## Transportation Analysis

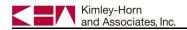
# **Ponce City Market DRI**City of Atlanta, Georgia

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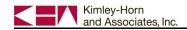
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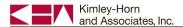
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#### **EXECUTIVE SUMMARY**

This report presents the analysis of the anticipated traffic impacts of the renovation and expansion of the Ponce City Market (formerly known as City Hall East) property located on SR 8/Ponce de Leon Avenue in Atlanta, Georgia. The approximate 20-acre redevelopment site is located in the BeltLine Overlay District and is bounded by SR 8/Ponce de Leon Avenue to the north, North Avenue to the south, Glen Iris Drive to the west, and the Atlanta BeltLine to the east. Because the mixed-use project will exceed 400,000 square feet, 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. (Note: This DRI was previously reviewed as DRI #910 (Ponce Park, LLC) in September 2005. This DRI re-review is necessary now due to the increase in density from the year 2005 DRI.)

This report is being prepared as part of a submittal requesting a Special Administrative Permit (SAP) with the City of Atlanta Planning Department for the Ponce City Market mixed-use development located within the BeltLine Overlay Zoning District. The *Old Fourth Ward Master Plan (September 2008)* Land Use Map identifies the area as a "Secondary Retail Site of Mixed-Use with 10+ Stories" intended to provide live/work options including residential, office, retail, restaurant, and recreational center land uses. The ARC Plan 2040 Unified Growth Policy Map identifies the proposed project site as being in a Redevelopment Corridor bordering a Station Community. As such, the proposed Ponce City Market redevelopment project fulfills the City of Atlanta's need for a mixed-use development in this area.

According to GRTA's Procedures and Principles for GRTA Development of Regional Impact Review, the proposed changes to the DRI comply 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 is consistent with the Old Fourth Ward Master Plan (September 2008). Therefore, this study is being submitted under expedited review.

The proposed redevelopment project is expected to be completed by 2017, and this analysis will consider the full build-out of the proposed site in 2017. The proposed site consists of the following land uses and densities:

Residential Apartment: 439 Units
General Office Building: 463,533 SF
Retail: 231,043 SF
Recreational Community Center: 74,520 SF
Day Care Center: 19,965 SF
Quality Restaurant: 49,466 SF

Event Space & Music Venues: 51,163 SF (assumed to operate similar to quality restaurant)

Capacity analyses were performed throughout the study network for the Existing 2012 conditions, projected 2017 No-Build conditions, and projected 2017 Build conditions.

- Existing 2012 conditions represent traffic volumes that were collected in December 2012 by performing AM and PM peak hour turning movement counts.
- Projected 2017 No-Build conditions represent the existing traffic volumes grown for five (5) years at 1.0% per year throughout the study network.



- Projected 2017 Build conditions represent the 2017 No-Build conditions with the addition of the project trips that are anticipated to be generated by the Ponce City Market development.
- The Ponce City Market development is projected to generate 31,750 gross daily trips and 15,631 net daily trips after mixed-use, alternate mode, and pass-by reductions.

Based on the 2012 Existing conditions (present conditions; i.e. excludes background traffic growth and the Ponce City Market DRI project traffic), all intersections within the study network currently operate at or above the acceptable Level-of-Service standard (LOS D).

The SR 8/Ponce de Leon Avenue Pedestrian Safety Improvement Project (GDOT #0010350) was assumed to be completed by Ponce City Market's build-out year of 2017, and thus, the programmed improvements were implemented into the 2017 No-Build and 2017 Build scenarios for this traffic analysis. The project proposes to reduce the number of eastbound travel lanes along Ponce de Leon Avenue from three lanes to two lanes with the addition of a continuous two-way center left-turn lane along a 2.0-mile corridor of Ponce de Leon Avenue from CS 1860/Piedmont Avenue to SR 42/Moreland Avenue. In addition to this project, similar road improvements will be made along North Avenue that will also be implemented into the 2017 No-Build and 2017 Build scenarios for this traffic analysis. These roadway improvements will consist of two travel lanes in both the eastbound and westbound directions with left-turn lanes at the signalized intersections along North Avenue.

In addition, the proposed Ponce Park Apartments located just south of North Avenue between Glen Iris Drive and N Angier Avenue are expected to be fully completed by the 2017 build-out year of Ponce City Market. The 305-unit development is expected to generate 1,972 trips upon completion, and these trips were included in the 2017 No-Build and 2017 Build scenarios for this traffic analysis. Improvements for this project will include the construction of one northbound lane exiting the Ponce Park Apartments development as well as the restriping of the westbound approach to include a left-turn lane entering the site along North Avenue. The Ponce Park Apartments site driveway was assumed to align with the main entrance to Ponce City Market along North Avenue (Street #3) for the 2017 Build scenario.

Based on the 2017 No-Build conditions (includes background traffic growth plus Ponce Park Apartments project traffic but excludes the Ponce City Market DRI project traffic) no recommended improvements were identified in order to maintain an acceptable Level-of-Service (LOS D) at all intersections within the study network.

Based on the 2017 Build conditions (includes background traffic growth, Ponce Park Apartments project traffic, and the Ponce City Market DRI project traffic), the following intersection improvements are recommended:

- SR 8/Ponce de Leon Avenue at Glen Iris Drive
  - o Restripe the northbound approach to have one left-turn lane and one shared left-turn/right-turn lane.

The following intersection geometries and improvements are recommended at the project site driveways (Note: The attached site plan includes these improvements):

- Site Driveway #1 at SR 8/Ponce de Leon Avenue
  - o Construct a northbound right-turn lane exiting the site onto SR 8/Ponce de Leon Avenue.
- Site Driveway #2 at Glen Iris Drive
  - o Construct a shared westbound left-turn/right-turn lane exiting the site onto Glen Iris Drive.
  - o Restripe the southbound approach to include a left-turn lane entering the site along Glen Iris Drive.
- Site Driveway #3 at North Avenue
  - o Construct a southbound right-turn lane exiting the site onto North Avenue.



- Site Driveway #4 at North Avenue/N Angier Avenue
  - o Construct a southbound right-turn lane and a southbound shared/through left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.
- Site Street #1 at SR 8/Ponce de Leon Avenue
  - o Construct a northbound right-turn lane exiting the site onto SR 8/Ponce de Leon Avenue.
- Site Street #2 at Glen Iris Drive
  - o Construct a westbound right-turn lane and a westbound left-turn lane exiting the site onto Glen Iris Drive.
  - o Restripe the southbound approach to include a left-turn lane entering the site along Glen Iris Drive.
- Site Street #3 at North Avenue/Ponce Park Apartments Driveway
  - o Install a traffic signal (when warranted).
  - Construct a southbound right-turn lane and a southbound shared through/left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.



#### 1.0 PROJECT DESCRIPTION

#### 1.1 Introduction

This report presents the analysis of the anticipated traffic impacts of the renovation and expansion of the Ponce City Market (formerly known as City Hall East) property located on SR 8/Ponce de Leon Avenue in Atlanta, Georgia, and is being prepared as part of a submittal requesting a Special Administrative Permit (SAP) with the City of Atlanta Planning Department. The approximate 20-acre redevelopment site is located in the BeltLine Overlay District and is bounded by SR 8/Ponce de Leon Avenue to the north, North Avenue to the south, Glen Iris Drive to the west, and the Atlanta BeltLine to the east. Because the mixed-use project will exceed 400,000 square feet, 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. (Note: This DRI was previously reviewed as DRI #910 (Ponce Park, LLC) in September 2005. This DRI re-review is necessary now due to the increase in density from the year 2005 DRI.)

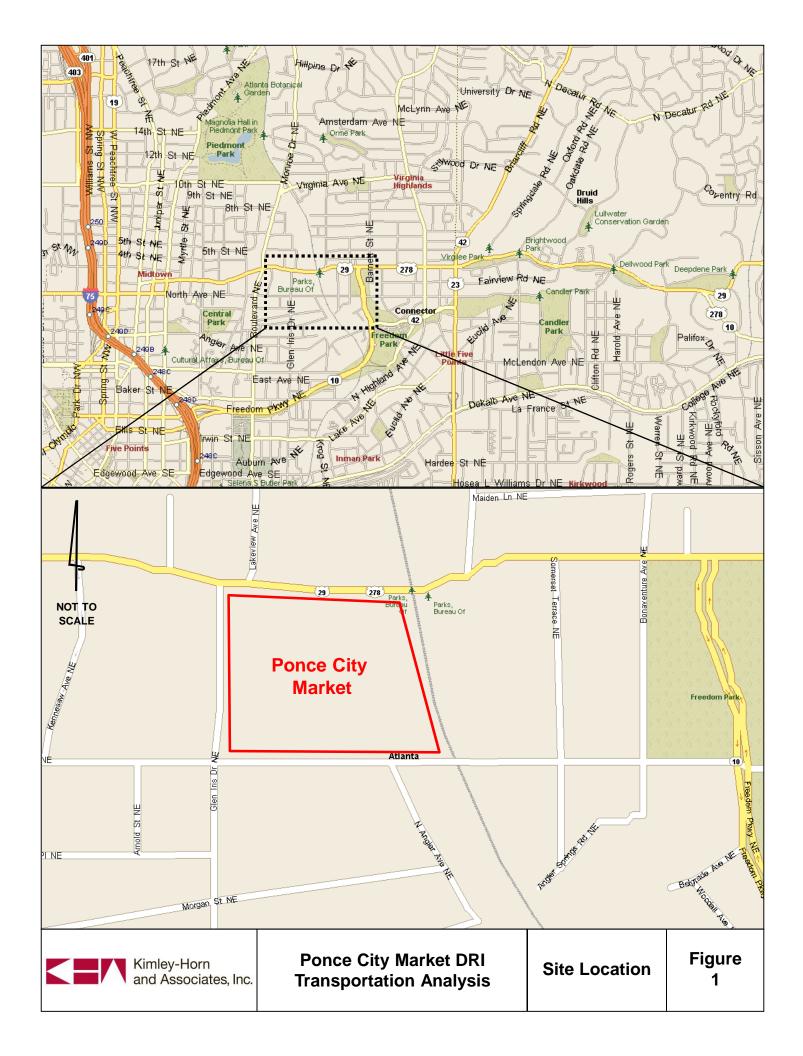
The *Old Fourth Ward Master Plan (September 2008)* Land Use Map identifies the area as a "Secondary Retail Site of Mixed-Use with 10+ Stories" intended to provide live/work options including residential, office, retail, restaurant, and recreational center land uses. The ARC Plan 2040 Unified Growth Policy Map identifies the proposed project site as being in a Redevelopment Corridor bordering a Station Community. As such, the proposed Ponce City Market redevelopment project fulfills the City of Atlanta's need for a mixed-use development in this area.

