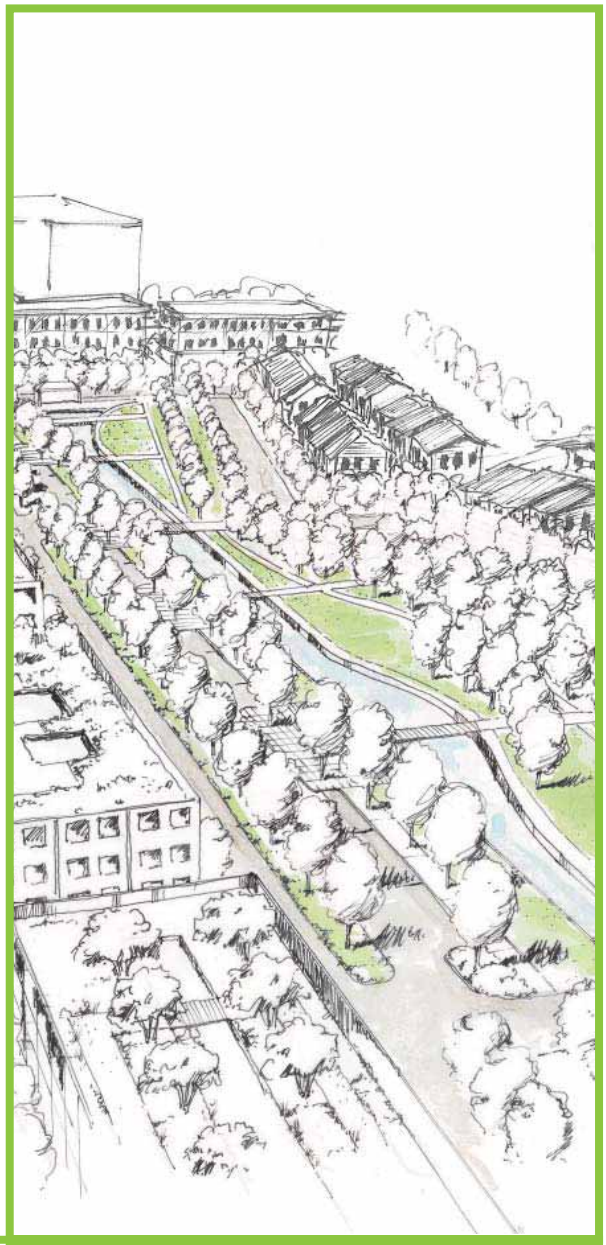
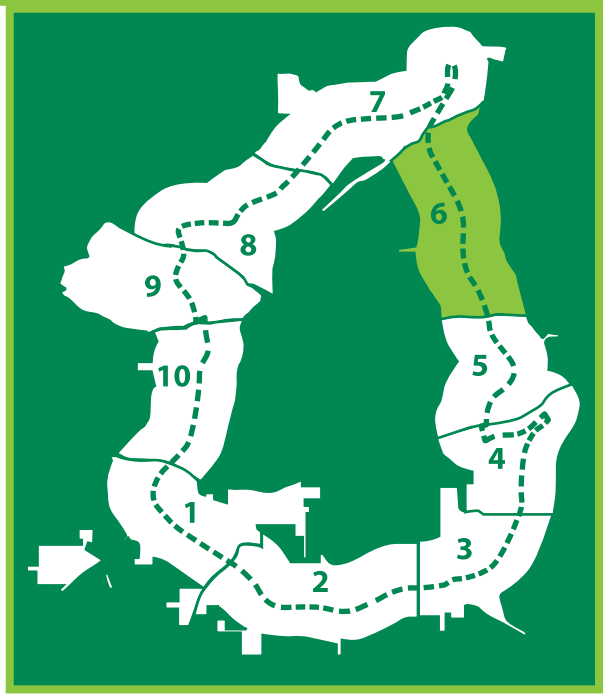


Atlanta BeltLine Master Plan

SUBAREA 6

PIEDMONT PARK / MONROE

Appendix



Prepared for
Atlanta BeltLine, Inc.
by EDAW, Inc., Glatting Jackson & APD

BeltLine
Atlanta Connected

DRAFT

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Appendix A: Zoning Recommendations

Recommendations Overview

Zoning categories considered to be compatible with the proposed land use categories are provided in the Zoning and Proposed Land Use Compatibility Matrix shown in Table 01. The rationale for the recommended zoning district for each land use category is described below.

Residential 1-4 stories:

Zoning Districts R-3 through R-5, RG-1 and RG-2, MR-1 and MR-2, and MR-4A were selected to be compatible. Districts R-1 through R-2B were eliminated because it is believed that the lot size requirements preclude them from being applicable in the Subarea 6 study area given property values and the desire of the City to promote transit supportive density. MR-1 is described as being single-family with a zero lot line on one side. MR-2 is included because even though it is multi-family, the building height is limited to 3 stories. MR-4B is included because it is often used for townhome developments.

Residential 5-9 Stories:

Zoning Districts RG-3 through RG-5, MR-3, and MR-4A are considered compatible. The RG-3 district allows for Floor to Area Ratios (FAR) that on smaller lots could potentially meet the recommended number of stories in the land use category. RG-4 and RG-5 allow for traditionally medium density multi-family intensities. MR-3 and MR-4A both have an 8 story height limit.

Residential 10+ Stories:

Compatible zoning districts include RG-6, MR-5A and B, and MR-6. RG-6 allows a 6.4 FAR, which with the City's required open space would result in structures greater than 10 stories. MR-5A and B have 15 story maximums, and MR-6 has a 6.4 FAR with a 22 story maximum.

Office/ Institutional:

O-I is the only district considered to be compatible with this land use category. Many properties in the city develop as office but are in the commercial zoning districts. If the community wishes to limit the development of these parcels to office, rezoning to O-I will preclude the development into intense commercial uses.

Low Density Commercial:

NC and C-1 were determined to be the most compatible with this land use category. Although C-2 allows similar uses to C-1, its permitted building scale and intensity of these uses is determined to be too intense for this land use category, especially within the Subarea 6 study area. Other categories like I-1 or PDMU may permit C-1 uses, but for purposes of this exercise it was determined to be incompatible

Mixed-Use 1-4 Stories:

The Mixed Use land use categories were the most difficult to determine compatibility because so many of the City's zoning districts allow mixed use by right. The zoning districts most closely following the scale of the least intense mixed use category are RL-C, LW, and MRC-1.

Mixed-Use 5-9 Stories:

MRC-2 is the compatible zoning code for this land use category. When this land use category is located on a major corridor, such as Monroe Drive or Piedmont Avenue, the recommended zoning category is bumped up to MRC-3

Mixed- Use 10+ Stories:

MRC-3 is the compatible zoning code for this land use category. Meant to be used on developments with regional attraction, the areas recommended for this zoning district are located in close proximity to the proposed transit stations.

The High Density Commercial land use category is not recommended in the study area; therefore, the table does not include recommended zoning categories. In addition, open space does not require a specific zoning code, so all zoning categories are compatible with Proposed Park Space.

LAND USE	ZONING CLASSIFICATION																																								
	R-1	R-2	R-2A	R-2B	R-3	R-3A	R-4	R-4A	R-4B	R-5	RG-1	RG-2	RG-3	RG-4	RG-5	RG-6	RL-C	MR-1	MR-2	MR-3	MR-4A	MR-4B	MR-5A	MR-5B	MR-6	O-I	LW	NC	C-1	C-2	C-3	C-4	C-5	MRC-1	MRC-2	MRC-3	PD-H	PD-MU	I-1
Mixed Use, 10+ Stories																																				■				
Mixed Use, 5-9 Stories																																			■	■				
Mixed-Use, 1-4 Stories																	■										■							■	■					
Residential, 10+ Stories																■							■	■	■															
Residential, 5-9 Stories													■	■	■					■	■																			
Residential, 1-4 Stories					■	■	■	■	■	■	■	■						■	■			■																		
High Density Commercial																																								
Low Density Commercial																												■	■											
Office/ Institutional																										■														
Industrial																																								■
Proposed Park Space																																								
Existing Park Space																																								
Community Facility																																								

Table 01 - Zoning and Proposed Land Use Compatibility Matrix
Green Boxes indicate compatible zoning within the land use category
Height limitations should be adhered to.

Appendix B: Transportation Analysis Report

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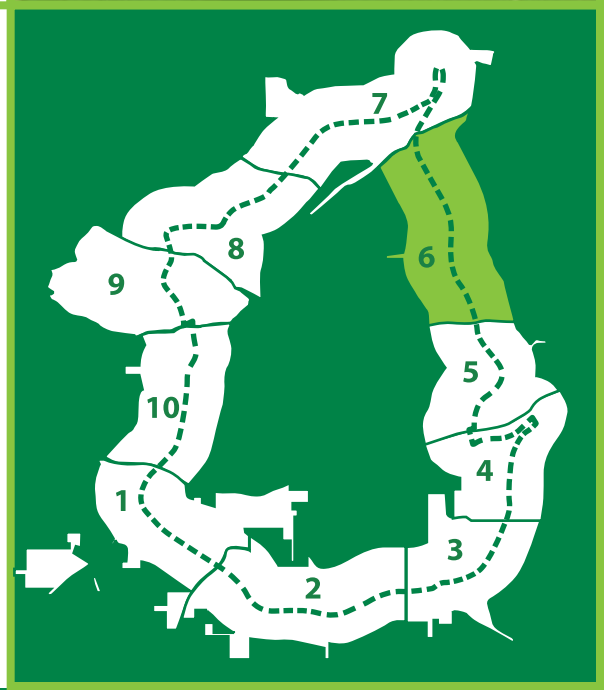
Atlanta BeltLine Master Plan

SUBAREA 6

PIEDMONT/MONROE

TRANSPORTATION ANALYSIS REPORT

Prepared for
Atlanta BeltLine, Inc.
by AECOM
December 1, 2010



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1.0 Introduction

1.1 Purpose of this Report

The overall mobility approach to the Subarea Master Plan is to maximize bicycle, pedestrian, and transit accessibility and street connectivity, while protecting the quality of life of the adjacent neighborhoods. The purpose of this transportation/mobility analysis is to evaluate and test the proposed new street connections and transportation projects that resulted from the Subarea Master Plan process with the proposed development program, future traffic growth, and the increased transit accessibility of the BeltLine.

1.2 Overview of the Subarea Plan

The BeltLine Study Area for Subarea 6 extends from I-85 on the north to Ponce de Leon Boulevard on the South. The Tax Allocation District (TAD) is the focus of this study that specifically includes key corridors, parks and open spaces, the BeltLine transit and trail corridors and potential redevelopment areas.

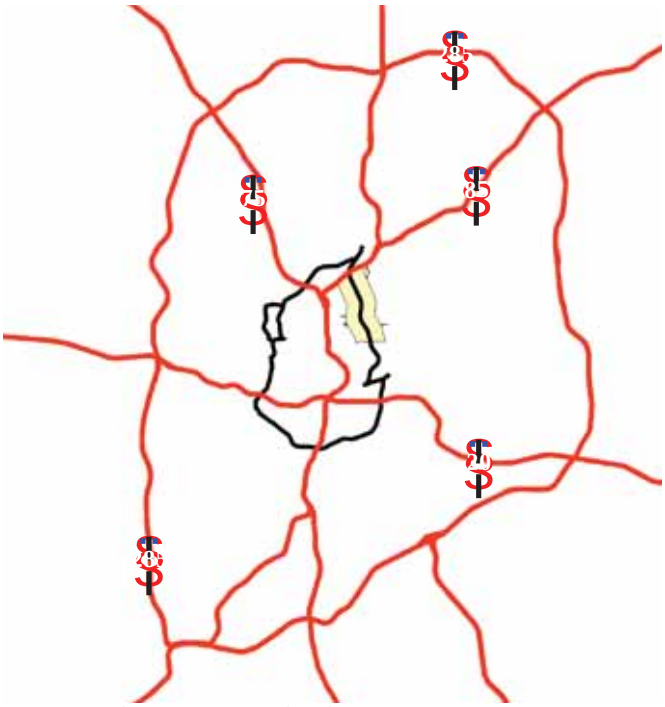


Figure 1- BeltLine Location Sketch

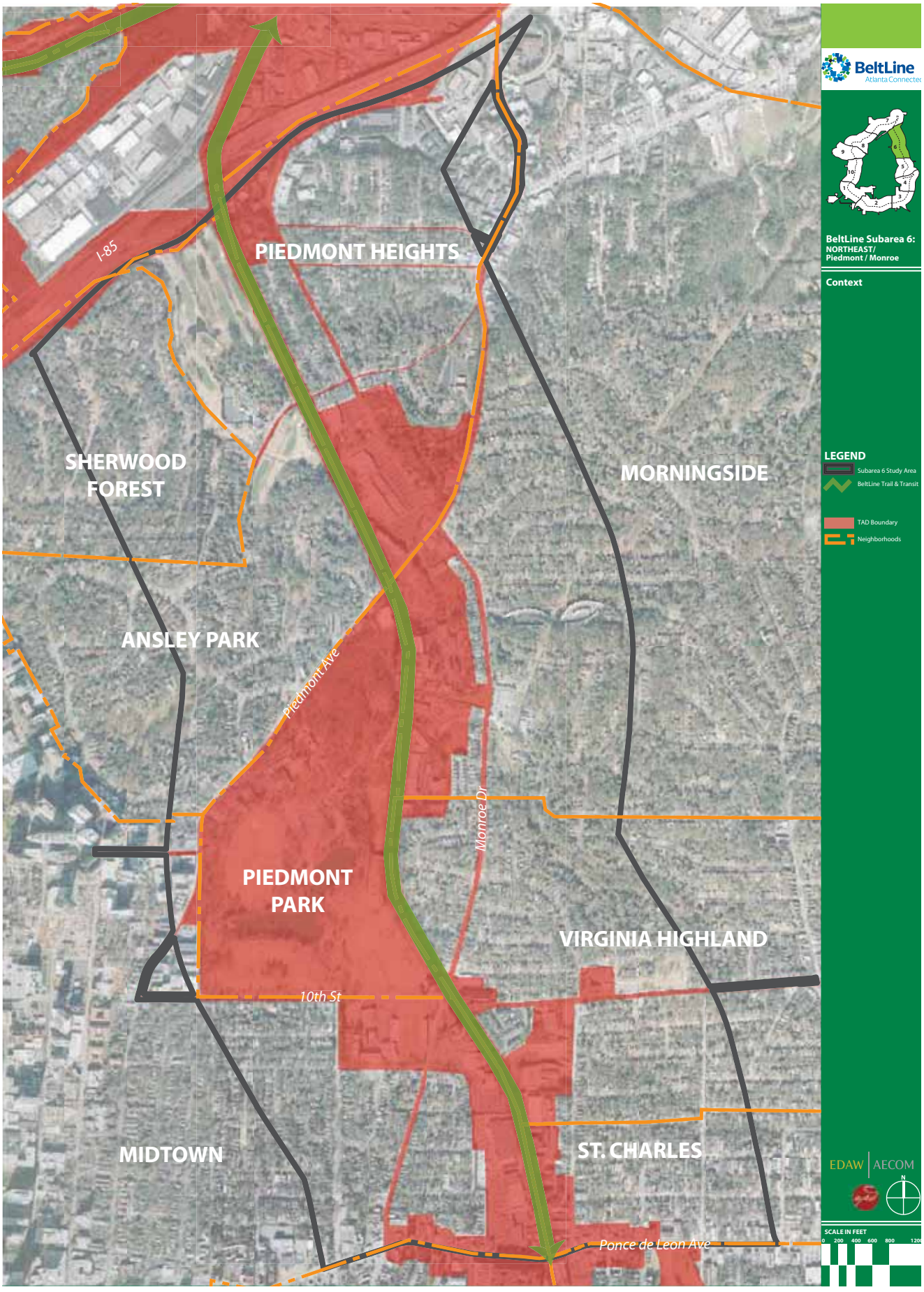


Figure 2- Context

1.3 Mobility Themes & Recommendations

The Subarea 6 Master Plan process looked at a wide range of solutions and mitigating improvements to manage existing and future traffic. Traffic issues in growing urban areas are not "solved" but "managed" through a wide range of strategies that include transit access, bicycle facilities, increased walkability, better connectivity, and traffic calming.

Key Mobility Recommendations:

- Prime among these strategies will be the implementation of **BeltLine transit**. While technical and financial hurdles exist, transit will be built in this corridor. BeltLine transit will provide a valuable link between the major residential and open space destinations along this corridor and MARTA, via the Lindbergh and Inman Park/ Reynoldstown Stations, making this area one of the most transit accessible places in the region. Several transit alignment options are proposed in the Armour-Ottley Industrial area north of this study area to potentially maximize transit accessibility. These options will be evaluated further as part of the transit EIS process currently underway.

- The new street connections planned as part of the **Street Framework** will serve to improve local accessibility, distribute traffic more efficiently and create more walkable urban form. Many of these streets will be built as redevelopment occurs by private development. Several key connections such as the reconfiguration of the intersection of 10th Street and Monroe Drive may be implemented through public/private partnerships.

- Neighborhood **traffic calming** is proposed in the neighborhoods along Monroe Drive, recognizing that the long-term livability of these neighborhoods is dependent on managing the behavior and speed of traffic that travels on neighborhood or local streets.

- The proposed sidewalk and streetscape improvements to surrounding streets will serve to increase **walkability** and encourage transit ridership by making it easy and comfortable to walk to transit and trails.

Key Components of the Proposed Transportation Program:

- **10th Street / Monroe Drive / Virginia Avenue:** Re-align to provide greater intersection separation, prioritize transit / trail movement, and create a safer pedestrian environment.

- **Monroe Drive Road Diet:** Reduce Monroe Drive from four to three lanes to slow vehicle traffic, provide safe turns at intersections, and widen sidewalks.

- **Piedmont / E. Morningside / Monroe Network:** Create smaller corner radii to provide safer pedestrian crossings and develop new street network to better distribute traffic.

- **Monroe / Ponce Connector:** Build new street to provide more options for drivers, pedestrians, and bicyclists.

- **Buford Highway Interchange Reconfiguration:** The reconfiguration of this interchange eliminates existing dangerous "weave" conditions on the exit and entrance ramps, relocates the Buford Highway east-bound exit and entrance ramps to a location east of Piedmont Road, and extends Monroe Drive across Piedmont Road.

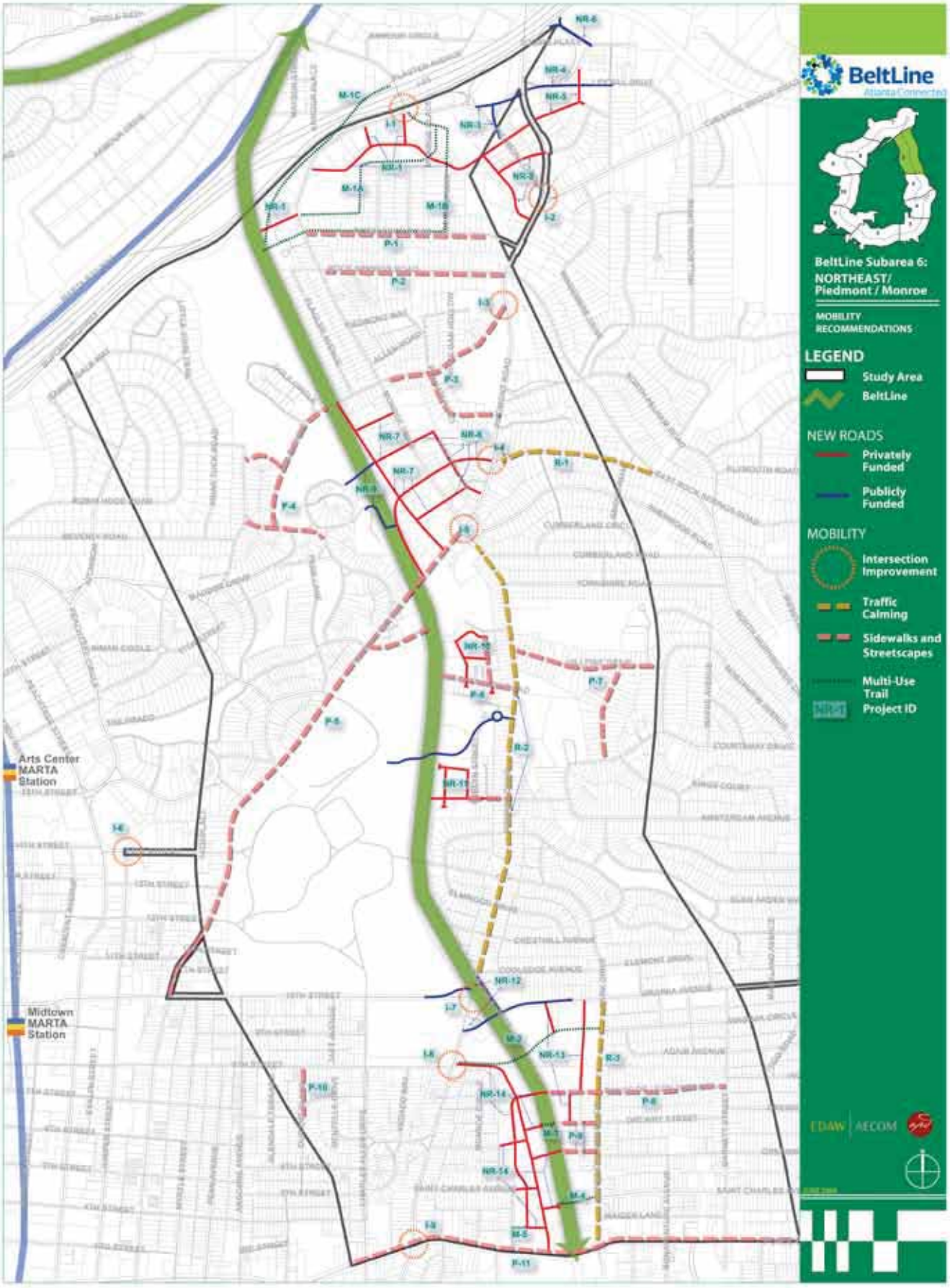


Figure 3- Mobility Recommendations

1.4 Summary of Report Contents

This Transportation Analysis Report is organized into the following sections:

- **Section 2: Existing Roadway Facilities –** summary of existing roadway conditions.
- **Section 3: Study Methodology –** Summary of assumptions and methodology.
- **Section 4: Existing Traffic Operations: –** Summary of existing traffic operations.
- **Section 5: Baseline Traffic Operations: –** Analysis of traffic implications related to the future development of the area.
- **Section 6: Traffic Operations: –** Analysis of year 2030 traffic operations without the Beltline projects as well as 2020 and 2030 operations with Beltline projects.
- **Section 7: Conclusions and Recommendations** – Summary of proposed projects and connectivity improveaments.

2.0 Existing Roadway Facilities

An inventory of the key roadways in the Subarea was conducted. These include:

Monroe Drive
Monroe Drive is a north-south corridor that connects from Ponce de Leon Avenue to Piedmont Road. In the Subarea this corridor serves the neighborhoods of Midtown, Virginia Highlands, Ansley Park, Morningside, and Piedmont Heights. According to the Georgia Department of Transportation (GDOT), the 2008 average daily traffic (ADT) volume of this corridor ranges from 16,370 vehicles per day (vpd) to 20,910 vpd (source: Georgia Department of Transportation). Monroe Drive begins in Midtown as 4-lane road and is classified as an Urban Minor Arterial. As Monroe Drive approaches the Piedmont Heights neighborhood it becomes a 2-lane road and is classified as an Urban Collector.

Ponce de Leon Avenue
Ponce de Leon Avenue is a major east-west corridor that connects Midtown Atlanta to Downtown Decatur and is classified as an Urban Principal Arterial. In the Subarea this corridor shifts from a 7-lane road with left turn lanes to a 5-lane road with no turn lanes. The 2008 ADT for this area ranges from 30,140 vpd to 36,250 vpd.

Piedmont Avenue
Piedmont Avenue is a major north-south corridor that connects Downtown Atlanta with Buckhead and is classified as an Urban Minor Arterial. The 2008 ADT for the corridor ranges from 18,520 vpd to 25,300 vpd. In Subarea 6 Piedmont Avenue starts as a 4-lane, one-way road at Ponce de Leon Avenue and converts to a two-way road at 14th Street. At the interchange with the Buford Highway Connector, Piedmont Avenue becomes Piedmont Road.

10th Street / Virginia Avenue
The 10th Street/Virginia Avenue connection links Midtown Atlanta and the Virginia Highland neighborhood. The roadway is known as 10th Street from Midtown, Atlanta to Monroe Drive. At this point it becomes Virginia Avenue. Both sections serve adjacent residential neighborhoods while 10th Street additionally serves as an important access point for Piedmont Park. 10th Street is classified as an Urban Minor Arterial with a 2008 ADT of 23,510 vpd. Virginia Avenue is classified as an Urban Collector with a 2008 ADT of 12,670 vpd.

Table 1: Roadway Characteristics

Roadway	From	To	Functional Classification	AADT	Number of Lanes	Posted Speed
Monroe Dr.	Ponce de Leon Ave.	Sherwood Rd.	Urban Minor Arterial	20,910	4	30
Monroe Dr.	Piedmont Ave.	Piedmont Rd.	Urban Collector	16,370	2	30
Ponce de Leon Ave.	Kennesaw Ave.	Barnett St.	Urban Principal Arterial	33,270	7	35
Ponce de Leon Ave.	Ponce de Leon Pl.	Boulevard	Urban Principal Arterial	30,140	6	35
Ponce de Leon Ave.	Linwood Ave.	Moreland Ave.	Urban Principal Arterial	36,250	5	35
Piedmont Ave.	14th St.	Avery Dr.	Urban Minor Arterial	25,300	4	35
Piedmont Ave.	Monroe Dr.	Wimbledon Rd.	Urban Minor Arterial	18,520	4	35
Piedmont Ave.	Cheshire Bridge Rd.	Buford Highway Connector	Urban Minor Arterial	20,700	4	30
10th St.	Peachtree Wlk.	Monroe Dr.	Urban Minor Arterial	23,510	4	30
Virginia Ave.	N Highland Ave.	Monroe Dr.	Urban Collector	12,670	2	30

2.1 Interstate Access & Functional Classification

Interstate Access
While the land uses present and expected in the study are significant drivers of vehicle trips, the area's connectivity is also influenced by access to Interstates 75 and 85 (through the Buford Highway Connector). Key observations of the study area include:

Summary

- I-85 and the Buford Highway Connector form a major barrier to north-south connectivity.
- Piedmont Avenue is the only north-south connection that crosses I-85 and the Buford Highway Connector.
- Piedmont Avenue has full access to Interstate 85 via Armour Drive, Monroe Drive, and the interchange with the Buford Highway Connector.

Functional Classification
Functional classification of streets is a method used by engineers to try to describe the travel purpose of different streets. This system is a significant component of Federal and State transportation funding policy. The table below and the map on the following page describe the current functional classification of streets in the subarea.

Table 2: Functional Classification

Classification	Description
Urban Interstate Principal Arterial	Uninterrupted, high-speed flow
Urban Freeways & Expressways	Uninterrupted, high-speed flow
Urban Principal Arterial	Serves the major activity centers of a metropolitan area; the highest traffic volume corridors and longest trips. The principal arterial will carry important intra-urban as well as inter-city bus routes.
Urban Minor Arterial	Provides service to trips of moderate length; distributes travel to smaller areas.
Urban Collector Street	Provide access and traffic circulation within residential neighborhoods, commercial, and industrial areas. The collector also collects traffic from local streets and channels it into the arterial street system.
Urban Local Road	Primarily provides access to residences, businesses, or other abutting properties. Traffic is local in nature and extent rather than regional, intrastate, or interstate.

Source: Georgia Department of Transportation, AASHTO

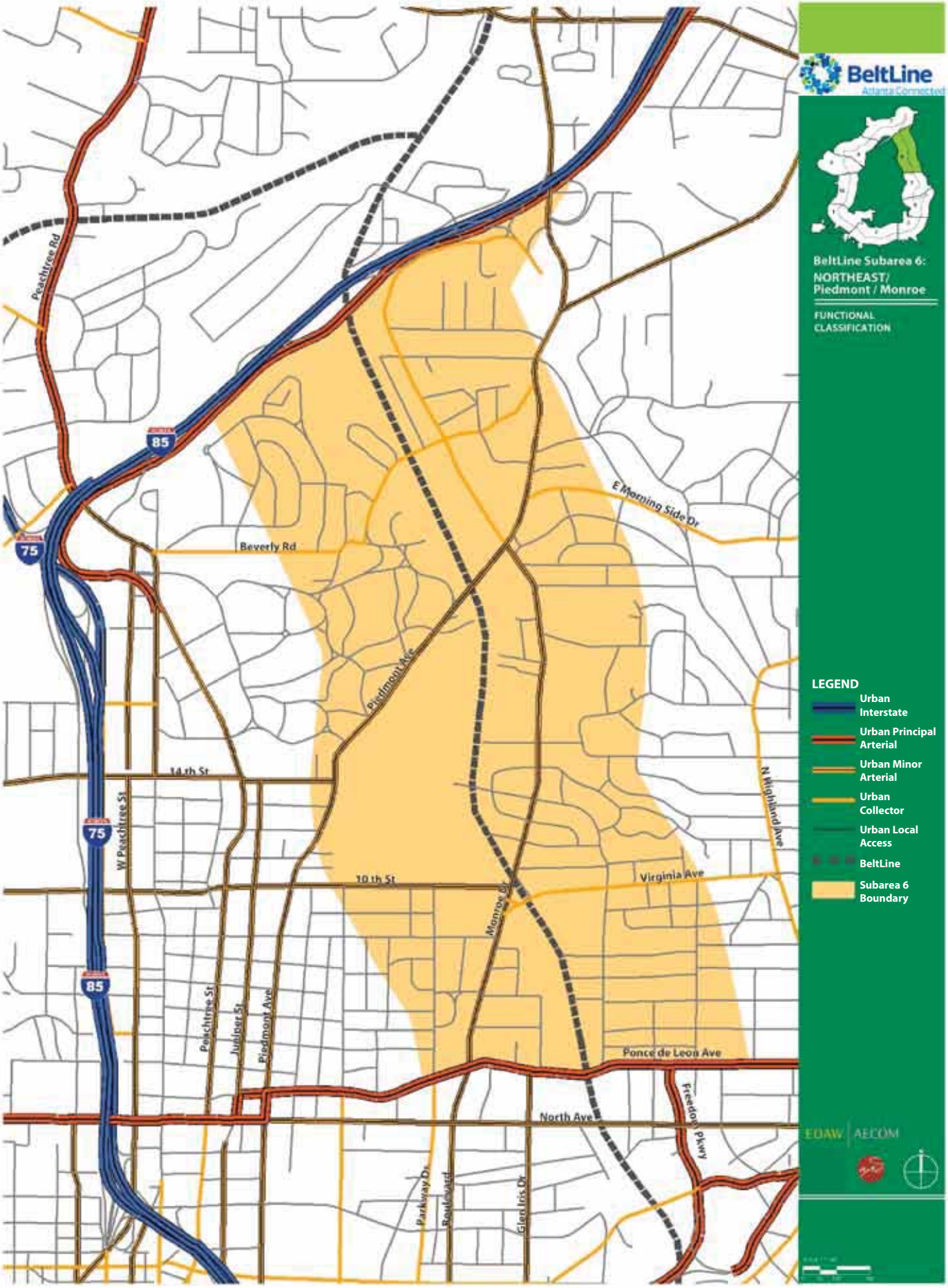


Figure 4- Street Classification

2.2 Pedestrian Facilities

Sidewalk Network

There is extensive sidewalk coverage throughout the area, with the majority of streets having sidewalks on both sides. However, some streets offer sidewalks on only one side. Examples include Drewry Street and Ponce de Leon Terrace. Other streets, such as Ansley Drive, completely lack sidewalks. Sherwood Forest was designed to accommodate vehicles only and has no sidewalks.

Main transportation corridors in the study area provide a mix of benefits and challenges to pedestrian users. While all of the major corridors provide sidewalks and direct access to popular pedestrian destinations, they are often unsafe or perceived to be unsafe. Maintenance is key to keeping these pedestrian corridors viable, and corridor sidewalk improvements were observed on the eastern side of Monroe Drive between Montgomery Ferry Road and Wimbledon Road. This stretch features recently-upgraded sidewalks providing an improved north-south pedestrian environment.

There are further opportunities to improve crossings at side streets. For example, Piedmont Avenue and Montgomery Ferry Road form a skewed intersection that creates a long and potentially dangerous pedestrian crossing of approximately 250 feet. This is about five to six times the length of a typical crosswalk. Pedestrians must traverse this dangerously long distance or choose an alternate crossing, such as mid-block. Either choice raises safety issues for pedestrians. Such dangerous situations could be mitigated by treatments that increase safety with minimal effect on vehicle capacity or level of service. Examples include installing bulb-outs, additional striping, or pedestrian refuge areas. Intersections in the study area also offer opportunities to improve the pedestrian experience, especially with respect to BeltLine access.

Sidewalk Condition

Despite the extensive sidewalk coverage present in Subarea 6, the quality is often poor. This is particularly true in the southern portion of Subarea 6, below 10th Street and Virginia Avenue in the Midtown and Virginia-Highland neighborhoods. Some sidewalks, however, have been modernized and are in excellent condition, such as along Drewry Street, while some are in the process of being modernized, such as the sidewalk repaving project on Virginia Circle.

Intersection Pedestrian Signalization and Condition

While intersection pedestrian signalization and condition is outside the scope of this report, anecdotal observations were recorded based on the windshield survey performed. Pedestrian signals are present at most intersections with crosswalks. Conditions vary, but the vast majority are in good repair and functioning properly. Crosswalks on major roadways (e.g. Piedmont Avenue, Ponce de Leon Avenue, Monroe Drive, 10th Street, and 14th Street) can be nonexistent or variable, including items such as standard parallel stripes and MUTCD ladder-type crosswalks. Crosswalk condition also varies throughout the study area, from mostly faded to freshly painted. However, the majority of crosswalks are in good condition.

Pedestrian Safety

Due to the urban nature of Subarea 6 and an ongoing development trend towards increased walkability in the study area, an analysis of pedestrian crashes was performed. A pedestrian crash is defined as an automobile crash in which a pedestrian was hit. An analysis of all motor vehicle crashes is included later in the report.

From January 2002 to January 2007, there were 72 crashes in Subarea 6 involving pedestrians, which is 1.4 percent of all study area crashes. There were no pedestrian fatalities, but 55 crashes, or 76 percent of the total, resulted in pedestrian injuries. There does not appear to be a strong correlation between age and involvement in a pedestrian crash, which could indicate a high degree of danger for vulnerable demographics such as children or the elderly. Only 7 percent of crashes involved pedestrians younger than 20, while 11 percent involved pedestrians 60 years or older. Most pedestrians, 33 percent, involved in crashes were in their 30s.

Certain locations in Subarea 6 had a higher prevalence of pedestrian crashes than others. The three locations with the highest pedestrian crashes were:

- Ponce de Leon Avenue between Charles Allen Drive and Monroe Drive (5)
- 14th Street and Juniper Street (5)
- 10th Street and Piedmont Avenue (4)

Similarly, some corridors had a higher prevalence of pedestrian crashes than others. Slightly more than one-third, or 35 percent, of study area pedestrian crashes occurred along Ponce De Leon Avenue, which had 25. A total of 22 pedestrian crashes, or 31 percent of all pedestrian crashes, occurred on Monroe Drive. Together, these two corridors accounted for two-thirds of all study area pedestrian crashes. The corridor with the third highest occurrence of pedestrian crashes was Piedmont Avenue.

Bicycle Safety

While statistics for all motor vehicle crashes in Subarea 6 were analyzed, this section focuses on bicycle crashes, with analysis of all motor vehicle crashes included in the roadway analysis section. From January 2002 to January 2007, there were 11 crashes in Subarea 6 involving bicyclists, or 0.2 percent of all crashes. There were no bicyclist fatalities and 10 bicyclist injuries (91% of all bicycle crashes).

All but one bicycle crash occurred at a major intersection or on one of the major corridors in Subarea 6. The intersection of 14th Street and Piedmont Avenue was the single location with the most bicycle crashes (2), while Ponce de Leon Avenue was the corridor with the most crashes (5).

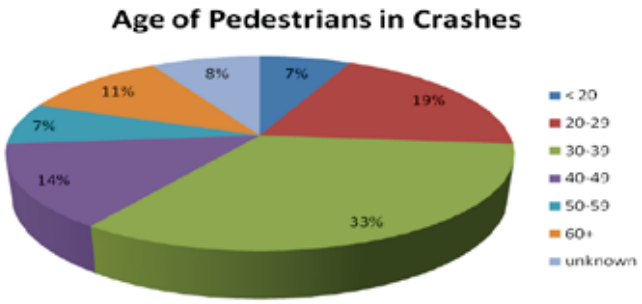


Figure 5: BeltLine Subarea 6 Age of Pedestrians in Crashes

2.3 Historic & Projected Traffic Counts

Historic traffic counts were analyzed within the study area. The major corridors of Monroe Drive and Piedmont Avenue were further studied for historic and projected traffic counts between the years 2001 and 2030.

Summary

- Monroe Drive north of 8th Street showed a slight increase in demand between 2003 and 2005, and then dropped 18% in 2006.
- Piedmont Avenue north of Prado has remained relatively constant but is predicted by the Atlanta Regional Commission Travel Demand Model to have the largest increase in traffic volume at 65% by 2030. Actual traffic volumes have trended downward over the last 5 years.
- Traffic volume on Piedmont Avenue north of Morningside Drive has increased 4% since 2004.
- According to the regional travel demand model, Piedmont Road is projected to have an increase in traffic volume of over 60% by the year 2030, however traffic has actually been on a downward growth trend.
- The traffic volume on Monroe Drive is expected to decrease 6% according to the model.

These inconsistent results called for some reconciliation. Section 5.4 discusses how these disparate data sets were used.

Monroe Drive – north of 8th Street		
Year	**Volume**	**% Change**
2001	18,929	-
2002	23,727	+25.34%
2003	22,909	-3.44%
2004	23,322	+1.80%
2005	23,550	+0.97%
2006	19,350	-17.83%
Total Period % Change		+6.84%
2030 *(Growth trend)*	23,684	+22.39%
2030 *(Model forecast)*	18,142	-6.24%

Piedmont Road – north of The Prado		
Year	**Volume**	**% Change**
2001	27,500	-
2002	27,976	+1.73%
2003	25,757	-7.93%
2004	27,450	+6.57%
2005	27,720	+0.98%
2006	26,880	-3.03%
Total Period % Change		-1.68%
2030 *(Growth trend)*	25,645	-4.59%
2030 *(Model forecast)*	44,085	+64.01%

Piedmont Road – north of Morningside Drive		
Year	**Volume**	**% Change**
2001	28,289	-
2002	28,779	+1.73%
2003	24,245	-15.75%
2004	24,680	+1.79%
2005	24,930	+1.01%
2006	25,300	+1.48%
Total Period % Change		-9.74%
2030 *(Growth trend)*	12,451	-50.79%
2030 *(Model forecast)*	40,756	+61.09%

Table 3: Projected Volume from ARC TDM
Source: Georgia Department of Transportation, The Atlanta Regional Commission's Travel Demand Model

2.4 Existing Traffic Control

This section documents existing traffic control within the study area.

Signalized Intersections

The following intersections are signalized:

- Armour Drive and Monroe Drive
- Monroe Drive at the Buford Highway exit and entrance ramps
- Monroe Drive and Montgomery Ferry Drive
- Monroe Drive and Piedmont Road
- Piedmont road and E. Morningdale Drive
- Monroe Drive and Dutch Valley Rd
- Monroe Drive and Amsterdam Avenue
- Monroe Drive and Park Drive
- Monroe Drive and 10th Street
- Monroe Drive and Virginia Avenue
- Monroe Drive and 8th Street
- Monroe Drive and Ponce de Leon Avenue
- Ponce de Leon Avenue and Ponce Place
- Piedmont Ave and 14th Street

3.0 Study Methodology

Scenarios

For the purposes of analyzing the traffic implications of future development and the proposed transportation projects in the Subarea, a set of transportation and development scenarios were defined and intersection analyses conducted for each. Based upon the market study, the available development by zoning is less than what is currently demanded in the market. Due to this fact, the BeltLine does not create additional desire within the marketplace. As a result, the analysis assumes a similar level of growth in the senarios with or without the BeltLine. Intersections were evaluated based on the 2000 Highway Capacity Manual operational analysis methods for the afternoon (PM) peak-hour conditions. Synchro 7 software was used for all intersection analyses.

Baseline Scenarios 2020 & 2030

These scenarios analyze what the intersection level of service would be in the future years of 2020 and 2030, if the proposed new development occurred but without the addition of BeltLine Transit or the proposed new street framework. For this analysis, the trip generation for the new development was added to assumptions about future traffic growth for the year 2030.

BeltLine Build Scenarios 2020 & 2030

These scenarios analyze what the intersection level of service would be in the future years of 2020 and 2030, if the proposed new development occurred with the addition of BeltLine Transit service and the proposed new street framework to distribute traffic. For this analysis, the trip generation of the new development was added to assumptions about future traffic growth for the years 2020 and 2030. In addition, assumptions were made regarding transit usage and traffic distribution based on the new street framework.

Analysis of Signalized Intersections

For signalized intersections, an analysis of capacity and level of service was completed in order to evaluate the overall operation of the intersection. The capacity analysis of an intersection is performed by comparing the demand flow rate (volume) of traffic using the various lane groups. This results in a volume/capacity (v/c) ratio for each lane group. A v/c ratio greater than 1.0 indicates that the volume of traffic has exceeded the capacity available and indicates a temporary excess of demand. Although the capacity of the entire intersection is not defined, a composite v/c ratio for the sum of the critical lane groups within the intersection is computed. This composite v/c ratio is an indication of the overall intersection sufficiency.

Level of service (LOS) for a signalized intersection is a qualitative measure and is defined in terms of control delay per vehicle (in seconds per vehicle). Control delay refers to the portion of total delay that can be attributed to the traffic signal operation for signalized intersections. Control delay depends upon a number of variables including traffic volumes, lane configuration, the quality of progression of traffic from adjacent intersections, the cycle length, and the ratio of green time to the cycle length. The level of service criteria for signalized intersections, based on control delay, is shown in Table 4. Level of service A indicates operations with very low control delay while level of service F describes operations with extremely high control delay. Level of service E is sometimes considered to be the limit of acceptable delay in urbanized areas.

Table 4: Highway Capacity Manual Intersection LOS Criteria

Level of Service	Control Delay for Signalized Intersection (seconds per vehicle)
A	</=10
B	>10 and </=20
C	>20 and </=35
D	>35 and </=55
E	>55 and </=80
F	>80

Source: Highway Capacity Manual, Millennium Edition

4.0 Existing Traffic Operations:

4.1 Focus Area Overview

The redevelopment opportunities in Subarea 6 are concentrated in several "focus areas" around current commercial developments as depicted in Figure 5. The Illustrative Urban Design Plans included in Section 5.3, demonstrates how this redevelopment should occur, focusing primarily on redevelopment within the TAD boundary and adjacent areas likely to be influenced by redevelopment.

Area 1 - Monroe Crescent

- A mix of industrial, multi-family, commercial, and single-family uses. Future redevelopment and reworking of street connectivity is anticipated.

Area 2 - Piedmont/Monroe

- Includes the eastern edge of the Ansley Park residential neighborhood.
- Primarily a single-family residential area with some commercial area at the intersection of Monroe Drive and Piedmont Avenue.
- Retail/commercial sites along Monroe Drive and Piedmont Avenue are expected to redevelop providing opportunity for improved connectivity.

Area 3 - Ansley Mall to Amsterdam Walk

- The majority of land area consists of Piedmont Park with surrounding single-family residential.
- Some commercial sites exist on the edges of the park.

Area 4 - 10th Street and Monroe Drive

- Predominantly single-family residential with commercial and multi-family sites at the corners of 10th Street, Monroe Drive, and Virginia Avenue. Includes historic multi-family.
- Includes Inman Middle School.
- Includes Grady High School.

Area 5 - Midtown Promenade/Home Depot

- Large commercial sites likely to redevelop with pockets of single-family residential.

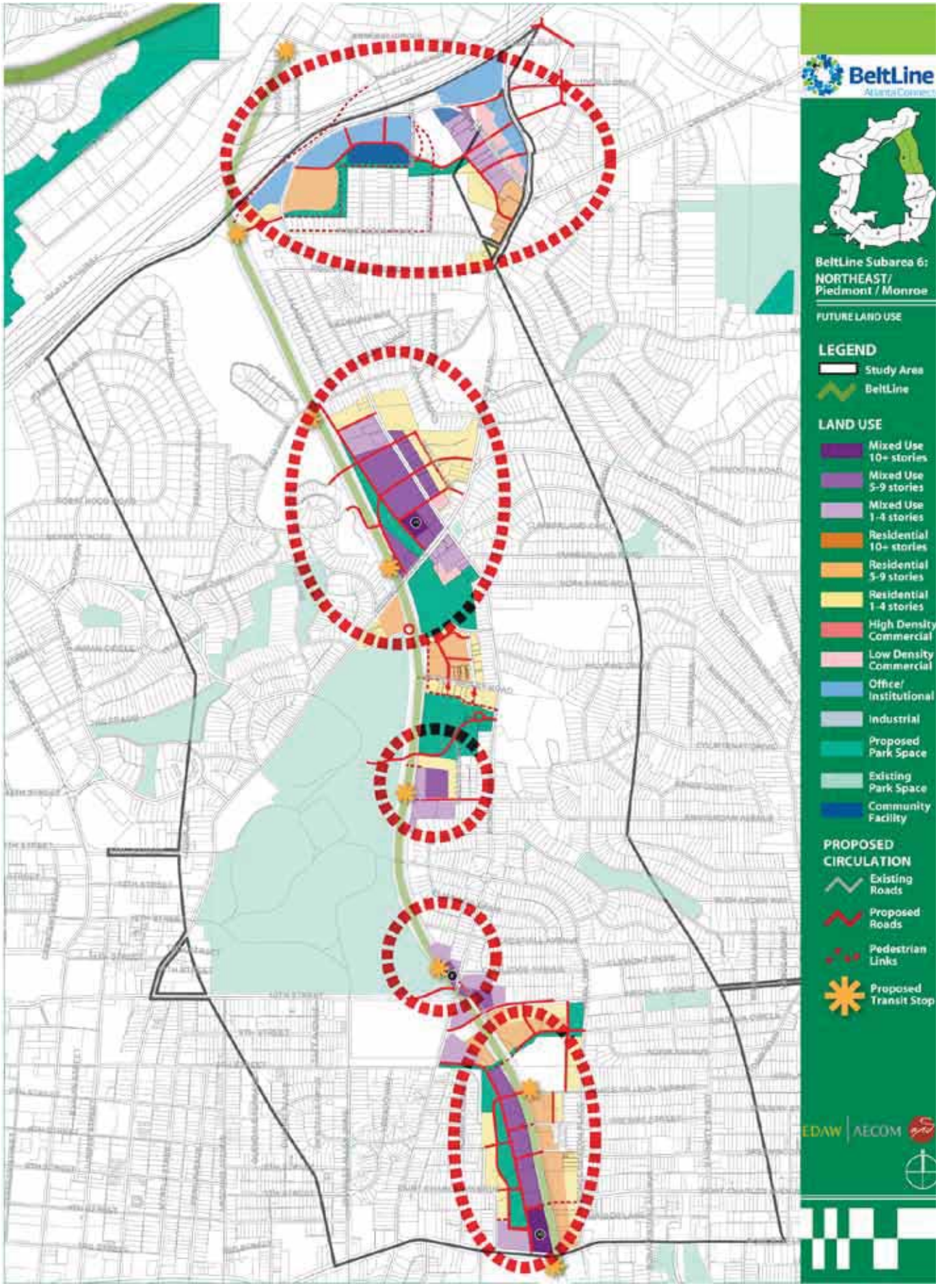


Figure 5- Focus Areas

4.2 Existing Traffic Volumes

In order to establish a baseline for the traffic scenario analysis, traffic data collection was conducted throughout the study area.

Weekday turning movement counts were taken during the morning and evening peak periods. The four consecutive 15-minute interval volumes that summed to produce the highest traffic volume at each intersection were determined to make up the peak hour traffic volumes. For the purposes of the existing conditions and scenario analysis, the evening peak period (4:45 p.m. to 5:45 p.m.) was chosen as the critical period because it is consistently higher than the morning peak period for this corridor. Diagrams of these peak hour traffic counts, as well as morning hour traffic counts are illustrated in the focus area analysis sections found in Section 4.4 - Section 4.8. The turning movement counts were taken in the following intersections.

Intersection	Date
Armour Dr at the Buford Highway ramps	Q1 2006
Monroe Drive and Armour Drive	Q1 2006
Monroe Drive at the Buford Highway ramps	Q1 2006
Monroe Drive and Piedmont Circle	Q1 2006
Piedmont Road and Cheshire Bridge	Q1 2006
Piedmont Road and Piedmont Circle	Q1 2006
Monroe Drive and Montgomery Ferry Drive	Q1 2006
Monroe Drive and Piedmont Road	Q1 2006
Piedmont Road and E. Morningside Drive	1/13/2009
Piedmont Road and 14th Street	1/13/2009
Monroe Drive and Dutch Valley	1/14/2009
Monroe Drive and Amsterdam Avenue	Q1 2006
Monroe Drive and Park Avenue	1/14/2009
Monroe Drive and 10th Street	Q1 2006
Monroe Drive and Virginia Avenue	Q1 2006
Monroe Drive and 8th Street	1/14/2009
Monroe Drive and Ponce de Leon Avenue	Q1 2006
Ponce de Leon Avenue and Ponce Place	Q1 2006

Some traffic counts were used from the Northeast Atlanta BeltLine Traffic Impact Study completed in May 2006.

Data Sources and Methodology

Traffic volume data in the form of average annual daily traffic (AADT) counts were obtained from Georgia DOT's State Traffic and Report Statistics (STARS) at 12 locations in Subarea 6. This data was then entered into a geographic information system (GIS) for further analysis. The latest volume data available, for 2006, is used for this analysis. Although some Georgia DOT count stations provide percent truck traffic, this data was not available for any of the stations in the study area. Figure 6: Existing Traffic Volumes on the following page is a map of the count locations that graphically represents volumes.

Key Findings

In Subarea 6, traffic volumes are highest on Ponce de Leon Avenue, which provides service for Downtown and Midtown commuters who live in Atlanta's intown neighborhoods and eastern suburbs. Ponce de Leon Avenue carries 37,360 vehicles per day (VPD) between Parkway Drive and Boulevard and 34,800 from Freedom Parkway to Barnett Street.

Piedmont Avenue carries 32,300 VPD to the north, compared with 25,300 to 26,880 VPD in the heart of the study area. South of 10th Street, volume on Piedmont Avenue drops to 14,250 VPD. Monroe Drive carries 19,350 VPD at Virginia Avenue.

Other facilities carrying over 10,000 vehicles per day include the following:

- 14th Street with 20,290 VPD between Piedmont Avenue and Juniper Street;
- 10th Street east of Piedmont Avenue carries 16,010 VPD; and
- Virginia Avenue west of Barnett Street carries 12,740 VPD.

The Buford Highway Connector forms the northern boundary of Subarea 6 and carries over 62,000 VPD. As a connector between Buford Highway and Interstates 75 and 85, its main function is to move vehicles through Subarea 6, not within it. However, some portion of this vehicle traffic does exit at Monroe Drive/Armour Drive and enters the study area.

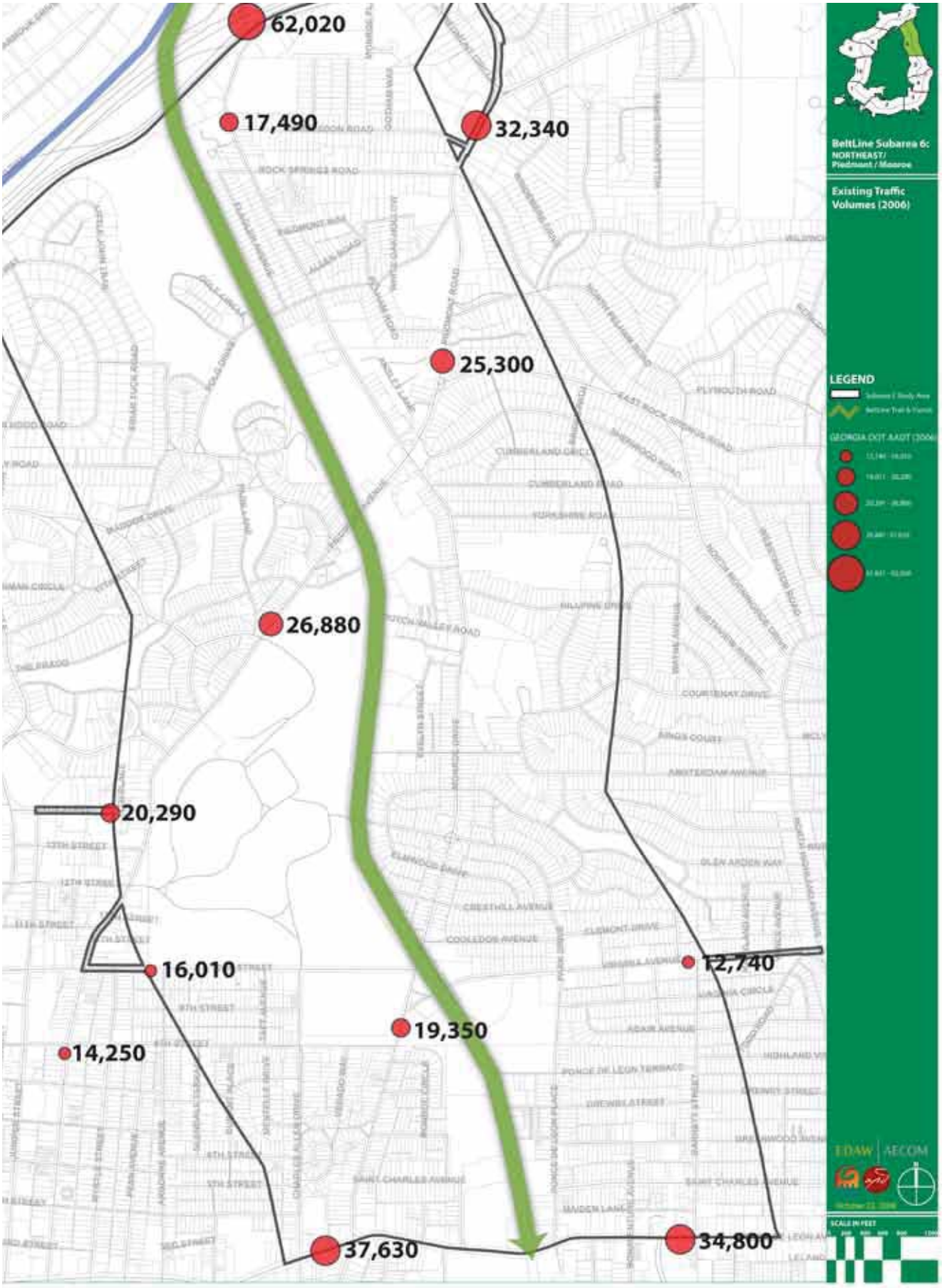


Figure 6- Existing Traffic Volumes

4.3 Existing Traffic Crashes

Crash data was analyzed to determine the relative safety of locations and corridors within the study area and to identify facilities with higher than average crash rates. Crashes involving bicycles and pedestrians were analyzed and summarized earlier in this report, but are also included here in the crash totals.

Data Sources and Methodology

Crash data was obtained from Georgia DOT's Office of Traffic Safety & Design Safety Management Section for Subarea 6. This data was entered into a geographic information system (GIS) for further analysis. Crash data for a recent five-year period, from January 2002 to January 2007, was used in this analysis. Figure 7: Crash Frequency (2002 – 2007) is a map of the crash locations displaying location and frequency.

All Crashes

Between January 2002 and January 2007, there were a total of 5,247 crashes involving 10,641 vehicles in the study area. A total of 1,280 injuries occurred as a result of 936 injury crashes, which made up 18 percent of all crashes. Two fatalities were recorded.

The intersections with the most total crashes in the assessed time period were the following:

- Piedmont Avenue at Cheshire Bridge Road (304);
- Ponce de Leon Avenue at Monroe Drive (297); and
- 14th Street at Juniper Street (279).

In addition to an area-wide analysis, an examination of crash data was undertaken for the following key corridors in Subarea 6:

- Monroe Drive from Ponce De Leon Avenue to Piedmont Avenue;
- Monroe Drive from Piedmont Avenue to Armour Drive;
- Piedmont Avenue from 10th Street to Interstate 85;
- 14th Street from Juniper Street to Piedmont Avenue;
- 10th Street from Piedmont Avenue to Monroe Drive;
- Virginia Avenue From Monroe Drive to North Highland Avenue; and
- Ponce De Leon from Parkway Drive to Frederica Street.

These corridors account for a majority of the total accidents in Subarea 6. Of the 5,247 crashes in Subarea 6, a full 98 percent of them, 5,159, occurred on these seven corridors. The highest number of crashes and injuries occurred on Piedmont Avenue between 10th Street and I-85, with 1,454 total crashes resulting in 334 injuries. Ponce de Leon Avenue between Parkway Drive and Frederica Street was host to the second-most number of crashes, with 1,289 resulting in 385 injuries. The corridor with the third-highest number of crashes is Monroe Drive from Ponce de Leon Avenue to Piedmont Avenue, with 1,031 crashes resulting in 286 injuries. Each of the remaining corridors had fewer than 600 accidents and 135 injuries.

Crash rates are another important way to characterize the relative safety of transportation corridors, as they correlate traffic volume with number of crashes. Generally, the total number of crashes is higher on facilities carrying heavier volumes. To identify corridors with high crash rates, the total number of crashes was normalized by vehicle miles traveled on the facility. Crash rates along Subarea 6 corridors are shown in Table 5: 2002-2007 Crash Rates.

Key findings from crash rates for study area corridors include:

- 14th Street, Ponce de Leon Avenue from Parkway Drive to Frederica Street, and Monroe Drive from Ponce de Leon Avenue to Piedmont Avenue are the three most dangerous corridors in Subarea 6 based on accidents per 100 million vehicle miles traveled (VMT).
- 14th Street has the highest rate of crashes, more than triple the average, due mostly to its intersection with Juniper Street, which is the third highest crash location in the study area.
- 14th Street also has the highest rate of injuries, at roughly three times the study area average.
- Monroe Avenue and Ponce De Leon Avenue have the highest rate of fatalities and are the only facilities with fatalities in Subarea 6 between 2002 and 2007.
- Virginia Avenue has the lowest crash rate and the lowest injury rate.

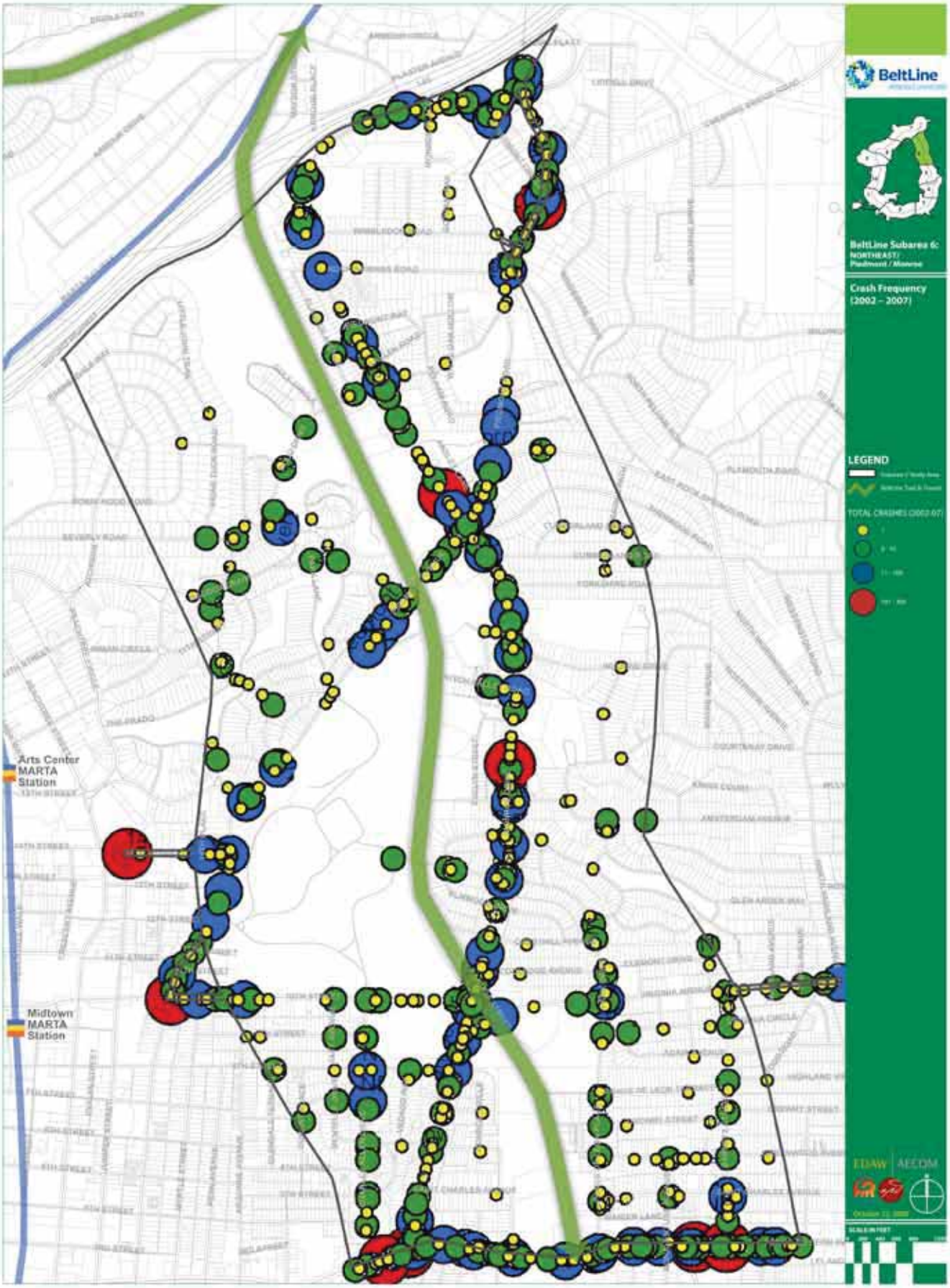


Figure 7-Crash Frequency (2002-2007)

Crash rates of the study area corridors were then compared with average statewide rates for similar facility types to determine which facilities are more dangerous than average. On average, the assessed corridors have crash and injury rates that are above the statewide rate. Table 6: 2002-2007 Crash Rates Compared to Statewide Rates summarizes corridors and whether or not they are over the average statewide accident rate for similar facilities for all, fatal, and injury accidents.

When compared to the state average for corridors of similar functional class, the corridors in Subarea 6 generally have higher crash rates and injury rates than the state average. Other key findings are below:

- Ponce de Leon Avenue, as well as Monroe Drive from Ponce De Leon Avenue to Piedmont Avenue, are over the statewide rate for all crashes, fatalities, and injuries.
- No facilities are lower than the statewide rate for all crashes, fatalities, and injuries.
- Only Virginia Avenue is lower than the statewide rate for both fatalities and injuries.
- On average, facilities analyzed are over the statewide rate for all crashes and injuries.

Table 5: 2002-2007 Crash Rates

2002 - 2007 CRASH RATE PER 100 MILLION VMT			
	ALL CRASHES	FATALITIES	INJURIES
Monroe Drive from Ponce De Leon to Piedmont Avenue	1,748.2	1.70	485.0
Monroe Drive from Piedmont Avenue to Armour Drive	1,395.8	0.00	315.6
Piedmont Avenue from 10th Street to Interstate 85	1,168.9	0.00	268.5
14th Street from Juniper Street to Piedmont Avenue	4,661.4	0.00	998.0
10th Street from Piedmont Avenue to Monroe Drive	1,228.1	0.00	261.7
Virginia Avenue From Monroe Drive to North Highland Avenue	726.7	0.00	108.8
Ponce De Leon from Parkway Drive to Frederica Street	1,931.0	1.50	576.8
Total/Average	1,510.7	0.59	380.4

Table 6: 2002-2007 Crash Rates Compared to Statewide Rate

DESCRIPTION	OVER STATEWIDE RATE		
	ALL CRASHES	FATALITIES	INJURIES
Monroe Drive from Ponce De Leon to Piedmont Avenue	Yes	Yes	Yes
Monroe Drive from Piedmont Avenue to Armour Drive	Yes	No	Yes
Piedmont Avenue from 10th Street to Interstate 85	Yes	No	Yes
14th Street from Juniper Street to Piedmont Avenue	Yes	No	Yes
10th Street from Piedmont Avenue to Monroe Drive	Yes	No	Yes
Virginia Avenue From Monroe Drive to North Highland Avenue	Yes	No	No
Ponce De Leon from Parkway Drive to Frederica Street	Yes	Yes	Yes
Total/Average	Yes	No	Yes

4.4 Focus Area 1 - Monroe Crescent

The existing traffic operations were analyzed utilizing HCM standards and Synchro software with the peak hour intersection turning movement counts, field observations of signal phasing, timing, splits, and offsets.

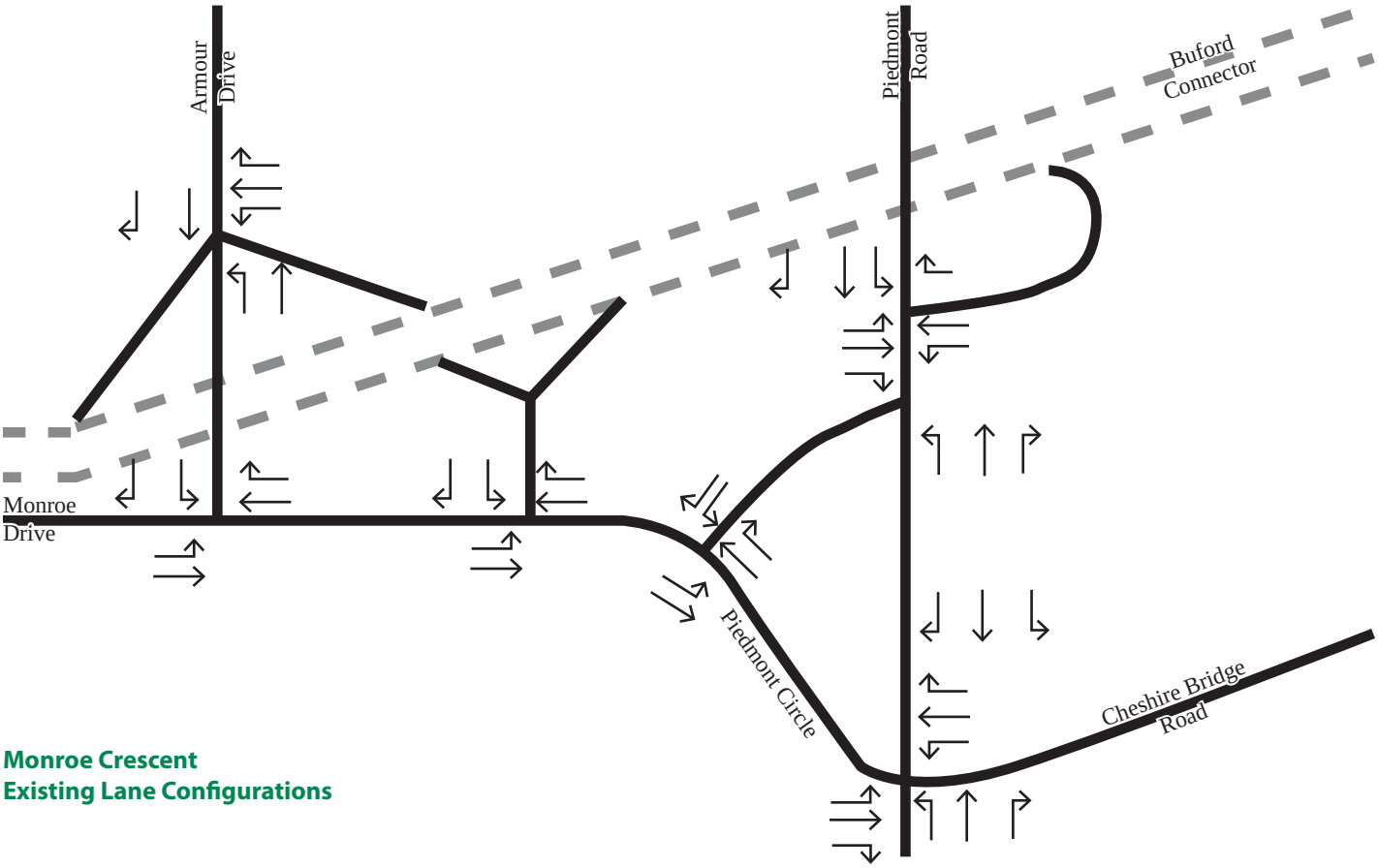
The unique configuration of the Buford Connector/ Monroe/Piedmont interchange is a remnant of Buford Highway's former role as I-85 and its constrained access to Piedmont Road. This interchange should ideally be a direct connection to Piedmont Road but is constrained by the existing I-85 structure and Norfolk Southern rail line, creating a number of issues:

- Three sets of dangerous "weave" conditions are created on Buford Highway where exiting and entering highway traffic must cross paths in a short distance at high speeds. This creates a safety issue and current interchange design practice would avoid these types of conditions.

- The variety of ramps in different locations creates a confusing interchange overall with ramps on three different roads to the same highway (Armour Drive, Monroe Drive, and Piedmont Road).

