



*Transportation Analysis*

# **Innovation Mixed-Use DRI #2499**

City of Alpharetta, Georgia

*Report Prepared:*

July 2015

*Prepared for:*

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### *Available Upon Request*

Raw Traffic Counts (Peak Hour Turning Movements)  
 SIDRA Capacity Analyses (Roundabouts Only)  
 Synchro Capacity Analyses

## EXECUTIVE SUMMARY

This report presents the analysis of the anticipated traffic impacts of the *Innovation Mixed-Use* development located in the City of Alpharetta, Georgia. The approximately 55.09-acre site is located just northwest of GA 400, bordered by Lakeview Parkway to the north, GA 400 to the south, Haynes Bridge Road to the east, and an existing office complex and lake to the west in City of Alpharetta, Georgia. The proposed development will be a mixed-use development with approximately 414 apartment units, 25 condominiums, a 200-room hotel, 751,500 SF of Office, 65,800 SF of retail, and 40,000 SF of high-turnover (sit-down) restaurant. The project is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review due to a rezoning and Master Plan Amendment. The DRI for this development was triggered by the filing of the rezoning application. DRI Form 1 was filed on May 18, 2015.

The project site is within the bounds of a Livable Centers Initiative (LCI) study completed for the area – the *North Point Activity Center Livable Centers Initiative Study* (April 2008), intends the area to be mixed-use in character as a Mixed-Use Village Center with a concentration of mixed-use, walkable districts, including residential development and a viable pedestrian network to support enhanced transit and/or alternative transportation opportunities. The proposed development will incorporate all of the intended elements as stated in the LCI and is described in this report and therefore conforms to the North Point Activity Center LCI plan.

According to GRTA's Procedures and Principles for GRTA Development of Regional Impact Review, the proposed DRI complies with the Expedited Review Criteria in **Section 3-102, Part F – Livable Centers Initiative (LCI)**, which states:

*...the proposed DRI is located within an area approved for inclusion within the LCI program by the Atlanta Regional Commission and is consistent with the policies, design elements, and overall standards established by the study and any subsequently funded Supplemental Study(s). The local government(s) in which the LCI is located has completed and adopted the initial LCI Study within their Comprehensive Plan. Additionally, the local government(s) must have shown efforts towards implementation of the adopted study, by such methods as, approval of conforming development/redevelopment plan, adopted ordinances and/or codes, and implementation of the LCI's Five (5) Year Plan.*

This development is located within and consistent with the *North Point Activity Center Livable Centers Initiative Study* (April 2008). Therefore, this DRI development is being submitted for approval under GRTA's Expedited review process.

This development is proposed to generate a total of 20,581 gross daily trips (9,673 net trips). The proposed development is expected to be completed by 2019 (approximately 4 years), and this analysis will consider the full build-out of the proposed site in 2019. The proposed site consists of the following land uses and density:

|                  |                    |
|------------------|--------------------|
| Apartments:      | 414 Dwelling Units |
| Condominiums:    | 25 Dwelling Units  |
| Hotel:           | 200 Rooms          |
| Office Building: | 751,500 SF         |
| Retail Shopping: | 65,800 SF          |
| Restaurant:      | 40,000 SF          |

Capacity analyses were performed throughout the study network for the Existing 2015 conditions, the Projected 2019 No-Build conditions, and the Projected 2019 Build conditions.

- Existing 2015 conditions represent traffic volumes collected in April 2015 at nine (9) intersections during the AM and PM peak periods.
- Projected 2019 No-Build conditions represent the 2015 traffic volumes grown for four (4) years at 0.5 percent per year throughout the study network and the addition of 50% of the estimated project trips from Northwinds Parkway development located across from the GA 400 Southbound Ramps.
- Projected 2019 Build conditions represent the Projected 2019 No-Build conditions plus the addition of the project trips that are anticipated to be generated by this *Innovation Mixed-Use* development (DRI #2499).

*Based on the **Existing 2015** conditions (present conditions; i.e. excludes background traffic growth and excludes the Innovation Mixed-Use DRI project traffic), none of the ten (10) study intersections operate below the acceptable level-of-service (LOS) standard of D.*

*Based on the **Projected 2019 No-Build** conditions (includes background traffic growth and 50% of the estimated project trips from the Northwinds Parkway development, but excludes the Innovation Mixed-Use DRI project traffic), the following recommended improvements result in all study intersections operating at or above the level-of-service standard (LOS D):*

- Intersection #6 – Haynes Bridge Road at 400 NB Ramps – operates at a LOS E during the PM Peak hour
  - Provide one (1) additional southbound left-turn lane (creating dual southbound left-turn lanes) along Haynes Bridge Road onto the 400 NB on-ramp by restriping the northbound inside through-lane.
  - Improve the existing eastbound 400 NB on-ramp from one (1) receiving lane to two (2) receiving lanes.

*Based on the **Projected 2019 Build** conditions (includes background traffic growth, 50% of the estimated project trips from the Northwinds Parkway development, and the Innovation Mixed-Use DRI project traffic), the following recommended improvements result in all study intersections operating at or above the level-of-service standard (LOS D):*

- Intersection #4 – Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway – operates at a LOS E and F during the AM and PM Peak hour, respectively.
  - Construct one (1) additional northbound left-turn lane along Haynes Bridge Road onto Lakeview Parkway (creating dual northbound left-turn lanes).
  - Construct one (1) additional eastbound right-turn lane along Lakeview Parkway onto Haynes Bridge Road (creating dual eastbound right-turn lanes).

*The following intersection geometries and improvements result in the recommended configurations and control types for all site driveways and public access roadways within the immediate vicinity of the project site:*

- Intersection #8 – Lakeview Parkway at Relocated Existing Office Driveway #2 / Proposed Site Driveway #1
  - Construct a two (2) lane roundabout. Refer to Figure 9 for a more complete laneage depiction.
  - Provide two (2) northbound and two (2) southbound entry lanes into the roundabout.
  - Provide two (2) lanes exiting the roundabout in the northbound and southbound directions.
  - Construct Proposed Site Driveway #1 to have one ingress lane and one egress lane, aligned with Relocated Existing Driveway via the proposed roundabout.
  - Relocate the Existing Office Driveway#2 approximately 140 feet south of its current location to be aligned with Proposed Site Driveway #1 via the proposed roundabout.
- Intersection #9 – Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2
  - Alternative 1 (shown on site plan)
    - Install a traffic signal (when warranted).
    - Construct one (1) northbound left-turn lane and one (1) northbound shared through/right-turn lane from Proposed Site Driveway #2 onto Lakeview Parkway.
    - Construct one (1) southbound left-turn lane and one (1) southbound shared through/right-turn lane from Proposed Driveway for Existing Office onto Lakeview Parkway.
    - Convert the existing eastbound U-turn lane into a left-turn lane into Proposed Driveway for Existing Office.
    - Convert the existing westbound U-turn lane into a left-turn lane into Proposed Site Driveway #2.
  - Alternative 2
    - Construct a two (2) lane roundabout.
    - Provide two (2) eastbound entry lanes and two (2) westbound entry lanes into the roundabout.
    - Provide two (2) lanes exiting the roundabout in the eastbound and westbound directions.
    - Construct Proposed Site Driveway #2 to have one ingress lane and one egress lane, aligned with Proposed Driveway for Existing Office via the proposed roundabout.
    - Construct Proposed Driveway for Existing Office to have one ingress lane and one egress lane, aligned with Proposed Site Driveway #2 via the proposed roundabout.

- Intersection #10 – Lakeview Parkway at Existing Office Driveway #3 / Proposed Site Driveway #3
  - Close the median along Lakeview Parkway.
  - Convert the Existing Office Driveway #3 from a full-movement driveway into a right-in/right-out driveway.
  - Construct Proposed Site Driveway #3 to have one ingress lane and one egress lane as a right-in/right-out driveway.

## 1.0 PROJECT DESCRIPTION

### 1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the *Innovation Mixed-Use* development located in the City of Alpharetta, Georgia. The approximately 55.09-acre site is located north of GA 400, bordered by Lakeview Parkway to the north, GA 400 to the south, Haynes Bridge Road to the east, and an existing office complex and lake to the west in City of Alpharetta, Georgia. The proposed development is a Development of Regional Impact (DRI) and is subject to Georgia Regional Transportation Authority (GRTA) and Atlanta Regional Commission (ARC) review due to a Master Plan Amendment.

The *Innovation Mixed-Use* development lies entirely within the bounds of a Livable Centers Initiative (LCI) study that has been completed for the area. The goal of the *North Point Activity Center Livable Centers Initiative Study* (April 2008), is to “encourage planning and investment in existing Activity Centers, integrate land use and transportation planning, and encourage the creation of more sustainable, livable communities consistent with regional development policies.” As envisioned in the LCI plan, the project proposes to the existing vacant land into a variety of land-uses with proposed new internal roadways to create an interconnected, pedestrian-scale, and walkable environment with a mix of housing options as well as retail, restaurant, hotel, and office.

According to GRTA’s Procedures and Principles for GRTA Development of Regional Impact Review, the proposed DRI project complies with the Expedited Review Criteria in **Section 3-102, Part F – Livable Centers Initiative (LCI)**, which states:

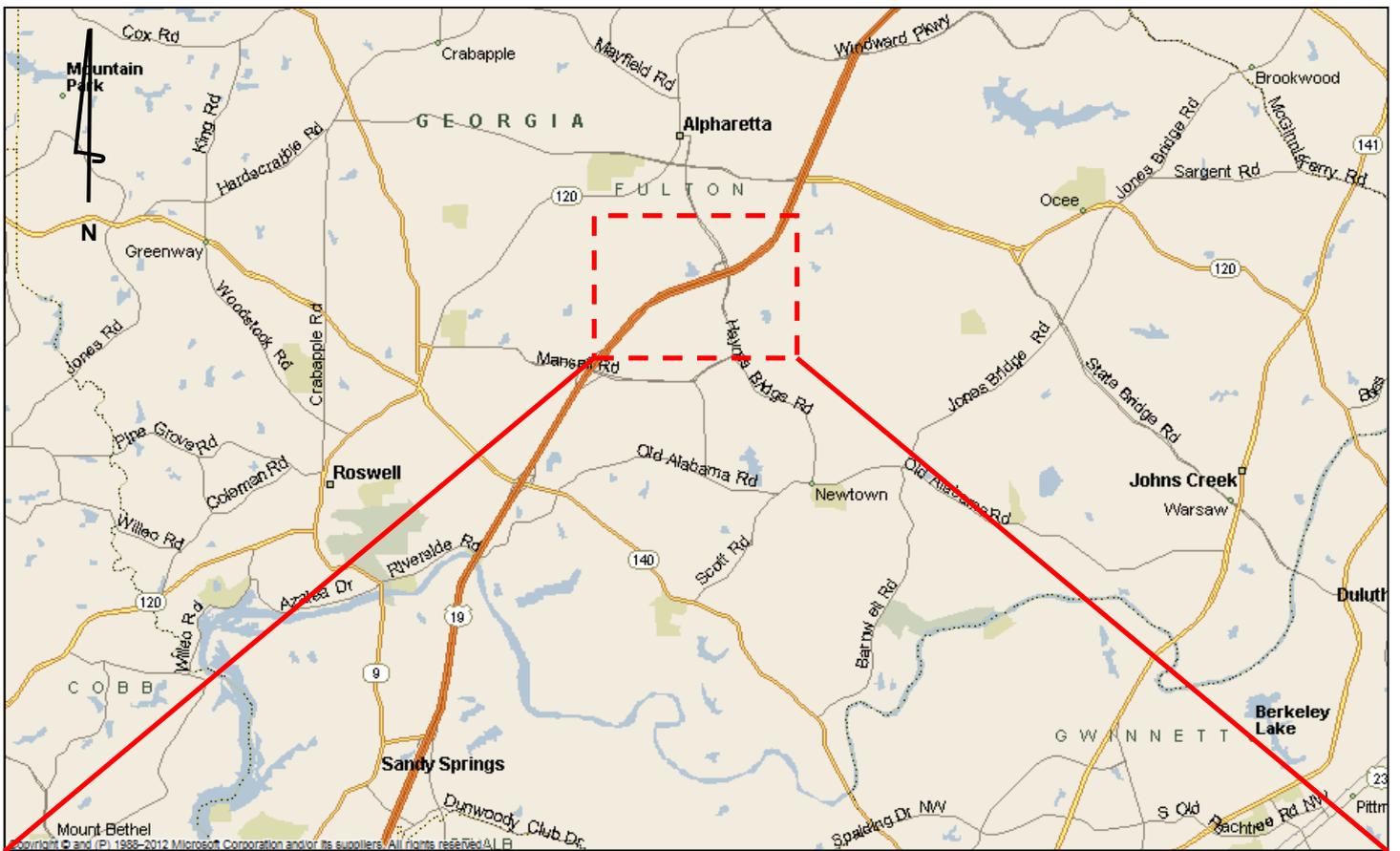
*...the proposed DRI is located within an area approved for inclusion within the LCI program by the Decatur Regional Commission and is consistent with the policies, design elements, and overall standards established by the study and any subsequently funded Supplemental Study(s). The local government(s) in which the LCI is located has completed and adopted the initial LCI Study within their Comprehensive Plan. Additionally, the local government(s) must have shown efforts towards implementation of the adopted study, by such methods as, approval of conforming development/redevelopment plan, adopted ordinances and/or codes, and implementation of the LCI’s Five (5) Year Plan.*

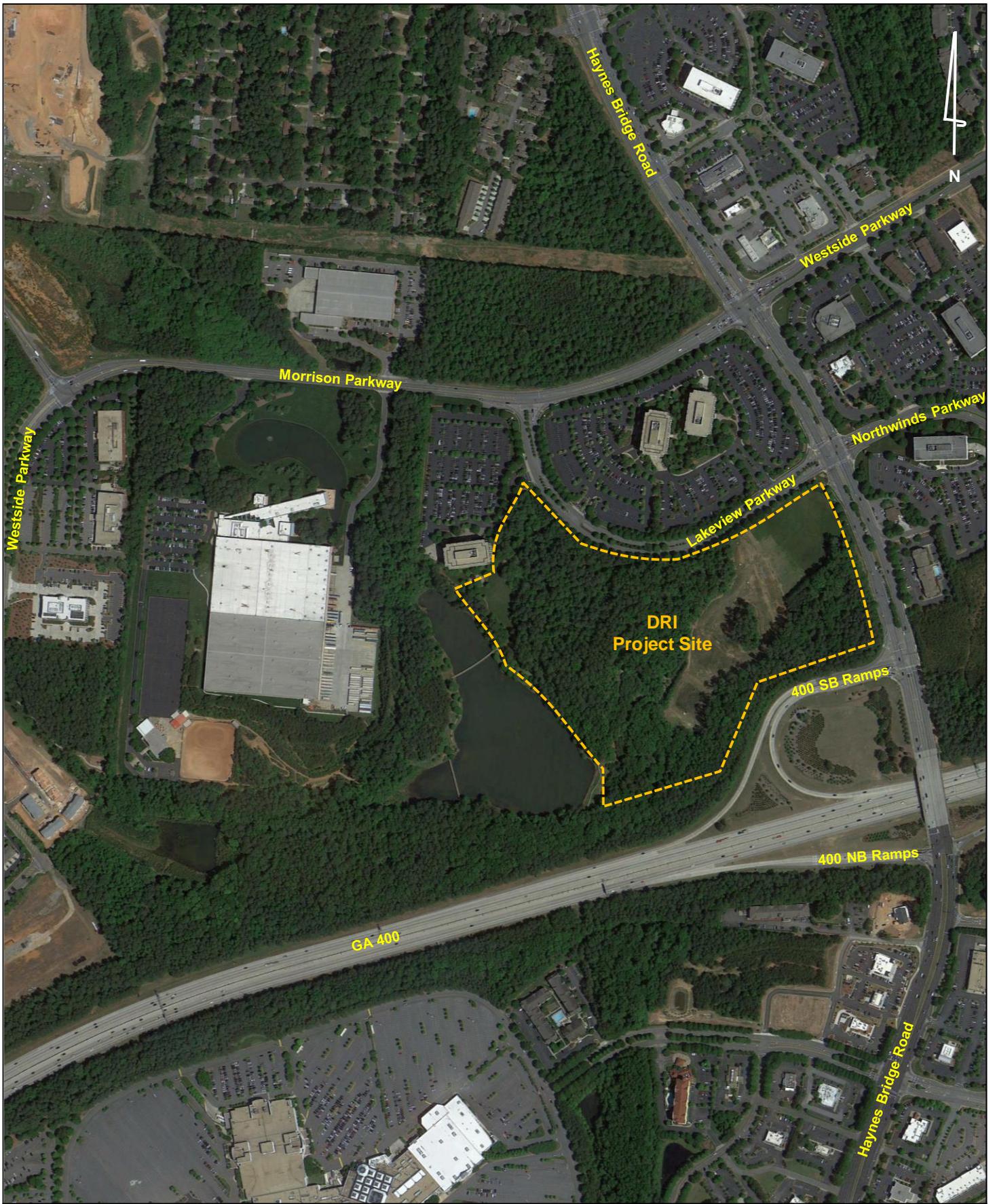
This development is located within and is consistent with the *North Point Activity Center Livable Centers Initiative Study* (April 2008). Therefore, this study is being submitted under expedited review.

**Figure 1** provides the site location of the *Innovation Mixed-Use* DRI project, and **Figure 2** provides an aerial view of the project site and surrounding area. Field review photographs taken within the vicinity of the study network are located in the site photo log in Appendix A. The City of Alpharetta Official Zoning Map, the Fulton County Zoning Map, and ARC’s PLAN 2040 Unified Growth Policy Map are included in Appendix B.

The proposed project is expected to be completed by 2019, and this analysis will consider the full build-out of the proposed site in 2019. A summary of the proposed land-use and density can be found below in **Table 1**.

| <b>Table 1<br/>Proposed Land Uses</b> |            |
|---------------------------------------|------------|
| Apartments                            | 414 units  |
| Condominiums                          | 25 units   |
| Hotel                                 | 200 rooms  |
| Office                                | 751,500 SF |
| Retail                                | 65,800 SF  |
| Restaurant                            | 40,000 SF  |





## 1.2 Site Plan Review

The proposed development is an approximately 55.09-acre site in the City of Alpharetta. The project site is bordered by Lakeview Parkway to the north, GA 400 to the south, Haynes Bridge Road to the east, and an existing office complex and lake to the west in the City of Alpharetta, Georgia. The project will include a high-density mixed-use development with interconnected walkable streets as envisioned in the *North Point Livable Centers Initiative Study* and is consistent with local zoning included in the Fulton County Existing and Future Land Use and Zoning maps. The project will include 414 apartment units, 25 condominiums, a 200 room hotel, 751,500 SF of office, 65,800 SF of retail, and 40,000 SF of high-turnover (sit-down) restaurant.

The property is currently an undeveloped land tract which is zoned to the Office and Institutional (OI) classification according to the Fulton County zoning map and Mixed-Use MU (0744) according to the City of Alpharetta zoning map. ARC's PLAN 2040 Unified Growth Policy Map identifies the project site as being in a Regional Center, a Regionally Important Resources area, and a Region Employment Corridor.

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

## 1.3 Site Access

As currently envisioned, the proposed development will be served by four total driveways. Three driveways will be new along Lakeview Parkway: two (2) full-movement driveways and one (1) right-in-right-out driveway. The fourth driveway will be a connection made to the Existing Office Driveway 1, a full-movement driveway approximately 315' south of the intersection of Lakeview Parkway at Morrison Parkway.

Proposed Site Driveway #1 will be a new full-movement driveway connection along Lakeview Parkway, approximately 760' southeast of the intersection of Lakeview Parkway and Morrison Parkway. Based on the site plan, this driveway connection is proposing a new median opening/break along Lakeview Parkway and the relocation of the Existing Office Driveway #2 approximately 140' east of its current location.

Proposed Site Driveway #2 will be a new full-movement driveway connection along Lakeview Parkway, approximately 750' southwest of the intersection of Haynes Bridge Road and Lakeview Parkway. Based on the site plan, this driveway connection is proposed at an existing median opening and will also serve the Existing Offices via a new driveway connection. As shown on the site plan, this intersection is being proposed as a future signalized intersection. Note: This transportation analysis evaluated this intersection as a signalized intersection (Alt. 1) as well as a roundabout (Alt. 2).

Proposed Site Driveway #3 will be a new right-in-right-out (RIRO) driveway along Lakeview Parkway, approximately 335' southwest of the intersection of Haynes Bridge Road and Lakeview Parkway.

The proposed site driveways provide vehicular access to the entire development. Internal private roadways throughout the site provide access to all buildings and parking facilities. See the referenced site plan in Appendix C for a visual representation of vehicular access and circulation throughout the proposed development.

The site driveway and internal roadways mentioned above provide access to all parking on the site. Parking will be provided throughout the development as follows:

|                           |              |
|---------------------------|--------------|
| Parking Provided:         | 2,950 spaces |
| Parking Required by code: | 2,925 spaces |

#### 1.4 *Bicycle and Pedestrian Facilities*

Pedestrian facilities (sidewalks) and bicycle facilities currently exist along the project site frontage. Sidewalks currently exist along both sides of Haynes Bridge Road, but do not exist along either side of Westside/Morrison Parkway in the vicinity of project site. There are currently no bicycle facilities (bike lanes/paths) in the vicinity of the project site. According to the DRI site plan, the proposed development has placed an emphasis on creating new pedestrian connectivity throughout and adjacent to the proposed site. All proposed new street connections through the site will include sidewalks and crosswalks.

#### 1.5 *Transit Facilities*

There is one direct transit route located within the vicinity of the project site; MARTA bus route 140 stops along eastbound Haynes Bridge Road, just west of Lakeview Parkway and along northbound Northwinds Parkway, just north of Haynes Bridge Road. Therefore, a 5% alternative mode reduction is applied. Additionally, there is a long-range plan for the MARTA rail extension to the North Point Mall area. The MARTA bus route map is included in Appendix B.

## 2.0 **TRAFFIC ANALYSES, METHODOLOGY AND ASSUMPTIONS**

### 2.1 *Growth Rate*

Background traffic is defined as expected traffic on the roadway network in future year(s) absent the construction and opening of the proposed project. Background traffic can include a base growth rate based on historical count data as well as population growth data and estimates as well as trips anticipated from nearby or adjacent other projects. Based on methodology outlined in the GRTA Letter of Understanding (LOU), a 0.5 percent per year background traffic growth rate was used for all roadways.

### 2.2 *Traffic Data Collection*

Weekday peak hour turning movement counts were collected on Wednesday, April 29, 2015 at nine (9) intersections during the AM and PM peak periods. The morning and afternoon peak hours varied some between the intersections. Peak hours for all intersections are shown in **Table 2**.

| <b>Table 2<br/>Peak Hour Summary</b>   |                         |                         |
|--|-------------------------|-------------------------|
| <b>Intersection</b>  | <b>AM<br/>Peak Hour</b> | <b>PM<br/>Peak Hour</b> |
| 1. Westside / Morrison Parkway at Hembree Road / Existing Office Parking Lot | 7:15-8:15               | 4:45-5:45               |
| 2. Morrison Parkway at Lakeview Parkway                                      | 7:30-8:30               | 4:45-5:45               |
| 3. Haynes Bridge Road at Westside Parkway / Morrison Parkway                 | 7:15-8:15               | 5:00-6:00               |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway               | 7:45-8:45               | 4:30-5:30               |
| 5. Haynes Bridge Road at GA 400 Southbound Ramps                             | 7:45-8:45               | 4:30-5:30               |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps                             | 7:15-8:15               | 4:30-5:30               |
| 7. Lakeview Parkway at Existing Office Driveway #1                           | 8:00-9:00               | 4:15-5:15               |
| 8. Lakeview Parkway at Existing Office Driveway #2                           | 7:45-8:45               | 4:30-5:30               |
| 9. Lakeview Parkway at Existing Office Driveway #3                           | 8:00-9:00               | 4:30-5:30               |

All raw traffic count data is available upon request.

### 2.3 Detailed Intersection Analysis

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. Level-of-service analyses were conducted at all intersections within the study network using *Synchro Professional, Version 8.0*. Roundabout level-of-service analyses for existing and proposed roundabouts within the study network were conducted using *SIDRA INTERSECTION 6.0*.

Existing traffic signal phasing and timing data was provided by the City of Alpharetta, and utilized in the *Synchro* traffic model.

Levels-of-service for signalized intersections are reported for the intersection as a whole. One or more movements at an intersection may experience a low level-of-service, while the intersection as a whole may operate acceptably.

Levels-of-service for unsignalized intersections, with stop control on the minor street only, are reported for the side street approaches. Low levels-of-service for side street approaches are not uncommon, as vehicles may experience significant delays in turning onto a major roadway.

Levels-of-service for roundabout intersections are reported for the intersection as a whole. One or more movements at a roundabout may experience a low level-of-service, while the roundabouts as a whole may operate acceptably.

### 3.0 STUDY NETWORK

#### 3.1 Gross Trip Generation

Traffic for the proposed land uses and densities were calculated using methodology contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition*. Gross trips generated are displayed below in **Table 3**.

| Table 1<br>Gross Trip Generation                   |             |               |               |              |            |              |              |
|--|-------------|---------------|---------------|--------------|------------|--------------|--------------|
| Land Use<br>(Intensity)                            | ITE<br>Code | Daily Traffic |               | AM Peak Hour |            | PM Peak Hour |              |
|  |             | Enter         | Exit          | Enter        | Exit       | Enter        | Exit         |
| Apartment<br>(414 units)                           | 220         | 1,316         | 1,316         | 41           | 166        | 159          | 86           |
| Residential Condominium<br>(25 units)              | 230         | 97            | 97            | 3            | 14         | 13           | 6            |
| Hotel<br>(200 rooms)                               | 310         | 709           | 709           | 63           | 43         | 61           | 59           |
| Office Building<br>(751,500 SF)                    | 710         | 3,040         | 3,040         | 846          | 115        | 156          | 764          |
| Retail<br>(65,800 SF)                              | 820         | 2,586         | 2,586         | 75           | 46         | 217          | 236          |
| High-Turnover (Sit-Down) Restaurant<br>(40,000 SF) | 932         | 2,543         | 2,543         | 238          | 194        | 236          | 158          |
| <b>Total Gross Trips</b>                           |             | <b>10,291</b> | <b>10,291</b> | <b>1,266</b> | <b>578</b> | <b>842</b>   | <b>1,309</b> |

#### 3.2 Trip Distribution

The directional distribution and assignment of new project trips was based on the project land uses, a review of the land use densities and road facilities in the area, engineering judgment, and methodology discussions with the Georgia Regional Transportation Authority (GRTA), Atlanta Regional Commission (ARC), Georgia Department of Transportation (GDOT), and the City of Alpharetta. (See Section 5.0 – Trip Distribution and Assignment.)

#### 3.3 Level-of-Service Standards

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

### 3.4 Study Network Determination

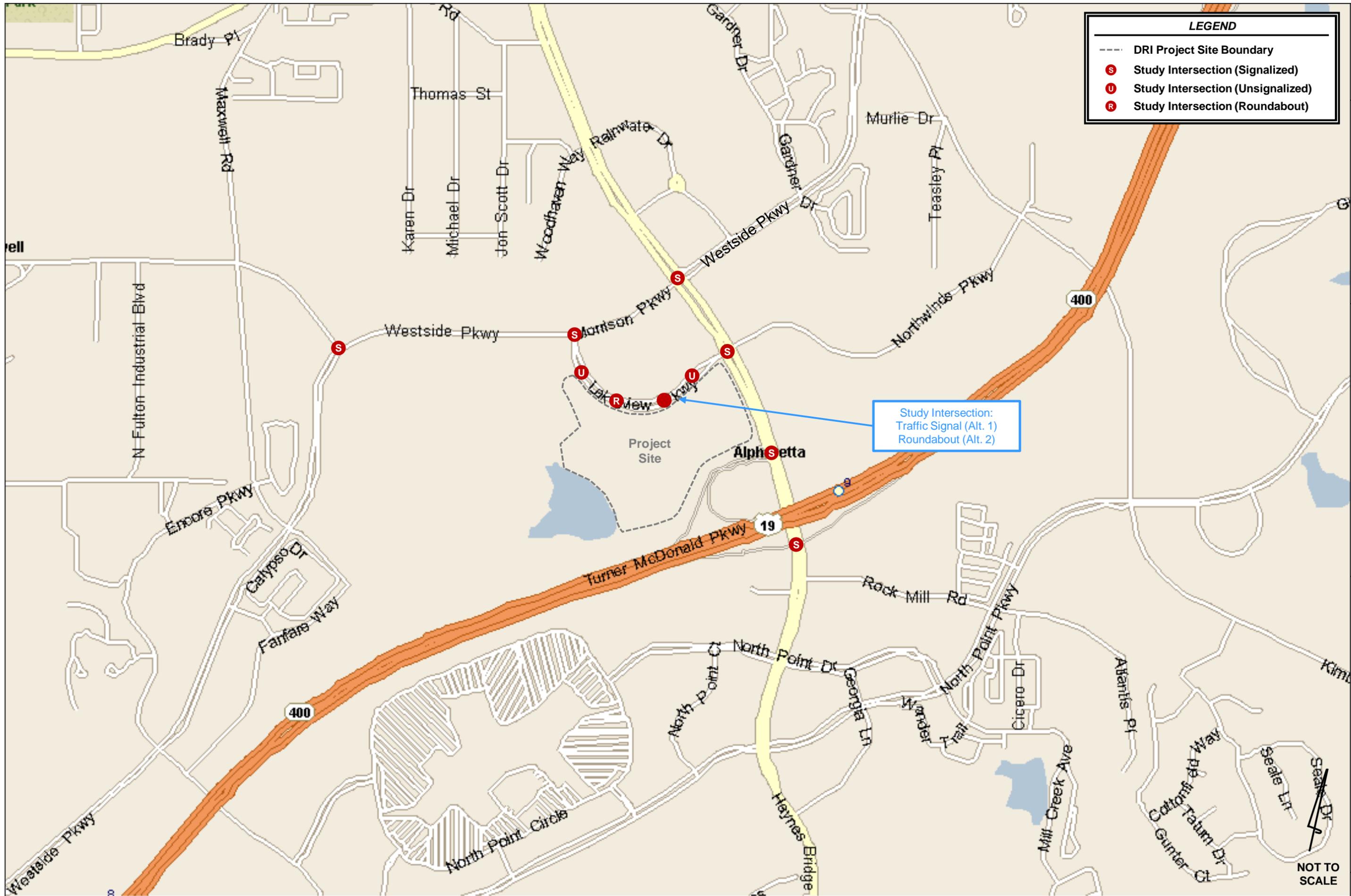
The proposed DRI includes four (4) site driveways along Lakeview Parkway, one of which serves an existing land use (Existing Office Parking Lot Driveway #1). Per Expedited Review criteria, GRTA requires the evaluation of site driveways plus the adjacent intersections. However, during the Pre-Review Meeting held at ARC's office on May 18, 2015, GRTA, ARC, GDOT, MARTA, and City of Alpharetta staff came to a consensus and proposed to study the following ten (10) intersections in **Table 4**.