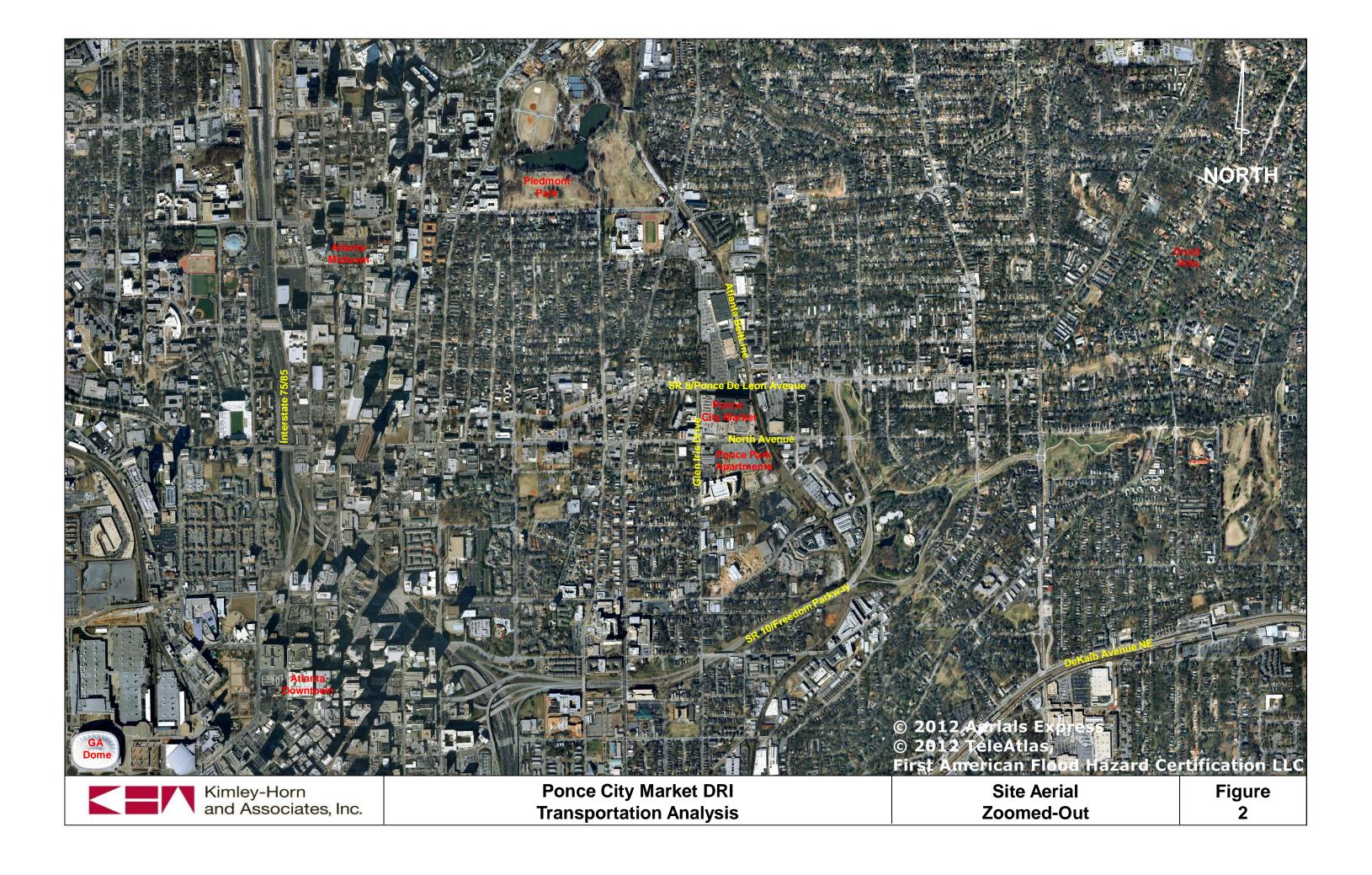
According to GRTA's Procedures and Principles for GRTA Development of Regional Impact Review, the proposed changes to the DRI comply with the Expedited Review Criteria in Section 3-102, Part F – Livable Centers Initiative (LCI), which states "the proposed DRI is located within an area approved for inclusion 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 is consistent with the Old Fourth Ward Master Plan (September 2008). Therefore, this study is being submitted under expedited review.

**Figure 1** is a location map of the Ponce City Market redevelopment project, and **Figure 2** and **Figure 3** provide aerial photographs of the site. The land use maps from both the *Old Fourth Ward Master Plan (September 2008)* and ARC's Plan 2040 reports are included in **Appendix A**.

The proposed redevelopment project is expected to be completed by 2017, and this analysis will consider the full build-out of the proposed site in 2017. A summary of the proposed land-uses and densities can be found below in **Table 1.** 

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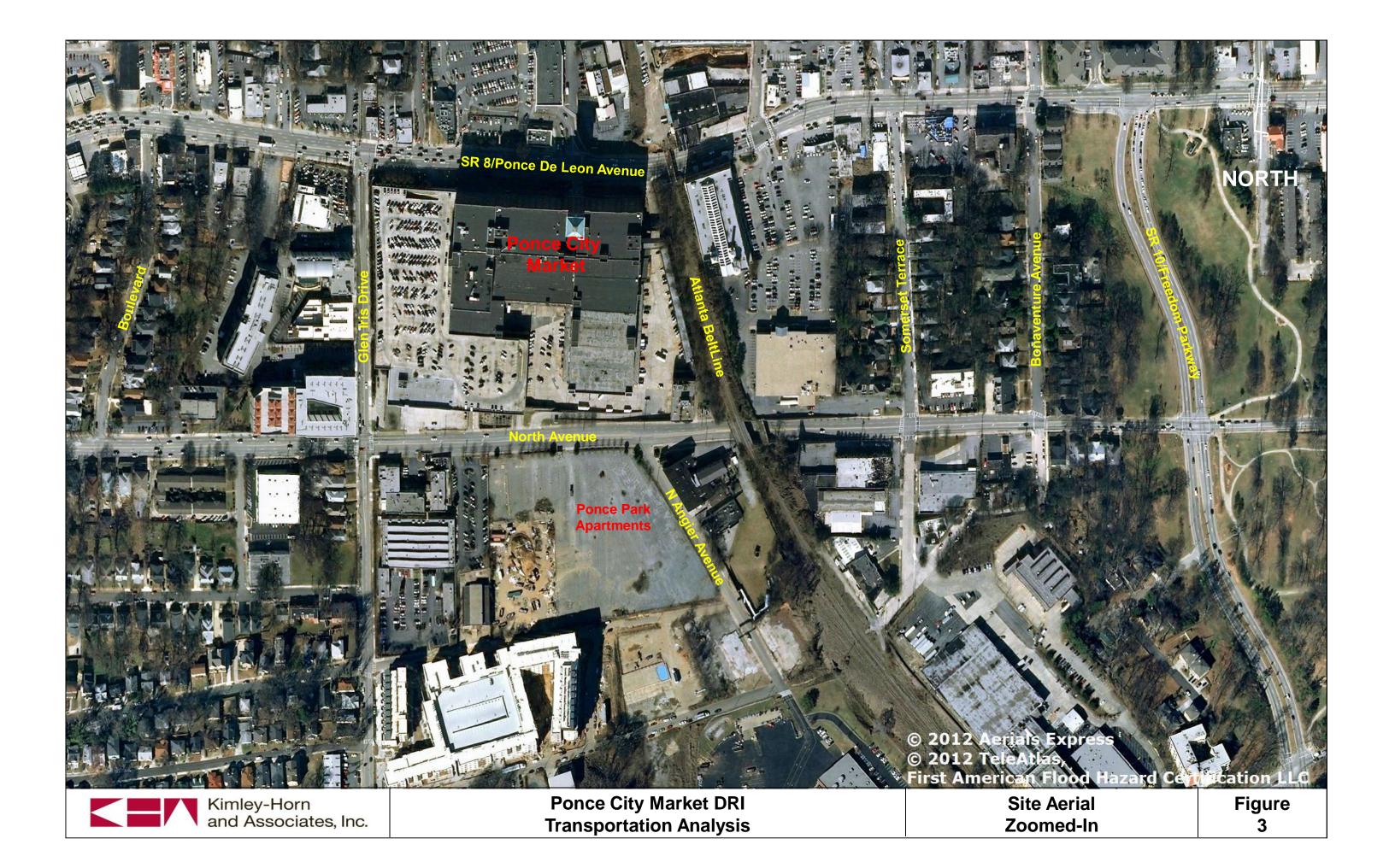




