailable; provide user defined CRF below	CRF unavailable; provide user defined CRF below		
User Defined CRF: PDO					
User Defined CRF: Fatal/Inj					
User Defined CRF Source (write in if applicable):					

### Environmental Impacts:<sup>1</sup>

Historic District/Property	None	None	None		
Archaeology Resources	None	None	None		
Graveyard	None	None	None		
Stream	None	None	None		
Underground Tank/Hazmat	None	None	None		
Park Land	None	None	None		
EJ Community	None	None	None		
Wooded Area	None	None	None		
Wetland	None	None	None		

Note: If environmental impact is significant (**RED**), provide justification impact won't jeopardize project delivery using "Env" worksheet  
<sup>1</sup> Environmental impacts are only preliminary estimates; detailed environmental impact documentation will be included with project concept report

### Stakeholder Posture:

Local Community Support	Unknown	Unknown	Unknown		
GDOT Support	Unknown	Unknown	Unknown		

<b>Final ICE Stage 2 Score:</b>	<b>5.5</b>	<b>4.8</b>	<b>5.3</b>		
Rank of Control Type Alternatives:	1	3	2		
Final Intersection Control Selection:	1 - Conventional (Minor Stop)				

Note: Stage 2 score is not given (shown as "-") if signal or AWS is selected as control type but respective warrants are not met

Provide additional comments and/or explain any unique analysis inputs, or results (as necessary):  
 Synchro 11 used for analysis. RCUT/RIRO delay and v/c includes weighted average of westbound movement and corresponding displaced u-turn and travel time (worst approach). Conventional minor stop with turn lane delay and v/c represents worst approach (westbound left). Cost override tool used to include cost of conventional driveway.