The study network includes six (6) signalized intersections and four (4) site driveway intersections as noted in **Table 4**. The site location and study intersections can be found in **Figure 3**.

| <b>Table 4<br/>Proposed Intersection Control Summary</b>   |                     |
|--|---------------------|
| <b>Intersection</b>  | <b>Control</b>      |
| 1. Westside Parkway / Morrison Parkway at Hembree Road / Existing Office Parking Lot                             | Signal              |
| 2. Morrison Parkway at Lakeview Parkway  | Signal              |
| 3. Haynes Bridge Road at Westside Parkway / Morrison Parkway   | Signal              |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway   | Signal              |
| 5. Haynes Bridge Road at GA 400 Southbound Ramps   | Signal              |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps   | Signal              |
| 7. Lakeview Parkway at Existing Office Parking Lot Driveway #1   | TWSC*               |
| 8. Lakeview Parkway at Relocated Existing Office Parking Lot Driveway #2 / Proposed Site Driveway #1             | Proposed Roundabout |
| 9. Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2 (Proposed Intersection) | Signal (Alt. 1)     |
|  | Roundabout (Alt. 2) |
| 10. Lakeview Parkway at Existing Office Parking Lot Driveway #3 / Proposed Site Driveway #3                      | TWSC*               |

\* Note: TWSC = Two-Way Stop Control

Each of the above listed intersections was analyzed for the Existing 2015 conditions, the Projected 2019 No-Build conditions, and the Projected 2019 Build conditions. The Projected 2019 No-Build conditions represent the Existing 2015 traffic volumes grown for four (4) years at 0.5 percent per year throughout the study network and includes 50% of the estimated project trips from the Northwinds Parkway development. The Projected 2019 Build conditions add the project trips associated with the *Innovation Mixed-Use* development to the Projected 2019 No-Build conditions.



**LEGEND**

- DRI Project Site Boundary
- S** Study Intersection (Signalized)
- U** Study Intersection (Unsignalized)
- R** Study Intersection (Roundabout)

Study Intersection:  
Traffic Signal (Alt. 1)  
Roundabout (Alt. 2)

### 3.5 Existing Roadway Facilities

Roadway classification descriptions for the entire study area are provided in **Table 5** (bolded roadways run adjacent to the site).

| <b>Table 5<br/>Roadway Classification</b> |                     |                                 |                                  |
|---|---------------------|---------------------------------|----------------------------------|
| <b>Roadway</b>                            | <b>No. of Lanes</b> | <b>Posted Speed Limit (MPH)</b> | <b>Functional Classification</b> |
| <b>Lakeview Parkway</b>                   | 4                   | 25                              | Local Road                       |
| Westside Parkway / Morrison Parkway       | 4                   | 40                              | Major Collector                  |
| <b>Haynes Bridge Road</b>                 | 6                   | 45                              | Minor Arterial                   |
| Hembree Road                              | 2                   | 35                              | Major Collector                  |
| Northwinds Parkway                        | 4                   | 35                              | Local Road                       |
| GA 400 Southbound                         | 4                   | 55                              | Other Freeway and Expressway     |
| GA 400 Northbound                         | 4                   | 55                              | Other Freeway and Expressway     |

### 4.0 TRIP GENERATION

As stated previously, gross trips associated with the proposed development were estimated using the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012*, using equations where available. Trip generation for this proposed development is calculated based upon the following land uses: Apartment (220), Residential Condominium (230), Hotel (310), Office (710), Retail (820), and High-Turnover (Sit-Down) Restaurant (932). Mixed-use reductions, alternative transportation mode, (walking, bicycle, and transit), and pass-by trip reductions were applied for this study.

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook, an ITE Proposed Recommended Practice, Third Edition, 2014*. Total internal capture and vehicular trip reduction between the proposed land uses as a result of the anticipated interaction between the residential, retail, restaurant, hotel, and office uses within the proposed development is expected to be 44% for weekday, 26.5% for the AM peak hour, and 32.2% for the PM peak hour. Note that methodology for a 24-hour weekday is not provided by ITE, so weekday internal capture was assumed to be an average of AM rates and PM rates.

Due to the accessibility of MARTA and pedestrian sidewalks, an alternative transportation mode reduction was taken for the projected *Innovation Mixed-Use DRI* project trips (walking, bicycling, riding transit, carpooling, etc.). An alternative transportation mode reduction of 5% was applied to all land uses for this study, consistent with GRATA's Letter of Understanding (LOU).

Pass-by trip reductions were taken for the proposed retail and restaurant land uses during the PM peak hour, per the *ITE Trip Generation Handbook*. The retail pass-by reduction is expected to be 34% and the restaurant pass-by reduction is expected to be 43%. Per GRATA's DRI Technical Guidelines, the total pass-by trips associated with the development may be limited to 15% of the adjacent roadway traffic volume. It should be noted that pass-by trips are not new trips to the roadway network, rather, they are vehicles already travelling along the existing roadway network that stop to visit the retail land

uses. No pass-by reductions were taken for the AM peak hour as pass-by trips are minimal in the morning for retail land uses.

The total (net) trips generated and analyzed in this report are listed in **Table 6**.

| <b>Table 6<br/>Net Trip Generation</b> |                      |               |                     |             |                     |              |
|--|----------------------|---------------|---------------------|-------------|---------------------|--------------|
|  | <b>Daily Traffic</b> |               | <b>AM Peak Hour</b> |             | <b>PM Peak Hour</b> |              |
|  | <b>Enter</b>         | <b>Exit</b>   | <b>Enter</b>        | <b>Exit</b> | <b>Enter</b>        | <b>Exit</b>  |
| <b>Gross Project Trips</b>             | <b>10,291</b>        | <b>10,291</b> | <b>1,266</b>        | <b>578</b>  | <b>842</b>          | <b>1,309</b> |
| <i>Mixed-Use Reduction</i>             | -4,533               | -4,533        | -244                | -244        | -346                | -346         |
| <i>Alternative Mode Reduction</i>      | -288                 | -288          | -51                 | -17         | -25                 | -48          |
| <i>Pass-By Reduction</i>               | -633                 | -633          | -0                  | -0          | -64                 | -64          |
| <b>Net New Trips</b>                   | <b>4,837</b>         | <b>4,837</b>  | <b>971</b>          | <b>317</b>  | <b>407</b>          | <b>851</b>   |

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

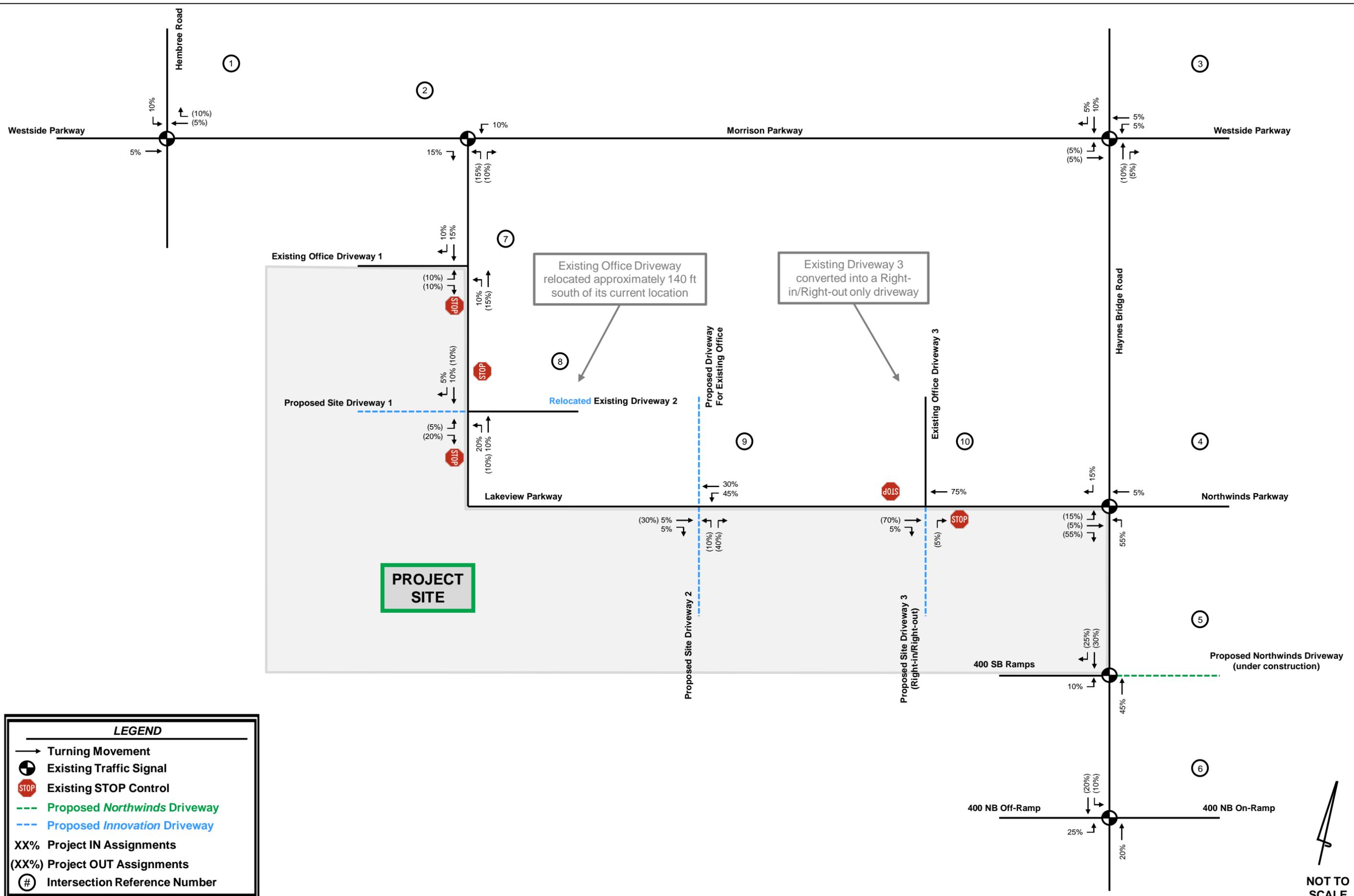
## 5.0 TRIP DISTRIBUTION AND ASSIGNMENT

New trips were distributed onto the roadway network using the percentages agreed to during methodology discussions with GRTA, ARC, GDOT, and City of Alpharetta staff.

**Figure 4** displays the projected trip distribution and assignments for the residential and hotel land uses. **Figure 5** displays the projected trip distribution and assignments for the office, retail, and restaurant land uses.

These percentages were applied to the net new trips expected to be generated by the development, and the volumes were assigned to the roadway network. The expected combined peak hour project trips by turning movement throughout the study network, generated by the proposed *Innovation Mixed-Use* development, are shown in **Figure 6**.

Detailed intersection volume worksheets can also be found in Appendix E.



**LEGEND**

- Turning Movement
- ⊕ Existing Traffic Signal
- STOP Existing STOP Control
- Proposed Northwinds Driveway
- Proposed Innovation Driveway
- XX% Project IN Assignments
- (XX%) Project OUT Assignments
- ⊙ Intersection Reference Number

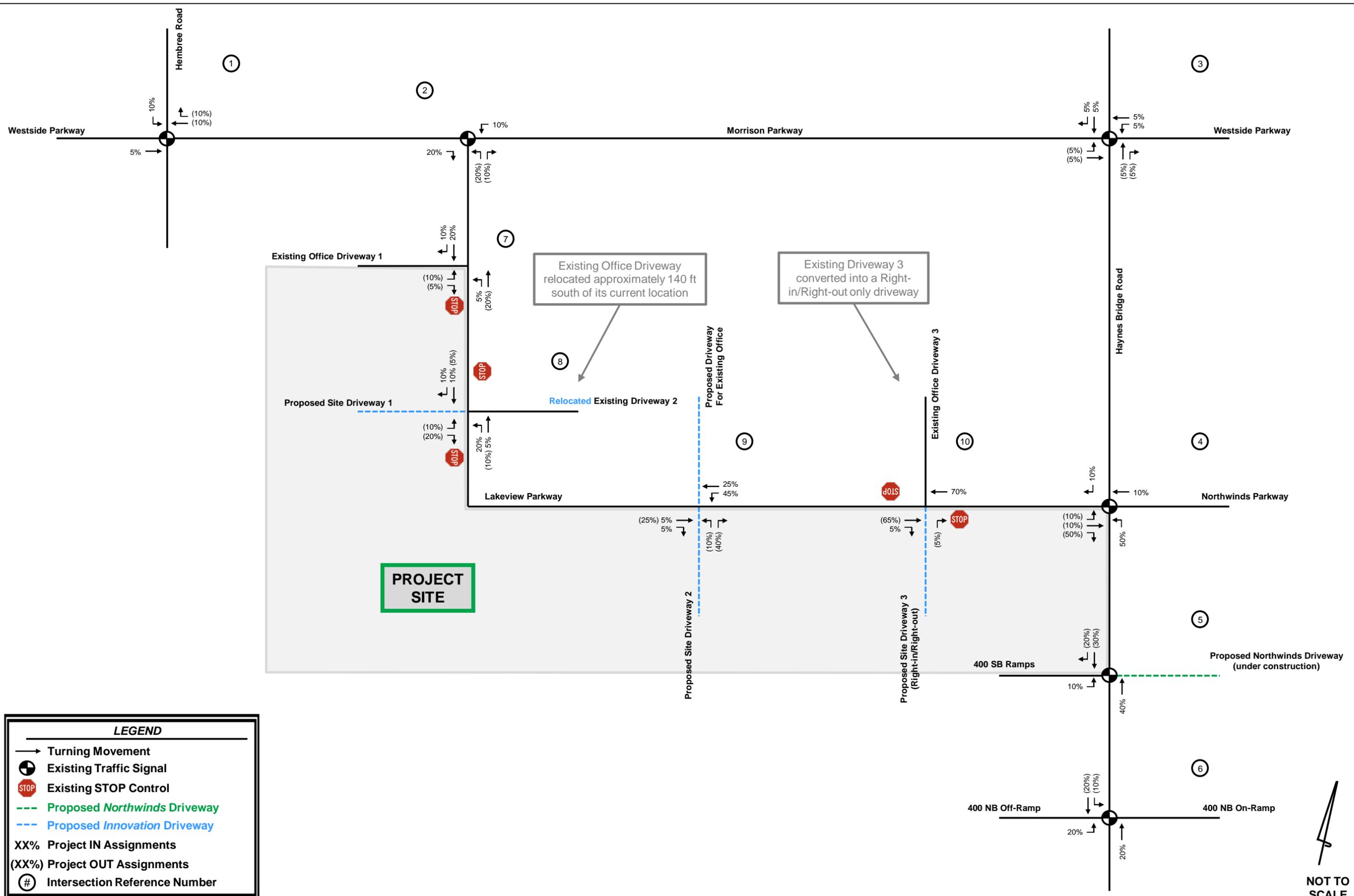
Figure 4

Residential and Hotel  
Trip Distribution &  
Assignment

Innovation Mixed-Use  
DRI #2499  
Transportation Analysis

Kimley-Horn

17



**LEGEND**

- Turning Movement
- Existing Traffic Signal
- Existing STOP Control
- Proposed Northwinds Driveway
- Proposed Innovation Driveway
- XX% Project IN Assignments
- (XX%) Project OUT Assignments
- Intersection Reference Number

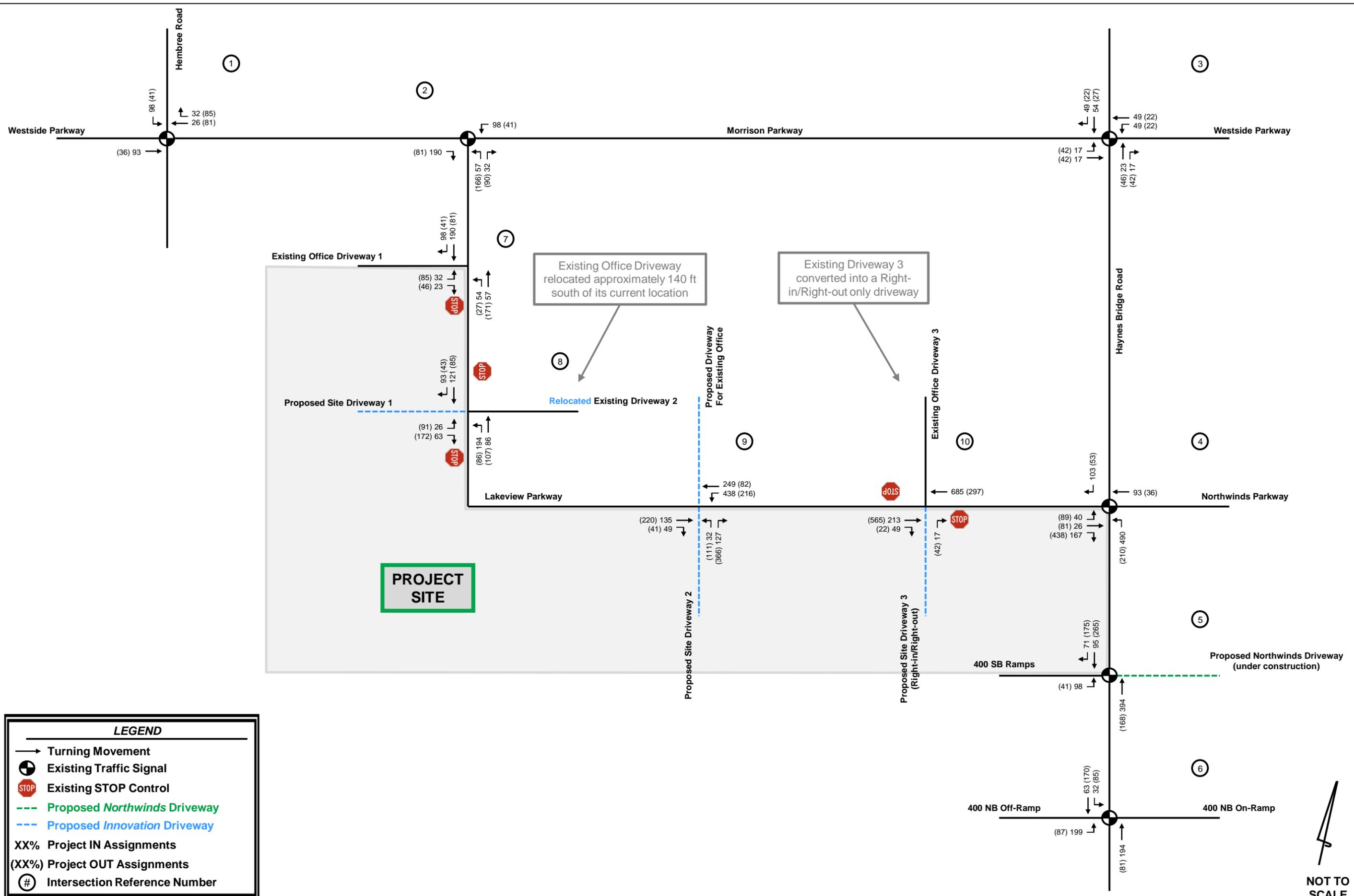
NOT TO SCALE

Figure 5

Office, Retail, and Restaurant Trip Distribution & Assignment

Innovation Mixed-Use DRI #2499 Transportation Analysis

Kimley Horn



**LEGEND**

- Turning Movement
- ⊕ Existing Traffic Signal
- STOP Existing STOP Control
- Proposed Northwinds Driveway
- Proposed Innovation Driveway
- XX% Project IN Assignments
- (XX%) Project OUT Assignments
- # Intersection Reference Number

NOT TO SCALE

Figure 6

Project Trips

Innovation Mixed-Use  
DRI #2499  
Transportation Analysis

Kimley Horn

## 6.0 TRAFFIC ANALYSIS

### 6.1 Existing 2015 Conditions

The observed existing peak hour traffic volumes were entered into *Synchro 8.0*, and capacity analyses were performed for the AM and PM peak hours. As described in Section 2.2 of this report, a 0.5% growth factor was applied to all 2015 counts to represent Existing 2015 conditions. The existing peak hour traffic volumes are displayed in **Figure 7**. The results of the capacity analyses for the Existing 2015 conditions are shown in **Table 7**.

| <b>Table 7</b><br><b>Existing 2015 Intersection Levels-of-Service</b><br><i>LOS (delay in seconds)</i> |         |          |              |              |
|--|---------|----------|--------------|--------------|
| Intersection   | Control | LOS Std. | AM Peak Hour | PM Peak Hour |
| 1. Westside Parkway / Morrison Parkway at Hembree Road / Existing Office Parking Lot                   | Signal  | D        | B (18.7)     | C (21.7)     |
| 2. Morrison Parkway at Lakeview Parkway  | Signal  | D        | A (7.3)      | B (10.7)     |
| 3. Haynes Bridge Road at Westside Parkway / Morrison Parkway   | Signal  | D        | D (41.5)     | D (37.7)     |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway   | Signal  | D        | C (21.5)     | C (29.8)     |
| 5. Haynes Bridge Road at GA 400 Southbound Ramps   | Signal  | D        | B (14.8)     | B (12.2)     |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps   | Signal  | D        | C (29.9)     | D (45.1)     |
| 7. Lakeview Parkway at Existing Office Parking Lot Driveway #1   | EB Stop | D        | B (14.2)     | B (13.5)     |

As shown in **Table 7**, all study intersections currently operate at or above the acceptable level-of-service standard during the AM and PM peak hours for the Existing 2015 conditions. Therefore, there are no recommended improvements for the Existing 2015 conditions scenario.

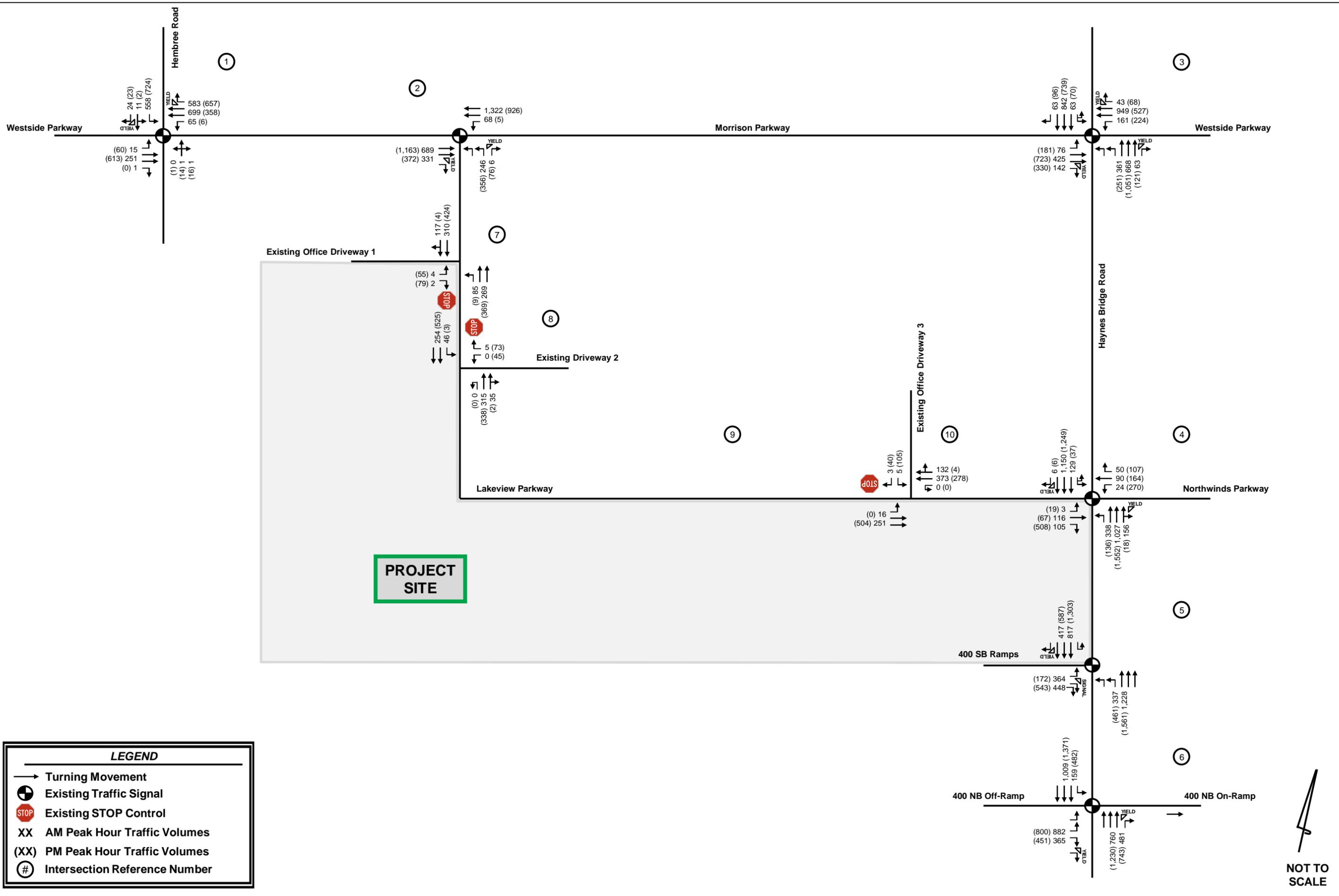


Figure 7

Existing 2015 Conditions

Innovation Mixed-Use  
DRI #2499  
Transportation Analysis



## 6.2 Projected 2019 No-Build Conditions

To account for growth in the vicinity of the proposed development, the existing traffic volumes were increased for four (4) years at 0.5 percent per year throughout the study network and 50% of the estimated project trips from the *Northwinds Parkway* development was included. These volumes were entered into *Synchro 8.0*, and capacity analyses were performed. The Projected 2019 No-Build conditions were analyzed using existing roadway geometry and existing intersection control types.

The intersection laneage and traffic volumes for the Projected 2019 No-Build conditions are shown in **Figure 8**. The results of the capacity analyses for the Projected 2019 No-Build conditions with existing geometry are shown in **Table 8**.

| <b>Table 8</b><br><b>Projected 2019 No-Build Intersection Levels-of-Service</b><br><i>LOS (delay in seconds)</i> |         |          |              |              |
|--|---------|----------|--------------|--------------|
| Intersection   | Control | LOS Std. | AM Peak Hour | PM Peak Hour |
| 1. Westside Parkway / Morrison Parkway at Hembree Road / Existing Office Parking Lot                             | Signal  | D        | B (18.7)     | C (22.7)     |
| 2. Morrison Parkway at Lakeview Parkway  | Signal  | D        | A (7.6)      | B (11.7)     |
| 3. Haynes Bridge Road at Westside Parkway / Morrison Parkway   | Signal  | D        | D (44.6)     | D (41.9)     |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway   | Signal  | D        | C (26.4)     | D (36.2)     |
| 5. Haynes Bridge Road at GA 400 Southbound Ramps   | Signal  | D        | C (23.8)     | C (26.1)     |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps   | Signal  | D        | C (33.1)     | E (71.5)     |
| 7. Lakeview Parkway at Existing Office Parking Lot Driveway #1   | EB Stop | D        | B (14.8)     | B (14.0)     |

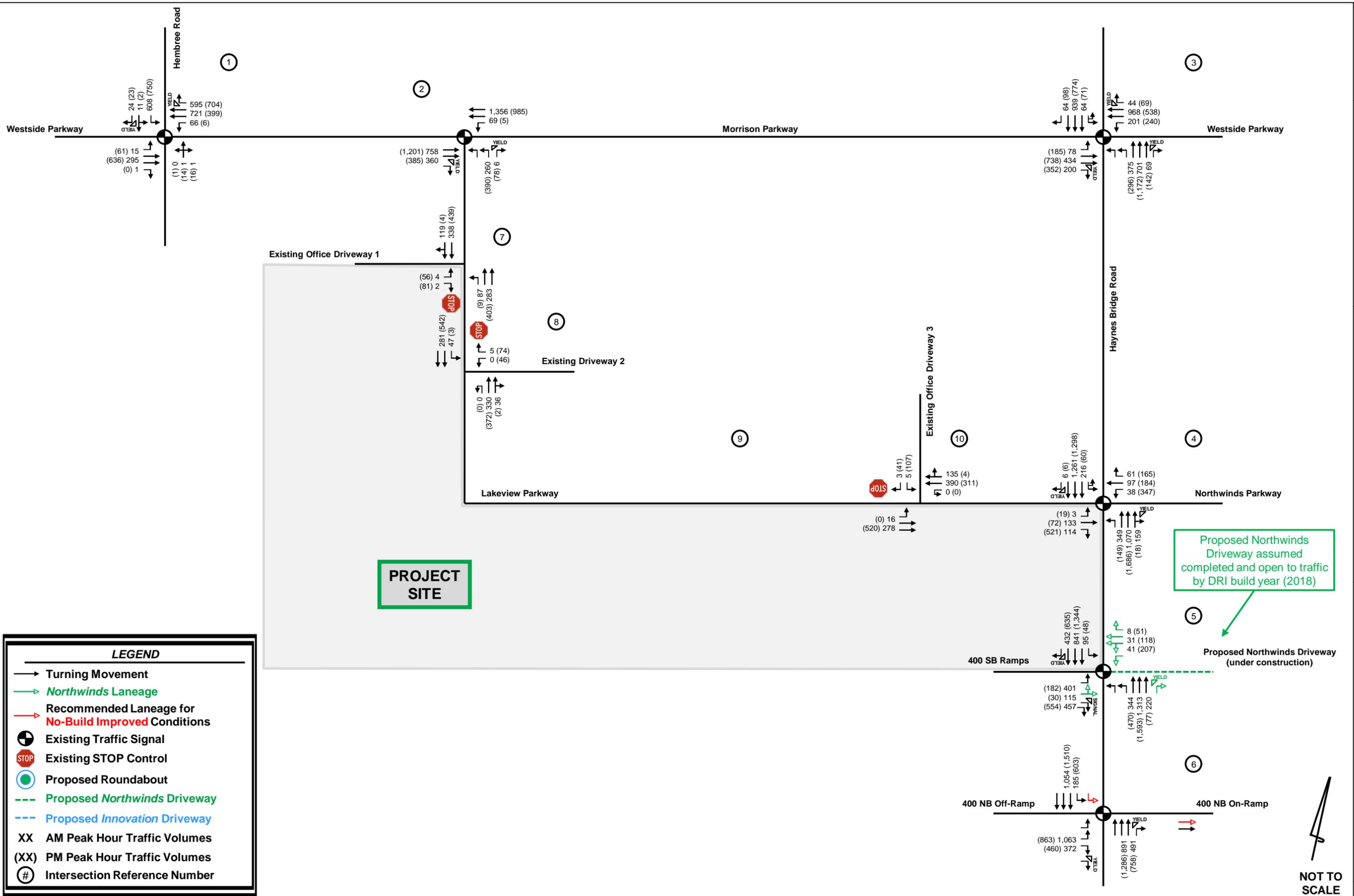
As shown in **Table 8**, one (1) intersection is projected to operate below the acceptable level-of-service standard during PM peak hour for the Projected 2019 No-Build conditions.

Based on the Projected 2019 No-Build conditions, the following recommended improvements result in the below listed intersections operating at or above the LOS standard. These recommended improvements are also illustrated on **Figure 8**:

- Intersection #6 – Haynes Bridge Road at 400 NB Ramps – operates at a LOS E during the PM Peak hour
  - Provide one (1) additional southbound left-turn lane (creating dual southbound left-turn lanes) along Haynes Bridge Road onto the 400 NB on-ramp by restriping the northbound inside through-lane.
  - Improve the existing eastbound 400 NB on-ramp from one (1) receiving lane to two (2) receiving lanes.