Table 1 Ponce City Market DRI Proposed Land Uses	
Residential Apartments	439 units
General Office Building	463,533 SF
Retail	231,043 SF
Quality Restaurant	49,466 SF
Recreational Community Center	74,520 SF
Day Care Center	19,965 SF
Event Space and Music Venues (assumed to operate similar to quality restaurant)	51,163 SF

#### 1.2 Site Plan Review

The project site is located in the BeltLine Overlay District and is bounded by SR 8/Ponce de Leon Avenue to the north, North Avenue to the south, Glen Iris Drive to the west, and the Atlanta BeltLine to the east. The existing site is currently occupied by the approximate 2,100,000-SF Ponce City Market (formerly known as City Hall East) building. The proposed project will include the renovation of the existing structures to include all of the office, retail, quality restaurant, recreational community center, day care center, event space and music venues, and residential units. The proposed project also includes the construction of a podium in the southeast quadrant that will provide structured parking and allow for the future construction of additional residential units.

**Figure 4** is a small-scale copy of the site plan. A full-size site plan consistent with GRTA's Site Plan Guidelines is also being submitted as part of the Review Package.

#### 1.3 Site Access

Vehicular access to the development is proposed at a total of seven locations with two locations along SR 8/Ponce de Leon Avenue (Driveway #1 and Street #1), two locations along Glen Iris Drive (Street #2 and Driveway #2), and three locations along North Avenue (Driveway #3, Street #3, and Driveway #4). The proposed Street #3 will align with the proposed site driveway accessing the Ponce Park Apartments south of North Avenue between Glen Iris Drive and N Angier Avenue. The proposed Driveway #4 will align with the existing N Angier Avenue northbound approach. Driveway #1, Street #1, and Driveway #3 are proposed as right-in/right-out accesses only, and Street #2, Driveway #2, Street #3, and Driveway #4 are proposed as full movement access points to Ponce City Market.

Driveways #2 and #3 provide access to nested parking facilities and cannot provide internal vehicular connections to the rest of the site. Street #3 and Driveway #4 will operate as the primary access points to the elevated parking and podium located within the building for office employees and residents. Access to the elevated parking will be controlled to prevent parking by retail (non-repeat) customers. Parking will also be provided below street level with access provided by Driveway #1 and two ramps located within the site.

The site driveways mentioned above provide access to all parking on the site. The site will provide over 2,000 parking spaces to be shared among users, especially by the office (day parking) and residential (night parking) users. The parking for the residential/office land uses will be provided primarily in the upper-levels of Ponce City Market, and the parking for all of the retail uses and visitors will be located both at the street-level and at a lower-level below the development.

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#### 1.4 Bicycle and Pedestrian Facilities

Sidewalks currently exist along both sides of Ponce de Leon Avenue, Glen Iris Drive, and North Avenue as well as pedestrian facilities at all signalized intersections surrounding Ponce City Market. There are, however, several proposed bicycle and pedestrian facility project improvements in the area (see also Section 7.0 for more detailed project information).

The programmed SR 8/Ponce de Leon Avenue Pedestrian Safety Improvement Project (GDOT #0010350) proposes several bicycle and pedestrian facility improvements to improve pedestrian safety and operations along SR 8/Ponce de Leon Avenue from Spring Street to Clifton Road. Additional projects call for bicycle and pedestrian facility improvements along North Avenue from US 41/Northside Drive to US 23/Moreland Avenue.

The programmed Atlanta BeltLine City Hall East Bike and Pedestrian Plaza project (GDOT #0010747 and ARC's Plan 2040 AT-267) will provide a plaza area consisting of a future pedestrian bridge connecting the Atlanta BeltLine to Ponce City Market, a trail connection from the Plaza to the BeltLine path, and a sidewalk paralleling the former Rail Depot building to promote further developments in this area. A pedestrian-only structured connection will be constructed as part of the proposed Ponce City Market development to provide direct connectivity to the BeltLine from the project.

The long range project known as the BeltLine Transportation Corridor (GDOT #0009394 and ARC's Plan 2040 AR-451A) aims to utilize the 22-mile loop of historic railroad that encompasses downtown and midtown Atlanta by connecting 45 in-town neighborhoods with parks and trails for bicyclists and pedestrians.

A map highlighting the bicycle and pedestrian improvement projects as provided in the *Old Fourth Ward Master Plan (September 2008)* is included in **Appendix C**.

#### 1.5 Transit Facilities

There currently two MARTA bus routes that provide transit to Ponce City Market. Bus Route #2 – Ponce de Leon Avenue/Moreland Avenue provides direct access to the site's main entrance along SR 8/Ponce de Leon Avenue, and Bus Route #99 – Boulevard/Monroe Drive provides a stop at the intersection of Boulevard and North Avenue just 0.25 miles west of the site. A map of both routes has been provided in **Appendix B**. In addition, there are several proposed transit facility project improvements in the area (see also Section 7.0 for more detailed project information).

The long range project known as the Atlanta BeltLine Streetcar (ARC's Plan 2040 AR-443) will provide a modern streetcar line through the City of Atlanta to the BeltLine corridor. The system will operate in semi-exclusive or shared traffic lanes on North Avenue, SR 8/Ponce de Leon Avenue, or 10<sup>th</sup> Street from Ponce City Market to MARTA's Arts Center, Midtown, or North Avenue station.

The long range project known as the BeltLine Transportation Corridor (GDOT #0009394 and ARC's Plan 2040 AR-451A) also aims to improve rail transit access throughout the northeast quadrant. The project proposes a light rail transit service along a 5.3 mile corridor along the Atlanta BeltLine from the MARTA Lindbergh Center station in the north to the MARTA Inman Park/Reynoldstown station in the south. The proposed project will also provide connections to the proposed Atlanta Streetcar system.

A map highlighting the transit improvement projects as provided in the *Old Fourth Ward Master Plan (September 2008)* is included in **Appendix C**.

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#### 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. Historical traffic count data from GDOT's State Traffic and Report Statistics (STARS) database and population data from the 2010 U.S. Census as well as population forecasts from ARC and DCA were reviewed for the area surrounding the proposed development. As a result of this analysis, a growth rate of 1.0% per year for five (5) years (2017 build-out) along all roadways was assumed.

In addition, the traffic from the proposed Ponce Park Apartments located just south of North Avenue between Glen Iris Drive and N Angier Avenue was also added to the roadway network for the 2017 No-Build and 2017 Build scenarios. The 305-unit development is expected to be fully completed by the 2017 build-out year of Ponce City Market and is expected to generate 1,972 trips. (Note: At the time of this Transportation Analysis, the Ponce Park Apartments development is at its initial construction phase with no building currently finished and occupied.) The growth rate analysis and Ponce Park Apartments trip generation analyses are included in **Appendix E**.

#### 2.2 Traffic Data Collection

Weekday peak hour turning movement counts were collected on December 4<sup>th</sup> and 11<sup>th</sup>, 2012, at five (5) intersections during the AM and PM peak periods. The morning and afternoon peak hours varied little between the intersections and are shown in **Table 2**.

Table 2 Ponce City Market DRI Peak Hour Summary					
<u>Intersection</u>	<u>AM Peak</u> <u>Hour</u>	<u>PM Peak</u> <u>Hour</u>			
1. SR 8/Ponce de Leon Avenue @ Ponce de Leon Place	8:00-9:00	5:00-6:00			
2. SR 8/Ponce de Leon Avenue @ Midtown Place Driveway	8:00-9:00	5:00-6:00			
3. SR 8/Ponce de Leon Avenue @ Glen Iris Drive	8:00-9:00	5:00-6:00			
4. Glen Iris Drive @ North Avenue	8:00-9:00	5:00-6:00			
5. North Avenue @ Somerset Terrace	7:45-8:45	5:00-6:00			

All raw traffic count data is included in the **Appendix D**.

#### 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*.

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.

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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.

#### 3.0 STUDY NETWORK

#### 3.1 Gross Trip Generation

Traffic for the proposed land uses and densities were calculated using equations contained in the *Institute of Transportation Engineers' (ITE) Trip Generation Manual, Ninth Edition, 2012.* Average rates were used only when equations were not provided. Gross trips generated are displayed below in **Table 3**.