- This fractured pattern of ramps forces traffic out of their desired direction putting pressure on local streets such as Monroe Drive. Example: traffic south bound to Piedmont Road or Cheshire Bridge Road must exit on Monroe Drive, travel to Piedmont Circle and make a right turn on Piedmont Road

The diagram on page 21 shows the existing lane configurations in the Piedmont Road area adjacent to the Buford Highway interchange. In order to establish a baseline for the traffic scenario analysis, traffic data collection was conducted in the Piedmont Road Focus Area adjacent to the Buford Highway interchange. Weekday turning movement counts were taken during the AM and PM peak periods at the following intersections:



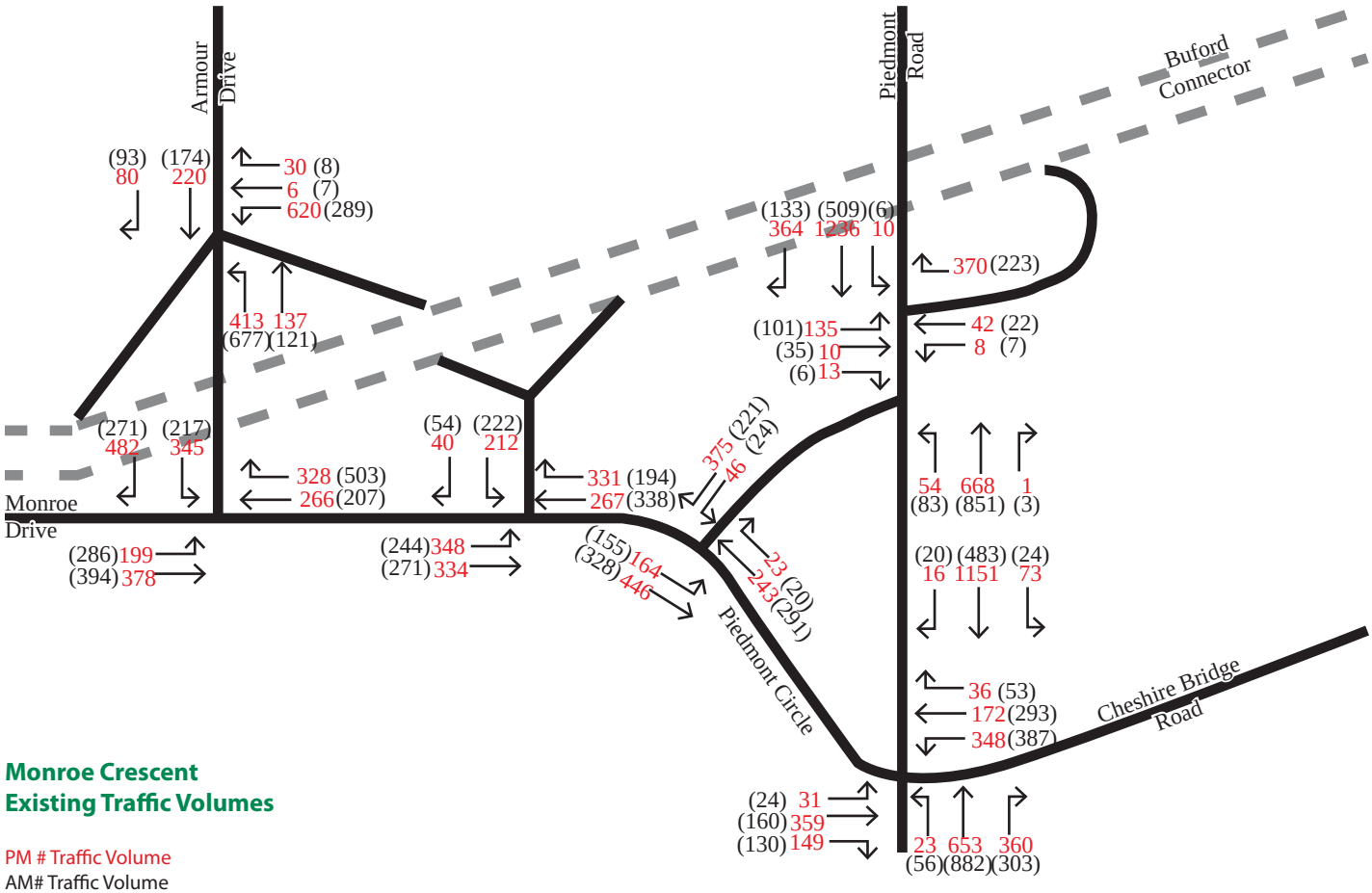
Monroe Crescent
Existing Lane Configurations

- Armour Drive at the Buford Highway exit and entrance ramps
- Monroe Drive and Armour Drive intersection
- Monroe Drive at the Buford Highway exit and entrance ramps
- Monroe Drive and Piedmont Circle
- Piedmont Road and Cheshire Bridge Road intersection
- Piedmont Road and Piedmont Circle/Lambert Drive intersection

For the purposes of the scenario analysis, the PM peak period was chosen as the critical period because it is consistently higher than the AM peak period for this corridor. The diagram below shows the turning movement volumes for the PM Peak period as well as the AM Peak Period.

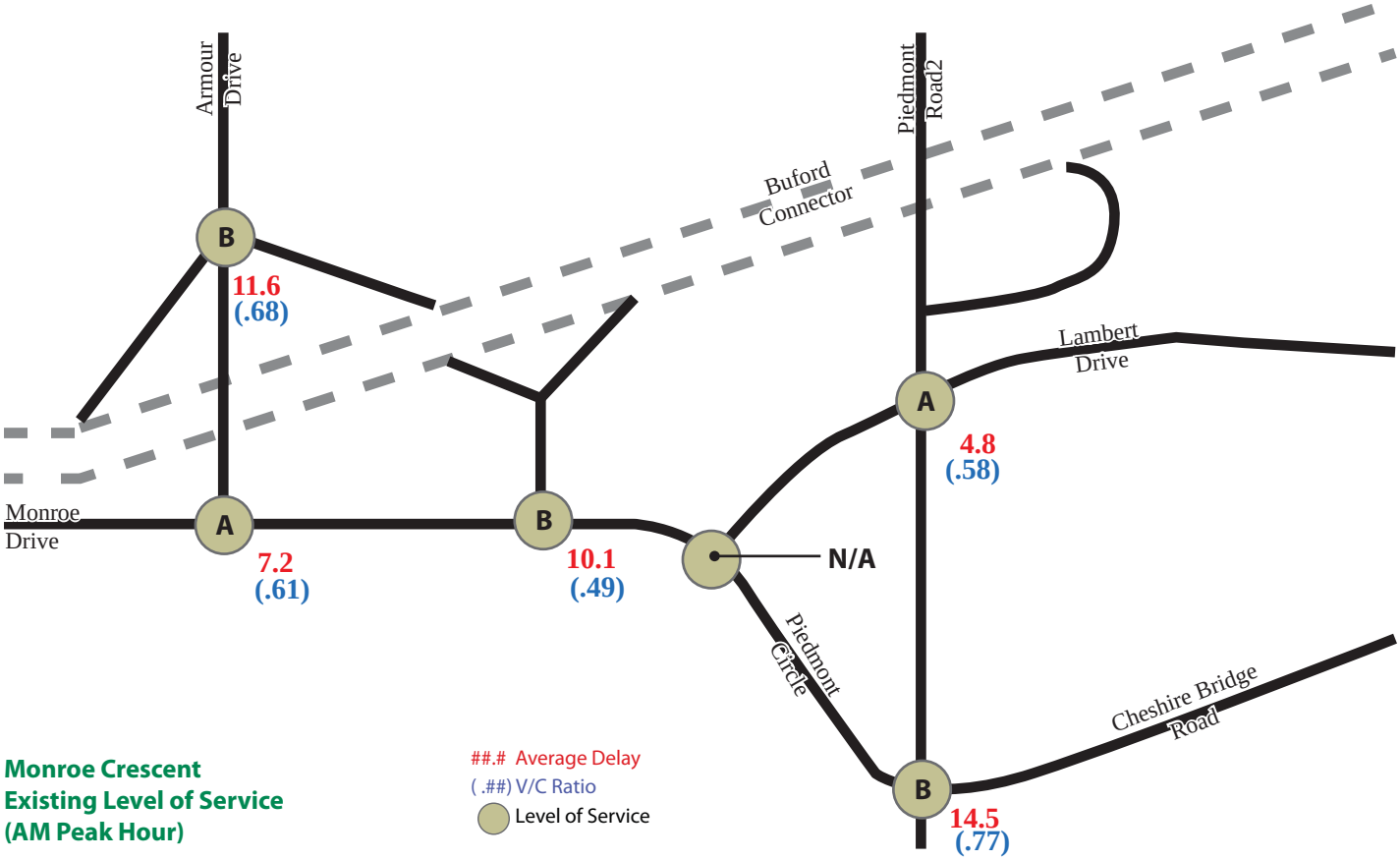
The intersections were analyzed to determine level of service and average intersection delays. The results of this analysis are illustrated in the diagrams on the next page. All of the existing levels of service are considerably better than what one might expect in a vibrant urban area. This is likely a result of the limited access conditions geared toward vehicle flow.

This design does involve trade-offs. In addition to the problematic weaving conditions described earlier, bicycle and pedestrian safety and mobility in the area are poor. Finding design solutions that create a more balanced trade-off may be in the long-term best interest of the community.



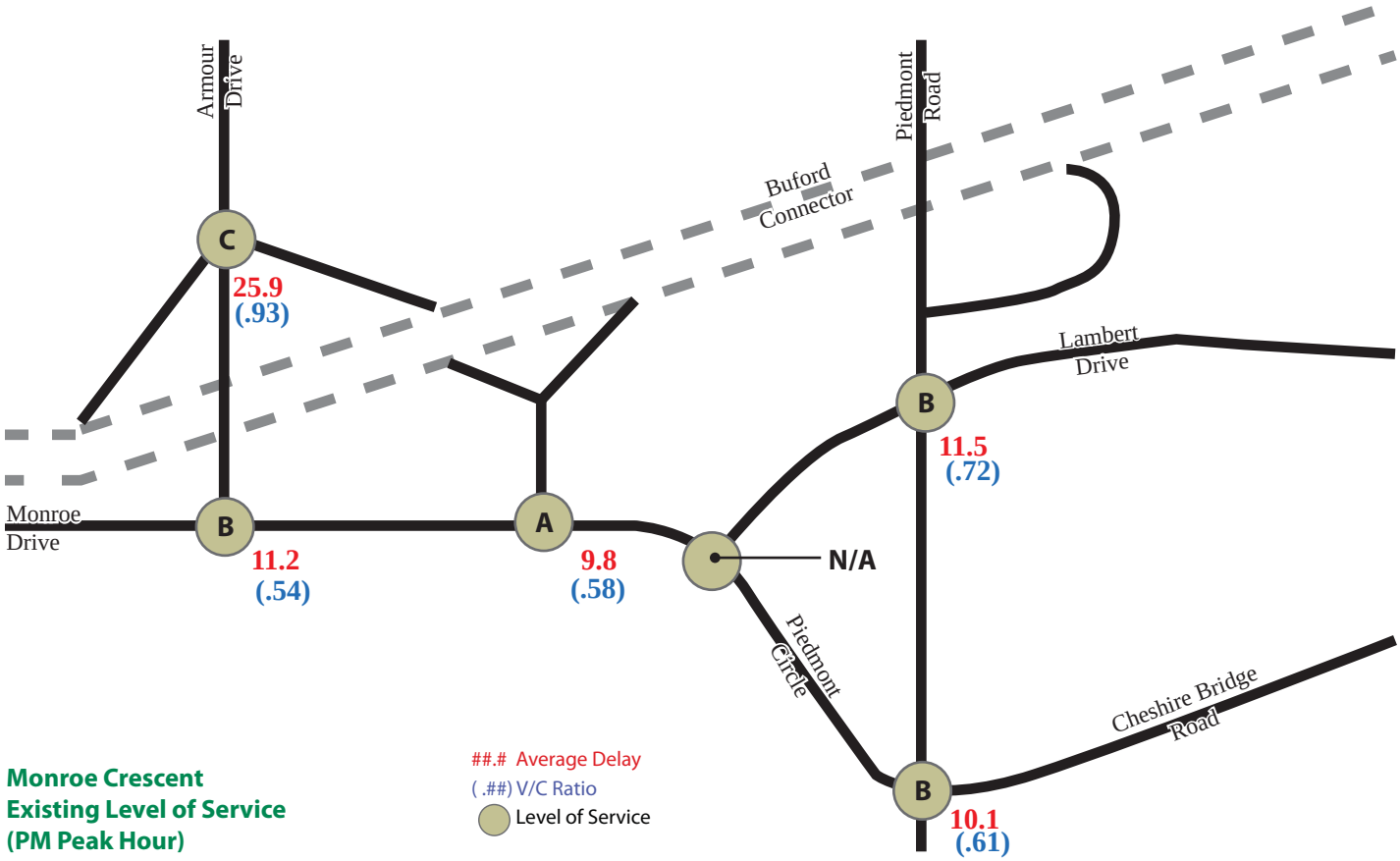
Monroe Crescent
Existing Traffic Volumes

PM # Traffic Volume
AM# Traffic Volume



Monroe Crescent
Existing Level of Service
(AM Peak Hour)

##.# Average Delay
(.##) V/C Ratio
Level of Service



Monroe Crescent
Existing Level of Service
(PM Peak Hour)

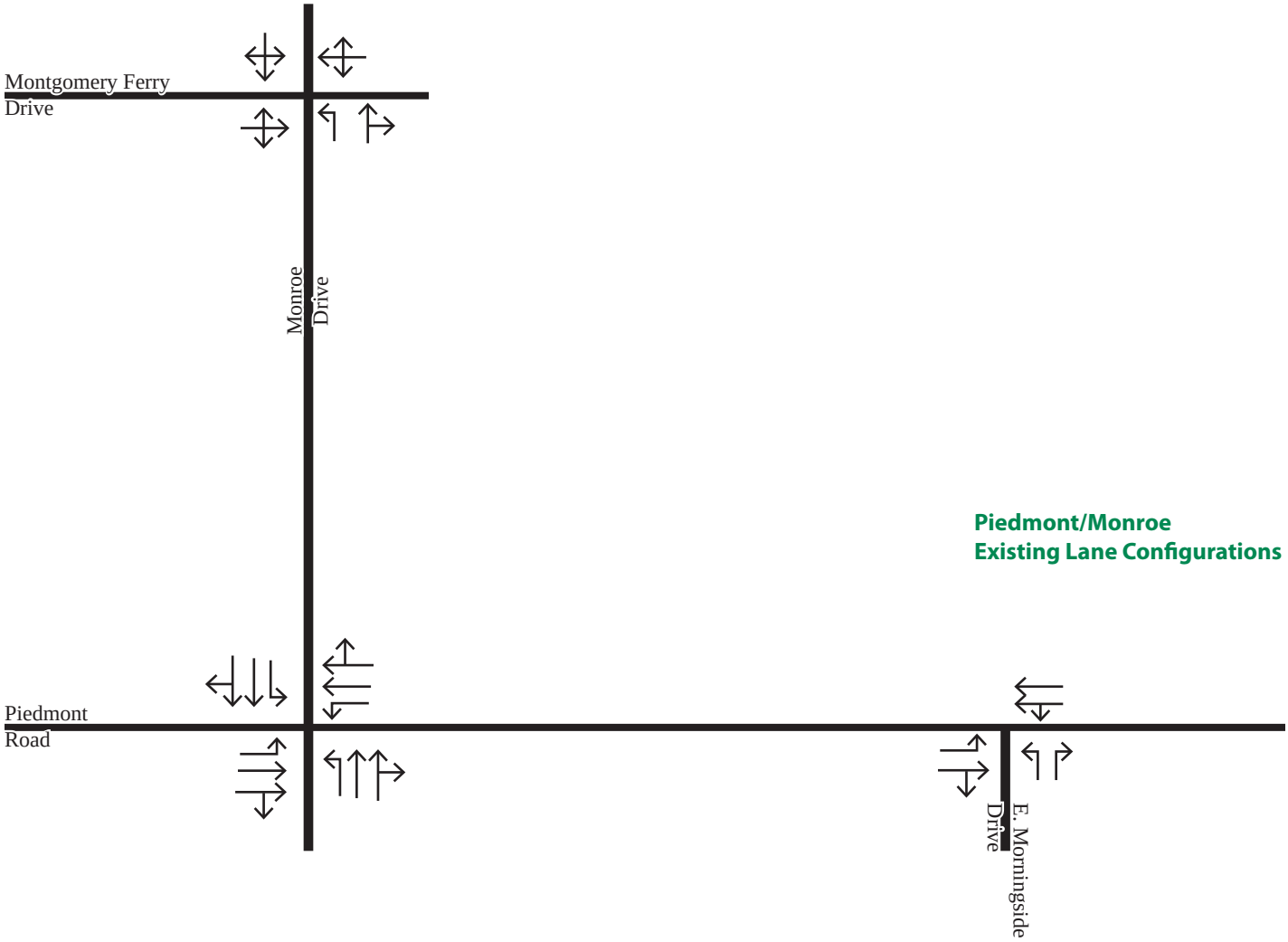
##.# Average Delay
(.##) V/C Ratio
Level of Service

4.5 Focus Area 2 - Piedmont/Monroe

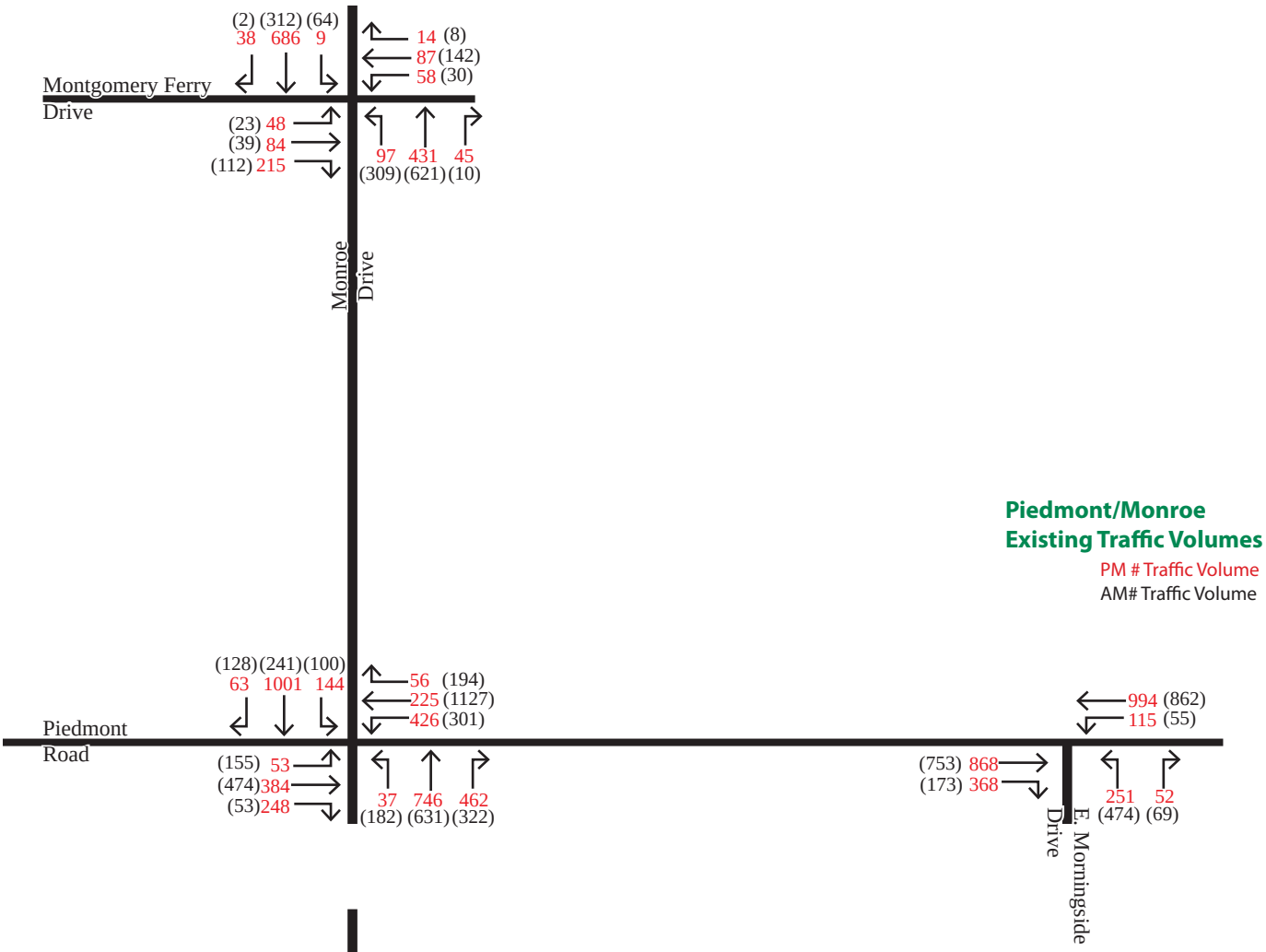
This focus area is a mix of single family neighborhood edges and retail land use; the most prominent of which is Ansley Mall.

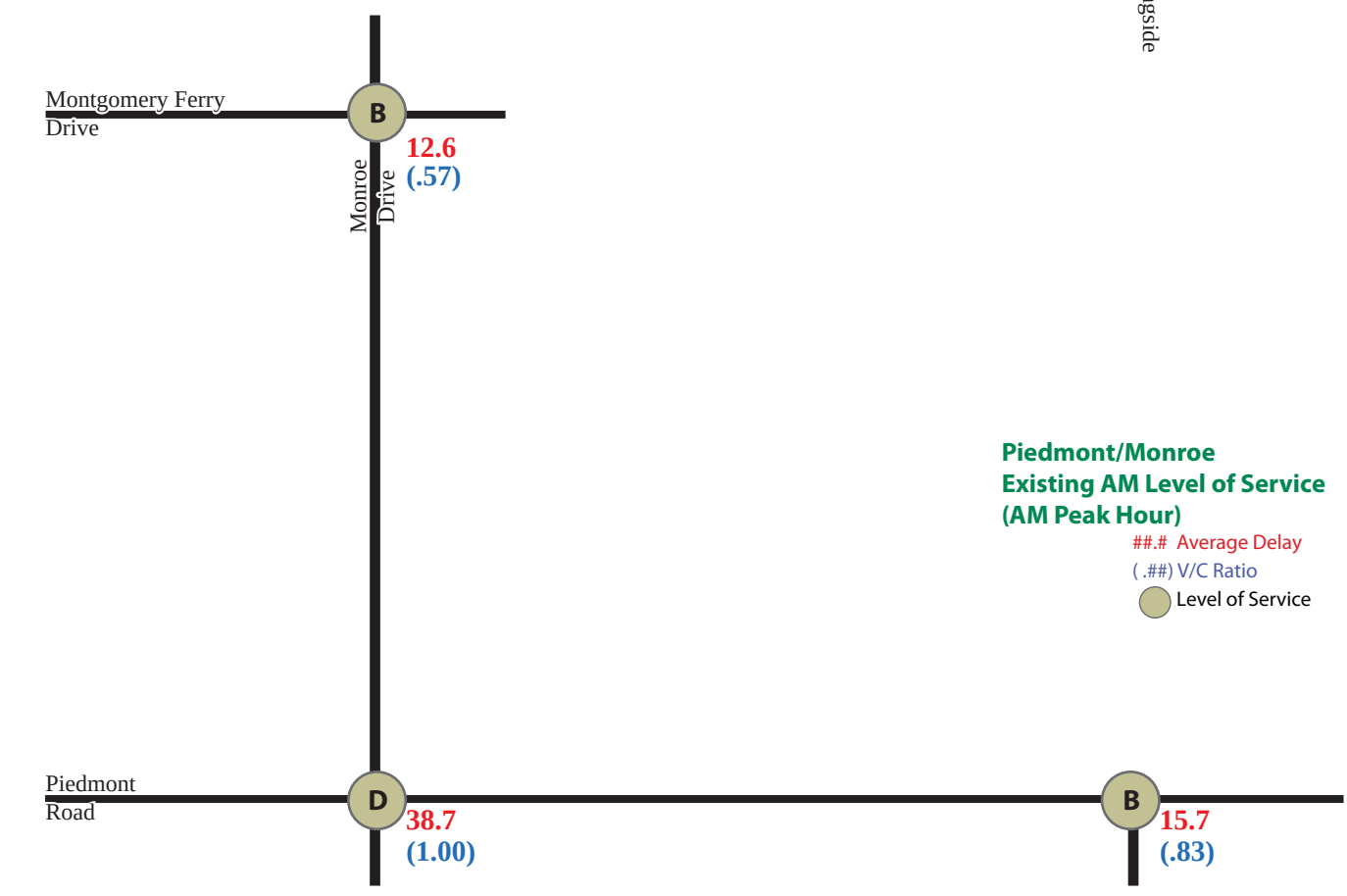
While traffic counts were collected at the area intersections, the most obvious current problems are not capacity related. The numerous retail driveway cuts provided for the commercial properties created conflicts and congestion, as well as contributed to a challenging bike and pedestrian environment. The pedestrian character is also compromised by the wide, sweeping intersection radii that create long crossings and encourage high-speed traffic.

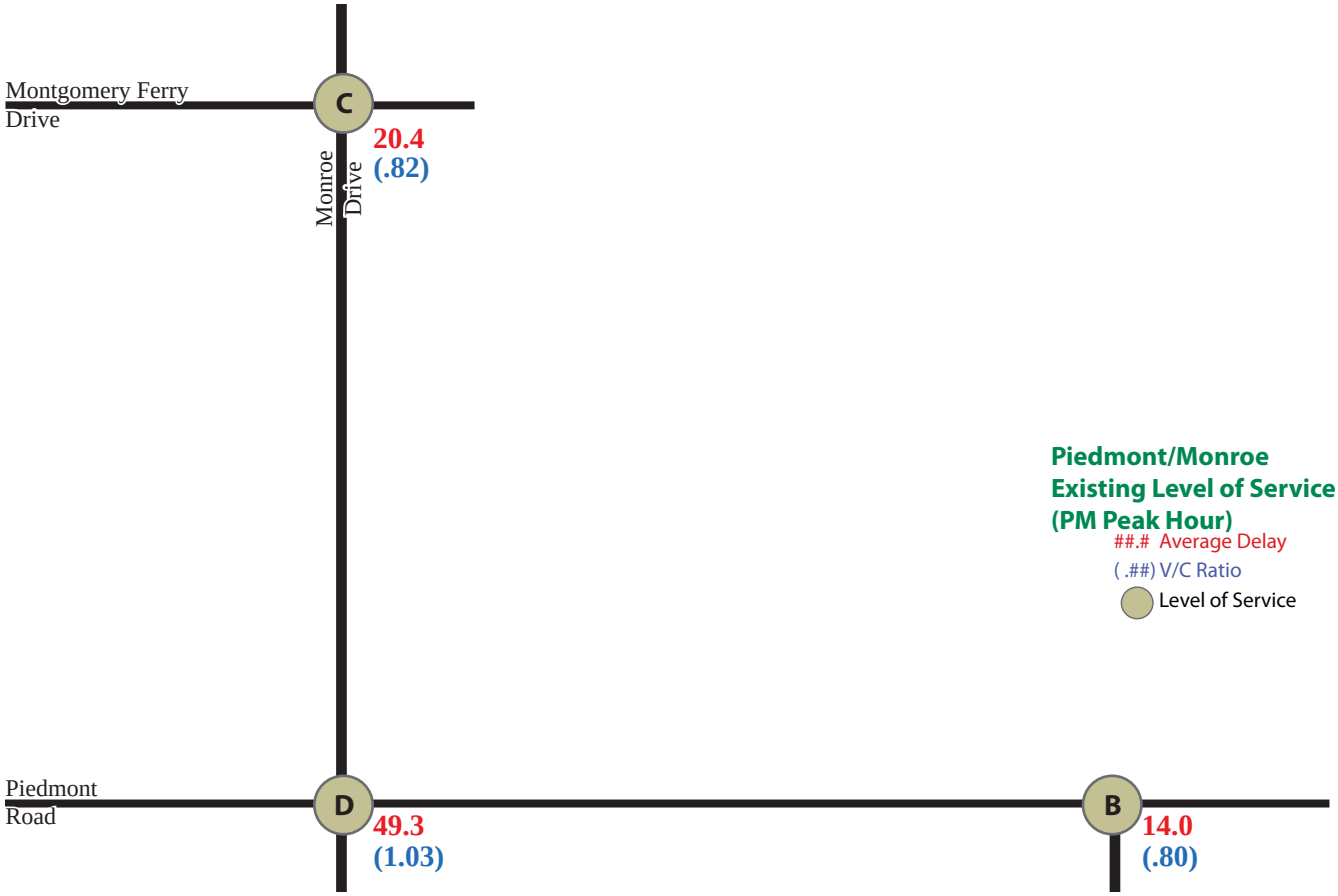
The diagrams below show the lane configuration at the area intersections, while traffic volume levels of service are shown on the following page.



Piedmont/Monroe
Existing Lane Configurations


(2) (312) (64)
38 686 9
14 (8)
87 (142)
58 (30)
Montgomery Ferry Drive
(23) 48
(39) 84
(112) 215
97 431 45
(309) (621) (10)
Monroe Drive
(128) (241) (100)
63 1001 144
56 (194)
225 (1127)
426 (301)
Piedmont Road
(155) 53
(474) 384
(53) 248
37 746 462
(182) (631) (322)
994 (862)
115 (55)
(753) 868
(173) 368
251 52
(474) (69)
E. Morningside Drive
Piedmont/Monroe
Existing Traffic Volumes
PM # Traffic Volume
AM# Traffic Volume


Montgomery Ferry Drive
B
12.6
(.57)
Monroe Drive
Piedmont/Monroe
Existing AM Level of Service
(AM Peak Hour)
##.# Average Delay
(.##) V/C Ratio
Level of Service
Piedmont Road
D
38.7
(1.00)
B
15.7
(.83)


Montgomery Ferry Drive
C
20.4
(.82)
Monroe Drive
Piedmont/Monroe
Existing Level of Service
(PM Peak Hour)
##.# Average Delay
(.##) V/C Ratio
Level of Service
Piedmont Road
D
49.3
(1.03)
B
14.0
(.80)

4.6 Focus Area 3- Ansley Mall to Amsterdam Walk

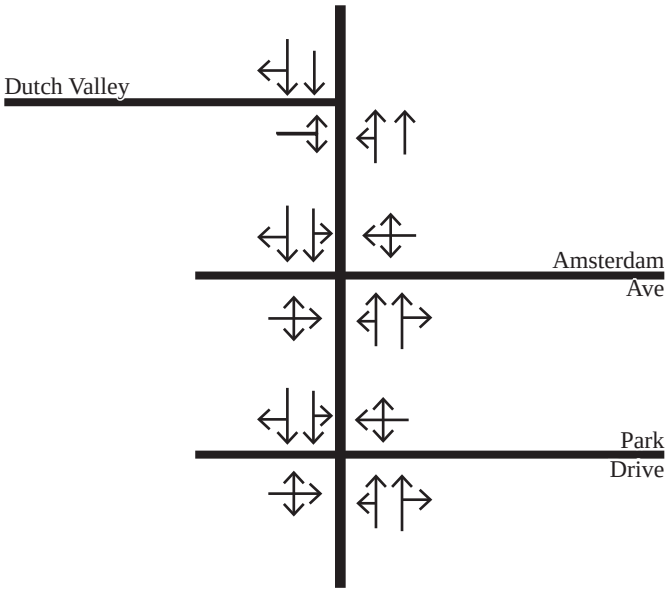
This section of Monroe Drive is a north-south corridor that serves both commute vehicular traffic and access to neighborhoods, small commercial centers, and Piedmont Park. The diagram below shows the existing lane geometries along this section.

Given the mix of trips served, this is another corridor for which balance between local and commute trips and driving, and walking would be ideal.

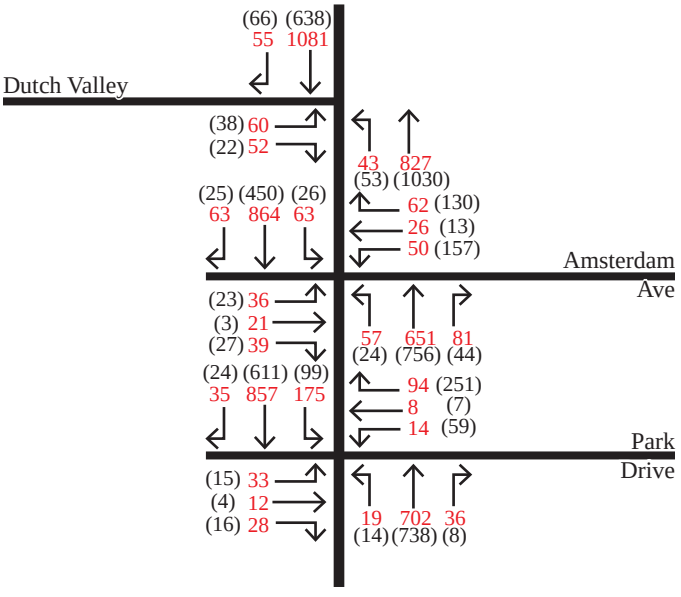
While traffic volumes are not especially high for a corridor of this type, the four-lane cross-section and narrow sidewalks make balance a challenge.

Once again, the levels of service present on this section are much less congested than one would expect for this type of urban neighborhood. These low delay levels mean that relatively high vehicle speeds are possible and appear to be common even during the peak hours.

The Sim traffic computer model indicated (and field test confirmed) that drivers can easily traverse Monroe Drive from Ponce de Leon to Piedmont Road in less than 15 minutes as shown in Figure 8. Such peak hour speed suggest infrastructure that is overbuilt for the conditions.

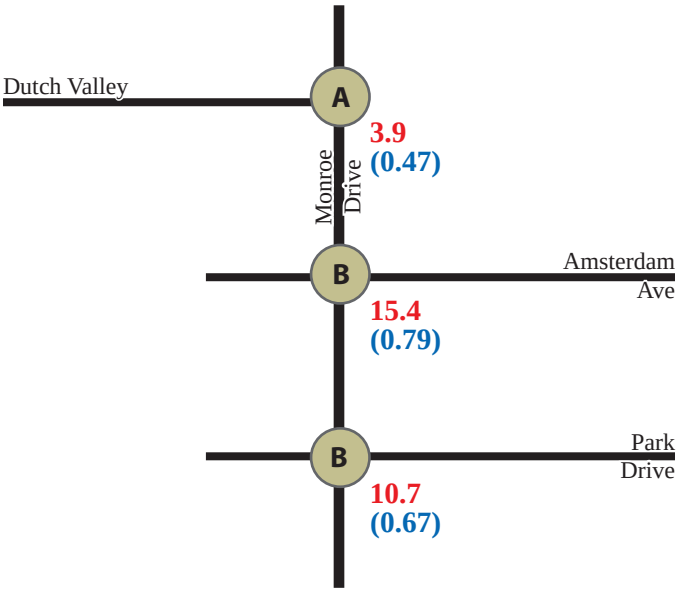


Ansley Mall to Amsterdam Walk
Existing Lane Configurations

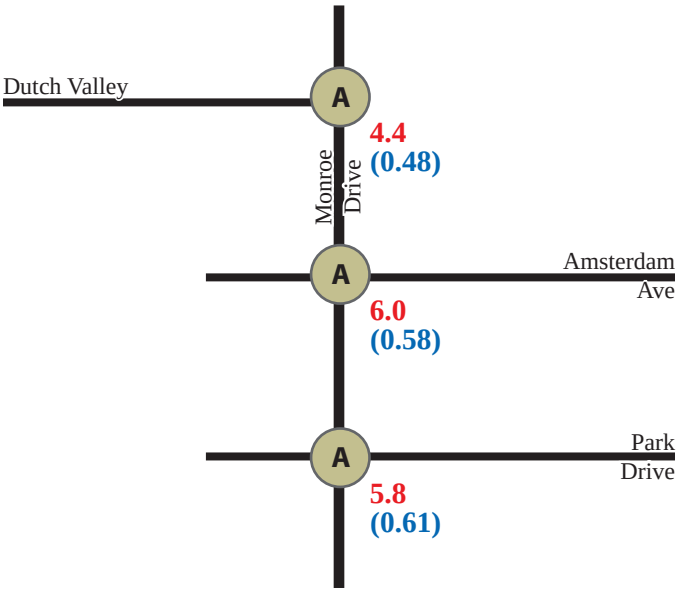


Ansley Mall to Amsterdam Walk
Existing Traffic Volumes

PM # Traffic Volume
AM# Traffic Volume



Ansley Mall to Amsterdam Walk
Existing Level of Service
(AM Peak Hour)



Ansley Mall to Amsterdam Walk
Existing Level of Service
(PM Peak Hour)

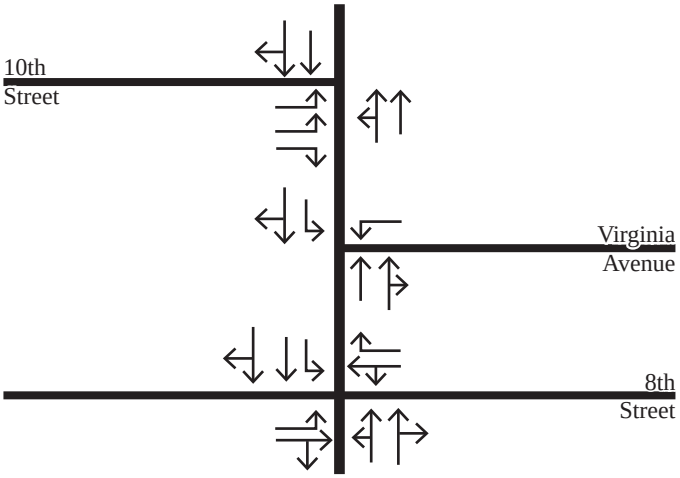


Figure 8 - Monroe Drive (Ponce to Piedmont)
Traffic Traverse Time - Existing Conditions

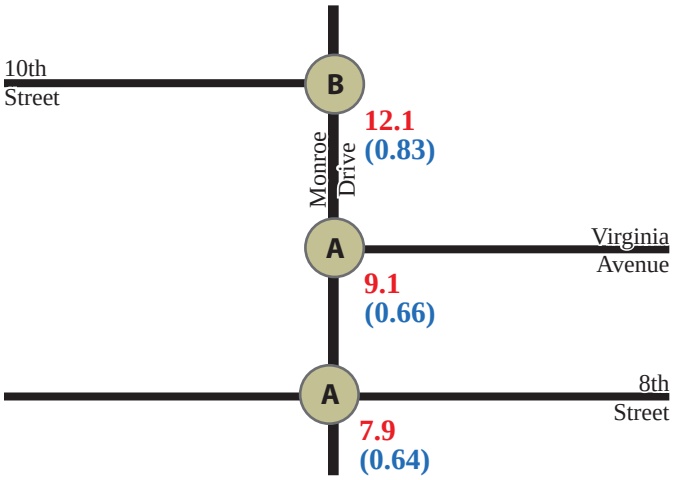
4.7 Focus Area 4 - 10th Street and Monroe Drive

The significant road feature of this area is the presence of the 10th Street and Virginia Avenue-two significant east-west streets-which meet at Monroe Drive as an offset intersection. The offset and close spacing of the intersection and the unusual configuration of Virginia, which forms a triangle at Monroe (as illustrated in the diagram on the opposite page), creates a confusing and uncomfortable condition for drivers, bicyclists, and pedestrians.

The fact that the BeltLine transit and trail will pass through this intersection at grade could exacerbate the situation if not well designed.

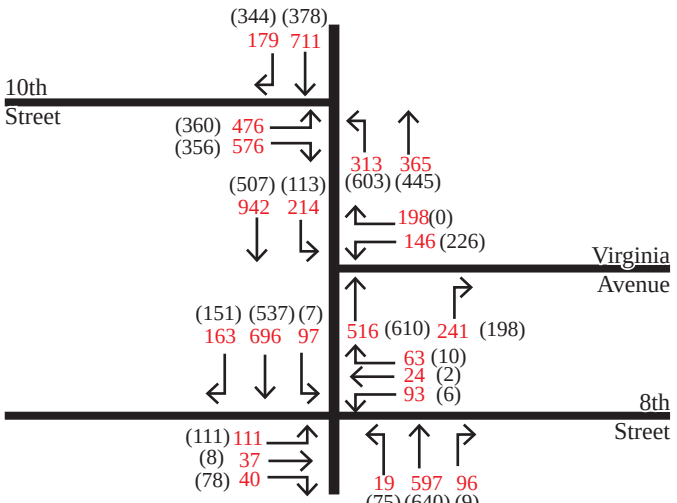


10th Street and Monroe Drive
Existing Lane Configurations



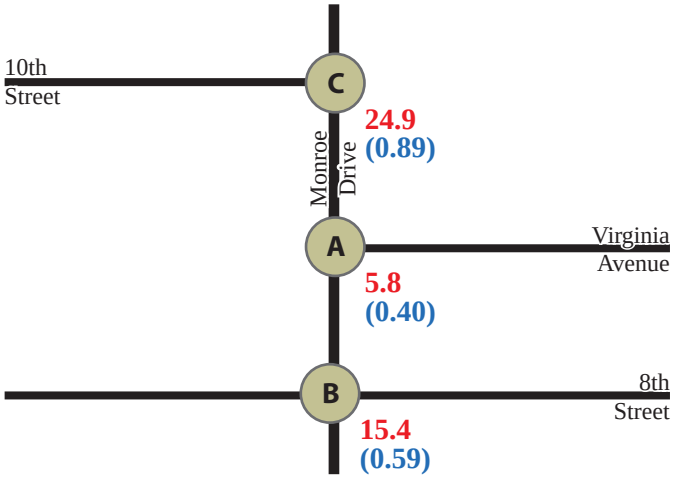
10th Street and Monroe Drive
Existing Level of Service
(AM Peak Hour)

##.# Average Delay
(.##) V/C Ratio
Level of Service



10th Street and Monroe Drive
Existing Traffic Volumes

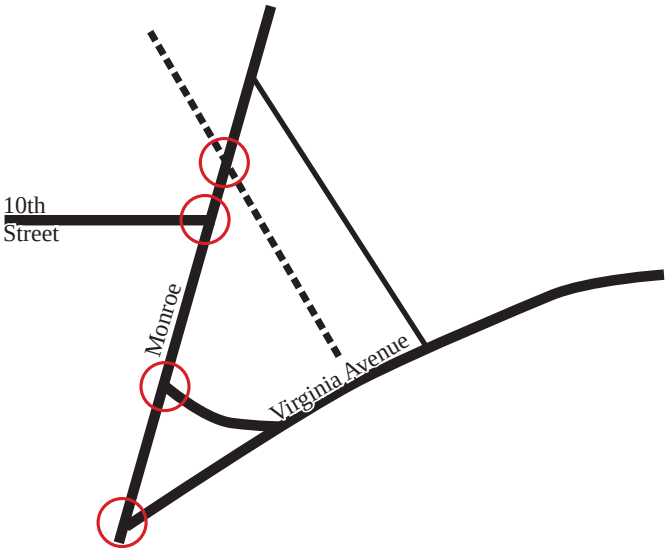
PM # Traffic Volume
AM# Traffic Volume



10th Street and Monroe Drive
Existing Level of Service
(PM Peak Hour)

##.# Average Delay
(.##) V/C Ratio
Level of Service

The diagram below illustrates the lane configuration of the intersection in the area. Traffic volumes and levels of service are also illustrated. As is the case with the other area intersections, levels of service and delays are less than what is common in most major urban communities.

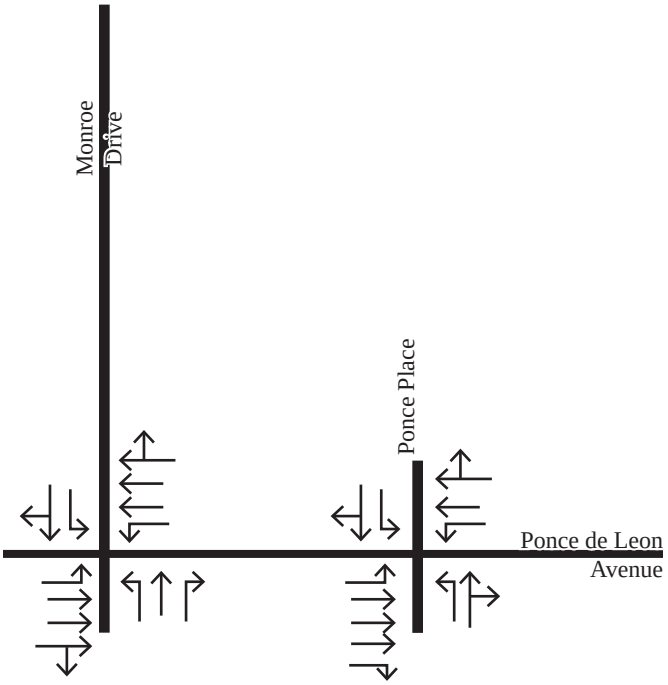


10th Street and Monroe Drive Intersection Grouping

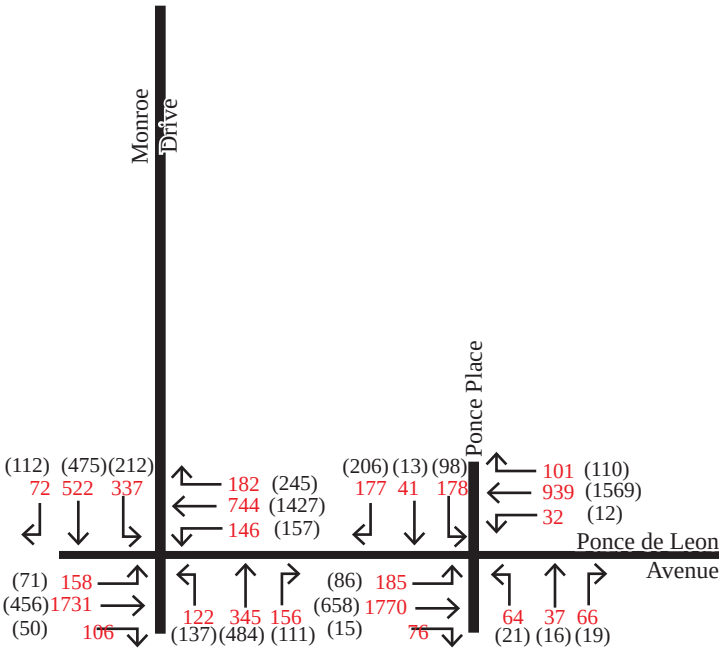
4.8 Focus Area 5 - Midtown Promenade/ Home Depot

Ponce de Leon Avenue forms the southern edge of this study area. The three most significant intersections on this corridor are Monroe Drive/Boulevard, Ponce Place, and the intersection of the Home Depot Shipping Center which may someday connect to provide a parallel corridor to Monroe Drive.

The diagrams below illustrate the lane configuration, traffic volumes, and levels of service for the intersections in this corridor.

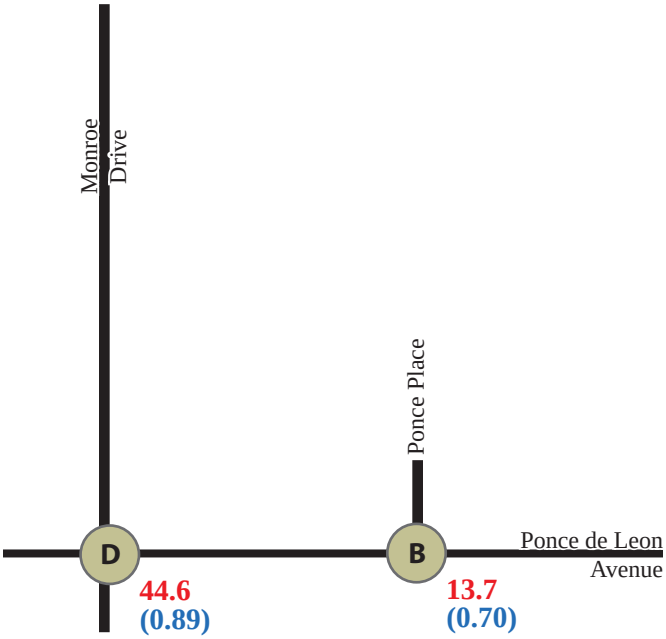


Midtown Promenade/Home Depot
Existing Lane Configurations



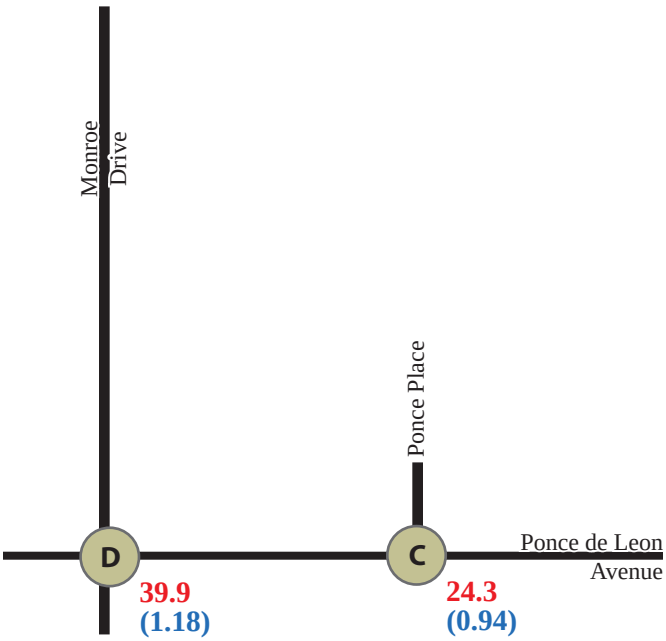
Midtown Promenade/Home Depot
Existing Traffic Volumes

PM # Traffic Volume
AM# Traffic Volume



Midtown Promenade/Home Depot
Existing Level of Service
(PM Peak Hour)

##.# Average Delay
(.##) V/C Ratio
Level of Service



Midtown Promenade/Home Depot
Existing Level of Service
(AM Peak Hour)

##.# Average Delay
(.##) V/C Ratio
Level of Service

4.9 Existing Traffic Operations Summary

Traffic throughout the study area currently operates with very minor delays during the peak hours and virtually no delays through most of the day. The bias toward vehicular movement in some locations (Monroe/Crescent, 10th/Virginia/Monroe) has created conditions that are less than ideal for non-drivers. As redevelopment and BeltLine implementation occurs, opportunities to create a truly multi-modal, more livable environment should be pursued.

5.0 Baseline Traffic Operations:

5.1 Related Transportation Studies

There are a number of related studies and plans in and adjacent to the study area that have recommended future land use changes, opportunities for redevelopment, new street connections and transit recommendations. The following summarizes the key transportation recommendations from each study. Projects indicated in italics were assumed in future conditions analyses for the Subarea.

Beltline Corridor DRI

1. Optimize and provide communication system for the traffic signals system at each intersection along the Monroe Drive corridor between Armour Drive and Ponce de Leon Avenue.

2. Signalize intersections of Monroe Drive and Cresthill Avenue and Piedmont Avenue and Montgomery Ferry Road

3. Add turn lanes at the intersection of Piedmont Avenue and Monroe Drive

4. Add turn lanes at the intersection of Monroe Drive and Ponce de Leon Avenue

BeltLine Redevelopment Plan

5. New pedestrian connections to the Midtown Promenade

6. Realignment of 10th Street to to Virginia Avenue through the island between Monroe Drive and Virginia Avenue

7. Extension of Cooledge Avenue west of Monroe Drive with a signalized intersection

8. Extension of Virginia Circle to connect west of Ponce de Leon Place

9. New east-west connection between Piedmont Avenue and Monroe Drive

10. Realignment and improvements to the Morningside Drive and Piedmont Avenue intersection

11. Streetscape and improvements for pedestrian safety along Piedmont Avenue and Monroe Drive

Georgia Tech BeltLine Street Framework Plan

12. ***Reconfigure the Buford Connector/Monroe/ Piedmont interchange (used in future analysis)***

13. ***New connections in Ansley Mall area to create developable blocks (used in future analysis)***

14. ***Realignment of 10th Street to to Virginia Avenue (used in future analysis)***

15. ***New connections from Monroe Drive to Ponce de Leon Avenue through the Midtown Promenade (used in future analysis)***

Cheshire Bridge

16. Re-stripe Cheshire Bridge Road from six lanes to five lanes with bike lane at Buford Highway Connector

17. Where possible increase width of sidewalks to 10'

Blueprint Piedmont Heights

18. ***Encourage a new street grid at Armour Drive (used in future analysis)***

19. ***Realign Monroe Drive and Buford Highway Connector interchange (used in future analysis)***

20. ***New connections from Piedmont Road to Armour Drive area (used in future analysis)***

Lindbergh SPI

21. New street grid and block structure to organize new mixed-use redevelopment.

Ponce de Leon / Moreland Avenues LCI

22. Install new median from Penn Avenue to City Hall East

23. Upgrade all traffic signals including signal timing and bus prioritization

24. Construct pedestrian connection between Midtown Place shopping center and Lakeview Street

5.2 Programmed Projects

The planned projects listed below for this study area were taken from the City of Atlanta's 2008-2013 Capital Improvements Program (CIP) and The Atlanta Regional Commission's 2008-2013 Transportation Improvement Program (TIP) and the Regional Transportation Plan (RTP). Projects 1, 2 and 3 are included in future year analyses.

Table 7: Programmed Projects

	Project Name	Description	Start/End Dates	Status	Source	Project Number	Cost	Funding Source
1	**Beltline Corridor Multi-use Trail & Streetscapes**	From Lindbergh Center to 10th St / Monroe Dr	2011-2013	Programmed	TIP	AR-450-A	$8,722,125	Federal / Local
2	**Beltline Transportation Corridor**	Transit Service in the Northeast Quadrant	2014-2020	Long Range	TIP	AR-451-A	$247,000,000	Federal / Local
3	**Beltline Corridor Multi-use Trail & Streetscapes**	Linking Lindbergh Center to Inman Park to West End to Howell Station to Lindbergh Center - Tier 1 Environmental Design	2010	Programmed	TIP	AR-452A	$750,000	Federal / Local
4	**Beltline Corridor Multi-use Trail & Streetscapes**	Linking Lindbergh Center to Inman Park to West End to Howell Station to Lindbergh Center - Preliminary Engineering	2010	Programmed	TIP	AR-452B	$1,962,413	Federal / Local
5	**14th Street Streetscape**	Streetscape improvements on 14th St from W Peachtree St to Piedmont Ave	2007-2008	Programmed	TIP/CIP	AT-205 / DPW-05-0003	$4,795,411	State / Local
6	**Linden Ave / Ponce de Leon Ave Intersection Improvements**	North Ave from Tech Pkwy to Piedmont Rd; Ponce De Leon Ave from Spring St to Myrtle St; Linden Ave from Spring St to Peachtree St.	2007-2008	Programmed	TIP/CIP	AT-212 / DPW-05-0295	$2,125,000	Federal / Local
7	**Ansley Park Traffic Calming**	Traffic calming measures throughout Ansley Park neighborhood	n/a	Programmed	TIP/CIP	AT-222A / DPW-05-0021	$750,000	Federal
8	**Crosswalk Installation, Council District 6**	Replace existing crosswalks with international crosswalks at arterial and collector streets	2003-2010	Programmed	CIP	DPW-05-0129	$274,355	Local
9	**Traffic Calming Measures, Council District 6**	Evaluations underway for Atlanta Public Schools within this Council District (6)	2007	Programmed	CIP	DPW-05-0529	$134,076	Local
10	**Maiden Lane**	Alleyway approx. 10 feet wide provides access to the rear of the properties that abut it	2007	Programmed	CIP	DPW-06-0042	$662,029	Local
11	**Montgomery Ferry Road**	Sidewalk from Pelham Rd to Monroe Dr, one side of street	2007	Programmed	CIP	DPW-07-0013	$110,000	Local
12	**Piedmont Road, Phase 1**	Sidewalk from North Rock Springs Rd to Pelham Rd	2007	Programmed	CIP	DPW-07-0014	$48,000	Local
13	**Piedmont Road, Phase 2**	Sidewalk from 7th St to 10th St	2007	Programmed	CIP	DPW-07-0015	$79,000	Local
14	**Wimbledon Road**	Sidewalk from Monroe Dr to Piedmont Ave, south side of street	2007	Programmed	CIP	DPW-07-0016	$242,396	Local
15	**South Midtown Neighborhood**	Sidewalk from Ponce de Leon Ave to 10th St; repairs to Myrtle St, Penn Ave, and Argonne Ave	2007	Programmed	CIP	DPW-07-0033	$211,753	Local
16	**Monroe Drive**	Sidewalk from Montgomery Ferry Rd to Red Cross Bldg on the east side of the street	2007	Programmed	CIP	DPW-07-0034	$178,297	Local

5.3 Current Development Trends

Proposed Redevelopment & Existing Land Use Plan
Based on the Illustrative Urban Design Plans depicted in Figures 9 & 10 developed as part of the Subarea Master Plan, a conceptual redevelopment program has been developed for the study area. Given the prominent location, this area already had significant future land use entitlements. This program is consistent with, and allowable under, the Future Land Use Plan of the area with limited adjustments to promote more mixed use development.

Market Analysis
In January 2008, Robert Charles Lesser & Co. (RCLCo) prepared "An update of Market Forecasts for the Atlanta BeltLine Study Area". This study provided an update of the 2004 market forecasts for residential, commercial, office and industrial development in the BeltLine study area and allocated the overall growth potential to the 10 Subareas. Provided in Table 8 is a summary of the redevelopment program relative to the net demand projected by RCLCo by the year 2020 in Subarea 6.

Focus Area 1 - Monroe Crescent

Proposed land use in the master plan is largely consistent with the Piedmont Heights plan proposed land use. Monroe Drive between Wimbledon Road and the I-85 exit would mostly consist of office/ institutional development with some low to medium density residential and community facilities placed along interior streets. Interior to these development parcels would be proposed open space and park improvements for Gotham Park, as well as a potential route for the BeltLine trail.

Table 8: Conceptual Development Program

Zone	Mixed Use (1-4 Stories)	Mixed Use (5-9 Stories)	Mixed Use (10+ Stories)	Office / Institutional	Low Density Commercial	Residential (1-4 Stories)	Residential (5-9 Stories)	Total
Zone 1								
Dwelling Units	180	0	0	0	0	60	634	**874**
Comm/Office SF	11,740	0	0	261,025	31,788	0	0	**304,553**
Zone 2								
Dwelling Units	111	590	89	0	0	45	0	**835**
Comm/Office SF	6,000	27,000	3,385	3,500	0	0	0	**39,885**
Zone 3								
Dwelling Units	0	188	0	0	0	288	0	**476**
Retail SF	0	10,579	0	0	0	0	0	**10,579**
Zone 4								
Dwelling Units	173	161	0	0	0	209	466	**1,009**
Retail SF	20,421	11,500	0	0	0	0	0	**40,078**
Zone 5								
Dwelling Units	56	120	0	0	0	0	0	**176**
Retail SF	500	10,00	0	0	0	0	0	**10,500**
Zone 7								
Dwelling Units	227	463	234	0	0	180	527	**1,631**
Retail SF	23,123	13,500	12,000	0	0	0	0	**48,623**

* Source: Robert Charles Lesser & Co.

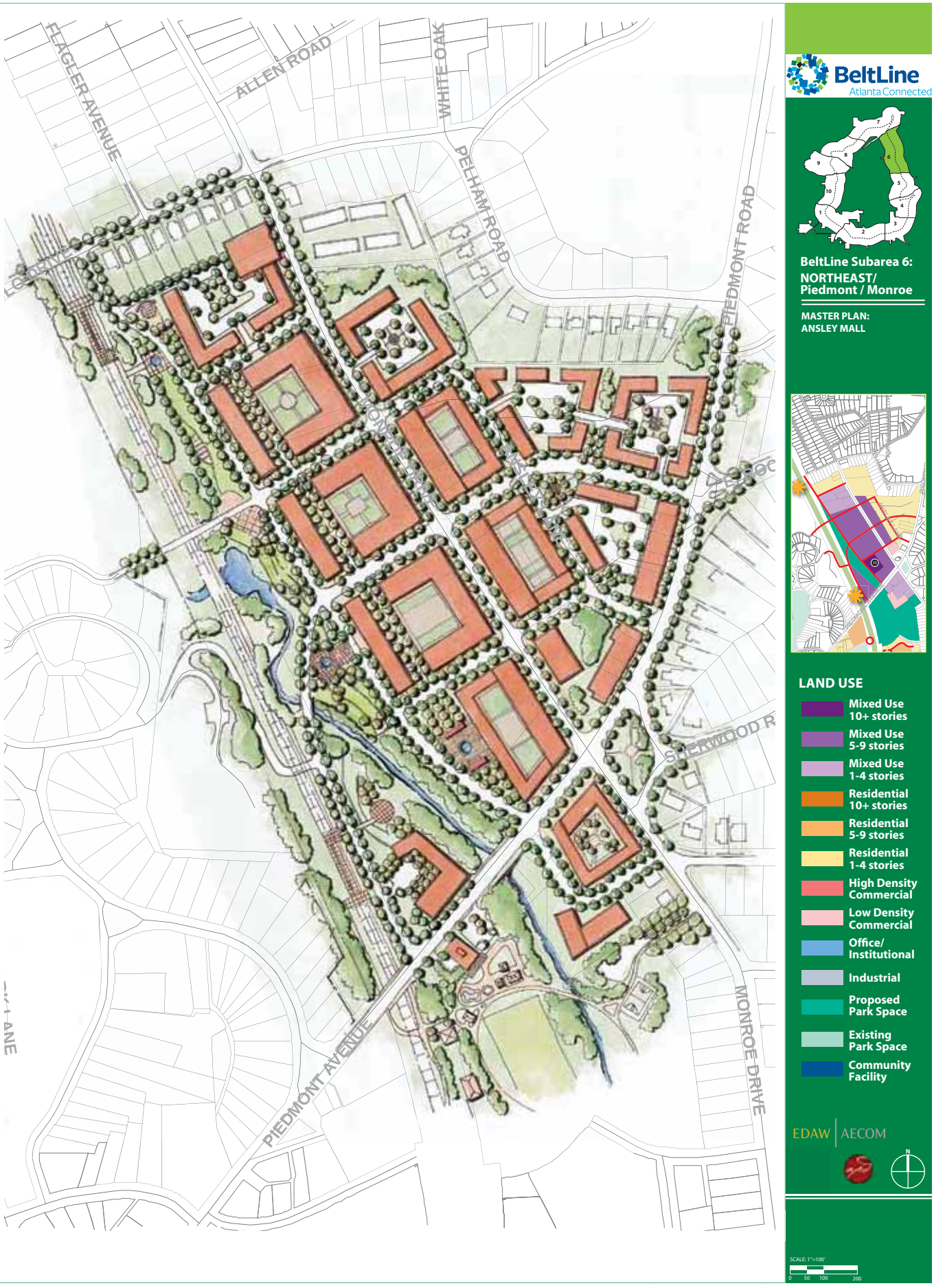


Figure 9-Piedmont/Monroe Illustrative Urban Design Plan

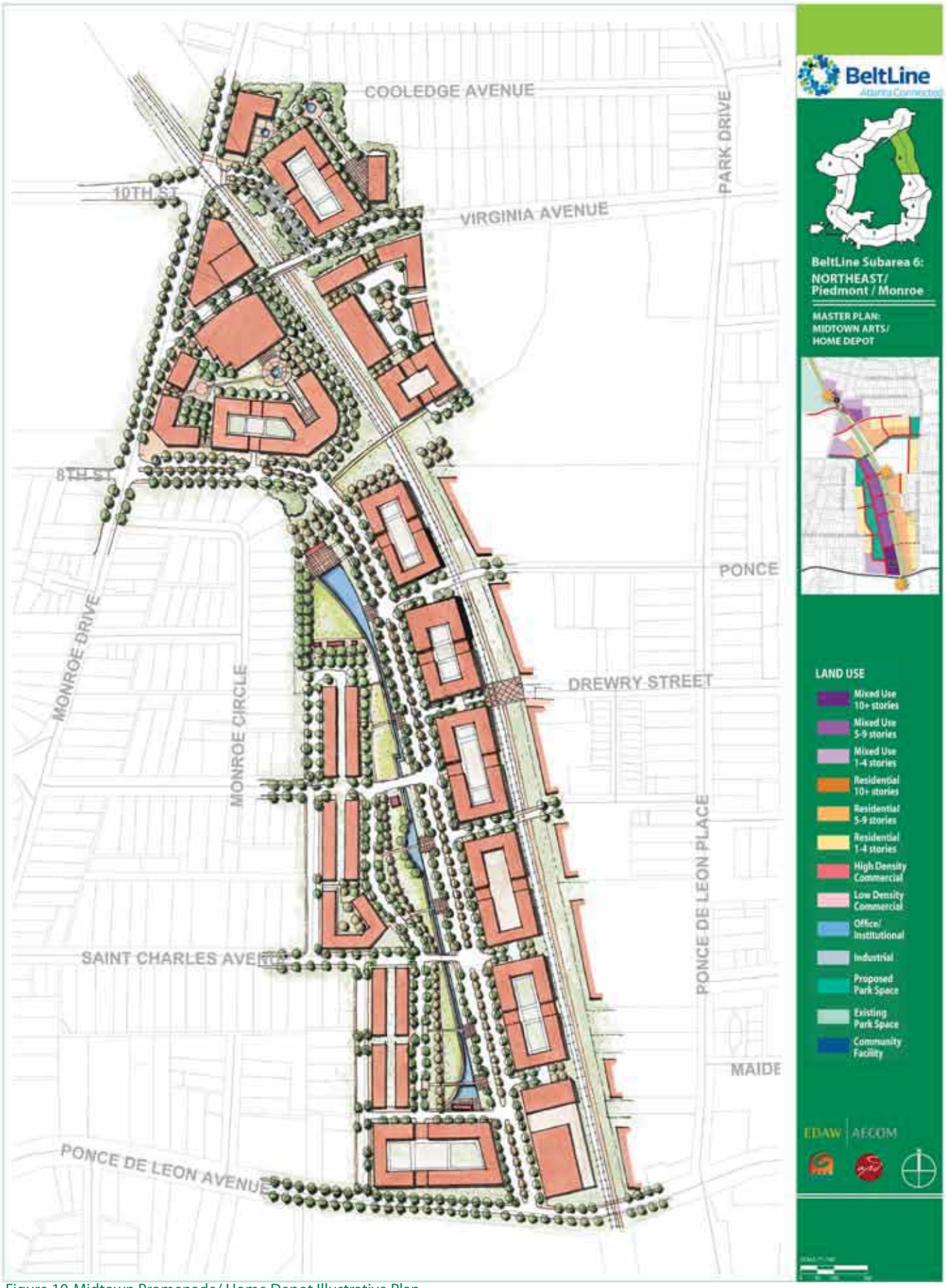


Figure 10-Midtown Promenade/ Home Depot Illustrative Plan

Focus Area 2 - Piedmont/Monroe

As the development moves east toward Piedmont Road, it transitions into a medium density mixed use area with a street network that introduces walkable and efficient block sizes, as well as providing greater connectivity between Monroe Drive and Piedmont Road/Cheshire Bridge.

Focus Area 3 - Ansley Mall to Amsterdam Walk:

According to the proposed land use, the Monroe Drive corridor would feature 5-9 story mixed use buildings, in which the building massing would step back as they reach five stories to avoid a canyon effect along Monroe Drive. Interior to Monroe Drive the development would be a similar density, stepping down in height as it approaches the new open space along Clear Creek. The east side of Monroe Drive would transition from mixed use development to lower density residential in order to align the new development with the scale and character of the existing neighborhoods.

South of Ansley Mall along Monroe Drive and situated between the Piedmont Park planned expansion, an area on the north and south side of Dutch Valley Road is envisioned for a low to medium density residential development, consistent with recent redevelopments.

Amsterdam Walk, similar to Ansley Mall, remains a successful retail and entertainment development. However, in the long term, it provides an excellent opportunity to capitalize on its adjacency to the BeltLine. The future land use plan for this area is 1-4 story mixed use buildings along the southern and western edge, 5-9 story buildings at the interior of the development and lower density residential buildings along the northern and eastern edges as it transitions back into the existing neighborhood.

Focus Area 4 - 10th Street & Monroe Drive

The intersection of 10th Street and Monroe Drive provides another development opportunity. As the BeltLine transit runs across Monroe Drive towards Piedmont Park, this intersection could become a significant gateway into Piedmont Park and critical edge to the 10th and Monroe Redevelopment Node.

At the intersection of 10th and Monroe, the plan recommends a holistic approach that addresses several major challenges: safer, more rational pedestrian and bicycle movement; addressing transit movement through the intersection by creating an environment that is safer for transit and trail mobility; improving the flow of vehicular traffic; eliminating the vast eyesore of a gravel parking lot bordering Piedmont Park; creating 18-20 more acres of designed, usable parkland than currently exists in this area; introducing good design in the form of a new transit-supportive development at this intersection; and creating the appropriate buffers and transitions to existing single-family neighborhoods.

The holistic solution to the 10th and Monroe redevelopment area has numerous benefits and design opportunities. This development recommendation allows for a design that can set the tone for other development in the area.

The recommendations would create a more pedestrian-friendly environment with more greenspace. The proposed development envelope ends well before the Cresthill path, an important community resource and way to Piedmont Park. The recommendation could be part of a joint development program, which is strongly encourage by the Federal Transit Administration. This recommendation also satisfies a legitimate fiscal obligation to the taxpayers of the city that will create more resources for the project and the city.

Focus Area 5 - Midtown Promenade/Home Depot

The site that has the greatest potential to integrate and stitch together the neighborhoods within Subarea 6 is the Midtown Promenade/Home Depot site. The area has evolved through numerous incarnations, but still impedes connectivity between Virginia-Highland and Midtown. To capitalize on its adjacency to the BeltLine, the Ponce de Leon Avenue corridor, City Hall East, the future Historic Fourth Ward Park and Piedmont Park, the site could have substantial density, offering multifamily residential, office, a variety of retail, recreational amenities and civic uses.

The plan proposes 5-9 story mixed use development along the BeltLine. The east side of these buildings would have immediate access to the BeltLine transit and trail, while the west side of the block would front on a main street and linear park. The west side of the site will provide lower density (1-4 story) residential to complement the scale of the adjacent Midtown neighborhood. As the development moves north it will ultimately connect to 8th street at Monroe Drive.

Development Assumptions

The traffic analysis is based on two key assumptions relative to the proposed development program. First, it is assumed that the proposed redevelopment program would occur under both the Baseline and BeltLine scenarios. This is based on the fact that the land use entitlements are in place and that the proximity to Piedmont Park is the primary development driver in the area. Secondly, it is also assumed that the proposed development program would be built-out over two time frames: sites north of 10th Street by 2020, and the remaining sites by 2030. This assumption is based on the relative age of the commercial sites in those areas. The sites north of 10th Street generally developed in the 1980's or earlier. South of 10th Street, the developments are newer, suggesting that they might have a bit more life in their current configurations.

5.4 Background Traffic Growth

Because the development scenarios include the build-out planning years of 2020 and 2030, it is reasonable to anticipate that some growth in traffic will occur during this time in the study area with or without the proposed development. There are generally two components to be considered in the development of background growth:

- Growth close to the site resulting from specific, identified projects already in the "pipeline" (that is, actual nearby projects already approved, or further along in the approval process), sometimes called "background development." Given the scale of the proposed redevelopment envisioned in this study, the redevelopment proposed is considered to account for "background development" in the study area.

- Traffic growth along roadways resulting from the expanding nature of the region and to other non-specific development further from the site is often referred to as "background growth." The following methodology was used in determining the background growth.

Utilizing data from the Georgia Department of Transportation State Traffic and Report Statistics (STARS) and ARC's Travel Demand Model (TDM), historic and projected traffic volumes were used to estimate background traffic growth. These growth rates were then added to the north/south through volumes for the development scenarios.

As was discussed previously, ARC forecast traffic volumes and actual trends of traffic growth vary greatly in this study area. For Monroe Drive north of 8th Street, for example, the model predicts an average of 0.62% growth per year while historic growth is only 0.31%. On Piedmont Avenue north of The Prado, the model predicts 1.11% annual growth while the five year past trend shows a reduction of 0.22% per year. After analysis of all available data a rate of 0.4% annual growth was determined to be a representative factor for this evaluation.

5.5 Trip Generation

Trip generation estimates for the proposed redevelopment areas were calculated according to the rates and methodology published in the 7th edition of the ITE Trip Generation Handbook based on the proposed development program.