The results of the capacity analyses for the projected 2019 No-Build conditions with the recommended improvements stated above are shown in **Table 9**.

| <b>Table 9</b><br><b>Projected 2019 No-Build IMPROVED Intersection Levels-of-Service</b><br><i>LOS (delay in seconds)</i> |         |          |              |              |
|---|---------|----------|--------------|--------------|
| Intersection  | Control | LOS Std. | AM Peak Hour | PM Peak Hour |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps  | Signal  | D        | C (30.4)     | D (36.7)     |



**PROJECT SITE**

Proposed Northwinds Driveway assumed completed and open to traffic by DRI build year (2018)

Proposed Northwinds Driveway (under construction)

**LEGEND**

- Turning Movement
- Northwinds Laneage
- Recommended Laneage for No-Build Improved Conditions
- Existing Traffic Signal
- Existing STOP Control
- Proposed Roundabout
- Proposed Northwinds Driveway
- Proposed Innovation Driveway
- XX AM Peak Hour Traffic Volumes
- ((XX)) PM Peak Hour Traffic Volumes
- # Intersection Reference Number

NOT TO SCALE

Figure 8

Projected 2019 No-Build Conditions

Innovation Mixed-Use DRI #2499 Transportation Analysis

### 6.3 Projected 2019 Build Conditions

The traffic associated with the proposed *Innovation Mixed-Use* development was added to the Projected 2019 No-Build volumes. These volumes were then entered into *Synchro 8.0* and *SIDRA INTERSECTION 6.0* (roundabouts only), and capacity analyses were performed. The Projected 2019 Build conditions were analyzed using existing roadway geometry and existing intersection control types.

The Projected 2019 Build conditions LOS with existing geometry are displayed in **Table 10**. The intersection laneage and traffic volumes for the Projected 2019 Build conditions are shown in **Figure 9**.

| <b>Table 10</b><br><b>Projected 2019 Build Intersection Levels-of-Service</b><br><i>LOS (delay in seconds)</i> |                     |          |              |              |
|--|---------------------|----------|--------------|--------------|
| Intersection   | Control             | LOS Std. | AM Peak Hour | PM Peak Hour |
| 1. Westside Parkway / Morrison Parkway at Hembree Road / Existing Office Parking Lot                           | Signal              | D        | C (20.1)     | C (24.8)     |
| 2. Morrison Parkway at Lakeview Parkway  | Signal              | D        | A (8.4)      | B (16.2)     |
| 3. Haynes Bridge Road at Westside Parkway / Morrison Parkway   | Signal              | D        | D (43.1)     | D (42.9)     |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway   | Signal              | D        | E (62.0)     | F (111.7)    |
| 5. Haynes Bridge Road at GA 400 Southbound Ramps   | Signal              | D        | D (38.5)     | C (30.3)     |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps   | Signal              | D        | D (39.7)     | F (91.3)     |
| 7. Lakeview Parkway at Existing Office Parking Lot Driveway #1   | EB Stop             | D        | D (29.6)     | F (73.6)*    |
| 8. Lakeview Parkway at Existing Office Parking Lot Driveway #2 / Proposed Site Driveway #1                     | Roundabout          | D        | A (2.0)      | A (2.3)      |
| 9. Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2                       | Signal (Alt. 1)     | D        | C (22.7)     | C (30.3)     |
|  | Roundabout (Alt. 2) | D        | A (2.6)      | A (6.6)      |
| 10. Lakeview Parkway at Existing Office Parking Lot Driveway #3 / Proposed Site Driveway #3                    | NB Stop             | D        | A (8.8)      | A (9.5)      |
|  | SB Stop             |          | B (13.1)     | B (11.3)     |

*\*Note: It is not uncommon to have long delays for stop-controlled approaches when there is heavy major street volume.*

As shown in **Table 10**, three (3) intersections are projected to operate below the acceptable level-of-service standard during the AM and PM Peak hours.

In the case of Intersection #7, which is a two-way stop-controlled intersection in the Existing, No-Build, and Build scenarios, it is not uncommon for the side street stop-controlled approaches to experience long delays when there is heavy main street volume. Therefore, additional improvements for this intersection are not recommended.

Based on the Projected 2019 Build conditions, the following recommended improvements result in the below listed intersections operating at or above the LOS standard. The recommended improvements listed below are also illustrated on **Figure 9**:

- Intersection #4 – Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway – operates at a LOS E and F during the AM and PM Peak hour, respectively.
  - Construct one (1) additional northbound left-turn lane along Haynes Bridge Road onto Lakeview Parkway (creating dual northbound left-turn lanes).
  - Construct one (1) additional eastbound right-turn lane along Lakeview Parkway onto Haynes Bridge Road (creating dual eastbound right-turn lanes).
- Intersection #6 – Haynes Bridge Road at 400 NB Ramps – operates at a LOS E during the PM Peak hour. Note: The following were also recommended as 2019 No-Build recommended improvements (*Section 6.2*).
  - Provide one (1) additional southbound left-turn lane along Haynes Bridge Road onto the 400 NB on-ramp by restriping the northbound inside through-lane.
  - Improve the existing eastbound 400 NB on-ramp from one (1) receiving lane to two (2) receiving lanes.

The results of the capacity analyses for the Projected 2019 Build condition with both the 2019 No-Build recommended improvements (*Section 6.2*) and the 2019 Build recommended improvements stated above are shown in **Table 11**.

| <b>Table 11</b><br><b>Projected 2019 Build IMPROVED Intersection Levels-of-Service</b><br><i>LOS (delay in seconds)</i> |         |          |              |              |
|---|---------|----------|--------------|--------------|
| Intersection  | Control | LOS Std. | AM Peak Hour | PM Peak Hour |
| 4. Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway  | Signal  | D        | C (33.8)     | D (45.4)     |
| 6. Haynes Bridge Road at GA 400 Northbound Ramps  | Signal  | D        | C (33.5)     | D (42.9)     |

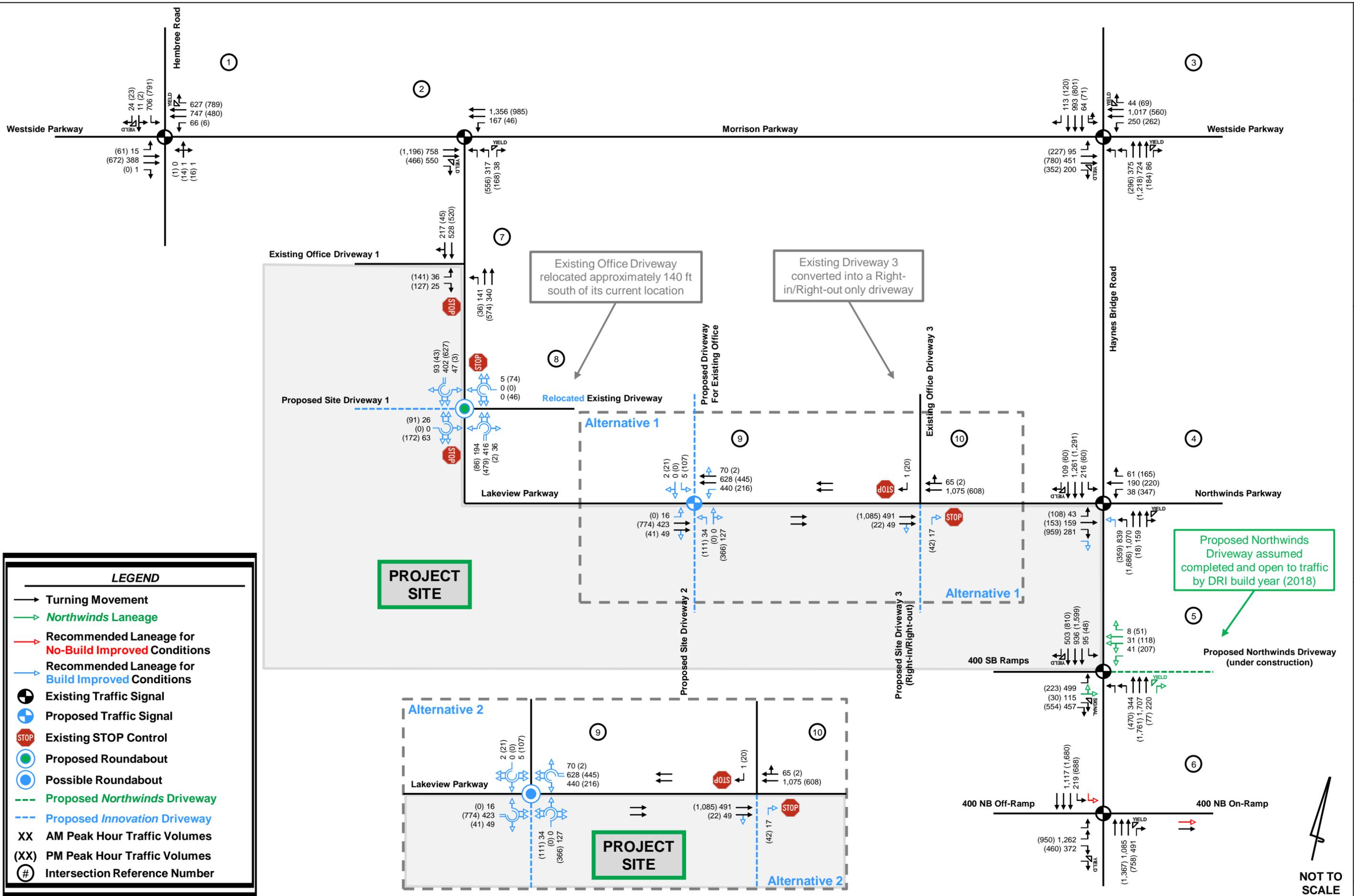


Figure 9

Projected 2019 Build Conditions

Innovation Mixed-Use DRI #2499 Transportation Analysis

## 7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

According to ARC’s Transportation Improvement Program (TIP), GDOT Statewide TIP (STIP), *Plan 2040* Regional Transportation Program (RTP), GDOT’s Construction Work Program, the North Fulton Community Improvement District (CID) and North Fulton County’s Comprehensive Transportation Plan (CTP) the following projects are programmed or planned to be completed by the respective years: within the vicinity of the proposed development. The identified projects are listed in **Table 12** below, and fact sheets identifying characteristics of these projects have been included in Appendix F.

| <b>Table 12<br/>Programmed Improvements</b> |                 |                    |   |
|---|-----------------|--------------------|---|
| #   | Completion Year | Project ID         | Project Description   |
| 1   | 2040            | AR-ML-300          | SR 400 Managed Lanes from I-285 north to SR 20  |
| 2   | 2040+           | ASP-AR-426         | North Corridor High Capacity Rail Service from North Point Mall area to Woodward Parkway  |
| 3   | 2030            | FN-067A            | SR 9 (Alpharetta Highway/Main Street) widening from Upper Hembree Road to Woodward Parkway  |
| 4   | 2020            | FN-067B            | SR 9 (Alpharetta Highway/Main Street) operational improvements from Upper Hembree Road to Academy Street  |
| 5   | 2017            | FN-259             | Encore Parkway Corridor Improvements will widen Encore Parkway between Westside Parkway and North Point Parkway                                 |
| 6   | 2020            | FN-299             | Encore Parkway Greenway Connection for pedestrian and bicycle use between the Alpharetta Big Creek Greenway and the North Point Activity Center |
| 7   | 2020            | FN-278             | Woodward Parkway auxiliary lane from SR 400 to Deerfield Parkway  |
| 8   | *               | NF CID Project # 3 | Northwinds Parkway Extension between Kimball Bridge Road and Old Milton Parkway   |

\* No completion year found

The improvements associated with these projects in **Table 12** were not specifically considered for this DRI Transportation Analysis.

## 8.0 INGRESS/EGRESS ANALYSIS

Vehicular access to the *Innovation Mixed-Use* development during the AM and PM peak periods includes the following four (4) intersections:

- Lakeview Parkway at Existing Office Driveway #1
- Lakeview Parkway at Relocated Existing Office Driveway #2 / Proposed Site Driveway #1
- Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2
- Lakeview Parkway at Existing Office Driveway #3 / Proposed Site Driveway #3

Capacity analyses using *Synchro 8.0* and *SIDRA INTERSECTION 6.0* (roundabouts only) were performed for both study intersections identified above for the Existing 2015 conditions, Projected 2019 No-Build conditions, and Projected 2019 Build conditions. The intersection laneage (geometry) and traffic volumes for the site driveway and study intersections are shown in **Figure 7**, **Figure 8**, and **Figure 9**, respectively for each scenario. The levels-of-service determined using existing geometry for each of the intersections can be found in **Table 7**, **Table 8** and **Table 10** for the Existing 2015 conditions, Projected 2019 No-Build conditions, and Projected 2019 Build conditions, respectively.

Based on the Existing 2015 conditions and Projected 2019 No-Build conditions, the studied site driveways are expected to operate at an acceptable level-of-service for all conditions. Based on the Projected 2019 Build conditions, the eastbound approach at Intersection #7 operates at LOS F with long vehicular delays during the PM Peak hour for Projected 2019 Build conditions. It is not uncommon for the side street stop-controlled approaches to experience long delays when there is heavy main street volume. Therefore, additional improvements for this intersection are not recommended.

The following intersection geometries and improvements result in the recommended configurations and control types for all site driveways and public access roadways within the immediate vicinity of the project site:

- Intersection #8 – Lakeview Parkway at Relocated Existing Office Driveway #2 / Proposed Site Driveway #1
  - Construct a two (2) lane roundabout. Refer to Figure 9 for a more complete laneage depiction.
  - Provide two (2) northbound and two (2) southbound entry lanes into the roundabout.
  - Provide two (2) lanes exiting the roundabout in the northbound and southbound directions.
  - Construct Proposed Site Driveway #1 to have one ingress lane and one egress lane, aligned with Relocated Existing Driveway via the proposed roundabout.
  - Relocate the Existing Office Driveway#2 approximately 140 feet south of its current location to be aligned with Proposed Site Driveway #1 via the proposed roundabout.

- Intersection #9 – Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2
  - Alternative 1 (shown on site plan)
    - Install a traffic signal (when warranted).
    - Construct one (1) northbound left-turn lane and one (1) northbound shared through/right-turn lane from Proposed Site Driveway #2 onto Lakeview Parkway.
    - Construct one (1) southbound left-turn lane and one (1) southbound shared through/right-turn lane from Proposed Driveway for Existing Office onto Lakeview Parkway.
    - Convert the existing eastbound U-turn lane into a left-turn lane into Proposed Driveway for Existing Office.
    - Convert the existing westbound U-turn lane into a left-turn lane into Proposed Site Driveway #2.
  - Alternative 2
    - Construct a two (2) lane roundabout.
    - Provide two (2) eastbound entry lanes and two (2) westbound entry lanes into the roundabout.
    - Provide two (2) lanes exiting the roundabout in the eastbound and westbound directions.
    - Construct Proposed Site Driveway #2 to have one ingress lane and one egress lane, aligned with Proposed Driveway for Existing Office via the proposed roundabout.
    - Construct Proposed Driveway for Existing Office to have one ingress lane and one egress lane, aligned with Proposed Site Driveway #2 via the proposed roundabout.
- Intersection #10 – Lakeview Parkway at Existing Office Driveway #3 / Proposed Site Driveway #3
  - Close the median along Lakeview Parkway.
  - Convert the Existing Office Driveway #3 from a full-movement driveway into a right-in/right-out driveway.
  - Construct Proposed Site Driveway #3 to have one ingress lane and one egress lane as a right-in/right-out driveway.

The results of the Projected 2019 Build condition's capacity analyses for the site access driveways, as well as public access study network intersections, with the recommended configurations, control types, and improvements stated above are shown in **Table 13**.

| <b>Table 13</b><br><b>Projected 2019 Build Levels-of-Service for Site Driveway Intersections</b><br><i>LOS (delay in seconds)</i> |                     |          |              |              |
|---|---------------------|----------|--------------|--------------|
| Intersection  | Control             | LOS Std. | AM Peak Hour | PM Peak Hour |
| 7. Lakeview Parkway at Existing Driveway #1   | EB Stop             | D        | D (29.6)     | F (73.6)*    |
| 8. Lakeview Parkway at Relocated Existing Office Driveway #2 / Proposed Site Driveway #1  | Roundabout          | D        | A (2.0)      | A (2.3)      |
| 9. Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2  | Signal (Alt. 1)     | D        | C (22.7)     | C (30.3)     |
|   | Roundabout (Alt. 2) | D        | A (2.6)      | A (6.6)      |
| 10. Lakeview Parkway at Existing Office Parking Lot Driveway #3 / Proposed Site Driveway #3                                       | NB Stop             | D        | A (8.8)      | A (9.5)      |
|   | SB Stop             |          | B (13.1)     | B (11.3)     |

\* Note: It is not uncommon to have long delays for stop-controlled approaches when there is heavy major street volume.

As shown in **Table 13**, the four (4) site access driveways (except for intersection #7 that is noted with an asterisk) are projected to operate at or above their acceptable level-of-service standard during the AM and PM peak hours, assuming the recommended driveway configurations, control types, and improvements stated above are implemented.

## 9.0 INTERNAL CIRCULATION ANALYSIS

Internal roadways throughout the site provide vehicular access to all buildings and parking on the site. A detailed copy of the proposed site plan can be found in Appendix C and a full-sized site plan is attached to the report.

Due to the proposed internal pedestrian connectivity, along with the mix of uses including residential, retail, restaurant, office, and hotel, mixed-use vehicle trip reductions for site-internal trips were calculated according to the *ITE Trip Generation Handbook, an ITE Proposed Recommended Practice, Third Edition, 2014*. Total internal capture and vehicle trip reduction between all the land uses is expected to be 44% for weekday, 26.5% for the AM peak hour, and 32.2% for the PM peak hour as a result of the anticipated interaction between the varying land uses within the proposed development.

## 10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The proposed development is mixed-use with a variety of residential, retail, restaurant, office, and hotel space. This is consistent with the *North Point Livable Centers Initiative Study* (2008). The current City of Alpharetta zoning is Office and Institutional (O & I) and Mixed-Use (MU). The Office Institutional (O-I) portion of the site requires rezoning to Mixed-Use (MU) and the adoption of a Master Plan. Amendments are being sought to the current Master Plan for the Mixed-Use (MU) portion of the tract. The site is surrounded by Office Institutional (O-I) to the north, east, and west and Planned Shopping Center (PSC) to the south. According to the North Fulton CID, this area is a Village Center, bordered by Commercial Center to the northeast across Haynes Bridge Road and Transition Areas to the south and the northwest across Westside Parkway / Morrison Parkway.

The ARC Unified Growth Policy Map identifies the area as a Regional Center, a Regionally Important Resources area, and a Region Employment Corridor, which are consistent with the proposed land use intended with the *Innovation Mixed-Use* development. The land use maps can be found in Appendix B.

The proposed *Innovation Mixed-Use* development contributes to the North Point LCI vision to create greater connectivity, along with urban structure and walkability. The plazas, greenspace, and plaza-level retail and restaurants paired with pedestrian paths separate from the proposed internal boulevard will create a much more inviting pedestrian atmosphere. Not only will the proposed development provide new and enhanced pedestrian connectivity throughout the site, but it will also add an internal site boulevard, creating a more pedestrian-scale environment.

**Appendix A**  
**Site Photo Log**

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 1



Comments:

SB approach along Westside/Morrison Parkway at Hembree Road.

Photo No. 2



Comments:

EB approach along Hembree Road at Westside/Morrison Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 3



Comments:

WB approach along Lakeview Parkway at Westside/Morrison Parkway.

Photo No. 4



Comments:

View SB along Westside/Morrison Parkway at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 5



Comments:

View NB approach along Westside/Morrison Parkway at Lakeview Parkway.

Photo No. 6



Comments:

WB approach along Haynes Bridge Road at Westside/Morrison Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 7



Comments:

View WB along Haynes Bridge Road at Westside/Morrison Parkway.

Photo No. 8



Comments:

View SB from Haynes Bridge Road at Westside/Morrison Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 9



Comments:

View EB along Haynes Bridge Road at Westside/Morrison Parkway.

Photo No. 10



Comments:

View NB from Lakeview Parkway at Haynes Bridge Road.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 11



Comments:

View SE from Haynes Bridge Road at Lakeview/Northwinds Parkway.

Photo No. 12



Comments:

View EB along Haynes Bridge Road at Lakeview/Northwinds Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 13



Comments:

WB approach along Haynes Bridge Road at GA 400 SB Ramps.

Photo No. 14



Comments:

WB approach along Haynes Bridge Road at GA 400 NB Ramps.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 15



Comments:

View SB from Haynes Bridge Road at GA 400 NB off-ramp.

Photo No. 16



Comments:

NB approach from Office Driveway 1 at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 17



Comments:

View WB along Lakeview Parkway at Office Driveway 1.

Photo No. 18



Comments:

View EB along Lakeview Parkway at Office Driveway 1.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 19



Comments:

SB approach along Office Driveway 2 at Lakeview Parkway.

Photo No. 20



Comments:

View WB from Office Driveway 2 at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 21



Comments: View EB from Office Driveway 2 at Lakeview Parkway.

Photo No. 22



Comments: View EB from Proposed Driveway 1 at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 23



Comments:

View WB from Proposed Driveway 1 at Lakeview Parkway.

Photo No. 24



Comments:

View NB from Proposed Driveway 2 at Lakeview Parkway.

MetLife/Lincoln Property Company  
Photograph Sheet

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 25



Comments: View WB from Proposed Driveway 2 at Lakeview Parkway.

Photo No. 26



Comments: View SB from Proposed Driveway 2 at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 27



Comments:

View NB from Proposed Driveway 3 at Lakeview Parkway.

Photo No. 28



Comments:

View SB from Proposed Driveway 3 at Lakeview Parkway.

Site Name: Innovation Mixed-Use DRI #2499

Photo No. 29



Comments:

View WB from Proposed Driveway 3 at Lakeview Parkway.

Photo No. 30



Comments:

View EB from Office Driveway 3 at Lakeview Parkway.

**Appendix B**  
**Land Use and Zoning Maps**

City of Milton

Forsyth County

City of Milton

# Alpharetta

## Zoning Map

The City of Alpharetta  
Fulton County, GA



Date of Last Map Revision  
**11/10/2014**



Source Note: This product is reproduced from geospatial information prepared by City of Alpharetta GIS and Fulton County. City of Alpharetta data is developed and maintained solely for City business functions, and is not guaranteed to be accurate.

### Legend

- Subdivisions
- Streets
  - Private Streets
  - Public Streets
- Zoning District
  - AG Agriculture
  - RE Residential Estates
  - R Single Family Detached Residential
    - R-22 Single Family Detached Residential
    - R-15 Single Family Detached Residential
    - R-12 Single Family Detached Residential
    - R-10 Single Family Detached Residential
    - R-10M Multiple Family Residential (HD - Historic Density)
    - R-8A Single Family Detached Residential (Low Density)
    - R-8B Single Family Detached Residential (Medium Density)
    - R-8D Single Family Detached
  - CUP Community Unit Plan
  - O-P Office Professional
  - O-I Office Institutional
  - MU Mixed Use
  - C-1 Neighborhood Commercial
  - C-2 General Commercial
  - PSC Planned Shopping Center
  - L-1 Light Industrial
  - OSR Open Space and Recreational
  - SU Special Use

City of Roswell

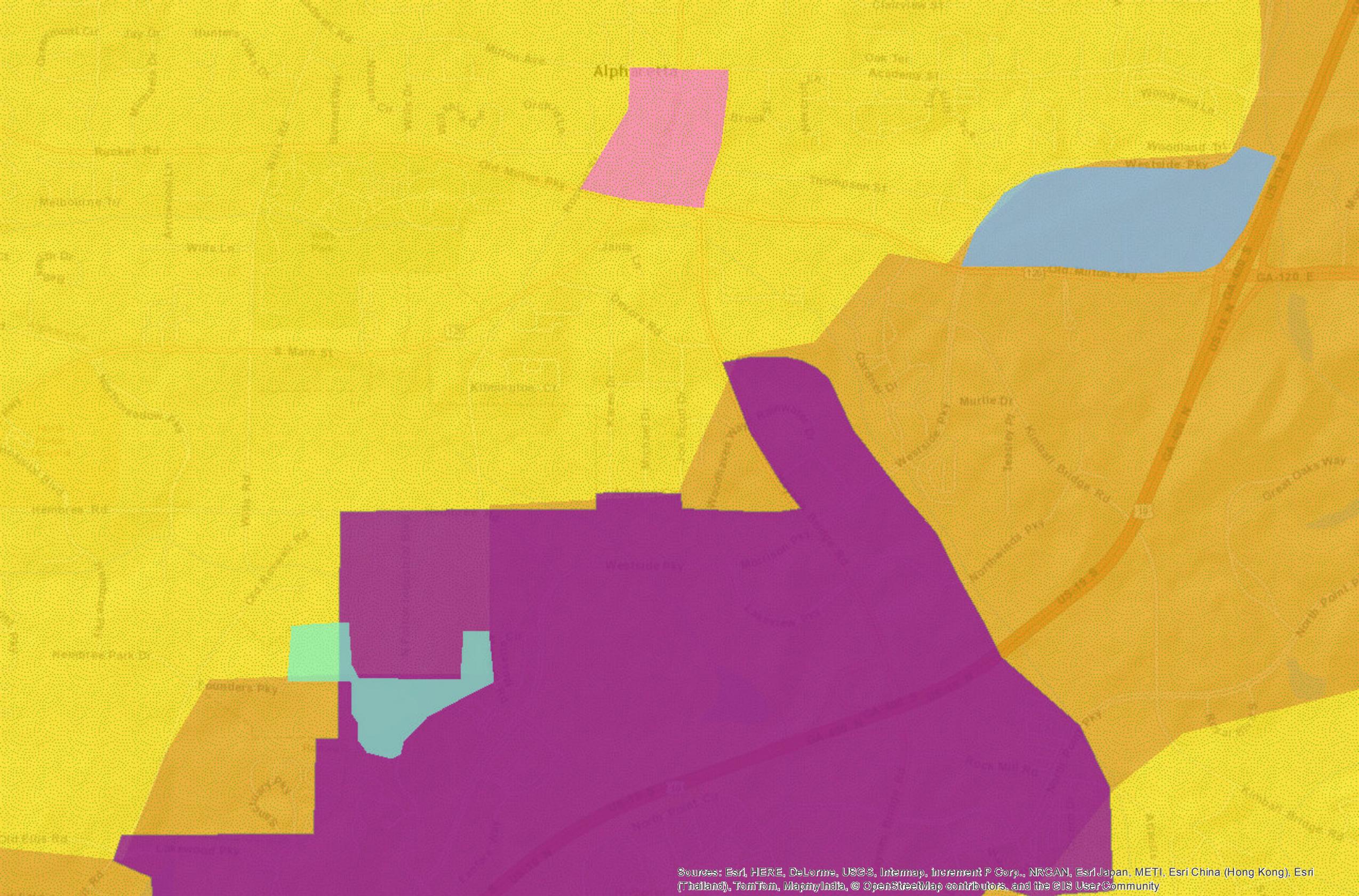
City of Johns Creek

City of Johns Creek

City of Roswell

### Street and Subdivision Index

| Street Name | Subdivision | Street Name | Subdivision |
|-------------|-------------|-------------|-------------|
| A-100       | ...         | A-100       | ...         |
| A-101       | ...         | A-101       | ...         |
| A-102       | ...         | A-102       | ...         |
| A-103       | ...         | A-103       | ...         |
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| A-198       | ...         | A-198       | ...         |
| A-199       | ...         | A-199       | ...         |
| A-200       | ...         | A-200       | ...         |



Alpha

**COLLEGES AND UNIVERSITIES**

|                                |     |
|--------------------------------|-----|
| Agnes Scott College            | J-7 |
| Atlanta Area Technical School  | K-4 |
| Atlanta Christian College      | L-3 |
| Atlanta Metropolitan College   | L-4 |
| Columbia Theological Seminary  | J-7 |
| GA Perimeter College Clarkston | I-9 |
| GA Perimeter College Dunwoody  | D-7 |
| GA Perimeter College Decatur   | L-8 |
| Emory University               | I-6 |
| Mercer University in Atlanta   | F-8 |
| Oglethorpe University          | F-6 |

**CULTURAL FACILITIES**

|                               |     |
|-------------------------------|-----|
| Atlanta History Center        | G-5 |
| Callanwolde Fine Art          | I-6 |
| Center for Puppetry Arts      | I-5 |
| Cyclorama                     | K-5 |
| DeKalb County Library-Decatur | L-8 |
| Lakewood Amphitheater         | L-5 |
| Michael C Carlos Museum       | I-6 |
| Fernbank Science Center       | I-7 |
| Rhodes Hall                   | I-5 |

**HOTELS AND MOTELS**

|                             |     |
|-----------------------------|-----|
| Crowne Plaza Airport        | M-4 |
| Crowne Plaza Ravinia        | E-6 |
| Days Inn Airport South      | O-3 |
| Doubletree Atlanta Buckhead | G-5 |
| Embassy Suites-Buckhead     | G-5 |
| Hilton Atlanta Airport      | M-4 |
| Holiday Inn-Airport North   | M-4 |
| Holiday Inn-Decatur         | I-7 |
| Holiday Inn-Perimeter       | E-7 |
| Lenox Inn                   | G-5 |
| Marriott Airport            | N-3 |
| Marriott-JW At Lenox        | G-5 |
| Marriott-Perimeter Center   | E-6 |
| Grand Hyatt Atlanta         | G-5 |
| Ritz-Carlton Buckhead       | G-5 |
| Sheraton-Airport            | N-3 |
| Sheraton Buckhead           | G-5 |
| Renaissance Airport         | M-4 |
| Westin Buckhead             | G-5 |
| Westin Airport              | N-3 |

**MEDICAL FACILITIES**

|  |     |
|--|-----|
| Decatur Hospital   | L-7 |
| DeKalb Medical Center                                      | L-8 |
| Children's Healthcare of Atlanta at Egleston               | L-7 |
| Emory University Hospital & Clinic                         | L-7 |
| Georgia Regional Hospital                                  | L-8 |
| North Fulton Medical Center                                | B-8 |
| Northside Hospital-Atlanta                                 | E-6 |
| Charter Peachford  | D-7 |
| Piedmont Hospital  | H-3 |
| St. Joseph's Hospital                                      | E-6 |
| Children's Healthcare of Atlanta at Scottish Rite Hospital | E-6 |
| Dunwoody Medical Center                                    | D-7 |
| Shepherd Spinal Center                                     | H-5 |
| South Fulton Medical                                       | L-4 |
| Southside Medical Center                                   | K-5 |
| W.T. Brooks Medical Center                                 | L-3 |
| Veterans Administration Hospital                           | H-7 |

**PARKS AND RECREATION**

|   |     |
|---|-----|
| Anderson Park                           | J-3 |
| Atlanta Memorial Park                   | H-4 |
| Blackburn Park                          | E-6 |
| Murphy Candler Park                     | E-6 |
| Chastain Memorial Park                  | F-5 |
| Lakewood Stadium                        | L-3 |
| Madison Park                            | J-4 |
| Six Flags Over Georgia                  | N-7 |
| Stone Mountain Park                     | D-9 |
| John A White Park                       | K-3 |
| Georgia International Convention Center | N-3 |