Table 3 Ponce City Market DRI Gross Trip Generation							
Land Use	ITE	Daily	Traffic	AM Pea	k Hour	PM Peak Hour	
(Intensity)	Code	Enter	Exit	Enter	Exit	Enter	Exit
Residential Apartments (439 Dwelling Units)	220	1,392	1,392	44	175	168	91
Recreational Community Center (74,520 Square Feet)	495	1,260	1,260	101	52	100	104
Day Care Center (19,965 Square Feet)	565	740	740	129	114	116	130
General Office Building (463,533 Square Feet)	710	2,105	2,105	575	78	102	496
Retail/Shopping Center (231,043 Square Feet)	820	5,852	5,852	161	99	504	546
Quality Restaurant* (100,629 Square Feet)	931	4,526	4,526	50	32	505	249
Total Gross Trips		15,875	15,875	1,060	550	1,495	1,616

Note \*: The event space and music venue land uses were included with the quality restaurant land use as they were conservatively assumed to operate in a similar manner.

#### 3.2 Trip Distribution

The directional distribution and assignment of new project trips were based on the project land use, a review of the land use densities and road facilities surrounding the site, and engineering judgment.

#### 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.

#### 3.4 Study Network Determination

Per Expedited Review criteria, the evaluation shall include site driveways plus the adjacent intersections. This was confirmed with GRTA staff prior to starting this study. The study network includes all project access driveways as well as the six (6) intersections listed in **Table 4**.

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Table 4 Ponce City Market DRI Intersection Control Summary	
<u>Intersection</u>	<u>Control</u>
1. SR 8/Ponce de Leon Avenue @ Ponce de Leon Place	Signalized
2. SR 8/Ponce de Leon Avenue @ Midtown Place Driveway	Signalized
3. SR 8/Ponce de Leon Avenue @ Glen Iris Drive	Signalized
4. Glen Iris Drive @ North Avenue	Signalized
5. North Avenue @ N Angier Avenue	TWSC*
6. North Avenue @ Somerset Terrace	TWSC*

Note \*: TWSC = Two-Way Stop Control (major street is free-flow and minor street stops).

Each of the above listed intersections was analyzed for the Existing 2012 conditions, the 2017 No-Build conditions, and the 2017 Build conditions. The 2017 No-Build conditions represent the existing traffic volumes grown for five (5) years at 1.0% per year throughout the study network plus the project trips generated by the proposed Ponce Park Apartments. The 2017 Build conditions adds the project trips associated with the Ponce City Market development to the 2017 No-Build conditions.

#### 3.5 Existing Facilities

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

Table 5 Ponce City Market DRI Roadway Classification					
Roadway	Number of Lanes	Posted Speed Limit (MPH)	GDOT Functional Classification		
SR 8/US 78/US 278/ Ponce de Leon Avenue NE	5 to 6*	35	Urban Principal Arterial		
North Avenue NE	4 to 5*	35 (west of Somerset Terrace) 25 (east of Somerset Terrace)	Urban Minor Arterial		
Glen Iris Drive NE	3	30	Urban Minor Arterial		
Ponce de Leon Place	2	30	Urban Local		
Somerset Terrace NE	2	20	Urban Local		
N Angier Avenue NE	2	30	Urban Local		

Note \*: The existing lane configurations are variable along these corridors in the vicinity near the site. Both corridors will ultimately consist of two travel lanes in the eastbound and westbound directions with a center two-way left-turn lane along SR 8/Ponce de Leon Avenue and left-turn lanes at signalized intersections along North Avenue upon the proposed 2017 build-out of Ponce City Market.

#### 3.6 Proposed Transportation Improvements

Section 7.0 lists the proposed roadway project improvements in the area. The SR 8/Ponce de Leon Avenue Pedestrian Safety Improvement Project (GDOT #0010350) was assumed to be completed by Ponce City Market's build-out year of 2017, and thus, the programmed improvements were implemented into the 2017 No-Build and 2017 Build scenarios for this traffic analysis. The project proposes to reduce the number of eastbound travel lanes

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along SR 8/Ponce de Leon Avenue from three lanes to two lanes with the addition of a continuous two-way center left-turn lane along a 2.0-mile corridor of SR 8/Ponce de Leon Avenue from CS 1860/Piedmont Avenue to SR 42/Moreland Avenue. In addition to this project, similar road improvements will be made along North Avenue that will also be implemented into the 2017 No-Build and 2017 Build scenarios for this traffic analysis. These roadway improvements will consist of two travel lanes in both the eastbound and westbound directions with left-turn lanes at the signalized intersections along North Avenue.

In addition, the proposed Ponce Park Apartments located just south of North Avenue between Glen Iris Drive and N Angier Avenue are expected to be fully completed by the 2017 build-out year of Ponce City Market. Improvements for this project will include the construction of one northbound lane exiting the Ponce Park Apartments development as well as the restriping of the westbound approach to include a left-turn lane entering the site along North Avenue. The Ponce Park Apartments site driveway was assumed to align with the main entrance to Ponce City Market along North Avenue (Street #3) for the 2017 No-Build and 2017 Build scenarios.

#### 4.0 Trip Generation

As stated previously, trips associated with the proposed development were estimated using the *Institute of Transportation Engineers'* (*ITE*) *Trip Generation Manual, Ninth Edition, 2012.* Trip generation for this proposed development is calculated based upon the following land uses: apartment dwelling units (ITE Code 220), recreational community center square footage (ITE Code 495), day care center square footage (ITE Code 565), general office building square footage (ITE Code 710), shopping center square footage (ITE Code 820), and quality restaurant square footage (ITE Code 931). It should be noted that the event space and music venue land uses were included with the quality restaurant land use as they were conservatively assumed to operate in a similar manner. These event uses are expected to primarily operate at night or on weekends, thus avoiding peak hour impacts.

Mixed-use vehicle trip reductions were taken according to the *ITE Trip Generation Handbook*, an *ITE Proposed Recommended Practice*, *Second Edition*, *June 2004*. Total internal capture and vehicle trip reduction between the proposed land uses is expected to be 17.87% for the weekday and 17.16% for the PM peak hour as a result of the anticipated interaction between all varying land uses within the proposed development. More detailed information for the internal capture analyses is provided in **Appendix E**.

Due to the accessibility of the MARTA bus system and the Atlanta BeltLine, an alternative transportation mode (walking, bicycle, and public transit) reduction was taken for the projected Ponce City Market project trips. This is consistent with the Expedited Review criteria found in *Procedures and Principles for GRTA Development of Regional Impact Review* in **Section 3-102, Part E** – **Alternative Modes of Transportation**, which states "as a result of the location, character or design of the proposed DRI, the DRI is reasonably anticipated to be served by modes of transportation other than single occupant vehicles, and: (1) at least twenty-five (25%) of the trips generated by the proposed DRI are likely to be by way of modes of transportation other than the single occupant vehicle." According to sample data provided by the 2007-2011 American Community Survey 5-Year Estimates (see **Appendix E**), the four census tracts surrounding the proposed development (#13121001300, #13121001400, #13121001600, and #13121001700) have approximately 27% of people that work outside of the home travelling in modes other than single occupant vehicles. This includes carpooling, public transit, motorcycle, bicycle, and walking. Therefore, an alternative transportation mode reduction of 20.0% was conservatively applied to all land uses for this study.

Pass-by reductions were calculated for the proposed shopping center and quality restaurant according to the equations for Land Use 820 and Land Use 931, respectively, in the *ITE Trip Generation Handbook, Second Edition, June 2004*. For the proposed retail developments, a 30.6% pass-by reduction was applied for the Daily, AM peak hour, and PM peak hour pass-by reductions. For the proposed quality restaurant developments, a 44.0% pass-by reduction was applied for the Daily, AM peak hour, and PM peak hour pass-by reductions. Pass-by

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reductions were determined in accordance with to GRTA's 15% Rule. It should be noted that pass-by trips are not new trips to the roadway as they are vehicles already travelling along the existing roadway network that will stop and use the retail developments.