Redevelopment Plan and Program

Traffic forecasts for the six zones with expected redevelopment in Beltline Subarea 6 project were developed using the rates and/or formulas found in the ITE Trip Generation Manual, 7th Edition. Four scenarios were run: both with and without Beltline, for years 2020 and 2030. See attached table, Summary of Redevelopment Trip Generation, for a summary of the total redevelopment intensities. The table shows a breakdown of the trip generation for each of the six zones (zones 1-5 and 7) plus a total. Zones 6 and 8 are not expected to redevelop. The development program used for the scenarios with and without the Beltline remained the same.

Access onto the external roadway was determined based on the location of each zone. A manual distribution of project traffic was proposed and approved by Atlanta Beltline, Inc.

Internal Capture

Internal trips are those which begin and end within the project site. External trips have either an origin or destination outside the project site. Internal trips were estimated for the interaction between the residential and retail components, between the residential component and the office component, and between the retail component and office component.

The internal capture for each zone was calculated using the methodology found in the ITE Trip Generation Handbook. The matrix for daily and PM internal capture is included for each zone. A copy of the internal capture rates between uses is includes with this response.

Pass-by

Pass-by trips come directly from the traffic stream passing the facility on the adjacent street system and do not require a diversion from another roadway. Pass-by includes trips that would normally follow the route adjacent to the site. An example of a pass-by trip is stopping to get gas on the way home from work. For the purpose of this analysis, the pass-by rate is set as 20% for all zones for the PM peak-hour. This reduction is applied to only the retail component.

Transit Trip Reduction

Atlanta Beltline Transit Percentage Reduction Methodology, revised 5/16/08, was used to calculate the percent reduction for each of the zones separately. The reduction ranged from 20% to 30%. Factors used accounted for walk distance, density of development, employment density, land use, and socio-economics.

A listing of the factors and the values given to each are shown below:

1. Walk Distance
   a. ¾ to One (1) Mile - 0
   b. 1/2 Mile - 5
   c. ¼ Mile – 10
2. Density (Mixed Use and Residential only)
   a. Less than 5 units per Acre - 1
   b. Less than 10 units per Acre - 5
   c. Less than 16 units per Acre – 8
   d. More than 16 units per Acre – 10
3. Density (Employment per acres)
   a. 10 to 250 – 0
   b. 251 to 500 – 4
   c. 501 to 1,400 – 6
   d. 1,401 to 3,400 – 8
   e. 3,401 – 6,900 - 10
4. Land Use (Residence versus Commercial)
   a. Residence Only – 2
   b. Commercial Only – 6
   c. Mixed-Use - 10
5. Social Economics - SE
   a. Area doesn't relies on transit – 0
   b. Area doesn't relies heavily on transit - 5
   c. Area relies on transit - 8
   d. Area relies heavily on transit – 10

In the redevelopment scenario with the Beltline, the walk distance for each zone was given 10 points since this is a transit-oriented development. The residential density ranged from 5 to 10 points through a quick calculation of number of units per acre. Employment density was similarly calculated assuming 2.5 employees per 1000 SF retail and 3.29 employees per 1000 SF office (source: ITE Trip Generation). The land

use factor simply looked at the mix of uses. A summary of the points assigned to each zone with and without the Beltline are attached.
For the scenario that assumes no Beltline, the walk distance was set to 0 for each zone while all other factors remained the same.

The score equivalencies then translated to a percent reduction using the following ranges:

a. 31 and above = 30% reduction
b. 25 - 30 = 28% reduction
c. 20 - 24 = 25% reduction
d. 15 – 19 = 20% reduction
e. 10 – 14 = 15% reduction
f. 5 – 9 = 10% reduction
g. 1 – 4 = 0% reduction

The reduction percentages for each zone are included in the Summary of Redevelopment Trip Generation.

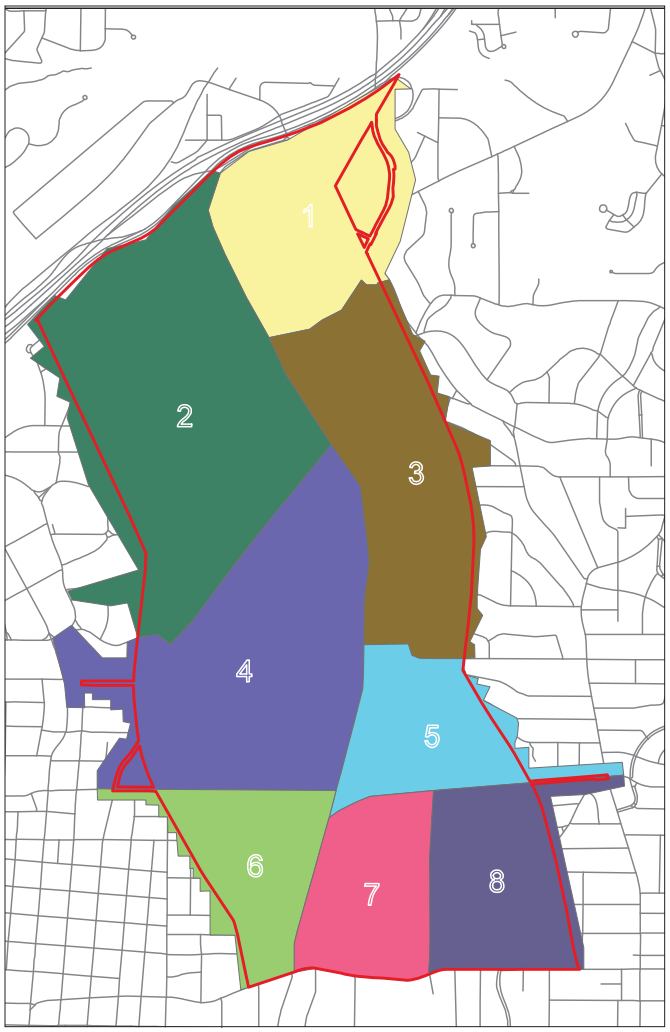


Figure 11-TAZ's

Table 9: Summary of Trip Generation - Total (Zone 1, Year 2020)

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends						AM Peak-Hour Trip Ends					
				Total	In		Out		Total	In		Out			
					%	Trips	%	Trips		%	Trips	%	Trips		
Multi-Family	220	317 DU	2,056	192	65%	125	35%	67	159	20%	32	80%	127		
Townhouse/Condo	230	557 DU	2,763	246	67%	165	33%	81	204	17%	35	83%	169		
Office	710	261.0 KSF	2,793	371	17%	63	83%	308	404	88%	356	12%	48		
Retail	820	43.5 KSF	3,955	362	48%	174	52%	188	95	61%	58	39%	37		
Total			**11,566**	**1,171**		**526**		**644**	**862**		**480**		**382**		
Internal Capture	9.71%	9.08%	1,123	106		53		53							
Pass-By	1.29%	20.00%	51	51		24		27							
Modal Split		30.00%	3,118	351		158		193	259		144		115		
Net External	Daily	Pk-hour	7,275	662		291		371	604		336		267		

Table 10: Summary of Trip Generation - Total (Zone 2, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	340 DU	2,191	204	65%	133	35%	72	170	20%	34	80%	136
Townhouse/Condo	230	496 DU	2,502	223	67%	150	33%	74	186	17%	32	83%	154
Office	710	3.5 KSF	101	83	17%	14	83%	69	13	88%	11	12%	2
Retail	820	36.4 KSF	3,520	321	48%	154	52%	167	85	61%	52	39%	33
Total			**8,313**	**832**		**451**		**381**	**454**		**129**		**325**
Internal Capture	14.33%	17.47%	1,191	145		73		73					
Pass-By	1.00%	20.00%	35	35		20		23					
Modal Split		28.00%	1,984	233		126		107	127		36		91
Net External			5,103	418		232		179	327		93		234
	Daily	Pk-hour											

Table 11: Summary of Trip Generation - Total (Zone 3, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	94 DU	715	69	65%	45	35%	24	50	20%	10	80%	40
Townhouse/Condo	230	382 DU	2,005	180	67%	121	33%	60	151	17%	26	83%	125
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.6 KSF	1,577	142	48%	68	52%	74	41	61%	25	39%	16
Total			**4,298**	**392**		**234**		**158**	**241**		**60**		**181**
Internal Capture	7.34%	7.65%	315	30		15		15					
Pass-By	1.42%	20.00%	22	22		32		35					
Modal Split		20.00%	792	78		47		32	48		12		36
Net External			3,168	261		141		77	193		48		145

Table 12: Summary of Trip Generation - Total (Zone 4, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	313.5 DU	2,034	190	65%	124	35%	67	157	20%	31	80%	126
Townhouse/Condo	230	695.5 DU	3,337	295	67%	198	33%	97	244	17%	41	83%	202
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	40.1 KSF	3,748	342	48%	164	52%	178	90	61%	55	39%	35
Total			**9,120**	**827**		**485**		**342**	**491**		**128**		**363**
Internal Capture	14.71%	15.47%	1,342	128		64		64					
Pass-by	1.14%	20.00%	43	43		22		25					
Modal Split		28.00%	2,166	232		136		96	138		36		102
Net External	Daily	Pk-hour	5,570	425		264		157	354		92		262

Table 13: Summary of Trip Generation - Total (Zone 5, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	60.0 DU	511	51	65%	33	35%	18	33	20%	7	80%	27
Townhouse/Condo	230	116.0 DU	728	68	67%	45	33%	22	58	17%	10	83%	48
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.5 KSF	1,569	141	48%	68	52%	74	40	61%	25	39%	16
Total			**2,808**	**260**		**146**		**114**	**132**		**41**		**91**
Internal Capture	11.18%	11.54%	314	30		15		15					
Pass-by	1.42%	20.00%	22	22		32		35					
Modal Split		30.00%	494	52		29		23	26		8		18
Net External	Daily	Pk-hour	1,978	156		70		41	105		33		72

Table 14: Summary of Trip Generation - Total (Zone 7, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	612.0 DU	3,828	354	65%	230	35%	124	304	20%	61	80%	243
Townhouse/Condo	230	1,019.0 DU	4,617	403	67%	270	33%	133	331	17%	56	83%	274
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	48.6 KSF	4,250	389	48%	187	52%	202	102	61%	62	39%	40
Total			**12,696**	**1,147**		**687**		**459**	**736**		**179**		**557**
Internal Capture	14.07%	15.02%	1,786	172		86		20					
Pass-by	1.02%	20.00%	43	43		17		138	221		54		167
Modal Split		30.00%	3,260	344		206		215	515		125		390
Net External			7,606	587		377							
	Daily	Pk-hour											

Table 15: Summary of Trip Generation - Total (Zones 1-7, Year 2020)													
Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	1,736.0 DU	11,335	972	65%	632	35%	340	854	20%	171	80%	683
Townhouse/Condo	230	3,265.0 DU	15,953	1,048	67%	702	33%	346	840	17%	143	83%	697
Office	710	246.5 KSF	2,894	375	17%	64	83%	311	408	88%	359	12%	49
Retail	820	189.7 KSF	18,619	955	48%	459	52%	497	203	61%	140	39%	90
Total			**48,802**	**3,351**		**1,857**		**1,494**	**2,332**		**813**		**1,519**
Internal Capture			6,072	612		306		306					
Pass-By	1.17%	20.00%	217	217		147		164					
Modal Split		27.79%	11,814	931		516		415	648		226		422
Net External			30,699	1,591		888		609	1,684		587		1,097
	Daily	Pk-hour											

6.0 Traffic Operations:

6.1 Trip Distribution

Utilizing the ARC TDM, background traffic counts and observation of existing land patterns, a distribution of future traffic was determined. The analysis was focused on trips on the adjacent streets and highways of I-75/85 southbound, I-85 northbound, and various arterial surface streets. The resulting analysis is reflected in the diagram on the following page.

Trip Distribution: Baseline
The trip distribution for the "Baseline" scenarios assumes increased use of Piedmont Avenue and Monroe Drive between I-85 and Ponce de Leon Avenue. Additionally, this distribution assumes new network and increased connectivity at the intersections of Piedmont Avenue at Monroe Drive/Piedmont Circle/Lambert Drive, Golham Park Drive, Avery Drive, and East Morningside Drive.

Trip Distribution: BeltLine
Based on the proposed new network in the "BeltLine Build" scenarios, a modified distribution assumes greater connectivity at Ansley Mall, Amsterdam Walk, Midtown Promenade, and Midtown Place. This distribution also assumes the reconfiguration of the intersection at Monroe Drive and 10th Street/Virginia Avenue.

6.2 2030 Baseline Scenarios

Analysis Question: What would 2030 be like with new development but without the addition of BeltLine Transit or the proposed new street framework?

2030 Scenario Assumptions:

- Time Horizon: 2030.
- Road Network: Existing plus all new framework streets.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.

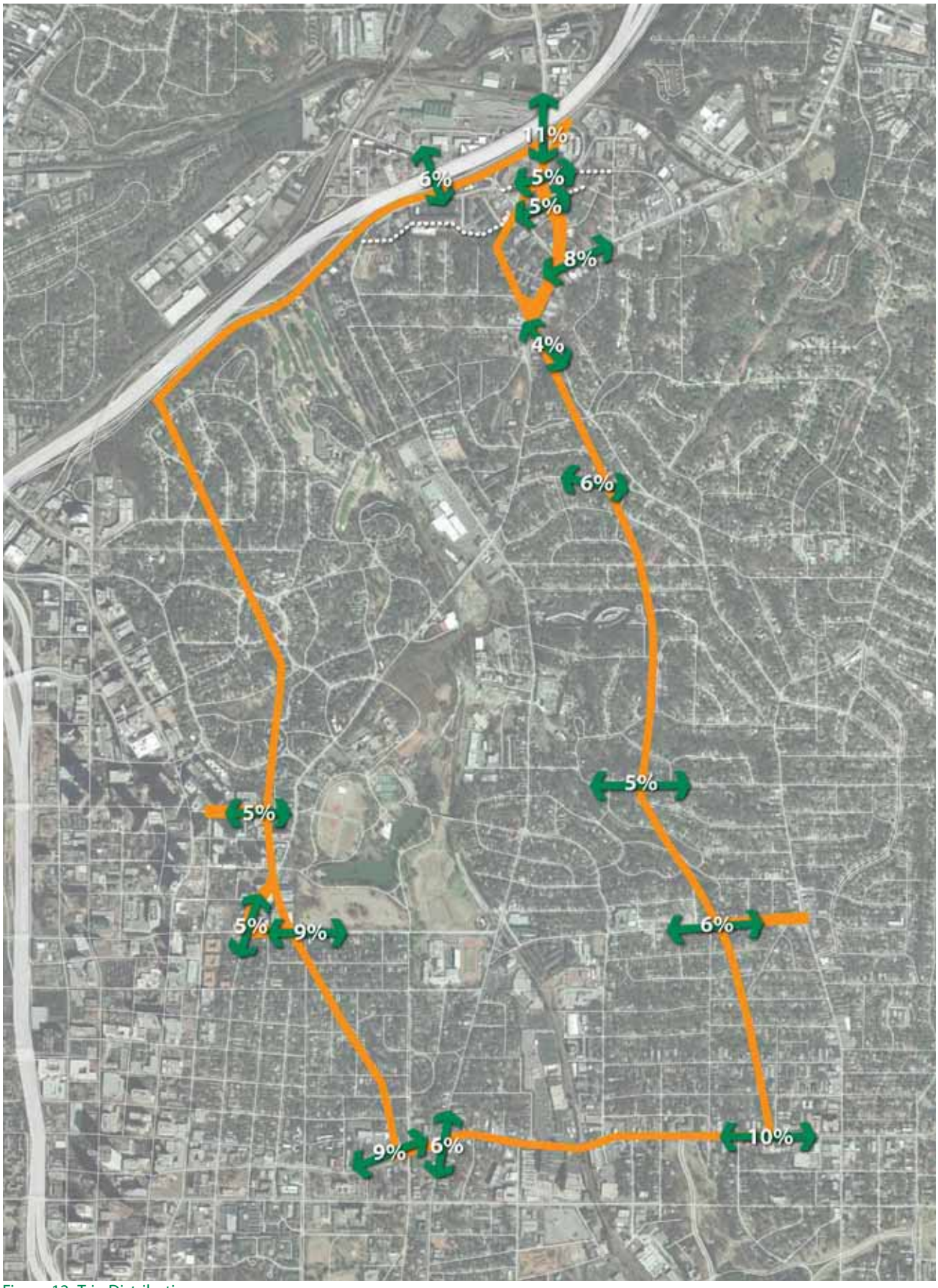


Figure 12- Trip Distribution

6.3 Focus Area 1 - Monroe Crescent Re-configuration

Context

The unique configuration of the Buford Connector/ Monroe/Piedmont interchange is a remnant of Buford Highway's former role as I-85 and its constrained access to Piedmont Road. This interchange wants to be a direct connection to Piedmont Road but is constrained by the existing I-85 structure and Norfolk Southern rail line, creates a number of issues:

- Three sets of dangerous "weave" conditions are created on Buford Highway where exiting and entering highway traffic must cross paths in a short distance at high speeds. This creates a safety issue and current interchange design practice would avoid these types of conditions.

- The variety of ramps in different locations creates a confusing interchange overall with ramps on three different roads to the same highway (Armour Drive, Monroe Drive, and Piedmont Road).

- This fractured pattern of ramps forces traffic out of their desired direction putting pressure on local streets such as Monroe Drive. Example: traffic south bound to Piedmont Road or Cheshire Bridge Road must exit on Monroe Drive, travel to Piedmont Circle and make a right turn on Piedmont Road.

Transportation Approach

The re-configuration concept eliminates the east-bound on and off ramps on Monroe Drive and consolidates them on the east side of Piedmont Road with a new entrance ramp connected to local street network for increased access.

- By eliminating the Monroe Drive ramps, two of the weave conditions on the west bound lanes of Buford Highway are removed.

- The redesigned east bound exit and entrance ramps on the east side of Piedmont Road are designed to be reconnected into a network of streets that provide direct access to both Piedmont Road and Cheshire Bridge Road. This new access to Buford Highway can serve to catalyze development in the Cheshire Bridge Road area on underutilized parcels that can be supported by increased access.

- The extension of Monroe Drive across Piedmont Road to Cheshire Bridge Road creates a needed east-west connection in this area and takes pressure off of the Piedmont/Cheshire Bridge Road intersection.

- The future street framework of new streets and blocks will serve to distribute traffic and create more access to the interchange in the long term.

Re-configuration Analysis

The Piedmont Road Focus Area anticipates limited re-development with only focused sites proposed along Piedmont Road. The City has determined to protect the existing industrial land uses in the Armour Drive area by restricting land use change. In addition, the area south of Buford Highway/I-85 is within Subarea 6 which will undergo its own master planning process to determine appropriate land use change and redevelopment.

Therefore, the methodology for analyzing the proposed re-configuration of the Buford Highway interchange will involve two scenarios; 1) existing conditions, 2) existing conditions re-configured. These scenarios were modeled utilizing the software program Synchro in order to perform intersection capacity analysis at key intersections. The intersection capacity analysis was conducted based on Highway Capacity Methodology (HCM).

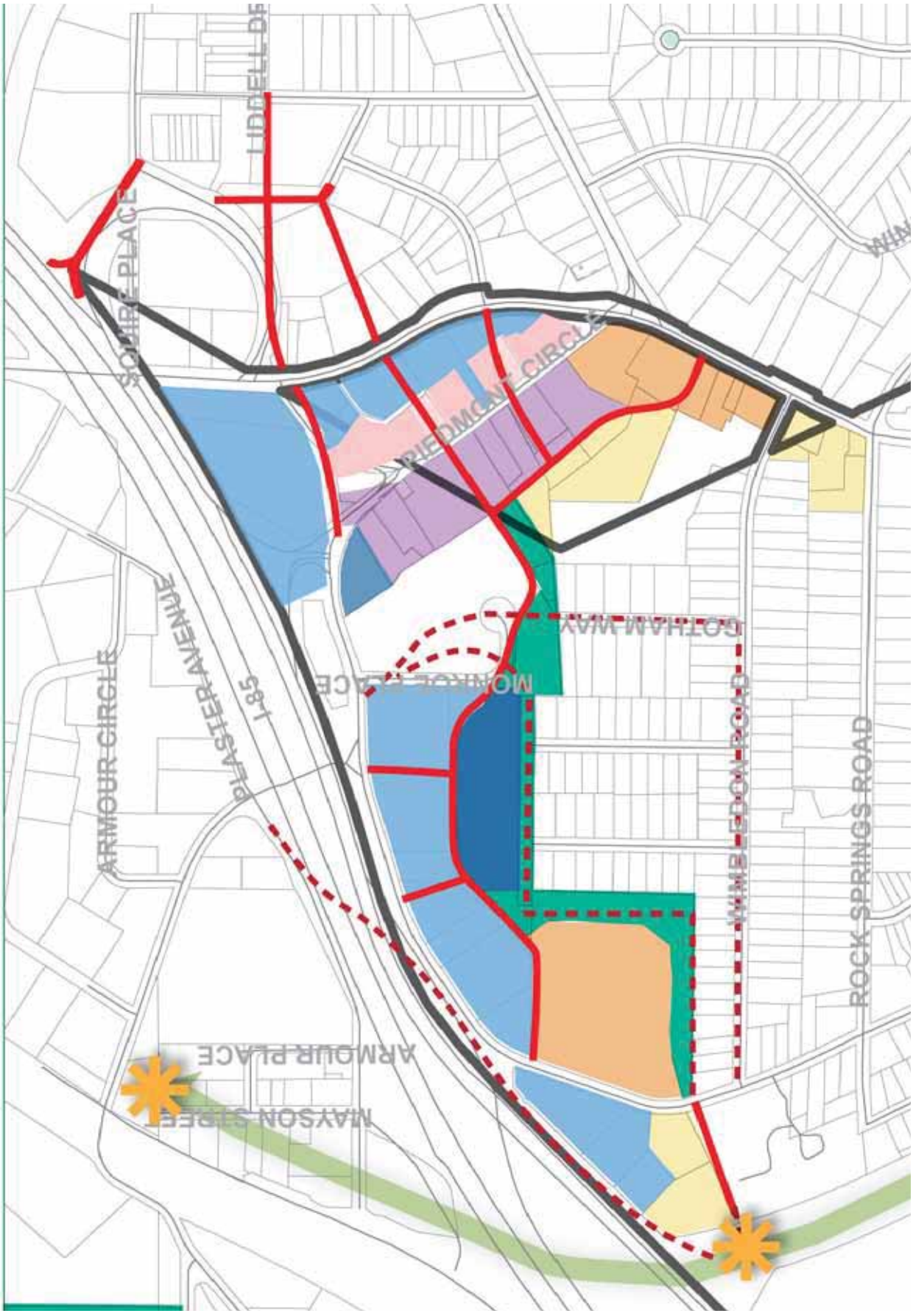


Figure 13- Buford Highway Re-configuration

Re-configuration

Analysis Question: What happens when the traffic at the Monroe Drive/Buford Highway ramps is rerouted to a new set of ramps between Buford Highway and Cheshire Bridge Road?

Assumptions: (see diagrams on page 49)

- The entering trips at the existing Monroe Drive/ Buford Highway ramps are reassigned with: the westbound Monroe trips now making a left from Piedmont Road to the new ramps, and the eastbound Monroe trips split with 50% on Monroe as through trips to the new ramps, and 50% reassigned to Piedmont Road northbound making rights at either Cheshire Bridge Road or the Monroe Drive extension.
- The exiting trips at the existing Monroe Drive/ Buford Highway ramps are reassigned with: 30% going to Cheshire Bridge Road eastbound via Manchester Street, and 70% going to Piedmont Road southbound via Cheshire Bridge Road.
- The Monroe Drive and Piedmont Circle intersection is assumed to be signalized and re-configured to have Piedmont Circle "T" into Monroe Drive.

Results/Conclusions:
General:

- Overall, the new and existing intersections in the re-configured scenario operate at acceptable levels of service with current traffic counts.
- Therefore, the interchange re-configuration should be evaluated further given its potential to: 1) provide greater east-west connectivity (the extension of Monroe Drive), 2) more direct connection to Piedmont Road from Buford Highway westbound (eliminates a signal and creates a direct route from Monroe to Piedmont Road northbound), 3) eliminates the short weave conditions on Buford Highway eastbound, 4) opens up direct access to Buford Highway from Cheshire Bridge Road, and 5) restructures redevelopment opportunities in the Piedmont Road/Cheshire Bridge Road area.

Piedmont Road and Monroe Drive Extension Intersection:

- Existing Condition LOS: B (17.4 sec. delay)
- Re-configured Condition LOS: C (20.4 sec. delay)
- The re-configuration does put added pressure on this intersection with additional westbound lefts from the ramps and southbound lefts from Piedmont Road.

Monroe Drive and Piedmont Circle Intersection:

- Existing Condition LOS: not currently signalized
- Re-configured Condition LOS: B (17.5 sec. delay)
- This intersection is assumed to be re-configured with Piedmont Circle intersecting Monroe at a "T". The re-configuration assumes a new signal at this intersection.

Piedmont Circle and Cheshire Bridge Road Intersection:

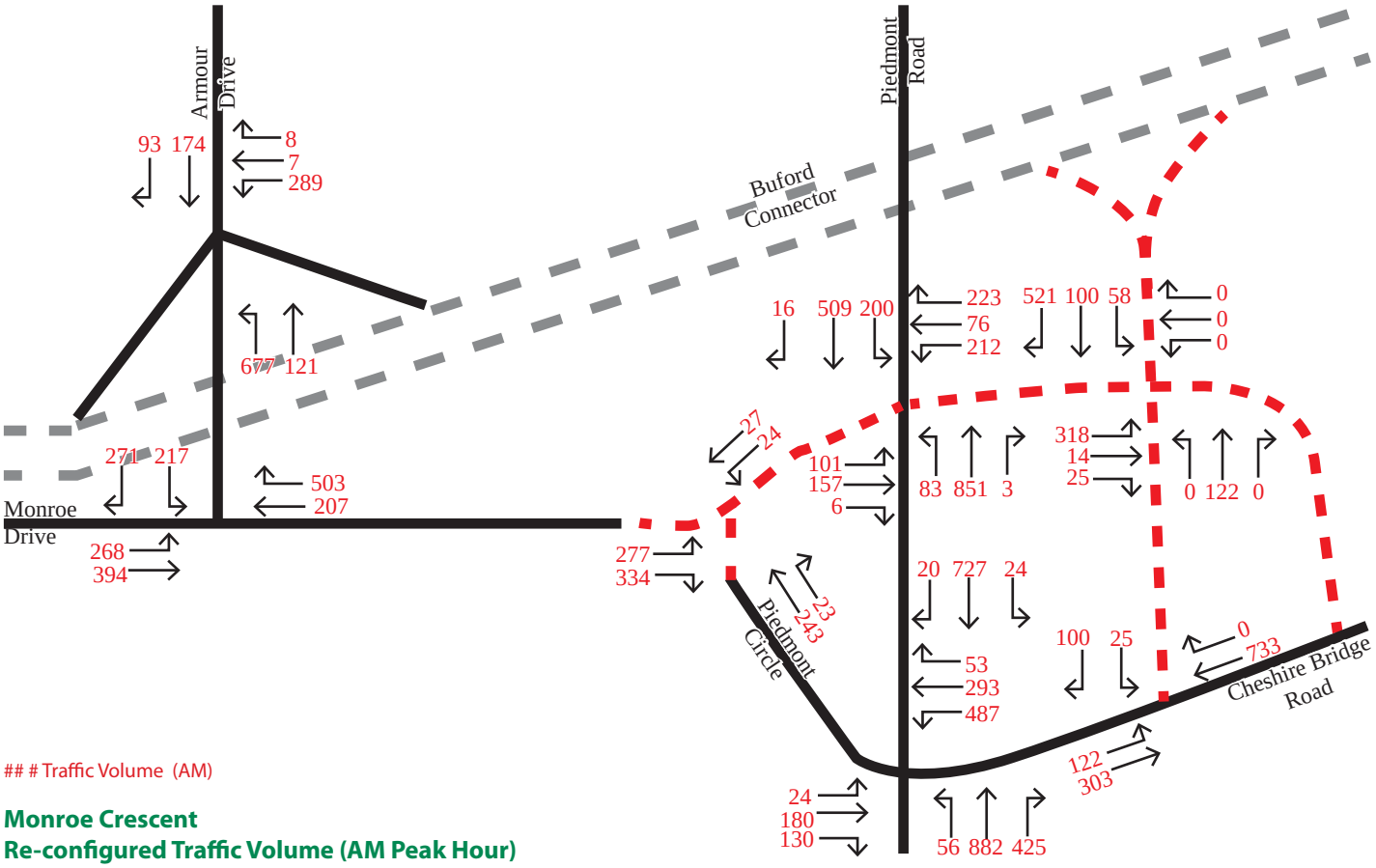
- Existing Condition LOS: B (19.4 sec. delay)
- Re-configured Condition LOS: C (20.6 sec. delay)
- The added westbound lefts to Piedmont Road south (formerly rights from Piedmont Circle) are the cause of the added delay. Gross assumptions about the reassignments were made that will need to be more fully evaluated.

Monroe Drive Extension and New Buford Highway Ramps Intersection:

- Re-configured Condition LOS: B (18.3 sec. delay)
- This intersection will distribute Buford Highway traffic to both Piedmont Road and Cheshire Bridge Road.

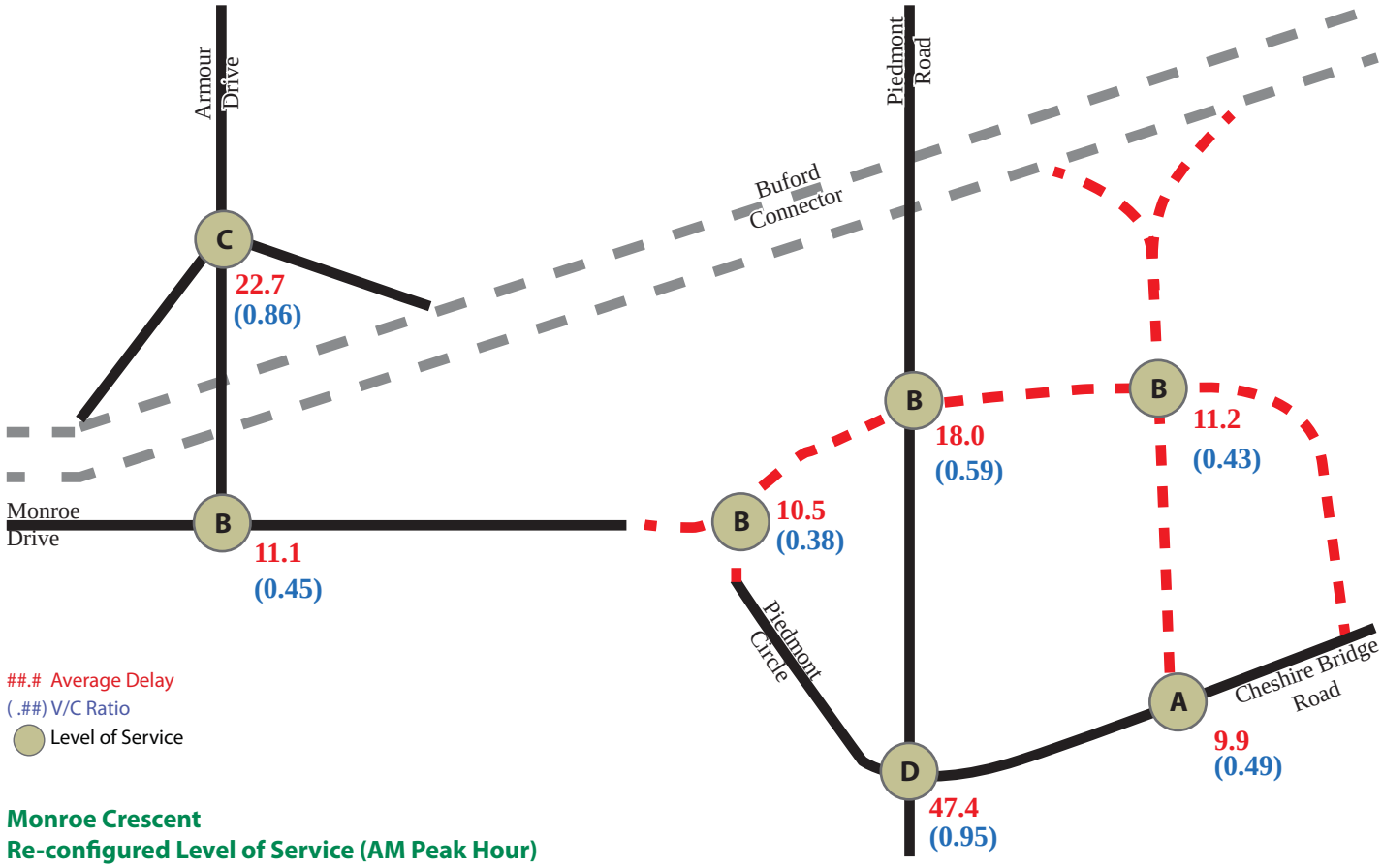
Manchester Street and Cheshire Bridge Road Intersection:

- Existing Condition LOS: not currently signalized
- Re-configured Condition LOS: B (18.1 sec. delay)
- Assumed a new signalized intersection here to provide direct access to the new Buford Highway ramps from Cheshire Bridge Road.



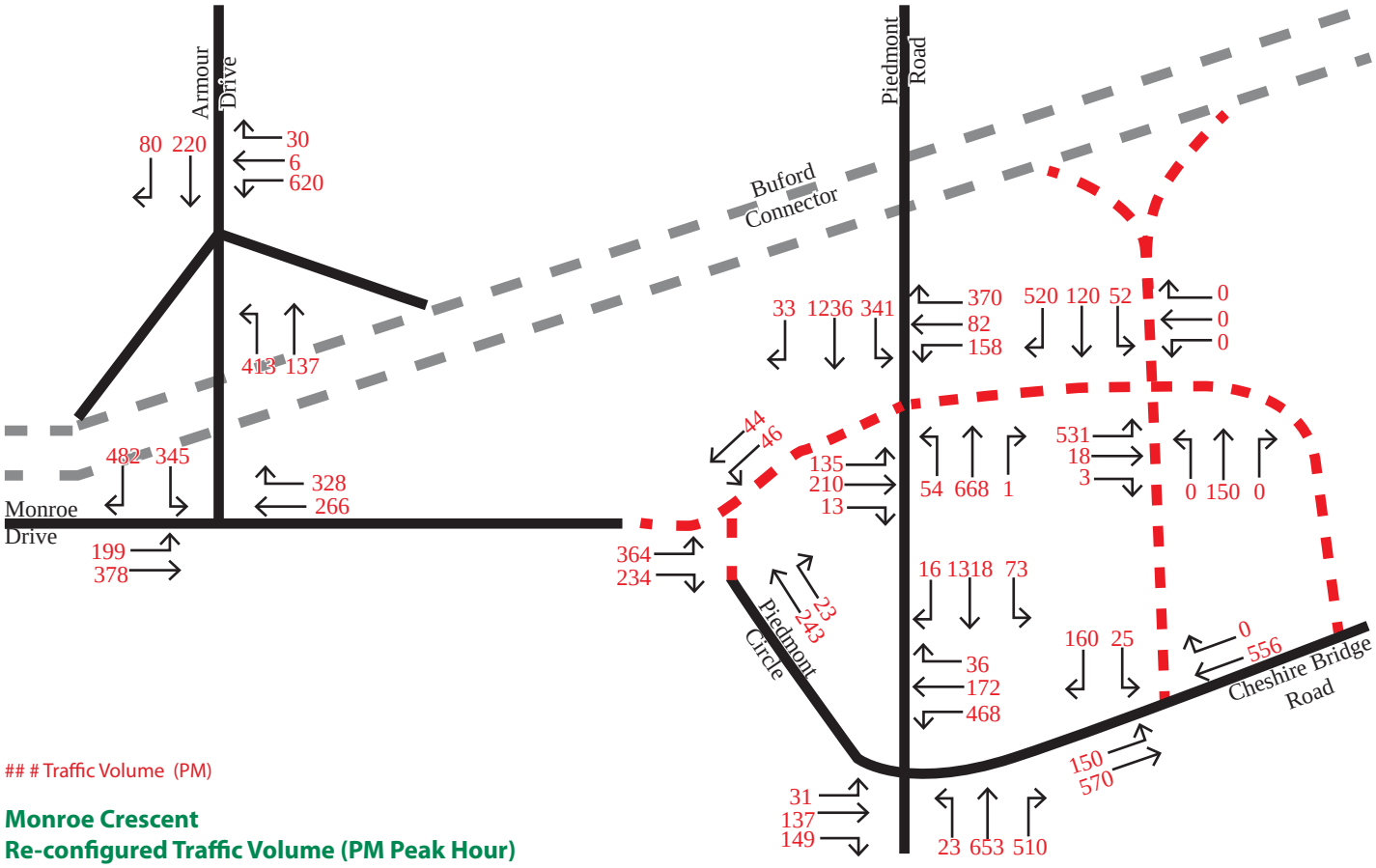
Traffic Volume (AM)

Monroe Crescent
Re-configured Traffic Volume (AM Peak Hour)



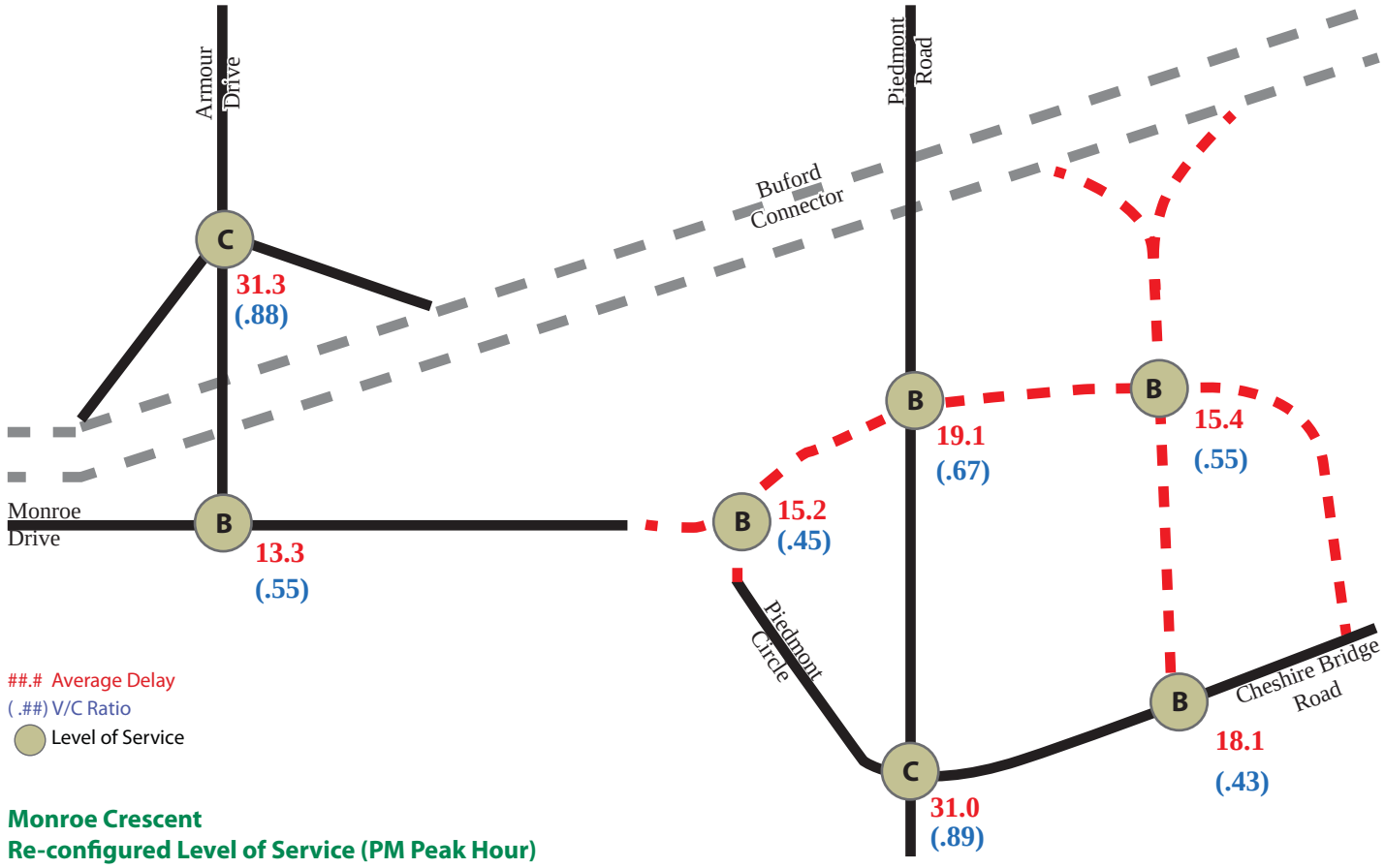
##.# Average Delay
(.##) V/C Ratio
Level of Service

Monroe Crescent
Re-configured Level of Service (AM Peak Hour)



Traffic Volume (PM)

Monroe Crescent
Re-configured Traffic Volume (PM Peak Hour)

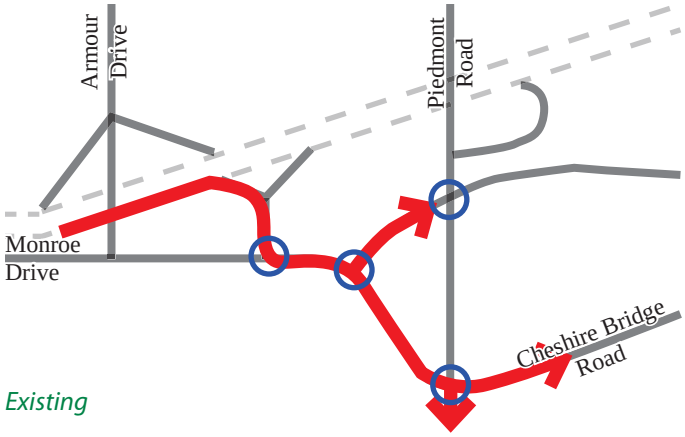


##.# Average Delay
(.##) V/C Ratio
Level of Service

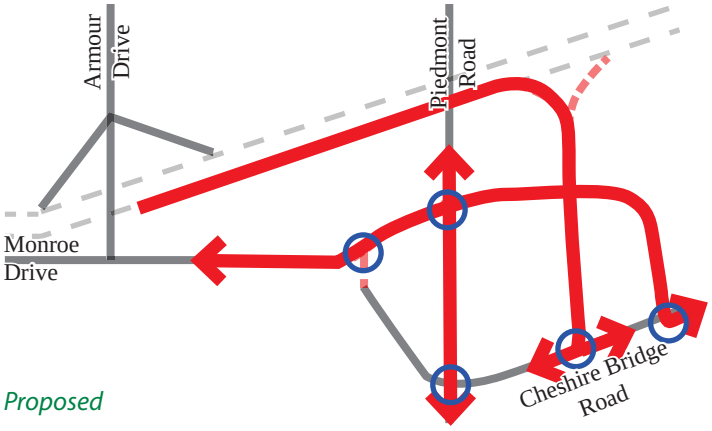
Monroe Crescent
Re-configured Level of Service (PM Peak Hour)

Re-configuration Trip Distribution Assumptions

Buford Highway to Southbound Piedmont/Cheshire Bridge Road

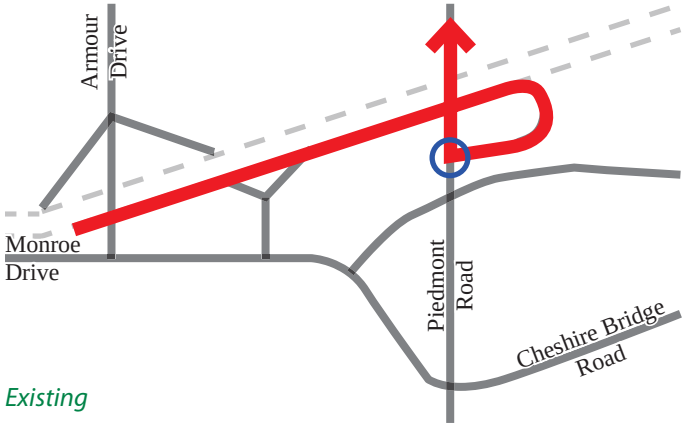


Existing

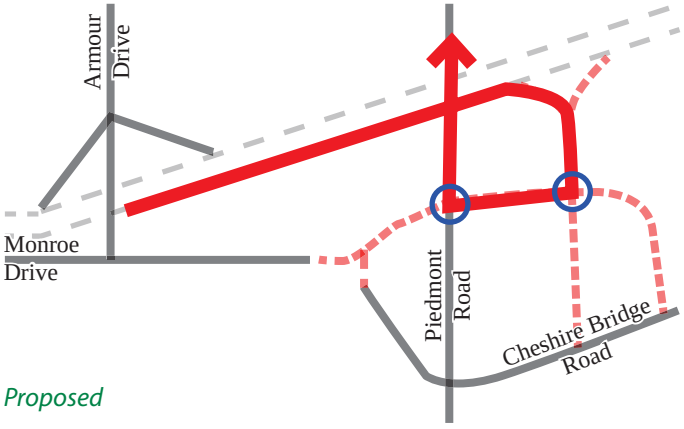


Proposed

Buford Highway to Northbound Piedmont Road

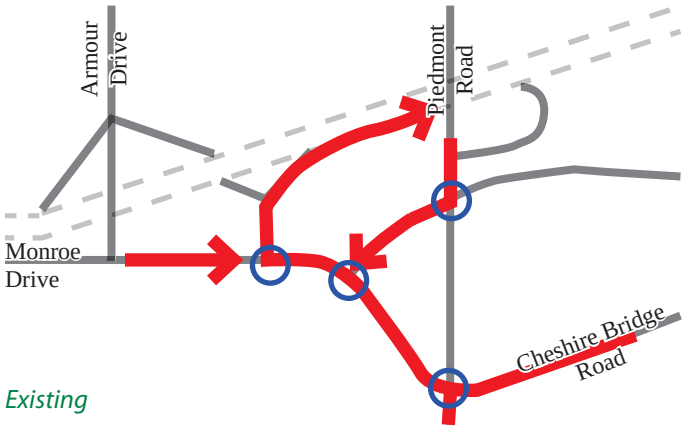


Existing

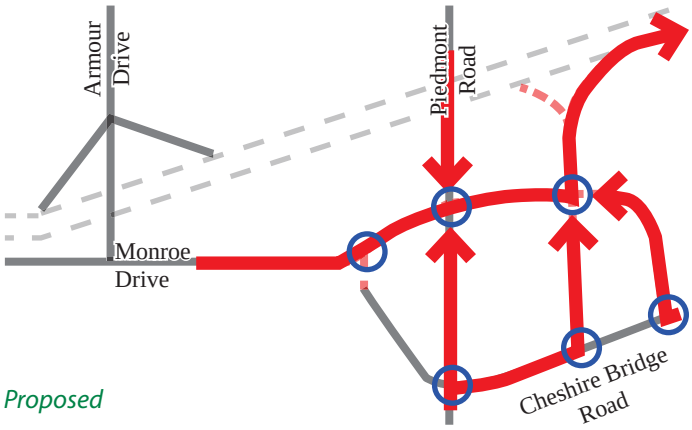


Proposed

Monroe/Piedmont/Cheshire Bridge to Buford Highway/I-85 Northbound



Existing



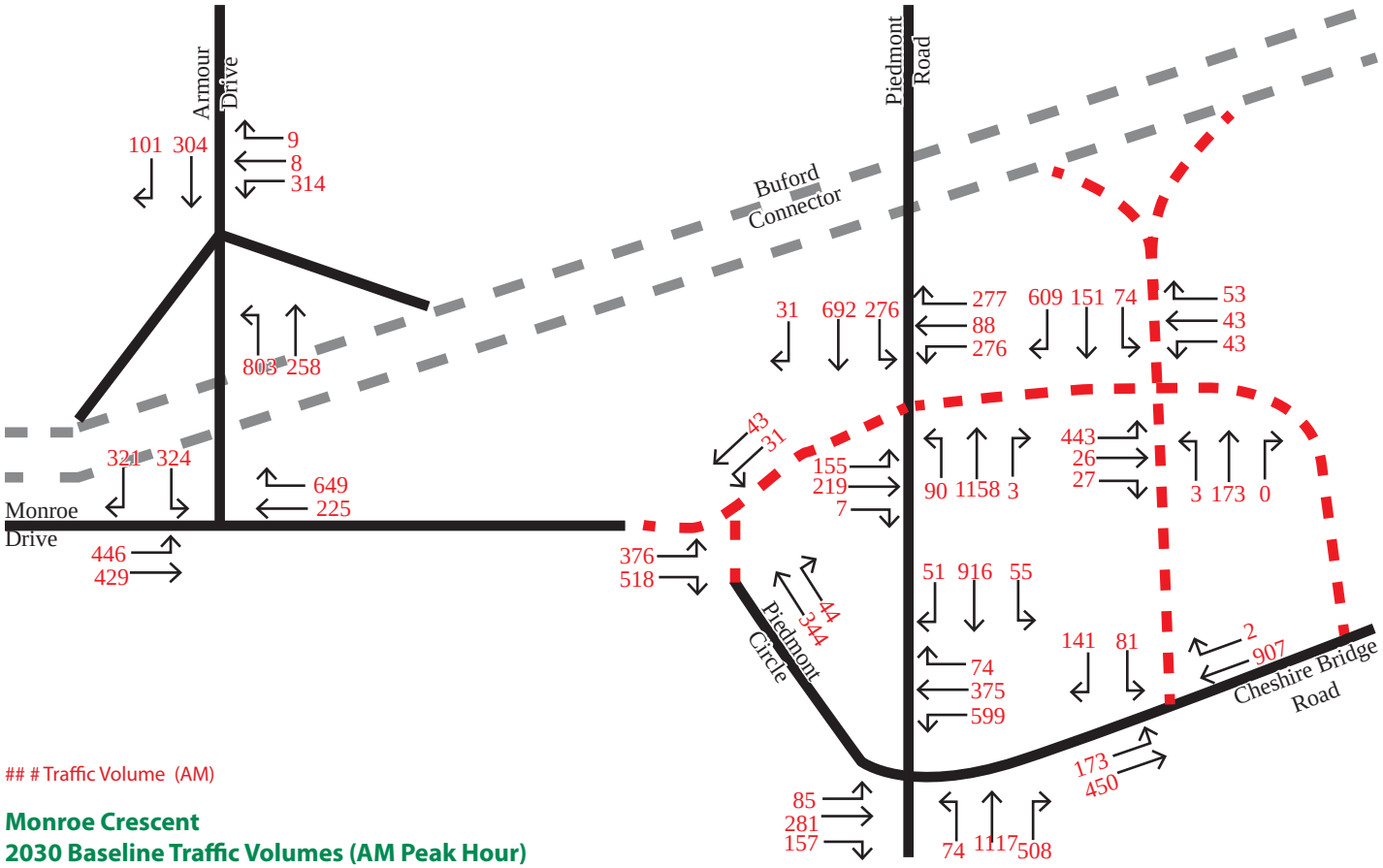
Proposed

2030 Build Scenario without BeltLine Transit

Analysis Question: What would 2030 be like with new development with the proposed re-configured network, but without the addition of BeltLine Transit?

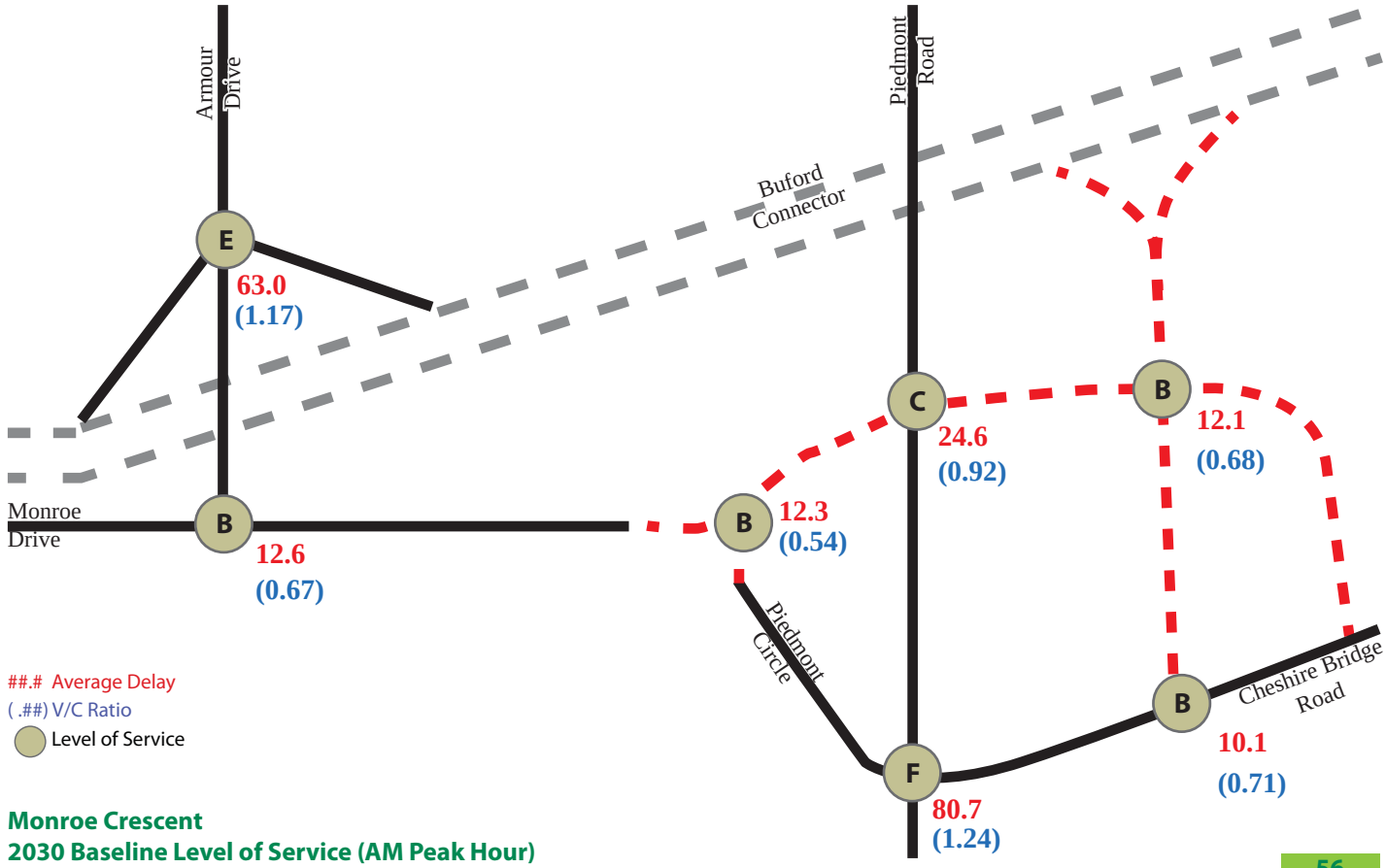
2030 Scenario Assumptions:

- Time Horizon: 2030.
- Road Network: re-configured street framework.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.



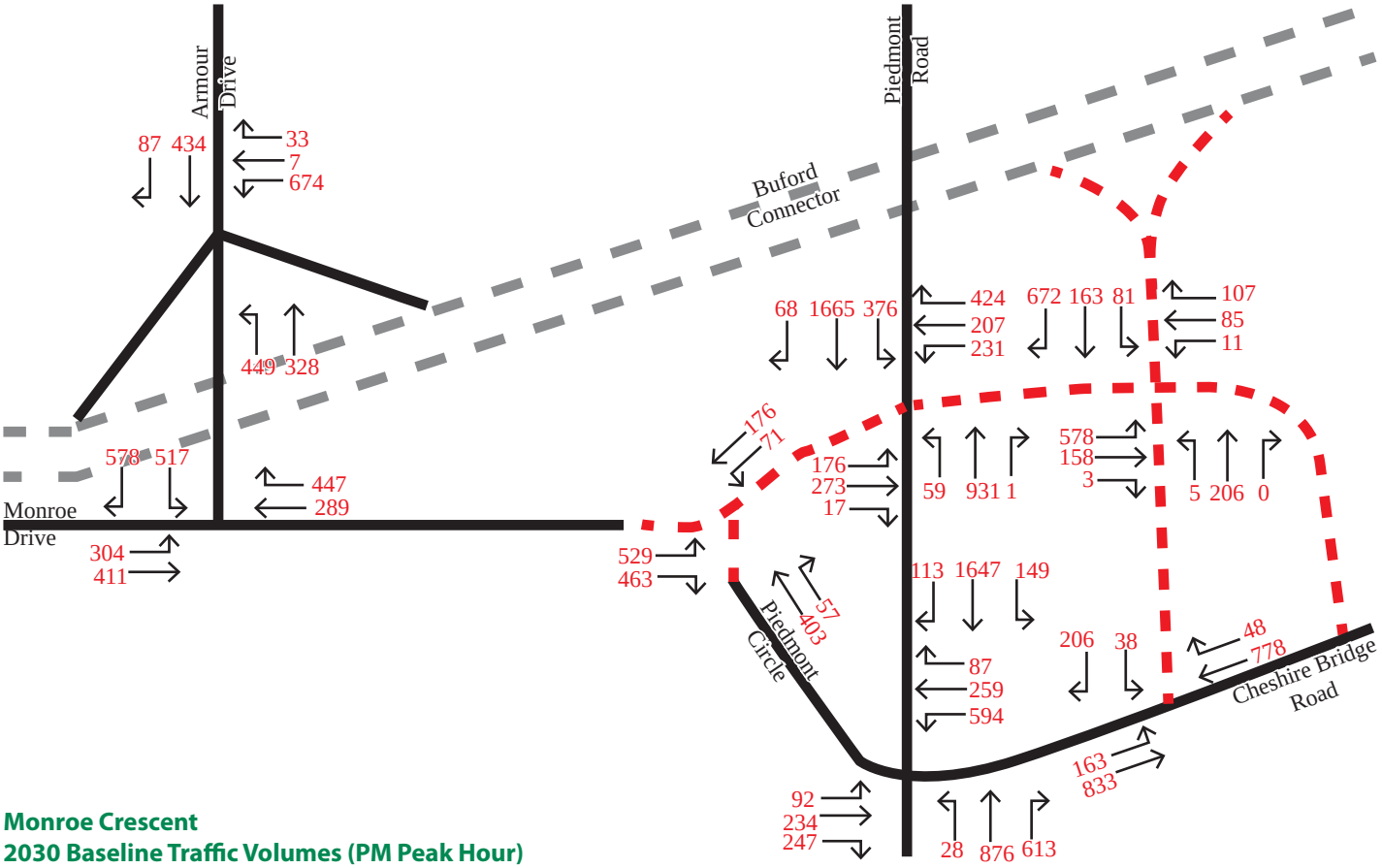
Traffic Volume (AM)

Monroe Crescent
2030 Baseline Traffic Volumes (AM Peak Hour)

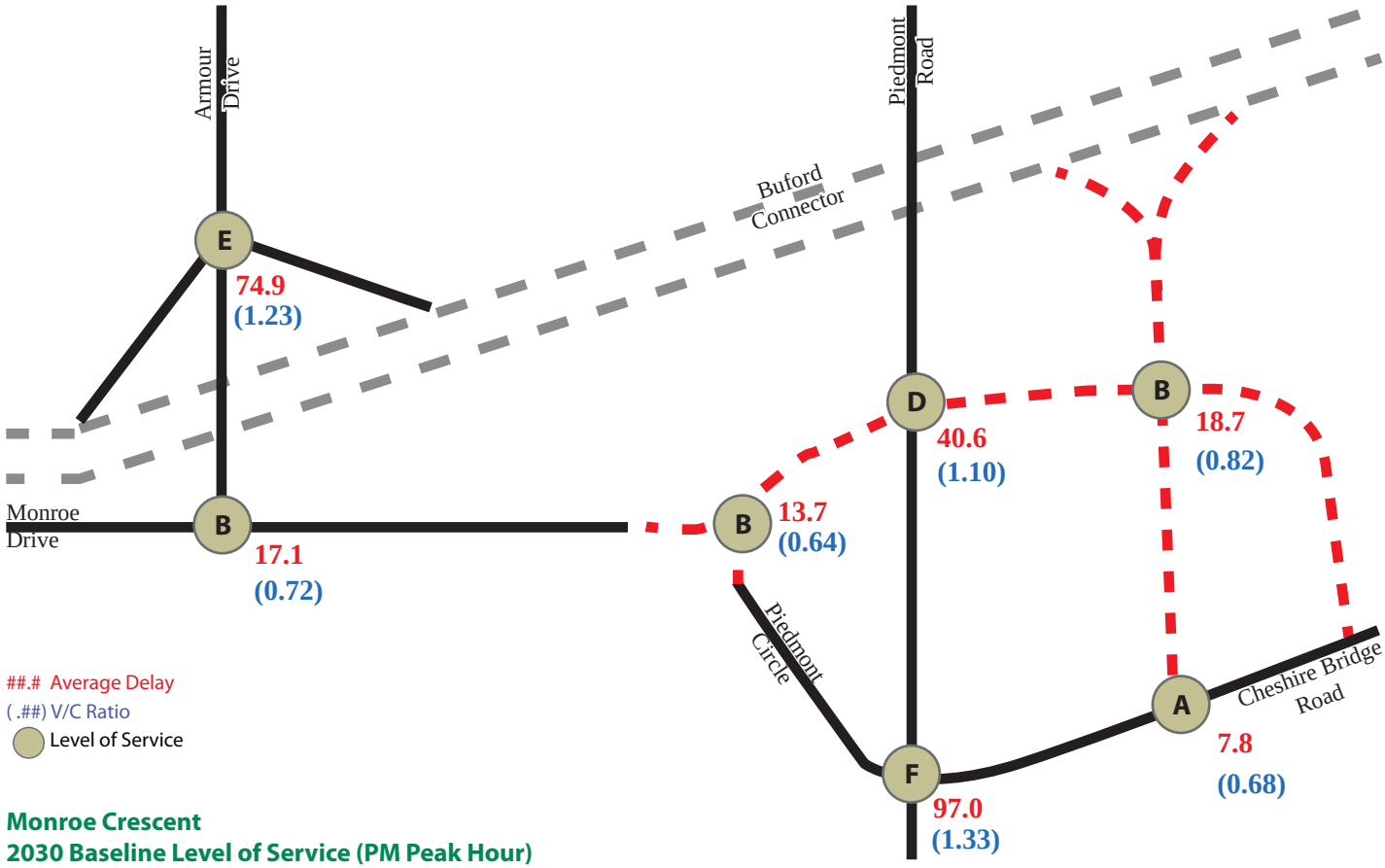


##.# Average Delay
(.##) V/C Ratio
Level of Service

Monroe Crescent
2030 Baseline Level of Service (AM Peak Hour)



Monroe Crescent
2030 Baseline Traffic Volumes (PM Peak Hour)



Monroe Crescent
2030 Baseline Level of Service (PM Peak Hour)

2020 and 2030 BeltLine Build Scenarios

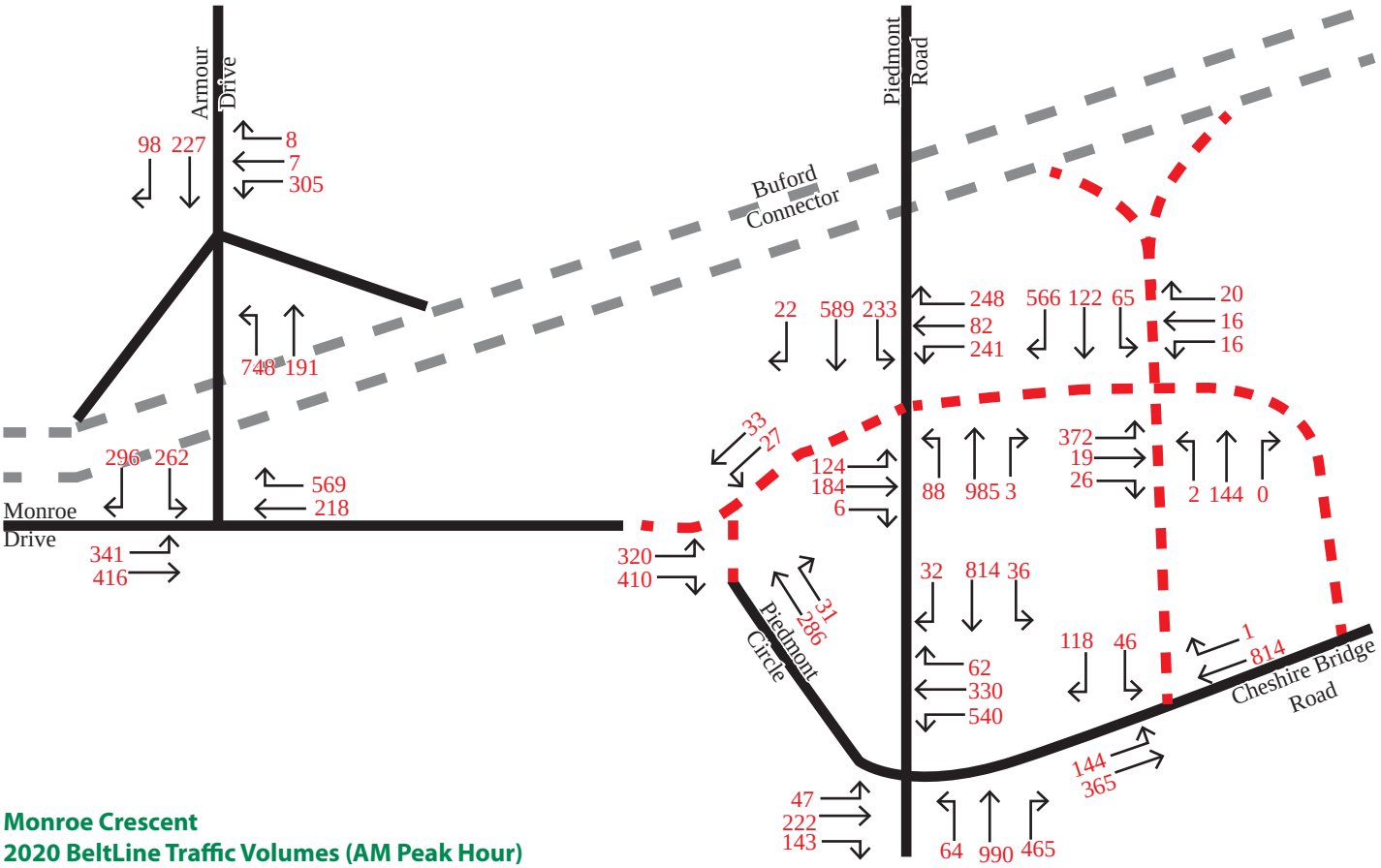
Analysis Question: What would 2020 and 2030 be like with new development and the addition of BeltLine Transit and the proposed new street framework?

2020 Build Assumptions:

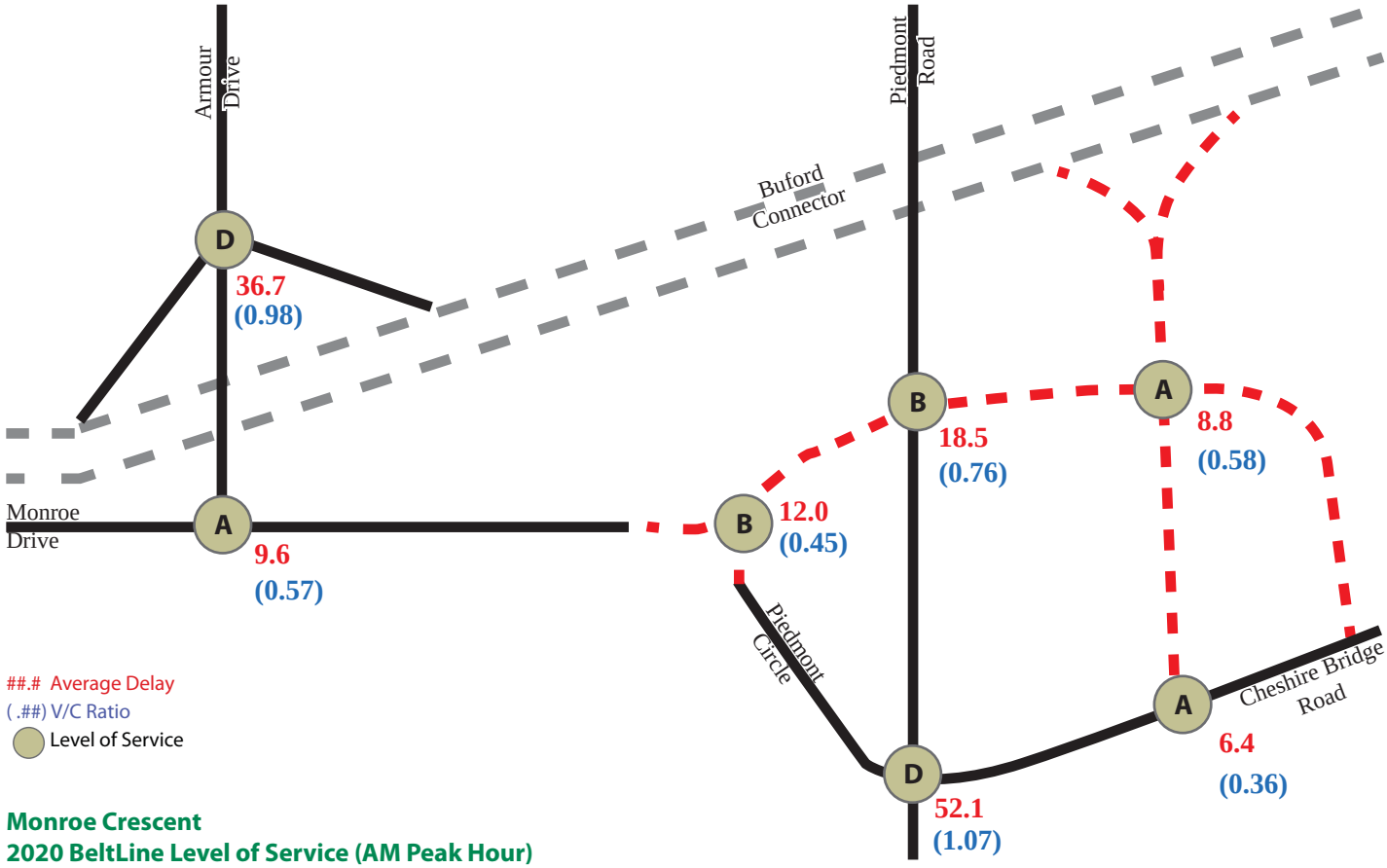
- Time Horizon: 2020.
- Road Network: Existing plus new network north of 8th Street.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2020).
- Trip Generation: Proposed Redevelopment program north of 8th Street (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: Per Trip distribution graphic.