**SHOPPING CENTERS**

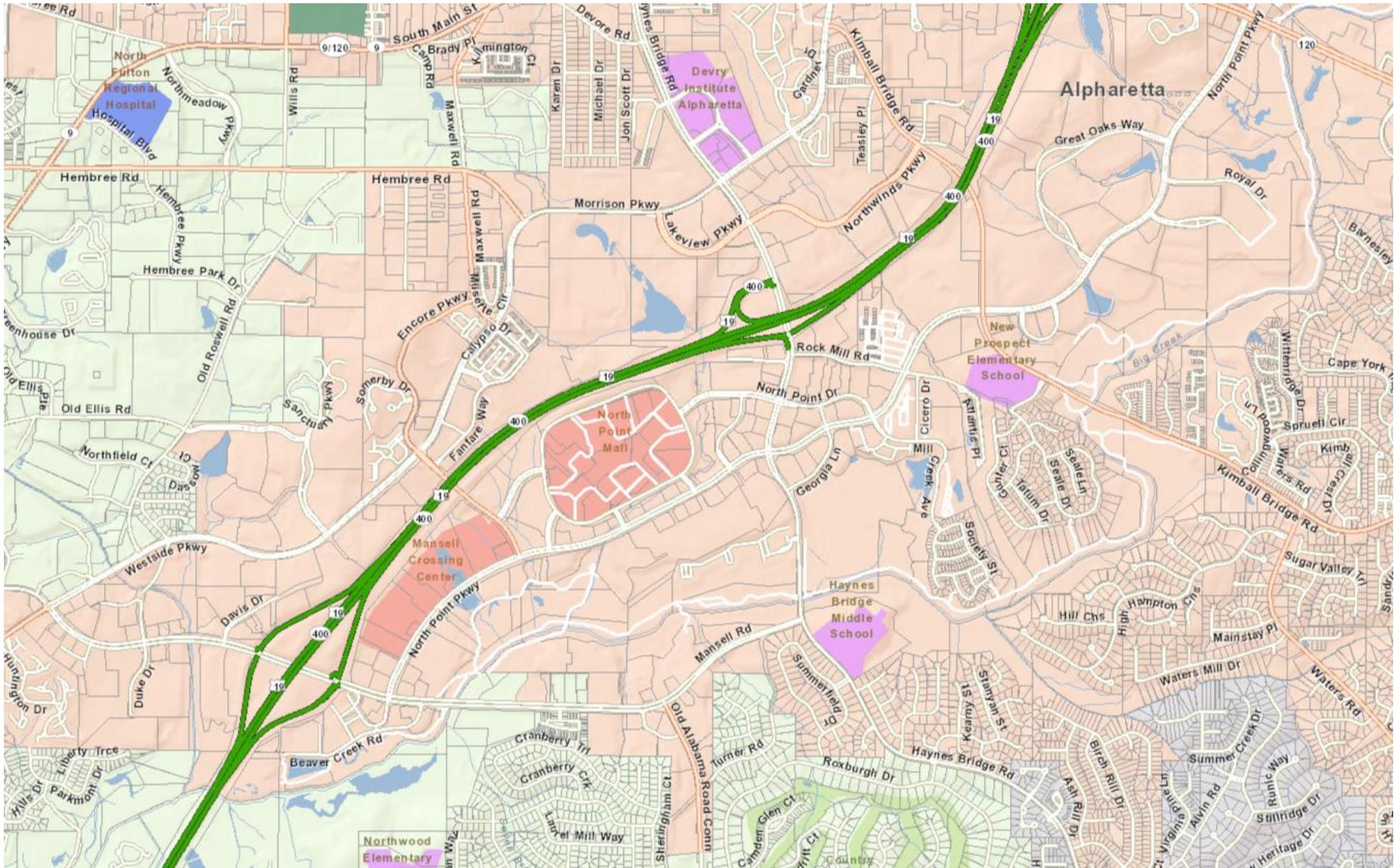
|                                  |      |
|----------------------------------|------|
| Anselmy Mall                     | I-5  |
| Atlantic Station                 | J-4  |
| Belvedere Plaza                  | J-8  |
| Camp Creek Marketplace           | M-2  |
| DeKalb Farmers Market            | I-8  |
| Greenbriar Mall                  | L-2  |
| Lenox Square                     | G-5  |
| Lindbergh Plaza                  | H-5  |
| Peachtree Battle Shopping Center | H-5  |
| North Dekalb Mall                | H-8  |
| Northeast Plaza                  | G-6  |
| Northlake Mall                   | G-8  |
| North Point Mall                 | B-9  |
| Outlet Square Mall               | G-7  |
| Perimeter Mall                   | E-6  |
| Phipps Plaza                     | G-5  |
| Gallery at South Dekalb          | L-8  |
| Suburban Plaza                   | I-8  |
| Mall at Stonecrest               | P-10 |
| Cumberland Mall                  | F-3  |
| Union Station Mall               | P-1  |

**TRANSPORTATION FACILITIES**

|   |     |
|---|-----|
| Amtrak® Peachtree Station                     | I-5 |
| Charlie Brown Fulton Airport Park             | I-1 |
| DeKalb Peachtree Airport                      | F-7 |
| Hartsfield-Jackson International Airport      | N-4 |
| MARTA Headquarters (Lindbergh Center Station) | H-5 |

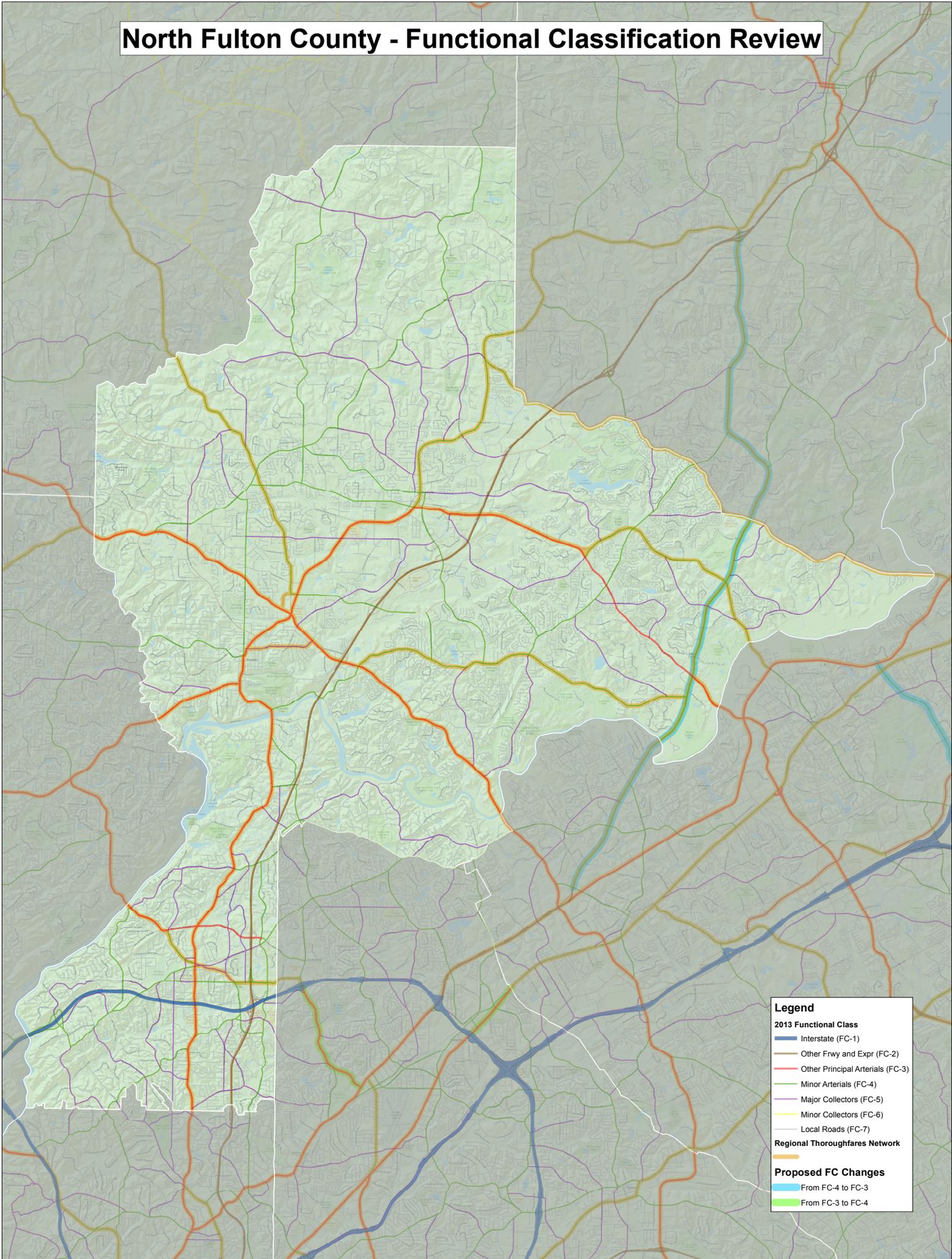
OTHER SIDE  
FOR  
DOWNTOWN





Fulton County Zoning Map - <http://gis.fultoncountyga.gov/apps/ZoningLandUseMapViewPublic>

# North Fulton County - Functional Classification Review



**Legend**

**2013 Functional Class**

- Interstate (FC-1)
- Other Frwy and Expr (FC-2)
- Other Principal Arterials (FC-3)
- Minor Arterials (FC-4)
- Major Collectors (FC-5)
- Minor Collectors (FC-6)
- Local Roads (FC-7)

**Regional Thoroughfares Network**

- Regional Thoroughfare

**Proposed FC Changes**

- From FC-4 to FC-3
- From FC-3 to FC-4

**Appendix C**  
**Proposed Site Plan**



## **Appendix D**

### **Trip Generation Analysis**

**Trip Generation Analysis (9th Ed.)  
Innovation Mixed-Use DRI #2499 (March 2015)  
Alpharetta, GA**

| Land Use   | Intensity                       | Daily Trips   | AM Peak Hour |              |            | PM Peak Hour |            |              |
|--|---------------------------------|---------------|--------------|--------------|------------|--------------|------------|--------------|
|  |                                 |               | Total        | In           | Out        | Total        | In         | Out          |
| <b>Proposed Site Traffic</b>                         |                                 |               |              |              |            |              |            |              |
| 220 Apartment  | 414 d.u.                        | 2,632         | 207          | 41           | 166        | 245          | 159        | 86           |
| 230 Residential Condominium/Townhouse                | 25 d.u.                         | 193           | 17           | 3            | 14         | 19           | 13         | 6            |
| 310 Hotel  | 200 rooms                       | 1,417         | 106          | 63           | 43         | 120          | 61         | 59           |
| 710 General Office Building                          | 751,500 s.f.                    | 6,080         | 961          | 846          | 115        | 920          | 156        | 764          |
| 820 Shopping Center                                  | 65,800 s.f. gross leasable area | 5,173         | 121          | 75           | 46         | 453          | 217        | 236          |
| 932 High-Turnover (Sit-Down) Restaurant              | 40,000 s.f.                     | 5,086         | 432          | 238          | 194        | 394          | 236        | 158          |
|  |                                 |               |              |              |            |              |            |              |
| <b>Gross Trips</b>                                   |                                 | <b>20,581</b> | <b>1,844</b> | <b>1,266</b> | <b>578</b> | <b>2,151</b> | <b>842</b> | <b>1,309</b> |
| Residential Trips                                    |                                 | 2,825         | 224          | 44           | 180        | 264          | 172        | 92           |
| <i>Mixed-Use Reductions</i>                          |                                 | -1,172        | -45          | -3           | -42        | -144         | -96        | -48          |
| <i>Alternative Mode Reductions</i>                   |                                 | -83           | -9           | -2           | -7         | -6           | -4         | -2           |
| Adjusted Residential Trips                           |                                 | 1,570         | 170          | 39           | 131        | 114          | 72         | 42           |
| Hotel Trips  |                                 | 1,417         | 106          | 63           | 43         | 120          | 61         | 59           |
| <i>Mixed-Use Reductions</i>                          |                                 | -472          | -35          | -3           | -32        | -40          | -24        | -16          |
| <i>Alternative Mode Reductions</i>                   |                                 | -47           | -4           | -3           | -1         | -4           | -2         | -2           |
| Adjusted Hotel Trips                                 |                                 | 898           | 67           | 57           | 10         | 76           | 35         | 41           |
| Office Trips   |                                 | 6,080         | 961          | 846          | 115        | 920          | 156        | 764          |
| <i>Mixed-Use Reductions</i>                          |                                 | -1,784        | -181         | -102         | -79        | -43          | -14        | -29          |
| <i>Alternative Mode Reductions</i>                   |                                 | -215          | -39          | -37          | -2         | -44          | -7         | -37          |
| Adjusted Office Trips                                |                                 | 4,081         | 741          | 707          | 34         | 833          | 135        | 698          |
| Retail Trips   |                                 | 5,173         | 121          | 75           | 46         | 453          | 217        | 236          |
| <i>Mixed-Use Reductions</i>                          |                                 | -2,941        | -55          | -35          | -20        | -252         | -108       | -144         |
| <i>Alternative Mode Reductions</i>                   |                                 | -112          | -3           | -2           | -1         | -10          | -5         | -5           |
| <i>Pass By Reductions (Limited by GRTA 15% Rule)</i> |                                 | -638          | 0            | 0            | 0          | -68          | -31        | -38          |
| Adjusted Retail Trips                                |                                 | 1,482         | 63           | 38           | 25         | 123          | 73         | 49           |
| Restaurant Trips                                     |                                 | 5,086         | 432          | 238          | 194        | 394          | 236        | 158          |
| <i>Mixed-Use Reductions</i>                          |                                 | -2,697        | -172         | -101         | -71        | -213         | -104       | -109         |
| <i>Alternative Mode Reductions</i>                   |                                 | -119          | -13          | -7           | -6         | -9           | -7         | -2           |
| <i>Pass By Reductions (Limited by GRTA 15% Rule)</i> |                                 | -628          | 0            | 0            | 0          | -59          | -33        | -26          |
| Adjusted Restaurant Trips                            |                                 | 1,642         | 247          | 130          | 117        | 113          | 92         | 21           |
|  |                                 |               |              |              |            |              |            |              |
| <i>Mixed-Use Reductions - TOTAL</i>                  |                                 | -9,066        | -488         | -244         | -244       | -692         | -346       | -346         |
| <i>Alternative Mode Reductions - TOTAL</i>           |                                 | -576          | -68          | -51          | -17        | -73          | -25        | -48          |
| <i>Pass-By Reductions - TOTAL</i>                    |                                 | -1,266        | 0            | 0            | 0          | -127         | -64        | -64          |
| <b>New Trips</b>                                     |                                 | <b>9,673</b>  | <b>1,288</b> | <b>971</b>   | <b>317</b> | <b>1,259</b> | <b>407</b> | <b>851</b>   |
| <b>Driveway Volumes</b>                              |                                 | <b>10,939</b> | <b>1,288</b> | <b>971</b>   | <b>317</b> | <b>1,386</b> | <b>471</b> | <b>915</b>   |

**Appendix E**  
**Intersection Volume Worksheets**

**INTERSECTION VOLUME DEVELOPMENT**

**Int #1: Westside / Morrison Parkway at Hembree Road / Existing Office Parking Lot  
AM PEAK HOUR**

| Description                          | Office Parking Lot |          |          | Hembree Rd |           |           | Morrison Pkwy |            |          | Morrison Pkwy |            |            |
|--------------------------------------|--------------------|----------|----------|------------|-----------|-----------|---------------|------------|----------|---------------|------------|------------|
|                                      | Northbound         |          |          | Southbound |           |           | Eastbound     |            |          | Westbound     |            |            |
|                                      | Left               | Through  | Right    | Left       | Through   | Right     | Left          | Through    | Right    | Left          | Through    | Right      |
| Observed 2015 Traffic Volumes        | 0                  | 1        | 1        | 558        | 11        | 24        | 15            | 251        | 1        | 65            | 699        | 583        |
| Pedestrians                          |                    |          |          |            |           |           |               |            |          |               |            |            |
| Conflicting Pedestrians              | 0                  | 0        | 0        | 0          | 0         | 0         | 0             | 0          | 0        | 0             | 0          | 0          |
| Heavy Vehicles                       | 0                  | 0        | 0        | 13         | 0         | 1         | 0             | 4          | 0        | 0             | 14         | 8          |
| Heavy Vehicle %                      | 0%                 | 2%       | 2%       | 2%         | 2%        | 4%        | 2%            | 2%         | 2%       | 2%            | 2%         | 2%         |
| Peak Hour Factor                     | 0.50               |          |          | 0.84       |           |           | 0.86          |            |          | 0.90          |            |            |
| Adjusted 2015 Volumes                | 0                  | 1        | 1        | 558        | 11        | 24        | 15            | 251        | 1        | 65            | 699        | 583        |
| Annual Growth Rate                   | 0.5%               | 0.5%     | 0.5%     | 0.5%       | 0.5%      | 0.5%      | 0.5%          | 0.5%       | 0.5%     | 0.5%          | 0.5%       | 0.5%       |
| Growth Factor                        | 1.020              | 1.020    | 1.020    | 1.020      | 1.020     | 1.020     | 1.020         | 1.020      | 1.020    | 1.020         | 1.020      | 1.020      |
| Northwinds Project Trips (50%)       | 0                  | 0        | 0        | 39         | 0         | 0         | 0             | 39         | 0        | 0             | 8          | 0          |
| 2019 Background Traffic              | 0                  | 1        | 1        | 608        | 11        | 24        | 15            | 295        | 1        | 66            | 721        | 595        |
| 2019 Existing Office Traffic Changes |                    |          |          |            |           |           |               |            |          |               |            |            |
| <b>Project Trips</b>                 |                    |          |          |            |           |           |               |            |          |               |            |            |
| Trip Distribution IN                 |                    |          |          | 10%        |           |           |               | 5%         |          |               |            |            |
| Trip Distribution OUT                |                    |          |          |            |           |           |               |            |          | 5%            | 10%        |            |
| Residential Trips                    | 0                  | 0        | 0        | 4          | 0         | 0         | 0             | 2          | 0        | 0             | 7          | 13         |
| Trip Distribution IN                 |                    |          |          | 10%        |           |           |               | 5%         |          |               |            |            |
| Trip Distribution OUT                |                    |          |          |            |           |           |               |            |          | 5%            | 10%        |            |
| Hotel Trips                          | 0                  | 0        | 0        | 6          | 0         | 0         | 0             | 3          | 0        | 0             | 1          | 1          |
| Trip Distribution IN                 |                    |          |          | 10%        |           |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |          |          |            |           |           |               |            |          | 10%           | 10%        |            |
| Office Trips                         | 0                  | 0        | 0        | 71         | 0         | 0         | 0             | 71         | 0        | 0             | 3          | 3          |
| Trip Distribution IN                 |                    |          |          | 10%        |           |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |          |          |            |           |           |               |            |          | 10%           | 10%        |            |
| Retail Trips                         | 0                  | 0        | 0        | 4          | 0         | 0         | 0             | 4          | 0        | 0             | 3          | 3          |
| Trip Distribution IN                 |                    |          |          | 10%        |           |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |          |          |            |           |           |               |            |          | 10%           | 10%        |            |
| Restaurant Trips                     | 0                  | 0        | 0        | 13         | 0         | 0         | 0             | 13         | 0        | 0             | 12         | 12         |
| Pass-By Trips                        | 0                  | 0        | 0        | 0          | 0         | 0         | 0             | 0          | 0        | 0             | 0          | 0          |
| Total Project Trips                  | 0                  | 0        | 0        | 98         | 0         | 0         | 0             | 93         | 0        | 0             | 26         | 32         |
| <b>2019 Buildout Total</b>           | <b>0</b>           | <b>1</b> | <b>1</b> | <b>706</b> | <b>11</b> | <b>24</b> | <b>15</b>     | <b>388</b> | <b>1</b> | <b>66</b>     | <b>747</b> | <b>627</b> |

**PM PEAK HOUR**

| Description                          | Office Parking Lot |           |           | Hembree Rd |          |           | Morrison Pkwy |            |          | Morrison Pkwy |            |            |
|--------------------------------------|--------------------|-----------|-----------|------------|----------|-----------|---------------|------------|----------|---------------|------------|------------|
|                                      | Northbound         |           |           | Southbound |          |           | Eastbound     |            |          | Westbound     |            |            |
|                                      | Left               | Through   | Right     | Left       | Through  | Right     | Left          | Through    | Right    | Left          | Through    | Right      |
| Observed 2015 Traffic Volumes        | 1                  | 14        | 16        | 724        | 2        | 23        | 60            | 613        | 0        | 6             | 358        | 657        |
| Pedestrians                          |                    |           |           |            |          |           |               |            |          |               |            |            |
| Conflicting Pedestrians              | 0                  | 0         | 0         | 0          | 0        | 0         | 0             | 0          | 0        | 0             | 0          | 0          |
| Heavy Vehicles                       | 0                  | 0         | 0         | 1          | 0        | 0         | 1             | 3          | 0        | 0             | 8          | 72         |
| Heavy Vehicle %                      | 2%                 | 2%        | 2%        | 2%         | 2%       | 2%        | 2%            | 2%         | 0%       | 2%            | 2%         | 11%        |
| Peak Hour Factor                     | 0.78               |           |           | 0.83       |          |           | 0.80          |            |          | 0.83          |            |            |
| Adjusted 2015 Volumes                | 1                  | 14        | 16        | 724        | 2        | 23        | 60            | 613        | 0        | 6             | 358        | 657        |
| Annual Growth Rate                   | 0.5%               | 0.5%      | 0.5%      | 0.5%       | 0.5%     | 0.5%      | 0.5%          | 0.5%       | 0.5%     | 0.5%          | 0.5%       | 0.5%       |
| Growth Factor                        | 1.020              | 1.020     | 1.020     | 1.020      | 1.020    | 1.020     | 1.020         | 1.020      | 1.020    | 1.020         | 1.020      | 1.020      |
| Northwinds Project Trips (50%)       | 0                  | 0         | 0         | 11         | 0        | 0         | 0             | 11         | 0        | 0             | 34         | 34         |
| 2019 Background Traffic              | 1                  | 14        | 16        | 750        | 2        | 23        | 61            | 636        | 0        | 6             | 399        | 704        |
| 2019 Existing Office Traffic Changes |                    |           |           |            |          |           |               |            |          |               |            |            |
| <b>Project Trips</b>                 |                    |           |           |            |          |           |               |            |          |               |            |            |
| Trip Distribution IN                 |                    |           |           | 10%        |          |           |               | 5%         |          |               |            |            |
| Trip Distribution OUT                |                    |           |           |            |          |           |               |            |          | 5%            | 10%        |            |
| Residential Trips                    | 0                  | 0         | 0         | 7          | 0        | 0         | 0             | 4          | 0        | 0             | 2          | 4          |
| Trip Distribution IN                 |                    |           |           | 10%        |          |           |               | 5%         |          |               |            |            |
| Trip Distribution OUT                |                    |           |           |            |          |           |               |            |          | 5%            | 10%        |            |
| Hotel Trips                          | 0                  | 0         | 0         | 4          | 0        | 0         | 0             | 2          | 0        | 0             | 2          | 4          |
| Trip Distribution IN                 |                    |           |           | 10%        |          |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |           |           |            |          |           |               |            |          | 10%           | 10%        |            |
| Office Trips                         | 0                  | 0         | 0         | 14         | 0        | 0         | 0             | 14         | 0        | 0             | 70         | 70         |
| Trip Distribution IN                 |                    |           |           | 10%        |          |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |           |           |            |          |           |               |            |          | 10%           | 10%        |            |
| Retail Trips                         | 0                  | 0         | 0         | 7          | 0        | 0         | 0             | 7          | 0        | 0             | 5          | 5          |
| Trip Distribution IN                 |                    |           |           | 10%        |          |           |               | 10%        |          |               |            |            |
| Trip Distribution OUT                |                    |           |           |            |          |           |               |            |          | 10%           | 10%        |            |
| Restaurant Trips                     | 0                  | 0         | 0         | 9          | 0        | 0         | 0             | 9          | 0        | 0             | 2          | 2          |
| Pass-By Trips                        | 0                  | 0         | 0         | 0          | 0        | 0         | 0             | 0          | 0        | 0             | 0          | 0          |
| Total Project Trips                  | 0                  | 0         | 0         | 41         | 0        | 0         | 0             | 36         | 0        | 0             | 81         | 85         |
| <b>2019 Buildout Total</b>           | <b>1</b>           | <b>14</b> | <b>16</b> | <b>791</b> | <b>2</b> | <b>23</b> | <b>61</b>     | <b>672</b> | <b>0</b> | <b>6</b>      | <b>480</b> | <b>789</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #2: Morrison Parkway at Lakeview Parkway  
AM PEAK HOUR**

| Description                          | Lakeview Pkwy |          |           | N/A        |          |          | Morrison Pkwy |            |            | Morrison Pkwy |              |          |
|--------------------------------------|---------------|----------|-----------|------------|----------|----------|---------------|------------|------------|---------------|--------------|----------|
|                                      | Northbound    |          | Right     | Southbound |          | Right    | Eastbound     |            | Right      | Westbound     |              | Right    |
|                                      | Left          | Through  | Right     | Left       | Through  | Right    | Left          | Through    | Right      | Left          | Through      | Right    |
| Observed 2015 Traffic Volumes        | 246           |          | 6         |            |          |          |               | 689        | 331        | 68            | 1,322        |          |
| Pedestrians                          |               |          |           |            |          |          |               |            |            |               |              |          |
| Conflicting Pedestrians              | 0             |          | 0         | 0          |          | 0        | 0             |            | 0          | 0             |              | 0        |
| Heavy Vehicles                       | 1             |          | 0         |            |          |          |               | 19         | 3          | 0             | 23           |          |
| Heavy Vehicle %                      | 2%            | 0%       | 2%        | 0%         | 0%       | 0%       | 0%            | 3%         | 2%         | 2%            | 2%           | 0%       |
| Peak Hour Factor                     | 0.92          |          |           |            |          |          | 0.92          |            |            | 0.85          |              |          |
| Adjusted 2015 Volumes                | 246           | 0        | 6         | 0          | 0        | 0        | 0             | 689        | 331        | 68            | 1322         | 0        |
| Annual Growth Rate                   | 0.5%          | 0.5%     | 0.5%      | 0.5%       | 0.5%     | 0.5%     | 0.5%          | 0.5%       | 0.5%       | 0.5%          | 0.5%         | 0.5%     |
| Growth Factor                        | 1.020         | 1.020    | 1.020     | 1.020      | 1.020    | 1.020    | 1.020         | 1.020      | 1.020      | 1.020         | 1.020        | 1.020    |
| Northwinds Project Trips (50%)       | 9             | 0        | 0         | 0          | 0        | 0        | 0             | 55         | 22         | 0             | 7            | 0        |
| 2019 Background Traffic              | 260           | 0        | 6         | 0          | 0        | 0        | 0             | 758        | 360        | 69            | 1,356        | 0        |
| 2019 Existing Office Traffic Changes |               |          |           |            |          |          |               |            |            |               |              |          |
| <b>Project Trips</b>                 |               |          |           |            |          |          |               |            |            |               |              |          |
| Trip Distribution IN                 |               |          |           |            |          |          |               |            | 15%        | 10%           |              |          |
| Trip Distribution OUT                | 15%           |          | 10%       |            |          |          |               |            |            |               |              |          |
| Residential Trips                    | 20            | 0        | 13        | 0          | 0        | 0        | 0             | 0          | 6          | 4             | 0            | 0        |
| Trip Distribution IN                 |               |          |           |            |          |          |               |            | 15%        | 10%           |              |          |
| Trip Distribution OUT                | 15%           |          | 10%       |            |          |          |               |            |            |               |              |          |
| Hotel Trips                          | 2             | 0        | 1         | 0          | 0        | 0        | 0             | 0          | 9          | 6             | 0            | 0        |
| Trip Distribution IN                 |               |          |           |            |          |          |               |            | 20%        | 10%           |              |          |
| Trip Distribution OUT                | 20%           |          | 10%       |            |          |          |               |            |            |               |              |          |
| Office Trips                         | 7             | 0        | 3         | 0          | 0        | 0        | 0             | 0          | 141        | 71            | 0            | 0        |
| Trip Distribution IN                 |               |          |           |            |          |          |               |            | 20%        | 10%           |              |          |
| Trip Distribution OUT                | 20%           |          | 10%       |            |          |          |               |            |            |               |              |          |
| Retail Trips                         | 5             | 0        | 3         | 0          | 0        | 0        | 0             | 0          | 8          | 4             | 0            | 0        |
| Trip Distribution IN                 |               |          |           |            |          |          |               |            | 20%        | 10%           |              |          |
| Trip Distribution OUT                | 20%           |          | 10%       |            |          |          |               |            |            |               |              |          |
| Restaurant Trips                     | 23            | 0        | 12        | 0          | 0        | 0        | 0             | 0          | 26         | 13            | 0            | 0        |
| Pass-By Trips                        | 0             | 0        | 0         | 0          | 0        | 0        | 0             | 0          | 0          | 0             | 0            | 0        |
| Total Project Trips                  | 57            | 0        | 32        | 0          | 0        | 0        | 0             | 0          | 190        | 98            | 0            | 0        |
| <b>2019 Buildout Total</b>           | <b>317</b>    | <b>0</b> | <b>38</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>      | <b>758</b> | <b>550</b> | <b>167</b>    | <b>1,356</b> | <b>0</b> |