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

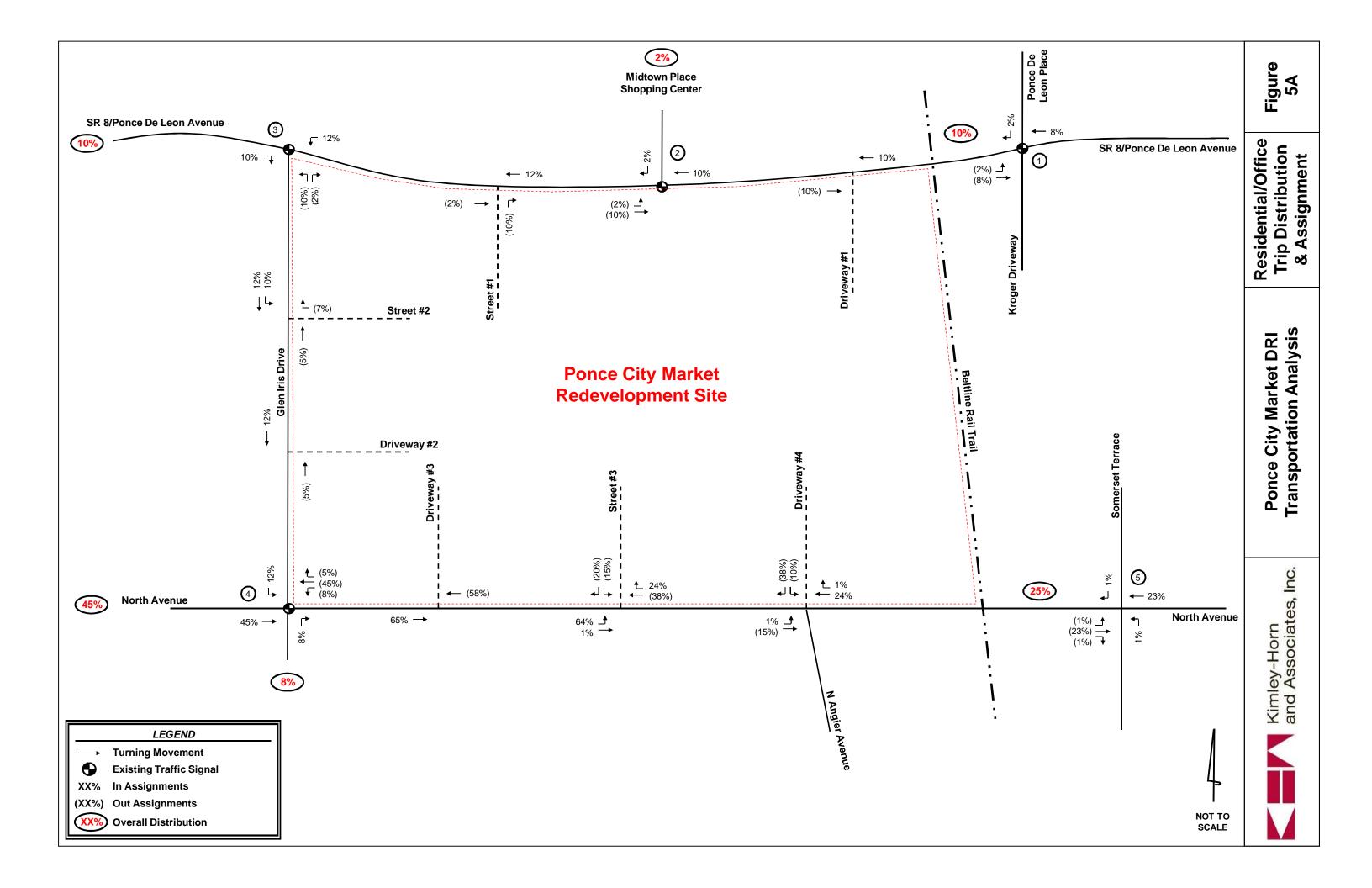
Table 6 Ponce City Market DRI Net Trip Generation						
	Daily	Traffic	AM Pea	ak Hour	PM Pea	ak Hour
Enter Exit Enter			Enter	Exit	Enter	Exit
Gross Project Trips	15,875	15,875	1,060	550	1,495	1,616
Mixed-Use Reduction	-2,837	-2,837	0	0	-267	-267
Alternative Mode Reduction	-2,607	-2,607	-186	-87	-223	-244
Pass-By Reduction	-2,615	-2,615	-57	-35	-274	-193
Net New Trips	7,816	7,816	817	428	731	912

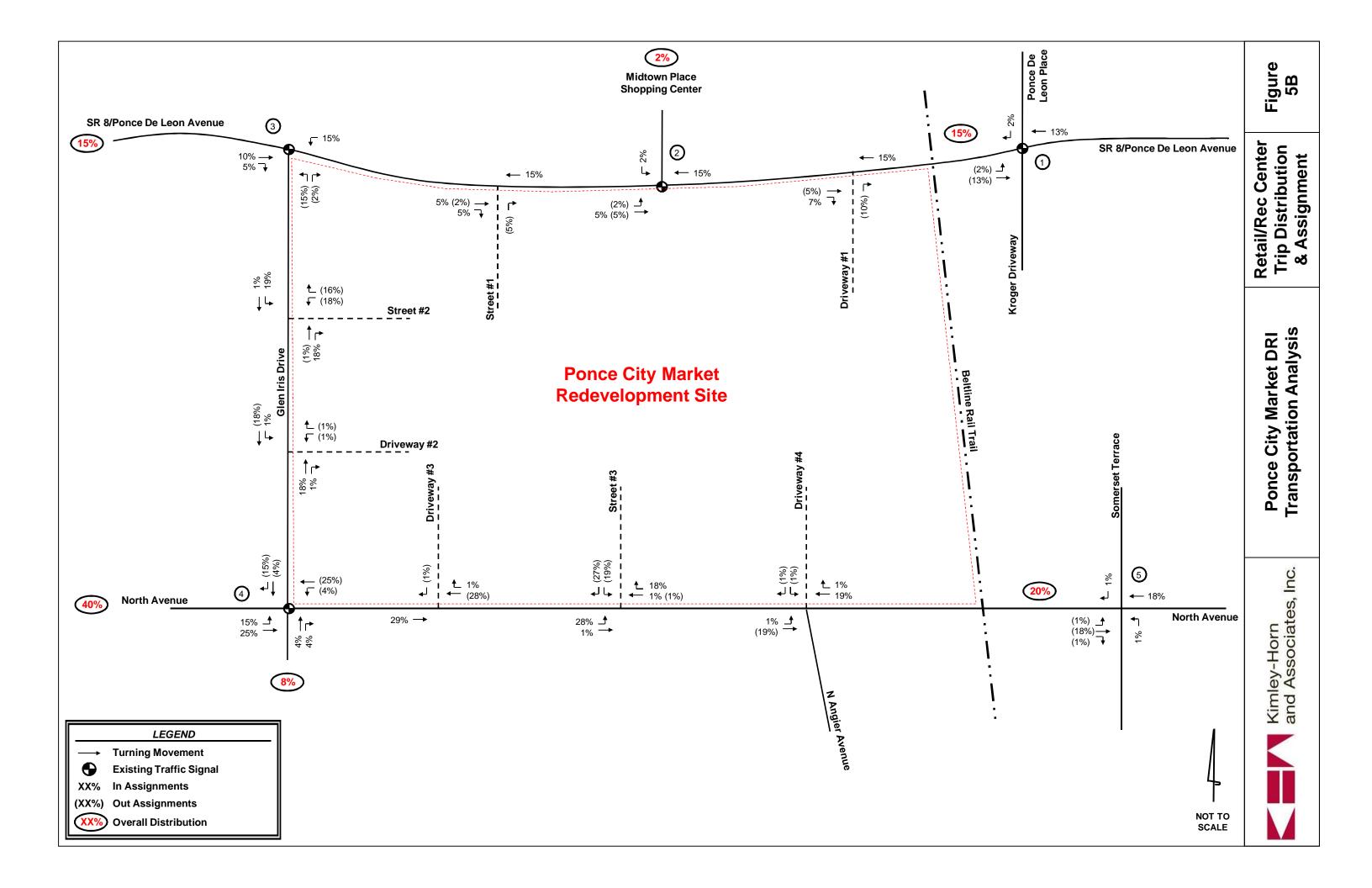
A more detailed trip generation analysis summary table is provided in **Appendix E**.

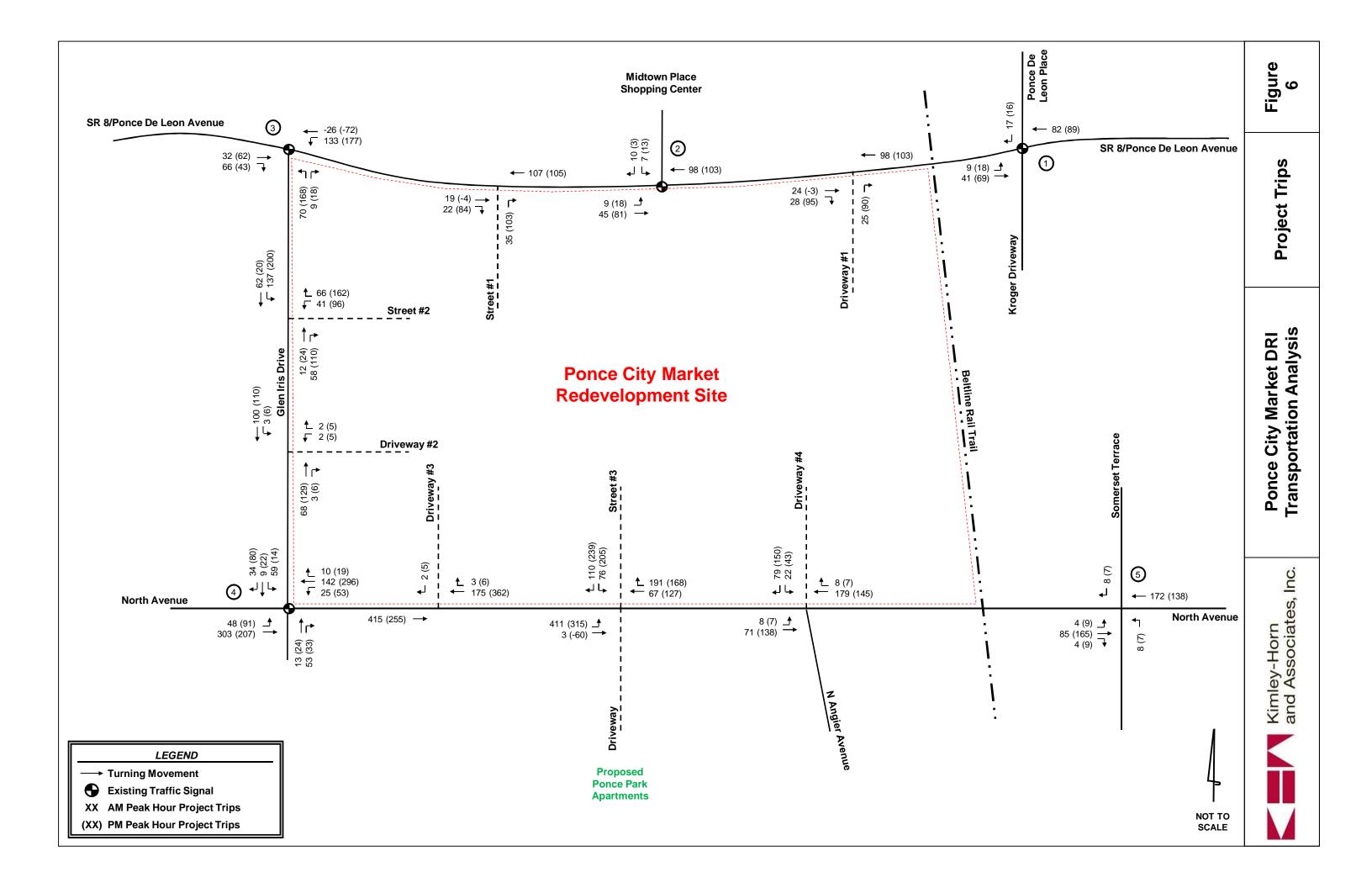
#### 5.0 Trip Distribution and Assignment