2030 Build Assumptions:

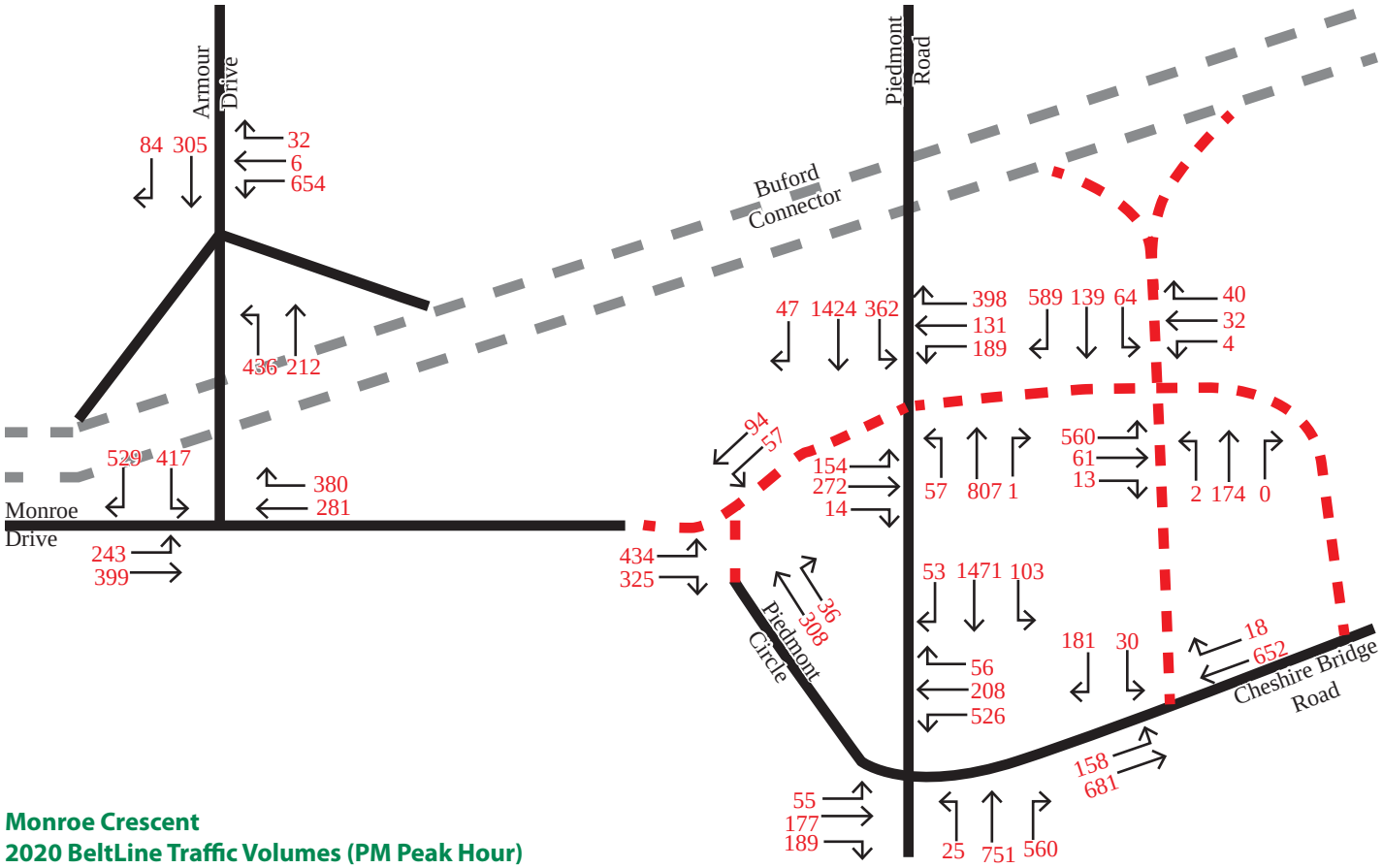
- Time Horizon: 2030.
- Road Network: Existing plus new netowrk at Ansley Mall, Amserdam Walk, Midtown Promenade, and Midtown Place.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Proposed Redevelopment program (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: 2005 existing pattern adjusted to reflect new street framework.



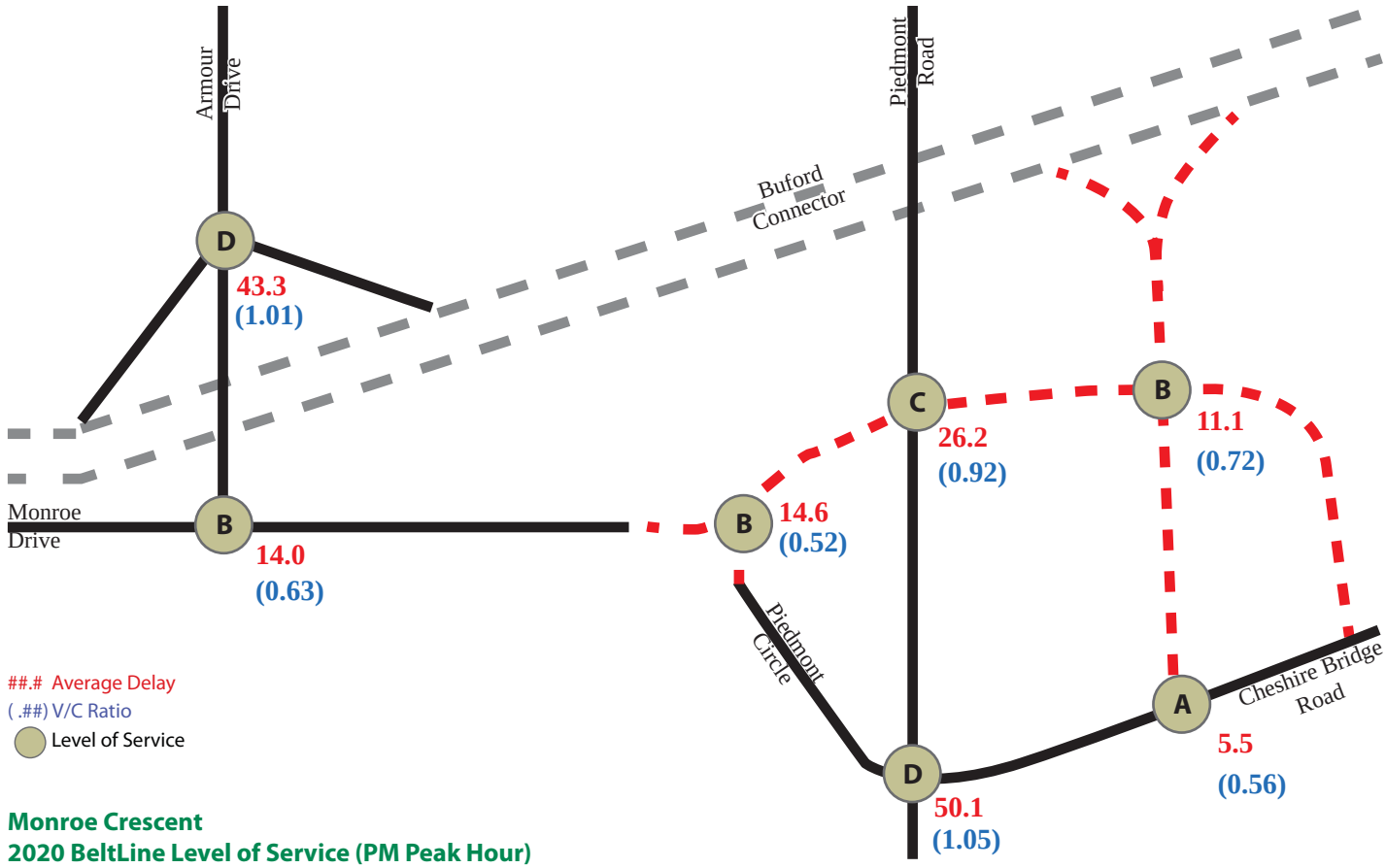
Monroe Crescent
2020 BeltLine Traffic Volumes (AM Peak Hour)



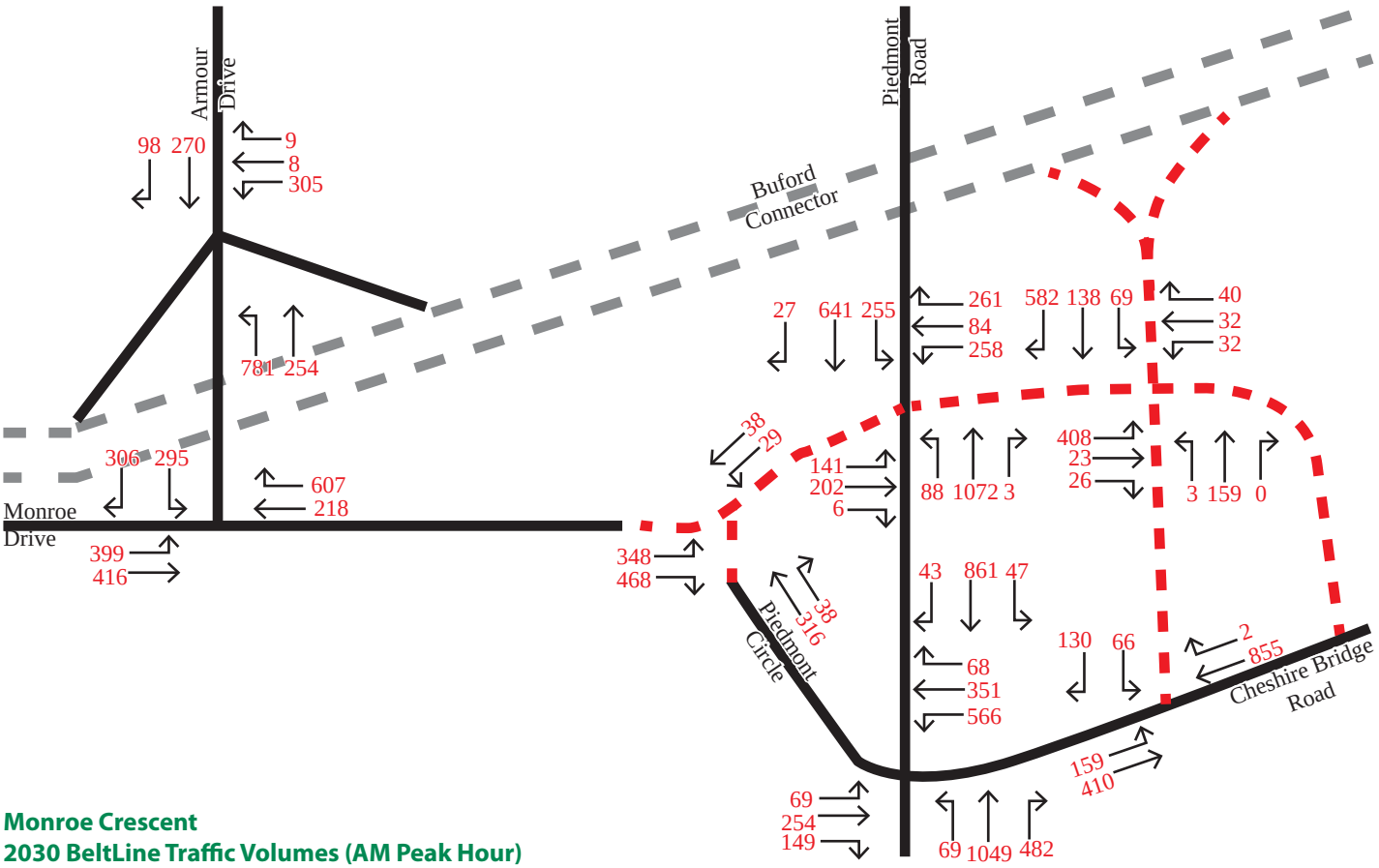
Monroe Crescent
2020 BeltLine Level of Service (AM Peak Hour)



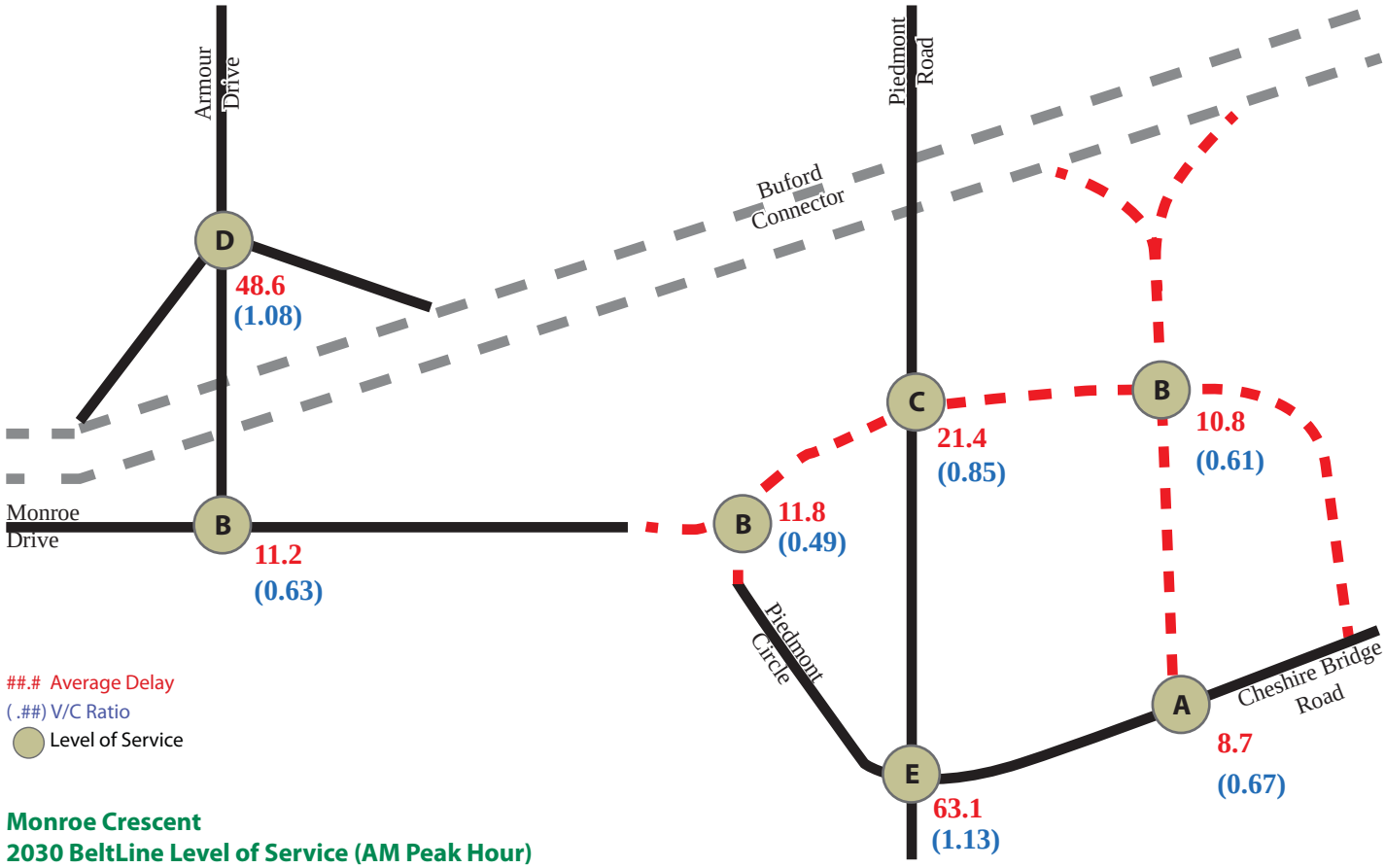
Monroe Crescent
2020 BeltLine Traffic Volumes (PM Peak Hour)



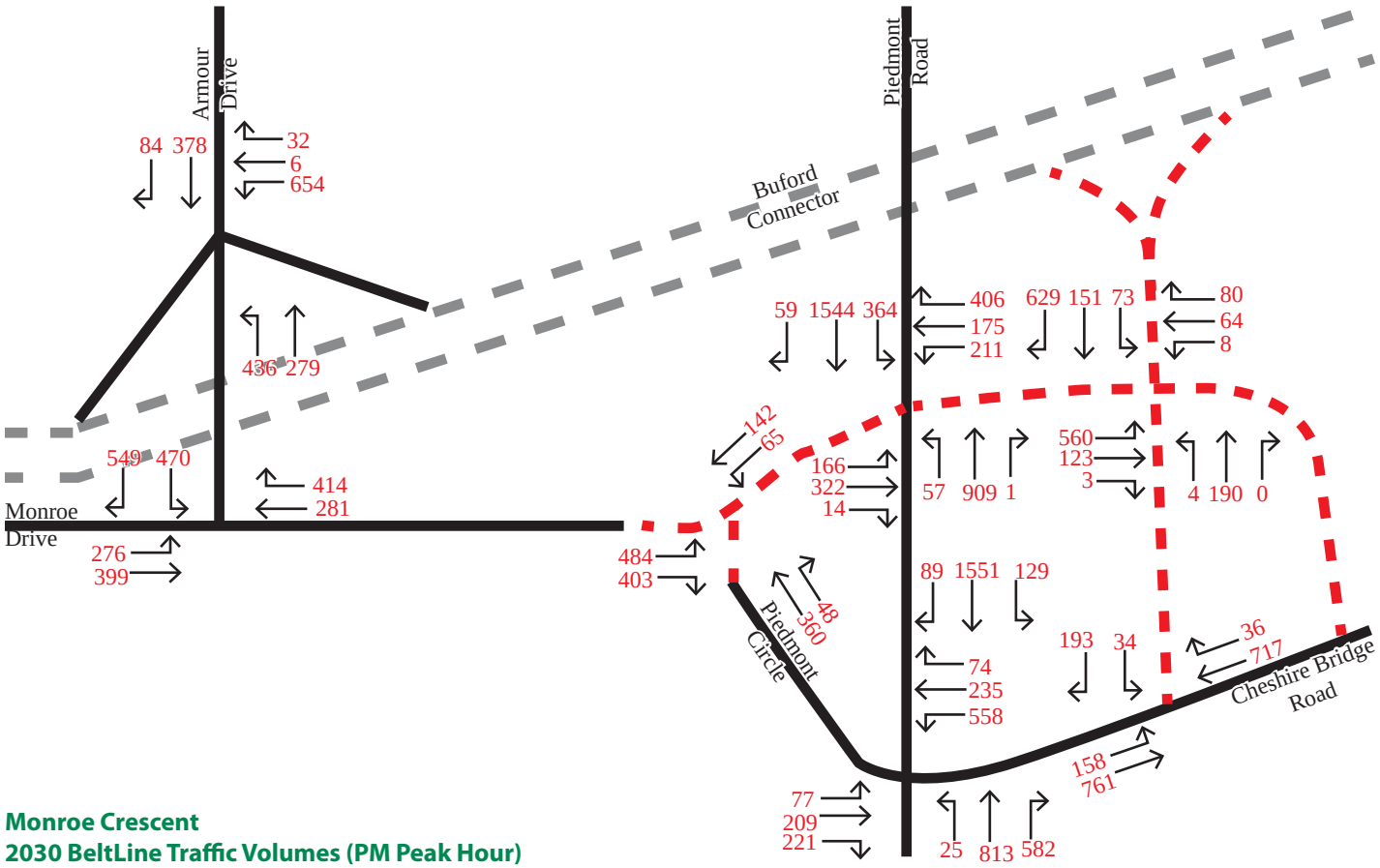
Monroe Crescent
2020 BeltLine Level of Service (PM Peak Hour)



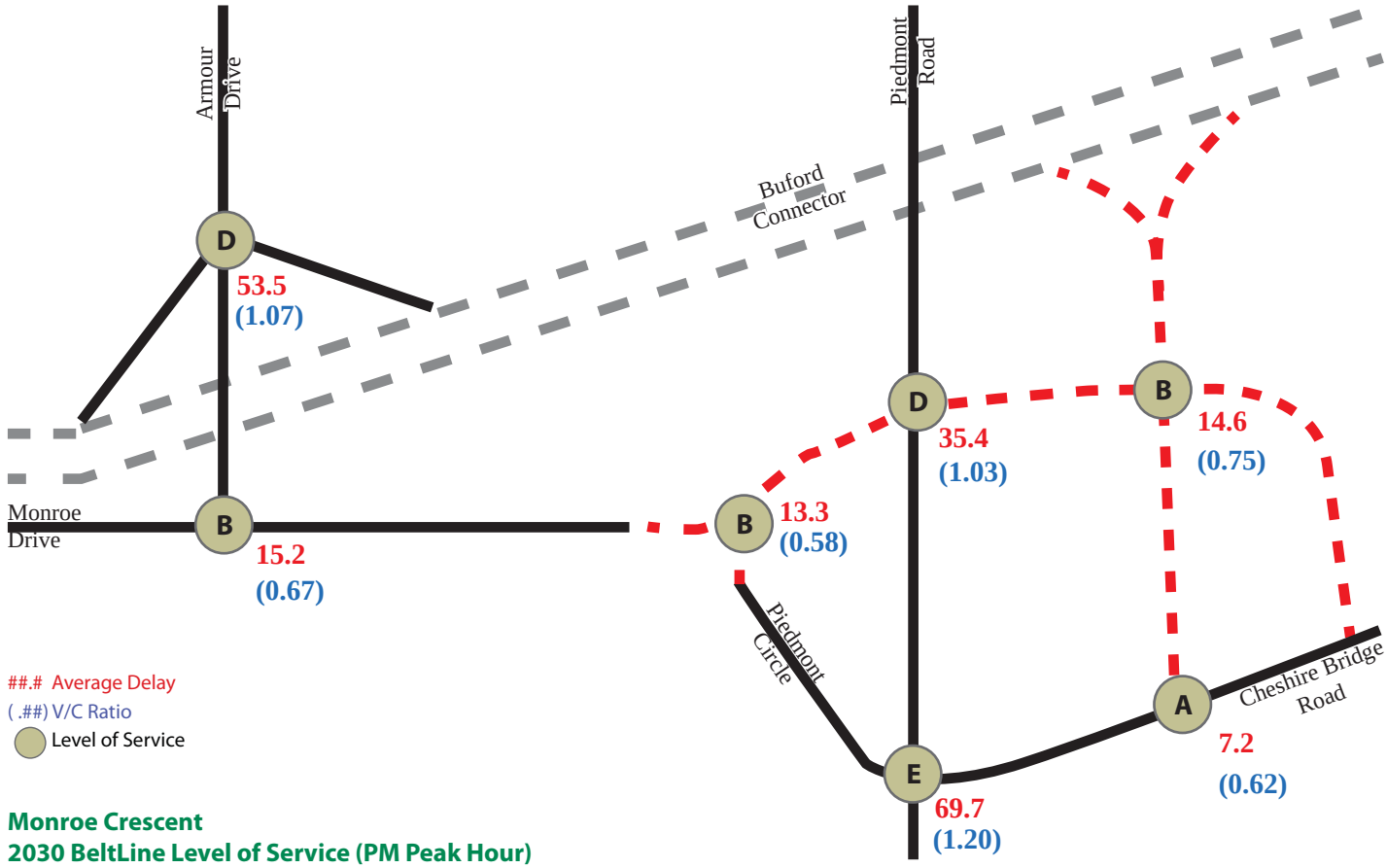
Monroe Crescent
2030 BeltLine Traffic Volumes (AM Peak Hour)



Monroe Crescent
2030 BeltLine Level of Service (AM Peak Hour)



Monroe Crescent
2030 BeltLine Traffic Volumes (PM Peak Hour)



Monroe Crescent
2030 BeltLine Level of Service (PM Peak Hour)

6.4 Focus Area 2 - Piedmont/Monroe

Context

The Ansley Mall redevelopment area is a significant nexus where two highly trafficked corridors cross paths: Monroe Drive and Piedmont Avenue. Both roadways serve as regional connections to the interstate and Buckhead respectively. As such, the Illustrative Plans (See Figure 14) shows how the site could be developed.

The plan breaks up the current Ansley Mall shopping center into a distinct block pattern with an internal street that runs parallel to Monroe Drive and the BeltLine. Monroe Drive will serve as a main thoroughfare with buildings that offer street front retail and multifamily residential units.

In addition to the mall redevelopment, the plan provides more connectivity between Monroe Drive and Piedmont Road. The triangular-shaped area between the two roadways consists of strip retail, a historic commercial row along Piedmont Road and an older apartment complex accessible from Piedmont Road. Additional roadway connections between Monroe and Piedmont will ease the congestion that occurs at the intersection of the two corridors.

Adding additional roads within the Ansley Mall redevelopment site could provide alternatives between Piedmont Avenue and Monroe Drive, again lessening the delay experienced at the main intersection.

Additional development on the southwest corner of Piedmont and Monroe could be low scale commercial with a store-front presence on the Park. This would provide Piedmont Park users additional amenities and dining opportunities.

2030 Build Scenario without BeltLine Transit

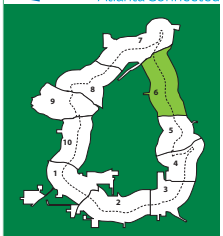
Analysis Question: What would 2030 be like with new development, but without the addition of BeltLine Transit or the proposed new street framework?

2030 Scenario Assumptions:

- Time Horizon: 2030.
- Road Network: Existing plus all new framework streets.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.

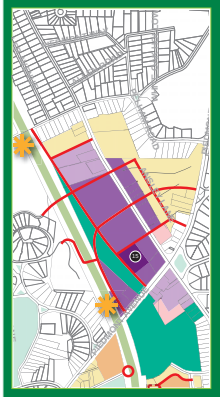


BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/ Piedmont / Monroe

MASTER PLAN: ANSLEY MALL



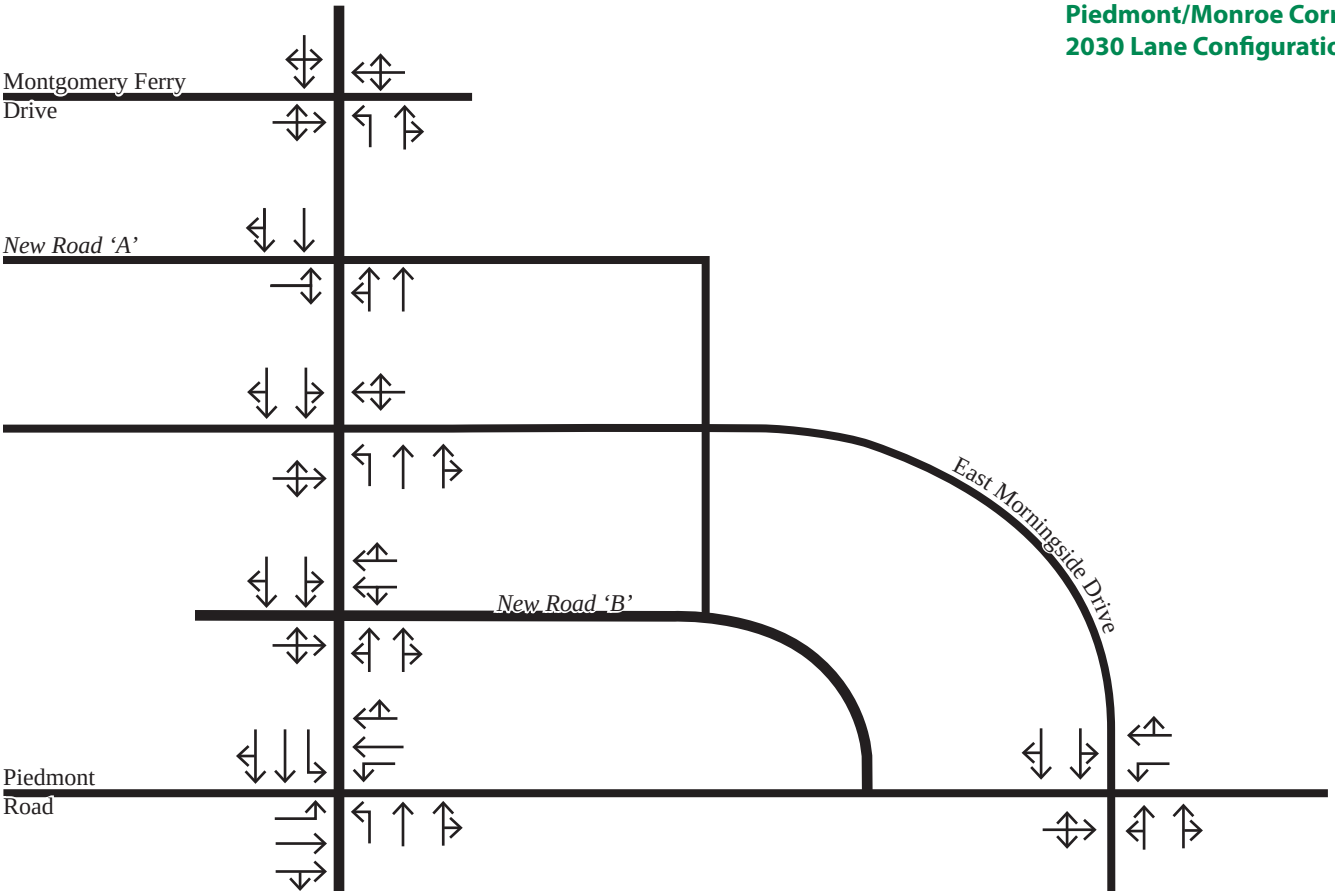
LAND USE

- Mixed Use 10+ stories
- Mixed Use 5-9 stories
- Mixed Use 1-4 stories
- Residential 10+ stories
- Residential 5-9 stories
- Residential 1-4 stories
- High Density Commercial
- Low Density Commercial
- Office/ Institutional
- Industrial
- Proposed Park Space
- Existing Park Space
- Community Facility

EDAW | AECOM

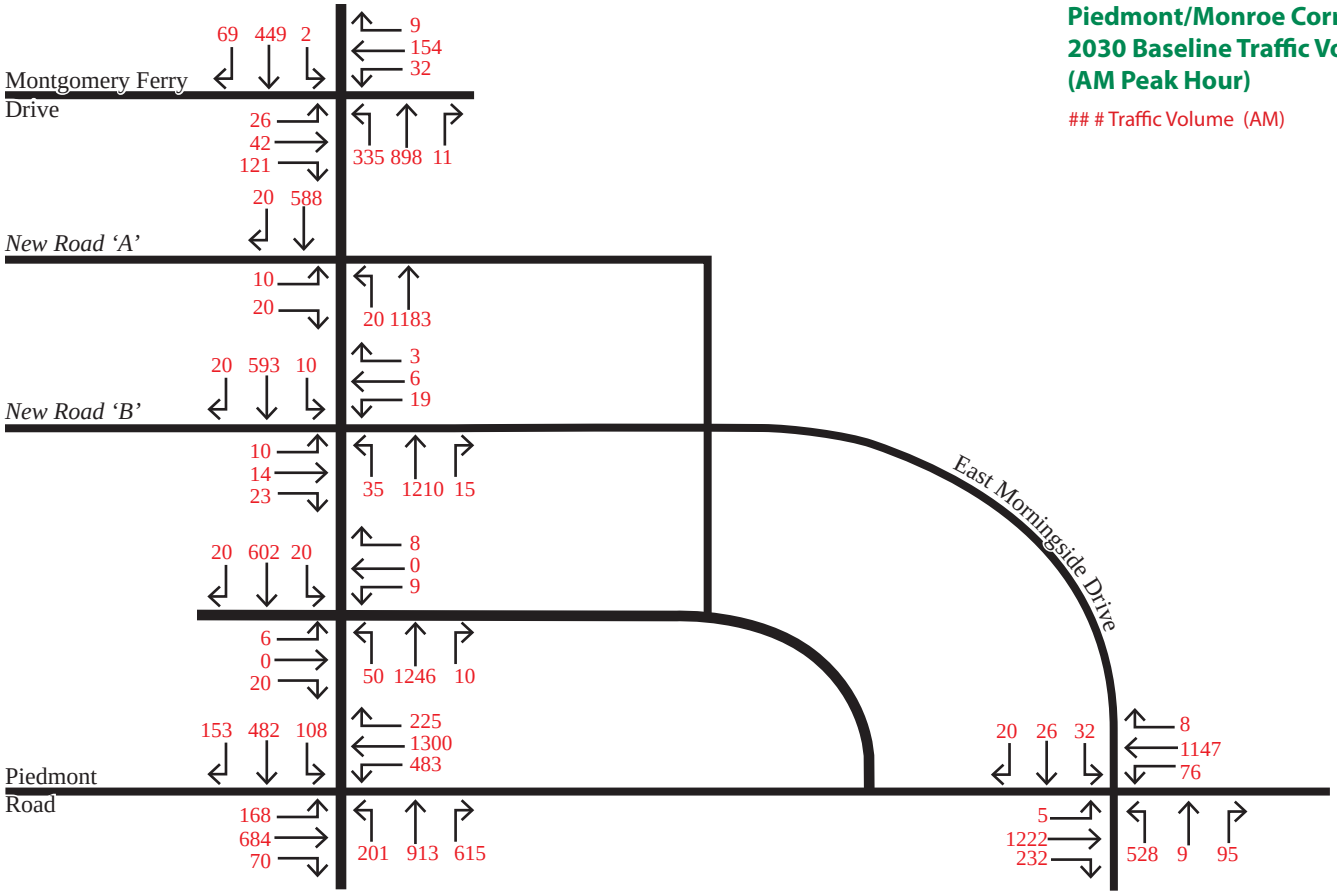
SCALE: 1"=100'

Figure 14-Urban Design Plan Focus Area 2: Piedmont/Monroe


Montgomery Ferry
Drive
New Road 'A'
East Morningside Drive
New Road 'B'
Piedmont
Road

Piedmont/Monroe Corridor 2030 Baseline Traffic Volumes (AM Peak Hour)

Traffic Volume (AM)

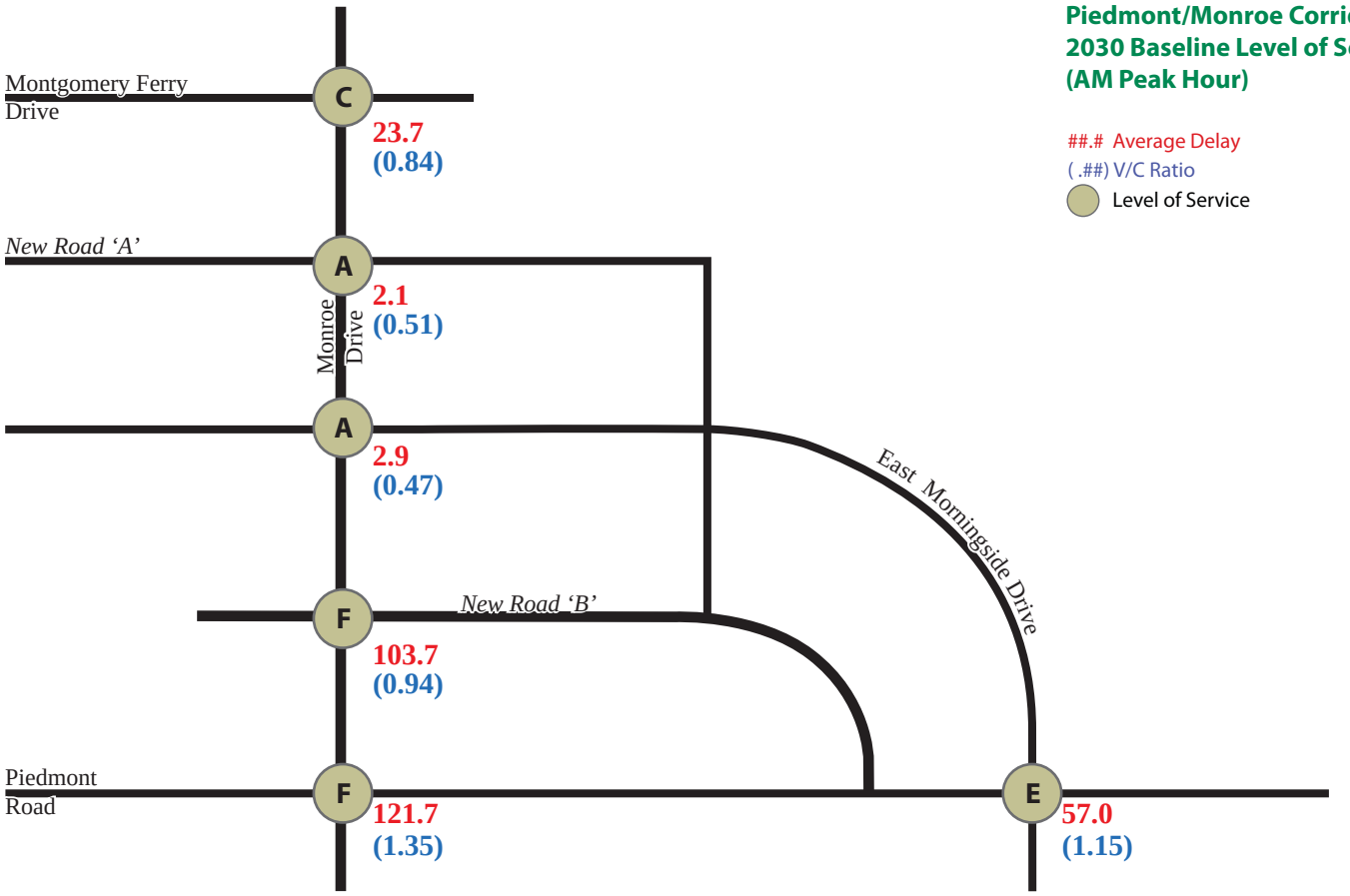


Piedmont/Monroe Corridor 2030 Baseline Level of Service (AM Peak Hour)

##.# Average Delay

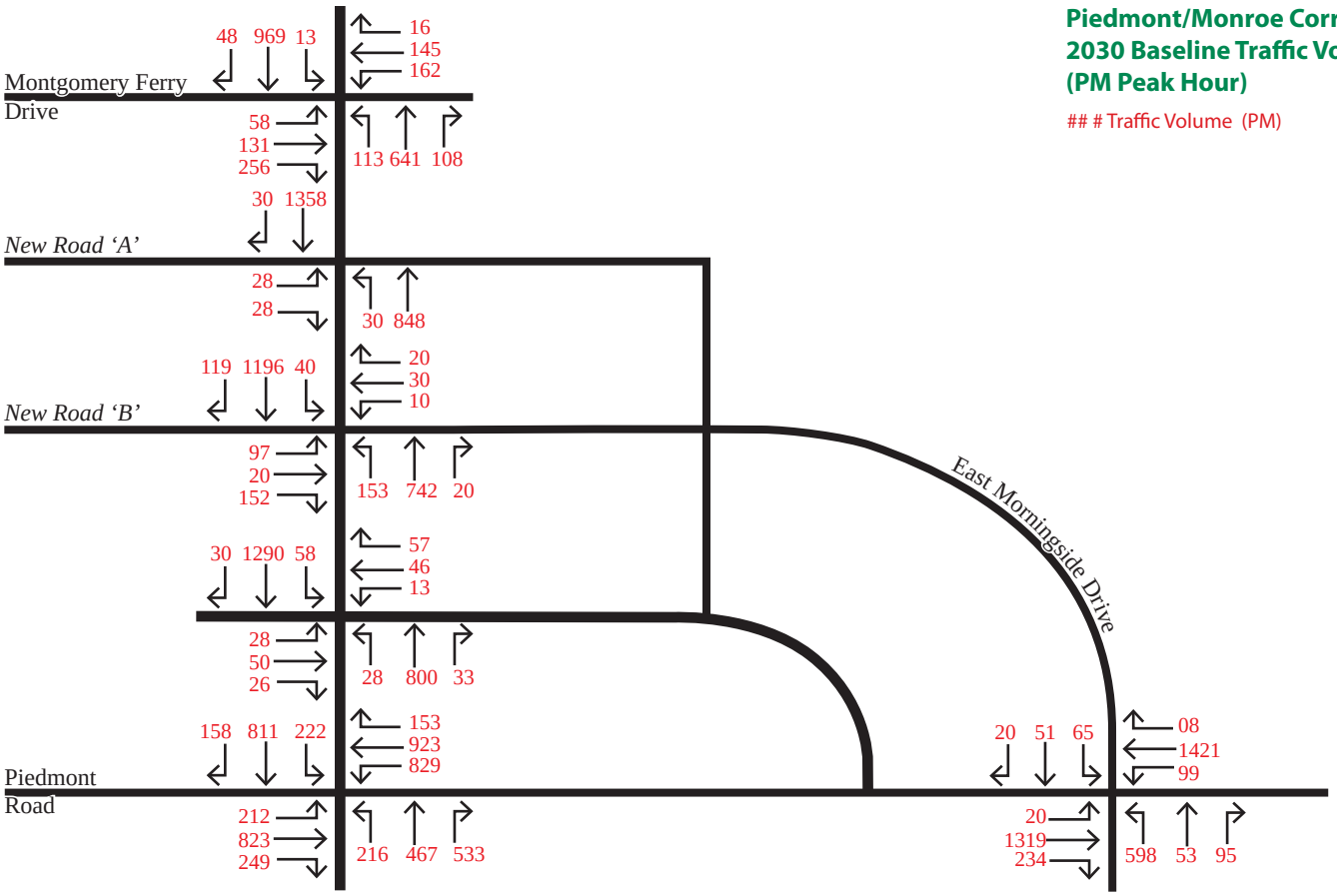
(.##) V/C Ratio

Level of Service



Piedmont/Monroe Corridor 2030 Baseline Traffic Volumes (PM Peak Hour)

Traffic Volume (PM)

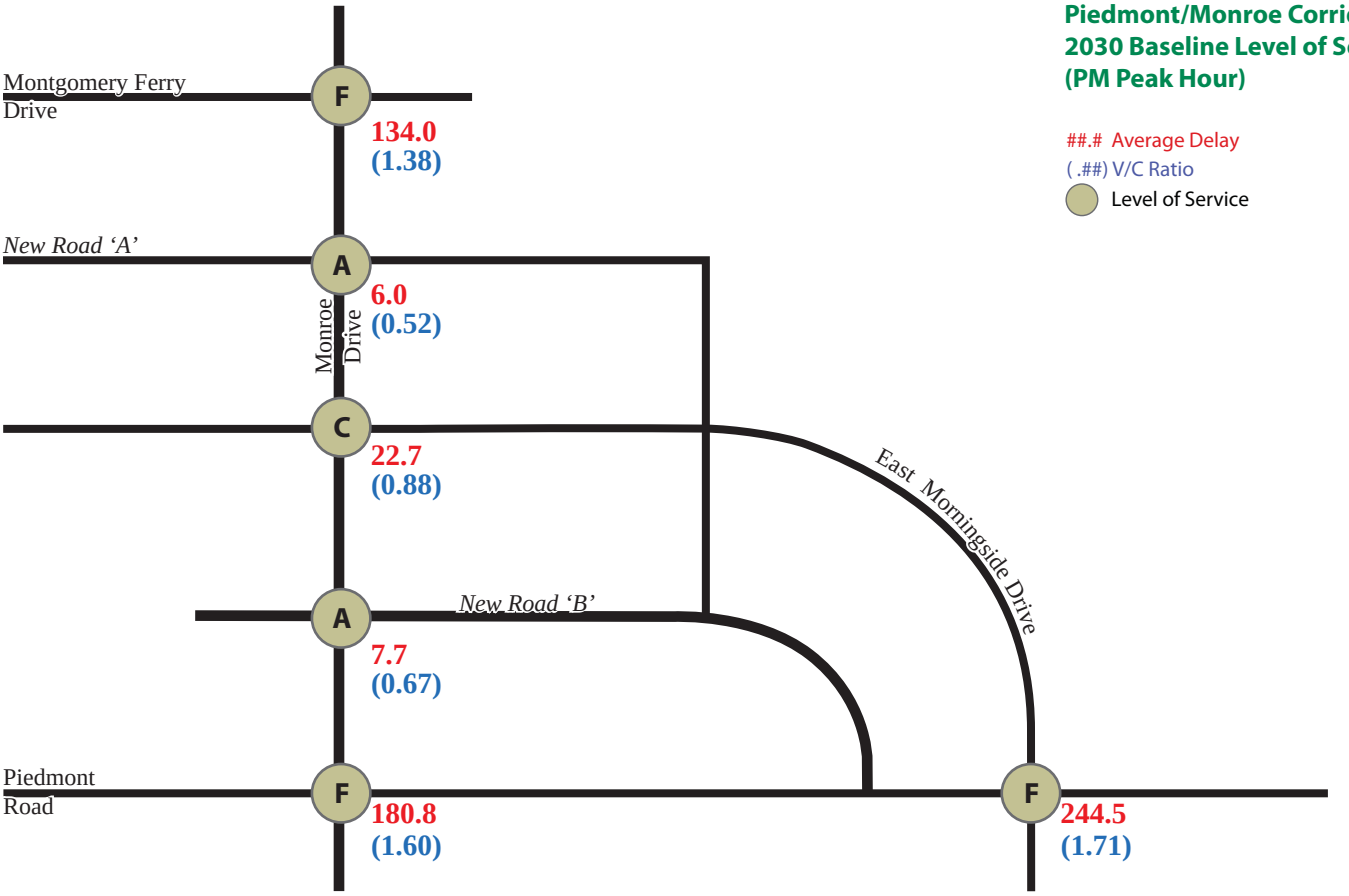


Piedmont/Monroe Corridor 2030 Baseline Level of Service (PM Peak Hour)

##.# Average Delay

(.##) V/C Ratio

Level of Service



2020 and 2030 BeltLine Build Scenarios

Analysis Question: What would 2020 and 2030 be like with new development and the addition of BeltLine Transit and the proposed new street framework?

2020 Build Assumptions:

- Time Horizon: 2020.
- Road Network: Existing plus new network north of 8th Street.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2020).
- Trip Generation: Proposed Redevelopment program north of 8th Street (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: Per Trip distribution graphic.

2030 Build Assumptions:

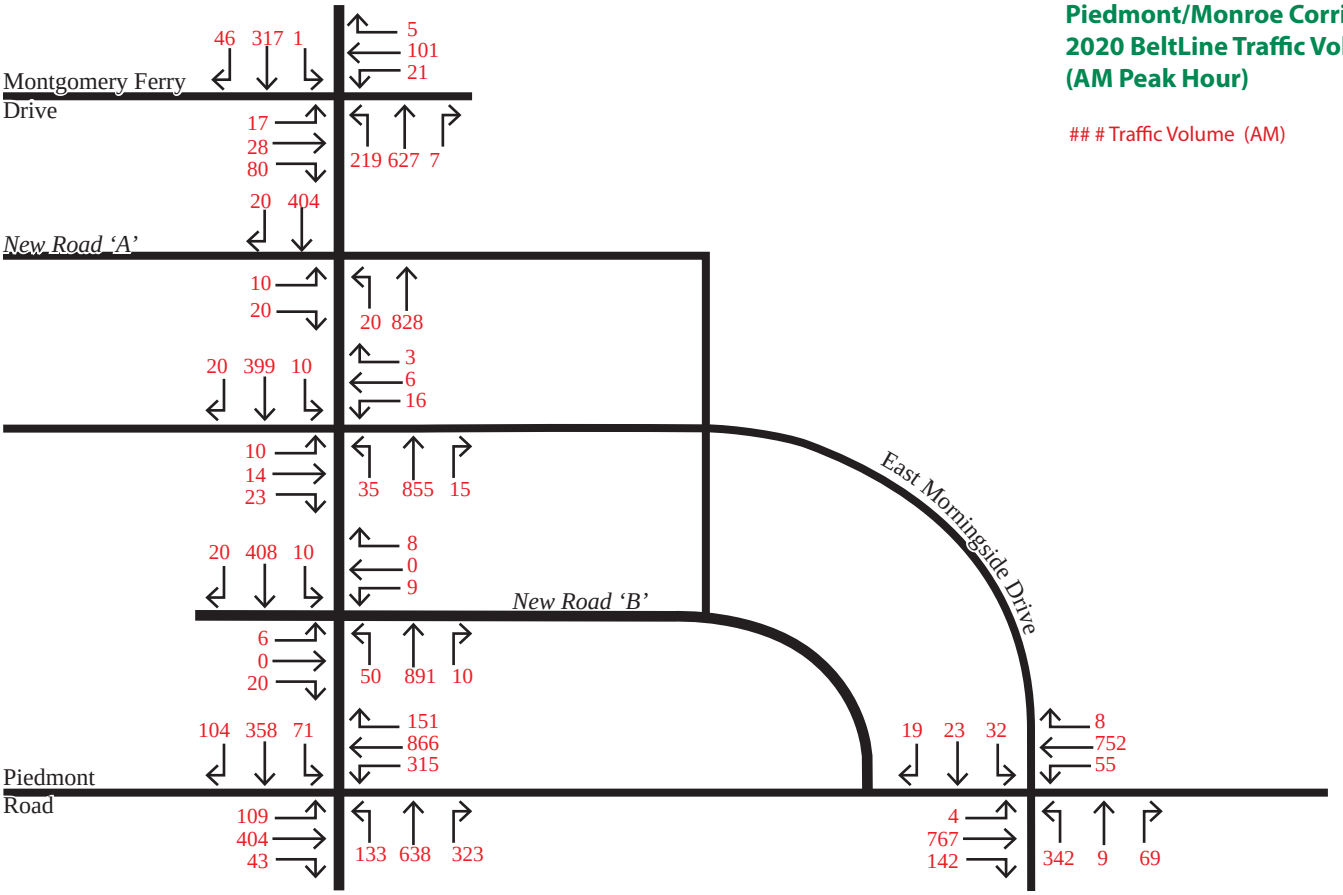
- Time Horizon: 2030.
- Road Network: Existing plus new netowrk at Ansley Mall, Amserdam Walk, Midtown Promenade, and Midtown Place.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Proposed Redevelopment program (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: 2005 existing pattern adjusted to reflect new street framework.

General Results:

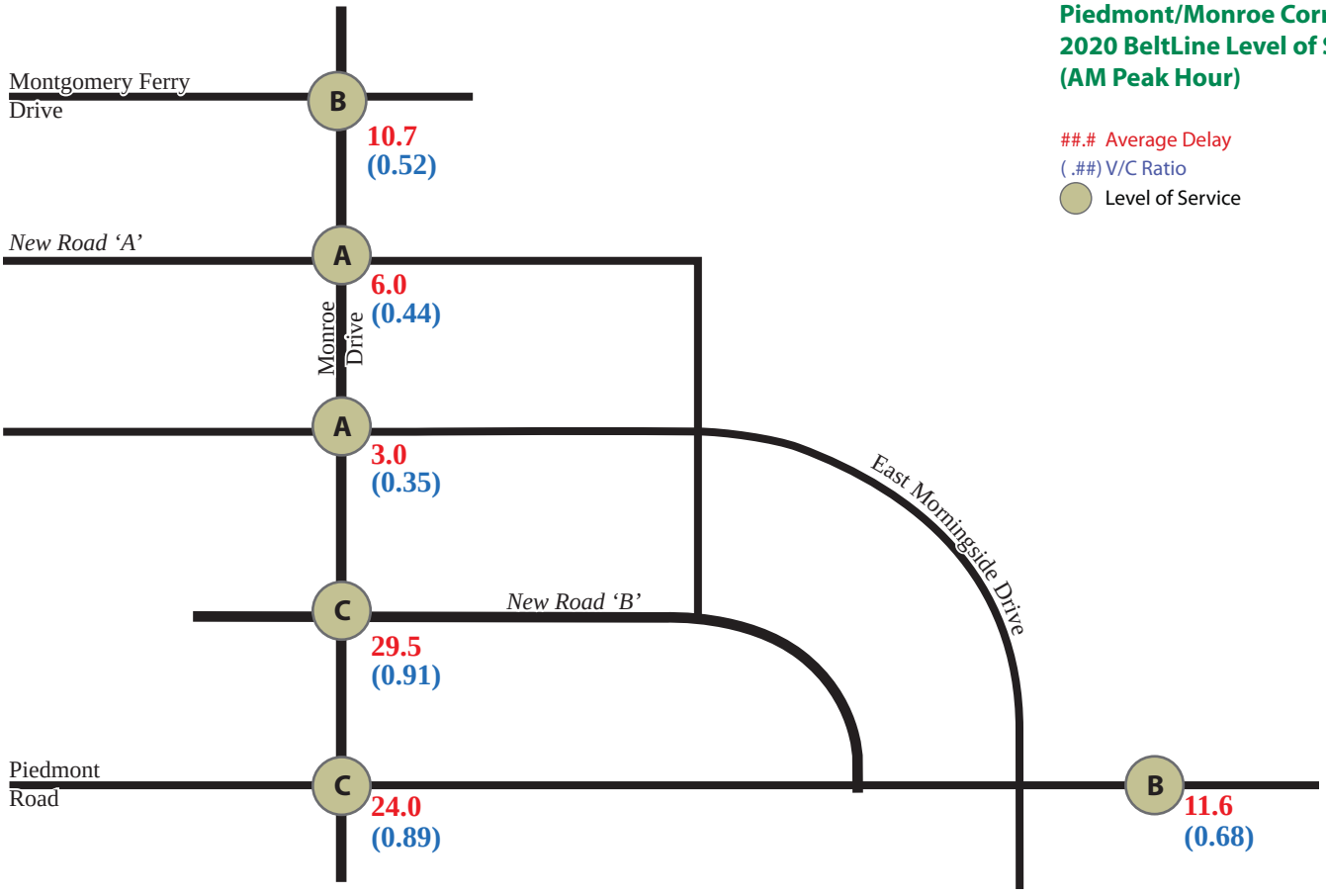
While modeling of the expected area development and the assumed background growth of vehicular traffic do result in some additional congestion in the peak hour, the levels do not exceed what one would expect in an urban neighborhood.

Some peak hour trouble spots for drivers, such as the intersection of Monroe and Montgomery Ferry are going to encounter increased delays under any scenario. It is expected that these peaks will be of short duration. There are also positive trade-offs that emerge. The addition of new network will allow for some relief at the most overburdened intersection in the area-Piedmont and Monroe-compared to what will occur if no new local options are provided.

Piedmont/Monroe Corridor 2020 BeltLine Traffic Volumes (AM Peak Hour)

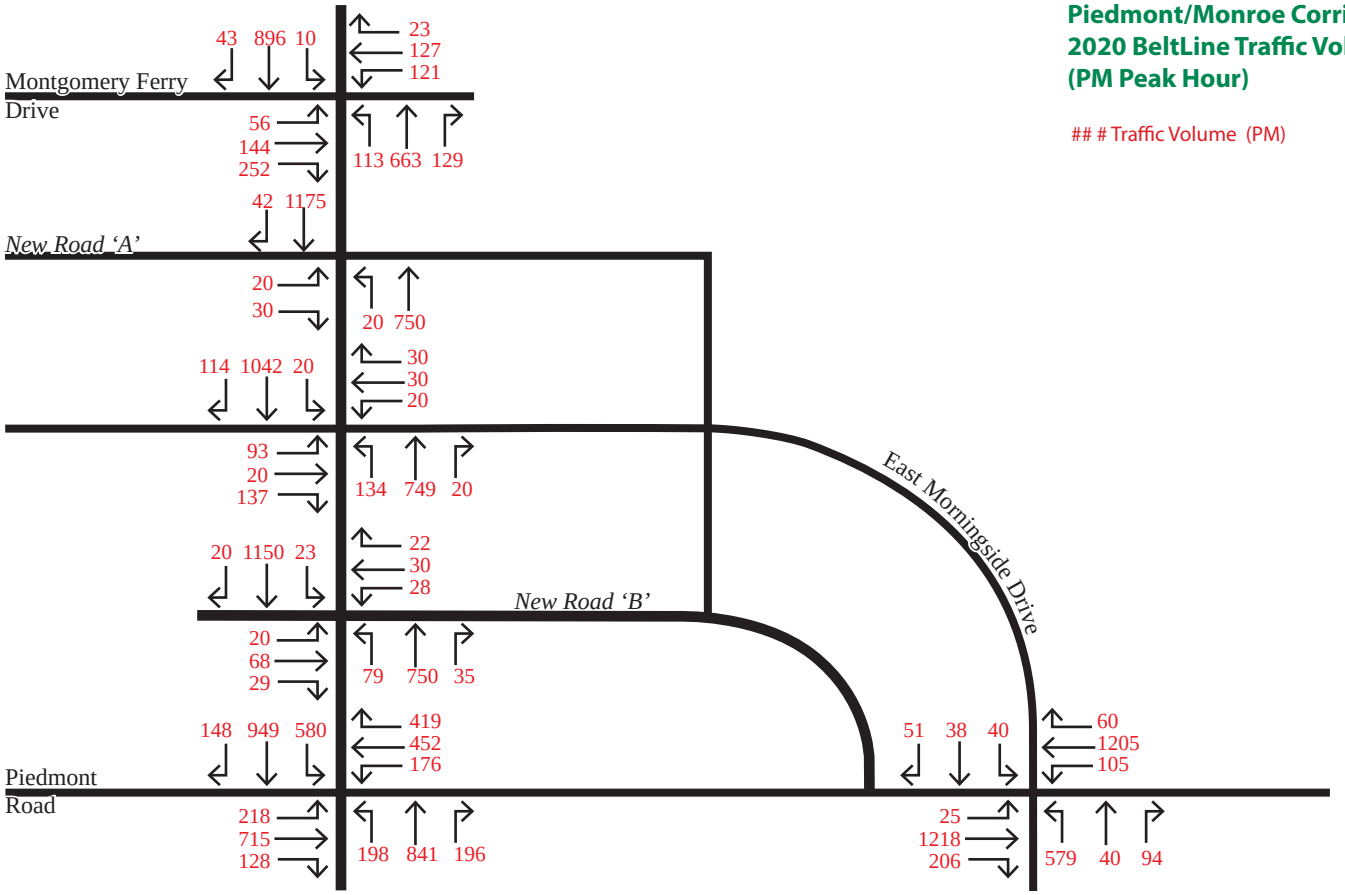


Piedmont/Monroe Corridor 2020 BeltLine Level of Service (AM Peak Hour)



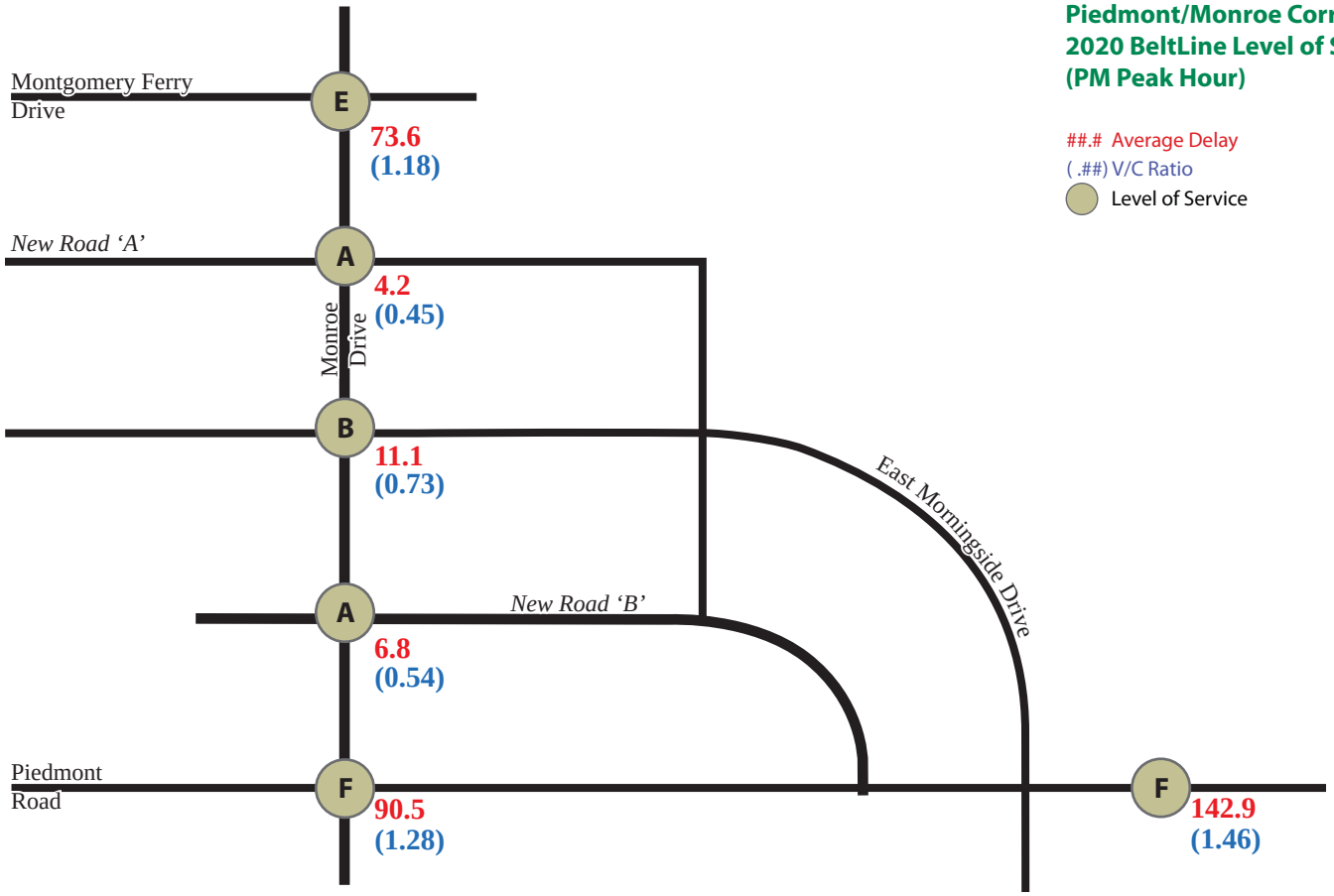
Piedmont/Monroe Corridor 2020 BeltLine Traffic Volumes (PM Peak Hour)

Traffic Volume (PM)

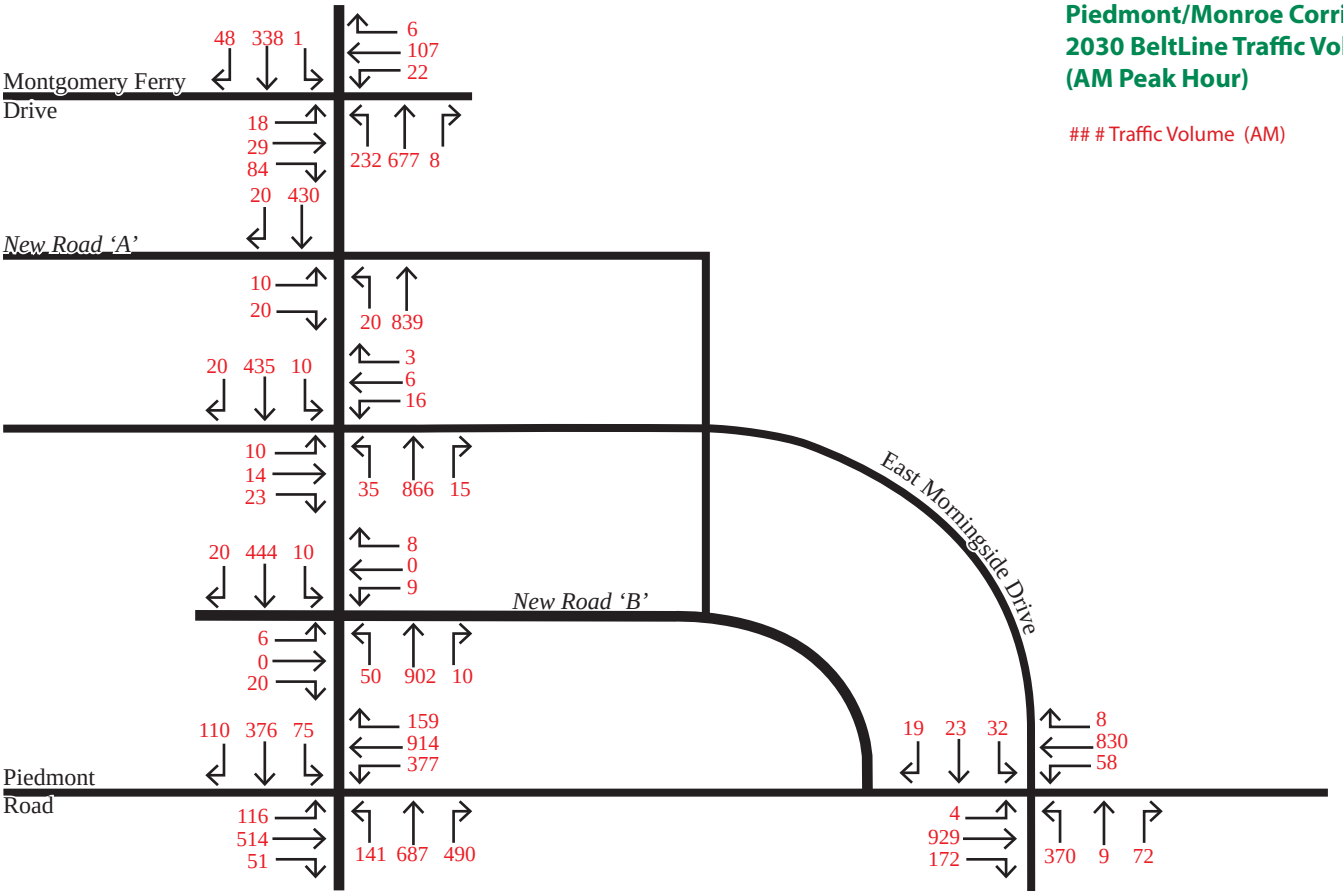


Piedmont/Monroe Corridor 2020 BeltLine Level of Service (PM Peak Hour)

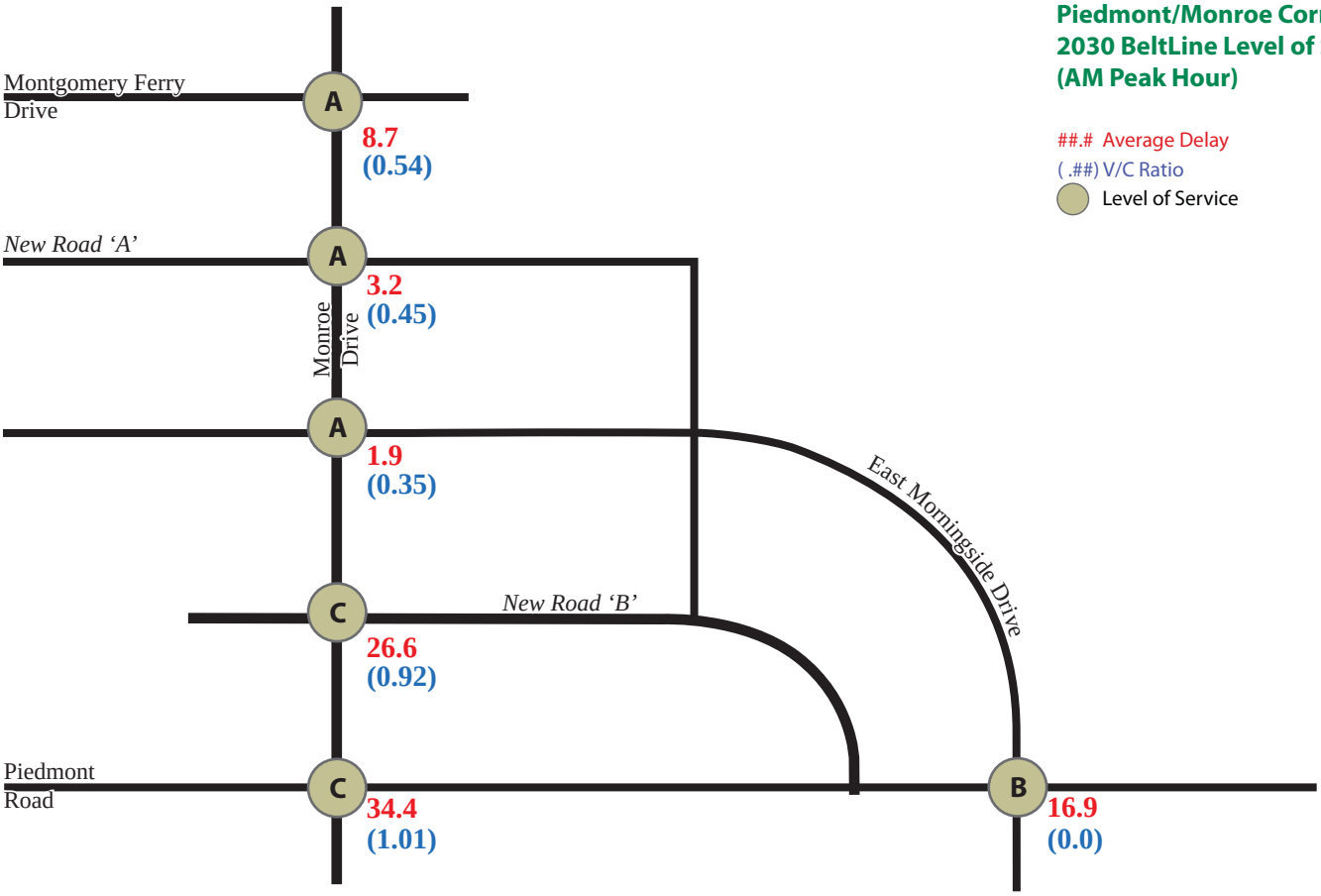
.# Average Delay
(.##) V/C Ratio
Level of Service



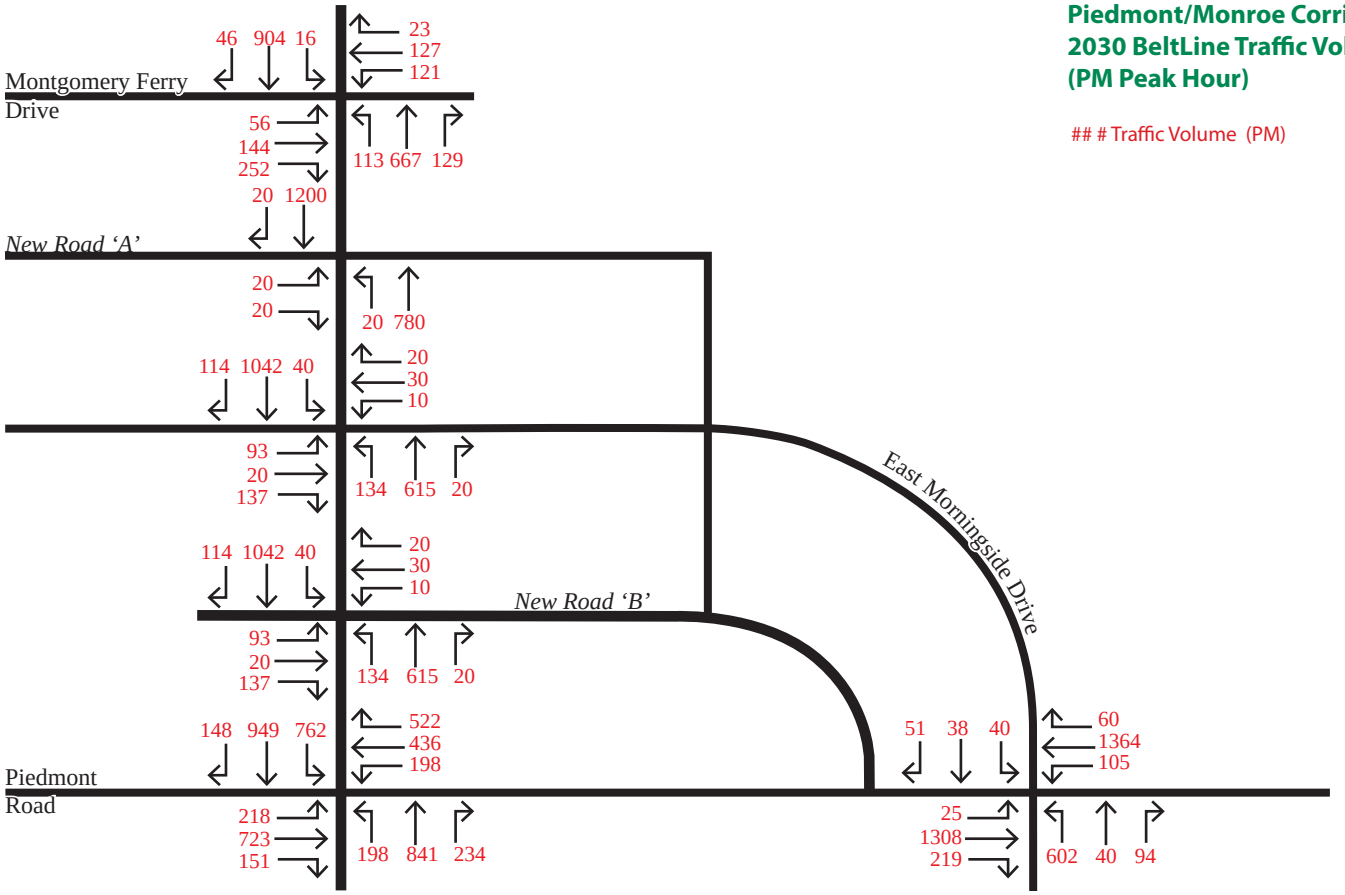
Piedmont/Monroe Corridor 2030 BeltLine Traffic Volumes (AM Peak Hour)



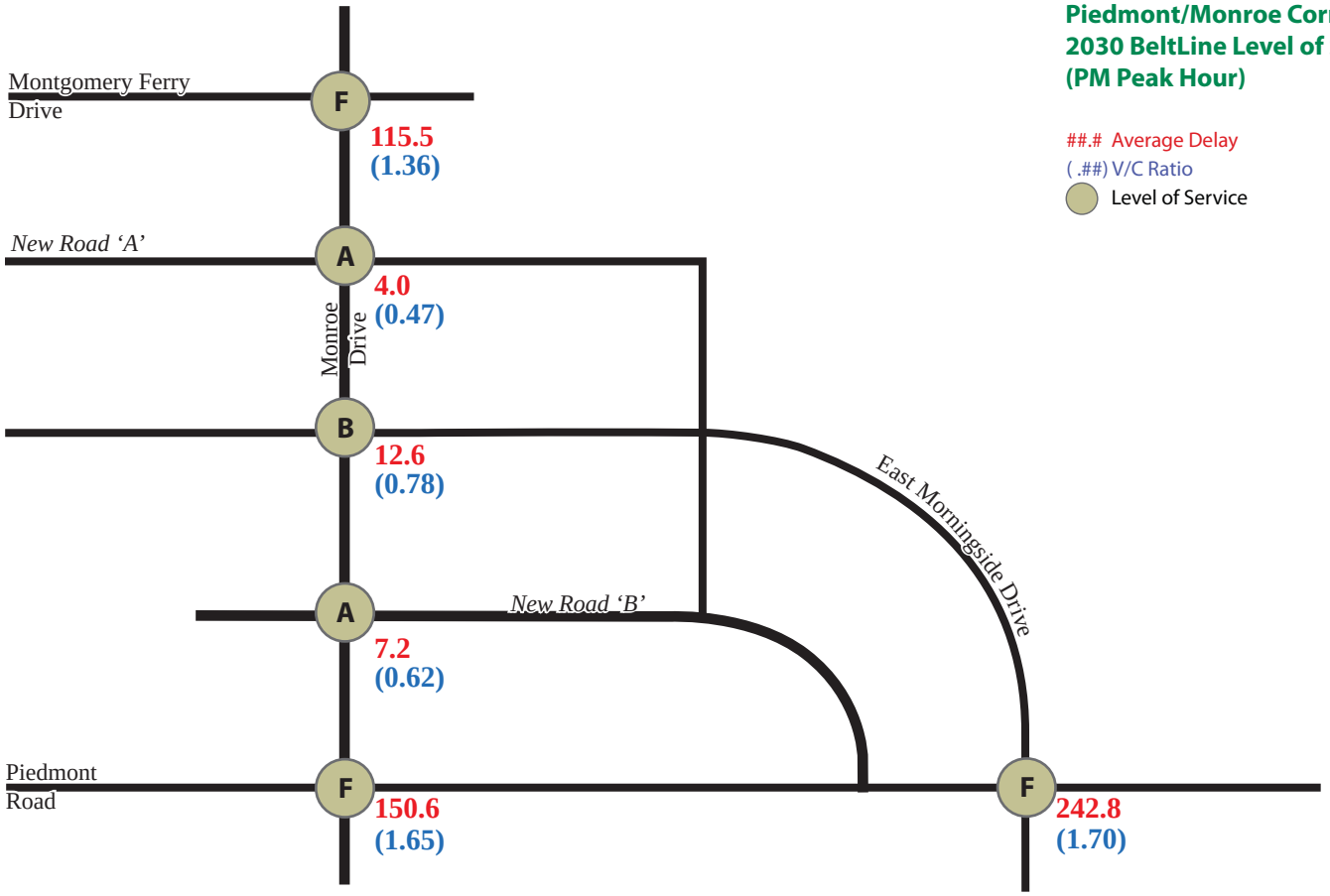
Piedmont/Monroe Corridor 2030 BeltLine Level of Service (AM Peak Hour)



Piedmont/Monroe Corridor 2030 BeltLine Traffic Volumes (PM Peak Hour)



Piedmont/Monroe Corridor 2030 BeltLine Level of Service (PM Peak Hour)



6.5 Focus Area 3 - Ansley Mall to Amsterdam Walk

Context

The sketch of Monroe Drive south of Piedmont Road is generally lined by residential neighborhoods with access to commercial (or mixed-use) nodes at Dutch Valley and Amsterdam. While Monroe does serve as a commuter corridor, in addition to its local circulation function, it does not carry exceptionally high volumes of traffic for a facility of this type.