**PM PEAK HOUR**

| Description                          | Lakeview Pkwy |          |            | N/A        |          |          | Morrison Pkwy |              |            | Morrison Pkwy |            |          |
|--------------------------------------|---------------|----------|------------|------------|----------|----------|---------------|--------------|------------|---------------|------------|----------|
|                                      | Northbound    |          | Right      | Southbound |          | Right    | Eastbound     |              | Right      | Westbound     |            | Right    |
|                                      | Left          | Through  | Right      | Left       | Through  | Right    | Left          | Through      | Right      | Left          | Through    | Right    |
| Observed 2015 Traffic Volumes        | 356           |          | 76         |            |          |          |               | 1,163        | 372        | 5             | 926        |          |
| Pedestrians                          |               |          |            |            |          |          |               |              |            |               |            |          |
| Conflicting Pedestrians              | 0             |          | 0          | 0          |          | 0        | 0             |              | 0          | 0             |            | 0        |
| Heavy Vehicles                       | 3             |          | 0          |            |          |          |               | 10           | 2          | 0             | 91         |          |
| Heavy Vehicle %                      | 2%            | 0%       | 2%         | 0%         | 0%       | 0%       | 0%            | 2%           | 2%         | 2%            | 10%        | 0%       |
| Peak Hour Factor                     | 0.78          |          |            |            |          |          | 0.86          |              |            | 0.90          |            |          |
| Adjusted 2015 Volumes                | 356           | 0        | 76         | 0          | 0        | 0        | 0             | 1163         | 372        | 5             | 926        | 0        |
| Annual Growth Rate                   | 0.5%          | 0.5%     | 0.5%       | 0.5%       | 0.5%     | 0.5%     | 0.5%          | 0.5%         | 0.5%       | 0.5%          | 0.5%       | 0.5%     |
| Growth Factor                        | 1.020         | 1.020    | 1.020      | 1.020      | 1.020    | 1.020    | 1.020         | 1.020        | 1.020      | 1.020         | 1.020      | 1.020    |
| Northwinds Project Trips (50%)       | 27            | 0        | 0          | 0          | 0        | 0        | 0             | 15           | 6          | 0             | 40         | 0        |
| 2019 Background Traffic              | 390           | 0        | 78         | 0          | 0        | 0        | 0             | 1,201        | 385        | 5             | 985        | 0        |
| 2019 Existing Office Traffic Changes |               |          |            |            |          |          |               |              |            |               |            |          |
| <b>Project Trips</b>                 |               |          |            |            |          |          |               |              |            |               |            |          |
| Trip Distribution IN                 |               |          |            |            |          |          |               |              | 15%        | 10%           |            |          |
| Trip Distribution OUT                | 15%           |          | 10%        |            |          |          |               |              |            |               |            |          |
| Residential Trips                    | 6             | 0        | 4          | 0          | 0        | 0        | 0             | 0            | 11         | 7             | 0          | 0        |
| Trip Distribution IN                 |               |          |            |            |          |          |               |              | 15%        | 10%           |            |          |
| Trip Distribution OUT                | 15%           |          | 10%        |            |          |          |               |              |            |               |            |          |
| Hotel Trips                          | 6             | 0        | 4          | 0          | 0        | 0        | 0             | 0            | 5          | 4             | 0          | 0        |
| Trip Distribution IN                 |               |          |            |            |          |          |               |              | 20%        | 10%           |            |          |
| Trip Distribution OUT                | 20%           |          | 10%        |            |          |          |               |              |            |               |            |          |
| Office Trips                         | 140           | 0        | 70         | 0          | 0        | 0        | 0             | 0            | 27         | 14            | 0          | 0        |
| Trip Distribution IN                 |               |          |            |            |          |          |               |              | 20%        | 10%           |            |          |
| Trip Distribution OUT                | 20%           |          | 10%        |            |          |          |               |              |            |               |            |          |
| Retail Trips                         | 10            | 0        | 5          | 0          | 0        | 0        | 0             | 0            | 15         | 7             | 0          | 0        |
| Trip Distribution IN                 |               |          |            |            |          |          |               |              | 20%        | 10%           |            |          |
| Trip Distribution OUT                | 20%           |          | 10%        |            |          |          |               |              |            |               |            |          |
| Restaurant Trips                     | 4             | 0        | 2          | 0          | 0        | 0        | 0             | 0            | 18         | 9             | 0          | 0        |
| Pass-By Trips                        | 0             | 0        | 5          | 0          | 0        | 0        | 0             | -5           | 5          | 0             | 0          | 0        |
| Total Project Trips                  | 166           | 0        | 90         | 0          | 0        | 0        | 0             | -5           | 81         | 41            | 0          | 0        |
| <b>2019 Buildout Total</b>           | <b>556</b>    | <b>0</b> | <b>168</b> | <b>0</b>   | <b>0</b> | <b>0</b> | <b>0</b>      | <b>1,196</b> | <b>466</b> | <b>46</b>     | <b>985</b> | <b>0</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #3: Haynes Bridge Road at Westside / Morrison Parkway  
AM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |            |           | Haynes Bridge Rd<br>Southbound |            |            | Westside/Morrison<br>Eastbound |            |            | Westside/Morrison<br>Westbound |              |           |
|--------------------------------------|--------------------------------|------------|-----------|--------------------------------|------------|------------|--------------------------------|------------|------------|--------------------------------|--------------|-----------|
|                                      | Left                           | Through    | Right     | Left                           | Through    | Right      | Left                           | Through    | Right      | Left                           | Through      | Right     |
| Observed 2015 Traffic Volumes        | 361                            | 668        | 63        | 63                             | 842        | 63         | 76                             | 425        | 142        | 161                            | 949          | 43        |
| Pedestrians                          |                                |            |           |                                |            |            |                                |            |            |                                |              |           |
| Conflicting Pedestrians              | 0                              |            | 0         | 0                              |            | 0          | 0                              |            | 0          | 0                              |              | 0         |
| Heavy Vehicles                       | 12                             | 7          | 0         | 1                              | 6          | 2          | 3                              | 5          | 9          | 2                              | 8            | 2         |
| Heavy Vehicle %                      | 3%                             | 2%         | 2%        | 2%                             | 2%         | 3%         | 4%                             | 2%         | 6%         | 2%                             | 2%           | 5%        |
| Peak Hour Factor                     |                                | 0.92       |           |                                | 0.97       |            |                                | 0.77       |            |                                | 0.82         |           |
| Adjusted 2015 Volumes                | 361                            | 668        | 63        | 63                             | 842        | 63         | 76                             | 425        | 142        | 161                            | 949          | 43        |
| Annual Growth Rate                   | 0.5%                           | 0.5%       | 0.5%      | 0.5%                           | 0.5%       | 0.5%       | 0.5%                           | 0.5%       | 0.5%       | 0.5%                           | 0.5%         | 0.5%      |
| Growth Factor                        | 1.020                          | 1.020      | 1.020     | 1.020                          | 1.020      | 1.020      | 1.020                          | 1.020      | 1.020      | 1.020                          | 1.020        | 1.020     |
| Northwinds Project Trips (50%)       | 7                              | 20         | 5         | 0                              | 80         | 0          | 0                              | 0          | 55         | 37                             | 0            | 0         |
| 2019 Background Traffic              | 375                            | 701        | 69        | 64                             | 939        | 64         | 78                             | 434        | 200        | 201                            | 968          | 44        |
| 2019 Existing Office Traffic Changes |                                |            |           |                                |            |            |                                |            |            |                                |              |           |
| <b>Project Trips</b>                 |                                |            |           |                                |            |            |                                |            |            |                                |              |           |
| Trip Distribution IN                 |                                |            |           |                                | 10%        | 5%         |                                |            |            | 5%                             | 5%           |           |
| Trip Distribution OUT                |                                | 10%        | 5%        |                                |            |            | 5%                             | 5%         |            |                                |              |           |
| Residential Trips                    | 0                              | 13         | 7         | 0                              | 4          | 2          | 7                              | 7          | 0          | 2                              | 2            | 0         |
| Trip Distribution IN                 |                                |            |           |                                | 10%        | 5%         |                                |            |            | 5%                             | 5%           |           |
| Trip Distribution OUT                |                                | 10%        | 5%        |                                |            |            | 5%                             | 5%         |            |                                |              |           |
| Hotel Trips                          | 0                              | 1          | 1         | 0                              | 6          | 3          | 1                              | 1          | 0          | 3                              | 3            | 0         |
| Trip Distribution IN                 |                                |            |           |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%           |           |
| Trip Distribution OUT                |                                | 5%         | 5%        |                                |            |            | 5%                             | 5%         |            |                                |              |           |
| Office Trips                         | 0                              | 2          | 2         | 0                              | 35         | 35         | 2                              | 2          | 0          | 35                             | 35           | 0         |
| Trip Distribution IN                 |                                |            |           |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%           |           |
| Trip Distribution OUT                |                                | 5%         | 5%        |                                |            |            | 5%                             | 5%         |            |                                |              |           |
| Retail Trips                         | 0                              | 1          | 1         | 0                              | 2          | 2          | 1                              | 1          | 0          | 2                              | 2            | 0         |
| Trip Distribution IN                 |                                |            |           |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%           |           |
| Trip Distribution OUT                |                                | 5%         | 5%        |                                |            |            | 5%                             | 5%         |            |                                |              |           |
| Restaurant Trips                     | 0                              | 6          | 6         | 0                              | 7          | 7          | 6                              | 6          | 0          | 7                              | 7            | 0         |
| Pass-By Trips                        | 0                              | 0          | 0         | 0                              | 0          | 0          | 0                              | 0          | 0          | 0                              | 0            | 0         |
| Total Project Trips                  | 0                              | 23         | 17        | 0                              | 54         | 49         | 17                             | 17         | 0          | 49                             | 49           | 0         |
| <b>2019 Buildout Total</b>           | <b>375</b>                     | <b>724</b> | <b>86</b> | <b>64</b>                      | <b>993</b> | <b>113</b> | <b>95</b>                      | <b>451</b> | <b>200</b> | <b>250</b>                     | <b>1,017</b> | <b>44</b> |

**PM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |              |            | Haynes Bridge Rd<br>Southbound |            |            | Westside/Morrison<br>Eastbound |            |            | Westside/Morrison<br>Westbound |            |           |
|--------------------------------------|--------------------------------|--------------|------------|--------------------------------|------------|------------|--------------------------------|------------|------------|--------------------------------|------------|-----------|
|                                      | Left                           | Through      | Right      | Left                           | Through    | Right      | Left                           | Through    | Right      | Left                           | Through    | Right     |
| Observed 2015 Traffic Volumes        | 251                            | 1,051        | 121        | 70                             | 739        | 96         | 181                            | 723        | 330        | 224                            | 527        | 68        |
| Pedestrians                          |                                |              |            |                                |            |            |                                |            |            |                                |            |           |
| Conflicting Pedestrians              | 0                              |              | 0          | 0                              |            | 0          | 0                              |            | 0          | 0                              |            | 0         |
| Heavy Vehicles                       | 20                             | 3            | 0          | 0                              | 4          | 2          | 0                              | 3          | 5          | 0                              | 22         | 0         |
| Heavy Vehicle %                      | 8%                             | 2%           | 2%         | 2%                             | 2%         | 2%         | 2%                             | 2%         | 2%         | 2%                             | 4%         | 2%        |
| Peak Hour Factor                     |                                | 0.90         |            |                                | 0.92       |            |                                | 0.83       |            |                                | 0.88       |           |
| Adjusted 2015 Volumes                | 251                            | 1051         | 121        | 70                             | 739        | 96         | 181                            | 723        | 330        | 224                            | 527        | 68        |
| Annual Growth Rate                   | 0.5%                           | 0.5%         | 0.5%       | 0.5%                           | 0.5%       | 0.5%       | 0.5%                           | 0.5%       | 0.5%       | 0.5%                           | 0.5%       | 0.5%      |
| Growth Factor                        | 1.020                          | 1.020        | 1.020      | 1.020                          | 1.020      | 1.020      | 1.020                          | 1.020      | 1.020      | 1.020                          | 1.020      | 1.020     |
| Northwinds Project Trips (50%)       | 40                             | 100          | 19         | 0                              | 20         | 0          | 0                              | 0          | 15         | 11                             | 0          | 0         |
| 2019 Background Traffic              | 296                            | 1,172        | 142        | 71                             | 774        | 98         | 185                            | 738        | 352        | 240                            | 538        | 69        |
| 2019 Existing Office Traffic Changes |                                |              |            |                                |            |            |                                |            |            |                                |            |           |
| <b>Project Trips</b>                 |                                |              |            |                                |            |            |                                |            |            |                                |            |           |
| Trip Distribution IN                 |                                |              |            |                                | 10%        | 5%         |                                |            |            | 5%                             | 5%         |           |
| Trip Distribution OUT                |                                | 10%          | 5%         |                                |            |            | 5%                             | 5%         |            |                                |            |           |
| Residential Trips                    | 0                              | 4            | 2          | 0                              | 7          | 4          | 2                              | 2          | 0          | 4                              | 4          | 0         |
| Trip Distribution IN                 |                                |              |            |                                | 10%        | 5%         |                                |            |            | 5%                             | 5%         |           |
| Trip Distribution OUT                |                                | 10%          | 5%         |                                |            |            | 5%                             | 5%         |            |                                |            |           |
| Hotel Trips                          | 0                              | 4            | 2          | 0                              | 4          | 2          | 2                              | 2          | 0          | 2                              | 2          | 0         |
| Trip Distribution IN                 |                                |              |            |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%         |           |
| Trip Distribution OUT                |                                | 5%           | 5%         |                                |            |            | 5%                             | 5%         |            |                                |            |           |
| Office Trips                         | 0                              | 35           | 35         | 0                              | 7          | 7          | 35                             | 35         | 0          | 7                              | 7          | 0         |
| Trip Distribution IN                 |                                |              |            |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%         |           |
| Trip Distribution OUT                |                                | 5%           | 5%         |                                |            |            | 5%                             | 5%         |            |                                |            |           |
| Retail Trips                         | 0                              | 2            | 2          | 0                              | 4          | 4          | 2                              | 2          | 0          | 4                              | 4          | 0         |
| Trip Distribution IN                 |                                |              |            |                                | 5%         | 5%         |                                |            |            | 5%                             | 5%         |           |
| Trip Distribution OUT                |                                | 5%           | 5%         |                                |            |            | 5%                             | 5%         |            |                                |            |           |
| Restaurant Trips                     | 0                              | 1            | 1          | 0                              | 5          | 5          | 1                              | 1          | 0          | 5                              | 5          | 0         |
| Pass-By Trips                        | 0                              | 0            | 0          | 0                              | 0          | 0          | 0                              | 0          | 0          | 0                              | 0          | 0         |
| Total Project Trips                  | 0                              | 46           | 42         | 0                              | 27         | 22         | 42                             | 42         | 0          | 22                             | 22         | 0         |
| <b>2019 Buildout Total</b>           | <b>296</b>                     | <b>1,218</b> | <b>184</b> | <b>71</b>                      | <b>801</b> | <b>120</b> | <b>227</b>                     | <b>780</b> | <b>352</b> | <b>262</b>                     | <b>560</b> | <b>69</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #4: Haynes Bridge Road at Lakeview Parkway / Northwinds Parkway  
AM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br><u>Northbound</u> |              |            | Haynes Bridge Rd<br><u>Southbound</u> |              |            | Lakeview Pkwy<br><u>Eastbound</u> |            |            | Northwinds Pkwy<br><u>Westbound</u> |            |           |
|--------------------------------------|---------------------------------------|--------------|------------|---------------------------------------|--------------|------------|-----------------------------------|------------|------------|-------------------------------------|------------|-----------|
|                                      | Left                                  | Through      | Right      | Left                                  | Through      | Right      | Left                              | Through    | Right      | Left                                | Through    | Right     |
| Observed 2015 Traffic Volumes        | 338                                   | 1,027        | 156        | 129                                   | 1,150        | 6          | 3                                 | 116        | 105        | 24                                  | 90         | 50        |
| Pedestrians                          |                                       |              |            |                                       |              |            |                                   |            |            |                                     |            |           |
| Conflicting Pedestrians              | 0                                     |              | 0          | 0                                     |              | 0          | 0                                 |            | 0          | 0                                   |            | 0         |
| Heavy Vehicles                       | 1                                     | 17           | 0          | 3                                     | 15           | 0          | 0                                 | 1          | 5          | 0                                   | 1          | 0         |
| Heavy Vehicle %                      | 2%                                    | 2%           | 2%         | 2%                                    | 2%           | 2%         | 2%                                | 2%         | 5%         | 2%                                  | 2%         | 2%        |
| Peak Hour Factor                     |                                       | 0.94         |            |                                       | 0.94         |            |                                   | 0.95       |            |                                     | 0.85       |           |
| Adjusted 2015 Volumes                | 338                                   | 1027         | 156        | 129                                   | 1150         | 6          | 3                                 | 116        | 105        | 24                                  | 90         | 50        |
| Annual Growth Rate                   | 0.5%                                  | 0.5%         | 0.5%       | 0.5%                                  | 0.5%         | 0.5%       | 0.5%                              | 0.5%       | 0.5%       | 0.5%                                | 0.5%       | 0.5%      |
| Growth Factor                        | 1.020                                 | 1.020        | 1.020      | 1.020                                 | 1.020        | 1.020      | 1.020                             | 1.020      | 1.020      | 1.020                               | 1.020      | 1.020     |
| Northwinds Project Trips (50%)       | 4                                     | 22           | 0          | 84                                    | 88           | 0          | 0                                 | 15         | 7          | 14                                  | 5          | 10        |
| 2019 Background Traffic              | 349                                   | 1,070        | 159        | 216                                   | 1,261        | 6          | 3                                 | 133        | 114        | 38                                  | 97         | 61        |
| 2019 Existing Office Traffic Changes |                                       |              |            |                                       |              |            |                                   |            |            |                                     |            |           |
| <b>Project Trips</b>                 |                                       |              |            |                                       |              |            |                                   |            |            |                                     |            |           |
| Trip Distribution IN                 | 55%                                   |              |            |                                       |              | 15%        |                                   |            |            |                                     | 5%         |           |
| Trip Distribution OUT                |                                       |              |            |                                       |              |            | 15%                               | 5%         | 55%        |                                     |            |           |
| Residential Trips                    | 21                                    | 0            | 0          | 0                                     | 0            | 6          | 20                                | 7          | 72         | 0                                   | 2          | 0         |
| Trip Distribution IN                 | 55%                                   |              |            |                                       |              | 15%        |                                   |            |            |                                     | 5%         |           |
| Trip Distribution OUT                |                                       |              |            |                                       |              |            | 15%                               | 5%         | 55%        |                                     |            |           |
| Hotel Trips                          | 31                                    | 0            | 0          | 0                                     | 0            | 9          | 2                                 | 1          | 6          | 0                                   | 3          | 0         |
| Trip Distribution IN                 | 50%                                   |              |            |                                       |              | 10%        |                                   |            |            |                                     | 10%        |           |
| Trip Distribution OUT                |                                       |              |            |                                       |              |            | 10%                               | 10%        | 50%        |                                     |            |           |
| Office Trips                         | 354                                   | 0            | 0          | 0                                     | 0            | 71         | 3                                 | 3          | 17         | 0                                   | 71         | 0         |
| Trip Distribution IN                 | 50%                                   |              |            |                                       |              | 10%        |                                   |            |            |                                     | 10%        |           |
| Trip Distribution OUT                |                                       |              |            |                                       |              |            | 10%                               | 10%        | 50%        |                                     |            |           |
| Retail Trips                         | 19                                    | 0            | 0          | 0                                     | 0            | 4          | 3                                 | 3          | 13         | 0                                   | 4          | 0         |
| Trip Distribution IN                 | 50%                                   |              |            |                                       |              | 10%        |                                   |            |            |                                     | 10%        |           |
| Trip Distribution OUT                |                                       |              |            |                                       |              |            | 10%                               | 10%        | 50%        |                                     |            |           |
| Restaurant Trips                     | 65                                    | 0            | 0          | 0                                     | 0            | 13         | 12                                | 12         | 59         | 0                                   | 13         | 0         |
| Pass-By Trips                        | 0                                     | 0            | 0          | 0                                     | 0            | 0          | 0                                 | 0          | 0          | 0                                   | 0          | 0         |
| Total Project Trips                  | 490                                   | 0            | 0          | 0                                     | 0            | 103        | 40                                | 26         | 167        | 0                                   | 93         | 0         |
| <b>2019 Buildout Total</b>           | <b>839</b>                            | <b>1,070</b> | <b>159</b> | <b>216</b>                            | <b>1,261</b> | <b>109</b> | <b>43</b>                         | <b>159</b> | <b>281</b> | <b>38</b>                           | <b>190</b> | <b>61</b> |

**PM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br><u>Northbound</u> |              |           | Haynes Bridge Rd<br><u>Southbound</u> |              |           | Lakeview Pkwy<br><u>Eastbound</u> |            |            | Northwinds Pkwy<br><u>Westbound</u> |            |            |
|--------------------------------------|---------------------------------------|--------------|-----------|---------------------------------------|--------------|-----------|-----------------------------------|------------|------------|-------------------------------------|------------|------------|
|                                      | Left                                  | Through      | Right     | Left                                  | Through      | Right     | Left                              | Through    | Right      | Left                                | Through    | Right      |
| Observed 2015 Traffic Volumes        | 136                                   | 1,552        | 18        | 37                                    | 1,249        | 6         | 19                                | 67         | 508        | 270                                 | 164        | 107        |
| Pedestrians                          |                                       |              |           |                                       |              |           |                                   |            |            |                                     |            |            |
| Conflicting Pedestrians              | 0                                     |              | 0         | 0                                     |              | 0         | 0                                 |            | 0          | 0                                   |            | 0          |
| Heavy Vehicles                       | 1                                     | 21           | 0         | 0                                     | 9            | 0         | 0                                 | 0          | 3          | 0                                   | 5          | 0          |
| Heavy Vehicle %                      | 2%                                    | 2%           | 2%        | 2%                                    | 2%           | 2%        | 2%                                | 2%         | 2%         | 2%                                  | 3%         | 2%         |
| Peak Hour Factor                     |                                       | 0.86         |           |                                       | 0.87         |           |                                   | 0.90       |            |                                     | 0.80       |            |
| Adjusted 2015 Volumes                | 136                                   | 1552         | 18        | 37                                    | 1249         | 6         | 19                                | 67         | 508        | 270                                 | 164        | 107        |
| Annual Growth Rate                   | 0.5%                                  | 0.5%         | 0.5%      | 0.5%                                  | 0.5%         | 0.5%      | 0.5%                              | 0.5%       | 0.5%       | 0.5%                                | 0.5%       | 0.5%       |
| Growth Factor                        | 1.020                                 | 1.020        | 1.020     | 1.020                                 | 1.020        | 1.020     | 1.020                             | 1.020      | 1.020      | 1.020                               | 1.020      | 1.020      |
| Northwinds Project Trips (50%)       | 10                                    | 103          | 0         | 22                                    | 24           | 0         | 0                                 | 4          | 3          | 72                                  | 17         | 56         |
| 2019 Background Traffic              | 149                                   | 1,686        | 18        | 60                                    | 1,298        | 6         | 19                                | 72         | 521        | 347                                 | 184        | 165        |
| 2019 Existing Office Traffic Changes |                                       |              |           |                                       |              |           |                                   |            |            |                                     |            |            |
| <b>Project Trips</b>                 |                                       |              |           |                                       |              |           |                                   |            |            |                                     |            |            |
| Trip Distribution IN                 | 55%                                   |              |           |                                       |              | 15%       |                                   |            |            |                                     | 5%         |            |
| Trip Distribution OUT                |                                       |              |           |                                       |              |           | 15%                               | 5%         | 55%        |                                     |            |            |
| Residential Trips                    | 40                                    | 0            | 0         | 0                                     | 0            | 11        | 6                                 | 2          | 23         | 0                                   | 4          | 0          |
| Trip Distribution IN                 | 55%                                   |              |           |                                       |              | 15%       |                                   |            |            |                                     | 5%         |            |
| Trip Distribution OUT                |                                       |              |           |                                       |              |           | 15%                               | 5%         | 55%        |                                     |            |            |
| Hotel Trips                          | 19                                    | 0            | 0         | 0                                     | 0            | 5         | 6                                 | 2          | 23         | 0                                   | 2          | 0          |
| Trip Distribution IN                 | 50%                                   |              |           |                                       |              | 10%       |                                   |            |            |                                     | 10%        |            |
| Trip Distribution OUT                |                                       |              |           |                                       |              |           | 10%                               | 10%        | 50%        |                                     |            |            |
| Office Trips                         | 68                                    | 0            | 0         | 0                                     | 0            | 14        | 70                                | 70         | 349        | 0                                   | 14         | 0          |
| Trip Distribution IN                 | 50%                                   |              |           |                                       |              | 10%       |                                   |            |            |                                     | 10%        |            |
| Trip Distribution OUT                |                                       |              |           |                                       |              |           | 10%                               | 10%        | 50%        |                                     |            |            |
| Retail Trips                         | 37                                    | 0            | 0         | 0                                     | 0            | 7         | 5                                 | 5          | 25         | 0                                   | 7          | 0          |
| Trip Distribution IN                 | 50%                                   |              |           |                                       |              | 10%       |                                   |            |            |                                     | 10%        |            |
| Trip Distribution OUT                |                                       |              |           |                                       |              |           | 10%                               | 10%        | 50%        |                                     |            |            |
| Restaurant Trips                     | 46                                    | 0            | 0         | 0                                     | 0            | 9         | 2                                 | 2          | 11         | 0                                   | 9          | 0          |
| Pass-By Trips                        | 0                                     | 0            | 0         | 0                                     | -7           | 7         | 0                                 | 0          | 7          | 0                                   | 0          | 0          |
| Total Project Trips                  | 210                                   | 0            | 0         | 0                                     | -7           | 53        | 89                                | 81         | 438        | 0                                   | 36         | 0          |
| <b>2019 Buildout Total</b>           | <b>359</b>                            | <b>1,686</b> | <b>18</b> | <b>60</b>                             | <b>1,291</b> | <b>59</b> | <b>108</b>                        | <b>153</b> | <b>959</b> | <b>347</b>                          | <b>220</b> | <b>165</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #5: Haynes Bridge Road at GA 400 Southbound Ramps  
AM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |              |            | Haynes Bridge Rd<br>Southbound |            |            | 400 SB Ramp<br>Eastbound |            |            | North Winds DRI Dwy<br>Westbound |           |          |
|--------------------------------------|--------------------------------|--------------|------------|--------------------------------|------------|------------|--------------------------|------------|------------|----------------------------------|-----------|----------|
|                                      | Left                           | Through      | Right      | Left                           | Through    | Right      | Left                     | Through    | Right      | Left                             | Through   | Right    |
| Observed 2015 Traffic Volumes        | 337                            | 1,228        |            |                                | 817        | 417        | 364                      | 0          | 448        |                                  |           |          |
| Pedestrians                          |                                |              |            |                                |            |            |                          |            |            |                                  |           |          |
| Conflicting Pedestrians              | 0                              |              | 0          | 0                              |            | 0          | 0                        |            | 0          | 0                                |           | 0        |
| Heavy Vehicles                       | 0                              | 21           |            |                                | 12         | 6          | 6                        | 0          | 9          |                                  |           |          |
| Heavy Vehicle %                      | 2%                             | 2%           | 0%         | 0%                             | 2%         | 2%         | 2%                       | 0%         | 2%         | 0%                               | 0%        | 0%       |
| Peak Hour Factor                     |                                | 0.96         |            |                                | 0.95       |            |                          | 0.87       |            |                                  | 0.88      |          |
| Adjusted 2015 Volumes                | 337                            | 1228         | 0          | 0                              | 817        | 417        | 364                      | 0          | 448        | 0                                | 0         | 0        |
| Annual Growth Rate                   | 0.5%                           | 0.5%         | 0.5%       | 0.5%                           | 0.5%       | 0.5%       | 0.5%                     | 0.5%       | 0.5%       | 0.5%                             | 0.5%      | 0.5%     |
| Growth Factor                        | 1.020                          | 1.020        | 1.020      | 1.020                          | 1.020      | 1.020      | 1.020                    | 1.020      | 1.020      | 1.020                            | 1.020     | 1.020    |
| Northwinds Project Trips (50%)       | 0                              | 60           | 220        | 95                             | 8          | 7          | 30                       | 115        | 0          | 41                               | 31        | 8        |
| 2019 Background Traffic              | 344                            | 1,313        | 220        | 95                             | 841        | 432        | 401                      | 115        | 457        | 41                               | 31        | 8        |
| 2019 Existing Office Traffic Changes |                                |              |            |                                |            |            |                          |            |            |                                  |           |          |
| <b>Project Trips</b>                 |                                |              |            |                                |            |            |                          |            |            |                                  |           |          |
| Trip Distribution IN                 |                                | 45%          |            |                                |            |            | 10%                      |            |            |                                  |           |          |
| Trip Distribution OUT                |                                |              |            | 30%                            | 25%        |            |                          |            |            |                                  |           |          |
| Residential Trips                    | 0                              | 18           | 0          | 0                              | 39         | 33         | 4                        | 0          | 0          | 0                                | 0         | 0        |
| Trip Distribution IN                 |                                | 45%          |            |                                |            |            | 10%                      |            |            |                                  |           |          |
| Trip Distribution OUT                |                                |              |            | 30%                            | 25%        |            |                          |            |            |                                  |           |          |
| Hotel Trips                          | 0                              | 26           | 0          | 0                              | 3          | 3          | 6                        | 0          | 0          | 0                                | 0         | 0        |
| Trip Distribution IN                 |                                | 40%          |            |                                |            |            | 10%                      |            |            |                                  |           |          |
| Trip Distribution OUT                |                                |              |            | 30%                            | 20%        |            |                          |            |            |                                  |           |          |
| Office Trips                         | 0                              | 283          | 0          | 0                              | 10         | 7          | 71                       | 0          | 0          | 0                                | 0         | 0        |
| Trip Distribution IN                 |                                | 40%          |            |                                |            |            | 10%                      |            |            |                                  |           |          |
| Trip Distribution OUT                |                                |              |            | 30%                            | 20%        |            |                          |            |            |                                  |           |          |
| Retail Trips                         | 0                              | 15           | 0          | 0                              | 8          | 5          | 4                        | 0          | 0          | 0                                | 0         | 0        |
| Trip Distribution IN                 |                                | 40%          |            |                                |            |            | 10%                      |            |            |                                  |           |          |
| Trip Distribution OUT                |                                |              |            | 30%                            | 20%        |            |                          |            |            |                                  |           |          |
| Restaurant Trips                     | 0                              | 52           | 0          | 0                              | 35         | 23         | 13                       | 0          | 0          | 0                                | 0         | 0        |
| Pass-By Trips                        | 0                              | 0            | 0          | 0                              | 0          | 0          | 0                        | 0          | 0          | 0                                | 0         | 0        |
| Total Project Trips                  | 0                              | 394          | 0          | 0                              | 95         | 71         | 98                       | 0          | 0          | 0                                | 0         | 0        |
| <b>2019 Buildout Total</b>           | <b>344</b>                     | <b>1,707</b> | <b>220</b> | <b>95</b>                      | <b>936</b> | <b>503</b> | <b>499</b>               | <b>115</b> | <b>457</b> | <b>41</b>                        | <b>31</b> | <b>8</b> |

\*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

**PM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |              |           | Haynes Bridge Rd<br>Southbound |              |            | 400 SB Ramp<br>Eastbound |           |            | North Winds DRI Dwy<br>Westbound |            |           |
|--------------------------------------|--------------------------------|--------------|-----------|--------------------------------|--------------|------------|--------------------------|-----------|------------|----------------------------------|------------|-----------|
|                                      | Left                           | Through      | Right     | Left                           | Through      | Right      | Left                     | Through   | Right      | Left                             | Through    | Right     |
| Observed 2015 Traffic Volumes        | 461                            | 1,561        |           |                                | 1,303        | 587        | 172                      | 0         | 543        |                                  |            |           |
| Pedestrians                          |                                |              |           |                                |              |            |                          |           |            |                                  |            |           |
| Conflicting Pedestrians              | 0                              |              | 0         | 0                              |              | 0          | 0                        |           | 0          | 0                                |            | 0         |
| Heavy Vehicles                       | 0                              | 33           |           |                                | 6            | 9          | 6                        | 0         | 1          |                                  |            |           |
| Heavy Vehicle %                      | 2%                             | 2%           | 0%        | 0%                             | 2%           | 2%         | 3%                       | 0%        | 2%         | 0%                               | 0%         | 0%        |
| Peak Hour Factor                     |                                | 0.99         |           |                                | 0.91         |            |                          | 0.80      |            |                                  | 0.88       |           |
| Adjusted 2015 Volumes                | 461                            | 1561         | 0         | 0                              | 1303         | 587        | 172                      | 0         | 543        | 0                                | 0          | 0         |
| Annual Growth Rate                   | 0.5%                           | 0.5%         | 0.5%      | 0.5%                           | 0.5%         | 0.5%       | 0.5%                     | 0.5%      | 0.5%       | 0.5%                             | 0.5%       | 0.5%      |
| Growth Factor                        | 1.020                          | 1.020        | 1.020     | 1.020                          | 1.020        | 1.020      | 1.020                    | 1.020     | 1.020      | 1.020                            | 1.020      | 1.020     |
| Northwinds Project Trips (50%)       | 0                              | 1            | 77        | 48                             | 15           | 36         | 7                        | 30        | 0          | 207                              | 118        | 51        |
| 2019 Background Traffic              | 470                            | 1,593        | 77        | 48                             | 1,344        | 635        | 182                      | 30        | 554        | 207                              | 118        | 51        |
| 2019 Existing Office Traffic Changes |                                |              |           |                                |              |            |                          |           |            |                                  |            |           |
| <b>Project Trips</b>                 |                                |              |           |                                |              |            |                          |           |            |                                  |            |           |
| Trip Distribution IN                 |                                | 45%          |           |                                |              |            | 10%                      |           |            |                                  |            |           |
| Trip Distribution OUT                |                                |              |           | 30%                            | 25%          |            |                          |           |            |                                  |            |           |
| Residential Trips                    | 0                              | 32           | 0         | 0                              | 13           | 11         | 7                        | 0         | 0          | 0                                | 0          | 0         |
| Trip Distribution IN                 |                                | 45%          |           |                                |              |            | 10%                      |           |            |                                  |            |           |
| Trip Distribution OUT                |                                |              |           | 30%                            | 25%          |            |                          |           |            |                                  |            |           |
| Hotel Trips                          | 0                              | 16           | 0         | 0                              | 12           | 10         | 4                        | 0         | 0          | 0                                | 0          | 0         |
| Trip Distribution IN                 |                                | 40%          |           |                                |              |            | 10%                      |           |            |                                  |            |           |
| Trip Distribution OUT                |                                |              |           | 30%                            | 20%          |            |                          |           |            |                                  |            |           |
| Office Trips                         | 0                              | 54           | 0         | 0                              | 209          | 140        | 14                       | 0         | 0          | 0                                | 0          | 0         |
| Trip Distribution IN                 |                                | 40%          |           |                                |              |            | 10%                      |           |            |                                  |            |           |
| Trip Distribution OUT                |                                |              |           | 30%                            | 20%          |            |                          |           |            |                                  |            |           |
| Retail Trips                         | 0                              | 29           | 0         | 0                              | 15           | 10         | 7                        | 0         | 0          | 0                                | 0          | 0         |
| Trip Distribution IN                 |                                | 40%          |           |                                |              |            | 10%                      |           |            |                                  |            |           |
| Trip Distribution OUT                |                                |              |           | 30%                            | 20%          |            |                          |           |            |                                  |            |           |
| Restaurant Trips                     | 0                              | 37           | 0         | 0                              | 6            | 4          | 9                        | 0         | 0          | 0                                | 0          | 0         |
| Pass-By Trips                        | 0                              | 0            | 0         | 0                              | 0            | 0          | 0                        | 0         | 0          | 0                                | 0          | 0         |
| Total Project Trips                  | 0                              | 168          | 0         | 0                              | 255          | 175        | 41                       | 0         | 0          | 0                                | 0          | 0         |
| <b>2019 Buildout Total</b>           | <b>470</b>                     | <b>1,761</b> | <b>77</b> | <b>48</b>                      | <b>1,599</b> | <b>810</b> | <b>223</b>               | <b>30</b> | <b>554</b> | <b>207</b>                       | <b>118</b> | <b>51</b> |