New trips were distributed onto the roadway network based on the project land use, a review of the land use densities and road facilities surrounding the site, and engineering judgment. **Figure 5A** displays the expected trip percentages for the residential/office project trips of the development throughout the roadway network, and **Figure 5B** displays the expected trip percentages for the public use project trips of the development throughout the roadway network. These percentages were applied to the new trips generated by the development, and the volumes were assigned to the roadway network. The expected peak hour turning movements generated by the proposed Ponce City Market development are shown in **Figure 6**.

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#### 6.0 TRAFFIC ANALYSIS

#### 6.1 Existing Traffic

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. The existing peak hour traffic volumes are displayed in **Figure 7**, and the results of the capacity analyses for the 2012 Existing conditions are shown in **Table 7**.

	Table 7 Ponce City Market DRI 2012 Existing Intersection Levels-of-Service (delay in seconds)					
	Intersection Control LOS Std. AM Peak Hour PM Peak					
1	SR 8/Ponce de Leon Avenue @ Ponce de Leon Place	Signal	D	C (22.9)	C (22.9)	
2	SR 8/Ponce de Leon Avenue @ Midtown Place	Signal	D	B (15.6)	C (27.7)	
3	SR 8/Ponce de Leon Avenue @ Glen Iris Drive	Signal	D	C (21.4)	C (25.2)	
4	North Avenue @ Glen Iris Drive	Signal	D	C (30.5)	D (35.7)	
5	North Avenue @ N Angier Avenue	NB Stop WB Left		B (11.1) A (0.6)	B (12.3) A (1.0)	
6	North Avenue @ Somerset Terrace	NB Stop SB Stop EB Left WB Left		C (18.7) B (14.3) A (2.1) A (0.1)	E (43.1)* B (14.9) A (2.7) A (0.6)	

Note \*: At an unsignalized intersection, it is not uncommon for side-street traffic to experience long delays at an intersection with a major street.

As shown in **Table 7**, all intersections within the study network currently operate at or above the acceptable Level-of-Service standard during both the AM and PM peak hours. Therefore, no recommended improvements were required for the 2012 Existing conditions.

#### 6.2 2017 No-Build Traffic

To account for growth in the vicinity of the proposed development, the existing traffic volumes were increased for five (5) years at 1.0% per year throughout the study network. Additionally, the traffic associated with the Ponce Park Apartments development and the programmed roadway apartments previously mentioned in Section 3.6 were added to the roadway network. These volumes and roadway configurations were entered into *Synchro 8.0*, and capacity analyses were performed. The intersection laneage and traffic volumes for the 2017 No-Build conditions are shown in **Figure 8**, and the results of the capacity analyses are shown in **Table 8**.

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	Table 8 Ponce City Market DRI 2017 No-Build Intersection Levels-of-Service (delay in seconds)					
Intersection Control 5				AM Peak Hour	PM Peak Hour	
1	SR 8/Ponce de Leon Avenue @ Ponce de Leon Place	Signal	D	C (25.3)	C (22.4)	
2	SR 8/Ponce de Leon Avenue @ Midtown Place	Signal	D	B (12.1)	C (20.0)	
3	SR 8/Ponce de Leon Avenue @ Glen Iris Drive	Signal	D	B (11.9)	C (27.9)	
4	North Avenue @ Glen Iris Drive	Signal	D	C (31.2)	C (34.3)	
5	North Avenue @ N Angier Avenue	NB Stop WB Left		B (13.2) A (8.0)	B (13.9) A (8.9)	
6	North Avenue @ Somerset Terrace	NB Stop SB Stop EB Left WB Left		C (19.6) B (14.7) A (1.9) A (0.1)	F (57.6)* C (17.0) A (2.9) A (0.6)	
7	North Avenue @ Ponce Park Apartments	NB Stop WB Left		C (15.5) A (7.8)	C (17.1) A (9.0)	

Note \*: At an unsignalized intersection, it is not uncommon for side-street traffic to experience long delays at an intersection with a major street.

As shown in **Table 8**, all intersections within the study network currently operate at or above the acceptable Level-of-Service standard during both the AM and PM peak hours. Therefore, no recommended improvements were required for the 2017 No-Build conditions.

#### 6.3 2017 Build Traffic

The traffic associated with the proposed Ponce City Market development was added to the 2017 No-Build volumes, and these volumes were then entered into the 2017 No-Build roadway network and analyzed with *Synchro 8.0*. The intersection laneage and traffic volumes for the 2017 Build conditions are shown in **Figure 9**, and the results of the capacity analyses are shown in **Table 9**.

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	Table 9 Ponce City Market DRI 2017 Build Intersection Levels-of-Service (delay in seconds)					
	Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour	
1	SR 8/Ponce de Leon Avenue @ Ponce de Leon Place	Signal	D	C (26.2)	C (25.2)	
2	SR 8/Ponce de Leon Avenue @ Midtown Place	Signal	D	B (12.1)	B (19.5)	
3	SR 8/Ponce de Leon Avenue @ Glen Iris Drive	Signal	D	B (16.7)*	D (51.0)*	
4	North Avenue @ Glen Iris Drive	Signal	D	C (34.1)	D (38.1)	
5	North Avenue @ N Angier Avenue/Site Driveway #4	NB Stop SB Stop EB Left WB Left		C (20.9) C (20.2) B (10.5) A (8.2)	E (38.5)** C (16.2) A (9.0) A (9.8)	
6	North Avenue @ Somerset Terrace	NB Stop SB Stop EB Left WB Left		D (29.3) C (18.2) A (2.0) A (0.1)	F (117.4)** C (20.6) A (3.2) A (0.4)	
7	North Avenue @ Ponce Park Apartments/Site Street #3	Signal	D	C (33.3)	C (32.2)	

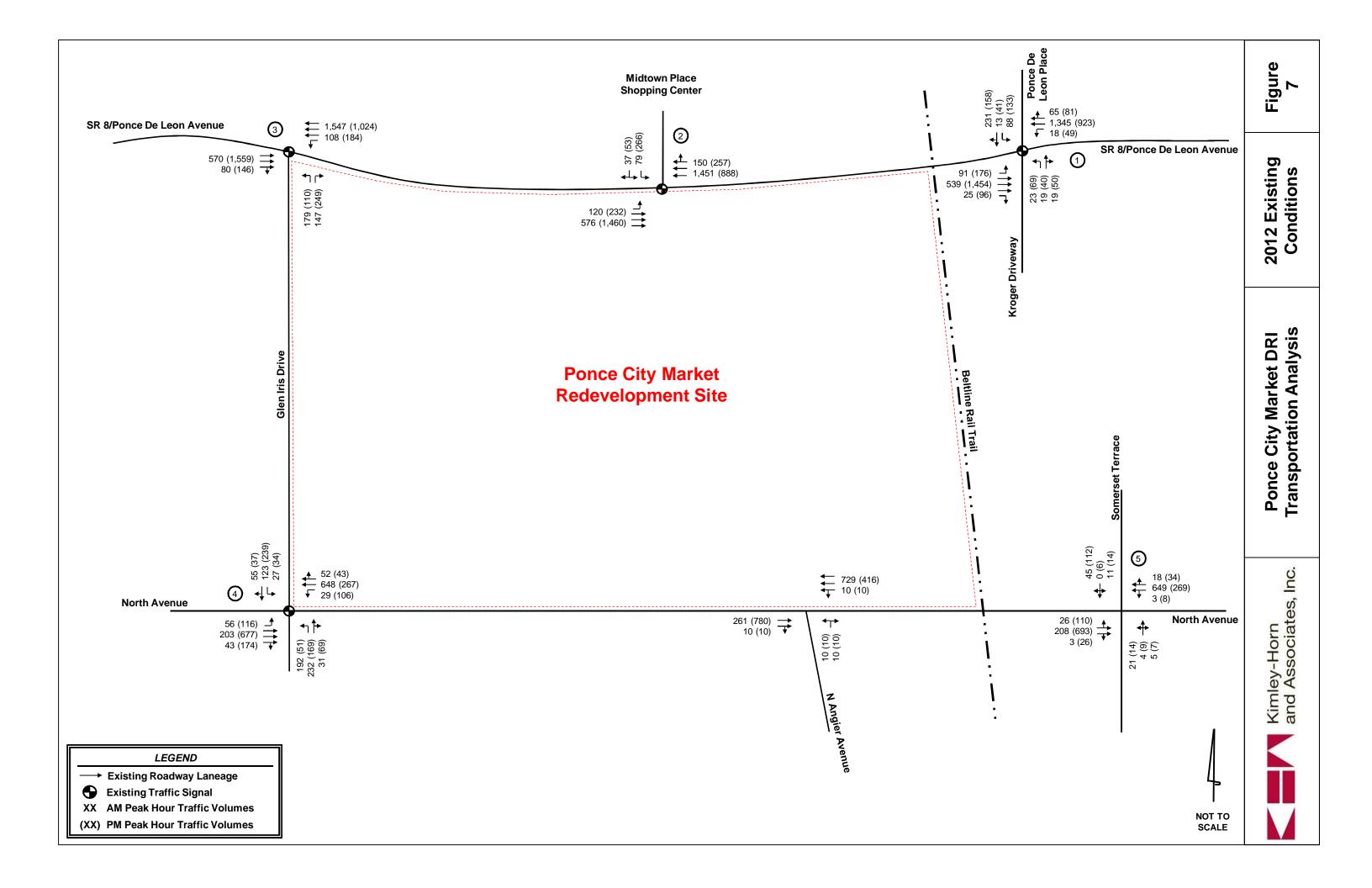
Note \*: The reported Level-of-Service includes the recommended improvements at the study intersection (northbound approach with one left-turn lane and one shared left-turn/right-turn lane). The LOS assuming no improvements are made to the intersection are B (17.4) and E (60.8) for the AM and PM peak hours, respectively.