2030 Build Scenario without BeltLine Transit

Analysis Question: What would 2020 and 2030 be like with new development but without the addition of BeltLine Transit or the proposed new street framework?

2030 Scenario Assumptions:

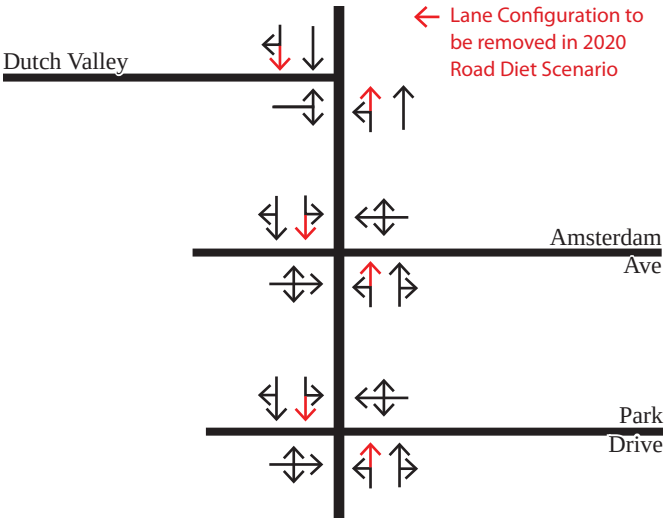
- Time Horizon: 2030.
- Road Network: Existing plus all new framework streets.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.



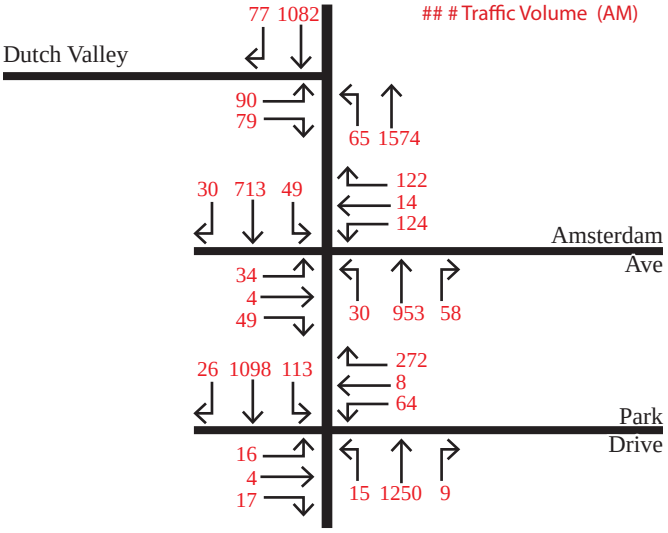
Figure 15- Urban Design Recommendations Focus Area 3- Piedmont Avenue and Montgomery Ferry



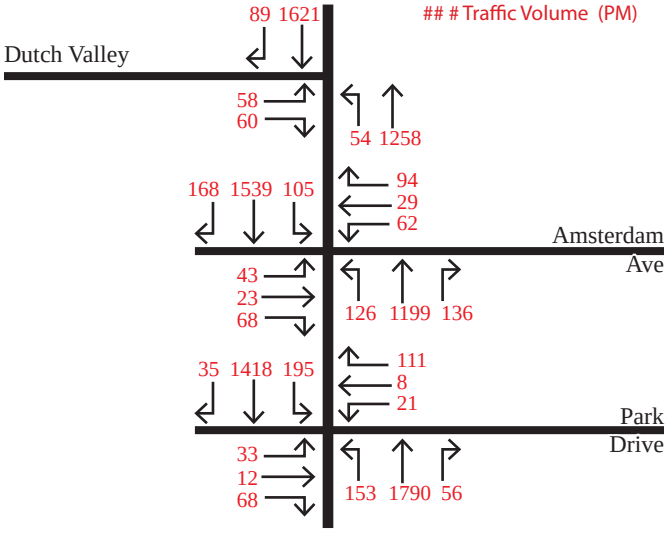
Figure 16- Urban Design Recommendations Focus Area 3- Piedmont Avenue and E. Morningside



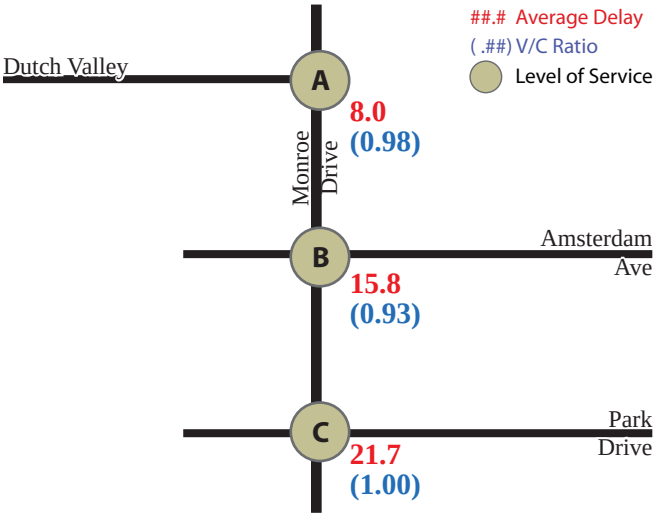
Ansley Mall to Amsterdam Walk Corridor
2030 Baseline & "Road Diet"
Lane Configurations



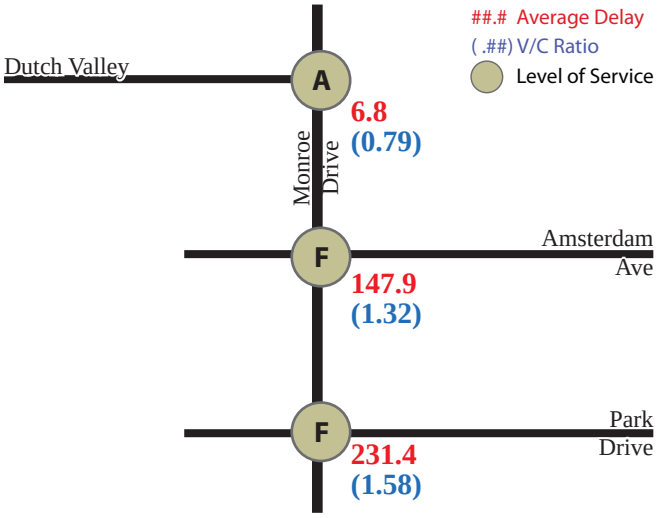
Ansley Mall to Amsterdam Walk Corridor
2030 Baseline Traffic Volumes
(AM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 Baseline Traffic Volumes
(PM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 Baseline Level of Service
(AM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 Baseline Level of Service
(PM Peak Hour)

2020 and 2030 BeltLine Build Scenarios

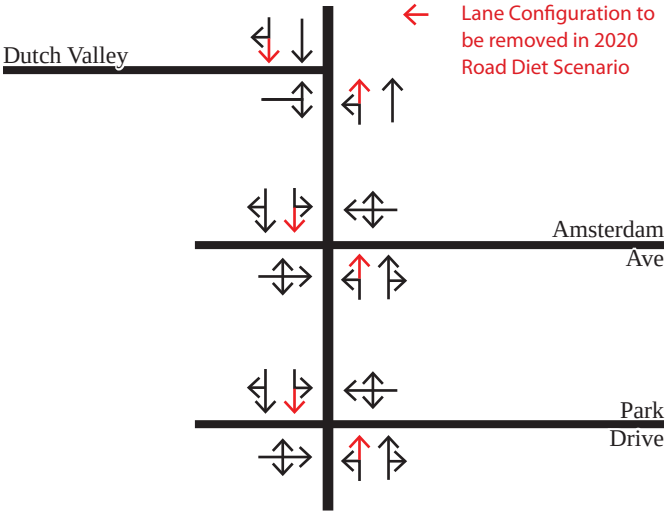
Analysis Question: What would 2030 be like with new development and the addition of BeltLine Transit and the proposed new street framework?

2020 Build Assumptions:

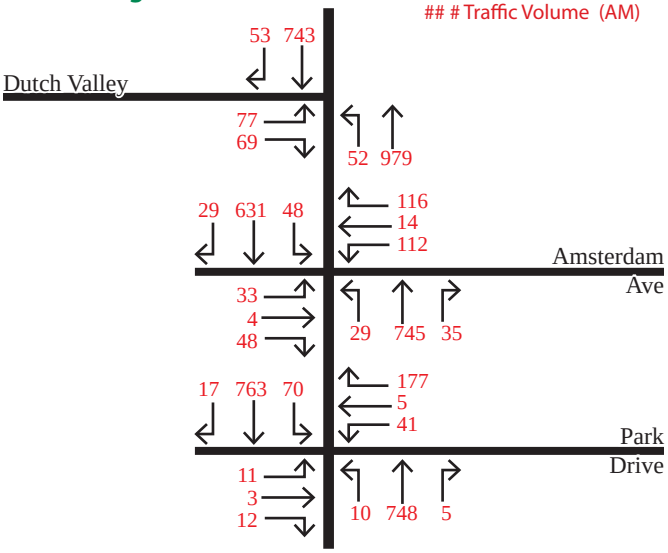
- Time Horizon: 2020.
- Road Network: Existing plus new network north of 8th Street.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2020).
- Trip Generation: Proposed Redevelopment program north of 8th Street (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: Per Trip distribution graphic.

2030 Build Assumptions:

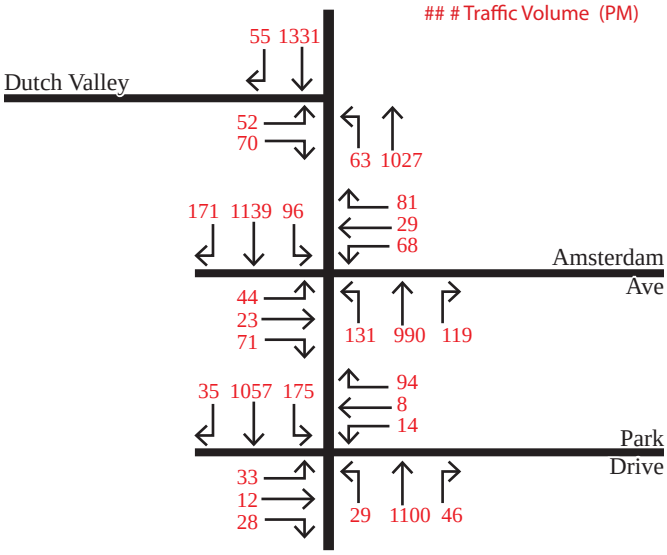
- Time Horizon: 2030.
- Road Network: Existing plus new network at Ansley Mall, Amsterdam Walk, Midtown Promenade, and Midtown Place.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Proposed Redevelopment program (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: 2005 existing pattern adjusted to reflect new street framework.



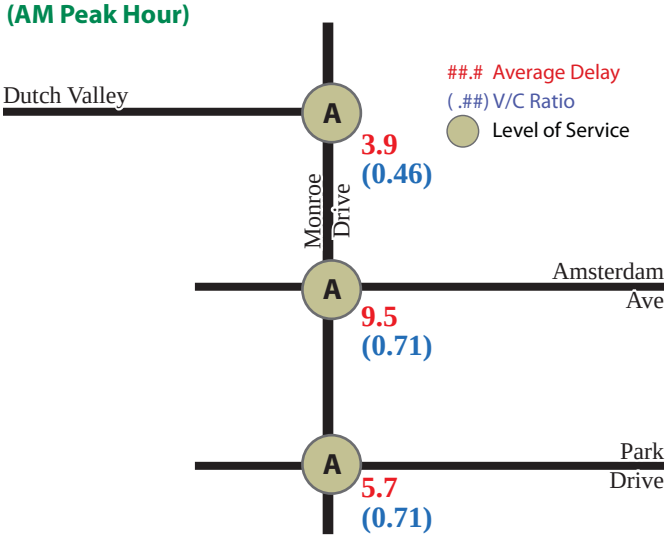
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine & "Road Diet" Lane Configurations



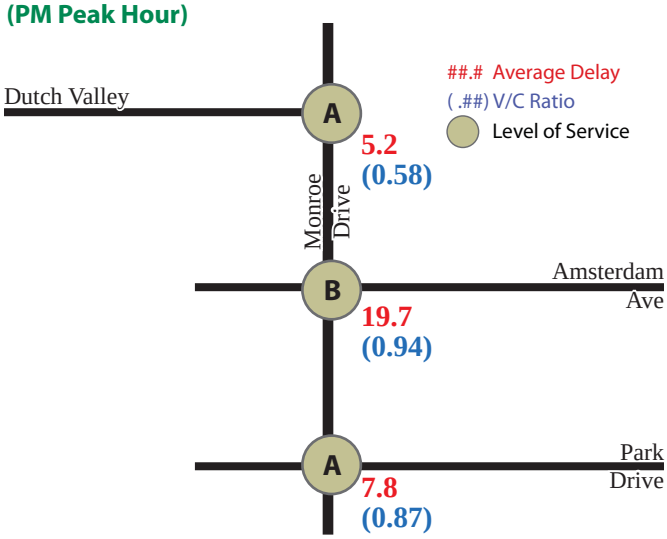
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine Traffic Volumes
(AM Peak Hour)



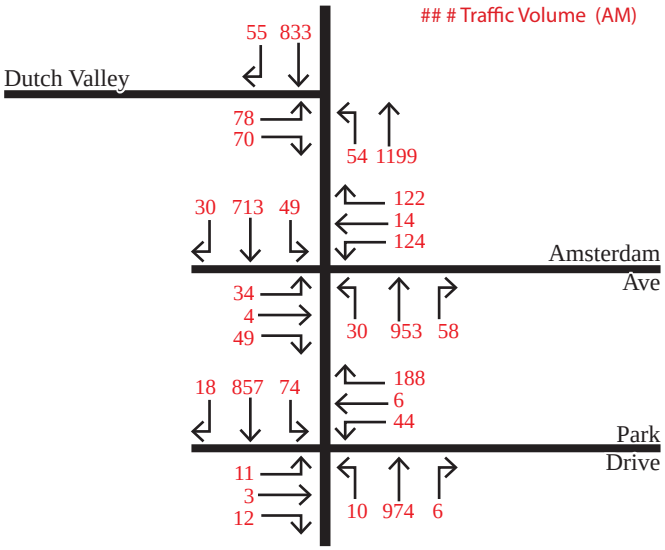
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine Traffic Volumes
(PM Peak Hour)



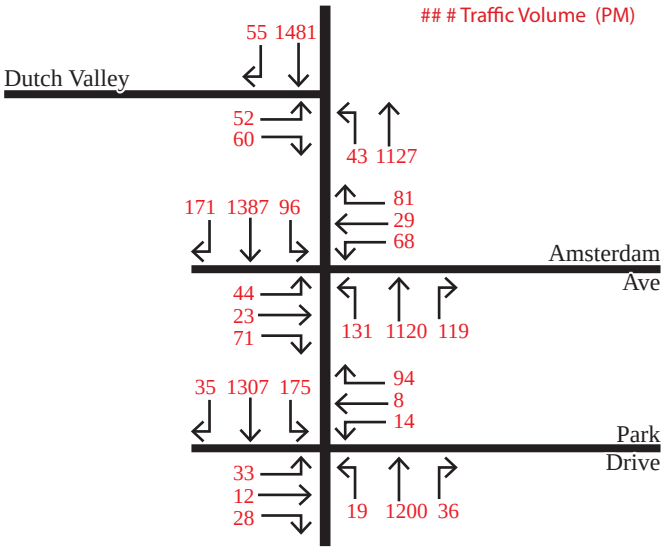
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine Level of Service
(AM Peak Hour)



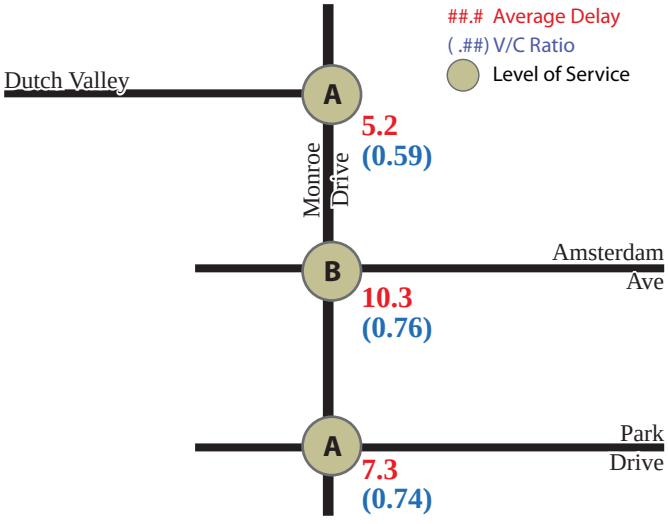
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine Level of Service
(PM Peak Hour)



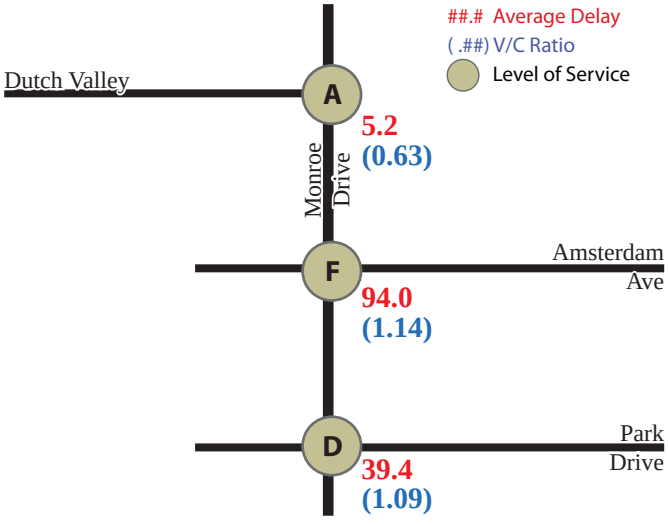
Ansley Mall to Amsterdam Walk Corridor
2030 BeltLine Traffic Volumes
(AM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 BeltLine Traffic Volumes
(PM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 BeltLine Level of Service
(AM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
2030 BeltLine Level of Service
(PM Peak Hour)



**Figure 17- Ansley Mall to Amsterdam Walk
Traffic Traverse Times - Existing Conditions**



**Figure 18 - Ansley Mall to Amsterdam Walk
Traffic Traverse Times - 2030 Base-line**



**Figure 19- Ansley Mall to Amsterdam Walk
Traffic Traverse Times - 2030 with BeltLine**

While individual intersection analyses are informative, it is also helpful to know what the future might hold relative to a full trip on Monroe from the Buford Highway Connector to Ponce de Leon Avenue In order to shed some light on this subject, the corridor was modeled with current traffic, with the expected traffic growth in the area, and with the expected traffic growth when BeltLine transit is in place.

As the above diagrams illustrate the assumed traffic growth (which may error toward the high, or conservative side) would add significant delay to driving trips on this corridor. The presence of transit however, would gain back much of that time. This suggest that over the course of time the pedestrian, transit, and land use changes proposed are likely to result in a very well balanced urban transportation environment.

6.6 Focus Area 4 - 10th Street and Monroe Drive

Context

The node around the intersections of Monroe Drive with 10th Street, Virginia Avenue and 8th Street is an active, but confusing, area for drivers, pedestrians and bicyclists. The addition of an at-grade trail and transit line into this mix will likely exacerbate these conditions.

In order to address these existing and anticipated concerns, a variety of intersection configurations were developed and tested. These ranged from aligning 10th and Virginia, to separating them further, to eliminating some of the existing links. Some of these various configurations are shown on the following pages.

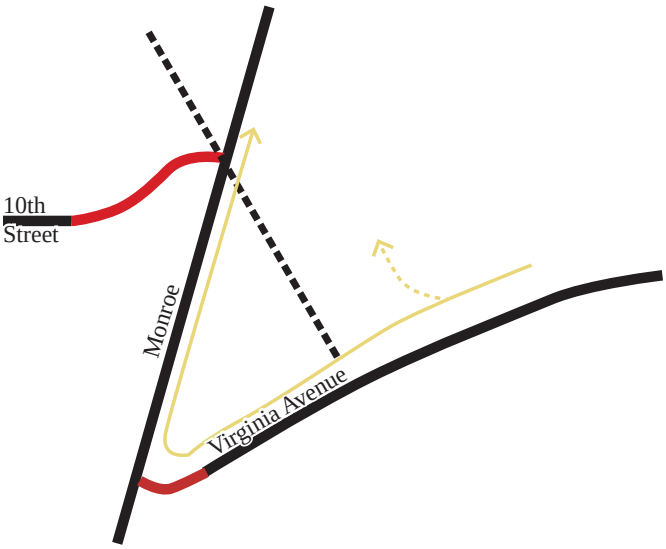
The intersections were also tested with and without the addition of BeltLIne transit.

2030 Build Scenarios without BeltLine Transit

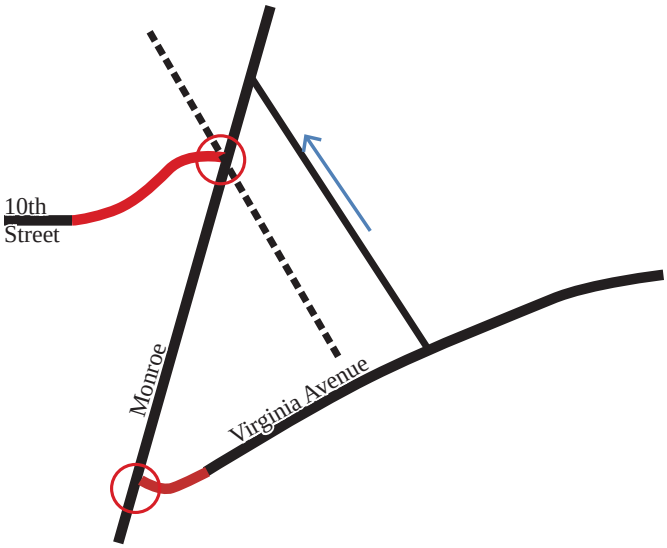
Analysis Question: What would 2020 and 2030 be like with new development but without the addition of BeltLine Transit or the proposed new street framework?

2030 Scenario Assumptions:

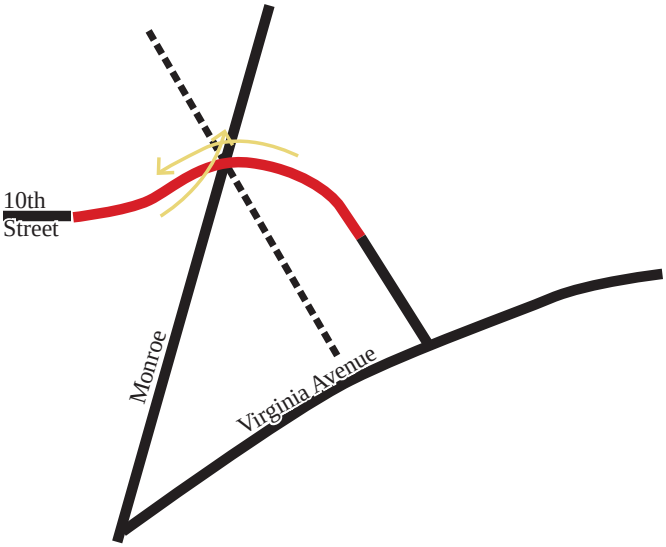
- Time Horizon: 2030.
- Road Network: Existing plus all new framework streets.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.



10th Street and Monroe Drive Corridor
2030 Delay- 188 seconds



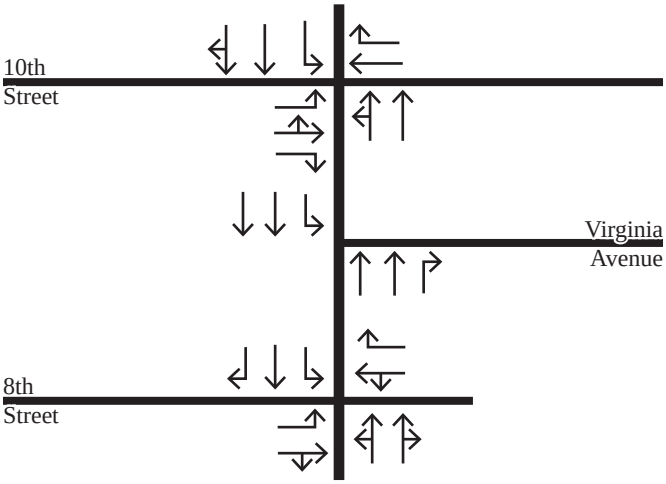
10th Street and Monroe Drive Corridor
2030 Delay-77 seconds



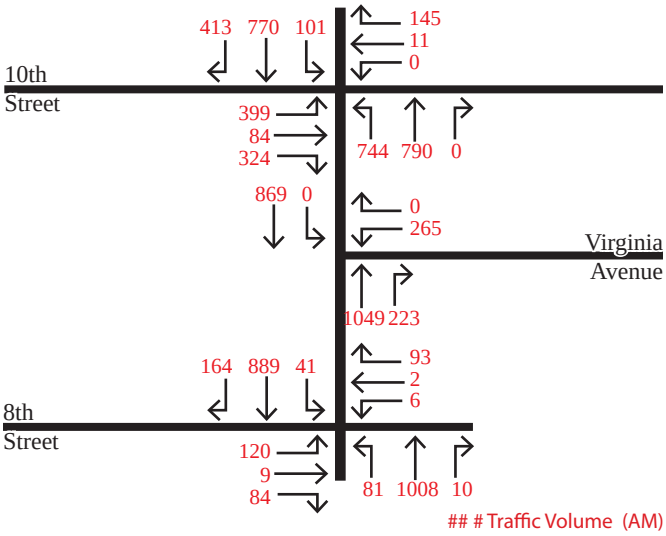
10th Street and Monroe Drive Corridor
2030 Delay- 108 seconds



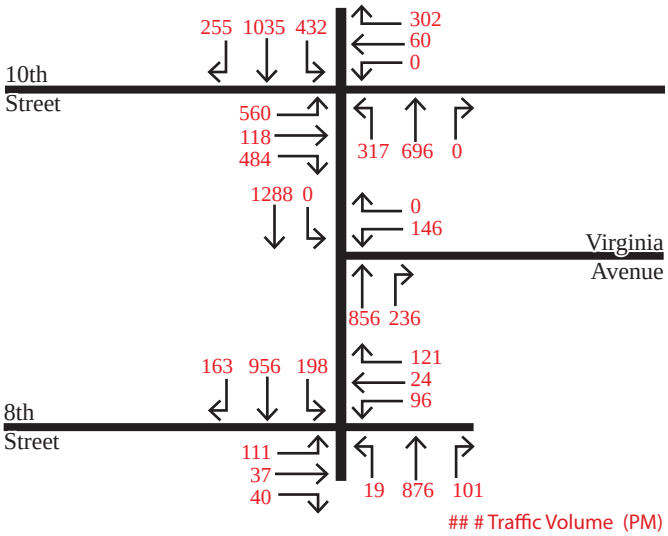
Figure 20- Urban Design Recommendations Focus Area 4: Monroe Drive at 10th Street Realignment
LOS with BeltLine Transit: 77 seconds
LOS without BeltLine: 131 seconds



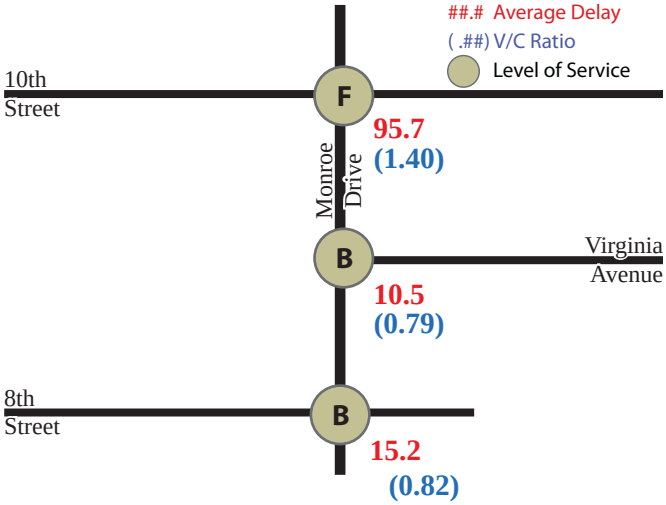
10th Street and Monroe Drive Corridor
2030 Baseline & "Road Diet"
Lane Configurations



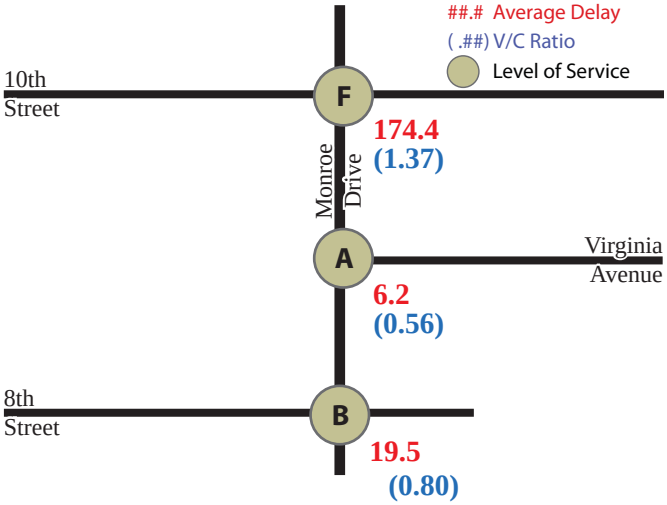
10th Street and Monroe Drive Corridor
2030 Baseline Traffic Volumes
(AM Peak Hour)



10th Street and Monroe Drive Corridor
2030 Baseline Traffic Volumes
(PM Peak Hour)



10th Street and Monroe Drive Corridor
2030 Baseline Level of Service
(AM Peak Hour)



10th Street and Monroe Drive Corridor
2030 Baseline Level of Service
(PM Peak Hour)

2020 & 2030 BeltLine Build Scenarios

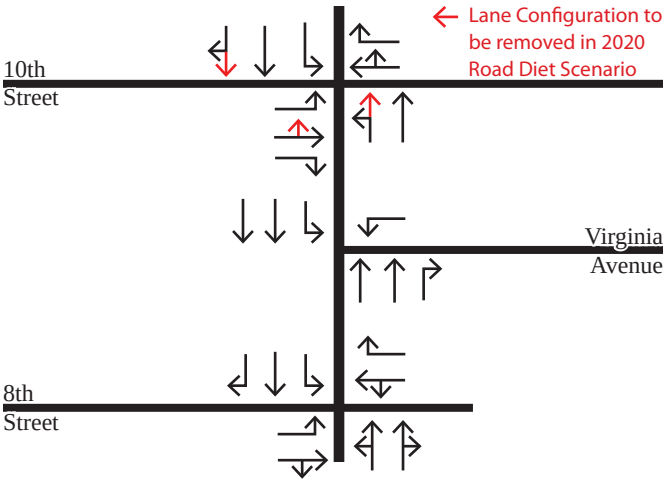
Analysis Question: What would 2030 be like with new development and the addition of BeltLine Transit and the proposed new street framework?

2020 Build Assumptions:

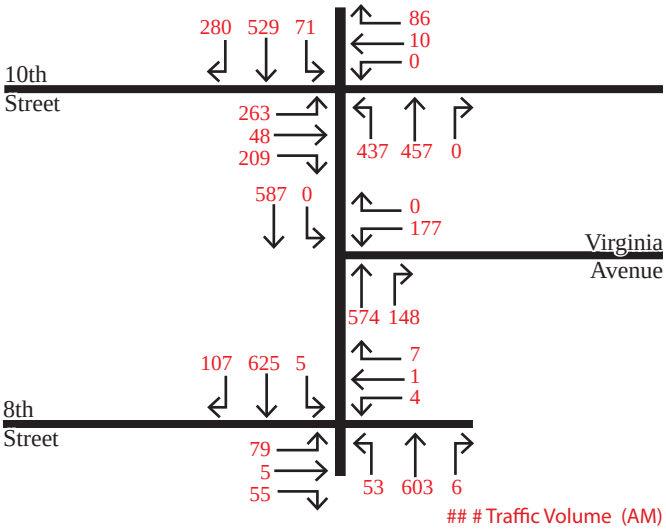
- Time Horizon: 2020.
- Road Network: Existing plus new network north of 8th Street.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2020).
- Trip Generation: Proposed Redevelopment program north of 8th Street (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: Per Trip distribution graphic.

2030 Build Assumptions:

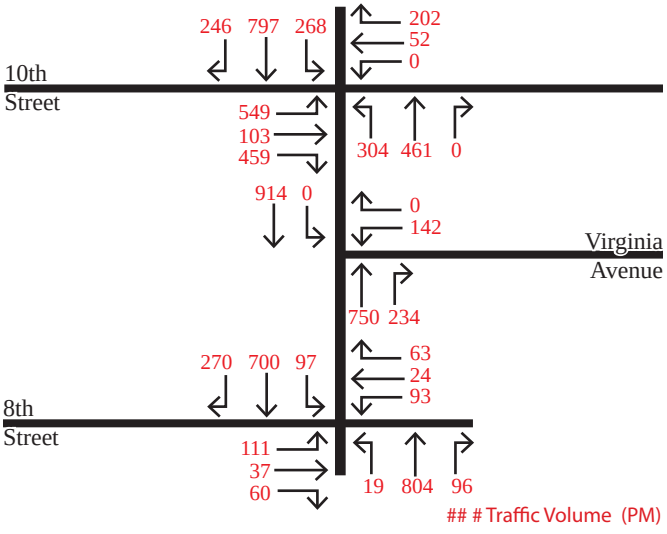
- Time Horizon: 2030.
- Road Network: Existing plus new network at Ansley Mall, Amsterdam Walk, Midtown Promenade, and Midtown Place.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Proposed Redevelopment program (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: 2005 existing pattern adjusted to reflect new street framework.



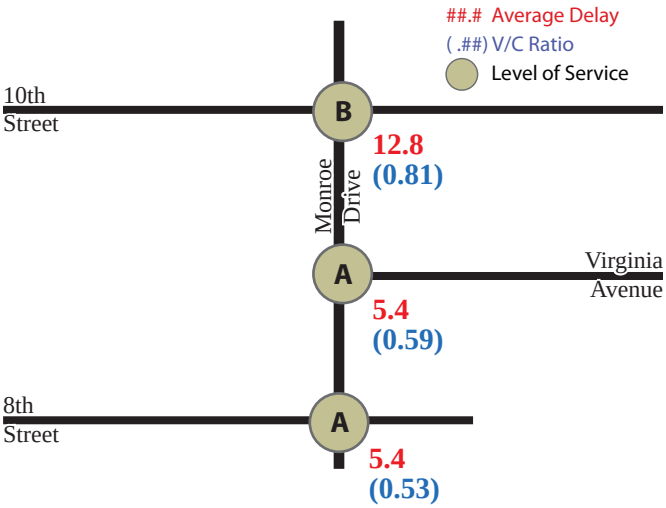
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet"
Lane Configurations



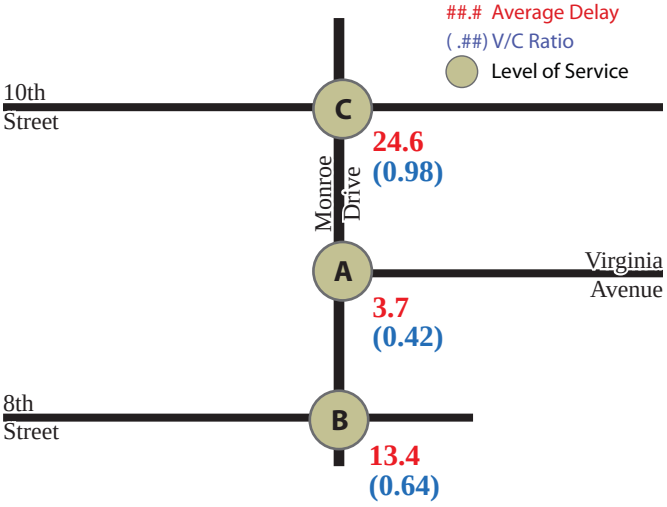
10th Street and Monroe Drive Corridor
2020 BeltLine Traffic Volumes
(AM Peak Hour)



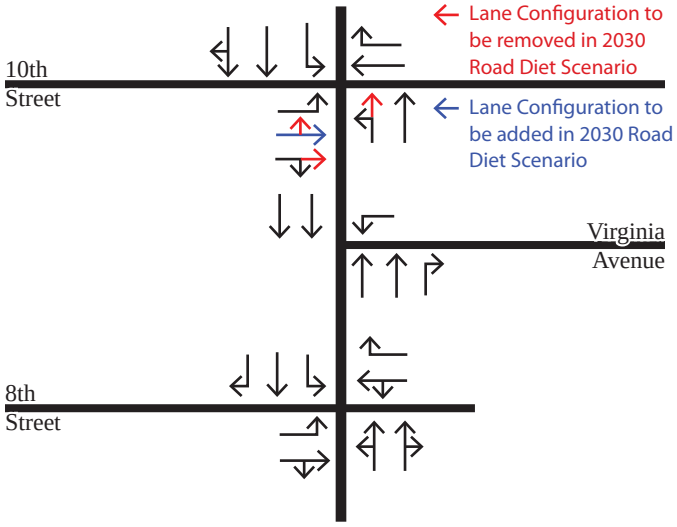
10th Street and Monroe Drive Corridor
2020 BeltLine Traffic Volumes
(PM Peak Hour)



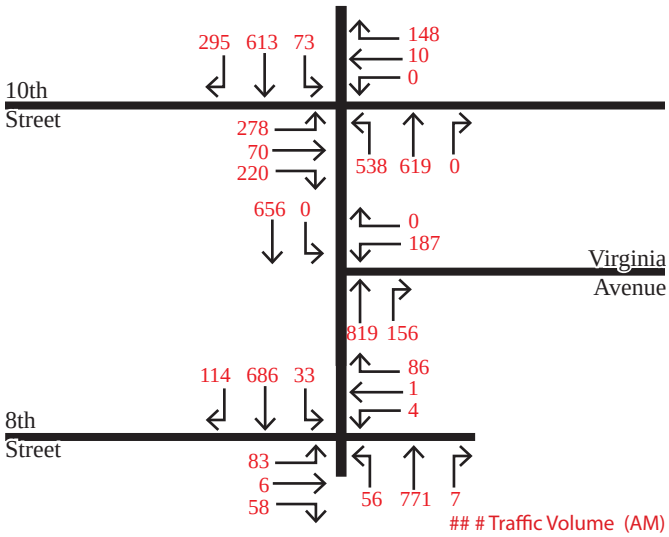
10th Street and Monroe Drive Corridor
2020 BeltLine Level of Service
(AM Peak Hour)



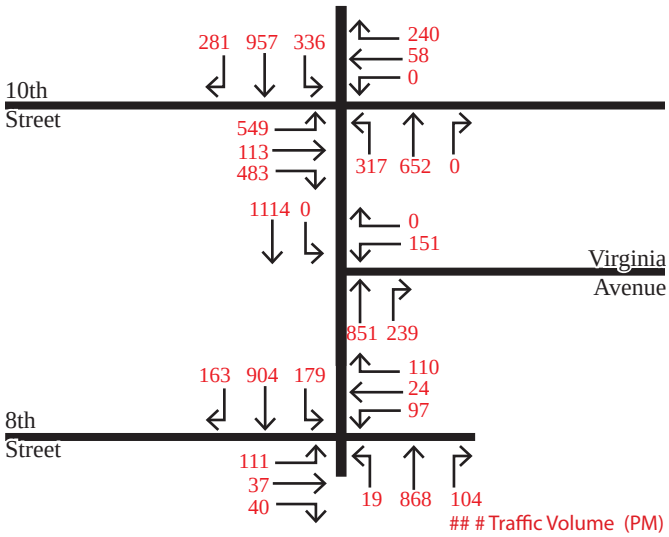
10th Street and Monroe Drive Corridor
2020 BeltLine Level of Service
(PM Peak Hour)



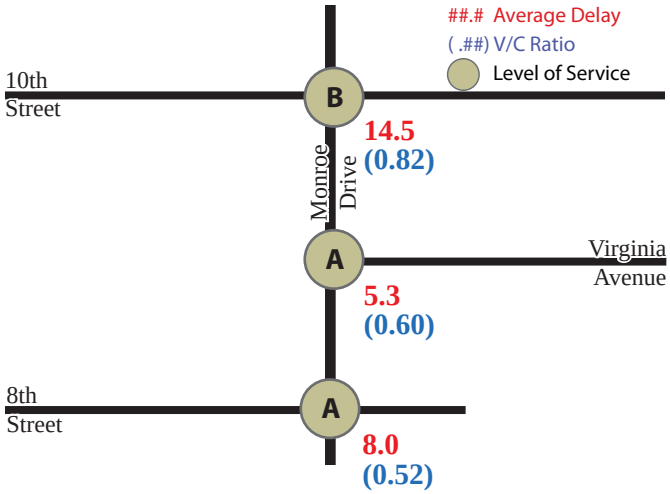
10th Street and Monroe Drive Corridor 2030 & "Road Diet" Lane Configurations



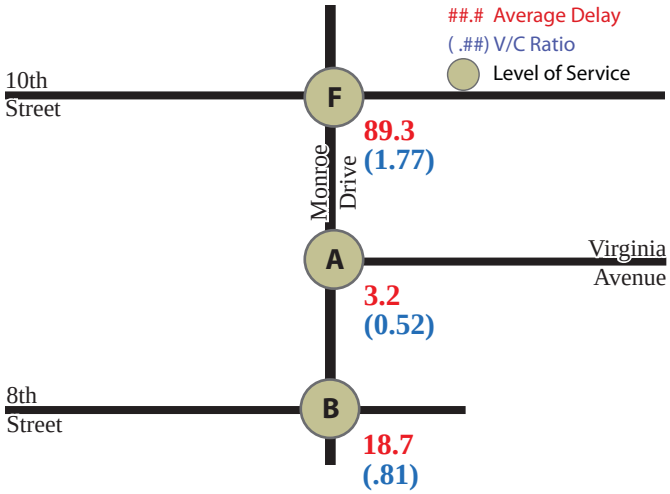
10th Street and Monroe Drive Corridor 2030 BeltLine Traffic Volumes (AM Peak Hour)



10th Street and Monroe Drive Corridor 2030 BeltLine Traffic Volumes (PM Peak Hour)



10th Street and Monroe Drive Corridor 2030 BeltLine Level of Service (AM Peak Hour)



10th Street and Monroe Drive Corridor 2030 BeltLine Level of Service (PM Peak Hour)

6.7 Focus Area 5 - Midtown Promenade/Home Depot

Context
This site, despite its in-town location surrounded by a well connected street network, functions as a giant super block. There is no entry or connection through this site or along any of its edges. As such, one of the major tasks is to break up the site to provide additional connectivity throughout the neighborhood.

The plan envisions an internal main street that would connect Ponce de Leon Avenue and 8th Street at Monroe Drive. The eastern side of this main street would be anchored by 5-9 story mixed use buildings providing street front retail on the ground floor and residential above. The development could also incorporate office uses where appropriate. The intersection of 10th and Monroe could provide a significant gateway to Piedmont Park and act as a development node for the Virginia Avenue transit stop.

Results of the traffic analysis for this scenario are presented on page 95. Pages 89 through 94 discuss the advantages of encouraging a regular spacing of streets and blocks.

2030 Build Scenarios without BeltLine Transit

Analysis Question: What would 2020 and 2030 be like with new development but without the addition of BeltLine Transit or the proposed new street framework?

2030 Scenario Assumptions:

- Time Horizon: 2030.
- Road Network: Existing plus all new framework streets.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Total Proposed Redevelopment Program.
- Mode Split: 14% (Atlanta average for work trips).
- Trip Assignment/Distribution: Per trip distribution graphic.

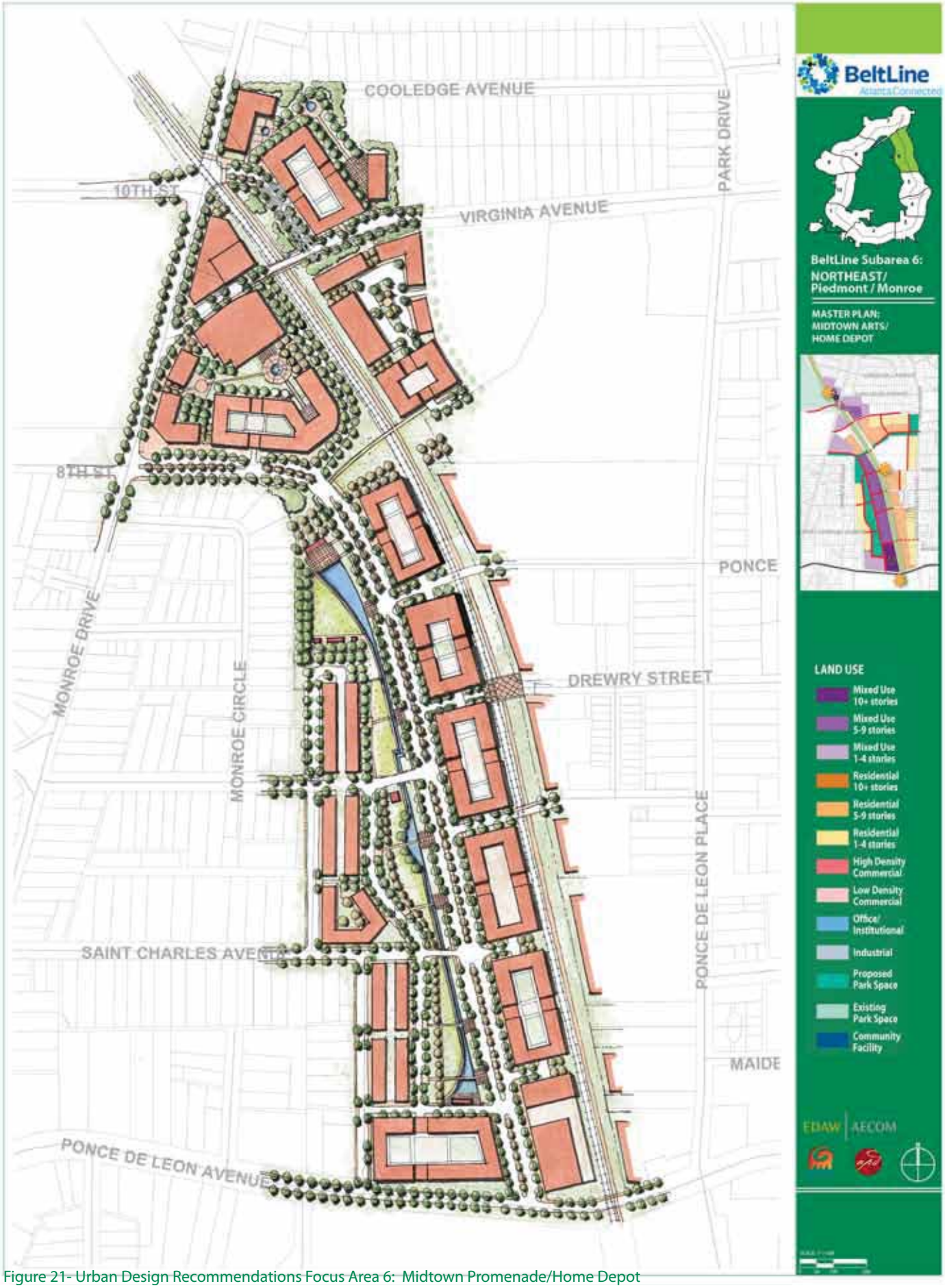


Figure 21- Urban Design Recommendations Focus Area 6: Midtown Promenade/Home Depot



Figure 22 - Distance between connections at Midtown Promenade and Midtown Plaza (orange line)= 6,500 feet

Neighborhood Street Connections

The site plan in Figure 24 shows new connections of neighborhood streets (Saint Charles, Greenwood, Drewry) to the central spine of the new neighborhood center. These connections are envisioned primarily for the benefit of neighborhood users as a means to access an area that will be seen as valuable. There have been some understandable community concern about the potential for cut-through traffic. The design has been laid out carefully to discentivize these sorts of trips with tools like the offset of intersections, alignment deflections and other traffic calming elements. We believe these will be effective and the additional connectivity will provide some advantages.

Advantages of Small Blocks

Small blocks are advantageous because they allow the development of a finer grain of urban fabric that at once improves the efficiency of the transportation system, promotes a more healthy, versatile economic base and enhances the nature of the built environment. As the legacy of post-World War II development patterns has given rise to a paradigm of larger sites and greater space between public thoroughfares, it is essential to consider the benefits that defining block size has for a city's character and well being.

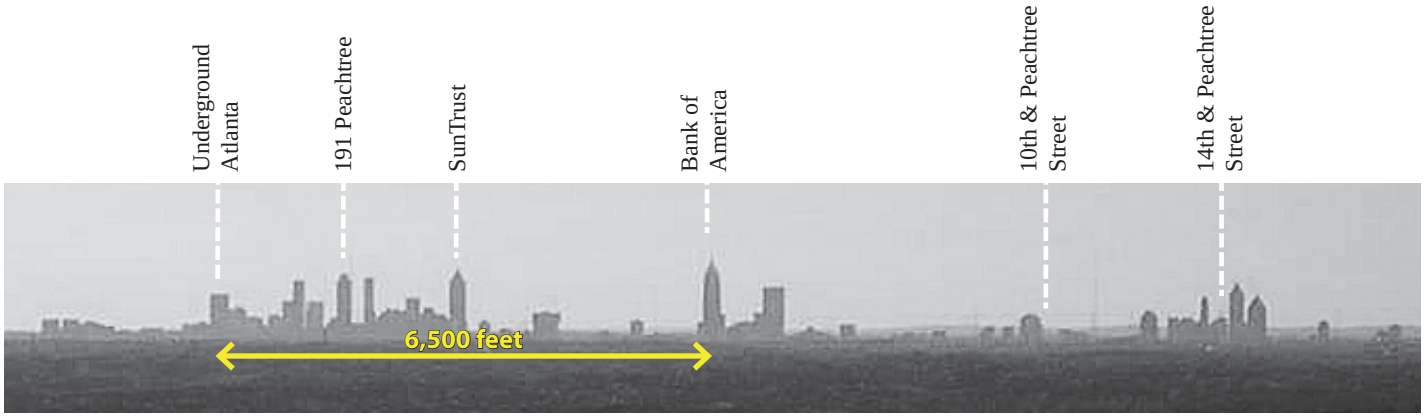


Figure 23 - Distance along Peachtree Street between Underground Atlanta and the Bank of America building=6,500 feet.



Figure 24 - Distance between connections at Midtown Promenade and Midtown Plaza (orange line)= 9,100 feet

From a policy perspective, smaller block sizes are a vital element to design guidelines and subdivision regulations that seek to create a livable community. Traditional development patterns sought to utilize valuable land as efficiently as possible by building to the street and utilizing rear access, most notably through mid-block alleys, to provide service to buildings. This way of building had the well-known advantages of allowing more immediate access to the building and keeping services off of already busy street. In recent years planners have sought to move back to this kind of development and are increasingly developing policies and land development regulations requiring it. However, the placement of buildings alone does not guarantee the successful function of a traditional urban environment: the means of circulation defined by the streets must promote adjacency and accessibility so that the transfer of goods and information is possible. When the connections that intersecting streets provide are too large, the compact nature of the urban environment is lost and it is more difficult to use land efficiently.

Here, small block sizes are discussed in terms of two principal concerns: urbanism and transportation. These two concerns are closely related and proper respect of both leads to better city building, but for the sake of clarity, the advantages of small blocks with regard to each are listed separately.

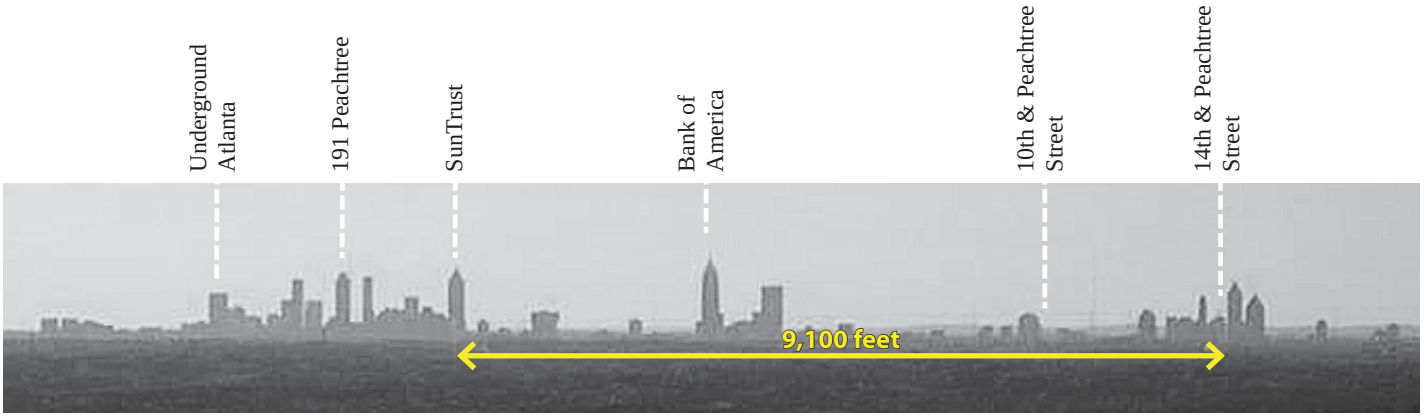


Figure 25 - Distance along Peachtree Street between the SunTrust building and intersection of 14th Street & Peachtree Street=9,100 feet.

Urbanism

Block sizes matter by type of land use: commercial blocks and residential blocks differ in terms of layout and configuration. Generally commercial blocks are smaller than residential blocks and have a more square formation (e.g. 400 by 400 feet), more frequent vehicle movements, larger vehicles on average, and far more pedestrians. Simply stated, they must meet the demands of the 'working' city, and as such require a greater sense of connectivity. Accordingly, it is not uncommon to see Residential blocks, on the other hand, have more dispersed travel patterns, different lot sizes, and accommodate front yards, driveways and other features of the domestic built environment.

Though residential blocks may have greater flexibility in size and are not subject to the same demands as the land and streets making up commercial blocks, it is important to bear in mind that the benefits of a connected grid rely on this grid's consistency-- throughout all of a city's land uses. Where commercial uses may function best in smaller blocks, the advantages that these blocks provide do not apply to the entire city unless the residential block pattern is of a compatible size. Where applicable, distinctions are made between residential and commercial blocks when describing the benefits of a small-block street grid.

City Legibility

Kevin Lynch illustrates this principle through his concept of place legibility, or the ease with which people understand the layout of a place.[1] To do this, people begin by creating their own cognitive picture, or mental map. This includes what a city contains, where it is located, what lies in between and what distinguishes one part of a city from another. Regular users of a city's built environment, such as its inhabitants, and occasional users, such as visitors, both form mental maps, even if to varying degrees. A structure of compact blocks with a dense network of intersecting streets greatly facilitates mental maps in that the connecting paths between locations are sensible and direct.

When block sizes become too large, the order and execution of a mental map are more difficult to achieve. The user of a built environment may even know multiple ways from one point to another, but the reduced opportunities from larger blocks and greater distances between street connections make the overall journey less intelligible and intuitive.





Figure 26 - Redevelopment of a Shopping Mall - The two pictures here depict the same site: in the first, a shopping mall built in the 1960s that became obsolete and lost its retail viability by the 1990s. Below the same site has been redeveloped into a town center with a network of streets and blocks allowing internal access, increasing development opportunities and complementing the surrounding street pattern.

Human Experience
Jane Jacobs pointed out that one of the great benefits of connected streets is their wealth of opportunity for interesting places. City residents and visitors may find the experience of a particular street pleasant, but the truly engaging places of their communities are at the points of intersections: plazas, squares, and even street corners.[2] Corners are where the character of the neighborhood may change, from one street to another. In general, Jacobs extols the increased chances for spontaneity—from the likes of unplanned encounters with friends and neighbors, discovery of new shops or restaurants, or a new route from home to work—as one of the great virtues of city life. The opportunity for connection granted by a pattern of small blocks further increases these chances and adds to the experience of cities. With greater density of the street network and smaller blocks, the number of corners increases as well.

Enable Mixed Use and Adjacency
Another advantage of small blocks is that they promote adjacency. Typically streets will be dedicated to a single land use, or a mixture of land uses with a common ground-floor element. Yet complementary land uses must be able to access this first land use: residential neighborhoods must be able to access the shopping along main streets; in turn the shopping needs to be close to the neighborhoods it is serving.

With smaller blocks it is feasible to set smaller areas for different uses as a dense street network provides adequate circulation between origins and destinations, where with larger blocks it is difficult to expect effective circulation between uses without the addition of a de facto internal street system. This is often a problem with large commercial sites, such as shopping malls and newer 'power centers.' The size of the sites and the parking required to serve the commercial space necessitates an internal circulation system, yet the residential areas that provide the shopping center's market are entirely separated from it.

Traffic Calming
With block lengths of 300 to 400 feet, a motorist traveling at 30 miles per hour will cross an intersecting street every 7 to 9 seconds, which conforms to the 8- to 10-second "attention span" that is needed to sustain a driver's attention. Each intersection functions as a potential traffic calming device: it is an event that demands attention. Even and frequent spacing of these intersections through shorter block lengths is thus an incentive for the motorist to take slower speeds.

User Safety
Adding redundancy to the network through more streets (and consequently smaller blocks) allows the same number of drivers a greater array of options for reaching a single destination and allows them to be distributed more evenly among these options. With larger blocks and less frequent intersecting streets, a motorist has fewer route options to any destination and all motorists following the same path must share the same streets. This increases the probability of conflicts—of vehicles with other vehicles or of vehicles with pedestrians.

With this greater variety of route options it is more feasible to plan a street hierarchy: naturally some streets will function on a higher level, but with a greater density of streets in the network it is possible to keep other streets more limited in function, serving slower-moving local traffic at reduced volumes. However, the street hierarchy can remain connected through a grid and not based on dendritic patterns of arterials, collectors and culs-de-sac, each with progressively higher traffic volumes that account for a share of all local trips.

Emergency Response

Another element of public safety that benefits from small block sizes is emergency response. In a small-block street pattern, responders can close a block length of a street at the two intersections that define it, prohibiting moving traffic from interfering with an emergency operation and allowing the responders to stage their efforts from two convenient locations. Fire-fighters in particular prefer to be within 200 feet of a hydrant; blocks up to 400 feet on a side with hydrants on each corner allow this threshold to be maintained. In general, though, the principle of redundancy that is built into a dense network of small blocks is a great advantage to emergency response vehicles. The frequency of connection in a small-block system provides two, often three completely redundant routes to an event, allowing the responders themselves to circumvent unforeseen obstructions on the way to an emergency.

Multi-modal transportation

Pedestrians

Among the greatest beneficiaries to a network of small blocks are pedestrians and bicyclists. As with motorists, smaller blocks allow pedestrians and cyclists a greater variety of routes between destinations. In addition to the flexibility to choose a different route or to continue moving in an alternative direction in the event of obstruction (e.g. to turn at a street if moving traffic presents crossing that street), a denser street network allows pedestrians and cyclists to avoid busy routes and dangerous mixed traffic. Larger blocks, as they channel traffic onto fewer roads, expose pedestrians and cyclists to greater vehicle traffic—and greater chances of vehicle conflict.

Just as the even and relatively frequent spacing of blocks places reasonable demand on the motorist's attention, smaller blocks give the pedestrian a sense of progress in providing a cross street every 75 to 90 seconds. As a general measure, a desirable pedestrian environment that allows adequate traffic movement will have functional block perimeters of between 1,500 and 2,100 feet. This guideline yields walkable block sizes of between 250 to 350 feet by 500 to 700 feet. While the perimeter can be articulated differently among the different block faces, it maintains generally smaller sizes, no more than 400 to 450 feet for square block sides. As most informal directions are given in numbers of blocks (for example, "the store is three blocks past the park on

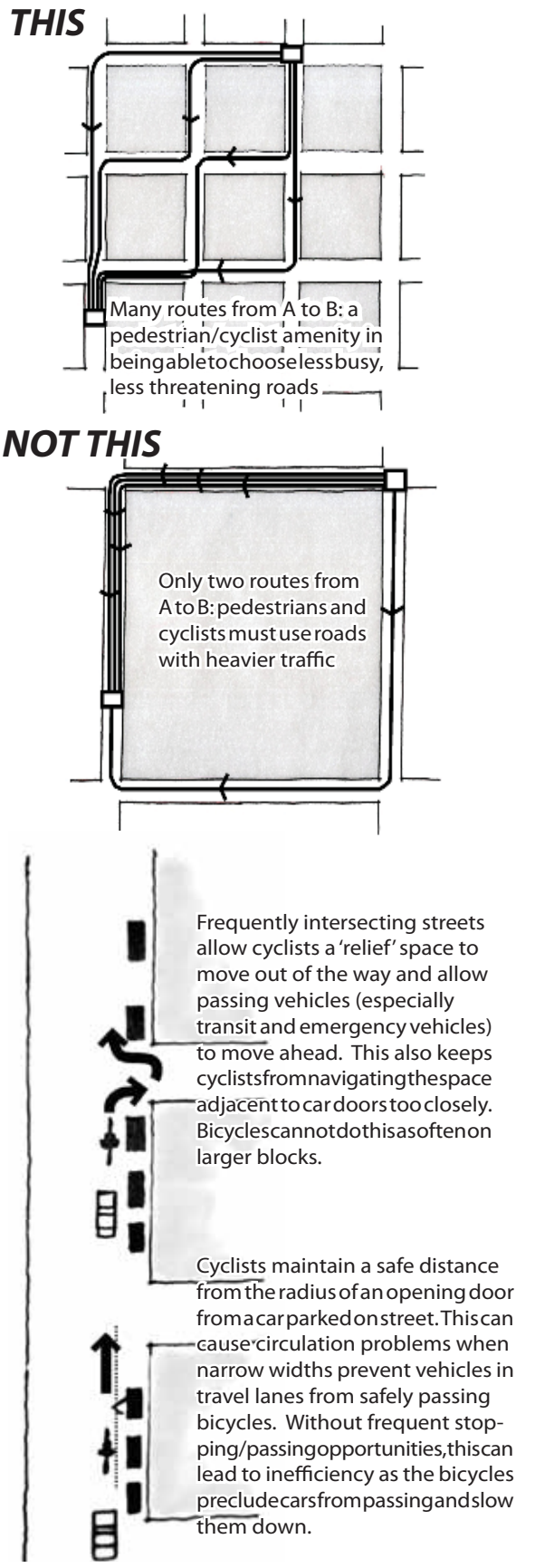


Figure 27 - Comparison of block sizes and transportation consequences

Pine Street"), this maintains a pedestrian's confidence in finding his or her destination in a timely manner. After the destination is found, though, redundancy in the system gives the pedestrian a greater opportunity for a walking circuit: to explore all parts of the neighborhood, the downtown, or whatever environment s/he is in without retracing steps.

Bicycles

With regard to cyclists, although they face the same need for attention to potentially crossing traffic as motorists, more frequent spacing of cross streets gives them an opportunity to let automobile traffic in the same lane move ahead: cyclists can move a safe distance from passing automobiles without worry of encroaching too far into the dangerous 'door zone' of parked cars on the street.

As mentioned previously, smaller blocks encourage a smaller scale of building footprints and denser development. The rewards of this kind of built environment, though, are that the building and the use that it houses are more immediately apparent and accessible to pedestrians, passing motorists, and other people on the same street or block. This is particularly true in the case of retail: while automobiles may not have the comfort of parking in dedicated spaces in front of a building, they may park on the street in front of it or immediately behind it in the middle of a block. Pedestrians and cyclists, though, are not separated from entry to the building at all.

Transit

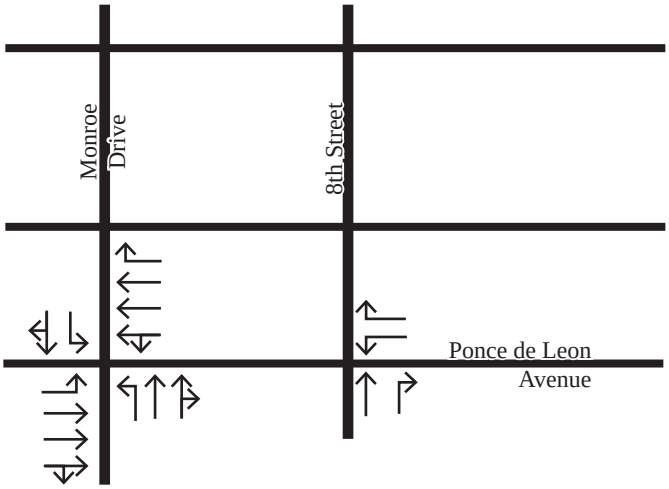
In a sense, the benefits that small blocks pose for transit are the intersection of the benefits that they pose for city-building efforts and for other forms of transportation. Transit thrives in and indeed is dependent on a healthy pedestrian realm, and the demonstrated benefits of on-street parking maximize accessibility to transit stations without posing a requirement for station sites to include parking. A street pattern of small blocks allows greater flexibility in transit operations: buses, streetcars, and other conveyances operating on the surface have a greater opportunity for turns, navigating congestion or closures. Additionally, this allows a hierarchy of transit modes to function more effectively: bus routes that feed into rail routes, for example, have a greater number of options to serve areas around rail stations.