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**INTERSECTION VOLUME DEVELOPMENT**

**Int #6: Haynes Bridge Road at GA 400 Northbound Ramps  
AM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |              |            | Haynes Bridge Rd<br>Southbound |              |          | 400 NB Ramp<br>Eastbound |          |            | N/A<br>Westbound |          |          |  |
|--------------------------------------|--------------------------------|--------------|------------|--------------------------------|--------------|----------|--------------------------|----------|------------|------------------|----------|----------|--|
|                                      | Left                           | Through      | Right      | Left                           | Through      | Right    | Left                     | Through  | Right      | Left             | Through  | Right    |  |
| Observed 2015 Traffic Volumes        |                                | 760          | 481        | 159                            | 1,009        |          | 882                      |          | 365        |                  |          |          |  |
| Pedestrians                          |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| Conflicting Pedestrians              | 0                              |              | 0          | 0                              |              | 0        | 0                        |          | 0          | 0                |          | 0        |  |
| Heavy Vehicles                       |                                | 7            | 3          | 8                              | 7            |          | 15                       |          | 5          |                  |          |          |  |
| Heavy Vehicle %                      | 0%                             | 2%           | 2%         | 5%                             | 2%           | 0%       | 2%                       | 0%       | 2%         | 0%               | 0%       | 0%       |  |
| Peak Hour Factor                     |                                | 0.94         |            |                                | 0.89         |          |                          | 0.89     |            |                  |          |          |  |
| Adjusted 2015 Volumes                | 0                              | 760          | 481        | 159                            | 1009         | 0        | 882                      | 0        | 365        | 0                | 0        | 0        |  |
| Annual Growth Rate                   | 0.5%                           | 0.5%         | 0.5%       | 0.5%                           | 0.5%         | 0.5%     | 0.5%                     | 0.5%     | 0.5%       | 0.5%             | 0.5%     | 0.5%     |  |
| Growth Factor                        | 1.020                          | 1.020        | 1.020      | 1.020                          | 1.020        | 1.020    | 1.020                    | 1.020    | 1.020      | 1.020            | 1.020    | 1.020    |  |
| Northwinds Project Trips (50%)       | 0                              | 116          | 0          | 23                             | 25           | 0        | 163                      | 0        | 0          | 0                | 0        | 0        |  |
| 2019 Background Traffic              | 0                              | 891          | 491        | 185                            | 1,054        | 0        | 1,063                    | 0        | 372        | 0                | 0        | 0        |  |
| 2019 Existing Office Traffic Changes |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| <b>Project Trips</b>                 |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 25%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Residential Trips                    | 0                              | 8            | 0          | 13                             | 26           | 0        | 10                       | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 25%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Hotel Trips                          | 0                              | 11           | 0          | 1                              | 2            | 0        | 14                       | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Office Trips                         | 0                              | 141          | 0          | 3                              | 7            | 0        | 141                      | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Retail Trips                         | 0                              | 8            | 0          | 3                              | 5            | 0        | 8                        | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Restaurant Trips                     | 0                              | 26           | 0          | 12                             | 23           | 0        | 26                       | 0        | 0          | 0                | 0        | 0        |  |
| Pass-By Trips                        | 0                              | 0            | 0          | 0                              | 0            | 0        | 0                        | 0        | 0          | 0                | 0        | 0        |  |
| Total Project Trips                  | 0                              | 194          | 0          | 32                             | 63           | 0        | 199                      | 0        | 0          | 0                | 0        | 0        |  |
| <b>2019 Buildout Total</b>           | <b>0</b>                       | <b>1,085</b> | <b>491</b> | <b>217</b>                     | <b>1,117</b> | <b>0</b> | <b>1,262</b>             | <b>0</b> | <b>372</b> | <b>0</b>         | <b>0</b> | <b>0</b> |  |

**PM PEAK HOUR**

| Description                          | Haynes Bridge Rd<br>Northbound |              |            | Haynes Bridge Rd<br>Southbound |              |          | 400 NB Ramp<br>Eastbound |          |            | N/A<br>Westbound |          |          |  |
|--------------------------------------|--------------------------------|--------------|------------|--------------------------------|--------------|----------|--------------------------|----------|------------|------------------|----------|----------|--|
|                                      | Left                           | Through      | Right      | Left                           | Through      | Right    | Left                     | Through  | Right      | Left             | Through  | Right    |  |
| Observed 2015 Traffic Volumes        |                                | 1,230        | 743        | 482                            | 1,371        |          | 800                      |          | 451        |                  |          |          |  |
| Pedestrians                          |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| Conflicting Pedestrians              | 0                              |              | 0          | 0                              |              | 0        | 0                        |          | 0          | 0                |          | 0        |  |
| Heavy Vehicles                       | 0                              | 33           | 1          | 0                              | 5            |          | 18                       |          | 1          |                  |          |          |  |
| Heavy Vehicle %                      | 0%                             | 3%           | 2%         | 2%                             | 2%           | 0%       | 2%                       | 0%       | 2%         | 0%               | 0%       | 0%       |  |
| Peak Hour Factor                     |                                | 0.96         |            |                                | 0.84         |          |                          | 0.91     |            |                  |          |          |  |
| Adjusted 2015 Volumes                | 0                              | 1230         | 743        | 482                            | 1371         | 0        | 800                      | 0        | 451        | 0                | 0        | 0        |  |
| Annual Growth Rate                   | 0.5%                           | 0.5%         | 0.5%       | 0.5%                           | 0.5%         | 0.5%     | 0.5%                     | 0.5%     | 0.5%       | 0.5%             | 0.5%     | 0.5%     |  |
| Growth Factor                        | 1.020                          | 1.020        | 1.020      | 1.020                          | 1.020        | 1.020    | 1.020                    | 1.020    | 1.020      | 1.020            | 1.020    | 1.020    |  |
| Northwinds Project Trips (50%)       | 0                              | 31           | 0          | 111                            | 111          | 0        | 47                       | 0        | 0          | 0                | 0        | 0        |  |
| 2019 Background Traffic              | 0                              | 1,286        | 758        | 603                            | 1,510        | 0        | 863                      | 0        | 460        | 0                | 0        | 0        |  |
| 2019 Existing Office Traffic Changes |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| <b>Project Trips</b>                 |                                |              |            |                                |              |          |                          |          |            |                  |          |          |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 25%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Residential Trips                    | 0                              | 14           | 0          | 4                              | 8            | 0        | 18                       | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 25%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Hotel Trips                          | 0                              | 7            | 0          | 4                              | 8            | 0        | 9                        | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Office Trips                         | 0                              | 27           | 0          | 70                             | 140          | 0        | 27                       | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Retail Trips                         | 0                              | 15           | 0          | 5                              | 10           | 0        | 15                       | 0        | 0          | 0                | 0        | 0        |  |
| Trip Distribution IN                 |                                | 20%          |            |                                |              |          | 20%                      |          |            |                  |          |          |  |
| Trip Distribution OUT                |                                |              |            | 10%                            | 20%          |          |                          |          |            |                  |          |          |  |
| Restaurant Trips                     | 0                              | 18           | 0          | 2                              | 4            | 0        | 18                       | 0        | 0          | 0                | 0        | 0        |  |
| Pass-By Trips                        | 0                              | 0            | 0          | 0                              | 0            | 0        | 0                        | 0        | 0          | 0                | 0        | 0        |  |
| Total Project Trips                  | 0                              | 81           | 0          | 85                             | 170          | 0        | 87                       | 0        | 0          | 0                | 0        | 0        |  |
| <b>2019 Buildout Total</b>           | <b>0</b>                       | <b>1,367</b> | <b>758</b> | <b>688</b>                     | <b>1,680</b> | <b>0</b> | <b>950</b>               | <b>0</b> | <b>460</b> | <b>0</b>         | <b>0</b> | <b>0</b> |  |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #7: Lakeview Parkway at Existing Office Driveway #1  
AM PEAK HOUR**

| Description                          | Lakeview Pkwy<br>Northbound |            |          | Lakeview Pkwy<br>Southbound |            |            | Office Dwy #1<br>Eastbound |          |           | N/A<br>Westbound |          |          |
|--------------------------------------|-----------------------------|------------|----------|-----------------------------|------------|------------|----------------------------|----------|-----------|------------------|----------|----------|
|                                      | Left                        | Through    | Right    | Left                        | Through    | Right      | Left                       | Through  | Right     | Left             | Through  | Right    |
| Observed 2015 Traffic Volumes        | 85                          | 269        |          |                             | 310        | 117        | 4                          |          | 2         |                  |          |          |
| Pedestrians                          |                             |            |          |                             |            |            |                            |          |           |                  |          |          |
| Conflicting Pedestrians              | 0                           |            | 0        | 0                           |            | 0          | 0                          |          | 0         | 0                |          | 0        |
| Heavy Vehicles                       | 0                           | 6          |          |                             | 4          | 1          | 0                          |          | 0         |                  |          |          |
| Heavy Vehicle %                      | 2%                          | 2%         | 0%       | 0%                          | 2%         | 2%         | 2%                         | 0%       | 2%        | 0%               | 0%       | 0%       |
| Peak Hour Factor                     | 0.87                        |            |          | 0.94                        |            |            | 0.75                       |          |           |                  |          |          |
| Adjusted 2015 Volumes                | 85                          | 269        | 0        | 0                           | 310        | 117        | 4                          | 0        | 2         | 0                | 0        | 0        |
| Annual Growth Rate                   | 0.5%                        | 0.5%       | 0.5%     | 0.5%                        | 0.5%       | 0.5%       | 0.5%                       | 0.5%     | 0.5%      | 0.5%             | 0.5%     | 0.5%     |
| Growth Factor                        | 1.020                       | 1.020      | 1.020    | 1.020                       | 1.020      | 1.020      | 1.020                      | 1.020    | 1.020     | 1.020            | 1.020    | 1.020    |
| Northwinds Project Trips (50%)       | 0                           | 9          | 0        | 0                           | 22         | 0          | 0                          | 0        | 0         | 0                | 0        | 0        |
| 2019 Background Traffic              | 87                          | 283        | 0        | 0                           | 338        | 119        | 4                          | 0        | 2         | 0                | 0        | 0        |
| 2019 Existing Office Traffic Changes |                             |            |          |                             |            |            |                            |          |           |                  |          |          |
| <b>Project Trips</b>                 |                             |            |          |                             |            |            |                            |          |           |                  |          |          |
| Trip Distribution IN                 | 10%                         |            |          |                             | 15%        | 10%        |                            |          |           |                  |          |          |
| Trip Distribution OUT                |                             | 15%        |          |                             |            |            | 10%                        |          | 10%       |                  |          |          |
| Residential Trips                    | 4                           | 20         | 0        | 0                           | 6          | 4          | 13                         | 0        | 13        | 0                | 0        | 0        |
| Trip Distribution IN                 | 10%                         |            |          |                             | 15%        | 10%        |                            |          |           |                  |          |          |
| Trip Distribution OUT                |                             | 15%        |          |                             |            |            | 10%                        |          | 10%       |                  |          |          |
| Hotel Trips                          | 6                           | 2          | 0        | 0                           | 9          | 6          | 1                          | 0        | 1         | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%        |                            |          |           |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |            | 10%                        |          | 5%        |                  |          |          |
| Office Trips                         | 35                          | 7          | 0        | 0                           | 141        | 71         | 3                          | 0        | 2         | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%        |                            |          |           |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |            | 10%                        |          | 5%        |                  |          |          |
| Retail Trips                         | 2                           | 5          | 0        | 0                           | 8          | 4          | 3                          | 0        | 1         | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%        |                            |          |           |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |            | 10%                        |          | 5%        |                  |          |          |
| Restaurant Trips                     | 7                           | 23         | 0        | 0                           | 26         | 13         | 12                         | 0        | 6         | 0                | 0        | 0        |
| Pass-By Trips                        | 0                           | 0          | 0        | 0                           | 0          | 0          | 0                          | 0        | 0         | 0                | 0        | 0        |
| Total Project Trips                  | 54                          | 57         | 0        | 0                           | 190        | 98         | 32                         | 0        | 23        | 0                | 0        | 0        |
| <b>2019 Buildout Total</b>           | <b>141</b>                  | <b>340</b> | <b>0</b> | <b>0</b>                    | <b>528</b> | <b>217</b> | <b>36</b>                  | <b>0</b> | <b>25</b> | <b>0</b>         | <b>0</b> | <b>0</b> |

**PM PEAK HOUR**

| Description                          | Lakeview Pkwy<br>Northbound |            |          | Lakeview Pkwy<br>Southbound |            |           | Office Dwy #1<br>Eastbound |          |            | N/A<br>Westbound |          |          |
|--------------------------------------|-----------------------------|------------|----------|-----------------------------|------------|-----------|----------------------------|----------|------------|------------------|----------|----------|
|                                      | Left                        | Through    | Right    | Left                        | Through    | Right     | Left                       | Through  | Right      | Left             | Through  | Right    |
| Observed 2015 Traffic Volumes        | 9                           | 369        |          |                             | 424        | 4         | 55                         |          | 79         |                  |          |          |
| Pedestrians                          |                             |            |          |                             |            |           |                            |          |            |                  |          |          |
| Conflicting Pedestrians              | 0                           |            | 0        | 0                           |            | 0         | 0                          |          | 0          | 0                |          | 0        |
| Heavy Vehicles                       | 0                           | 8          |          |                             | 2          | 0         | 0                          |          | 0          |                  |          |          |
| Heavy Vehicle %                      | 2%                          | 2%         | 0%       | 0%                          | 2%         | 2%        | 2%                         | 0%       | 2%         | 0%               | 0%       | 0%       |
| Peak Hour Factor                     | 0.79                        |            |          | 0.88                        |            |           | 0.78                       |          |            |                  |          |          |
| Adjusted 2015 Volumes                | 9                           | 369        | 0        | 0                           | 424        | 4         | 55                         | 0        | 79         | 0                | 0        | 0        |
| Annual Growth Rate                   | 0.5%                        | 0.5%       | 0.5%     | 0.5%                        | 0.5%       | 0.5%      | 0.5%                       | 0.5%     | 0.5%       | 0.5%             | 0.5%     | 0.5%     |
| Growth Factor                        | 1.020                       | 1.020      | 1.020    | 1.020                       | 1.020      | 1.020     | 1.020                      | 1.020    | 1.020      | 1.020            | 1.020    | 1.020    |
| Northwinds Project Trips (50%)       | 0                           | 27         | 0        | 0                           | 6          | 0         | 0                          | 0        | 0          | 0                | 0        | 0        |
| 2019 Background Traffic              | 9                           | 403        | 0        | 0                           | 439        | 4         | 56                         | 0        | 81         | 0                | 0        | 0        |
| 2019 Existing Office Traffic Changes |                             |            |          |                             |            |           |                            |          |            |                  |          |          |
| <b>Project Trips</b>                 |                             |            |          |                             |            |           |                            |          |            |                  |          |          |
| Trip Distribution IN                 | 10%                         |            |          |                             | 15%        | 10%       |                            |          |            |                  |          |          |
| Trip Distribution OUT                |                             | 15%        |          |                             |            |           | 10%                        |          | 10%        |                  |          |          |
| Residential Trips                    | 7                           | 6          | 0        | 0                           | 11         | 7         | 4                          | 0        | 4          | 0                | 0        | 0        |
| Trip Distribution IN                 | 10%                         |            |          |                             | 15%        | 10%       |                            |          |            |                  |          |          |
| Trip Distribution OUT                |                             | 15%        |          |                             |            |           | 10%                        |          | 10%        |                  |          |          |
| Hotel Trips                          | 4                           | 6          | 0        | 0                           | 5          | 4         | 4                          | 0        | 4          | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%       |                            |          |            |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |           | 10%                        |          | 5%         |                  |          |          |
| Office Trips                         | 7                           | 140        | 0        | 0                           | 27         | 14        | 70                         | 0        | 35         | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%       |                            |          |            |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |           | 10%                        |          | 5%         |                  |          |          |
| Retail Trips                         | 4                           | 10         | 0        | 0                           | 15         | 7         | 5                          | 0        | 2          | 0                | 0        | 0        |
| Trip Distribution IN                 | 5%                          |            |          |                             | 20%        | 10%       |                            |          |            |                  |          |          |
| Trip Distribution OUT                |                             | 20%        |          |                             |            |           | 10%                        |          | 5%         |                  |          |          |
| Restaurant Trips                     | 5                           | 4          | 0        | 0                           | 18         | 9         | 2                          | 0        | 1          | 0                | 0        | 0        |
| Pass-By Trips                        | 0                           | 5          | 0        | 0                           | 5          | 0         | 0                          | 0        | 0          | 0                | 0        | 0        |
| Total Project Trips                  | 27                          | 171        | 0        | 0                           | 81         | 41        | 85                         | 0        | 46         | 0                | 0        | 0        |
| <b>2019 Buildout Total</b>           | <b>36</b>                   | <b>574</b> | <b>0</b> | <b>0</b>                    | <b>520</b> | <b>45</b> | <b>141</b>                 | <b>0</b> | <b>127</b> | <b>0</b>         | <b>0</b> | <b>0</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #8: Lakeview Parkway at Relocated Existing Office Driveway #2 / Proposed Site Driveway #1  
AM PEAK HOUR**

| Description                          | Lakeview Pkwy<br>Northbound |            |           | Lakeview Pkwy<br>Southbound |            |           | Proposed Site Dwy #1<br>Eastbound |          |           | Existing Dwy #2<br>Westbound |          |          |  |
|--------------------------------------|-----------------------------|------------|-----------|-----------------------------|------------|-----------|-----------------------------------|----------|-----------|------------------------------|----------|----------|--|
|                                      | Left                        | Through    | Right     | Left                        | Through    | Right     | Left                              | Through  | Right     | Left                         | Through  | Right    |  |
| Observed 2015 Traffic Volumes        |                             | 315        | 35        | 46                          | 254        |           |                                   |          |           | 0                            |          | 5        |  |
| Pedestrians                          |                             |            |           |                             |            |           |                                   |          |           |                              |          |          |  |
| Conflicting Pedestrians              | 0                           |            | 0         | 0                           |            | 0         | 0                                 |          | 0         | 0                            |          | 0        |  |
| Heavy Vehicles                       |                             | 2          | 0         | 0                           | 8          |           |                                   |          |           | 0                            |          | 1        |  |
| Heavy Vehicle %                      | 0%                          | 2%         | 2%        | 2%                          | 3%         | 0%        | 0%                                | 0%       | 0%        | 0%                           | 0%       | 20%      |  |
| Peak Hour Factor                     |                             | 0.93       |           |                             | 0.82       |           |                                   | 0.88     |           |                              | 0.63     |          |  |
| Adjusted 2015 Volumes                | 0                           | 315        | 35        | 46                          | 254        | 0         | 0                                 | 0        | 0         | 0                            | 0        | 5        |  |
| Annual Growth Rate                   | 0.5%                        | 0.5%       | 0.5%      | 0.5%                        | 0.5%       | 0.5%      | 0.5%                              | 0.5%     | 0.5%      | 0.5%                         | 0.5%     | 0.5%     |  |
| Growth Factor                        | 1.020                       | 1.020      | 1.020     | 1.020                       | 1.020      | 1.020     | 1.020                             | 1.020    | 1.020     | 1.020                        | 1.020    | 1.020    |  |
| Northwinds Project Trips (50%)       | 0                           | 9          | 0         | 0                           | 22         | 0         | 0                                 | 0        | 0         | 0                            | 0        | 0        |  |
| 2019 Background Traffic              | 0                           | 330        | 36        | 47                          | 281        | 0         | 0                                 | 0        | 0         | 0                            | 0        | 5        |  |
| 2019 Existing Office Traffic Changes |                             |            |           |                             |            |           |                                   |          |           |                              |          |          |  |
| <b>Project Trips</b>                 |                             |            |           |                             |            |           |                                   |          |           |                              |          |          |  |
| Trip Distribution IN                 | 20%                         | 10%        |           |                             | 10%        | 5%        |                                   |          |           |                              |          |          |  |
| Trip Distribution OUT                |                             | 10%        |           |                             | 10%        |           | 5%                                |          | 20%       |                              |          |          |  |
| Residential Trips                    | 8                           | 17         | 0         | 0                           | 17         | 2         | 7                                 | 0        | 26        | 0                            | 0        | 0        |  |
| Trip Distribution IN                 | 20%                         | 10%        |           |                             | 10%        | 5%        |                                   |          |           |                              |          |          |  |
| Trip Distribution OUT                |                             | 10%        |           |                             | 10%        |           | 5%                                |          | 20%       |                              |          |          |  |
| Hotel Trips                          | 11                          | 7          | 0         | 0                           | 7          | 3         | 1                                 | 0        | 2         | 0                            | 0        | 0        |  |
| Trip Distribution IN                 | 20%                         | 5%         |           |                             | 10%        | 10%       |                                   |          |           |                              |          |          |  |
| Trip Distribution OUT                |                             | 10%        |           |                             | 5%         |           | 10%                               |          | 20%       |                              |          |          |  |
| Office Trips                         | 141                         | 38         | 0         | 0                           | 73         | 71        | 3                                 | 0        | 7         | 0                            | 0        | 0        |  |
| Trip Distribution IN                 | 20%                         | 5%         |           |                             | 10%        | 10%       |                                   |          |           |                              |          |          |  |
| Trip Distribution OUT                |                             | 10%        |           |                             | 5%         |           | 10%                               |          | 20%       |                              |          |          |  |
| Retail Trips                         | 8                           | 5          | 0         | 0                           | 5          | 4         | 3                                 | 0        | 5         | 0                            | 0        | 0        |  |
| Trip Distribution IN                 | 20%                         | 5%         |           |                             | 10%        | 10%       |                                   |          |           |                              |          |          |  |
| Trip Distribution OUT                |                             | 10%        |           |                             | 5%         |           | 10%                               |          | 20%       |                              |          |          |  |
| Restaurant Trips                     | 26                          | 19         | 0         | 0                           | 19         | 13        | 12                                | 0        | 23        | 0                            | 0        | 0        |  |
| Pass-By Trips                        | 0                           | 0          | 0         | 0                           | 0          | 0         | 0                                 | 0        | 0         | 0                            | 0        | 0        |  |
| Total Project Trips                  | 194                         | 86         | 0         | 0                           | 121        | 93        | 26                                | 0        | 63        | 0                            | 0        | 0        |  |
| <b>2019 Buildout Total</b>           | <b>194</b>                  | <b>416</b> | <b>36</b> | <b>47</b>                   | <b>402</b> | <b>93</b> | <b>26</b>                         | <b>0</b> | <b>63</b> | <b>0</b>                     | <b>0</b> | <b>5</b> |  |

\*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

**PM PEAK HOUR**

| Description                          | Lakeview Pkwy<br>Northbound |            |          | Lakeview Pkwy<br>Southbound |            |           | Proposed Site Dwy #1<br>Eastbound |          |            | Existing Dwy #2<br>Westbound |          |           |  |
|--------------------------------------|-----------------------------|------------|----------|-----------------------------|------------|-----------|-----------------------------------|----------|------------|------------------------------|----------|-----------|--|
|                                      | Left                        | Through    | Right    | Left                        | Through    | Right     | Left                              | Through  | Right      | Left                         | Through  | Right     |  |
| Observed 2015 Traffic Volumes        |                             | 338        | 2        | 3                           | 525        |           |                                   |          |            | 45                           |          | 73        |  |
| Pedestrians                          |                             |            |          |                             |            |           |                                   |          |            |                              |          |           |  |
| Conflicting Pedestrians              | 0                           |            | 0        | 0                           |            | 0         | 0                                 |          | 0          | 0                            |          | 0         |  |
| Heavy Vehicles                       |                             | 7          | 0        | 0                           | 4          |           |                                   |          |            | 0                            |          | 0         |  |
| Heavy Vehicle %                      | 0%                          | 2%         | 2%       | 2%                          | 2%         | 0%        | 0%                                | 0%       | 0%         | 2%                           | 0%       | 2%        |  |
| Peak Hour Factor                     |                             | 0.93       |          |                             | 0.90       |           |                                   | 0.88     |            |                              | 0.62     |           |  |
| Adjusted 2015 Volumes                | 0                           | 338        | 2        | 3                           | 525        | 0         | 0                                 | 0        | 0          | 45                           | 0        | 73        |  |
| Annual Growth Rate                   | 0.5%                        | 0.5%       | 0.5%     | 0.5%                        | 0.5%       | 0.5%      | 0.5%                              | 0.5%     | 0.5%       | 0.5%                         | 0.5%     | 0.5%      |  |
| Growth Factor                        | 1.020                       | 1.020      | 1.020    | 1.020                       | 1.020      | 1.020     | 1.020                             | 1.020    | 1.020      | 1.020                        | 1.020    | 1.020     |  |
| Northwinds Project Trips (50%)       | 0                           | 27         | 0        | 0                           | 6          | 0         | 0                                 | 0        | 0          | 0                            | 0        | 0         |  |
| 2019 Background Traffic              | 0                           | 372        | 2        | 3                           | 542        | 0         | 0                                 | 0        | 0          | 46                           | 0        | 74        |  |
| 2019 Existing Office Traffic Changes |                             |            |          |                             |            |           |                                   |          |            |                              |          |           |  |
| <b>Project Trips</b>                 |                             |            |          |                             |            |           |                                   |          |            |                              |          |           |  |
| Trip Distribution IN                 | 20%                         | 10%        |          |                             | 10%        | 5%        |                                   |          |            |                              |          |           |  |
| Trip Distribution OUT                |                             | 10%        |          |                             | 10%        |           | 5%                                |          | 20%        |                              |          |           |  |
| Residential Trips                    | 14                          | 11         | 0        | 0                           | 11         | 4         | 2                                 | 0        | 8          | 0                            | 0        | 0         |  |
| Trip Distribution IN                 | 20%                         | 10%        |          |                             | 10%        | 5%        |                                   |          |            |                              |          |           |  |
| Trip Distribution OUT                |                             | 10%        |          |                             | 10%        |           | 5%                                |          | 20%        |                              |          |           |  |
| Hotel Trips                          | 7                           | 8          | 0        | 0                           | 8          | 2         | 2                                 | 0        | 8          | 0                            | 0        | 0         |  |
| Trip Distribution IN                 | 20%                         | 5%         |          |                             | 10%        | 10%       |                                   |          |            |                              |          |           |  |
| Trip Distribution OUT                |                             | 10%        |          |                             | 5%         |           | 10%                               |          | 20%        |                              |          |           |  |
| Office Trips                         | 27                          | 77         | 0        | 0                           | 49         | 14        | 70                                | 0        | 140        | 0                            | 0        | 0         |  |
| Trip Distribution IN                 | 20%                         | 5%         |          |                             | 10%        | 10%       |                                   |          |            |                              |          |           |  |
| Trip Distribution OUT                |                             | 10%        |          |                             | 5%         |           | 10%                               |          | 20%        |                              |          |           |  |
| Retail Trips                         | 15                          | 9          | 0        | 0                           | 9          | 7         | 5                                 | 0        | 10         | 0                            | 0        | 0         |  |
| Trip Distribution IN                 | 20%                         | 5%         |          |                             | 10%        | 10%       |                                   |          |            |                              |          |           |  |
| Trip Distribution OUT                |                             | 10%        |          |                             | 5%         |           | 10%                               |          | 20%        |                              |          |           |  |
| Restaurant Trips                     | 18                          | 7          | 0        | 0                           | 10         | 9         | 2                                 | 0        | 4          | 0                            | 0        | 0         |  |
| Pass-By Trips                        | 5                           | -5         | 0        | 0                           | -2         | 7         | 10                                | 0        | 2          | 0                            | 0        | 0         |  |
| Total Project Trips                  | 86                          | 107        | 0        | 0                           | 85         | 43        | 91                                | 0        | 172        | 0                            | 0        | 0         |  |
| <b>2019 Buildout Total</b>           | <b>86</b>                   | <b>479</b> | <b>2</b> | <b>3</b>                    | <b>627</b> | <b>43</b> | <b>91</b>                         | <b>0</b> | <b>172</b> | <b>46</b>                    | <b>0</b> | <b>74</b> |  |

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**INTERSECTION VOLUME DEVELOPMENT**