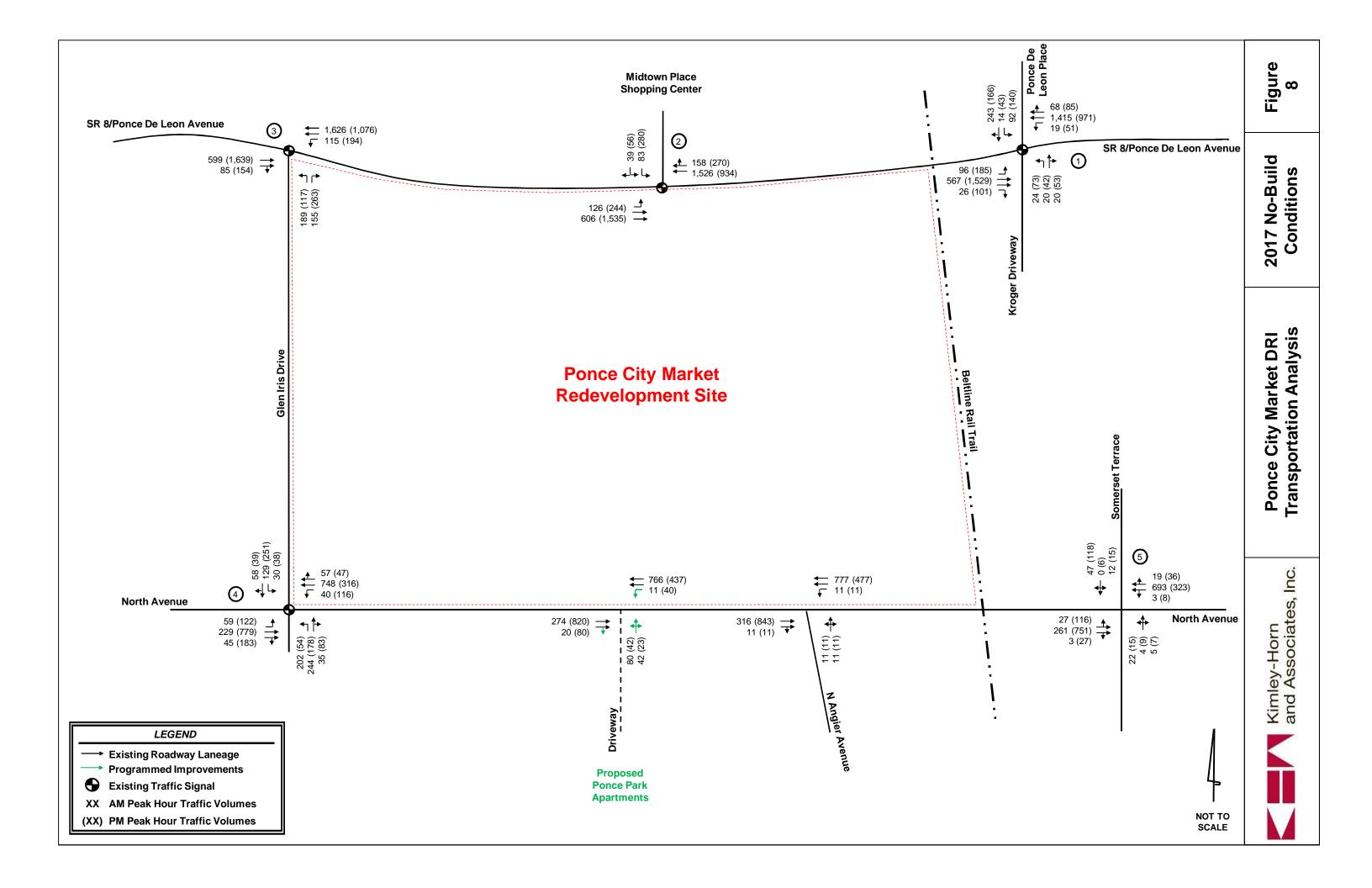
Note \*\*: At an unsignalized intersection, it is not uncommon for side-street traffic to experience long delays at an intersection with a major street.

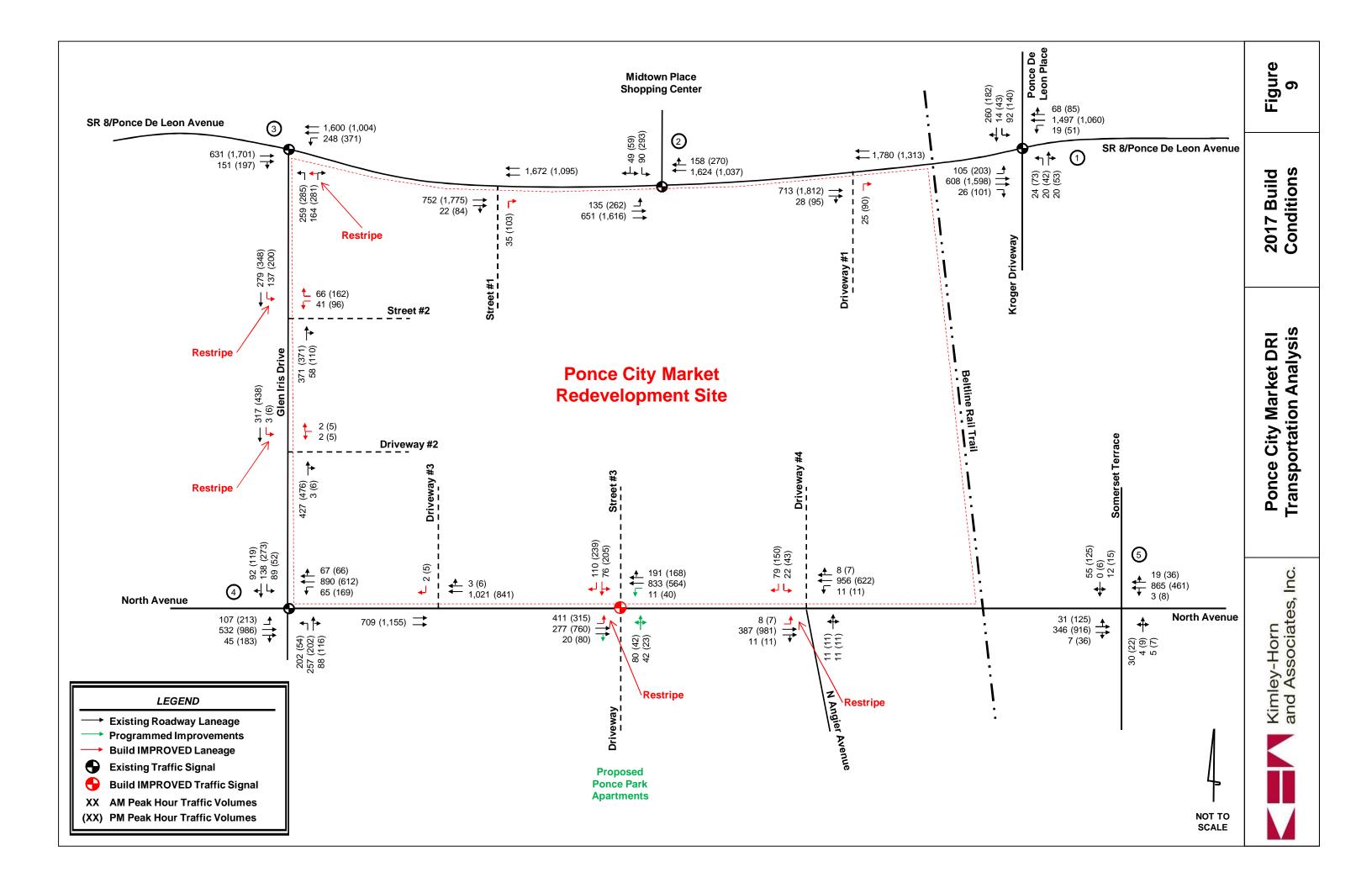
As shown in **Table 9**, all intersections within the study network currently operate at or above the acceptable Level-of-Service standard during both the AM and PM peak hours once all recommended improvements are installed. Based on the Build 2017 conditions, the following improvements are recommended:

- SR 8/Ponce de Leon Avenue at Glen Iris Drive
  - o Restripe the northbound approach to have one left-turn lane and one shared left-turn/right-turn lane
- North Avenue @ N Angier Avenue/Site Driveway #4
  - o Construct a southbound right-turn lane and a southbound shared through/left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.
- North Avenue @ Ponce Park Apartments/Site Street #3
  - o Install a traffic signal (when warranted).
  - o Construct a southbound right-turn lane and a southbound shared through/left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.