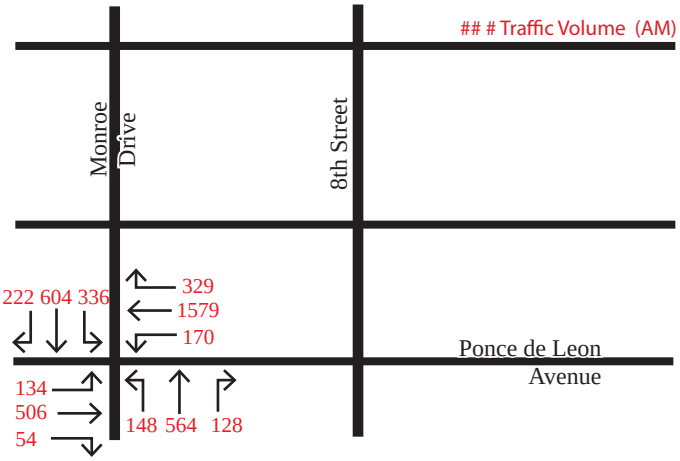
Figure 28 - Pedestrian Safety - On block sizes that are too large mid-block pedestrian crossings must be established. In Salt Lake City, mid-block crossings, whether formal or not, are common. Concerns over pedestrian safety have prompted the city to place these flag canisters downtown to give pedestrians added visibility when attempting to cross streets. In smaller block schemes pedestrians can much more easily cross at intersections where driver attention is already heightened.

Conclusions

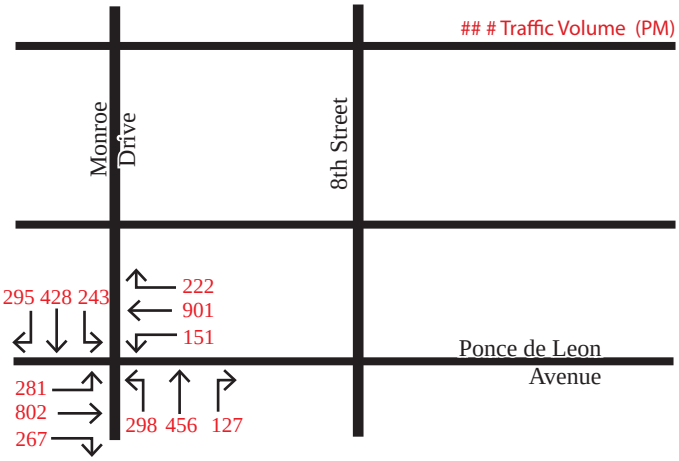
In general, smaller block sizes demonstrate clear advantages over a larger block pattern: they lead to a more efficient transportation system and facilitate better urbanism for both commercial and residential areas. They increase the capacity of streets to accommodate on-street parking, they improve the pedestrian environment and they allow a more naturally self-managed traffic circulation system. In terms of urban design, they improve conditions for compact, mixed-use development, they establish the foundation for a more sustainable and recyclable use of land, and they enrich the human experience of the urban built environment. Ultimately all of these concerns point to effective steps to city-building: they allow efficient use of resources and space while they create a more sustainable and amenable frame into which the built environment can grow.



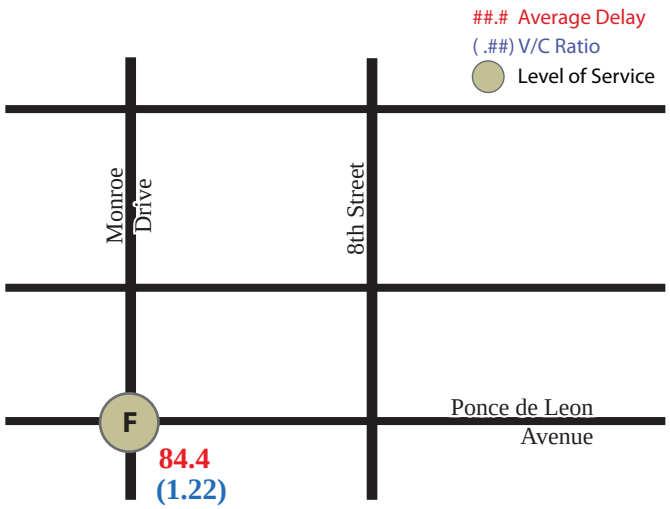
Midtown Promenade/Home Depot Corridor
2030 Baseline Lane Configurations



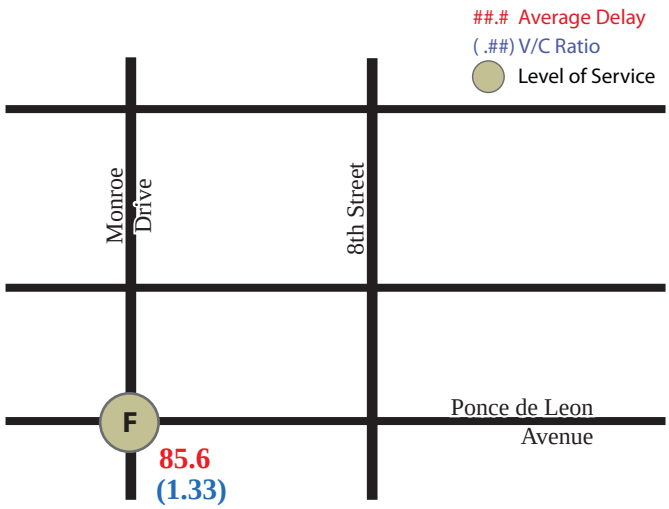
Midtown Promenade/Home Depot Corridor
2030 Baseline Traffic Volumes
(AM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 Baseline Traffic Volumes
(PM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 Baseline Level of Service
(AM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 Baseline Level of Service
(PM Peak Hour)

2020 and 2030 BeltLine Build Scenarios

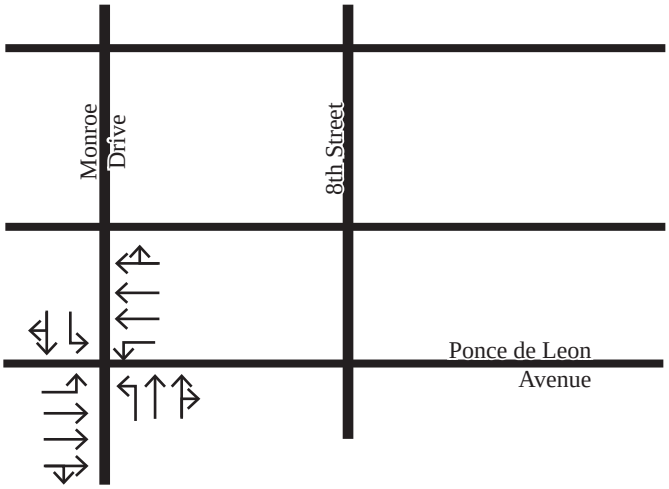
Analysis Question: What would 2030 be like with new development and the addition of BeltLine Transit and the proposed new street framework?

2020 Build Assumptions:

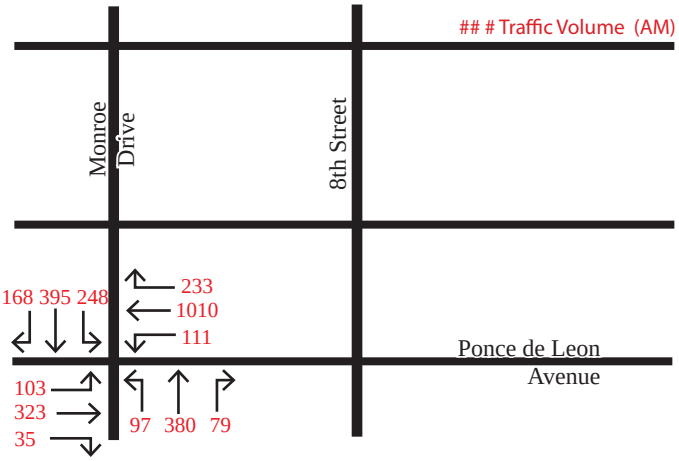
- Time Horizon: 2020.
- Road Network: Existing plus new network north of 8th Street.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2020).
- Trip Generation: Proposed Redevelopment program north of 8th Street (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: Per Trip distribution graphic.

2030 Build Assumptions:

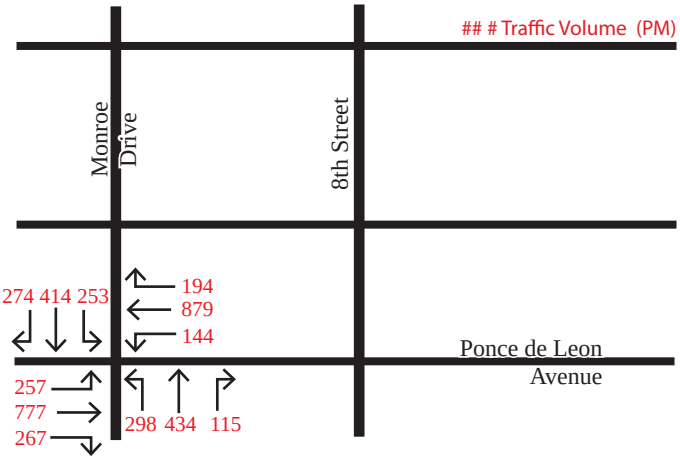
- Time Horizon: 2030.
- Road Network: Existing plus new network at Ansley Mall, Amsterdam Walk, Midtown Promenade, and Midtown Place.
- Baseline Traffic: Existing intersections counts + estimated growth rate for Subarea: 0.40% per year (2007 to 2030).
- Trip Generation: Proposed Redevelopment program (it is assumed that the existing land use entitlements and market potential of the study area would result in a redevelopment program equal to the proposed redevelopment program).
- Mode Split: 32% (max. under BeltLine Methodology).
- Trip Assignment/Distribution: 2005 existing pattern adjusted to reflect new street framework.



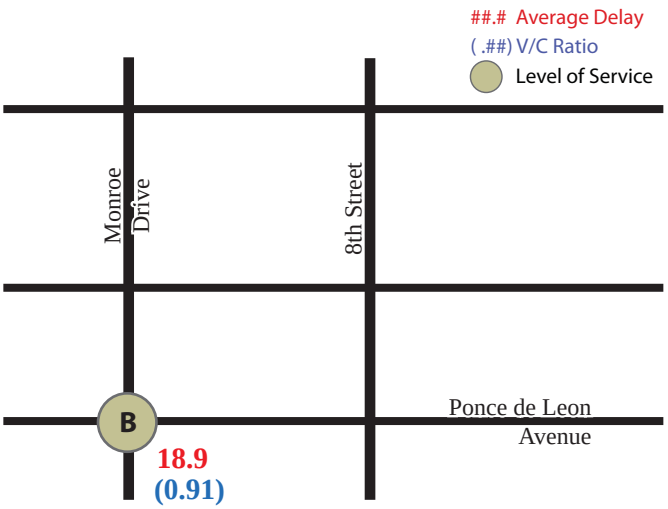
Midtown Promenade/Home Depot Corridor
2020 BeltLine Lane Configurations



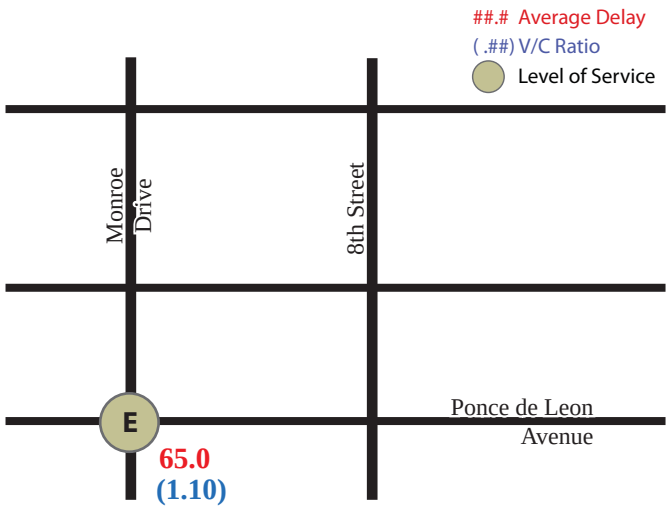
Midtown Promenade/Home Depot Corridor
2020 BeltLine Traffic Volumes
(AM Peak Hour)



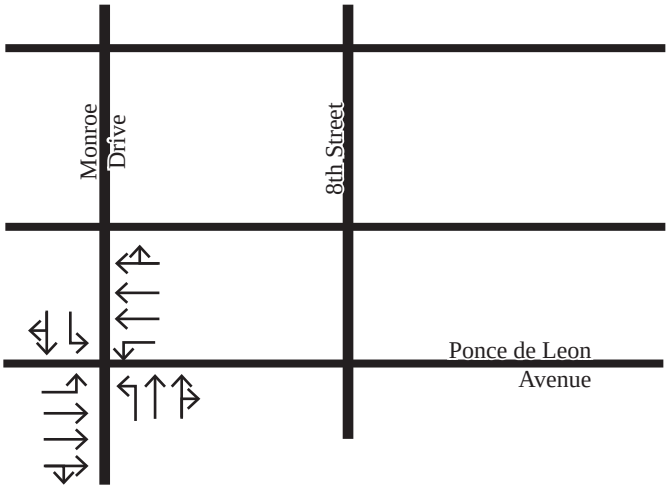
Midtown Promenade/Home Depot Corridor
2020 BeltLine Traffic Volumes
(PM Peak Hour)



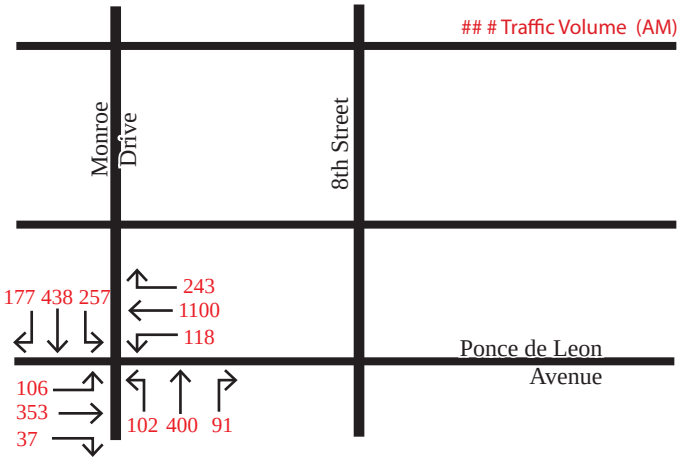
Midtown Promenade/Home Depot Corridor
2020 BeltLine Level of Service
(AM Peak Hour)



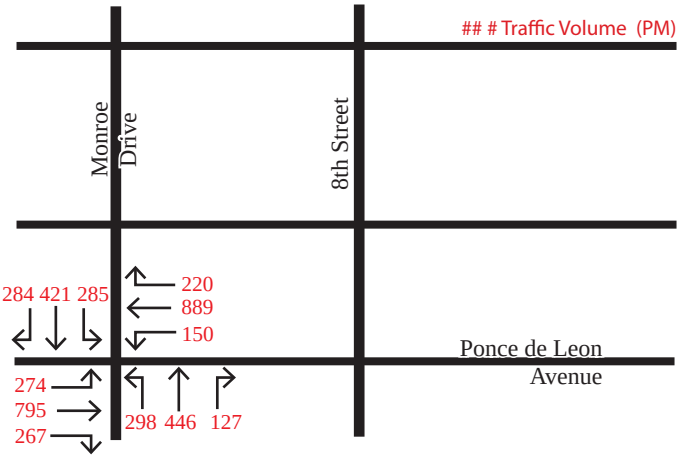
Midtown Promenade/Home Depot Corridor
2020 BeltLine Level of Service
(PM Peak Hour)



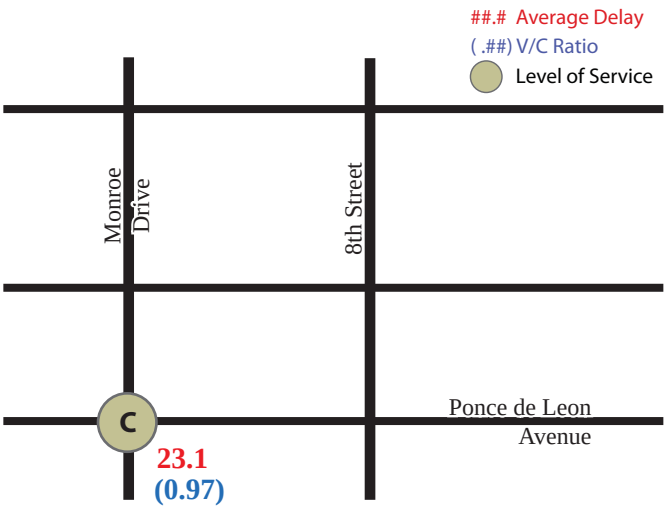
Midtown Promenade/Home Depot Corridor
2030 BeltLine Lane Configurations



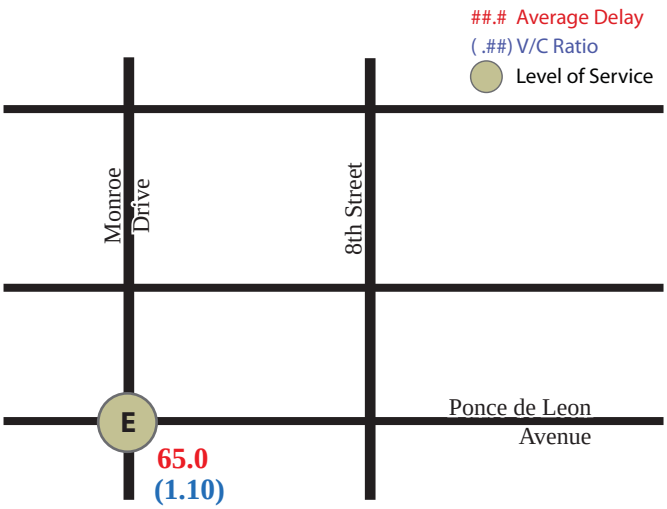
Midtown Promenade/Home Depot Corridor
2030 BeltLine Traffic Volumes
(AM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 BeltLine Traffic Volumes
(PM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 BeltLine Level of Service
(AM Peak Hour)



Midtown Promenade/Home Depot Corridor
2030 BeltLine Level of Service
(PM Peak Hour)

6.8 Monroe Road Diet

Given the relatively acceptable vehicle levels of service along Monroe Drive and the community's desire to have better access to greenspace and the Beltline, the idea of a "road diet" was explored. Road diets are most commonly employed to reduce a four lane street to a three lane street and use the extra space for some purpose other than driving.

Three lane sections have a number of advantages over four lanes. For one, they are safer. The ability to decrease blind spots for left turning drivers, as illustrated in the accompanying diagrams, provides a much safer condition for drivers. A diet also tends to slow traffic speeds, creating a safer pedestrian environment, and allows for improvements such as wider sidewalks or the addition of a landscaped buffer from traffic.

What makes these projects truly feasible is that three lane sections carry almost as many cars as four lane sections. The reason is that during the peak hours, the middle two lanes of a four lane section tend to be blocked up by left turning vehicles a good deal of the time. Data from streets that have made this conversion bear this out, as shown in Table 16. It is also worth noting that many of the successful conversions shown in the table had higher traffic volumes than Monroe Drive. In order to test the viability of a road diet for Monroe, the scenarios were tested using both the existing geometry and dieted section.

The road diet proposed for Monroe Drive would extend from the north side of 10th Street north to Piedmont Road. The three-lane section begins immediately from the 10th Street intersection and continues northward to approximately Cumberland Road. At the Cumberland Road intersection, it resumes a four-lane cross-section to provide additional through-moving capacity through Piedmont Road; the southbound approach to this intersection would drop the inner through lane as a left turn-only lane.

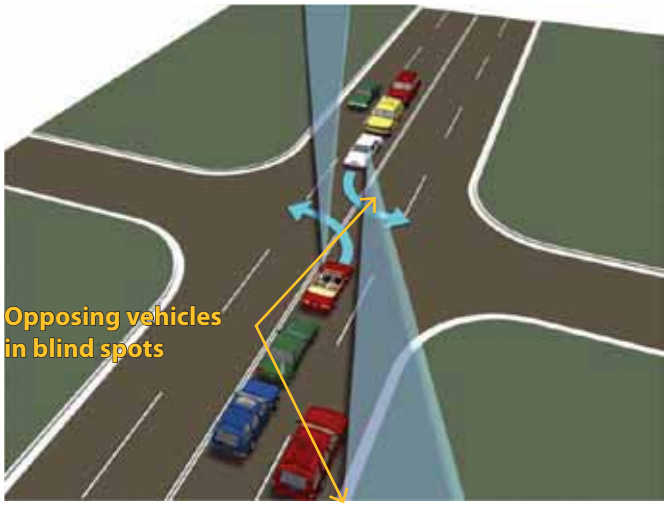


Figure 29 - Visibility associated with left hand turns on a 4-lane road.



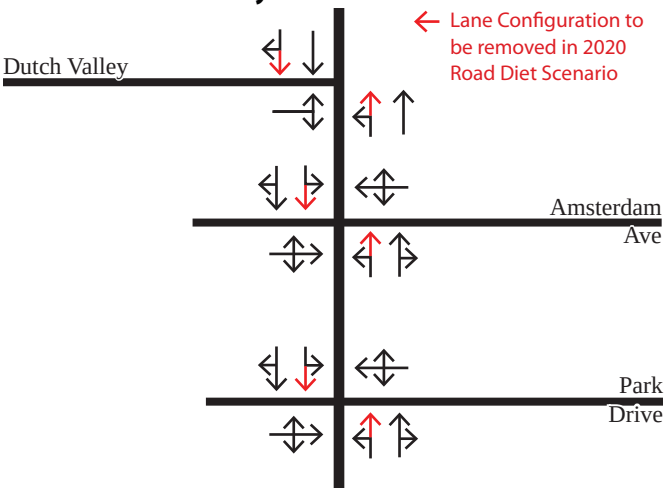
Figure 30 - Visibility associated with left hand turns on a 3-lane road.

Table 16- Areas of Successful Road Diet Implementation

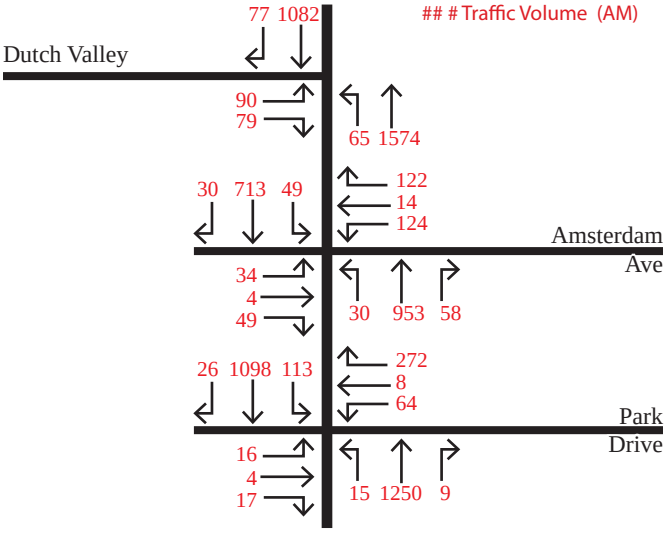
Location	Street	ADT Before	ADT After
San Leandro, CA	East 14th Street	17,700	16,700
Duluth, MN	21st Avenue East	17,000	17,000
Ramsey County, MN	Rice Street	18,700	16,400
Toronto, ON	St. George Street	15,000	15,000
Kirkland, WA	Lake Washington Boulevard	23,000	25,900
Seattle, WA	North 45th Street	19,400	20,300
Covington, WA	State Road 516	29,900	32,800
Bellvue, WA	Montana Street	18,500	18,500
East Lansing, MI	Grand River Boulevard	23,000	23,000
Santa Monica, CA	Main Street	20,000	18,000
Helen MT	U.S. 12	18,000	18,000
San Francisco, CA	Valencia Street	22,200	20,000
Oakland, CA	High Street	22,000	24,000
Orlando, FL	Edgewater Drive	20,500	21,000
Seattle, WA	Madison Street	17,000	18,000
Reno, NV	South Wells Avenue	18,000	17,500
University Place, WA	67th Avenue	17,000	15,000
University Place, WA	Cirque Avenue	16,900	14,400
East Lansing, MI	West Grand River Avenue	18,000	18,000
East Lansing, MI	Abbott Road	15,000	21,000
Charlotte, NC	East Boulevard	21,400	18,400

Source: Dan Burden

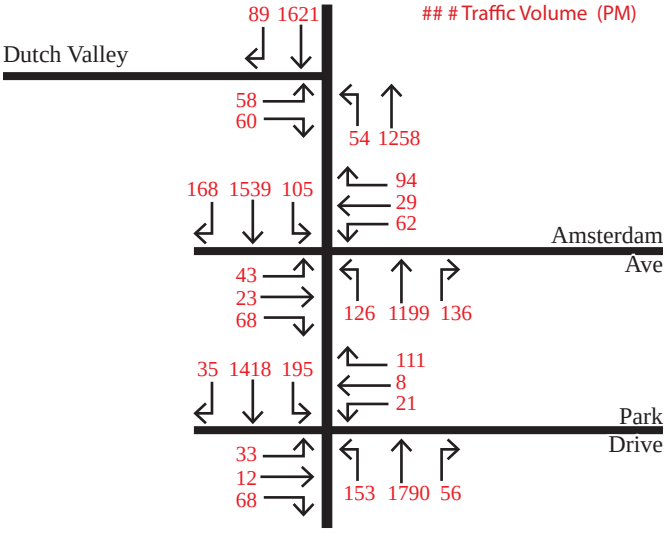
Focus Area 3- Ansley Mall to Amsterdam Walk: Road Diet



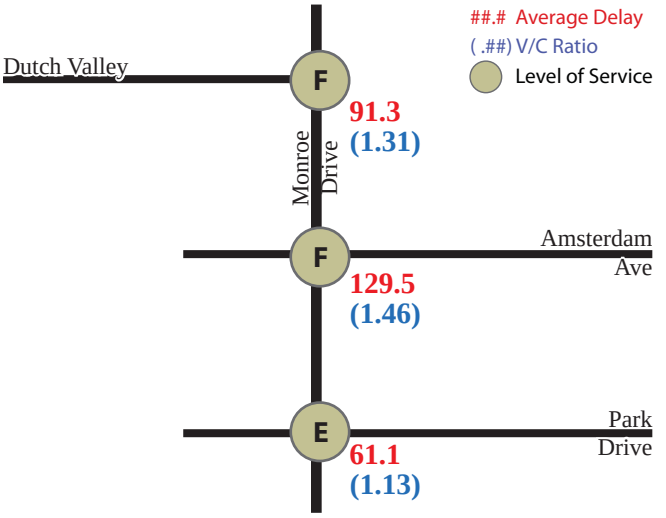
Ansley Mall to Amsterdam Walk Corridor
2030 Baseline & "Road Diet"
Lane Configurations



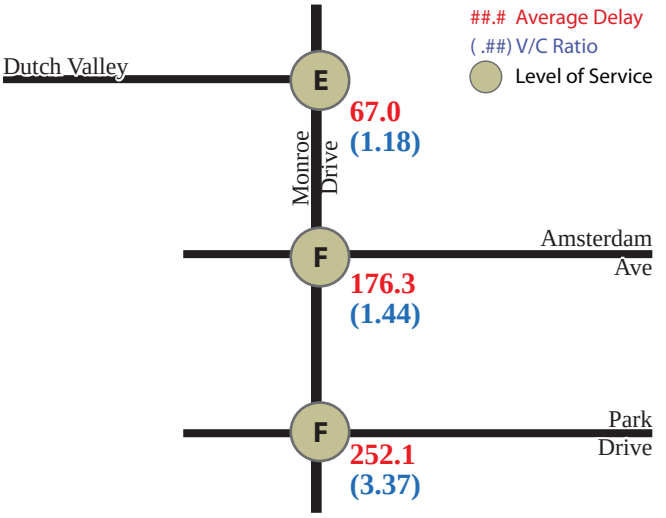
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 Baseline Traffic Volumes (AM Peak Hour)



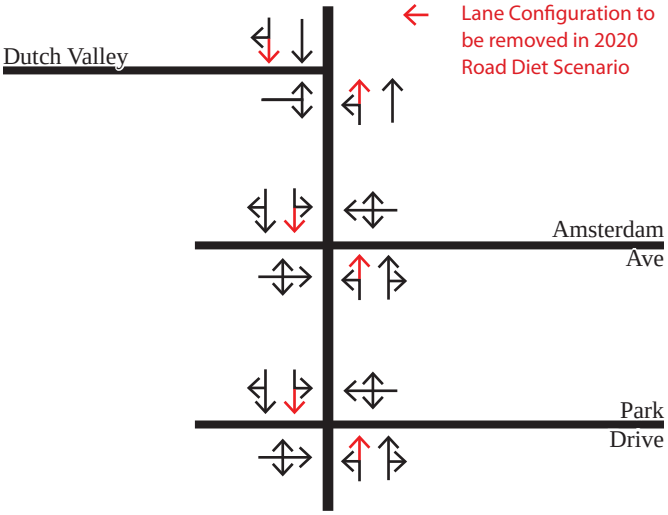
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 Baseline Traffic Volumes (PM Peak Hour)



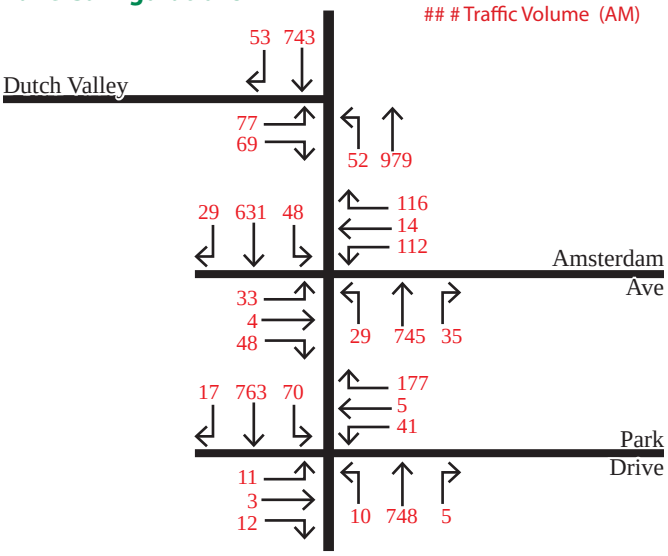
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 Baseline Level of Service (AM Peak Hour)



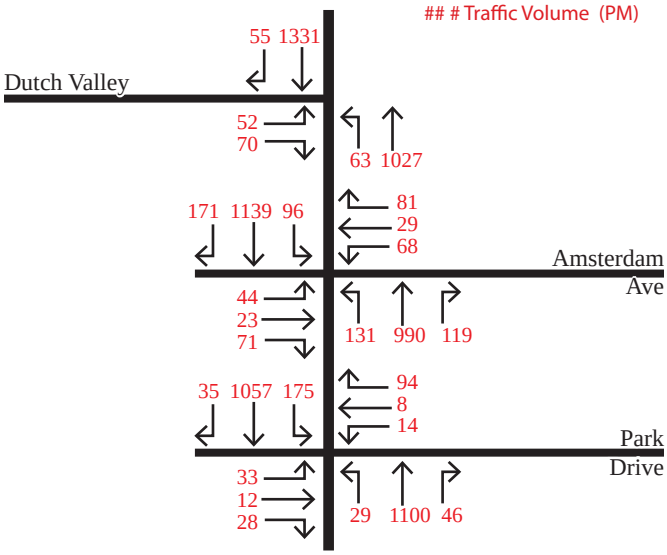
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 Baseline Level of Service (PM Peak Hour)



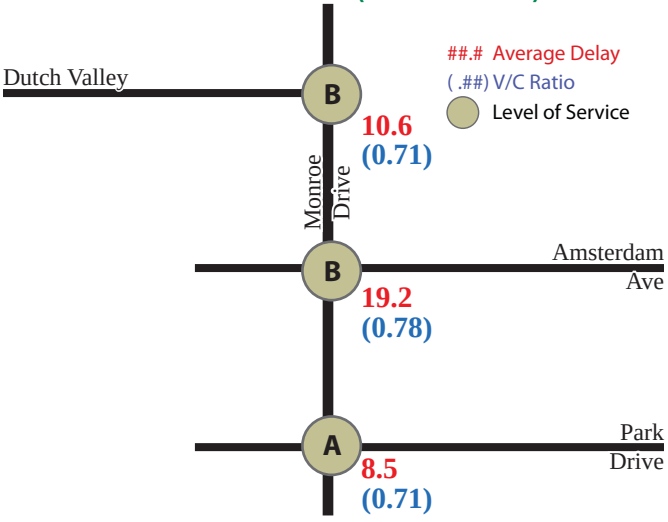
Ansley Mall to Amsterdam Walk Corridor
2020 BeltLine & "Road Diet"
Lane Configurations



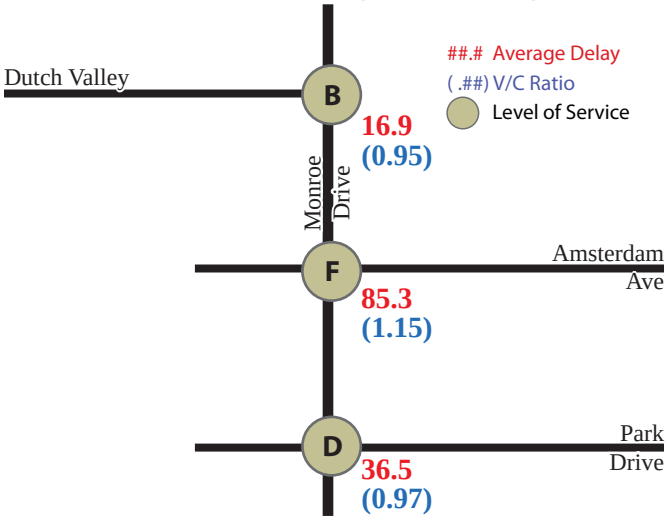
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2020 BeltLine Traffic Volumes (AM Peak Hour)



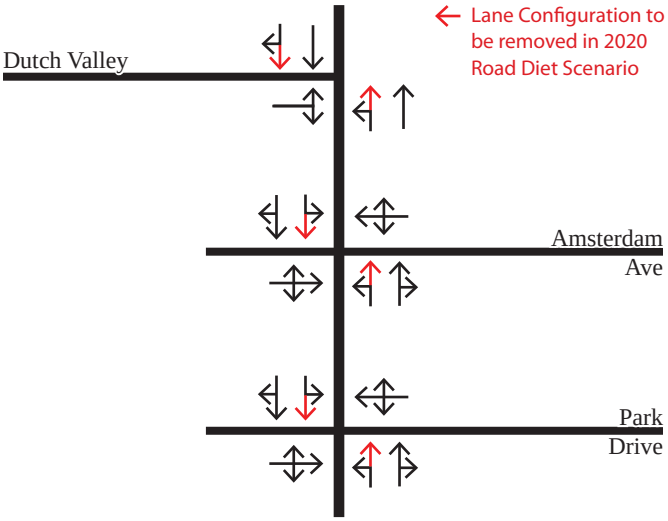
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2020 BeltLine Traffic Volumes (PM Peak Hour)



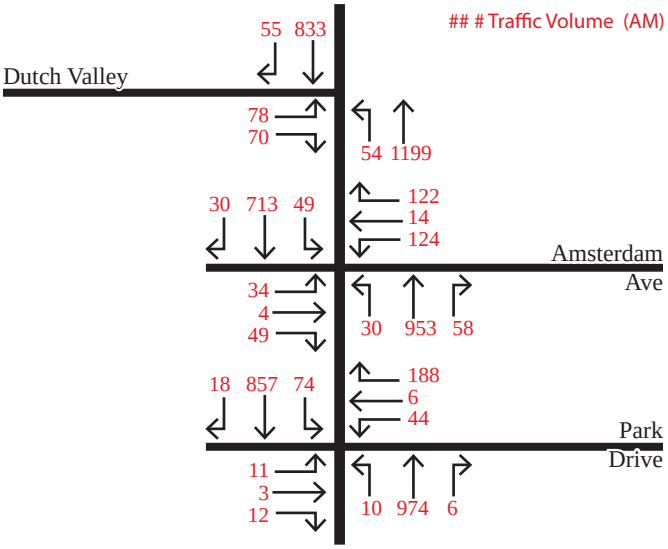
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2020 BeltLine Level of Service (AM Peak Hour)



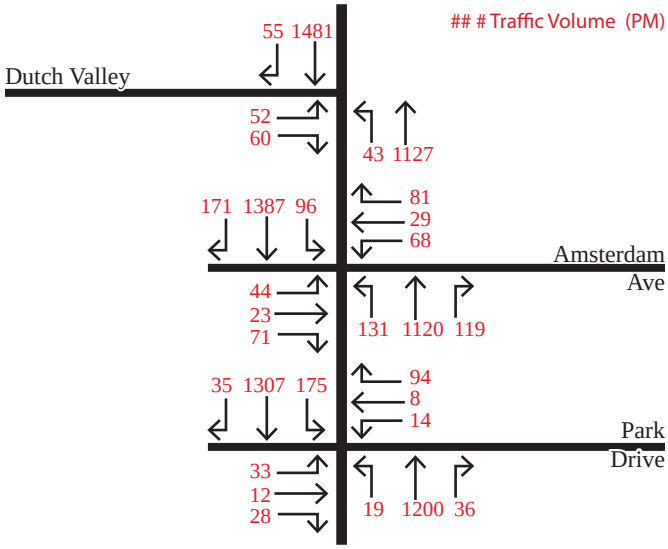
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2020 BeltLine Level of Service (PM Peak Hour)



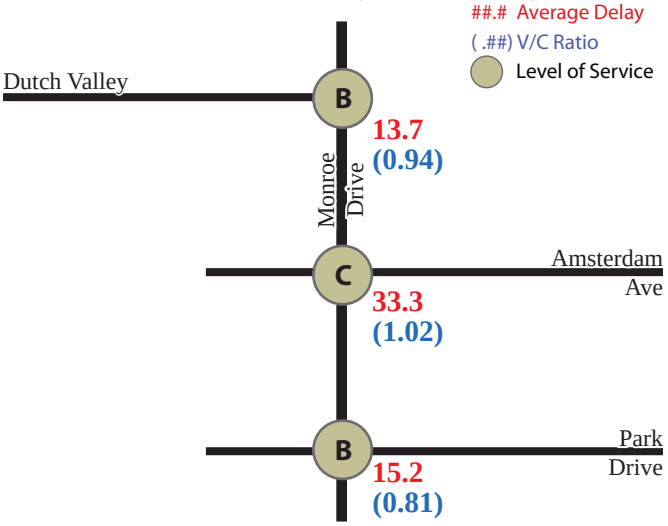
Ansley Mall to Amsterdam Walk Corridor
2030 BeltLine & "Road Diet"
Lane Configurations



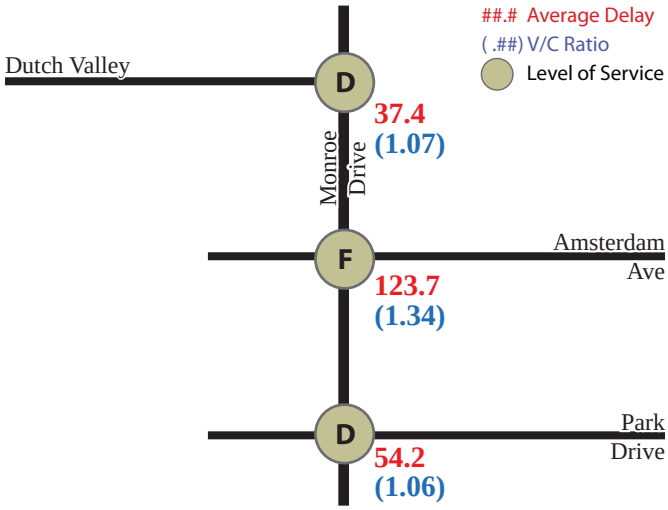
Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 BeltLine Traffic Volumes (AM Peak Hour)



Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 BeltLine Traffic Volumes (PM Peak Hour)

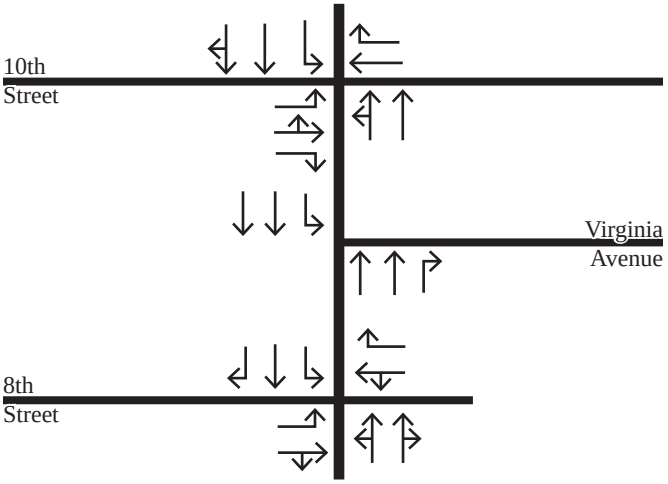


Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 BeltLine Level of Service (AM Peak Hour)

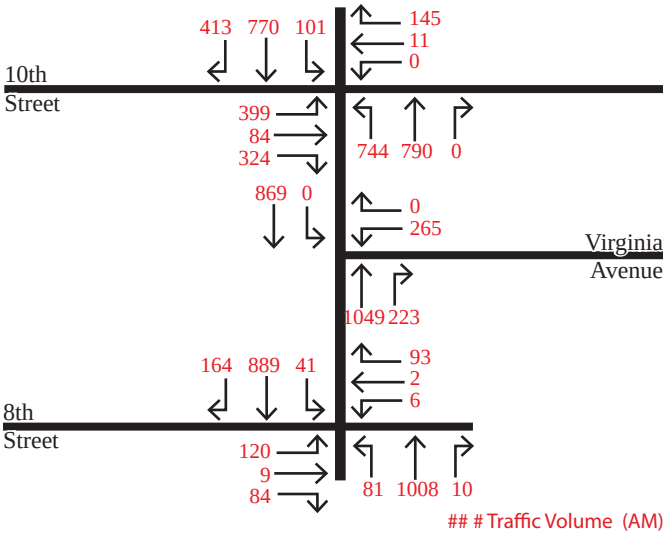


Ansley Mall to Amsterdam Walk Corridor
"Road Diet" Configuration
2030 BeltLine Level of Service (PM Peak Hour)

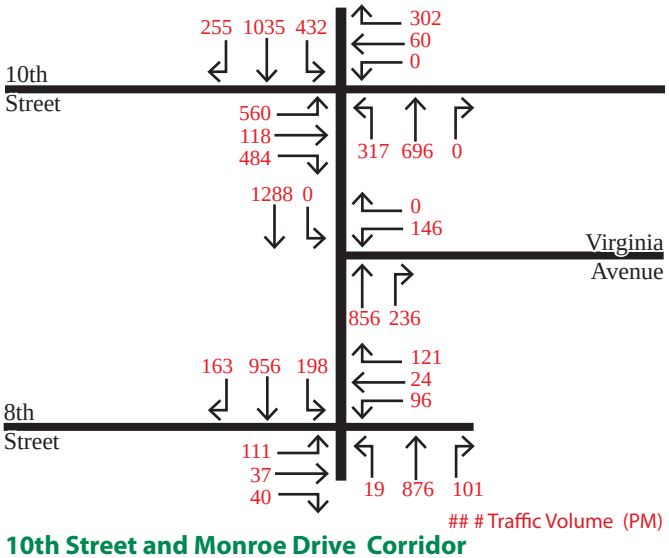
Focus Area 4- 10th Street and Monroe Drive: Road Diet



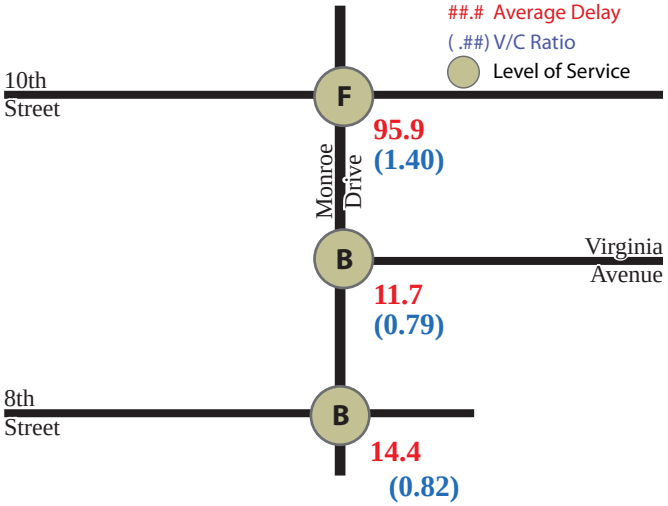
10th Street and Monroe Drive Corridor
2030 Baseline & "Road Diet"
Lane Configurations



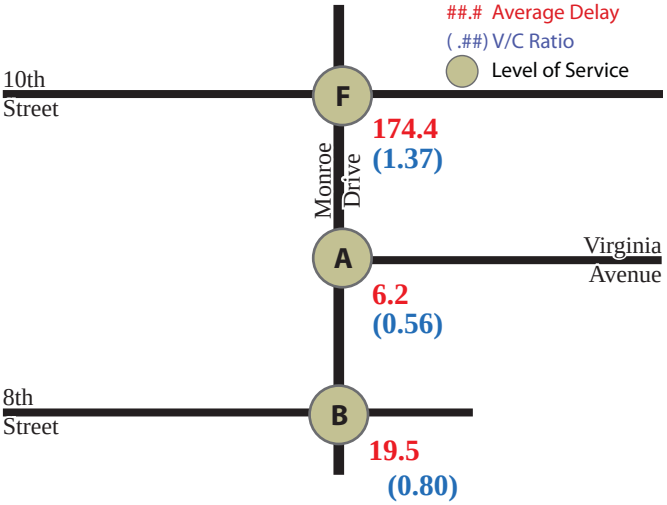
10th Street and Monroe Drive Corridor
"Road Diet" Configuration
2030 Baseline Traffic Volumes (AM Peak Hour)



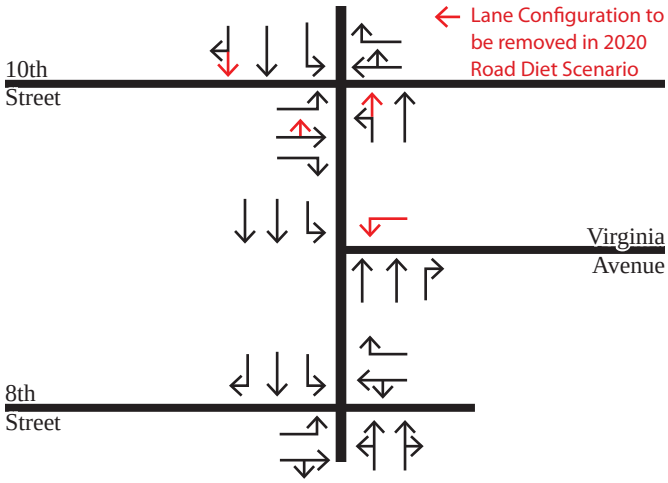
10th Street and Monroe Drive Corridor
"Road Diet" Configuration
2030 Baseline Traffic Volumes (PM Peak Hour)



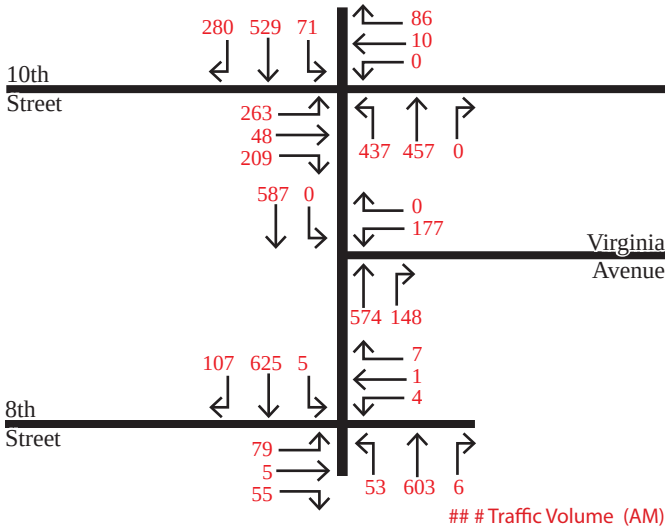
10th Street and Monroe Drive Corridor
"Road Diet" Configuration
2030 Baseline Level of Service (AM Peak Hour)



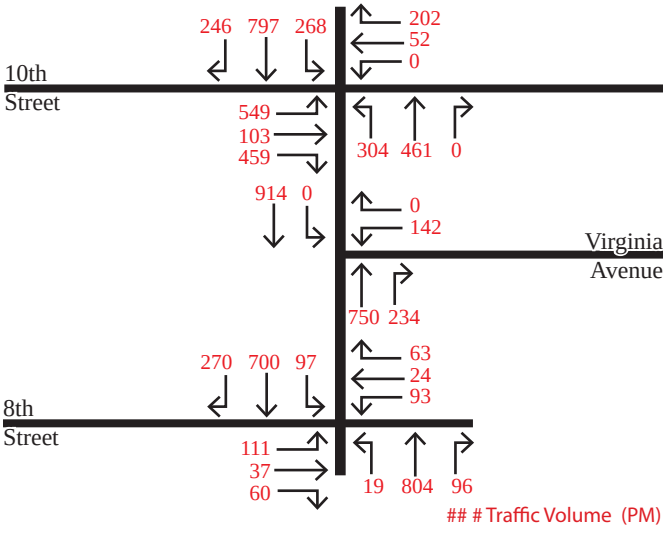
10th Street and Monroe Drive Corridor
"Road Diet" Configuration
2030 Baseline Level of Service (PM Peak Hour)



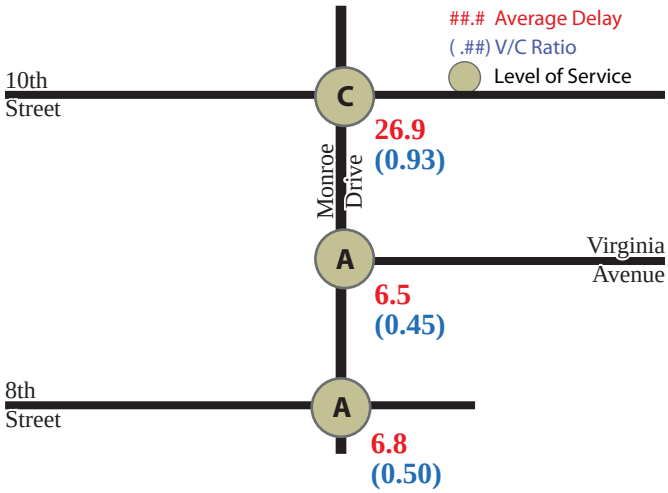
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet"
Lane Configurations



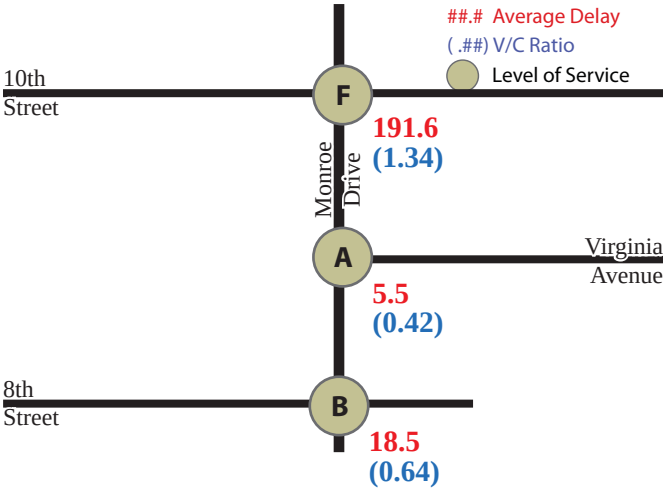
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet" Traffic Volumes
(AM Peak Hour)



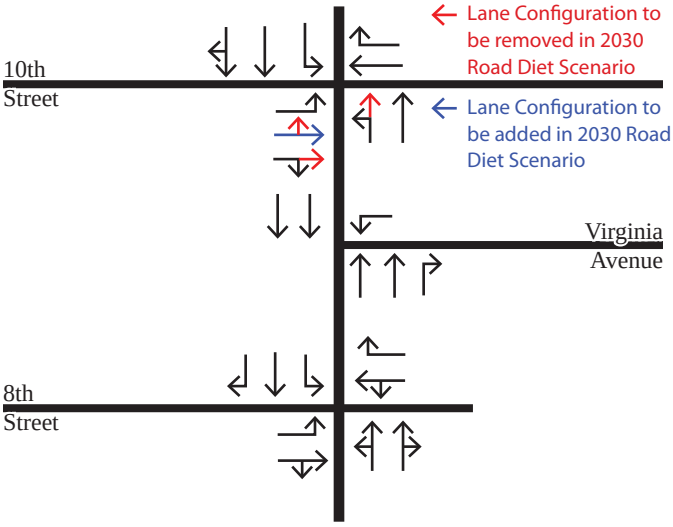
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet" Traffic Volumes
(PM Peak Hour)



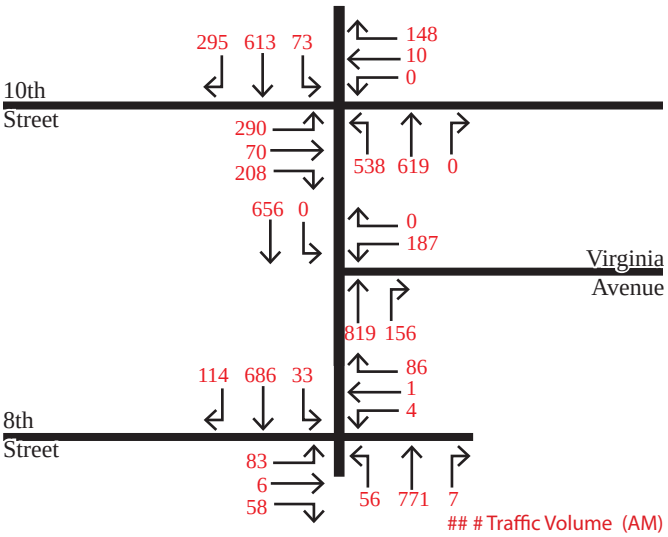
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet" Level of Service
(AM Peak Hour)



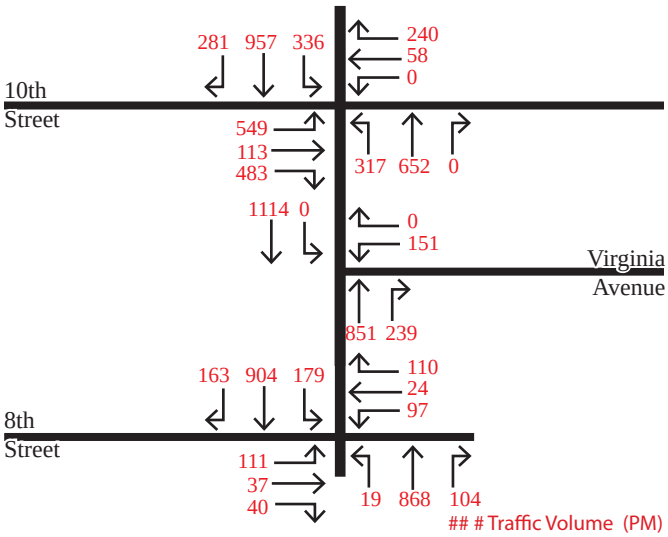
10th Street and Monroe Drive Corridor
2020 BeltLine & "Road Diet" Level of Service
(PM Peak Hour)



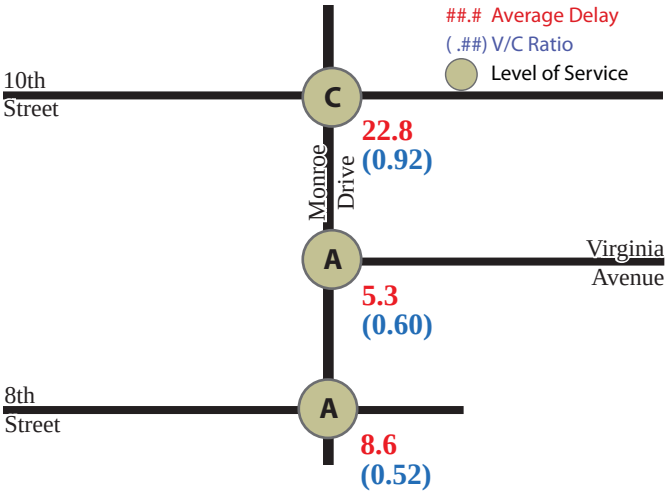
10th Street and Monroe Drive Corridor
2030 BeltLine & "Road Diet"
Lane Configurations



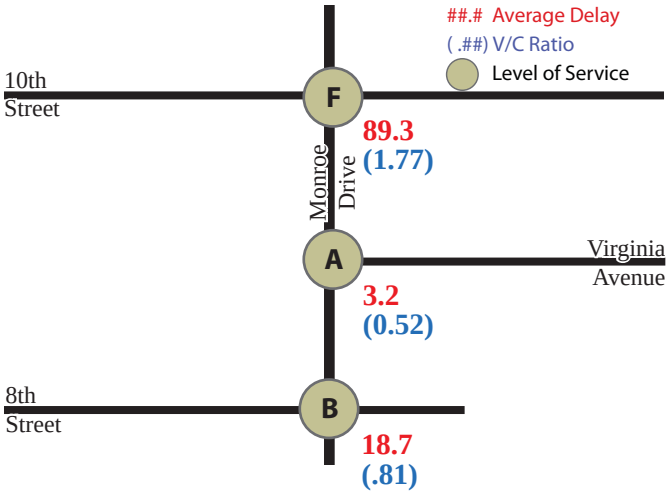
10th Street and Monroe Drive Corridor
2030 BeltLine & "Road Diet" Traffic Volumes
(AM Peak Hour)



10th Street and Monroe Drive Corridor
2030 BeltLine & "Road Diet" Traffic Volumes
(PM Peak Hour)



10th Street and Monroe Drive Corridor
2030 BeltLine & "Road Diet" Level of Service
(AM Peak Hour)



10th Street and Monroe Drive Corridor
2030 BeltLine & "Road Diet" Level of Service
(PM Peak Hour)

7.0 Conclusions & Recommendations

The overall mobility approach to the Subarea 6 Master Plan is to maximize transit and trail accessibility and street connectivity, while protecting the quality of life of the adjacent neighborhoods. The purpose of this transportation/mobility analysis is to evaluate and test the proposed new street connections and transportation projects that resulted from the Subarea Master Plan process with the proposed development program, future traffic growth, and the increased transit accessibility of the BeltLine.

Figure 30 on the following page illustrates the Mobility Recommendations for Subarea 6. The primary steps to improve mobility in the area include the introduction of a street grid network at the Ansley Mall redevelopment site and the Midtown Promenade/Home Depot redevelopment site, a road diet along portions of Monroe Drive that seeks to match roadway capacity to traffic demand and repurpose the street right-of-way for other uses, and a handful of intersection improvements, most notably the 10th Street/ Monroe Drive intersection.

The bulk of the connectivity improvements recommended are intended to serve non-motorized travel modes, with special attention given to improving the safety of pedestrians, suggesting that a true sense of urban mobility for Subarea 6 allows its residents and visitors a broad range of options for moving from place to place and matching a travel mode with a trip's purpose. However, vehicle mobility must be considered as well, and in this regard the mobility recommendations seek to expand vehicle travel options through the additions of a network of small neighborhood streets. Where redevelopment opportunities exist, it is fundamental to frame the development with a connected system of roadways to improve travel route choices and reduce the acuteness of traffic congestion at a limited number of major intersections.

Key Conclusions:

The proposed BeltLine projects should be utilized to **structure and organize future redevelopment, mitigate transportation impacts and improve connectivity.**

- The land use and development analysis of the area suggests that the proposed development would likely occur with or without the BeltLine. The proposed development program is consistent with the Future Land Use Plan and zoning entitlement. The proposed street framework and BeltLine transit should be viewed as a strategy to help manage traffic and accessibility for development that is coming regardless of when the BeltLine transit is implemented.

- The intersection analysis documents that the proposed new street network and the future transit accessibility in the "BeltLine Scenario" will outperform the "Baseline Scenario" with the same amount of development.

- The new **Street Framework** is a critical part of managing access and increasing walkability along Monroe Drive, Piedmont Road and Ponce de Leon Avenue.

- There are limited transportation alternatives to Monroe Drive in this area.

Recommendations:

Ponce-Monroe Connector – There are two areas where redevelopment provides the opportunity to introduce new roads around and across the BeltLine. However, the community is sensitive to cut-through traffic and long uninterrupted stretches of road. Therefore, recommended new streets should create a series of off-set connections and short blocks, reducing travel speeds of vehicles while ensuring connectivity for pedestrians and bicyclists. This is especially important on the Midtown Promenade/ Home Depot redevelopment site where new cross-BeltLine streets are off-set. This new street, to be built concurrently with redevelopment, would connect Monroe Drive to Ponce de Leon Avenue. It would provide relief to the portion of Monroe Drive south of 8th Street and improved access for vehicles, bicycles, and pedestrians to area redevelopment.

Piedmont / Monroe Network – Another area where a network of streets is woven into the existing neighborhood fabric is the Ansley Mall redevelopment site, where several new roads create opportunities for great shopping streets as well as alternative local circulation routes to Piedmont Avenue and Monroe Drive.

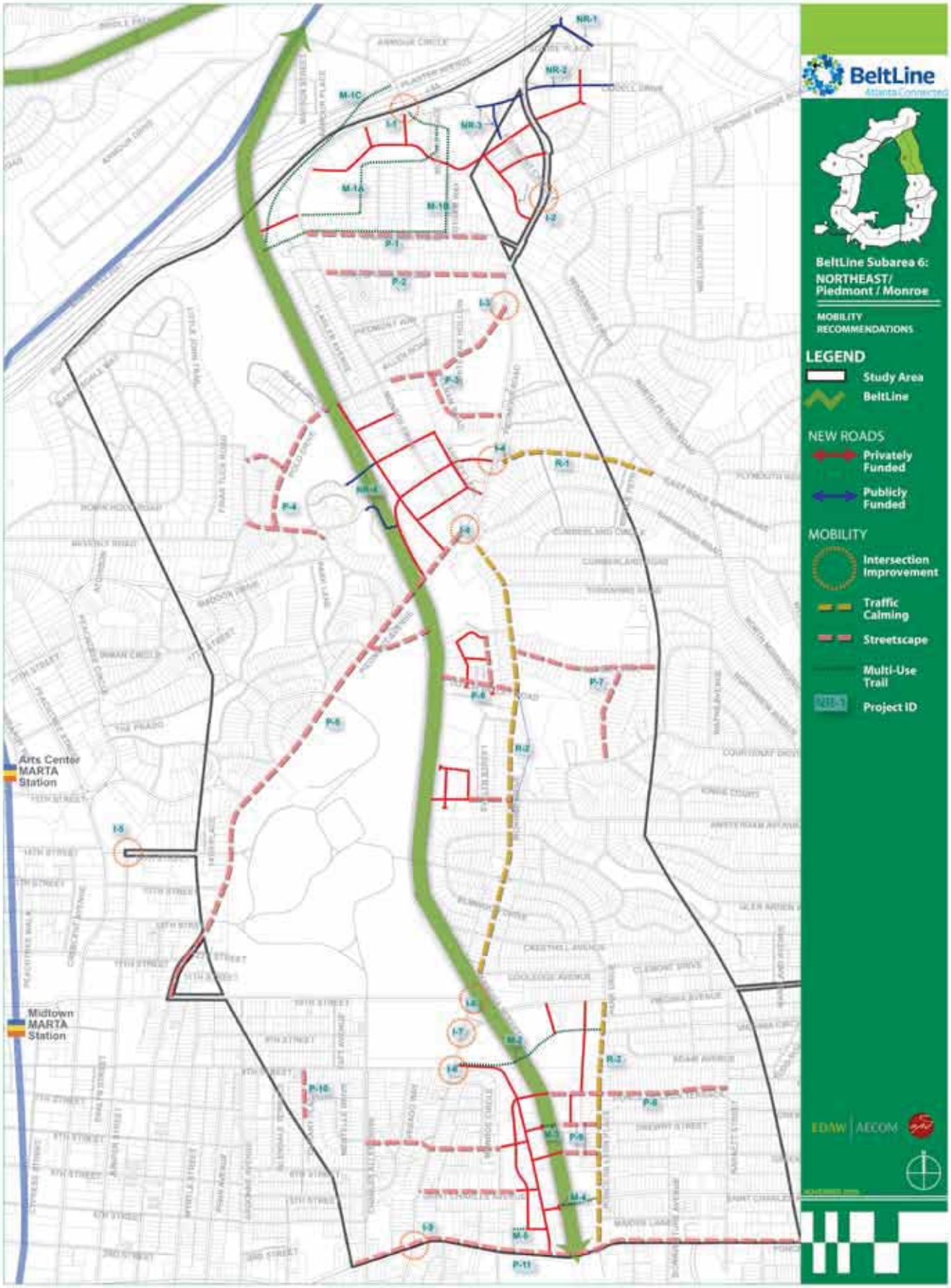


Figure 31 - Mobility Recommendations

Table 17: Mobility Project Recommendations

Project ID	Street Type	Project Type	Project Name	Length	Project Description	Engineering Costs	Construction Costs	Total Cost
I-1	NA	Intersection	Armour Drive and Monroe Drive intersection		Align intersection. Refer to Connect Atlanta Plan for details. Also studied in Subarea 7 BeltLine master plan.	$140,000	$1,000,000	$1,140,000
I-2	NA	Intersection	Cheshire Bridge and Piedmont Avenue intersection		Realign intersection. Refer to the Connect Atlanta Transportation Plan for details. Also discussed in Subarea 7 of the BeltLine.	$105,000	$750,000	$855,000
I-3	NA	Intersection	Piedmont Avenue and Montgomery Ferry intersection		Realign Montgomery Ferry to a right angle with Piedmont Avenue. Remove slip lane.	$21,000	$150,000	$171,000
I-4	NA	Intersection	Piedmont Avenue and East Morningside Drive intersection		Align East Morningside to a right angle with Piedmont Avenue. Remove slip lane and use additional right-of-way for center turn lane. Extend center turn lane to the south, thereby extending the southbound left turns from Piedmont onto Monroe Drive.	$105,000	$750,000	$855,000
I-5	NA	Intersection	14th Street and Juniper Street intersection		Work on this intersection would be tied to two-way conversion of Juniper Street as recommended in the Connect Atlanta Plan. Specifically this would include restriping of intersection to allow adequate storage space for all approaches and pedestrian improvements to allow crossings on all sides of intersection.	$70,000	$500,000	$570,000
I-6	NA	Intersection	10th Street and Monroe Drive intersection		Align 10th Street farther north so that the BeltLine rail corridor is included in the intersection. Include scramble signal phase for trail crossing.	$210,000	$1,500,000	$1,710,000
I-7	NA	Intersection	Virginia Avenue and Monroe Drive intersection		Align Virginia Avenue to a right angle with Monroe Drive. Paint bike lanes on Virginia Avenue.	$140,000	$1,000,000	$1,140,000
I-8	NA	Intersection	Ponce de Leon and Monroe Drive intersection		Additional southbound turn lanes. Refer to BeltLine Subarea 5 master plan for details.	$140,000	$1,000,000	$1,140,000
M-1A	NA	Multi-use Trail	Monroe Crescent Trail Option 1A	2784	Redevelopment route	$136,416	$974,400	$1,110,816
M-1B	NA	Multi-use Trail	Monroe Crescent Trail Option 1B	4524	Wimbledon Road Route	$221,676	$1,583,400	$1,805,076
M-1C	NA	Multi-use Trail	Monroe Crescent Trail Option 1C	2415	Underneath Connector route	$118,335	$845,250	$963,585
M-2	NA	Multi-use Trail	8th Street extension Multi-use Trail	1874	Trail connecting 8th Street to Ponce de Leon Terrace, serving Inman Middle School	$91,826	$655,900	$747,726
M-3	NA	Multi-use Trail	Drewry Street extension Multi-use Trail	161	Connect new street across beltLine to Drewry Street via multi-use Trail	$7,889	$56,350	$64,239
M-4	NA	Multi-use Trail	Saint Charles Avenue Extension Multi-Use Trail	496	connect new street across BeltLine to Saint Charles Avenue via multi-use trail	$24,304	$173,600	$197,904
M-5	NA	Multi-use Trail	Lake Street Multi-use Trail	132	connect Lake Street to new street and BeltLine trail	$6,468	$46,200	$52,668
NR-1	ST/MF-60	New Street	New on-ramps	975	Publicly funded new street and on-ramps to I-85 and Buford Connector	$532,350	$3,802,500	$4,334,850
NR-2	ST/MF-60	New Street	Liddell Drive extension	1017	Extend Liddell Drive to intersect with Lambert Drive and/or Buford Connector on-ramps	$555,282	$3,966,300	$4,521,582
NR-3	ST/MF-60	New Street	Monroe Drive extension	496	Realign Monroe Drive to intersect with Piedmont Road	$270,816	$1,934,400	$2,205,216
NR-3	ST/MF-60	New Street	Piedmont Circle realignment	309	Publicly funded realignment of Piedmont Circle to intersect with Monroe Drive Extension	$168,714	$1,205,100	$1,373,814

Project cost estimates do not include right-of-way acquisition costs.

Project ID	Street Type	Project Type	Project Name	Length	Project Description	Engineering Costs	Construction Costs	Total Cost
NR-4	ST/MF-60	New Street	Avery Drive BeltLine crossing	437	Publicly funded street connecting Ansley Mall redevelopment streets with Ansley Drive NE and Ansley Park neighborhood	$448,602	$3,204,300	$3,652,902
NR-4	ST/MF-60	New Street	BeltLine crossing	643	Publicly funded crossing the BeltLine connecting the Ansley Mall redevelopment site to Ansley Park newighborhood	$561,078	$4,007,700	$4,568,778
P-1		Streetscape	Wimbledon Road Streetscape	2563	Sidewalks along Wimbledon Road	$179,410	$1,281,500	$1,460,910
P-10		Streetscape	Durant Streetscape	621	Sidewalks along Durant Street	$43,470	$310,500	$353,970
P-11		Streetscape	Ponce de Leon Streetscape	5438	Roadway improvements along Ponce. See Connect Atlanta Plan for details	$647,122	$4,622,300	$5,269,422
P-2		Streetscape	Rock Springs Road Streetscape	2178	Sidewalks along Rock Springs Road	$152,460	$1,089,000	$1,241,460
P-3		Streetscape	Montgomery Ferry Streetscape	1792	Sidewalks along Montgomery Ferry	$125,440	$896,000	$1,021,440
P-3		Streetscape	Pelham Road Streetscape	1146	Sidewalks along Pelham Road	$80,220	$573,000	$653,220
P-4		Streetscape	Ansley Park Streetscape	2687	Bike lanes and sidewalks along select roads in Ansley Park	$282,135	$2,015,250	$2,297,385
P-5		Streetscape	Piedmont Avenue Streetscape	6710	Bike lanes and other improvements along Piedmont Avenue. Refer to Connect Atlanta Plan for details	$798,490	$5,703,500	$6,501,990
P-6		Streetscape	Dutch Valley Road Streetscape	751	Sidewalks along Dutch Valley Road	$52,570	$375,500	$428,070
P-7		Streetscape	Hill Pine Streetscape	3362	Sidewalks along Hill Pine Street and other Virginia-Highland neighborhood streets	$235,340	$1,681,000	$1,916,340
P-8		Streetscape	Ponce Terrace Streetscape	2182	Sidewalks along Ponce de Leon Terrace and Pylant Street	$152,740	$1,091,000	$1,243,740
P-9		Streetscape	Drewry Streetscape	519	sidewalks along Drewry Street	$36,330	$259,500	$295,830
P-9		Streetscape	Greenway Streetscape	468	Sidewalks along Greenway Street	$32,760	$234,000	$266,760
R-1		Traffic Calming	East Morningside Drive Traffic Calming	1917	Traffic calming measures such as bulb-outs or speed humps	$93,933	$670,950	$764,883
R-2		Traffic Calming	Monroe Drive Road Diet	5806	Reduce to 1 travel lane in each direction with center median/ turn lane. Widen western sidewalk.	$772,198	$5,515,700	$6,287,898
R-3		Traffic Calming	Ponce de Leon Place Traffic Calming	2972	Traffic calming measures potentially including bulbouts and chicanes.	$145,628	$1,040,200	$1,185,828

10th Street / Virginia Avenue Realignment – These intersections which are currently confusing, dangerous, and inefficient will be redesigned and upgraded to provide improved transit operations, a more legible layout, and safer environments for all users.