**Int #9: Lakeview Parkway at Proposed Driveway for Existing Office / Proposed Site Driveway #2  
AM PEAK HOUR**

| Description                          | Proposed Site Dwy #2 |          |            | Proposed Dwy for Existing Office |          |          | Lakeview Pkwy |            |           | Lakeview Pkwy |            |           |
|--------------------------------------|----------------------|----------|------------|----------------------------------|----------|----------|---------------|------------|-----------|---------------|------------|-----------|
|                                      | Northbound           |          | Right      | Southbound                       |          | Right    | Eastbound     |            | Right     | Westbound     |            | Right     |
|                                      | Left                 | Through  |            | Left                             | Through  |          | Left          | Through    |           | Left          | Through    |           |
| Observed 2015 Traffic Volumes        |                      |          |            |                                  |          |          |               | 261        |           |               | 363        |           |
| Pedestrians                          |                      |          |            |                                  |          |          |               |            |           |               |            |           |
| Conflicting Pedestrians              | 0                    |          | 0          | 0                                |          | 0        | 0             |            | 0         | 0             |            | 0         |
| Heavy Vehicles                       |                      |          |            |                                  |          |          |               |            |           |               |            |           |
| Heavy Vehicle %                      | 0%                   | 0%       | 0%         | 0%                               | 0%       | 0%       | 0%            | 2%         | 0%        | 0%            | 2%         | 0%        |
| Peak Hour Factor                     |                      | 0.88     |            |                                  | 0.88     |          |               | 0.88       |           |               | 0.94       |           |
| Adjusted 2015 Volumes                | 0                    | 0        | 0          | 0                                | 0        | 0        | 0             | 261        | 0         | 0             | 363        | 0         |
| Annual Growth Rate                   | 0.5%                 | 0.5%     | 0.5%       | 0.5%                             | 0.5%     | 0.5%     | 0.5%          | 0.5%       | 0.5%      | 0.5%          | 0.5%       | 0.5%      |
| Growth Factor                        | 1.020                | 1.020    | 1.020      | 1.020                            | 1.020    | 1.020    | 1.020         | 1.020      | 1.020     | 1.020         | 1.020      | 1.020     |
| Northwinds Project Trips (50%)       | 0                    | 0        | 0          | 0                                | 0        | 0        | 0             | 22         | 0         | 0             | 9          | 0         |
| 2019 Background Traffic              | 0                    | 0        | 0          | 0                                | 0        | 0        | 0             | 288        | 0         | 0             | 379        | 0         |
| 2019 Existing Office Traffic Changes |                      |          |            | 5                                |          | 2        | 16            |            |           | 2             |            | 70        |
| <b>Project Trips</b>                 |                      |          |            |                                  |          |          |               |            |           |               |            |           |
| Trip Distribution IN                 |                      |          |            |                                  |          |          |               | 5%         | 5%        | 45%           | 30%        |           |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |          |               | 30%        |           |               |            |           |
| Residential Trips                    | 13                   | 0        | 52         | 0                                | 0        | 0        | 0             | 41         | 2         | 18            | 12         | 0         |
| Trip Distribution IN                 |                      |          |            |                                  |          |          |               | 5%         | 5%        | 45%           | 30%        |           |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |          |               | 30%        |           |               |            |           |
| Hotel Trips                          | 1                    | 0        | 4          | 0                                | 0        | 0        | 0             | 6          | 3         | 26            | 17         | 0         |
| Trip Distribution IN                 |                      |          |            |                                  |          |          |               | 5%         | 5%        | 45%           | 25%        |           |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |          |               | 25%        |           |               |            |           |
| Office Trips                         | 3                    | 0        | 14         | 0                                | 0        | 0        | 0             | 44         | 35        | 318           | 177        | 0         |
| Trip Distribution IN                 |                      |          |            |                                  |          |          |               | 5%         | 5%        | 45%           | 25%        |           |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |          |               | 25%        |           |               |            |           |
| Retail Trips                         | 3                    | 0        | 10         | 0                                | 0        | 0        | 0             | 8          | 2         | 17            | 10         | 0         |
| Trip Distribution IN                 |                      |          |            |                                  |          |          |               | 5%         | 5%        | 45%           | 25%        |           |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |          |               | 25%        |           |               |            |           |
| Restaurant Trips                     | 12                   | 0        | 47         | 0                                | 0        | 0        | 0             | 36         | 7         | 59            | 33         | 0         |
| Pass-By Trips                        | 0                    | 0        | 0          | 0                                | 0        | 0        | 0             | 0          | 0         | 0             | 0          | 0         |
| <b>Total Project Trips</b>           | <b>32</b>            | <b>0</b> | <b>127</b> | <b>0</b>                         | <b>0</b> | <b>0</b> | <b>0</b>      | <b>135</b> | <b>49</b> | <b>438</b>    | <b>249</b> | <b>0</b>  |
| <b>2019 Buildout Total</b>           | <b>32</b>            | <b>0</b> | <b>127</b> | <b>5</b>                         | <b>0</b> | <b>2</b> | <b>16</b>     | <b>423</b> | <b>49</b> | <b>440</b>    | <b>628</b> | <b>70</b> |

\*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

**PM PEAK HOUR**

| Description                          | Proposed Site Dwy #2 |          |            | Proposed Dwy for Existing Office |          |           | Lakeview Pkwy |            |           | Lakeview Pkwy |            |          |
|--------------------------------------|----------------------|----------|------------|----------------------------------|----------|-----------|---------------|------------|-----------|---------------|------------|----------|
|                                      | Northbound           |          | Right      | Southbound                       |          | Right     | Eastbound     |            | Right     | Westbound     |            | Right    |
|                                      | Left                 | Through  |            | Left                             | Through  |           | Left          | Through    |           | Left          | Through    |          |
| Observed 2015 Traffic Volumes        |                      |          |            |                                  |          |           |               | 537        |           |               | 329        |          |
| Pedestrians                          |                      |          |            |                                  |          |           |               |            |           |               |            |          |
| Conflicting Pedestrians              | 0                    |          | 0          | 0                                |          | 0         | 0             |            | 0         | 0             |            | 0        |
| Heavy Vehicles                       |                      |          |            |                                  |          |           |               |            |           |               |            |          |
| Heavy Vehicle %                      | 0%                   | 0%       | 0%         | 0%                               | 0%       | 0%        | 0%            | 2%         | 0%        | 0%            | 2%         | 0%       |
| Peak Hour Factor                     |                      | 0.88     |            |                                  | 0.88     |           |               | 0.88       |           |               | 0.85       |          |
| Adjusted 2015 Volumes                | 0                    | 0        | 0          | 0                                | 0        | 0         | 0             | 537        | 0         | 0             | 329        | 0        |
| Annual Growth Rate                   | 0.5%                 | 0.5%     | 0.5%       | 0.5%                             | 0.5%     | 0.5%      | 0.5%          | 0.5%       | 0.5%      | 0.5%          | 0.5%       | 0.5%     |
| Growth Factor                        | 1.020                | 1.020    | 1.020      | 1.020                            | 1.020    | 1.020     | 1.020         | 1.020      | 1.020     | 1.020         | 1.020      | 1.020    |
| Northwinds Project Trips (50%)       | 0                    | 0        | 0          | 0                                | 0        | 0         | 0             | 6          | 0         | 0             | 27         | 0        |
| 2019 Background Traffic              | 0                    | 0        | 0          | 0                                | 0        | 0         | 0             | 554        | 0         | 0             | 363        | 0        |
| 2019 Existing Office Traffic Changes |                      |          |            | 107                              |          | 21        |               |            |           |               |            | 2        |
| <b>Project Trips</b>                 |                      |          |            |                                  |          |           |               |            |           |               |            |          |
| Trip Distribution IN                 |                      |          |            |                                  |          |           |               | 5%         | 5%        | 45%           | 30%        |          |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |           |               | 30%        |           |               |            |          |
| Residential Trips                    | 4                    | 0        | 17         | 0                                | 0        | 0         | 0             | 17         | 4         | 32            | 22         | 0        |
| Trip Distribution IN                 |                      |          |            |                                  |          |           |               | 5%         | 5%        | 45%           | 30%        |          |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |           |               | 30%        |           |               |            |          |
| Hotel Trips                          | 4                    | 0        | 16         | 0                                | 0        | 0         | 0             | 14         | 2         | 16            | 11         | 0        |
| Trip Distribution IN                 |                      |          |            |                                  |          |           |               | 5%         | 5%        | 45%           | 25%        |          |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |           |               | 25%        |           |               |            |          |
| Office Trips                         | 70                   | 0        | 279        | 0                                | 0        | 0         | 0             | 182        | 7         | 61            | 34         | 0        |
| Trip Distribution IN                 |                      |          |            |                                  |          |           |               | 5%         | 5%        | 45%           | 25%        |          |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |           |               | 25%        |           |               |            |          |
| Retail Trips                         | 5                    | 0        | 20         | 0                                | 0        | 0         | 0             | 16         | 4         | 33            | 18         | 0        |
| Trip Distribution IN                 |                      |          |            |                                  |          |           |               | 5%         | 5%        | 45%           | 25%        |          |
| Trip Distribution OUT                | 10%                  |          | 40%        |                                  |          |           |               | 25%        |           |               |            |          |
| Restaurant Trips                     | 2                    | 0        | 8          | 0                                | 0        | 0         | 0             | 10         | 5         | 41            | 23         | 0        |
| Pass-By Trips                        | 26                   | 0        | 26         | 0                                | 0        | 0         | 0             | -19        | 19        | 33            | -26        | 0        |
| <b>Total Project Trips</b>           | <b>111</b>           | <b>0</b> | <b>366</b> | <b>107</b>                       | <b>0</b> | <b>21</b> | <b>0</b>      | <b>774</b> | <b>41</b> | <b>216</b>    | <b>445</b> | <b>2</b> |
| <b>2019 Buildout Total</b>           | <b>111</b>           | <b>0</b> | <b>366</b> | <b>107</b>                       | <b>0</b> | <b>21</b> | <b>0</b>      | <b>774</b> | <b>41</b> | <b>216</b>    | <b>445</b> | <b>2</b> |

**INTERSECTION VOLUME DEVELOPMENT**

**Int #10: Lakeview Parkway at Existing Office Driveway #3 / Proposed Site Driveway #3  
AM PEAK HOUR**

| Description                          | Proposed Site Dwy #3 |          |           | Existing Dwy #3 |          |          | Lakeview Pkwy |            |           | Lakeview Pkwy |              |           |
|--------------------------------------|----------------------|----------|-----------|-----------------|----------|----------|---------------|------------|-----------|---------------|--------------|-----------|
|                                      | Northbound           |          |           | Southbound      |          |          | Eastbound     |            |           | Westbound     |              |           |
|                                      | Left                 | Through  | Right     | Left            | Through  | Right    | Left          | Through    | Right     | Left          | Through      | Right     |
| Observed 2015 Traffic Volumes        |                      |          |           | 5               |          | 3        | 16            | 251        |           | 2             | 373          | 132       |
| Pedestrians                          |                      |          |           |                 |          |          |               |            |           |               |              |           |
| Conflicting Pedestrians              | 0                    |          | 0         | 0               |          | 0        | 0             |            | 0         | 0             |              | 0         |
| Heavy Vehicles                       |                      |          |           | 0               |          | 0        | 0             | 13         | 0         | 0             | 0            | 0         |
| Heavy Vehicle %                      | 0%                   | 0%       | 0%        | 2%              | 0%       | 2%       | 2%            | 5%         | 0%        | 2%            | 2%           | 2%        |
| Peak Hour Factor                     |                      | 0.88     |           |                 | 0.50     |          |               | 0.94       |           |               | 0.95         |           |
| Adjusted 2015 Volumes                | 0                    | 0        | 0         | 5               | 0        | 3        | 16            | 251        | 0         | 2             | 373          | 132       |
| Annual Growth Rate                   | 0.5%                 | 0.5%     | 0.5%      | 0.5%            | 0.5%     | 0.5%     | 0.5%          | 0.5%       | 0.5%      | 0.5%          | 0.5%         | 0.5%      |
| Growth Factor                        | 1.020                | 1.020    | 1.020     | 1.020           | 1.020    | 1.020    | 1.020         | 1.020      | 1.020     | 1.020         | 1.020        | 1.020     |
| Northwinds Project Trips (50%)       | 0                    | 0        | 0         | 0               | 0        | 0        | 0             | 22         | 0         | 0             | 9            | 0         |
| 2019 Background Traffic              | 0                    | 0        | 0         | 5               | 0        | 3        | 16            | 278        | 0         | 2             | 390          | 135       |
| 2019 Existing Office Traffic Changes |                      |          |           | -5              |          | -2       | -16           |            |           | -2            |              | -70       |
| <b>Project Trips</b>                 |                      |          |           |                 |          |          |               |            |           |               |              |           |
| Trip Distribution IN                 |                      |          |           |                 |          |          |               |            | 5%        |               | 75%          |           |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |          |               | 70%        |           |               |              |           |
| Residential Trips                    | 0                    | 0        | 7         | 0               | 0        | 0        | 0             | 92         | 2         | 0             | 29           | 0         |
| Trip Distribution IN                 |                      |          |           |                 |          |          |               |            | 5%        |               | 75%          |           |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |          |               | 70%        |           |               |              |           |
| Hotel Trips                          | 0                    | 0        | 1         | 0               | 0        | 0        | 0             | 7          | 3         | 0             | 43           | 0         |
| Trip Distribution IN                 |                      |          |           |                 |          |          |               |            | 5%        |               | 70%          |           |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |          |               | 65%        |           |               |              |           |
| Office Trips                         | 0                    | 0        | 2         | 0               | 0        | 0        | 0             | 22         | 35        | 0             | 495          | 0         |
| Trip Distribution IN                 |                      |          |           |                 |          |          |               |            | 5%        |               | 70%          |           |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |          |               | 65%        |           |               |              |           |
| Retail Trips                         | 0                    | 0        | 1         | 0               | 0        | 0        | 0             | 16         | 2         | 0             | 27           | 0         |
| Trip Distribution IN                 |                      |          |           |                 |          |          |               |            | 5%        |               | 70%          |           |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |          |               | 65%        |           |               |              |           |
| Restaurant Trips                     | 0                    | 0        | 6         | 0               | 0        | 0        | 0             | 76         | 7         | 0             | 91           | 0         |
| Pass-By Trips                        | 0                    | 0        | 0         | 0               | 0        | 0        | 0             | 0          | 0         | 0             | 0            | 0         |
| Total Project Trips                  | 0                    | 0        | 17        | 0               | 0        | 0        | 0             | 213        | 49        | 0             | 685          | 0         |
| <b>2019 Buildout Total</b>           | <b>0</b>             | <b>0</b> | <b>17</b> | <b>0</b>        | <b>0</b> | <b>1</b> | <b>0</b>      | <b>491</b> | <b>49</b> | <b>0</b>      | <b>1,075</b> | <b>65</b> |

\*Note: Assumed PHF = 0.88 for Proposed Site Driveway for both the AM and PM Peaks

**PM PEAK HOUR**

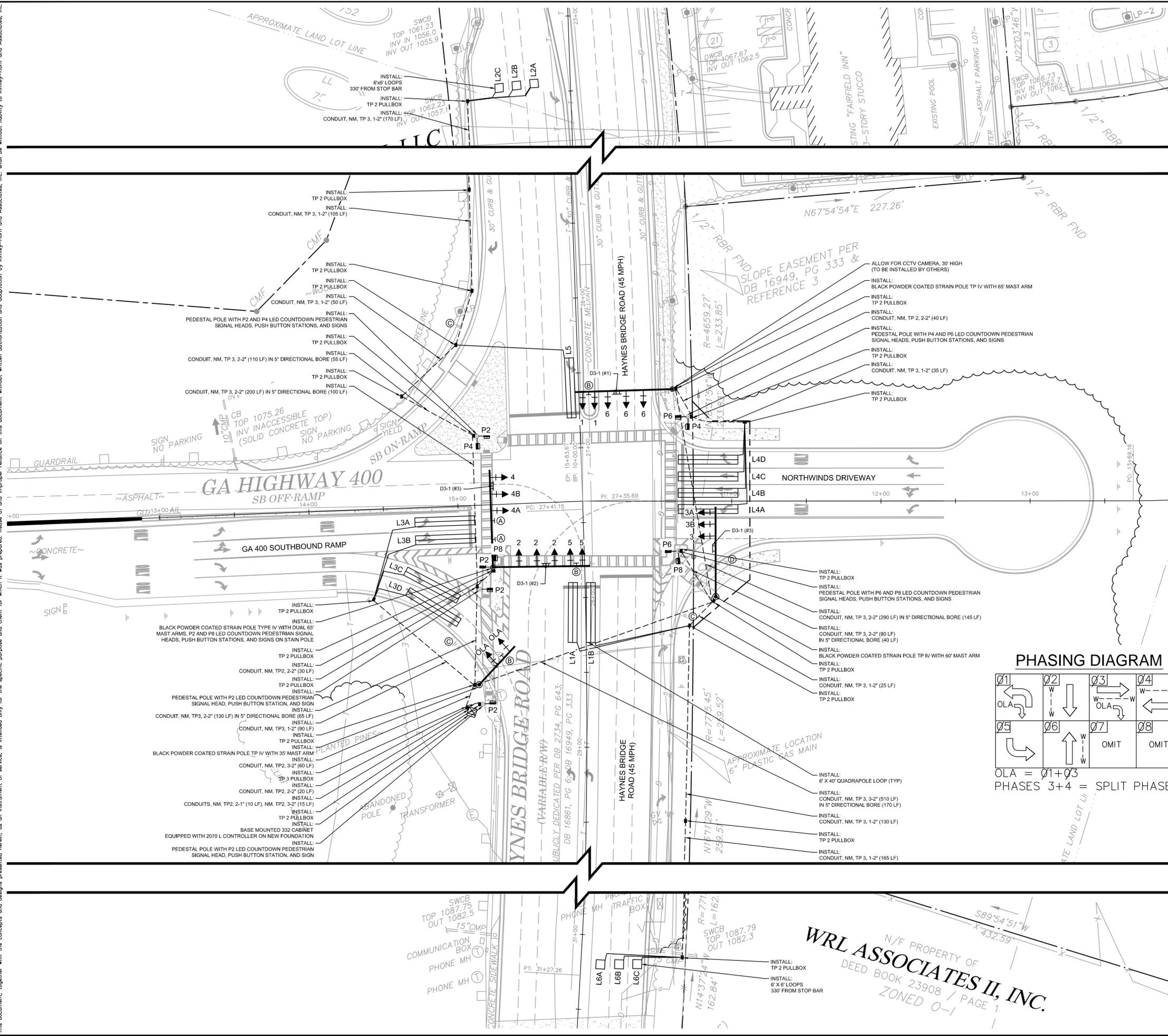
| Description                          | Proposed Site Dwy #3 |          |           | Existing Dwy #3 |          |           | Lakeview Pkwy |              |           | Lakeview Pkwy |            |          |
|--------------------------------------|----------------------|----------|-----------|-----------------|----------|-----------|---------------|--------------|-----------|---------------|------------|----------|
|                                      | Northbound           |          |           | Southbound      |          |           | Eastbound     |              |           | Westbound     |            |          |
|                                      | Left                 | Through  | Right     | Left            | Through  | Right     | Left          | Through      | Right     | Left          | Through    | Right    |
| Observed 2015 Traffic Volumes        |                      |          |           | 105             |          | 40        | 0             | 504          |           | 0             | 278        | 4        |
| Pedestrians                          |                      |          |           |                 |          |           |               |              |           |               |            |          |
| Conflicting Pedestrians              | 0                    |          | 0         | 0               |          | 0         | 0             | 3            | 0         | 0             | 3          | 0        |
| Heavy Vehicles                       |                      |          |           | 0               |          | 0         | 0             | 3            | 0         | 0             | 3          | 0        |
| Heavy Vehicle %                      | 0%                   | 0%       | 0%        | 2%              | 0%       | 2%        | 0%            | 2%           | 0%        | 0%            | 2%         | 2%       |
| Peak Hour Factor                     |                      | 0.88     |           |                 | 0.81     |           |               | 0.86         |           |               | 0.76       |          |
| Adjusted 2015 Volumes                | 0                    | 0        | 0         | 105             | 0        | 40        | 0             | 504          | 0         | 0             | 278        | 4        |
| Annual Growth Rate                   | 0.5%                 | 0.5%     | 0.5%      | 0.5%            | 0.5%     | 0.5%      | 0.5%          | 0.5%         | 0.5%      | 0.5%          | 0.5%       | 0.5%     |
| Growth Factor                        | 1.020                | 1.020    | 1.020     | 1.020           | 1.020    | 1.020     | 1.020         | 1.020        | 1.020     | 1.020         | 1.020      | 1.020    |
| Northwinds Project Trips (50%)       | 0                    | 0        | 0         | 0               | 0        | 0         | 0             | 6            | 0         | 0             | 27         | 0        |
| 2019 Background Traffic              | 0                    | 0        | 0         | 107             | 0        | 41        | 0             | 520          | 0         | 0             | 311        | 4        |
| 2019 Existing Office Traffic Changes |                      |          |           | -107            |          | -21       |               |              |           |               |            | -2       |
| <b>Project Trips</b>                 |                      |          |           |                 |          |           |               |              |           |               |            |          |
| Trip Distribution IN                 |                      |          |           |                 |          |           |               |              | 5%        |               | 75%        |          |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |           |               | 70%          |           |               |            |          |
| Residential Trips                    | 0                    | 0        | 2         | 0               | 0        | 0         | 0             | 29           | 4         | 0             | 54         | 0        |
| Trip Distribution IN                 |                      |          |           |                 |          |           |               |              | 5%        |               | 75%        |          |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |           |               | 70%          |           |               |            |          |
| Hotel Trips                          | 0                    | 0        | 2         | 0               | 0        | 0         | 0             | 29           | 2         | 0             | 26         | 0        |
| Trip Distribution IN                 |                      |          |           |                 |          |           |               |              | 5%        |               | 70%        |          |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |           |               | 65%          |           |               |            |          |
| Office Trips                         | 0                    | 0        | 35        | 0               | 0        | 0         | 0             | 454          | 7         | 0             | 95         | 0        |
| Trip Distribution IN                 |                      |          |           |                 |          |           |               |              | 5%        |               | 70%        |          |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |           |               | 65%          |           |               |            |          |
| Retail Trips                         | 0                    | 0        | 2         | 0               | 0        | 0         | 0             | 32           | 4         | 0             | 51         | 0        |
| Trip Distribution IN                 |                      |          |           |                 |          |           |               |              | 5%        |               | 70%        |          |
| Trip Distribution OUT                |                      |          | 5%        |                 |          |           |               | 65%          |           |               |            |          |
| Restaurant Trips                     | 0                    | 0        | 1         | 0               | 0        | 0         | 0             | 14           | 5         | 0             | 64         | 0        |
| Pass-By Trips                        | 0                    | 0        | 0         | 0               | 0        | 0         | 0             | 7            | 0         | 0             | 7          | 0        |
| Total Project Trips                  | 0                    | 0        | 42        | 0               | 0        | 0         | 0             | 565          | 22        | 0             | 297        | 0        |
| <b>2019 Buildout Total</b>           | <b>0</b>             | <b>0</b> | <b>42</b> | <b>0</b>        | <b>0</b> | <b>20</b> | <b>0</b>      | <b>1,085</b> | <b>22</b> | <b>0</b>      | <b>608</b> | <b>2</b> |

K:\uf\_0p019626002 Innovation dri, alpharenu, april 2015\analysis\20150629 Innovation\_analysis.xlsx Int #10

6/29/2015 17:28

**Appendix F**  
**Programmed & Under Construction Projects**

Drawing name: K:\am\_t\_civil\011636022\_northwinds\CADD\PlanSheets\C8-00\_Signal Plan Feb 21, 2014 7:56am by: casey.warfield  
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of any part of this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.



**MAST ARM SIGNS**

← GA 400 SB

D3-1 (#1)  
120" x 24"

GA 400 SB →

D3-1 (#2)  
120" x 24"

HAYNES BRIDGE RD

D3-1 (#3)  
120" x 24"

**SIGNS**



R-SPEC (#1)  
30" x 36"



R10-5R  
30" x 36"

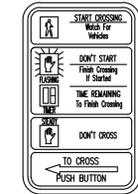


R560-5  
18" x 24"

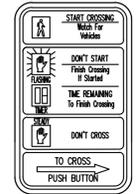


R1-2  
48" TRI

**PEDESTRIAN SIGNS**

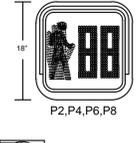


R10-3e(L)  
9" x 15"

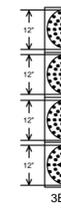


R10-3e(R)  
9" x 15"

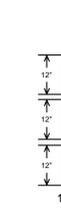
**LED SIGNAL HEADS**



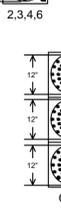
P2, P4, P6, P8



3B, 4B



1, 3A, 4A, 5

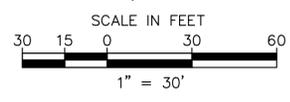


OLA

- NOTE**
- SIGNAL HEADS FOR EASTBOUND RIGHT-TURN APPROACH SHOULD BE ORIENTED APPROPRIATELY FOR EXISTING APPROACH DURING CONSTRUCTION PHASING.
  - TRAFFIC SIGNAL TO REMAIN OPERATIONAL AT ALL TIMES. PROPOSED SIGNAL TO BE FULLY OPERATIONAL BEFORE EXISTING SIGNALS ARE REMOVED.



Know what's below.  
Call before you dig.



- NOTE**
- IF ANY CONFLICTS, DISCREPANCIES, OR ANY OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY AND SHALL NOT COMMENCE FURTHER OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

|               |                       |
|---------------|-----------------------|
| PROJECT:      | NORTHWINDS SHORT ROAD |
| TITLE:        | SIGNAL PLAN           |
| DATE:         | 02/11/2013            |
| PROJECT NO.:  | 011636022             |
| SHEET NUMBER: | C8-00                 |
| SCALE:        | 1" = 30'              |
| DRAWN BY:     | MCW                   |
| DESIGNED BY:  | MCW                   |
| CHECKED BY:   | LHF                   |
| SCALE:        | 1" = 30'              |
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|-------------------------|---|
| <b>Short Title</b>      | SR 400 MANAGED LANES FROM I-285 NORTH TO SR 20  |
| <b>GDOT Project No.</b> | 0001757/0008445                                 |
| <b>Federal ID No.</b>   | MSL00-0001-00(757)                              |
| <b>Status</b>           | Long Range                                      |
| <b>Service Type</b>     | Roadway / Managed Lanes                         |
| <b>Sponsor</b>          | GDOT  |
| <b>Jurisdiction</b>     | Regional - North                                |
| <b>Analysis Level</b>   | In the Region's Air Quality Conformity Analysis |



|                           |     |
|---------------------------|-----|
| <b>Existing Thru Lane</b> | 0   |
| <b>Planned Thru Lane</b>  | 2/4 |

**Network Year**

**Corridor Length**  miles

**Detailed Description and Justification**

Project includes preliminary design of managed lanes along SR 400 between I-285 and SR 20. In this case, managed lanes means high occupancy toll lanes. Passenger vehicles not meeting an occupancy requirement use these lanes by paying a variable toll. Meanwhile, transit vehicles and passenger vehicles meeting the occupancy requirement can use the lanes for free. Two managed lanes in each direction (four total) are proposed between I-285 and Holcomb Bridge Road and one managed lane in each direction (two total) between Holcomb Bridge Road and McFarland Parkway. Managed lanes are designed to provide a reliable trip option for those that carpool, use a vanpool, take transit, or wish to pay to use the lane. Preliminary design will take approximately four years to complete and it is expected that plans will be completed by 2014.

| Phase Status & Funding Information |                               | Status | FISCAL YEAR  | TOTAL PHASE COST     | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                     |                      |                    |
|------------------------------------|-------------------------------|--------|--------------|----------------------|---|---------------------|----------------------|--------------------|
|                                    |                               |        |              |                      | FEDERAL   | STATE               | BONDS                | LOCAL/PRIVATE      |
| PE                                 | SRTA - Toll Revenue           | AUTH   | 2011         | <b>\$8,000,000</b>   | \$0,000   | \$0,000             | \$0,000              | \$8,000,000        |
| ALL                                | General Federal Aid 2020-2040 |        | LR 2031-2040 | <b>\$497,738,337</b> | \$398,190,670                                   | \$99,547,667        | \$0,000              | \$0,000            |
| ALL                                | Toll Revenue Bonds            |        | LR 2031-2040 | <b>\$407,240,458</b> | \$0,000   | \$0,000             | \$407,240,458        | \$0,000            |
|                                    |                               |        |              | <b>\$912,978,795</b> | <b>\$398,190,670</b>                            | <b>\$99,547,667</b> | <b>\$407,240,458</b> | <b>\$8,000,000</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

|                         |   |
|-------------------------|---|
| <b>Short Title</b>      | SR 9 (NORTH MAIN STREET / CUMMING HIGHWAY) WIDENING FROM ACADEMY STREET TO WINDWARD PARKWAY |
| <b>GDOT Project No.</b> | 721780-   |
| <b>Federal ID No.</b>   | STP00-0114-01(084)  |
| <b>Status</b>           | Programmed  |
| <b>Service Type</b>     | Roadway / General Purpose Capacity  |
| <b>Sponsor</b>          | GDOT  |
| <b>Jurisdiction</b>     | Fulton County (North)   |
| <b>Analysis Level</b>   | In the Region's Air Quality Conformity Analysis   |



|                           |   |
|---------------------------|---|
| <b>Existing Thru Lane</b> | 2 |
| <b>Planned Thru Lane</b>  | 4 |

**Network Year** 2030

**Corridor Length** 2.0 miles

**Detailed Description and Justification**

The four-lane context sensitive urban design would widen and reconstruct SR 9 from Upper Hembree Road to Windward Parkway. The improvement consist of side roads reconfiguration, signal upgrades, multi-use path, on-street parking, brick pavers sidewalk, raised and flush medians, ornament landscape trees and pedestrian lighting. Twinned with FN-067B/PI#721790, this project begins at the intersection of Main Street/Academy Street and ends at the intersection of North Main Street/Windward Parkway. This portion of the project would increase the existing two-lane urban roadway to a four lane context sensitive roadway.

| Phase Status & Funding Information  | Status | FISCAL YEAR | TOTAL PHASE COST    | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                    |                |                    |
|-------------------------------------|--------|-------------|---------------------|---|--------------------|----------------|--------------------|
|                                     |        |             |                     | FEDERAL   | STATE              | BONDS          | LOCAL/PRIVATE      |
| PE STP - Statewide Flexible (GDOT)  | AUTH   | 1993        | <b>\$1,500,000</b>  | \$800,000                                       | \$200,000          | \$0,000        | \$500,000          |
| PE STP - Statewide Flexible (GDOT)  | AUTH   | 2007        | <b>\$1,500,000</b>  | \$800,000                                       | \$200,000          | \$0,000        | \$500,000          |
| PE STP - Statewide Flexible (GDOT)  | AUTH   | 2013        | <b>\$2,000,000</b>  | \$1,600,000                                     | \$400,000          | \$0,000        | \$0,000            |
| ROW STP - Statewide Flexible (GDOT) |        | 2018        | <b>\$22,322,306</b> | \$17,857,845                                    | \$4,464,461        | \$0,000        | \$0,000            |
| CST STP - Statewide Flexible (GDOT) |        | 2019        | <b>\$12,363,118</b> | \$9,890,494                                     | \$2,472,624        | \$0,000        | \$0,000            |
|                                     |        |             | <b>\$39,685,424</b> | <b>\$30,948,339</b>                             | <b>\$7,737,085</b> | <b>\$0,000</b> | <b>\$1,000,000</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

|                         |   |
|-------------------------|---|
| <b>Short Title</b>      | SR 9 (ALPHARETTA HIGHWAY / MAIN STREET)<br>OPERATIONAL IMPROVEMENTS FROM UPPER HEMBREE ROAD TO ACADEMY STREET |
| <b>GDOT Project No.</b> | 721790-   |
| <b>Federal ID No.</b>   | STP00-0114-01(085)  |
| <b>Status</b>           | Programmed  |
| <b>Service Type</b>     | Roadway / Operations & Safety   |
| <b>Sponsor</b>          | GDOT  |
| <b>Jurisdiction</b>     | Fulton County (North)   |
| <b>Analysis Level</b>   | Exempt from Air Quality Analysis (40 CFR 93)  |



|                           |   |
|---------------------------|---|
| <b>Existing Thru Lane</b> | 4 |
| <b>Planned Thru Lane</b>  | 4 |

|                        |           |
|------------------------|-----------|
| <b>Network Year</b>    | 2020      |
| <b>Corridor Length</b> | 1.7 miles |