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#### 7.0 IDENTIFICATION OF PROGRAMMED PROJECTS

The ARC's Transportation Improvement Plan (TIP), GDOT's Statewide TIP (STIP), Plan 2040 Regional Transportation Plan (RTP), GDOT's Construction Work Program, Fulton County Comprehensive Transportation Plan, and City of Atlanta's Ponce De Leon/Moreland Avenue Corridors Study (August 2005) were researched for currently programmed transportation projects within the vicinity of the proposed development. Several projects are programmed for the area surrounding the study network. The identified projects are listed in **Table 10**, and detailed project fact sheets have been included in **Appendix C**.

	Table 10 Ponce City Market DRI Programmed Improvements				
<u>No.</u>	<u>Year</u>	Project Number	Project Description		
1	2016	GDOT #0010350	SR 8/Ponce De Leon Avenue Pedestrian Safety Improvement Project –The proposed project is along SR 8 from CS 1860/Piedmont Avenue to SR 42/Moreland Avenue that will include a "road diet" and other countermeasures to be implemented at numerous intersections along this 2.0-mile corridor in order to improve pedestrian safety and operations.		
2	2016	GDOT #0010747 AT-267	Atlanta BeltLine City Hall East Bike and Pedestrian Plaza – This project will construct a plaza area consisting of a future pedestrian bridge connecting the Atlanta BeltLine to Ponce City Market, a trail connection from the Plaza to the BeltLine path, and a sidewalk paralleling the former Rail Depot building to promote further developments in this area.		
3	2030	AR-443	Atlanta BeltLine Streetcar Transit – This project includes a modern streetcar line through the City of Atlanta to the BeltLine corridor. The system will operate in semi-exclusive or shared traffic lanes on North Avenue, Ponce de Leon Avenue, or 10 <sup>th</sup> Street from Ponce City Market to MARTA's Arts Center, Midtown, or North Avenue station.		
4	2040	GDOT #0009394 AR-451A	BeltLine Transportation Corridor – Transit Service in the Northeast Quadrant – This project will utilize the 22-mile loop of historic railroad that encompasses downtown and midtown Atlanta by connecting 45 in-town neighborhoods with parks, transit, and trails for commuters, bicyclists, and pedestrians. The project also proposes to tie-in with the proposed Atlanta Streetcar system and the existing MARTA bus system.		

#### 8.0 INGRESS/EGRESS ANALYSIS

Vehicular access to the Ponce City Market development is proposed at a total of seven locations with two locations along SR 8/Ponce de Leon Avenue (Driveway #1 and Street #1), two locations along Glen Iris Drive (Street #2 and Driveway #2), and three locations along North Avenue (Driveway #3, Street #3, and Driveway #4). The proposed Street #3 will align with the proposed site driveway accessing the Ponce Park Apartments, and the proposed Driveway #4 will align with the existing N Angier Avenue. Driveway #1, Street #1, and Driveway #3 are proposed as right-in/right-out accesses only, and Street #2, Driveway #2, Street #3, and Driveway #4 are proposed as full movement access points to Ponce City Market.

Capacity analyses were performed for the site driveways for the year 2017 Build conditions. The intersection laneage and traffic volumes for the 2017 Build conditions are shown in **Figure 9**, and the following improvements are the recommended driveway configurations (Note: The attached site plan includes these improvements):

- Site Driveway #1 at SR 8/Ponce de Leon Avenue
  - o Construct a northbound right-turn lane exiting the site onto SR 8/Ponce de Leon Avenue.



- Site Driveway #2 at Glen Iris Drive
  - o Construct a shared westbound left-turn/right-turn lane exiting the site onto Glen Iris Drive.
  - o Restripe the southbound approach to include a left-turn lane entering the site along Glen Iris Drive.
- Site Driveway #3 at North Avenue
  - o Construct a southbound right-turn lane exiting the site onto North Avenue.
- Site Driveway #4 at North Avenue/N Angier Avenue
  - o Construct a southbound right-turn lane and a southbound shared through/left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.
- Site Street #1 at SR 8/Ponce de Leon Avenue
  - o Construct a northbound right-turn lane exiting the site onto SR 8/Ponce de Leon Avenue.
- Site Street #2 at Glen Iris Drive
  - o Construct a westbound right-turn lane and a westbound left-turn lane exiting the site onto Glen Iris Drive.
  - o Restripe the southbound approach to include a left-turn lane entering the site along Glen Iris Drive.
- Site Street #3 at North Avenue/Ponce Park Apartments Driveway
  - o Install a traffic signal (when warranted).
  - o Construct a southbound right-turn lane and a southbound shared through/left-turn lane exiting the site onto North Avenue.
  - o Restripe the eastbound approach to include a left-turn lane entering the site along North Avenue.

The Levels-of-Service for the site driveways with the intersection geometries stated above are shown in **Table 11**.

Table 11 Ponce City Market DRI 2017 Build Intersection Levels-of-Service for Site Driveways (delay in seconds)					
	Intersection	Control	LOS Std.	AM Peak Hour	PM Peak Hour
1	Site Driveway #1 @ SR 8/Ponce de Leon Avenue	NB Stop		B (10.4)	B (12.6)
2	Site Driveway #2 @ Glen Iris Drive	WB Stop SB Left		B (13.0) A (8.3)	C (15.5) A (8.5)
3	Site Driveway #3 @ North Avenue	SB Stop		A (9.6)	A (9.2)
4	Site Driveway #4 @ North Avenue/N Angier Avenue	NB Stop SB Stop EB Left WB Left		C (20.9) C (20.2) B (10.5) A (8.2)	E (38.5)* C (16.2) A (9.0) A (9.8)
5	Site Street #1 @ SR 8/Ponce de Leon Avenue	NB Stop		A (9.1)	B (14.5)
6	Site Street #2 @ Glen Iris Drive	WB Stop SB Left		C (17.0) A (8.8)	E (44.1)* A (9.4)
7	Site Street #3 @ North Avenue/Ponce Park Apartments	Signal	D	C (33.3)	C (32.2)

Note \*: At an unsignalized intersection, it is not uncommon for side-street traffic to experience long delays at an intersection with a major street.

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As shown in **Table 11**, all intersections within the study network currently operate at or above the acceptable Level-of-Service standard (LOS D) during both the AM and PM peak hours once all recommended improvements are installed at each site access location.

#### 9.0 INTERNAL CIRCULATION ANALYSIS

Due to the complex nature of this project, internal circulation throughout the site can differ for varying land uses. Driveways #2 and #3 provide access to nested parking facilities and cannot provide internal vehicular connections to the rest of the site. Street #3 and Driveway #4 will operate as the primary access points to the elevated parking and podium located within the building for office employees and residents. Access to the elevated parking will be controlled to prevent parking by retail (non-repeat) customers. Parking will also be provided below street level with access provided by Driveway #1 and two ramps located within the site. Extensive wayfinding and pedestrian improvements are planned for the site to promote walking between land uses and minimize confusion for patrons.

Mixed-use reductions were calculated according to the *ITE Trip Generation Handbook*, *Second Edition*, *June 2004*. Total internal capture and vehicle trip reductions between the proposed land uses within the Ponce City Market development is expected to be 17.87% for the weekday and 17.16% for the PM peak hour. This is a result of the interaction between the varying land uses within the proposed development.

#### 10.0 COMPLIANCE WITH COMPREHENSIVE PLAN ANALYSIS

The proposed development is mixed-use in nature with general office, retail, residential apartment, quality restaurant, day care center, recreational community center, and event space and music venue components. The *Old Fourth Ward Master Plan (September 2008)* Land Use Map identifies the area as a "Secondary Retail Site of Mixed-Use with 10+ Stories" intended to provide live/work options. The ARC Plan 2040 Unified Growth Policy Map identifies the proposed project site as being in a Redevelopment Corridor bordering a Station Community. As such, the proposed Ponce City Market redevelopment project fulfills the need for a mixed-use development in this region as directly stated in the City of Atlanta's Livable Centers Initiative (LCI).

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