Monroe Drive Road Diet – Another recommendation to improve accessibility in the study area is the Monroe road diet. The community feels very strongly about safety issues and traffic speeds along Monroe Drive between Piedmont Avenue and Ponce de Leon Avenue. Given several design scenarios, a majority of the community participants desired a safer design along this section of the corridor.

The expected traffic volumes on Monroe Drive between Piedmont Avenue and 10th Street will allow for the conversion from four lanes to three. The addition of left turn lanes and wider sidewalks will create a safer corridor.

Buford Highway Interchange Re-configuration – The re-configuration of this interchange eliminates existing dangerous "weave" conditions on the exit and entrance ramps, relocates the Buford Highway eastbound exit and entrance ramps to a location east of Piedmont Road, and extends Monroe Drive across Piedmont Road.

- This concept was derived out of the Piedmont Height Neighborhood Blueprints Study.
- Traffic calming measures along E. Rock Springs Road, Monroe Drive from 10th Street to Piedmont Avenue and along Ponce Place.
- Monroe Drive improvements include a "road diet" from 4 lanes to 3 lanes. This would allow for sidewalk expansion.
- Intersection improvements at a number of currently congested and dangerous intersections (these are described in greater detail in the Operations and Capacity Section):
    - Monroe Drive/Armour Drive at I-85
    - Piedmont Avenue at Cheshire Bridge Road
    - Piedmont Avenue at Montgomery Ferry
    - Piedmont Avenue at E. Rock Springs Road
    - Piedmont Avenue at Monroe Drive
    - Monroe Drive at 10th Street
    - Monroe Drive at 8th Street
    - Monroe Drive at Ponce de Leon Avenue
- Sidewalk and streetscape improvements throughout the subarea. Streetscape improvements will vary in scale and design, as a number of neighborhood streets are targeted, as well as main corridors, such as Piedmont Avenue and Ponce de Leon Avenue.
- Trail connections will occur at multiple points. Trail connections from Virginia-Highland west to the BeltLine will offer direct neighborhood accessibility to the trail and transit. Trail connections will also provide additional access between Virginia-Highland and Midtown.
- The BeltLine trail may break away from the current ROW as it moves north toward the Monroe Crescent. These alternatives are described in the Greenway Trail Alignment section within the Parks and Open Space Chapter. These recommendations have been transmitted to the environmental planning team for the Tier I Environmental Impact Study currently underway.

7.1 Street Framework Plan

The recommended Street Framework Plan for this subarea is a refinement of the existing Street Framework Plan, developed as part of a graduate-level studio course at Georgia Institute of Technology, and other previous circulation plans including Piedmont Heights Blueprints, Cheshire Bridge Corridor Plan, and the Connect Atlanta Plan. The proposed additional connections would enhance mobility and provide needed circulation as parcels redevelop. Early and carefully coordinated planning is required in the area to address grade challenges before redevelopment. The resulting refined street network will establish a framework for appropriate block sizes and a walkable pedestrian-friendly environment, especially near the proposed BeltLine transit stops (as shown in Figure 31).

The expanded street framework proposes making east-west connections across the Midtown Promenade/Home Depot site, thereby stitching the two neighborhoods together. The new north-south street that would run alongside the restored Clear Creek would connect Ponce de Leon Avenue to 8th Street at Monroe Drive. It would also provide a spine with which east-west connections, such as Ponce de Leon Terrace would engage.

New streets would also be created where development opportunities exist along Piedmont Park in order to provide needed circulation for new development, as well as providing additional accessibility between the park and Monroe Drive. New streets would be constructed in the Amsterdam Walk development site, as well as the site north of Dutch Valley Road.

New activity centers at Ansley Mall and Monroe Crescent would require additional streets as well. The Ansley Mall development would institute a formal grid pattern, providing circulation within the development and logical connections to Piedmont Avenue, Monroe Drive and to the Piedmont Heights neighborhood. Additional connections may cross Clear Creek and the BeltLine to the west in order to connect to Ansley Park.

The new street network in the Monroe Crescent area would address the current convoluted and congested circulation routes. New streets would create an internal network for the development that would run parallel to Monroe Drive at I-85. But even more importantly, a reconfiguration of the existing connections in the Monroe Drive/Piedmont Road/Cheshire Bridge area could greatly simplify circulation confusion and ease traffic. New streets that run from Monroe Circle directly across Piedmont Road and connecting to Cheshire Bridge would reduce traffic congestion that currently happens at the intersection of Monroe Drive, Piedmont Road and Cheshire Bridge Road.

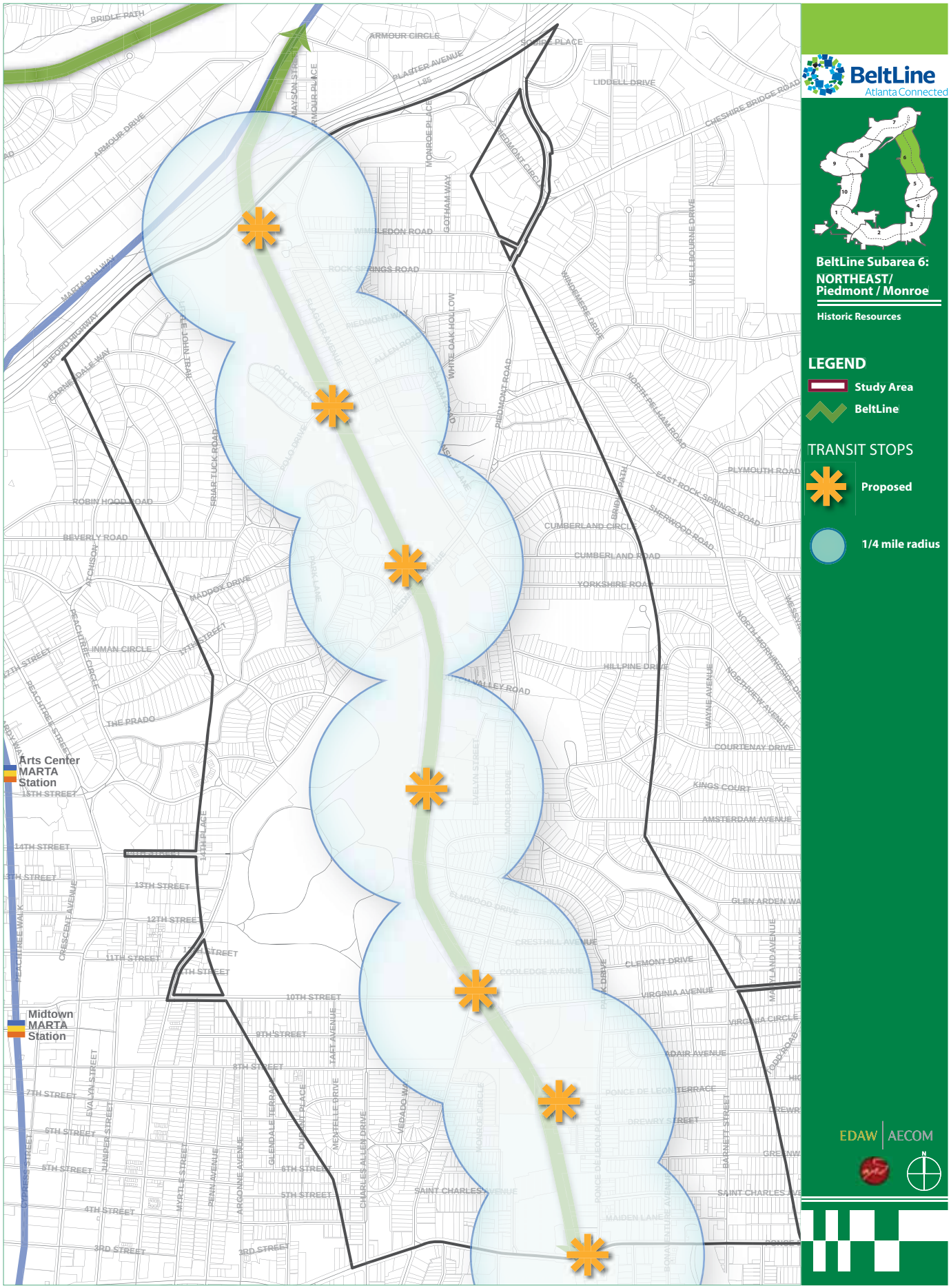


Figure 32- Proposed BeltLine Transit Stops

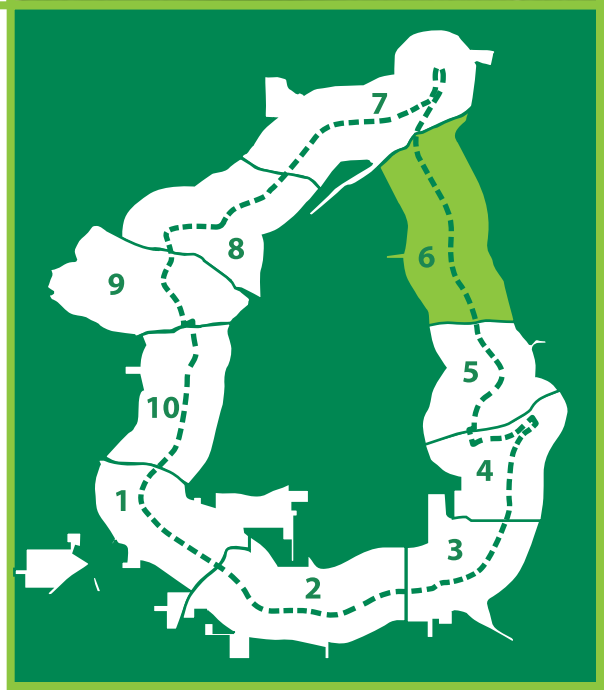


Atlanta BeltLine Master Plan

SUBAREA 6

PIEDMONT/MONROE

Appendix A - Definitions of Terms: Access, Mobility, Connectivity



MASTER PLANNING GLOSSARY

Adaptive Reuse: A process that adapts buildings for new uses while retaining their historic features.

At-grade: Level for a road, building or other structure at the same grade or level as the adjoining property (as opposed to a depressed or elevated road, building or other facility).

Atlanta Strategic Action Plan: The Atlanta Strategic Action Plan (ASAP) is the new 2007 - 2032 Comprehensive Planning Document for the City of Atlanta. Land use amendments coming out of the BeltLine planning process will be placed into the ASAP, which is updated on a quarterly basis.

BeltLine Planning Area: The area on which the overlay district is superimposed. It is generally ½ mile on either side of the BeltLine transit *right-of-way*.

Brownfield: Land that is environmentally contaminated as a result of past development, typically past industrial development

Build-out: Build-out is the point at which a community's total land area is completely developed as envisioned by a *land use* plan.

Capacity: The maximum number of vehicles that have a reasonable expectation of passing over a given section of a lane or a roadway during a given period under a specified speed or level of service.

Concept Plans: A number of options presented in order to elicit the advantages and disadvantages of each plan and approach the selection of an option, or a blend of options, for a *Draft Master Plan.*

Comprehensive Transportation Plan (CTP): This is Atlanta's first transportation plan to evaluate coordination of all modes of transportation, including roadway, air, transit, freight, bicycle and walking facilities.

Density: The number of dwelling units (housing, apartments, townhouses, duplexes, etc.), or building per unit of land.

Easement: The right to use the real property of another for a specific purpose.

Existing Conditions: A review and synthesis of existing demographics, precedent studies, land use, transportation, parks, historic resources, and public art. It typically represents the first phase of the BeltLine *Master Planning* process.

Floodplain: A relatively flat or lowland area adjoining a river, stream, or watercourse, which is subject to periodic, partial or complete inundation.

Floor Area Ratio (FAR): The ratio of the total floor area of a building to the total land area of the site.

Goals and Objectives: A phase in the planning process which elicits aspirations for the future development of the *Sub Area*. These aspirations are used as a framework for creating and evaluating *concepts* in a later phase of the *Master Planning* process.

Greenspace: Open space, undeveloped space designated for parks, playgrounds, trails, gardens, and habitat restoration and preservation.

Greenways: Areas of protected open space that follow natural and manmade linear features for recreation, transportation, and conservation purposes and link ecological, cultural and recreational amenities.

Historic District: A group of historic resources comprised of two or more properties that are significant as a cohesive unit and contribute to the historical, architectural, or cultural values. Historic districts sometimes have federal or local designations.

Infill Development: Development that takes place on vacant or underutilized parcels within an area that is already characterized by urban development and has access to urban services.

Infrastructure: The built facilities, generally publicly funded, that are required in order to serve a community's developmental and operational needs. The infrastructure includes such things as roads and water and sewer systems.

Intensity: A term referring to the gross (total) floor area of commercial and industrial land uses.

Land Use: The categories of buildings and activities existing in an area or on a specific site. A land use plan is a guide for the location and intensity of future development in a community. Unlike *zoning*, land use designations do not place legal requirements on property owners.

Level of Service: A set of operating conditions describing the ability of a road network to handle traffic. Level A specifies the best traffic conditions; Level F indicates gridlock.

Master Plan – Draft: A preliminary version of the master plan, which occurs after *existing conditions*, *goals and objectives*, and *concepts* have been developed. After the draft master plan has been released, there is time for comment and input prior to the release of the *Final Plan*.

Master Plan – Final: This plan is submitted for endorsement by the s*tudy group*. The final plan must also be approved by City Council and the Mayor prior to adoption into the *ASAP*. Certain components of the Plan will also be submitted to other groups for recommendations. For example, the land use portion of the plan will be submitted to the *NPU*.

Master Planning: Through mid-2008, Atlanta BeltLine, Inc is master planning the entire 22-mile BeltLine loop. While several BeltLine-wide studies and plans have been prepared, the master plans go into greater detail while building on and validating previous efforts and recommendations. To achieve the necessary level of detail, the BeltLine was divided into ten *sub areas*. Five of the *sub area* plans began in 2007. Once the *sub area* plans are complete, each will be a stand alone document, but they will all fit together seamlessly as one master plan for the entire Beltline. Atlanta BeltLine Inc is taking an interdisciplinary planning approach within each *sub area*. Each master plan addresses *land use*, transportation, parks and recreation, public art, and historic preservation in a comprehensive way.

Mixed Use: The combination of two or more *land uses* in a single development project. Optimal mixed development promotes pedestrian activity and the creation of a vibrant area.

Mobility: The ease with which desired destinations can be reached

Mode: A particular form of travel- e.g. walking, traveling by automobile, traveling by bus, traveling by train.

Multi-Family: A building that is designed to house more than one family. Examples would be a fourplex, condominiums, or an apartment building.

Office Hours: Designated hours when groups can schedule an appointment to ask questions and discuss the Master Plans.

Open House: A flexible meeting format with various tables with different components from *master planning*.

Overlay District: A *zoning* district superimposed on the existing underlying *zoning* district, but having validity in governing the use of the property. It establishes a set of regulatory criteria relating to certain characteristics that anticipates manages and encourages quality development opportunities in the *Beltline planning area*. The BeltLine Overlay District is designed to preserve a continuous transit corridor, preserve historic physical character, and promote smart growth urban design principles.

Neighborhood Planning Unit (NPU): The City of Atlanta is divided into twenty-five NPUs, which are citizen advisory councils that make recommendations to the Mayor and City Council on *zoning*, *land use*, and other planning issues. The NPU system was established in 1974 to provide an opportunity for citizens to participate actively in the Comprehensive Development Plan, now called the Atlanta Strategic Action Plan, which is the city's vision for the next five, ten, and fifteen years. It is also used as a way for citizens to receive information concerning all functions of city government. The system enables citizens to express ideas and comment on city plans and proposals while assisting the city in developing plans that best meet the needs of their communities.

Non-Conforming Use: A use that is prohibited by, or does not conform to, the Zoning Ordinance.

Open Space: Areas of land not covered by structures, driveways, or parking lots.

Pedestrian Friendly: Development and infrastructure designed so a person can comfortably walk from one location to another. It encourages strolling, window-shopping, and other pedestrian activities, and typically is fostered by a mix of *land uses*.

Recreation – Active: Includes recreation activities that have a noticeable impact on the surrounding environment and are usually rigorously athletic and not quiet. May include individual or team sports, large
picnics or playground activities, and recreational events with a high density of people.

Recreation – Passive: Includes recreation activities that are usually quiet and not rigorously athletic, and have a low impact on the surrounding environment. May include walking, hiking, fishing, bird watching, and quiet picnicking.

Right-of-Way: The strip of land over which facilities such as highways, railroads, or power lines are built, which can be obtained through outright ownership of or an *easement* on the strip.

Setback: The distance between a building or structure from property lines or from other buildings.

Smart Growth: Metropolitan area development characterized by compact, mixed use districts, efficient use of infrastructure, choices of travel model, and protection of environmental resources and open space.

Special Administrative Permit (SAP): An approval process used where complex or unusual technical determinations are involved and/or in conjunction with temporary uses and structures when the matter does not require public notifications and hearings.

Special Use Permit: Permits used in connection with land uses identified within particular zoning classifications that are of substantial significance or of unusual operational characteristics.

Streetscape: The view along a street from the perspective of a driver or pedestrian, particularly views of natural and built elements in the street right-of-way, including street trees, signs, street lights, above-ground utilities, sidewalks, bus shelters, bike racks, street furniture and public art.

Sub Area: The sub area is a temporary geographic area for detailed *master planning*. Each sub area will undergo detailed study and has a temporary *steering committee*. There are two sub areas in each *Study Group.*

Steering Committee: A group of local stakeholders, many times with local knowledge, property ownership, or expertise, who are convened to provide detailed input into a planning process.

Traffic Impact Analysis: A determination of how street networks can manage increased households and employment at a future date. Creates an understanding of future pedestrian and road facility needs.

Transit Supportive Development: *Mixed-use*, higher *density* development centered around transit stations. The goal of Transit Supportive Development is to create development patterns that supports the use of mass transit and reduces dependence on the automobile. Also referred to as “Transit Oriented Development” or “TOD.”

Urban Design: the process of giving form, shape and character to the arrangement of buildings, to whole neighborhoods, or the city.

Variances or Special Exceptions: Used in conjunction with construction proposals where consideration of effects on the surrounding property is of principal importance, and include, but are not limited to: building additions that involve yard set-back reductions, construction of fences and walls, and reductions in required parking.

Watershed: An area of land with a common drainage point.

Zoning: A set of laws that restrict the type of development that can occur on each parcel of land. Zoning typically divides a community into districts that group compatible uses together and exclude compatible uses. Zoning is a tool that is used to implement a *land use* plan.

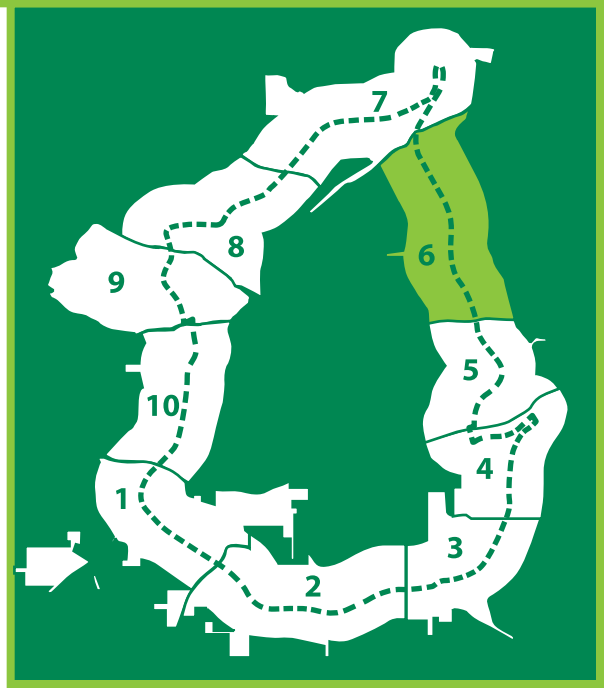


Atlanta BeltLine Master Plan

SUBAREA 6

PIEDMONT/MONROE

Appendix B- Site Trip Generation



Summary of Redevelopment Trip Generation

Atlanta Beltline Subarea 6

Zone 1, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	317 DU	2,056	192	65%	125	35%	67	159	20%	32	80%	127
Townhouse/Condo	230	557 DU	2,763	246	67%	165	33%	81	204	17%	35	83%	169
Office	710	261.0 KSF	2,793	371	17%	63	83%	308	404	88%	356	12%	48
Retail	820	43.5 KSF	3,955	362	48%	174	52%	188	95	61%	58	39%	37
Total			11,566	1,171		526		644	862		480		382
Internal Capture	9.71%	9.08%	1,123	106		53		53					
Pass-By	1.29%	20.00%	51	51		24		27					
Modal Split *		25.00%	2,598	293		132		161	216		120		96
Net External			7,794	721		317		403	647		360		287
	Daily	Pk-hour											

Zone 2, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	340 DU	2,191	204	65%	133	35%	72	170	20%	34	80%	136
Townhouse/Condo	230	496 DU	2,502	223	67%	150	33%	74	186	17%	32	83%	154
Office	710	3.5 KSF	101	83	17%	14	83%	69	13	88%	11	12%	2
Retail	820	36.4 KSF	3,520	321	48%	154	52%	167	85	61%	52	39%	33
Total			8,313	832		451		381	454		129		325
Internal Capture	14.33%	17.47%	1,191	145		73		73					
Pass-By	1.00%	20.00%	35	35		20		23					
Modal Split *		20.00%	1,417	166		90		76	91		26		65
Net External			5,669	485		268		209	363		103		260
	Daily	Pk-hour											

Zone 3, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	94 DU	715	69	65%	45	35%	24	50	20%	10	80%	40
Townhouse/Condo	230	382 DU	2,005	180	67%	121	33%	60	151	17%	26	83%	125
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.6 KSF	1,577	142	48%	68	52%	74	41	61%	25	39%	16
Total			4,298	392		234		158	241		60		181
Internal Capture	7.34%	7.65%	315	30		15		15					
Pass-By	1.42%	20.00%	22	22		32		35					
Modal Split *		10.00%	396	39		23		16	24		6		18
Net External			3,564	300		164		92	217		54		163
	Daily	Pk-hour											

Zone 4, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	313.5 DU	2,034	190	65%	124	35%	67	157	20%	31	80%	126
Townhouse/Condo	230	695.5 DU	3,337	295	67%	198	33%	97	244	17%	41	83%	202
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	40.1 KSF	3,748	342	48%	164	52%	178	90	61%	55	39%	35
Total			9,120	827		485		342	491		128		363
Internal Capture	14.71%	15.47%	1,342	128		64		64					
Pass-By	1.14%	20.00%	43	43		22		25					
Modal Split *		25.00%	1,934	207		121		85	123		32		91
Net External			5,802	450		278		168	369		96		273
	Daily	Pk-hour											

Zone 5, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	60.0 DU	511	51	65%	33	35%	18	33	20%	7	80%	27
Townhouse/Condo	230	116.0 DU	728	68	67%	45	33%	22	58	17%	10	83%	48
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.5 KSF	1,569	141	48%	68	52%	74	40	61%	25	39%	16
Total			2,808	260		146		114	132		41		91
Internal Capture	11.18%	11.54%	314	30		15		15					
Pass-By	1.42%	20.00%	22	22		32		35					
Modal Split *		10.00%	247	26		15		11	13		4		9
Net External			2,225	182		85		53	119		37		81
	Daily	Pk-hour											

Zone 7, Year 2030

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	612.0 DU	3,828	354	65%	230	35%	124	304	20%	61	80%	243
Townhouse/Condo	230	1,019.0 DU	4,617	403	67%	270	33%	133	331	17%	56	83%	274
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	48.6 KSF	4,250	389	48%	187	52%	202	102	61%	62	39%	40
Total			12,696	1,147		687		459	736		179		557
Internal Capture	14.07%	15.02%	1,786	172		86		86					
Pass-By	1.02%	20.00%	43	43		17		20					
Modal Split *		25.00%	2,717	287		172		115	184		45		139
Net External			8,150	644		412		238	552		134		418
	Daily	Pk-hour											

Total, Buildout

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	1,736.0 DU	11,335	972	65%	632	35%	340	854	20%	171	80%	683
Townhouse/Condo	230	3,265.0 DU	15,953	1,048	67%	702	33%	346	840	17%	143	83%	697
Office	710	264.5 KSF	2,894	375	17%	64	83%	311	408	88%	359	12%	49
Retail	820	189.7 KSF	18,619	955	48%	459	52%	497	230	61%	140	39%	90
Total			48,802	3,351		1,857		1,494	2,332		813		1,519
Internal Capture			6,072	612		306		306					
Pass-By	1.17%	20.00%	217	217		147		164					
Modal Split *		21.90%	9,309	734		407		327	511		178		333
Net External			33,204	1,788		997		697	1,821		635		1,186
	Daily	Pk-hour											

Summary of Redevelopment Trip Generation

Atlanta Beltline Subarea 6

Zone 1, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	317 DU	2,056	192	65%	125	35%	67	159	20%	32	80%	127
Townhouse/Condo	230	557 DU	2,763	246	67%	165	33%	81	204	17%	35	83%	169
Office	710	261.0 KSF	2,793	371	17%	63	83%	308	404	88%	356	12%	48
Retail	820	43.5 KSF	3,955	362	48%	174	52%	188	95	61%	58	39%	37
Total			11,566	1,171		526		644	862		480		382
Internal Capture	9.71%	9.08%	1,123	106		53		53					
Pass-By	1.29%	20.00%	51	51		24		27					
Modal Split *		30.00%	3,118	351		158		193	259		144		115
Net External			7,275	662		291		371	604		336		267
	Daily	Pk-hour											

Zone 2, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	340 DU	2,191	204	65%	133	35%	72	170	20%	34	80%	136
Townhouse/Condo	230	496 DU	2,502	223	67%	150	33%	74	186	17%	32	83%	154
Office	710	3.5 KSF	101	83	17%	14	83%	69	13	88%	11	12%	2
Retail	820	36.4 KSF	3,520	321	48%	154	52%	167	85	61%	52	39%	33
Total			8,313	832		451		381	454		129		325
Internal Capture	14.33%	17.47%	1,191	145		73		73					
Pass-By	1.00%	20.00%	35	35		20		23					
Modal Split *		28.00%	1,984	233		126		107	127		36		91
Net External			5,103	418		232		179	327		93		234
	Daily	Pk-hour											

Zone 3, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	94 DU	715	69	65%	45	35%	24	50	20%	10	80%	40
Townhouse/Condo	230	382 DU	2,005	180	67%	121	33%	60	151	17%	26	83%	125
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.6 KSF	1,577	142	48%	68	52%	74	41	61%	25	39%	16
Total			4,298	392		234		158	241		60		181
Internal Capture	7.34%	7.65%	315	30		15		15					
Pass-By	1.42%	20.00%	22	22		32		35					
Modal Split *		20.00%	792	78		47		32	48		12		36
Net External			3,168	261		141		77	193		48		145
	Daily	Pk-hour											

Zone 4, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	313.5 DU	2,034	190	65%	124	35%	67	157	20%	31	80%	126
Townhouse/Condo	230	695.5 DU	3,337	295	67%	198	33%	97	244	17%	41	83%	202
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	40.1 KSF	3,748	342	48%	164	52%	178	90	61%	55	39%	35
Total			9,120	827		485		342	491		128		363
Internal Capture	14.71%	15.47%	1,342	128		64		64					
Pass-By	1.14%	20.00%	43	43		22		25					
Modal Split *		28.00%	2,166	232		136		96	138		36		102
Net External			5,570	425		264		157	354		92		262
	Daily	Pk-hour											

Zone 5, Year 2020

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	60.0 DU	511	51	65%	33	35%	18	33	20%	7	80%	27
Townhouse/Condo	230	116.0 DU	728	68	67%	45	33%	22	58	17%	10	83%	48
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	10.5 KSF	1,569	141	48%	68	52%	74	40	61%	25	39%	16
Total			2,808	260		146		114	132		41		91
Internal Capture	11.18%	11.54%	314	30		15		15					
Pass-By	1.42%	20.00%	22	22		32		35					
Modal Split *		20.00%	494	52		29		23	26		8		18
Net External			1,978	156		70		41	105		33		72
	Daily	Pk-hour											

Zone 7, Year 2030

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	612.0 DU	3,828	354	65%	230	35%	124	304	20%	61	80%	243
Townhouse/Condo	230	1,019.0 DU	4,617	403	67%	270	33%	133	331	17%	56	83%	274
Office	710	0.0 KSF	0	0	17%	0	83%	0	0	88%	0	12%	0
Retail	820	48.6 KSF	4,250	389	48%	187	52%	202	102	61%	62	39%	40
Total			12,696	1,147		687		459	736		179		557
Internal Capture	14.07%	15.02%	1,786	172		86		86					
Pass-By	1.02%	20.00%	43	43		17		20					
Modal Split *		30.00%	3,260	344		206		138	221		54		167
Net External			7,606	587		377		215	515		125		390
	Daily	Pk-hour											

Total, Buildout

Land Use	ITE Code	Intensity	Daily Trip Ends	PM Peak-Hour Trip Ends					AM Peak-Hour Trip Ends				
				Total	In		Out		Total	In		Out	
					%	Trips	%	Trips		%	Trips	%	Trips
Multi-Family	220	1,736.0 DU	11,335	972	65%	632	35%	340	854	20%	171	80%	683
Townhouse/Condo	230	3,265.0 DU	15,953	1,048	67%	702	33%	346	840	17%	143	83%	697
Office	710	264.5 KSF	2,894	375	17%	64	83%	311	408	88%	359	12%	49
Retail	820	189.7 KSF	18,619	955	48%	459	52%	497	230	61%	140	39%	90
Total			48,802	3,351		1,857		1,494	2,332		813		1,519
Internal Capture			6,072	612		306		306					
Pass-By	1.17%	20.00%	217	217		147		164					
Modal Split *		27.79%	11,814	931		516		415	648		226		422
Net External			30,699	1,591		888		609	1,684		587		1,097
	Daily	Pk-hour											

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 1**

Time Period: Daily

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **9.71%**

Land Use A: Retail - 6th Edition

ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	1977.5	257	1720
Exit	1977.5	277	1701
Total	3955	534	3421
%	100%	13.5%	86.5%

Land Use B: Residential

ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	2409.5	245	2164
Exit	2409.5	178	2232
Total	4819	423	4396
%	100%	8.8%	91.2%

Land Use C: Office - 6th Edition

ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	1396.5	59	1337
Exit	1396.5	107	1289
Total	2793	166	2,627
%	100%	6.0%	94.0%

Land Use D

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

11% 218 Demand
218 Balanced
31% 747 Demand
9% 178 Demand
178 Balanced
38% 916 Demand
4% 79.1 Demand
79 Balanced
3% 59.3 Demand
59 Balanced
22% 307 Demand
15% 209 Demand
Balanced 28
2% 48.2 Demand
2% 27.9 Demand
0% 0 Demand
0% 0 Demand
0 Balanced
0 Demand

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 1**

Time Period: PM Peak

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **9.08%**

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	174	19	155
Exit	188	28	160
Total	362	47	315
%	100%	13.1%	86.9%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	290	28	262
Exit	148	16	132
Total	438	44	394
%	100%	10.1%	89.9%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	63	6	57
Exit	308	9	299
Total	371	15	356
%	100%	4.0%	96.0%

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

12% 22.6 Demand
2% 3.48 Demand
23 Balanced
3 Balanced
9% 15.7 Demand
3% 5.64 Demand
31% 89.9 Demand
23% 70.8 Demand
16 Balanced
6 Balanced
53% 78.4 Demand
31% 19.5 Demand
2% 5.8 Demand
2% 6.16 Demand
Balanced 6
0% 0 Demand
0% 0 Demand
0 Balanced

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 2**

Time Period: Daily

Internal Capture ***8.94%***

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	1760	170	1590
Exit	1760	201	1559
Total	3520	371	3149
%	100%	10.5%	89.5%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	2346.5	195	2152
Exit	2346.5	158	2188
Total	4693	353	4340
%	100%	7.5%	92.5%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	50.5	8	43
Exit	50.5	12	38
Total	101	20	81
%	100%	19.5%	80.5%

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

A–B interchange: 11% 194 Demand; 194 Balanced; 31% 727 Demand; 9% 158 Demand; 0 Demand; 158 Balanced; 0 Balanced; 38% 892 Demand; 0 Demand

A–C interchange: 4% 70.4 Demand; 11 Balanced; 22% 11.1 Demand; 3% 52.8 Demand; 0 Demand; 8 Balanced; 0 Balanced; 15% 7.58 Demand; 0 Demand

B–C interchange: 2% 46.9 Demand; 1 Balanced; 2% 1.01 Demand; 0% 0 Demand; 0 Balanced; 0% 0 Demand

All other interchanges: Demand 0, Balanced 0

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

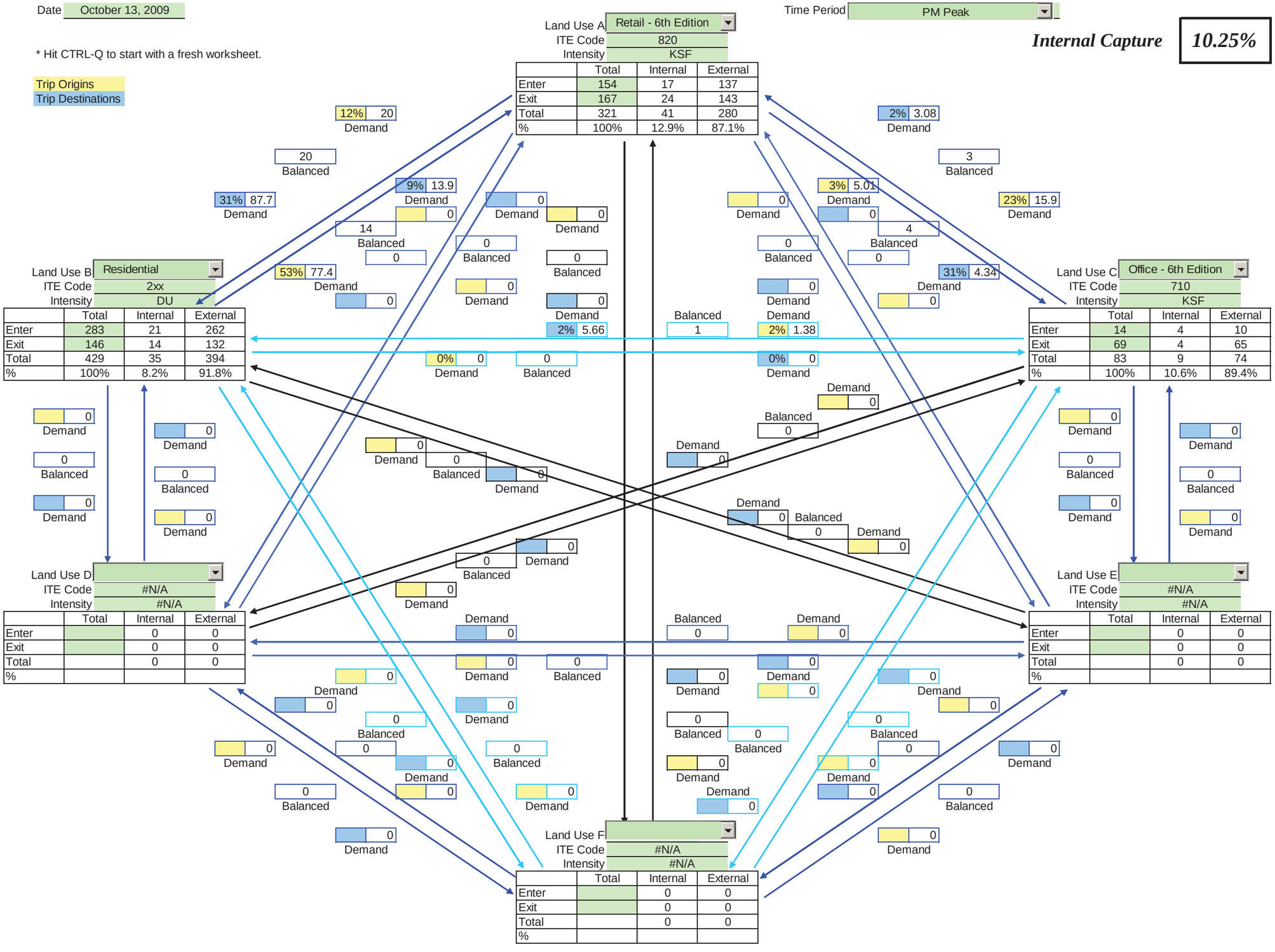
Name of Development: **Atlanta Beltline SA6 Zone 2**

Time Period: PM Peak

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **10.25%**



	Total	Internal	External
Enter	154	17	137
Exit	167	24	143
Total	321	41	280
%	100%	12.9%	87.1%

	Total	Internal	External
Enter	283	21	262
Exit	146	14	132
Total	429	35	394
%	100%	8.2%	91.8%

	Total	Internal	External
Enter	14	4	10
Exit	69	4	65
Total	83	9	74
%	100%	10.6%	89.4%

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 3**

Time Period: Daily

Internal Capture ***7.34%***

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	788.5	71	718
Exit	788.5	87	702
Total	1577	158	1419
%	100%	10.0%	90.0%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	1360	87	1273
Exit	1360	71	1289
Total	2720	158	2562
%	100%	5.8%	94.2%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 3**

Time Period: PM Peak

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **7.65%**

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	68	6	62
Exit	74	9	65
Total	142	15	127
%	100%	10.6%	89.4%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	166	9	157
Exit	84	6	78
Total	250	15	235
%	100%	6.0%	94.0%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

12% 8.88 Demand
2% 1.36 Demand
9 Balanced
0 Balanced
31% 51.5 Demand
9% 6.12 Demand
3% 2.22 Demand
23% 0 Demand
53% 44.5 Demand
31% 0 Demand
2% 3.32 Demand
0% 0 Demand
2% 0 Demand
0% 0 Demand
Balanced 0

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

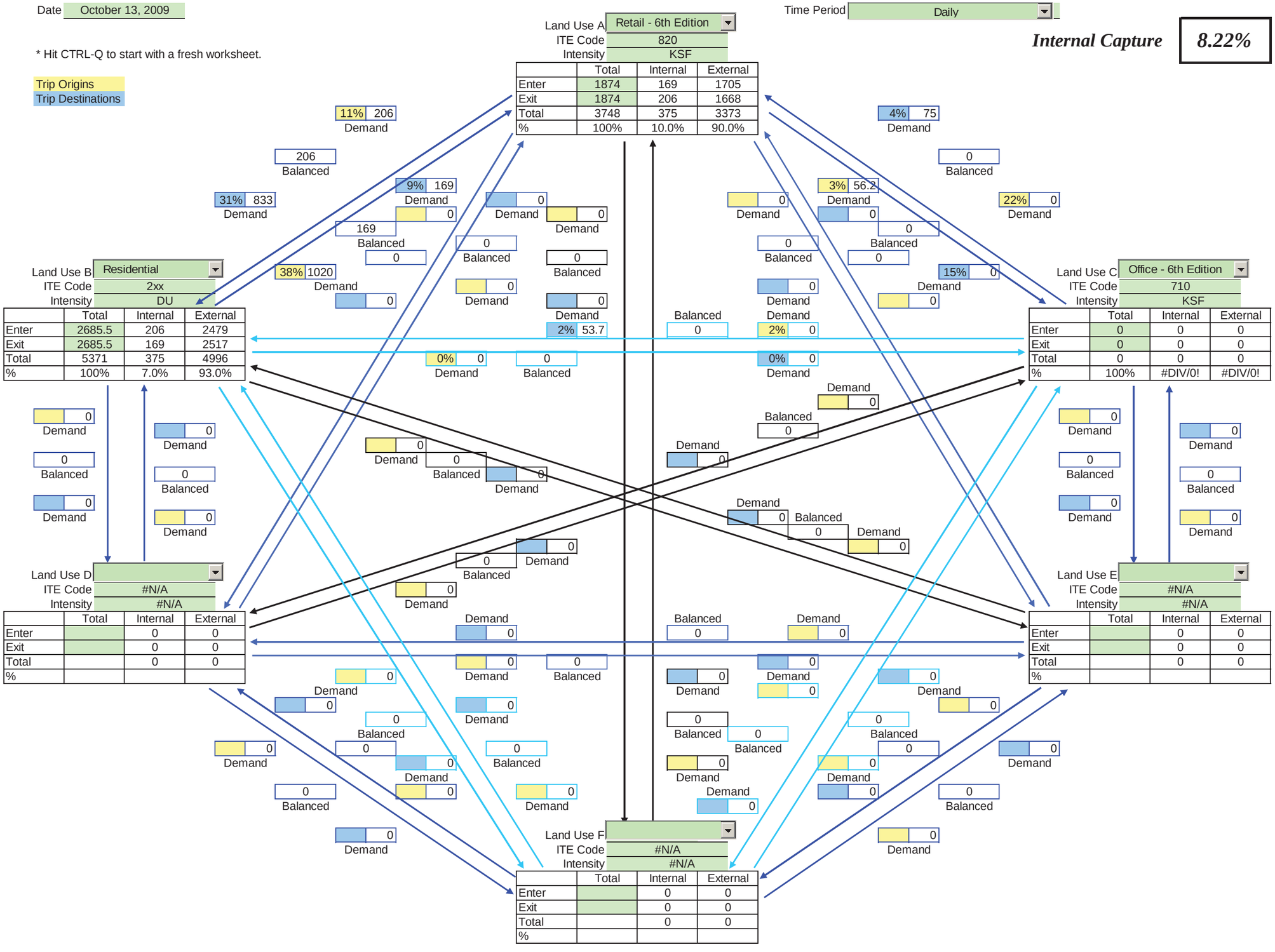
Name of Development: **Atlanta Beltline SA6 Zone 4**

Time Period: Daily

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **8.22%**



	Total	Internal	External
Enter	1874	169	1705
Exit	1874	206	1668
Total	3748	375	3373
%	100%	10.0%	90.0%

	Total	Internal	External
Enter	2685.5	206	2479
Exit	2685.5	169	2517
Total	5371	375	4996
%	100%	7.0%	93.0%

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 4**

Time Period: PM Peak

Internal Capture **8.72%**

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	164	15	149
Exit	178	21	157
Total	342	36	306
%	100%	10.6%	89.4%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	322	21	301
Exit	164	15	149
Total	486	36	450
%	100%	7.4%	92.6%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 5**

Time Period: Daily

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **11.18%**

Land Use A: Retail - 6th Edition

ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	784.5	71	714
Exit	784.5	86	698
Total	1569	157	1412
%	100%	10.0%	90.0%

Land Use B: Residential

ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	619.5	86	533
Exit	619.5	71	549
Total	1239	157	1082
%	100%	12.7%	87.3%

Land Use C: Office - 6th Edition

ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D: #N/A

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E: #N/A

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F: #N/A

ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

11% 86.3 Demand
4% 31.4 Demand
86 Balanced
0 Balanced
31% 192 Demand
9% 70.6 Demand
3% 23.5 Demand
22% 0 Demand
38% 235 Demand
15% 0 Demand
71 Balanced
0 Balanced
2% 12.4
2% 0
0% 0 Demand
0% 0 Demand
0 Balanced
Balanced 0

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 5**

Time Period: PM Peak

Internal Capture ***11.54%***

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	68	6	62
Exit	74	9	65
Total	142	15	127
%	100%	10.6%	89.4%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	78	9	69
Exit	40	6	34
Total	118	15	103
%	100%	12.7%	87.3%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

12% 8.88 Demand
9 Balanced
31% 24.2 Demand
9% 6.12 Demand
0
6 Balanced
0
53% 21.2 Demand
0
2% 1.36 Demand
0 Balanced
23% 0 Demand
3% 2.22 Demand
0
0 Balanced
0
31% 0 Demand
0
0 Demand
0 Demand
0 Demand
0 Balanced
0 Balanced
0 Balanced
0 Demand
0 Demand
0 Demand
2% 1.56
Balanced 0
2% 0
0% 0 Demand
0 Balanced
0% 0 Demand
Demand 0
Balanced 0

All remaining Demand and Balanced boxes between Land Uses B–F show 0.

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

Name of Development: **Atlanta Beltline SA6 Zone 7**

Time Period: Daily

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **6.70%**

Land Use A: Retail - 6th Edition
ITE Code: 820
Intensity: KSF

	Total	Internal	External
Enter	2125	191	1934
Exit	2125	234	1891
Total	4250	425	3825
%	100%	10.0%	90.0%

Land Use B: Residential
ITE Code: 2xx
Intensity: DU

	Total	Internal	External
Enter	4222.5	234	3989
Exit	4222.5	191	4031
Total	8445	425	8020
%	100%	5.0%	95.0%

Land Use C: Office - 6th Edition
ITE Code: 710
Intensity: KSF

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

Land Use D:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use E:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

Land Use F:
ITE Code: #N/A
Intensity: #N/A

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

11% 234 Demand
234 Balanced
31% 1309 Demand
9% 191 Demand
191 Balanced
38% 1605 Demand
4% 85 Demand
0 Balanced
3% 63.8 Demand
22% 0 Demand
15% 0 Demand
2% 84.5 Demand
0% 0 Demand
2% 0 Demand
0% 0 Demand
Balanced 0
0 Demand
0 Balanced

Internal Capture Worksheet, Version 1.51

Source: Glatting Jackson Kercher Anglin Lopez Rinehart, Inc., based on ITE Trip Generation Handbook

Analyst: kmah

Date: October 13, 2009

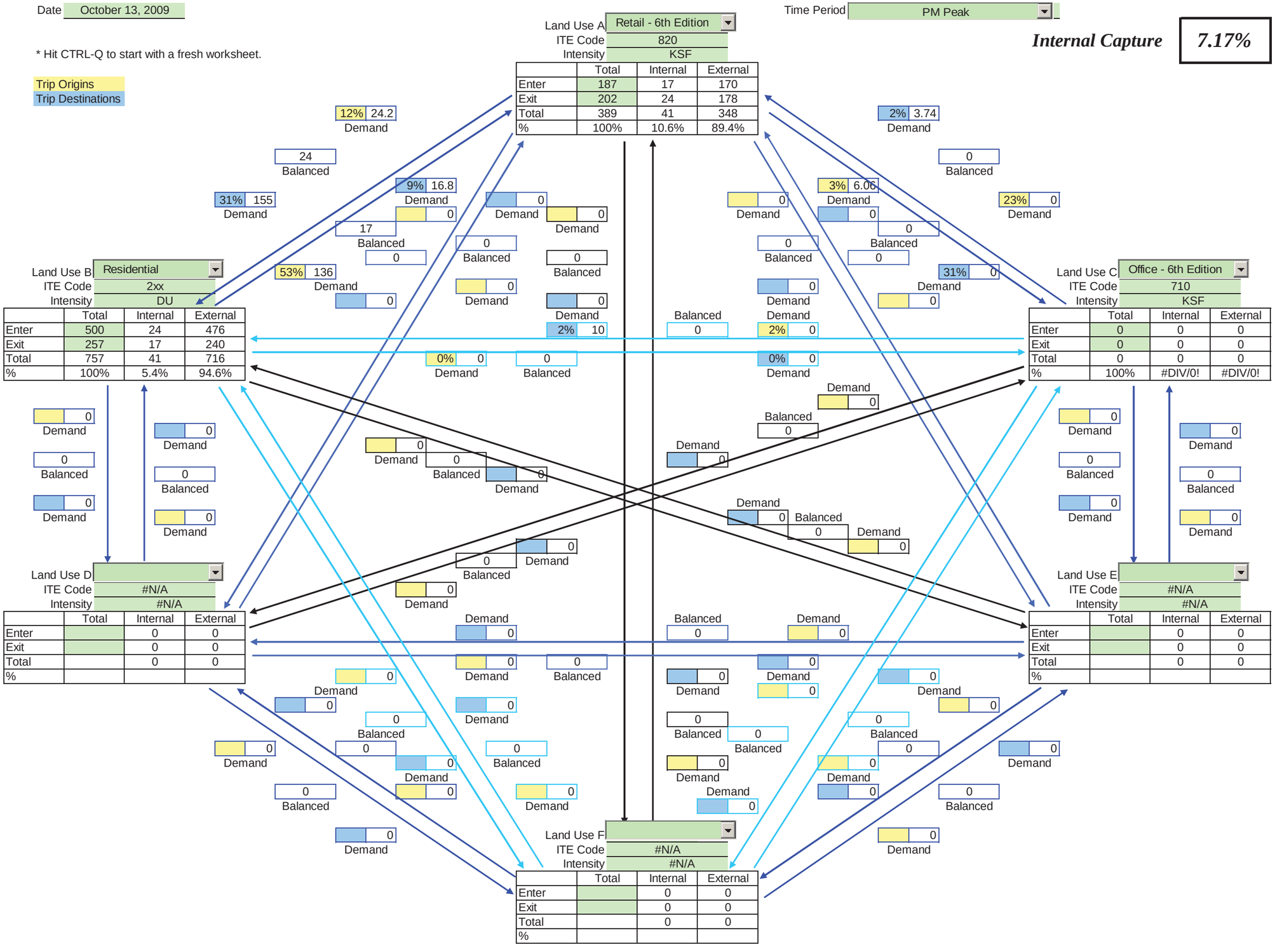
Name of Development: **Atlanta Beltline SA6 Zone 7**

Time Period: PM Peak

* Hit CTRL-Q to start with a fresh worksheet.

Trip Origins
Trip Destinations

Internal Capture **7.17%**



	Total	Internal	External
Enter	187	17	170
Exit	202	24	178
Total	389	41	348
%	100%	10.6%	89.4%

	Total	Internal	External
Enter	500	24	476
Exit	257	17	240
Total	757	41	716
%	100%	5.4%	94.6%

	Total	Internal	External
Enter	0	0	0
Exit	0	0	0
Total	0	0	0
%	100%	#DIV/0!	#DIV/0!

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

	Total	Internal	External
Enter		0	0
Exit		0	0
Total		0	0
%			

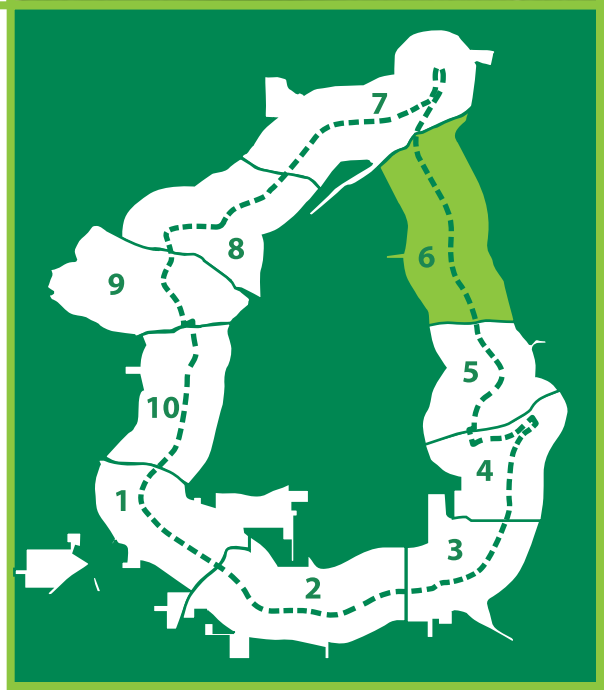


Atlanta BeltLine Master Plan

SUBAREA 6

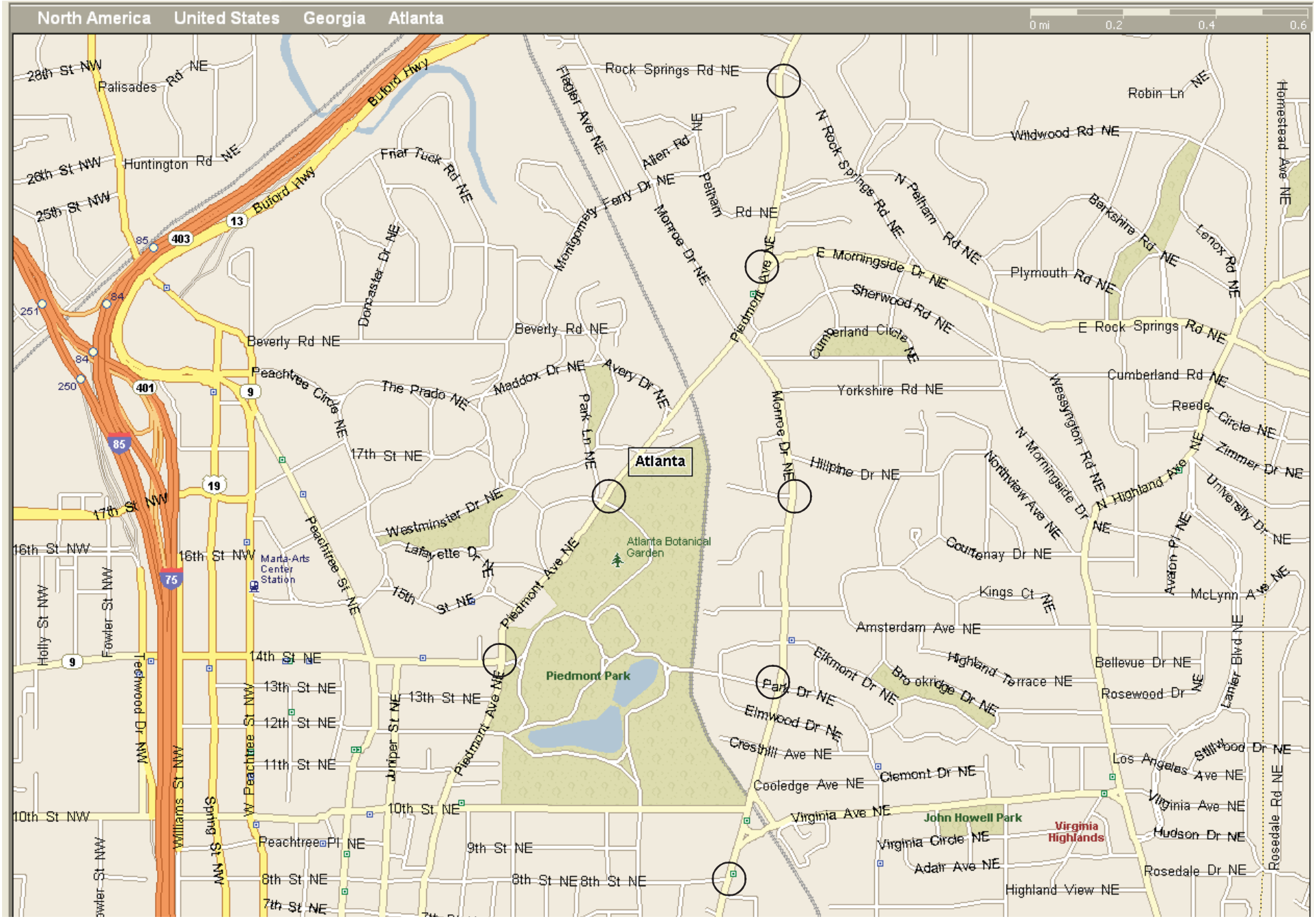
PIEDMONT/MONROE

Appendix C - Traffic Counts



Traffic Counts Location Map

Turning Movement Counts



Turning Movement Counts between 7.00 - 9.00 AM and 4.00 - 6.00 PM at the following Intersections

1. Piedmont Ave at Rock Springs Rd
2. Piedmont Ave at East Morningside Dr
3. Piedmont Ave at The Prado NE / Atlanta Botanical Gardens entrance
4. Piedmont Ave at 14th St
5. Monroe Dr at Dutch Valley Rd
6. Monroe Dr at Park Dr
7. Monroe Dr at 8th St / Shopping Center entrance

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TMC Data
Monroe Dr @ 8th St

File Name : 26930007
Site Code : 26930007
Start Date : 1/14/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

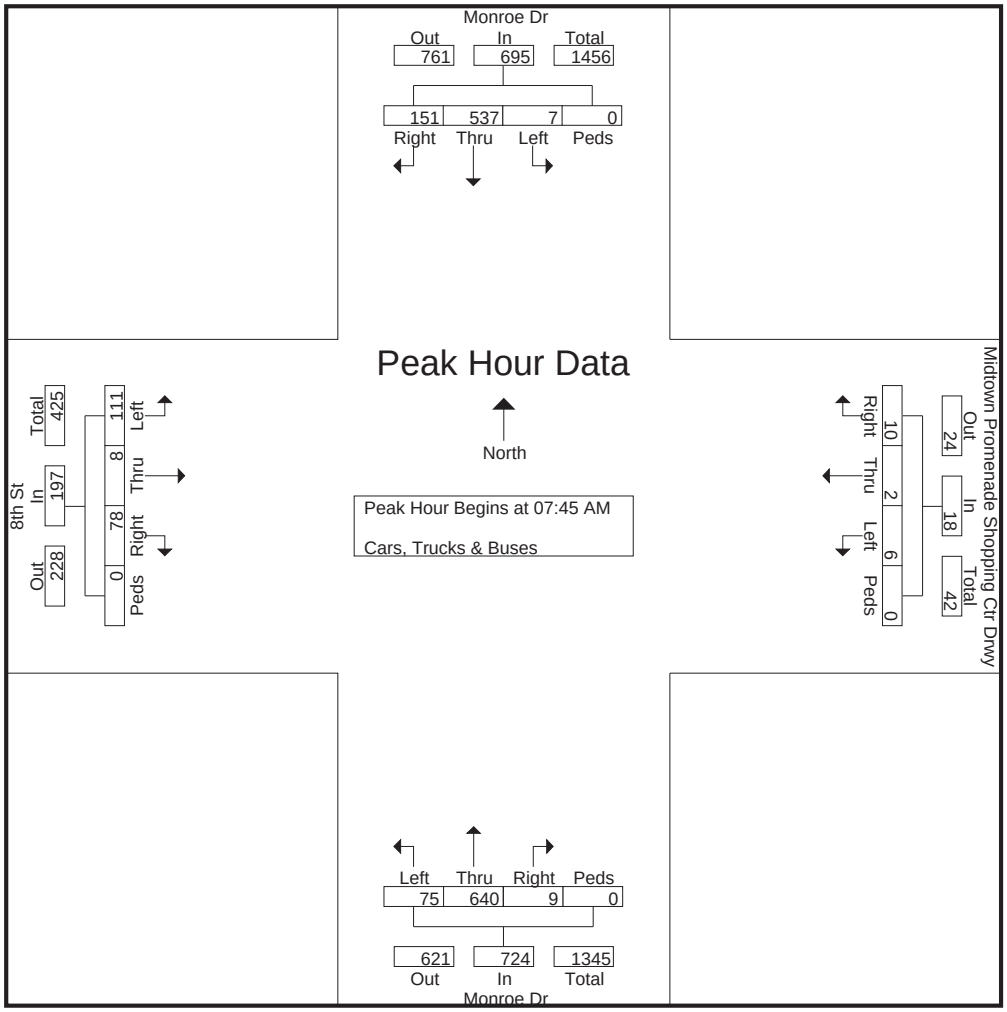
	Monroe Dr Northbound					Monroe Dr Southbound					8th St Eastbound					Midtown Promenade Shopping Ctr Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	7	93	1	0	101	1	93	21	0	115	13	1	7	0	21	2	1	1	0	4	241
07:15 AM	10	105	2	0	117	2	96	26	0	124	18	2	10	0	30	3	2	2	0	7	278
07:30 AM	15	112	2	0	129	3	107	34	0	144	22	1	13	0	36	5	2	3	0	10	319
07:45 AM	19	143	5	0	167	1	117	37	0	155	27	1	18	0	46	1	1	2	0	4	372
Total	51	453	10	0	514	7	413	118	0	538	80	5	48	0	133	11	6	8	0	25	1210
08:00 AM	23	162	0	0	185	0	149	46	0	195	33	2	31	0	66	2	0	2	0	4	450
08:15 AM	15	171	1	0	187	2	137	37	0	176	29	3	18	0	50	1	1	3	0	5	418
08:30 AM	18	164	3	0	185	4	134	31	0	169	22	2	11	0	35	2	0	3	0	5	394
08:45 AM	11	157	4	0	172	5	126	29	0	160	17	1	9	0	27	3	1	4	0	8	367
Total	67	654	8	0	729	11	546	143	0	700	101	8	69	0	178	8	2	12	0	22	1629
*** BREAK ***																					
04:00 PM	4	123	20	0	147	21	158	31	0	210	24	10	8	0	42	20	5	10	0	35	434
04:15 PM	6	135	22	0	163	23	163	35	0	221	22	14	7	0	43	23	4	13	0	40	467
04:30 PM	5	151	19	0	175	27	178	38	0	243	25	11	11	0	47	27	6	17	0	50	515
04:45 PM	4	148	23	0	175	22	167	41	0	230	28	7	10	0	45	24	6	15	0	45	495
Total	19	557	84	0	660	93	666	145	0	904	99	42	36	0	177	94	21	55	0	170	1911
05:00 PM	7	141	25	0	173	25	164	44	0	233	25	9	8	0	42	19	5	18	0	42	490
05:15 PM	3	157	29	0	189	23	177	40	0	240	33	10	11	0	54	23	7	13	0	43	526
05:30 PM	1	142	27	0	170	27	172	39	0	238	29	8	9	0	46	24	5	16	0	45	499
05:45 PM	2	153	23	0	178	24	167	34	0	225	27	11	7	0	45	27	3	17	0	47	495
Total	13	593	104	0	710	99	680	157	0	936	114	38	35	0	187	93	20	64	0	177	2010
Grand Total	150	2257	206	0	2613	210	2305	563	0	3078	394	93	188	0	675	206	49	139	0	394	6760
Apprch %	5.7	86.4	7.9	0		6.8	74.9	18.3	0		58.4	13.8	27.9	0		52.3	12.4	35.3	0		
Total %	2.2	33.4	3	0	38.7	3.1	34.1	8.3	0	45.5	5.8	1.4	2.8	0	10	3	0.7	2.1	0	5.8	

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TMC Data
Monroe Dr @ 8th St

File Name : 26930007
Site Code : 26930007
Start Date : 1/14/2009
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	Monroe Dr Northbound					Monroe Dr Southbound					8th St Eastbound					Midtown Promenade Shopping Ctr Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	19	143	5	0	167	1	117	37	0	155	27	1	18	0	46	1	1	2	0	4	372
08:00 AM	23	162	0	0	185	0	149	46	0	195	33	2	31	0	66	2	0	2	0	4	450
08:15 AM	15	171	1	0	187	2	137	37	0	176	29	3	18	0	50	1	1	3	0	5	418
08:30 AM	18	164	3	0	185	4	134	31	0	169	22	2	11	0	35	2	0	3	0	5	394
Total Volume	75	640	9	0	724	7	537	151	0	695	111	8	78	0	197	6	2	10	0	18	1634
% App. Total	10.4	88.4	1.2	0		1	77.3	21.7	0		56.3	4.1	39.6	0		33.3	11.1	55.6	0		
PHF	.815	.936	.450	.000	.968	.438	.901	.821	.000	.891	.841	.667	.629	.000	.746	.750	.500	.833	.000	.900	.908

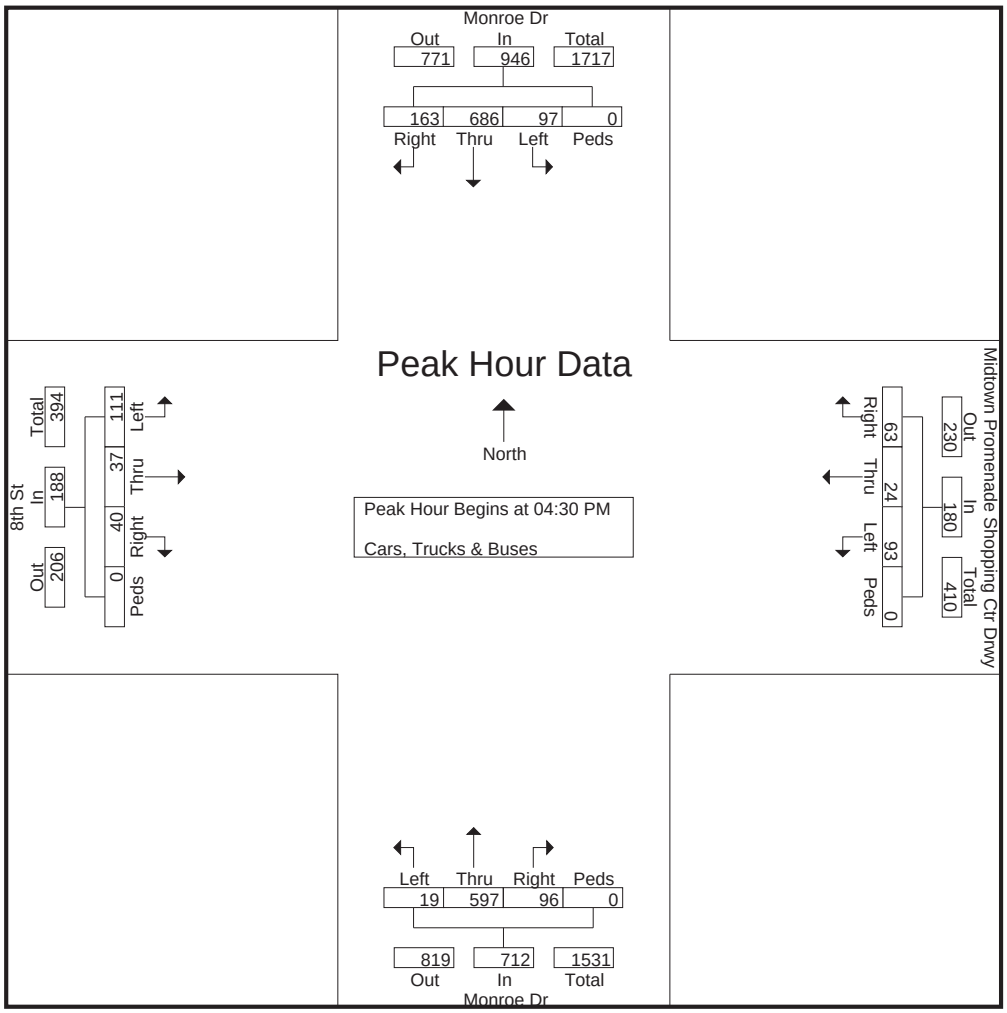


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	Monroe Dr Northbound					Monroe Dr Southbound					8th St Eastbound					Midtown Promenade Shopping Ctr Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	5	151	19	0	175	27	178	38	0	243	25	11	11	0	47	27	6	17	0	50	515
04:45 PM	4	148	23	0	175	22	167	41	0	230	28	7	10	0	45	24	6	15	0	45	495
05:00 PM	7	141	25	0	173	25	164	44	0	233	25	9	8	0	42	19	5	18	0	42	490
05:15 PM	3	157	29	0	189	23	177	40	0	240	33	10	11	0	54	23	7	13	0	43	526
Total Volume	19	597	96	0	712	97	686	163	0	946	111	37	40	0	188	93	24	63	0	180	2026
% App. Total	2.7	83.8	13.5	0		10.3	72.5	17.2	0		59	19.7	21.3	0		51.7	13.3	35	0		
PHF	.679	.951	.828	.000	.942	.898	.963	.926	.000	.973	.841	.841	.909	.000	.870	.861	.857	.875	.000	.900	.963



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TMC Data
Monroe Dr @ Dutch Valley Rd

File Name : 26930005
Site Code : 26930005
Start Date : 1/14/2009
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Groups Printed- Cars, Trucks & Buses