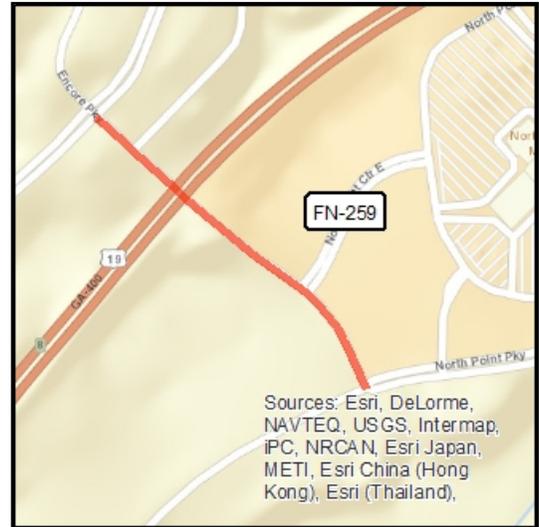
**Detailed Description and Justification**

The four-lane context sensitive urban design would widen and reconstruct SR 9 from Upper Hembree Road to Windward Parkway. The improvement consist of side roads reconfiguration, signal upgrades, multi-use path, on-street parking, brick pavers sidewalk, raised and flush medians, ornament landscape trees and pedestrian lighting. Twinned with FN-067A/PI#721780, this project begins from the intersection of South Main Street/Upper Hembree Road and ends at Academy Street intersection, in downtown Alpharetta. This portion of the project would tie into the existing five-lane urban section while providing operational improvements, including installations of a raised and flush medians, turn lanes, bicycle and pedestrian facilities.

| Phase Status & Funding Information |                                 | Status | FISCAL YEAR | TOTAL PHASE COST    | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                    |                |                  |
|------------------------------------|---------------------------------|--------|-------------|---------------------|---|--------------------|----------------|------------------|
|                                    |                                 |        |             |                     | FEDERAL   | STATE              | BONDS          | LOCAL/PRIVATE    |
| PE                                 | STP - Urban (>200K) (ARC)       | AUTH   | 2007        | <b>\$1,500,000</b>  | \$800,000                                       | \$200,000          | \$0,000        | \$500,000        |
| PE                                 | STP - Statewide Flexible (GDOT) | AUTH   | 2013        | <b>\$2,000,000</b>  | \$1,600,000                                     | \$400,000          | \$0,000        | \$0,000          |
| ROW                                | STP - Statewide Flexible (GDOT) |        | 2018        | <b>\$15,154,613</b> | \$12,123,690                                    | \$3,030,923        | \$0,000        | \$0,000          |
| UTL                                | STP - Statewide Flexible (GDOT) |        | 2019        | <b>\$611,101</b>    | \$488,881                                       | \$122,220          | \$0,000        | \$0,000          |
| CST                                | STP - Statewide Flexible (GDOT) |        | 2019        | <b>\$10,402,177</b> | \$8,321,742                                     | \$2,080,435        | \$0,000        | \$0,000          |
|                                    |                                 |        |             | <b>\$29,667,891</b> | <b>\$23,334,313</b>                             | <b>\$5,833,578</b> | <b>\$0,000</b> | <b>\$500,000</b> |

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 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

|                         |   |
|-------------------------|---|
| <b>Short Title</b>      | ENCORE PARKWAY BICYCLE AND PEDESTRIAN IMPROVEMENTS FROM WESTSIDE PARKWAY TO NORTH POINT PARKWAY |
| <b>GDOT Project No.</b> | 0010241   |
| <b>Federal ID No.</b>   | N/A   |
| <b>Status</b>           | Programmed  |
| <b>Service Type</b>     | Last Mile Connectivity / Joint Bike-Ped Facilities  |
| <b>Sponsor</b>          | City of Alpharetta  |
| <b>Jurisdiction</b>     | Fulton County (North)   |
| <b>Analysis Level</b>   | Exempt from Air Quality Analysis (40 CFR 93)  |



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|                           |   |
|---------------------------|---|
| <b>Existing Thru Lane</b> | 2 |
| <b>Planned Thru Lane</b>  | 2 |

**Network Year** 2020

**Corridor Length** 0.5 miles

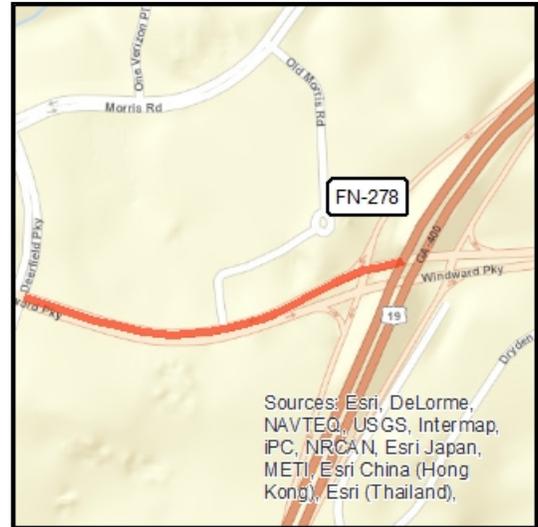
**Detailed Description and Justification**

Widen Encore Parkway and replace bridge over SR 400 from Westside Pkwy to N. Point Pkwy to include two 14' travel lanes, two 6' bike lanes, a raised median varying in width from 8' to 30', and left turn lanes. The proposed shoulders from Westside Pkwy to North Point Parkway will be widened to 18' and will include a 6' buffer planter strip and an 8' sidewalk. Also, an 8 foot sidewalk will be constructed along the East side of North Point Parkway and shared lanes or sharrows will be used on North Point Parkway to connect the new Encore Parkway sidewalks and bike lanes to the existing Big Creek Greenway trail and parking area. The existing Encore Parkway bridge over SR 400 will be replaced and upgraded to accommodate future SR 400 widening. The project will provide signal upgrades and signal timing and will also include installing streetscape features such as street trees and landscaping, street and pedestrian lighting, and street furniture on both the roadway and bridge sections.

| Phase Status & Funding Information |                                       | Status | FISCAL YEAR | TOTAL PHASE COST    | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                |                |                    |
|------------------------------------|---------------------------------------|--------|-------------|---------------------|---|----------------|----------------|--------------------|
|                                    |                                       |        |             |                     | FEDERAL   | STATE          | BONDS          | LOCAL/PRIVATE      |
| PE                                 | Local Jurisdiction/Municipality Funds | AUTH   | 2011        | <b>\$227,100</b>    | \$0,000   | \$0,000        | \$0,000        | \$227,100          |
| ROW                                | Local Jurisdiction/Municipality Funds | AUTH   | 2014        | <b>\$868,000</b>    | \$0,000   | \$0,000        | \$0,000        | \$868,000          |
| UTL                                | Local Jurisdiction/Municipality Funds |        | 2015        | <b>\$403,500</b>    | \$0,000   | \$0,000        | \$0,000        | \$403,500          |
| CST                                | STP - Urban (>200K) (ARC)             |        | 2015        | <b>\$8,912,254</b>  | \$4,000,000                                     | \$0,000        | \$0,000        | \$4,912,254        |
|                                    |                                       |        |             | <b>\$10,410,854</b> | <b>\$4,000,000</b>                              | <b>\$0,000</b> | <b>\$0,000</b> | <b>\$6,410,854</b> |

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 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

|                         |  |
|-------------------------|--|
| <b>Short Title</b>      | WINDWARD PARKWAY WESTBOUND AUXILIARY LANE FROM SR 400 TO DEERFIELD PARKWAY |
| <b>GDOT Project No.</b> | 0010768  |
| <b>Federal ID No.</b>   | N/A  |
| <b>Status</b>           | Programmed   |
| <b>Service Type</b>     | Roadway / General Purpose Capacity   |
| <b>Sponsor</b>          | GDOT   |
| <b>Jurisdiction</b>     | Fulton County (North)  |
| <b>Analysis Level</b>   | In the Region's Air Quality Conformity Analysis                            |



|                           |   |
|---------------------------|---|
| <b>Existing Thru Lane</b> | 0 |
| <b>Planned Thru Lane</b>  | 1 |

**Network Year** 2020

**Corridor Length** 0.4 miles

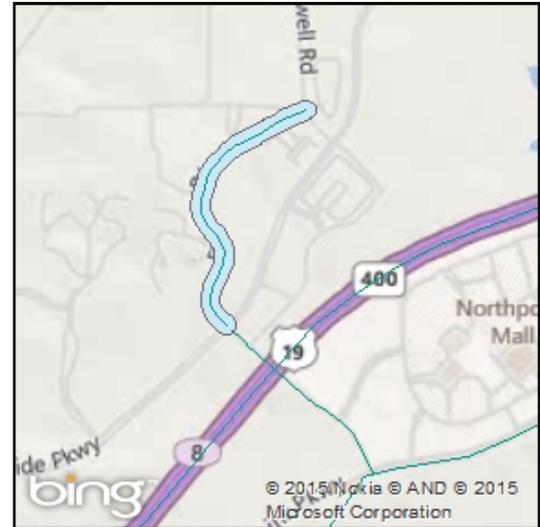
**Detailed Description and Justification**

The project proposes to add a dual lane exit to Windward Parkway from northbound SR 400. Two alternatives for the dual lane exit include adding an auxiliary lane from the on ramp at Old Milton Parkway to the off ramp at Windward Parkway, or adding a 500 foot long storage lane on SR 400 exiting to Windward Parkway. The SR 400 northbound off ramp to Windward Parkway will be widened to provide three 12-foot left turn lanes with shoulders. On Windward Parkway, westbound, an additional lane will be constructed to provide three 11-foot travel lanes with a 4-foot bicycle lane from the SR 400 northbound off ramp to Deerfield Parkway. Minor right of way will be required on Windward Parkway for the right turn lane at the commercial development.

| Phase Status & Funding Information |  | Status | FISCAL YEAR | TOTAL PHASE COST   | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                    |                |                    |
|------------------------------------|--|--------|-------------|--------------------|---|--------------------|----------------|--------------------|
|                                    |  |        |             |                    | FEDERAL   | STATE              | BONDS          | LOCAL/PRIVATE      |
| ROW                                | Local Jurisdiction/Municipality Funds      | AUTH   | 2013        | <b>\$810,000</b>   | \$0,000   | \$0,000            | \$0,000        | \$810,000          |
| ROW                                | Georgia Transportation Infrastructure Bank |        | 2016        | <b>\$754,000</b>   | \$0,000   | \$754,000          | \$0,000        | \$0,000            |
| ROW                                | Local Jurisdiction/Municipality Funds      |        | 2016        | <b>\$196,000</b>   | \$0,000   | \$0,000            | \$0,000        | \$196,000          |
| CST                                | Georgia Transportation Infrastructure Bank |        | 2017        | <b>\$2,029,000</b> | \$0,000   | \$2,029,000        | \$0,000        | \$0,000            |
| CST                                | STP - Statewide Flexible (GDOT)            |        | 2017        | <b>\$1,370,000</b> | \$1,096,000                                     | \$274,000          | \$0,000        | \$0,000            |
|                                    |  |        |             | <b>\$5,159,000</b> | <b>\$1,096,000</b>                              | <b>\$3,057,000</b> | <b>\$0,000</b> | <b>\$1,006,000</b> |

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 UTL: Utility relocation CST: Construction / Implementation ALL: Total estimated cost, inclusive of all phases

|                         |   |
|-------------------------|---|
| <b>Short Title</b>      | ENCORE PARKWAY GREENWAY CONNECTION            |
| <b>GDOT Project No.</b> | 0010339                                       |
| <b>Federal ID No.</b>   | N/A   |
| <b>Status</b>           | Programmed                                    |
| <b>Service Type</b>     | Last Mile Connectivity / Sidepaths and Trails |
| <b>Sponsor</b>          | City of Alpharetta                            |
| <b>Jurisdiction</b>     | Fulton County (North)                         |
| <b>Analysis Level</b>   | Exempt from Air Quality Analysis (40 CFR 93)  |



|                           |     |
|---------------------------|-----|
| <b>Existing Thru Lane</b> | N/A |
| <b>Planned Thru Lane</b>  | N/A |

**Network Year**

**Corridor Length**  miles

**Detailed Description and Justification**

This project will provide a connection for pedestrian and bicycle use between the Alpharetta Big Creek Greenway and the North Point Activity Center. Approximately 0.2 miles of new sidewalk for pedestrian only access will be along North Point Parkway (35 MPH), from Encore Parkway north to the driveway for the Big Creek Greenway North Point Trailhead and Parking Lot. Bicycles will have access using North Point Parkway. Another section nearly 0.2 miles of 10-12 foot wide multi-use trail for pedestrian and bicycle use will meander from North Point Parkway down grades to the existing greenway. Minor right-of-way acquisition is anticipated for the wide sidewalk section along North Point Parkway. No irrigation is planned. The route will meet the provisions of the Americans with Disabilities Act (ADA). The City of Alpharetta will be responsible for project costs exceeding funding,

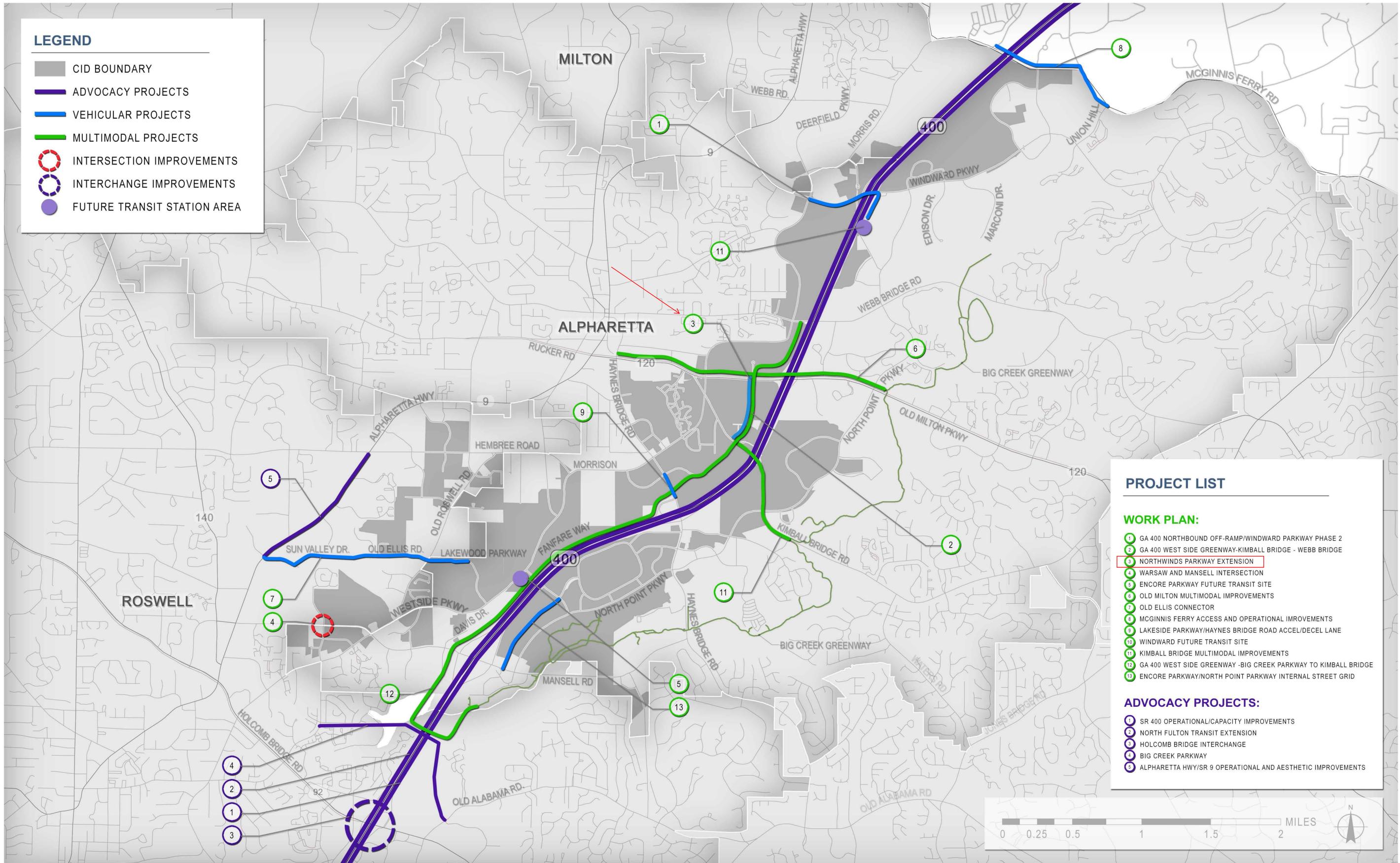
The proposed connection will consist of a twelve foot wide (12') concrete sidewalk and be a minimum of 2 feet from the back of curb on North Point Parkway from Encore Parkway north to the driveway for the Big Creek Greenway North Point Trailhead and a 10 - 12 foot wide concrete multi-use trail with a minimum 2 foot shoulder from existing trees or other obstacles.

| Phase Status & Funding Information | Status | FISCAL YEAR | TOTAL PHASE COST   | BREAKDOWN OF TOTAL PHASE COST BY FUNDING SOURCE |                |                |                  |
|------------------------------------|--------|-------------|--------------------|---|----------------|----------------|------------------|
|                                    |        |             |                    | FEDERAL   | STATE          | BONDS          | LOCAL/PRIVATE    |
| CST   STP - Urban (>200K) (ARC)    |        | 2015        | <b>\$1,000,000</b> | \$800,000                                       | \$0,000        | \$0,000        | \$200,000        |
|                                    |        |             | <b>\$1,000,000</b> | <b>\$800,000</b>                                | <b>\$0,000</b> | <b>\$0,000</b> | <b>\$200,000</b> |

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**LEGEND**

-  CID BOUNDARY
-  ADVOCACY PROJECTS
-  VEHICULAR PROJECTS
-  MULTIMODAL PROJECTS
-  INTERSECTION IMPROVEMENTS
-  INTERCHANGE IMPROVEMENTS
-  FUTURE TRANSIT STATION AREA



**PROJECT LIST**

**WORK PLAN:**

-  GA 400 NORTHBOUND OFF-RAMP/WINDWARD PARKWAY PHASE 2
-  GA 400 WEST SIDE GREENWAY-KIMBALL BRIDGE - WEBB BRIDGE
-  NORTHWINDS PARKWAY EXTENSION
-  WARSAW AND MANSELL INTERSECTION
-  ENCORE PARKWAY FUTURE TRANSIT SITE
-  OLD MILTON MULTIMODAL IMPROVEMENTS
-  OLD ELLIS CONNECTOR
-  MCGINNIS FERRY ACCESS AND OPERATIONAL IMPROVEMENTS
-  LAKESIDE PARKWAY/HAYNES BRIDGE ROAD ACCEL/DECEL LANE
-  WINDWARD FUTURE TRANSIT SITE
-  KIMBALL BRIDGE MULTIMODAL IMPROVEMENTS
-  GA 400 WEST SIDE GREENWAY -BIG CREEK PARKWAY TO KIMBALL BRIDGE
-  ENCORE PARKWAY/NORTH POINT PARKWAY INTERNAL STREET GRID

**ADVOCACY PROJECTS:**

-  SR 400 OPERATIONAL/CAPACITY IMPROVEMENTS
-  NORTH FULTON TRANSIT EXTENSION
-  HOLCOMB BRIDGE INTERCHANGE
-  BIG CREEK PARKWAY
-  ALPHARETTA HWY/SR 9 OPERATIONAL AND AESTHETIC IMPROVEMENTS



## BLUEPRINT 2.0 SHORT-TERM WORK PROGRAM

|                   | Project Number | Project Location             | Node  | Description | Estimated Design and Construction Cost   |               |
|-------------------|----------------|------------------------------|---|-------------|--|---------------|
| NFCID Work Plan   | 1              | Roadway                      | GA 400 Northbound Off-Ramp/<br>Windward Parkway Phase 2                                       | Windward    | Add second exit lane to GA 400 northbound off-ramp, add triple left onto Windward Parkway, and add westbound lane from GA 400 to Deerfield Parkway       | \$ 3,500,000  |
|                   | 2              | Multimodal Trail             | GA 400 West Side Greenway from Kimball Bridge Road to Webb Bridge Road                        | Old Milton  | Complete greenway west of GA 400 from Kimball Bridge Road to Webb Bridge Road  | \$ 2,500,000  |
|                   | 3              | Roadway                      | Northwinds Parkway Extension  | Old Milton  | Roadway extension from Kimball Bridge Road to Old Milton Parkway.  | \$ 3,000,000  |
|                   | 4              | Intersection                 | Warsaw and Mansell Intersection   | North Point | Study potential Intersection improvement   | \$ 1,500,000  |
|                   | 5              | Transit                      | Encore Parkway Future Transit Site  | North Point | Partner with MARTA to secure future transit facility site along Encore Pkwy near SR 400  | \$ 2,000,000  |
|                   | 6              | Multimodal Trail             | Old Milton Multimodal Improvements  | Old Milton  | Multimodal trail along the north side of Old Milton Parkway from Haynes Bridge Road or Westside Parkway to Big Creek Greenway                            | \$ 4,000,000  |
|                   | 7              | Roadway                      | Old Ellis Connector   | North Point | New Roadway connection from Highway 9/Sun Valley Drive to Westside Parkway along Old Ellis Road  | \$ 7,000,000  |
|                   | 8              | Roadway                      | McGinnis Ferry Access and Operational Improvements  | Windward    | Widen McGinnis Ferry Road to 4 lanes from Union Hill Road to Tidwell Drive   | \$ 7,000,000  |
|                   | 9              | Roadway                      | Lakeside Parkway/Haynes Bridge Road Accel/Decel Lane  | North Point | Reopen slip lane from Lakeview Parkway to Haynes Bridge Road and extend decel lane from GA 400 southbound on-ramp to Lakeview Parkway                    | \$ 1,000,000  |
|                   | 10             | Transit                      | Windward Future Transit Site  | Windward    | Partner with MARTA to secure future transit facility site along Windward Pkwy near SR 400  | \$ 2,000,000  |
|                   | 11             | Multimodal Trail             | Kimball Bridge Multimodal Improvements and Kimball Bridge at North Point Parkway Intersection | Old Milton  | Extend greenway along Kimball Bridge Road from Northwinds Parkway to Big Creek Greenway/Rock Mill Road   | \$ 3,000,000  |
|                   | 12             | Multimodal Trail             | GA 400 West Side Greenway from Big Creek Parkway to Kimball Bridge Road                       | North Point | Complete greenway west of GA 400 from Big Creek Parkway to Kimball Bridge Road   | \$ 8,000,000  |
|                   | 13             | Roadway                      | Encore Parkway/North Point Parkway Internal Street Grid                                       | North Point | Construct internal street grid between GA 400 and North Point Parkway near Encore Parkway  | \$ 4,000,000  |
| Advocacy Projects | 1              | Roadway                      | SR 400 Operational/Capacity Improvements  | All         | In partnership with North Fulton cities, Fulton County and Perimeter CIDs, advocate for SR 400 corridor improvements, including managed lanes            | TBD           |
|                   | 2              | Transit                      | North Fulton Transit Extension  | All         | In partnership with cities and Fulton County, actively advocate for MARTA transit improvements in the SR 400 corridor.                                   | TBD           |
|                   | 3              | Roadway                      | Holcomb Bridge Road Interchange   | N/A         | In partnership with City of Roswell, advocate for Holcomb Bridge Road and Holcomb Bridge/GA 400 Interchange Improvements                                 | \$ 35,000,000 |
|                   | 4              | Roadway                      | Big Creek Parkway   | N/A         | In partnership with City of Roswell, advocate for Big Creek Parkway improvements and north/south connectivity between Mansell Road and Big Creek Parkway | TBD           |
|                   | 5              | Roadway/<br>Multimodal Trail | Alpharetta Highway/SR 9 Operational and Aesthetic Improvements                                | North Point | Alpharetta Highway Operational and Aesthetic Enhancements between Mansell Road and Upper Hembree.  | TBD           |

## BLUEPRINT 2.0 OTHER POTENTIAL PROJECTS

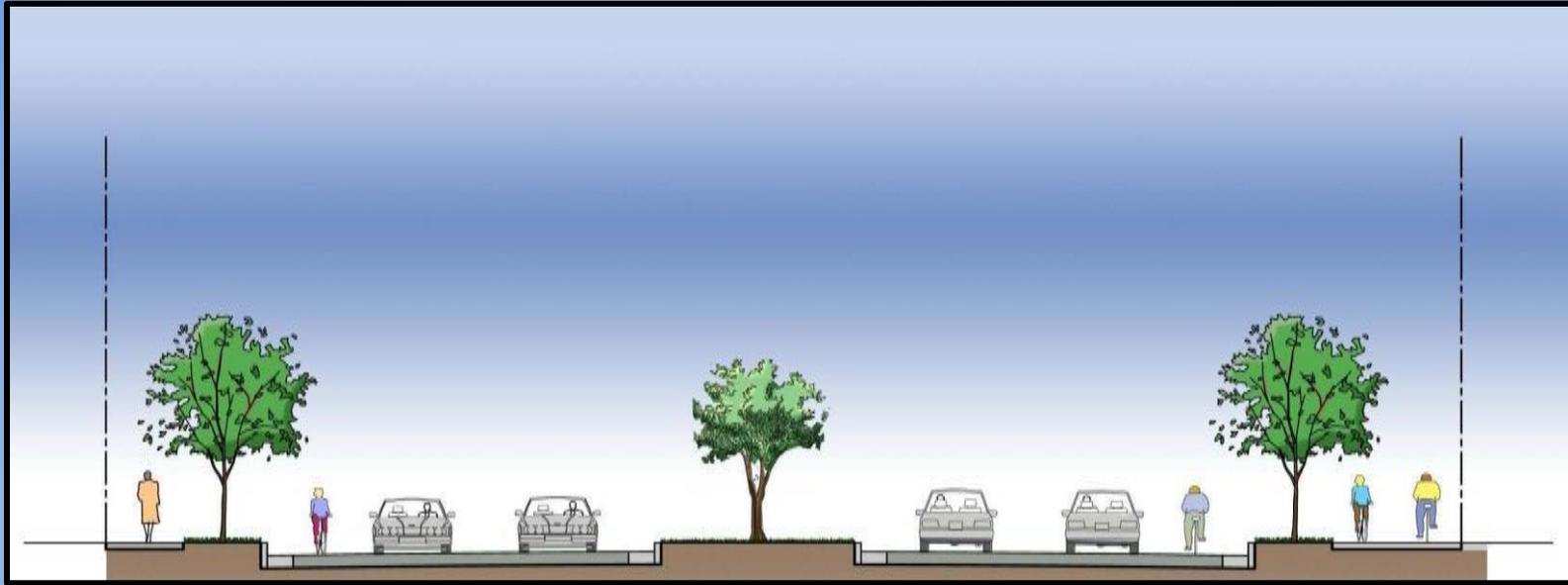
|   | Project Number | Project Location         | Node  | Description | Estimated Design and Construction Cost   |               |
|---|----------------|--------------------------|---|-------------|--|---------------|
| Out of District/Potential Future Projects | 1              | Intersection             | Old Milton at Morris Road Intersection                                    | Old Milton  | Study potential Intersection improvement   | \$ 2,000,000  |
|   | 2              | Roadway                  | Big Creek Phase 3 (East of GA 400)  | North Point | Partner with City of Roswell to study Mansell Road to Big Creek Parkway connection east of GA 400  | \$ 5,500,000  |
|   | 3              | Roadway                  | Big Creek Phase 4 (West of GA 400)  | North Point | Partner with the City of Roswell to study Mansell Road to Big Creek Parkway connection west of GA 400  | \$ 4,500,000  |
|   | 4              | Roadway                  | Davis Drive Extension   | North Point | Extend Davis Drive from existing cul de sac to Westside Parkway  | \$ 2,000,000  |
|   | 5              | Intersection             | Old Alabama and Holcomb Woods Parkway Intersection                        | North Point | Add a northbound aux. lane by converting the northbound right-turn only lane to a shared through-right lane  | \$ 1,000,000  |
|   | 6              | Intersection             | Old Alabama Operational Improvements and Holcomb Bridge Road Intersection | North Point | Reconfigure and add turn lanes to intersection (including ROW)   | \$ 9,500,000  |
|   | 7              | Multimodal Trail         | GA 400 East Side Greenway   | Windward    | Complete greenway east of GA 400 from McGinnis Ferry Road to Big Creek Greenway  | \$ 5,000,000  |
| Out of the District/On the Radar          | 8              | Roadway                  | Hembree Road Operational Improvements                                     | North Point | Widen Hembree Road from 2 lanes to 3/4 lanes from Wills Road to Morrison Parkway   | \$ 4,500,000  |
|   | 9              | Roadway                  | Old Roswell Road Operational Improvements                                 | North Point | Widen Old Roswell Road from 2 lanes to 4 lanes from Founders Parkway to Old Ellis Road/Lakewood Parkway  | \$ 3,000,000  |
|   | 10             | Roadway                  | Old Milton Operational Improvements                                       | Old Milton  | Widen Old Milton Parkway to 6 lanes from North Point Parkway to Kimball Bridge Road and enhance access management from SR 400 to Kimball Bridge Road | \$ 15,000,000 |
|   | 11             | Roadway                  | Edison/Marconi Drive Extension  | Windward    | Extend Edison Drive to Marconi Drive   | \$ 2,500,000  |
|   | 12             | Roadway                  | Deerfield Parkway/SR 9 Roadway Connection                                 | Windward    | Construct connector road between Deerfield Parkway and Highway 9 between Morris Road and Webb Road   | \$ 4,000,000  |
|   | 13             | Roadway/<br>Intersection | Union Hill Intersection and Operational Improvements                      | Windward    | Widen Union Hill Road to 4 lanes from Windward Parkway to McGinnis Ferry Road  | \$ 3,000,000  |
|   | 14             | Intersection             | Old Roswell and Warsaw Intersection                                       | North Point | Study potential Intersection improvement   | \$ 1,500,000  |
|   | 15             | Multimodal Trail         | Webb Bridge Multimodal Greenway   | Old Milton  | Extend greenway along Webb Bridge Road from Westside Parkway to Big Creek Greenway   | \$ 2,500,000  |
|   | 16             | Multimodal Trail         | GA 400 West Side Greenway   | Windward    | Complete greenway west of GA 400 from Webb Bridge Road to McGinnis Ferry Road  | \$ 6,000,000  |

# Northwinds Parkway Extension

# Project Overview



# Typical Section



- Four – 11 ft. wide travel lanes
- 20 ft. planted Median
- Bicycle Lanes
- 12 ft. Multi-use Trail (East Side)
- 6 ft. Sidewalk (West Side)
- 6 ft. planting area behind curb
- 105 ft. Right of Way
- Street Lighting has been planned for, but not included in construction

# Landscape Planning



# Old Milton



# Kimball Bridge



***Available Upon Request***

**Raw Traffic Count Data (Peak Hour Turning Movements)**

***SIDRA* Capacity Analyses (Roundabouts Only)**

***Synchro* Capacity Analyses**