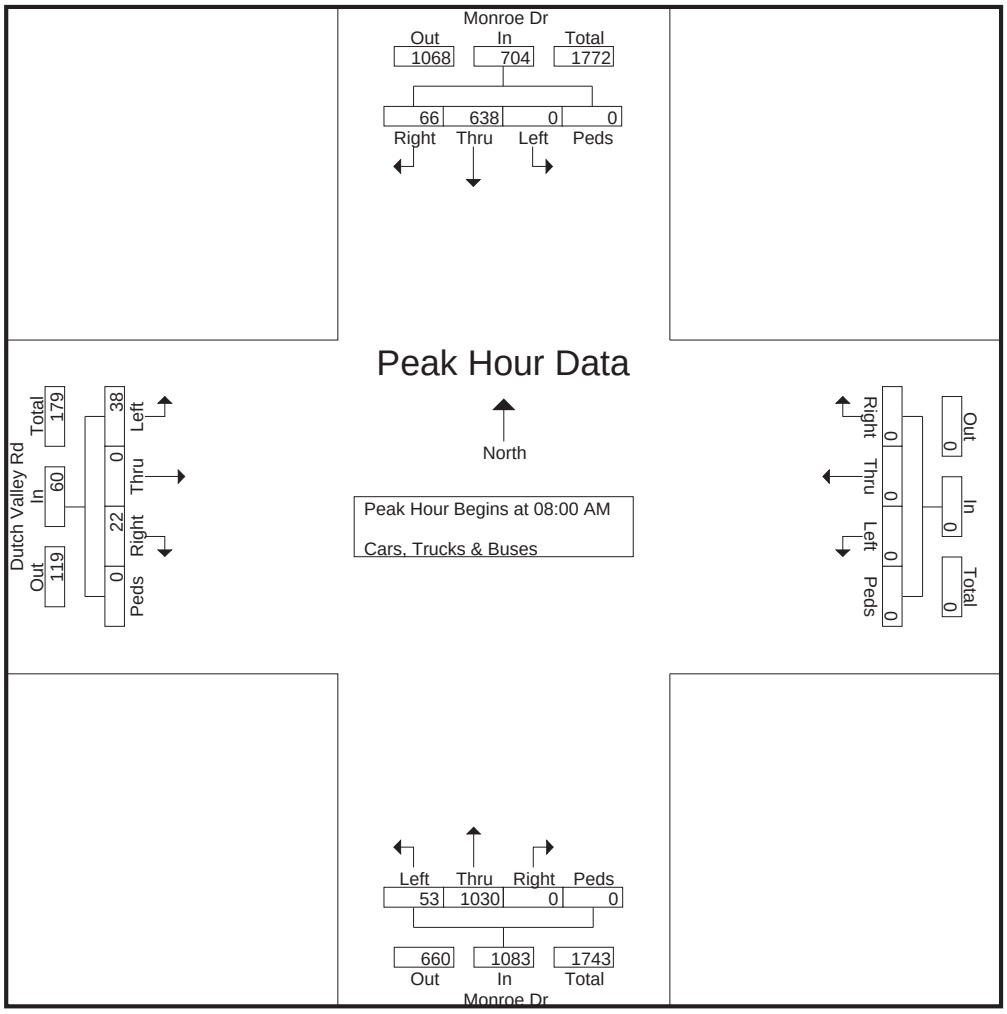
	Monroe Dr Northbound					Monroe Dr Southbound					Dutch Valley Rd Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	178	0	0	180	0	121	2	0	123	2	0	2	0	4	0	0	0	0	0	307
07:15 AM	4	203	0	0	207	0	135	3	0	138	2	0	4	0	6	0	0	0	0	0	351
07:30 AM	5	215	0	0	220	0	142	6	0	148	4	0	3	0	7	0	0	0	0	0	375
07:45 AM	7	223	0	0	230	0	147	7	0	154	3	0	5	0	8	0	0	0	0	0	392
Total	18	819	0	0	837	0	545	18	0	563	11	0	14	0	25	0	0	0	0	0	1425
08:00 AM	10	269	0	0	279	0	169	15	0	184	10	0	4	0	14	0	0	0	0	0	477
08:15 AM	16	286	0	0	302	0	158	21	0	179	9	0	9	0	18	0	0	0	0	0	499
08:30 AM	14	249	0	0	263	0	164	17	0	181	11	0	6	0	17	0	0	0	0	0	461
08:45 AM	13	226	0	0	239	0	147	13	0	160	8	0	3	0	11	0	0	0	0	0	410
Total	53	1030	0	0	1083	0	638	66	0	704	38	0	22	0	60	0	0	0	0	0	1847
*** BREAK ***																					
04:00 PM	6	173	0	0	179	0	241	9	0	250	8	0	9	0	17	0	0	0	0	0	446
04:15 PM	9	184	0	0	193	0	255	7	0	262	10	0	11	0	21	0	0	0	0	0	476
04:30 PM	11	204	0	0	215	0	248	14	0	262	9	0	10	0	19	0	0	0	0	0	496
04:45 PM	8	197	0	0	205	0	256	10	0	266	13	0	13	0	26	0	0	0	0	0	497
Total	34	758	0	0	792	0	1000	40	0	1040	40	0	43	0	83	0	0	0	0	0	1915
05:00 PM	7	206	0	0	213	0	279	8	0	287	11	0	14	0	25	0	0	0	0	0	525
05:15 PM	10	211	0	0	221	0	265	13	0	278	20	0	13	0	33	0	0	0	0	0	532
05:30 PM	15	207	0	0	222	0	274	19	0	293	17	0	14	0	31	0	0	0	0	0	546
05:45 PM	11	203	0	0	214	0	263	15	0	278	12	0	11	0	23	0	0	0	0	0	515
Total	43	827	0	0	870	0	1081	55	0	1136	60	0	52	0	112	0	0	0	0	0	2118
Grand Total	148	3434	0	0	3582	0	3264	179	0	3443	149	0	131	0	280	0	0	0	0	0	7305
Apprch %	4.1	95.9	0	0		0	94.8	5.2	0		53.2	0	46.8	0		0	0	0	0		
Total %	2	47	0	0	49	0	44.7	2.5	0	47.1	2	0	1.8	0	3.8	0	0	0	0	0	

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TMC Data
Monroe Dr @ Dutch Valley Rd

File Name : 26930005
Site Code : 26930005
Start Date : 1/14/2009
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	Monroe Dr Northbound					Monroe Dr Southbound					Dutch Valley Rd Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	10	269	0	0	279	0	169	15	0	184	10	0	4	0	14	0	0	0	0	0	477
08:15 AM	16	286	0	0	302	0	158	21	0	179	9	0	9	0	18	0	0	0	0	0	499
08:30 AM	14	249	0	0	263	0	164	17	0	181	11	0	6	0	17	0	0	0	0	0	461
08:45 AM	13	226	0	0	239	0	147	13	0	160	8	0	3	0	11	0	0	0	0	0	410
Total Volume	53	1030	0	0	1083	0	638	66	0	704	38	0	22	0	60	0	0	0	0	0	1847
% App. Total	4.9	95.1	0	0		0	90.6	9.4	0		63.3	0	36.7	0		0	0	0	0		
PHF	.828	.900	.000	.000	.897	.000	.944	.786	.000	.957	.864	.000	.611	.000	.833	.000	.000	.000	.000	.000	.925

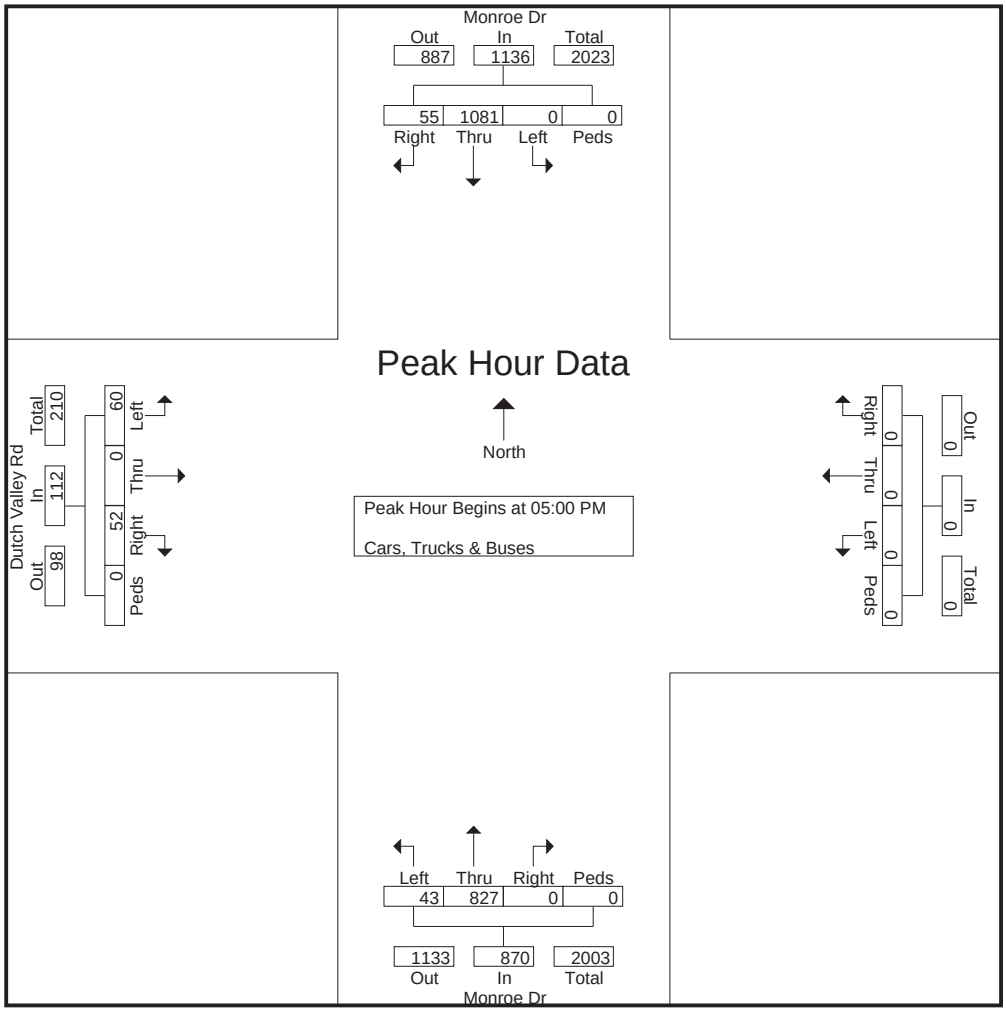


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TMC Data
Monroe Dr @ Dutch Valley Rd

File Name : 26930005
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Start Date : 1/14/2009
Page No : 3

	Monroe Dr Northbound					Monroe Dr Southbound					Dutch Valley Rd Eastbound					Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	7	206	0	0	213	0	279	8	0	287	11	0	14	0	25	0	0	0	0	0	525
05:15 PM	10	211	0	0	221	0	265	13	0	278	20	0	13	0	33	0	0	0	0	0	532
05:30 PM	15	207	0	0	222	0	274	19	0	293	17	0	14	0	31	0	0	0	0	0	546
05:45 PM	11	203	0	0	214	0	263	15	0	278	12	0	11	0	23	0	0	0	0	0	515
Total Volume	43	827	0	0	870	0	1081	55	0	1136	60	0	52	0	112	0	0	0	0	0	2118
% App. Total	4.9	95.1	0	0		0	95.2	4.8	0		53.6	0	46.4	0		0	0	0	0		
PHF	.717	.980	.000	.000	.980	.000	.969	.724	.000	.969	.750	.000	.929	.000	.848	.000	.000	.000	.000	.000	.970



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TMC Data
Monroe Dr @ Park Dr

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Site Code : 26930006
Start Date : 1/14/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

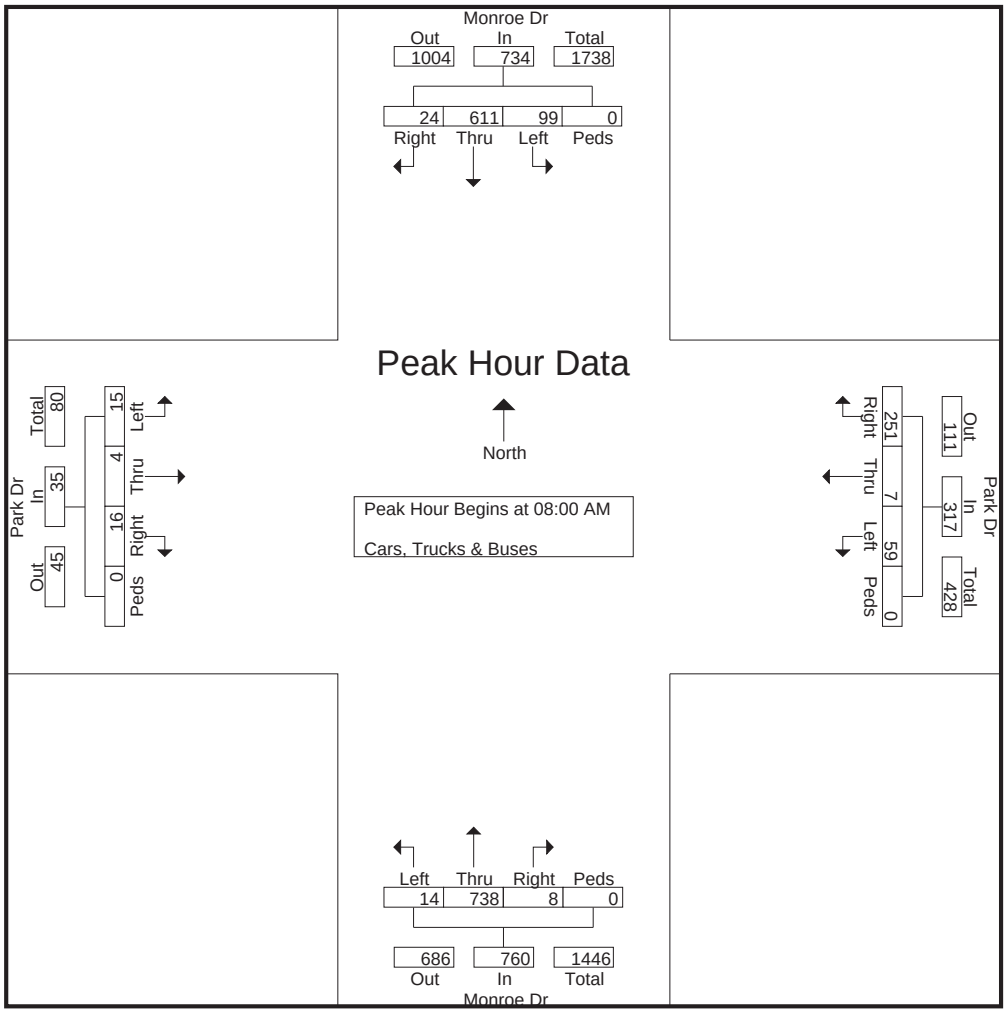
	Monroe Dr Northbound					Monroe Dr Southbound					Park Dr Eastbound					Park Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	2	117	1	0	120	18	111	3	0	132	2	0	2	0	4	7	1	45	0	53	309
07:15 AM	2	133	2	0	137	21	117	5	0	143	3	1	3	0	7	9	2	48	0	59	346
07:30 AM	3	141	3	0	147	26	128	5	0	159	3	2	3	0	8	12	1	52	0	65	379
07:45 AM	2	157	2	0	161	23	141	2	0	166	4	1	2	0	7	16	3	57	0	76	410
Total	9	548	8	0	565	88	497	15	0	600	12	4	10	0	26	44	7	202	0	253	1444
08:00 AM	4	187	4	0	195	29	163	8	0	200	3	1	6	0	10	19	2	62	0	83	488
08:15 AM	4	193	2	0	199	26	158	5	0	189	4	2	4	0	10	17	1	67	0	85	483
08:30 AM	3	186	0	0	189	24	147	6	0	177	3	1	2	0	6	13	2	67	0	82	454
08:45 AM	3	172	2	0	177	20	143	5	0	168	5	0	4	0	9	10	2	55	0	67	421
Total	14	738	8	0	760	99	611	24	0	734	15	4	16	0	35	59	7	251	0	317	1846
*** BREAK ***																					
04:00 PM	4	161	3	0	168	30	198	5	0	233	5	4	7	0	16	4	3	20	0	27	444
04:15 PM	5	168	3	0	176	32	207	8	0	247	5	5	9	0	19	5	2	22	0	29	471
04:30 PM	8	172	4	0	184	35	214	5	0	254	8	3	8	0	19	3	4	19	0	26	483
04:45 PM	7	165	8	0	180	32	218	7	0	257	7	4	9	0	20	2	5	17	0	24	481
Total	24	666	18	0	708	129	837	25	0	991	25	16	33	0	74	14	14	78	0	106	1879
05:00 PM	2	163	7	0	172	37	225	7	0	269	6	3	7	0	16	2	2	19	0	23	480
05:15 PM	4	184	12	0	200	49	221	11	0	281	9	2	6	0	17	5	3	21	0	29	527
05:30 PM	6	179	8	0	193	46	208	10	0	264	10	4	8	0	22	3	1	28	0	32	511
05:45 PM	7	176	9	0	192	43	203	7	0	253	8	3	7	0	18	4	2	26	0	32	495
Total	19	702	36	0	757	175	857	35	0	1067	33	12	28	0	73	14	8	94	0	116	2013
Grand Total	66	2654	70	0	2790	491	2802	99	0	3392	85	36	87	0	208	131	36	625	0	792	7182
Apprch %	2.4	95.1	2.5	0		14.5	82.6	2.9	0		40.9	17.3	41.8	0		16.5	4.5	78.9	0		
Total %	0.9	37	1	0	38.8	6.8	39	1.4	0	47.2	1.2	0.5	1.2	0	2.9	1.8	0.5	8.7	0	11	

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TMC Data
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Site Code : 26930006
Start Date : 1/14/2009
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	Monroe Dr Northbound					Monroe Dr Southbound					Park Dr Eastbound					Park Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	4	187	4	0	195	29	163	8	0	200	3	1	6	0	10	19	2	62	0	83	488
08:15 AM	4	193	2	0	199	26	158	5	0	189	4	2	4	0	10	17	1	67	0	85	483
08:30 AM	3	186	0	0	189	24	147	6	0	177	3	1	2	0	6	13	2	67	0	82	454
08:45 AM	3	172	2	0	177	20	143	5	0	168	5	0	4	0	9	10	2	55	0	67	421
Total Volume	14	738	8	0	760	99	611	24	0	734	15	4	16	0	35	59	7	251	0	317	1846
% App. Total	1.8	97.1	1.1	0		13.5	83.2	3.3	0		42.9	11.4	45.7	0		18.6	2.2	79.2	0		
PHF	.875	.956	.500	.000	.955	.853	.937	.750	.000	.918	.750	.500	.667	.000	.875	.776	.875	.937	.000	.932	.946

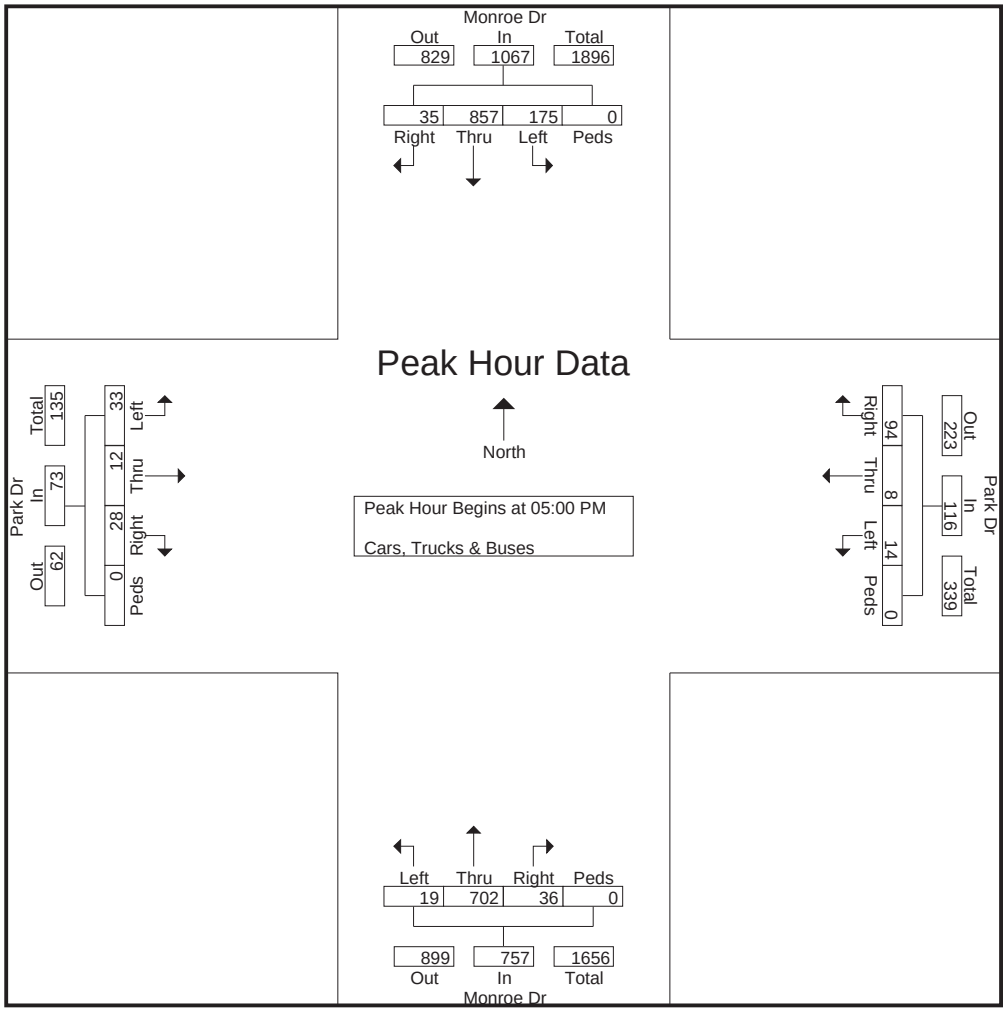


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TMC Data
Monroe Dr @ Park Dr

File Name : 26930006
Site Code : 26930006
Start Date : 1/14/2009
Page No : 3

	Monroe Dr Northbound					Monroe Dr Southbound					Park Dr Eastbound					Park Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	2	163	7	0	172	37	225	7	0	269	6	3	7	0	16	2	2	19	0	23	480
05:15 PM	4	184	12	0	200	49	221	11	0	281	9	2	6	0	17	5	3	21	0	29	527
05:30 PM	6	179	8	0	193	46	208	10	0	264	10	4	8	0	22	3	1	28	0	32	511
05:45 PM	7	176	9	0	192	43	203	7	0	253	8	3	7	0	18	4	2	26	0	32	495
Total Volume	19	702	36	0	757	175	857	35	0	1067	33	12	28	0	73	14	8	94	0	116	2013
% App. Total	2.5	92.7	4.8	0		16.4	80.3	3.3	0		45.2	16.4	38.4	0		12.1	6.9	81	0		
PHF	.679	.954	.750	.000	.946	.893	.952	.795	.000	.949	.825	.750	.875	.000	.830	.700	.667	.839	.000	.906	.955



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TMC Data
Piedmont Ave @ 14th St

File Name : 26930004
Site Code : 26930004
Start Date : 1/13/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

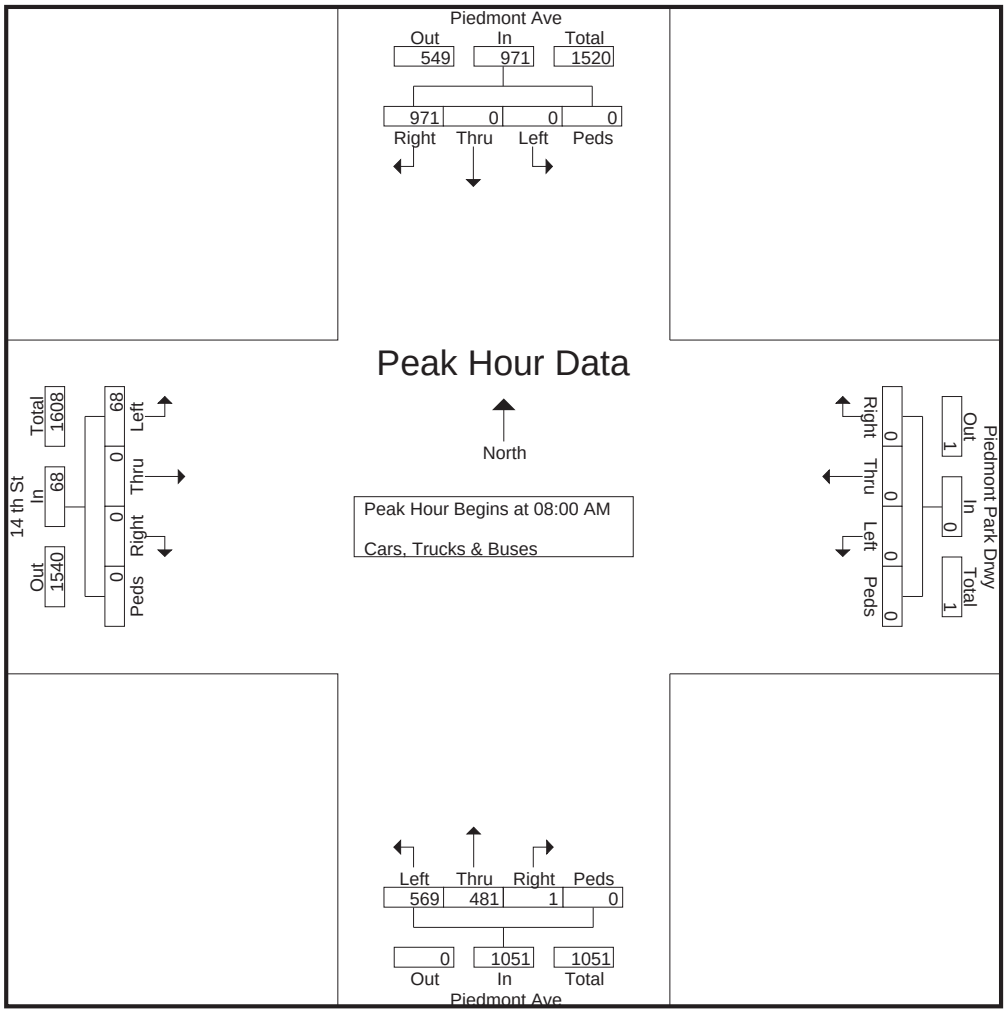
	Piedmont Ave Northbound					Piedmont Ave Southbound					14 th St Eastbound					Piedmont Park Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	65	82	0	0	147	0	0	109	0	109	12	0	0	0	12	0	0	0	0	0	268
07:15 AM	71	87	0	0	158	0	0	123	0	123	16	0	0	0	16	0	0	0	0	0	297
07:30 AM	87	96	0	0	183	0	0	157	0	157	19	0	0	0	19	0	0	0	0	0	359
07:45 AM	113	105	0	0	218	0	0	208	0	208	17	0	0	0	17	0	0	0	0	0	443
Total	336	370	0	0	706	0	0	597	0	597	64	0	0	0	64	0	0	0	0	0	1367
08:00 AM	127	113	0	0	240	0	0	216	0	216	16	0	0	0	16	0	0	0	0	0	472
08:15 AM	137	128	0	0	265	0	0	239	0	239	17	0	0	0	17	0	0	0	0	0	521
08:30 AM	154	123	1	0	278	0	0	229	0	229	16	0	0	0	16	0	0	0	0	0	523
08:45 AM	151	117	0	0	268	0	0	287	0	287	19	0	0	0	19	0	0	0	0	0	574
Total	569	481	1	0	1051	0	0	971	0	971	68	0	0	0	68	0	0	0	0	0	2090
*** BREAK ***																					
04:00 PM	47	151	0	0	198	0	0	203	0	203	31	0	0	0	31	0	0	0	0	0	432
04:15 PM	52	154	0	0	206	0	0	211	0	211	30	0	0	0	30	0	0	0	0	0	447
04:30 PM	56	165	0	0	221	0	0	217	0	217	35	0	0	0	35	0	0	0	0	0	473
04:45 PM	58	172	1	0	231	0	0	225	0	225	39	0	0	0	39	0	0	0	0	0	495
Total	213	642	1	0	856	0	0	856	0	856	135	0	0	0	135	0	0	0	0	0	1847
05:00 PM	59	196	0	0	255	0	0	236	0	236	36	0	0	0	36	0	0	0	0	0	527
05:15 PM	53	206	0	0	259	0	0	248	0	248	41	0	0	0	41	0	0	0	0	0	548
05:30 PM	75	219	0	0	294	0	0	241	0	241	45	0	0	0	45	0	0	0	0	0	580
05:45 PM	68	215	0	0	283	0	0	239	0	239	38	0	0	0	38	0	0	0	0	0	560
Total	255	836	0	0	1091	0	0	964	0	964	160	0	0	0	160	0	0	0	0	0	2215
Grand Total	1373	2329	2	0	3704	0	0	3388	0	3388	427	0	0	0	427	0	0	0	0	0	7519
Apprch %	37.1	62.9	0.1	0		0	0	100	0		100	0	0	0		0	0	0	0		
Total %	18.3	31	0	0	49.3	0	0	45.1	0	45.1	5.7	0	0	0	5.7	0	0	0	0	0	

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TMC Data
Piedmont Ave @ 14th St

File Name : 26930004
Site Code : 26930004
Start Date : 1/13/2009
Page No : 2

	Piedmont Ave Northbound					Piedmont Ave Southbound					14 th St Eastbound					Piedmont Park Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	127	113	0	0	240	0	0	216	0	216	16	0	0	0	16	0	0	0	0	0	472
08:15 AM	137	128	0	0	265	0	0	239	0	239	17	0	0	0	17	0	0	0	0	0	521
08:30 AM	154	123	1	0	278	0	0	229	0	229	16	0	0	0	16	0	0	0	0	0	523
08:45 AM	151	117	0	0	268	0	0	287	0	287	19	0	0	0	19	0	0	0	0	0	574
Total Volume	569	481	1	0	1051	0	0	971	0	971	68	0	0	0	68	0	0	0	0	0	2090
% App. Total	54.1	45.8	0.1	0		0	0	100	0		100	0	0	0		0	0	0	0		
PHF	.924	.939	.250	.000	.945	.000	.000	.846	.000	.846	.895	.000	.000	.000	.895	.000	.000	.000	.000	.000	.910

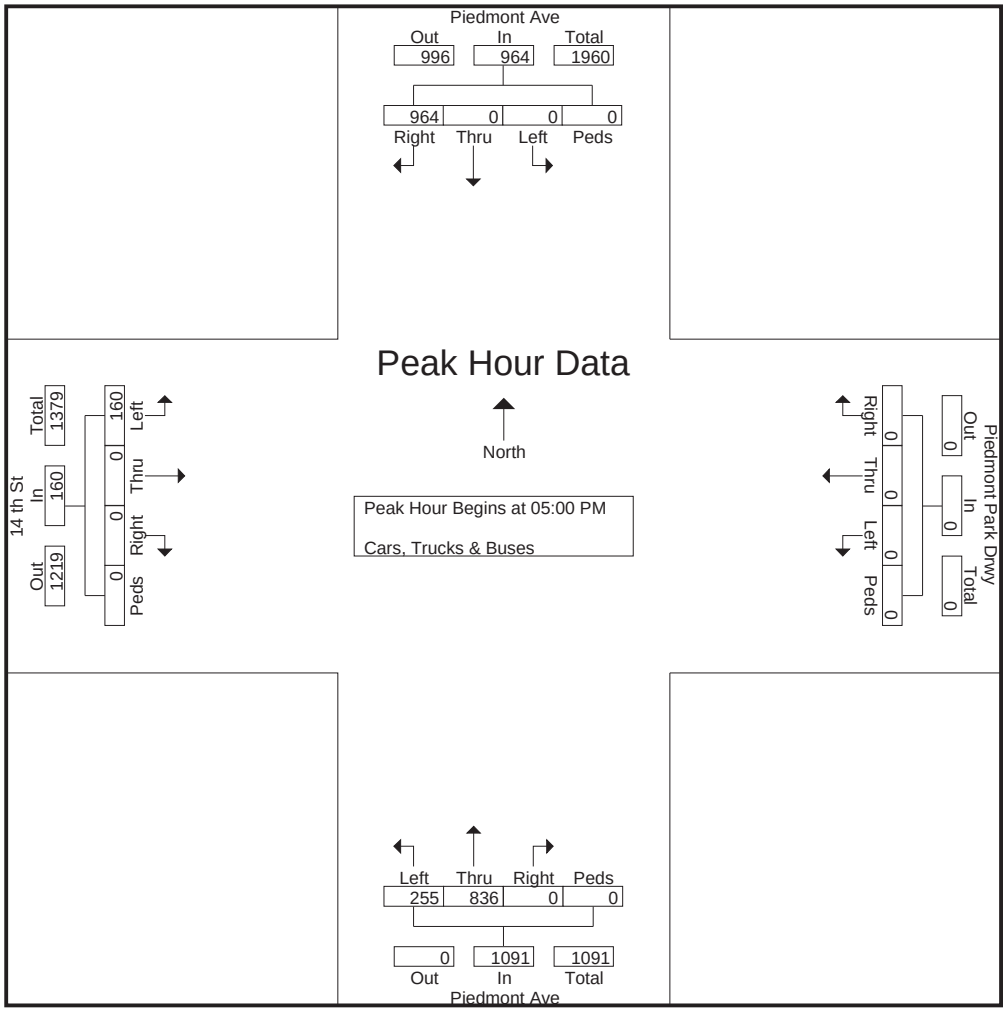


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TMC Data
Piedmont Ave @ 14th St

File Name : 26930004
Site Code : 26930004
Start Date : 1/13/2009
Page No : 3

	Piedmont Ave Northbound					Piedmont Ave Southbound					14 th St Eastbound					Piedmont Park Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	59	196	0	0	255	0	0	236	0	236	36	0	0	0	36	0	0	0	0	0	527
05:15 PM	53	206	0	0	259	0	0	248	0	248	41	0	0	0	41	0	0	0	0	0	548
05:30 PM	75	219	0	0	294	0	0	241	0	241	45	0	0	0	45	0	0	0	0	0	580
05:45 PM	68	215	0	0	283	0	0	239	0	239	38	0	0	0	38	0	0	0	0	0	560
Total Volume	255	836	0	0	1091	0	0	964	0	964	160	0	0	0	160	0	0	0	0	0	2215
% App. Total	23.4	76.6	0	0		0	0	100	0		100	0	0	0		0	0	0	0		
PHF	.850	.954	.000	.000	.928	.000	.000	.972	.000	.972	.889	.000	.000	.000	.889	.000	.000	.000	.000	.000	.955



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TMC Data
Piedmont Ave @ E Morningside Dr

File Name : 26930002
Site Code : 26930002
Start Date : 1/13/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

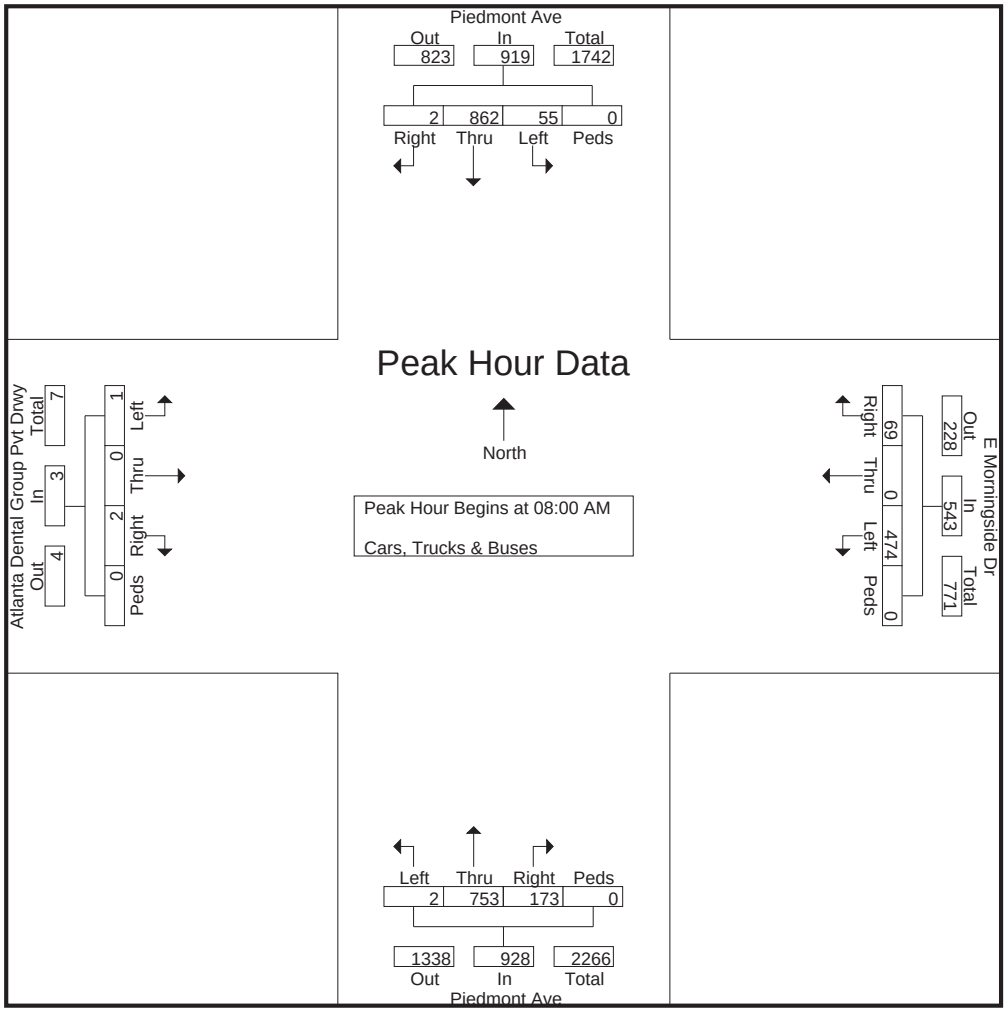
	Piedmont Ave Northbound					Piedmont Ave Southbound					Atlanta Dental Group Pvt Drwy Eastbound					E Morningside Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	0	115	33	0	148	10	102	0	0	112	0	0	0	0	0	53	0	10	0	63	323
07:15 AM	1	126	42	0	169	12	115	0	0	127	1	0	1	0	2	68	0	13	0	81	379
07:30 AM	0	147	65	0	212	17	123	1	0	141	0	0	0	0	0	97	0	19	0	116	469
07:45 AM	1	167	58	0	226	19	173	0	0	192	1	0	0	0	1	106	0	23	0	129	548
Total	2	555	198	0	755	58	513	1	0	572	2	0	1	0	3	324	0	65	0	389	1719
08:00 AM	1	176	51	0	228	16	206	0	0	222	0	0	1	0	1	119	0	18	0	137	588
08:15 AM	0	204	47	0	251	13	217	1	0	231	0	0	0	0	0	115	0	17	0	132	614
08:30 AM	1	195	39	0	235	14	221	1	0	236	0	0	0	0	0	123	0	15	0	138	609
08:45 AM	0	178	36	0	214	12	218	0	0	230	1	0	1	0	2	117	0	19	0	136	582
Total	2	753	173	0	928	55	862	2	0	919	1	0	2	0	3	474	0	69	0	543	2393
*** BREAK ***																					
04:00 PM	0	175	69	0	244	22	211	1	0	234	0	0	0	0	0	40	0	7	0	47	525
04:15 PM	1	167	71	0	239	26	215	0	0	241	1	0	0	0	1	43	0	11	0	54	535
04:30 PM	0	172	76	0	248	29	219	2	0	250	0	0	1	0	1	52	1	9	0	62	561
04:45 PM	1	195	73	0	269	33	197	1	0	231	1	0	1	0	2	49	0	12	0	61	563
Total	2	709	289	0	1000	110	842	4	0	956	2	0	2	0	4	184	1	39	0	224	2184
05:00 PM	0	198	68	0	266	35	241	0	0	276	0	0	0	0	0	65	0	18	0	83	625
05:15 PM	2	219	79	0	300	31	263	1	0	295	0	0	1	0	1	68	0	15	0	83	679
05:30 PM	0	228	91	0	319	27	247	1	0	275	1	0	0	0	1	61	0	10	0	71	666
05:45 PM	0	223	78	0	301	22	243	0	0	265	0	0	0	0	0	57	0	9	0	66	632
Total	2	868	316	0	1186	115	994	2	0	1111	1	0	1	0	2	251	0	52	0	303	2602
Grand Total	8	2885	976	0	3869	338	3211	9	0	3558	6	0	6	0	12	1233	1	225	0	1459	8898
Apprch %	0.2	74.6	25.2	0		9.5	90.2	0.3	0		50	0	50	0		84.5	0.1	15.4	0		
Total %	0.1	32.4	11	0	43.5	3.8	36.1	0.1	0	40	0.1	0	0.1	0	0.1	13.9	0	2.5	0	16.4	

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TMC Data
Piedmont Ave @ E Morningside Dr

File Name : 26930002
Site Code : 26930002
Start Date : 1/13/2009
Page No : 2

	Piedmont Ave Northbound					Piedmont Ave Southbound					Atlanta Dental Group Pvt Drwy Eastbound					E Morningside Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	1	176	51	0	228	16	206	0	0	222	0	0	1	0	1	119	0	18	0	137	588
08:15 AM	0	204	47	0	251	13	217	1	0	231	0	0	0	0	0	115	0	17	0	132	614
08:30 AM	1	195	39	0	235	14	221	1	0	236	0	0	0	0	0	123	0	15	0	138	609
08:45 AM	0	178	36	0	214	12	218	0	0	230	1	0	1	0	2	117	0	19	0	136	582
Total Volume	2	753	173	0	928	55	862	2	0	919	1	0	2	0	3	474	0	69	0	543	2393
% App. Total	0.2	81.1	18.6	0		6	93.8	0.2	0		33.3	0	66.7	0		87.3	0	12.7	0		
PHF	.500	.923	.848	.000	.924	.859	.975	.500	.000	.974	.250	.000	.500	.000	.375	.963	.000	.908	.000	.984	.974

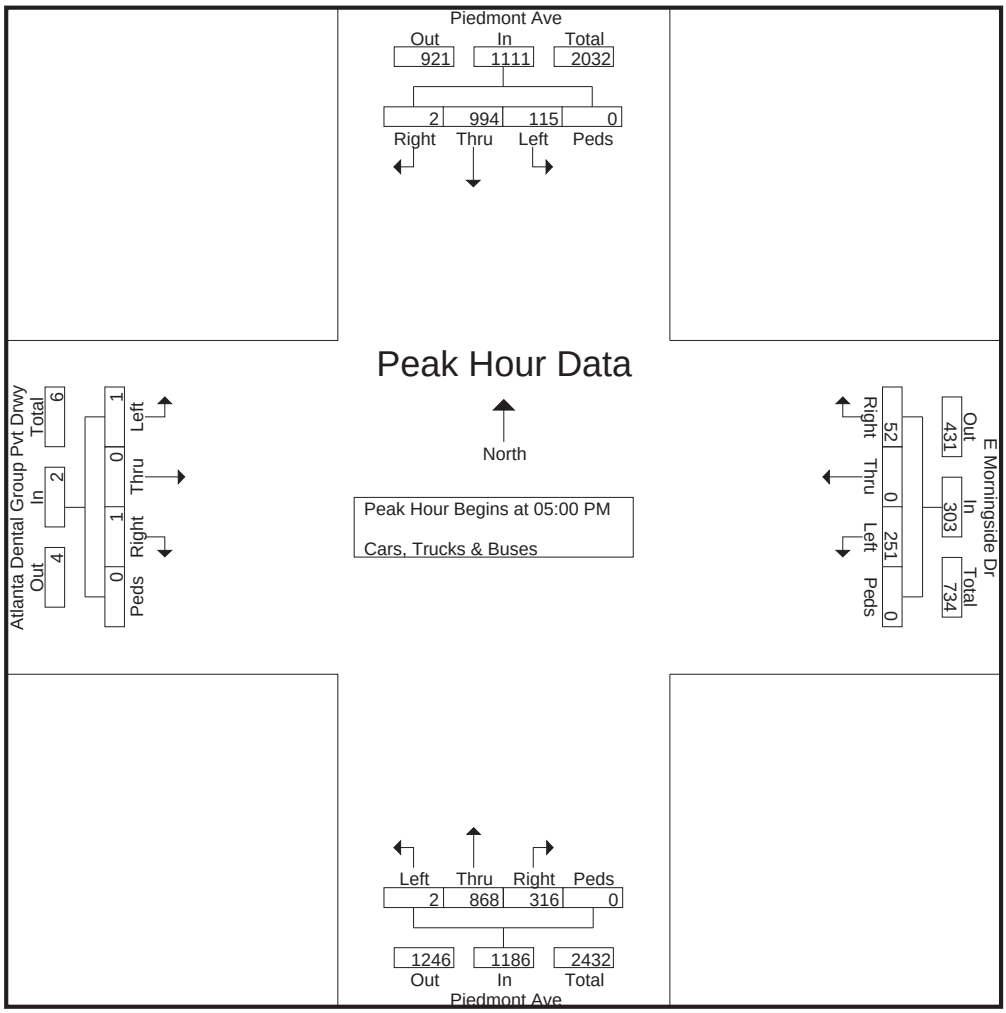


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TMC Data
Piedmont Ave @ E Morningside Dr

File Name : 26930002
Site Code : 26930002
Start Date : 1/13/2009
Page No : 3

	Piedmont Ave Northbound					Piedmont Ave Southbound					Atlanta Dental Group Pvt Drwy Eastbound					E Morningside Dr Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	0	198	68	0	266	35	241	0	0	276	0	0	0	0	0	65	0	18	0	83	625
05:15 PM	2	219	79	0	300	31	263	1	0	295	0	0	1	0	1	68	0	15	0	83	679
05:30 PM	0	228	91	0	319	27	247	1	0	275	1	0	0	0	1	61	0	10	0	71	666
05:45 PM	0	223	78	0	301	22	243	0	0	265	0	0	0	0	0	57	0	9	0	66	632
Total Volume	2	868	316	0	1186	115	994	2	0	1111	1	0	1	0	2	251	0	52	0	303	2602
% App. Total	0.2	73.2	26.6	0		10.4	89.5	0.2	0		50	0	50	0		82.8	0	17.2	0		
PHF	.250	.952	.868	.000	.929	.821	.945	.500	.000	.942	.250	.000	.250	.000	.500	.923	.000	.722	.000	.913	.958



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TMC Data
Piedmont Ave @ Rock Springs Rd

File Name : 26930001
Site Code : 26930001
Start Date : 1/13/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

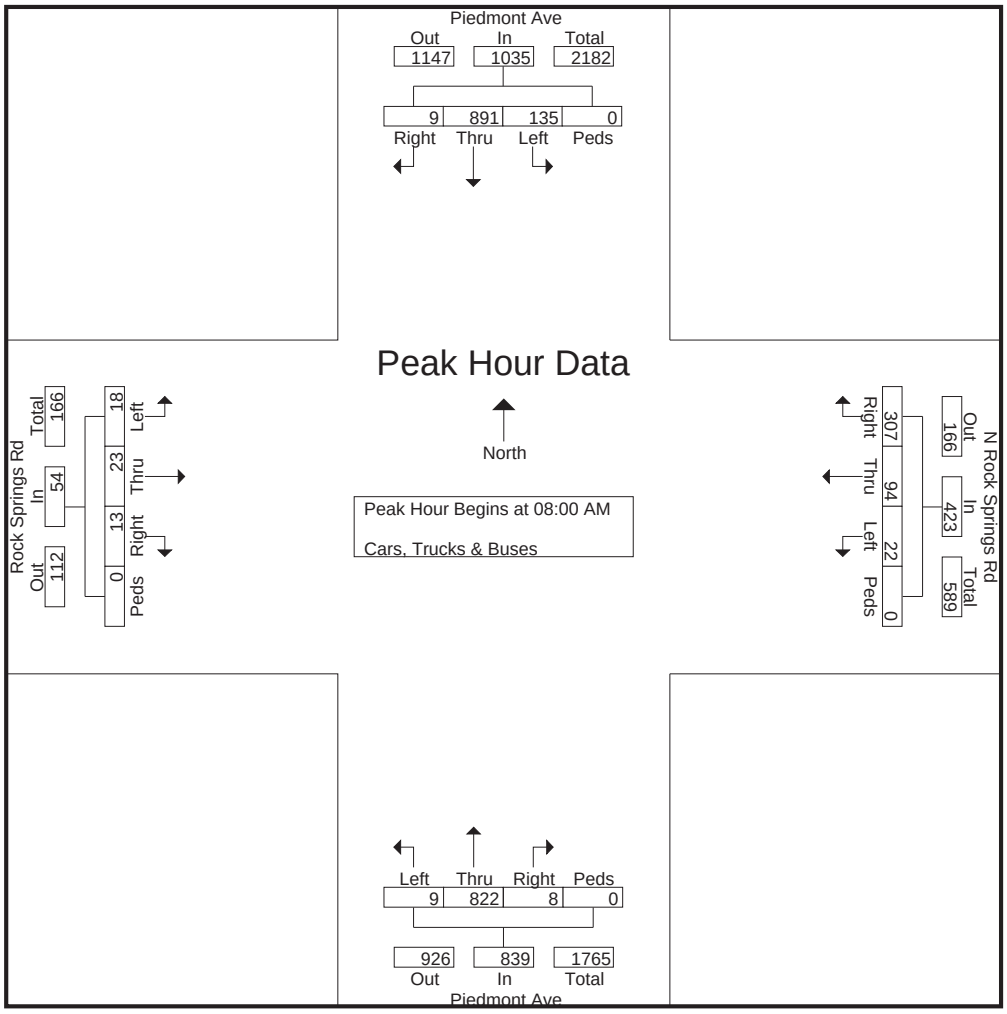
	Piedmont Ave Northbound					Piedmont Ave Southbound					Rock Springs Rd Eastbound					N Rock Springs Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	123	2	0	126	20	108	2	0	130	2	3	1	0	6	2	12	42	0	56	318
07:15 AM	3	154	1	0	158	22	115	3	0	140	6	4	2	0	12	3	16	54	0	73	383
07:30 AM	3	167	1	0	171	25	132	1	0	158	3	7	1	0	11	5	19	63	0	87	427
07:45 AM	1	183	4	0	188	29	176	2	0	207	2	4	2	0	8	8	17	75	0	100	503
Total	8	627	8	0	643	96	531	8	0	635	13	18	6	0	37	18	64	234	0	316	1631
08:00 AM	2	197	2	0	201	32	195	2	0	229	5	4	2	0	11	7	23	78	0	108	549
08:15 AM	2	208	1	0	211	37	235	3	0	275	5	6	4	0	15	4	21	74	0	99	600
08:30 AM	3	213	3	0	219	35	228	1	0	264	4	8	3	0	15	6	27	79	0	112	610
08:45 AM	2	204	2	0	208	31	233	3	0	267	4	5	4	0	13	5	23	76	0	104	592
Total	9	822	8	0	839	135	891	9	0	1035	18	23	13	0	54	22	94	307	0	423	2351
*** BREAK ***																					
04:00 PM	1	153	6	0	160	64	228	3	0	295	4	11	4	0	19	2	11	31	0	44	518
04:15 PM	1	171	9	0	181	71	235	5	0	311	7	14	1	0	22	1	13	29	0	43	557
04:30 PM	2	176	4	0	182	65	247	5	0	317	6	13	2	0	21	3	17	33	0	53	573
04:45 PM	1	204	5	0	210	75	263	2	0	340	8	15	2	0	25	3	12	28	0	43	618
Total	5	704	24	0	733	275	973	15	0	1263	25	53	9	0	87	9	53	121	0	183	2266
05:00 PM	3	217	4	0	224	78	276	6	0	360	11	16	1	0	28	5	10	26	0	41	653
05:15 PM	3	235	1	0	239	96	287	4	0	387	12	18	0	0	30	3	9	29	0	41	697
05:30 PM	1	241	4	0	246	87	283	5	0	375	11	27	2	0	40	4	10	34	0	48	709
05:45 PM	3	232	2	0	237	81	275	3	0	359	13	16	1	0	30	2	11	31	0	44	670
Total	10	925	11	0	946	342	1121	18	0	1481	47	77	4	0	128	14	40	120	0	174	2729
Grand Total	32	3078	51	0	3161	848	3516	50	0	4414	103	171	32	0	306	63	251	782	0	1096	8977
Apprch %	1	97.4	1.6	0		19.2	79.7	1.1	0		33.7	55.9	10.5	0		5.7	22.9	71.4	0		
Total %	0.4	34.3	0.6	0	35.2	9.4	39.2	0.6	0	49.2	1.1	1.9	0.4	0	3.4	0.7	2.8	8.7	0	12.2	

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TMC Data
Piedmont Ave @ Rock Springs Rd

File Name : 26930001
Site Code : 26930001
Start Date : 1/13/2009

	Piedmont Ave Northbound					Piedmont Ave Southbound					Rock Springs Rd Eastbound					N Rock Springs Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	197	2	0	201	32	195	2	0	229	5	4	2	0	11	7	23	78	0	108	549
08:15 AM	2	208	1	0	211	37	235	3	0	275	5	6	4	0	15	4	21	74	0	99	600
08:30 AM	3	213	3	0	219	35	228	1	0	264	4	8	3	0	15	6	27	79	0	112	610
08:45 AM	2	204	2	0	208	31	233	3	0	267	4	5	4	0	13	5	23	76	0	104	592
Total Volume	9	822	8	0	839	135	891	9	0	1035	18	23	13	0	54	22	94	307	0	423	2351
% App. Total	1.1	98	1	0		13	86.1	0.9	0		33.3	42.6	24.1	0		5.2	22.2	72.6	0		
PHF	.750	.965	.667	.000	.958	.912	.948	.750	.000	.941	.900	.719	.813	.000	.900	.786	.870	.972	.000	.944	.964

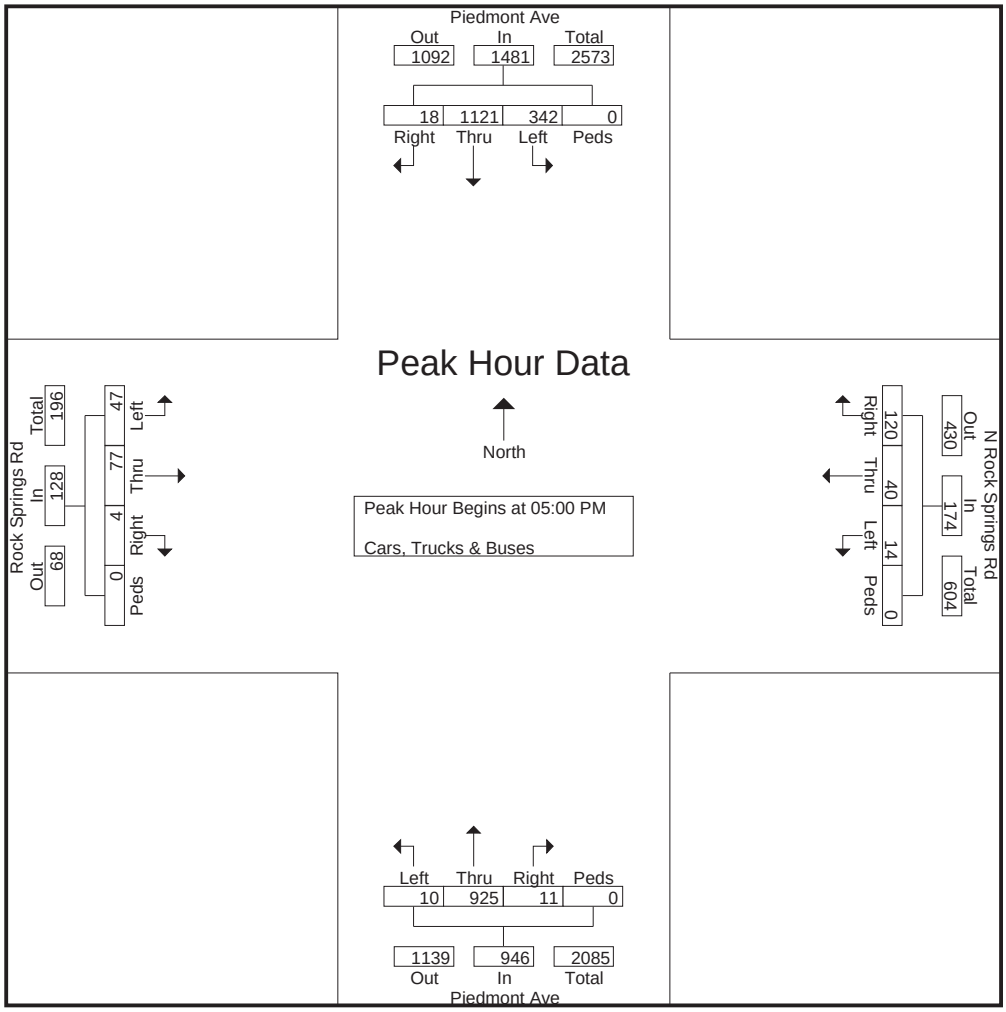


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TMC Data
Piedmont Ave @ Rock Springs Rd

File Name : 26930001
Site Code : 26930001
Start Date : 1/13/2009
Page No : 3

	Piedmont Ave Northbound					Piedmont Ave Southbound					Rock Springs Rd Eastbound					N Rock Springs Rd Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	3	217	4	0	224	78	276	6	0	360	11	16	1	0	28	5	10	26	0	41	653
05:15 PM	3	235	1	0	239	96	287	4	0	387	12	18	0	0	30	3	9	29	0	41	697
05:30 PM	1	241	4	0	246	87	283	5	0	375	11	27	2	0	40	4	10	34	0	48	709
05:45 PM	3	232	2	0	237	81	275	3	0	359	13	16	1	0	30	2	11	31	0	44	670
Total Volume	10	925	11	0	946	342	1121	18	0	1481	47	77	4	0	128	14	40	120	0	174	2729
% App. Total	1.1	97.8	1.2	0		23.1	75.7	1.2	0		36.7	60.2	3.1	0		8	23	69	0		
PHF	.833	.960	.688	.000	.961	.891	.976	.750	.000	.957	.904	.713	.500	.000	.800	.700	.909	.882	.000	.906	.962



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TMC Data
Piedmont Ave @ The Prado NE

File Name : 26930003
Site Code : 26930003
Start Date : 1/13/2009
Page No : 1

Groups Printed- Cars, Trucks & Buses

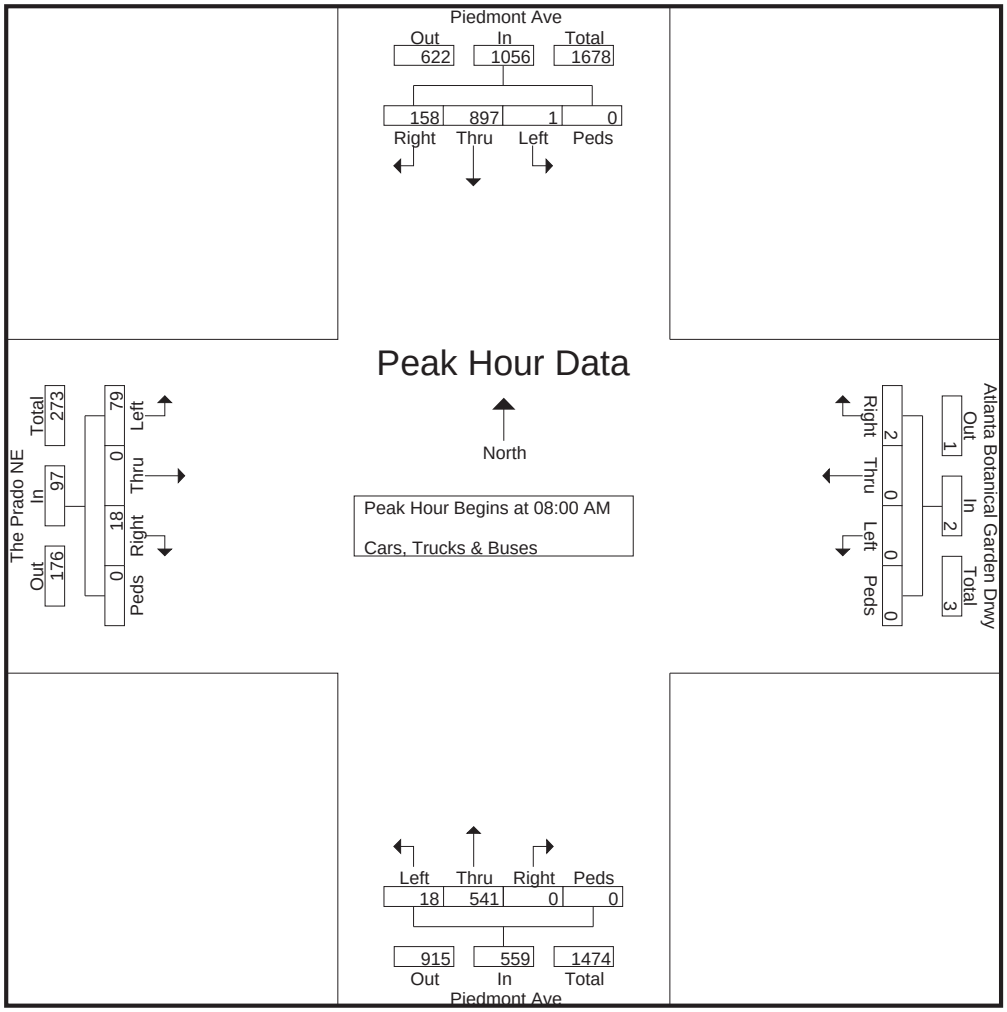
	Piedmont Ave Northbound					Piedmont Ave Southbound					The Prado NE Eastbound					Atlanta Botanical Garden Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
07:00 AM	1	87	0	0	88	0	78	14	0	92	12	0	2	0	14	0	0	0	0	0	194
07:15 AM	2	95	0	0	97	0	116	19	0	135	17	0	3	0	20	0	0	0	0	0	252
07:30 AM	1	111	0	0	112	0	145	24	0	169	21	0	4	0	25	0	0	0	0	0	306
07:45 AM	4	120	0	0	124	0	187	37	0	224	25	0	2	0	27	0	0	0	0	0	375
Total	8	413	0	0	421	0	526	94	0	620	75	0	11	0	86	0	0	0	0	0	1127
08:00 AM	2	153	0	0	155	1	206	36	0	243	19	0	4	0	23	0	0	2	0	2	423
08:15 AM	3	142	0	0	145	0	223	39	0	262	18	0	7	0	25	0	0	0	0	0	432
08:30 AM	8	134	0	0	142	0	231	43	0	274	22	0	3	0	25	0	0	0	0	0	441
08:45 AM	5	112	0	0	117	0	237	40	0	277	20	0	4	0	24	0	0	0	0	0	418
Total	18	541	0	0	559	1	897	158	0	1056	79	0	18	0	97	0	0	2	0	2	1714
*** BREAK ***																					
04:00 PM	2	203	0	0	205	0	171	16	0	187	27	0	2	0	29	0	0	0	0	0	421
04:15 PM	5	209	0	0	214	0	186	19	0	205	31	0	3	0	34	0	0	0	0	0	453
04:30 PM	3	185	0	0	188	0	207	22	0	229	36	0	3	0	39	0	0	0	0	0	456
04:45 PM	2	207	0	0	209	0	213	23	0	236	45	0	3	0	48	0	0	0	0	0	493
Total	12	804	0	0	816	0	777	80	0	857	139	0	11	0	150	0	0	0	0	0	1823
05:00 PM	1	233	0	0	234	1	218	20	0	239	48	0	3	0	51	0	0	1	0	1	525
05:15 PM	4	247	0	0	251	0	215	22	0	237	57	0	9	0	66	0	0	0	0	0	554
05:30 PM	5	281	0	0	286	1	223	25	0	249	64	0	5	0	69	0	0	0	0	0	604
05:45 PM	3	275	0	0	278	0	216	21	0	237	55	0	5	0	60	1	0	0	0	1	576
Total	13	1036	0	0	1049	2	872	88	0	962	224	0	22	0	246	1	0	1	0	2	2259
Grand Total	51	2794	0	0	2845	3	3072	420	0	3495	517	0	62	0	579	1	0	3	0	4	6923
Apprch %	1.8	98.2	0	0		0.1	87.9	12	0		89.3	0	10.7	0		25	0	75	0		
Total %	0.7	40.4	0	0	41.1	0	44.4	6.1	0	50.5	7.5	0	0.9	0	8.4	0	0	0	0	0.1	

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TMC Data
Piedmont Ave @ The Prado NE

File Name : 26930003
Site Code : 26930003
Start Date : 1/13/2009
Page No : 2

	Piedmont Ave Northbound					Piedmont Ave Southbound					The Prado NE Eastbound					Atlanta Botanical Garden Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	2	153	0	0	155	1	206	36	0	243	19	0	4	0	23	0	0	2	0	2	423
08:15 AM	3	142	0	0	145	0	223	39	0	262	18	0	7	0	25	0	0	0	0	0	432
08:30 AM	8	134	0	0	142	0	231	43	0	274	22	0	3	0	25	0	0	0	0	0	441
08:45 AM	5	112	0	0	117	0	237	40	0	277	20	0	4	0	24	0	0	0	0	0	418
Total Volume	18	541	0	0	559	1	897	158	0	1056	79	0	18	0	97	0	0	2	0	2	1714
% App. Total	3.2	96.8	0	0		0.1	84.9	15	0		81.4	0	18.6	0		0	0	100	0		
PHF	.563	.884	.000	.000	.902	.250	.946	.919	.000	.953	.898	.000	.643	.000	.970	.000	.000	.250	.000	.250	.972

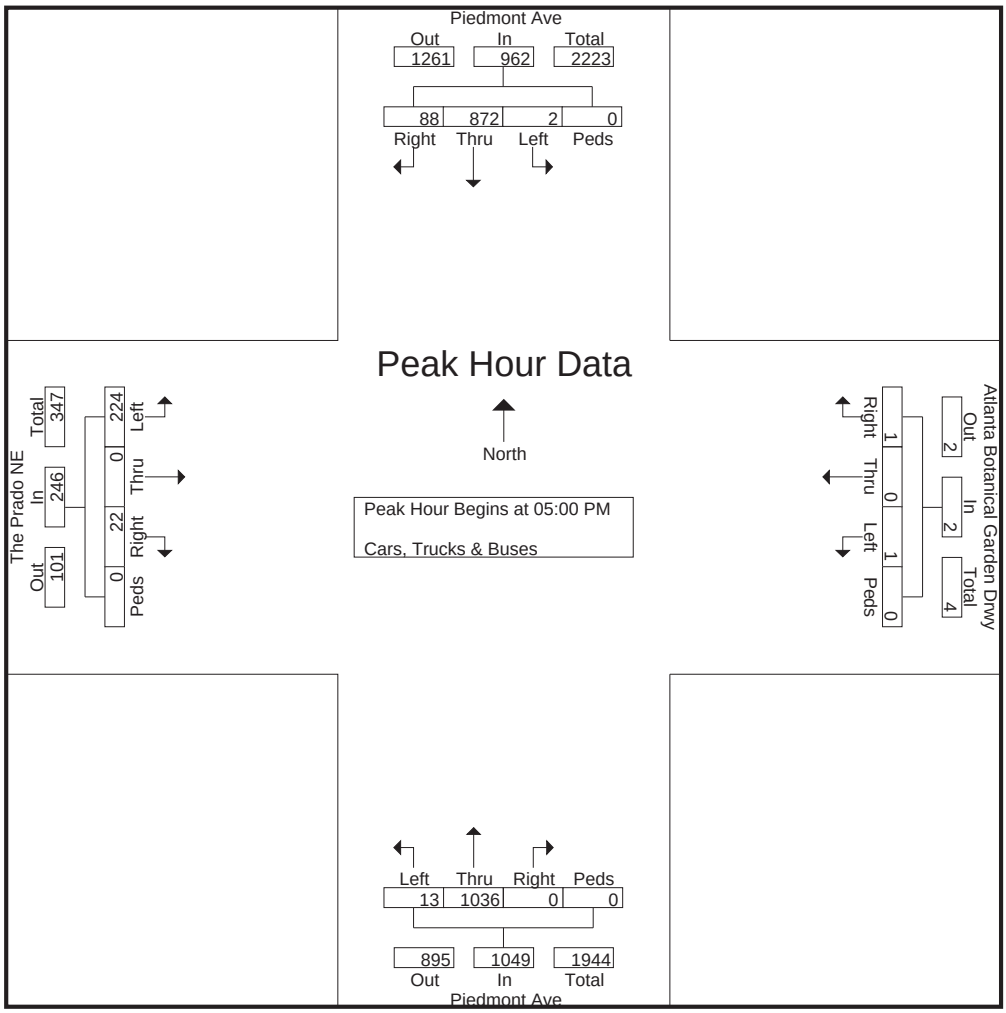


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Piedmont Ave @ The Prado NE

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	Piedmont Ave Northbound					Piedmont Ave Southbound					The Prado NE Eastbound					Atlanta Botanical Garden Drwy Westbound					
Start Time	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	1	233	0	0	234	1	218	20	0	239	48	0	3	0	51	0	0	1	0	1	525
05:15 PM	4	247	0	0	251	0	215	22	0	237	57	0	9	0	66	0	0	0	0	0	554
05:30 PM	5	281	0	0	286	1	223	25	0	249	64	0	5	0	69	0	0	0	0	0	604
05:45 PM	3	275	0	0	278	0	216	21	0	237	55	0	5	0	60	1	0	0	0	1	576
Total Volume	13	1036	0	0	1049	2	872	88	0	962	224	0	22	0	246	1	0	1	0	2	2259
% App. Total	1.2	98.8	0	0		0.2	90.6	9.1	0		91.1	0	8.9	0		50	0	50	0		
PHF	.650	.922	.000	.000	.917	.500	.978	.880	.000	.966	.875	.000	.611	.000	.891	.250	.000	.250	.000	.500	.935



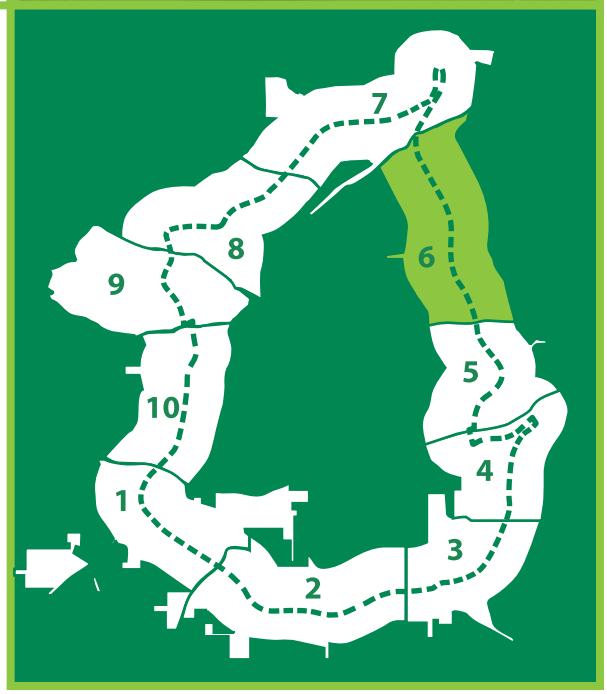


Atlanta BeltLine Master Plan

SUBAREA 6

PIEDMONT/MONROE

Appendix D - Capacity Analysis



Atlanta BeltLine Subarea 6

Existing Conditions

AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	86	39	18	47	164	11	1110	12	483	1071	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1776		1770	1646		1770	3534		1770	3529	
Flt Permitted	0.40	1.00		0.61	1.00		0.24	1.00		0.14	1.00	
Satd. Flow (perm)	738	1776		1143	1646		443	3534		270	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	93	42	20	51	178	12	1207	13	525	1164	22
RTOR Reduction (vph)	0	26	0	0	152	0	0	1	0	0	1	0
Lane Group Flow (vph)	57	109	0	20	77	0	12	1219	0	525	1185	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.1	10.1		10.1	10.1		28.4	28.4		47.1	47.1	
Effective Green, g (s)	10.1	10.1		10.1	10.1		28.4	28.4		47.1	47.1	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.41	0.41		0.67	0.67	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	106	256		165	237		195	1434		600	2375	
v/s Ratio Prot		0.06			0.05		0.00	c0.34		c0.24	0.34	
v/s Ratio Perm	c0.08			0.02			0.02			c0.35		
v/c Ratio	0.54	0.43		0.12	0.32		0.06	0.85		0.88	0.50	
Uniform Delay, d1	27.8	27.3		26.1	26.9		12.7	18.9		17.1	5.6	
Progression Factor	1.00	1.00		1.00	1.00		0.62	0.56		1.00	1.00	
Incremental Delay, d2	5.2	1.1		0.3	0.8		0.1	5.6		13.4	0.8	
Delay (s)	33.0	28.5		26.4	27.7		8.0	16.2		30.5	6.4	
Level of Service	C	C		C	C		A	B		C	A	
Approach Delay (s)		29.8			27.6			16.1			13.8	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	16.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	94	252	91	97	16	108	590	51	10	876	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1803		1770	1841			1850	
Flt Permitted		0.93			0.45		0.20	1.00			0.99	
Satd. Flow (perm)		1580			835		372	1841			1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	102	274	99	105	17	117	641	55	11	952	47
RTOR Reduction (vph)	0	81	0	0	4	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	354	0	0	217	0	117	692	0	0	1008	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		19.0			19.0		48.0	48.0			40.8	
Effective Green, g (s)		19.0			19.0		48.0	48.0			40.8	
Actuated g/C Ratio		0.25			0.25		0.64	0.64			0.54	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		400			212		298	1178			999	
v/s Ratio Prot							0.02	c0.38				
v/s Ratio Perm		0.22			c0.26		0.23				c0.55	
v/c Ratio		0.88			1.02		0.39	0.59			1.01	
Uniform Delay, d1		26.9			28.0		9.0	7.8			17.1	
Progression Factor		1.00			1.00		0.23	0.43			1.00	
Incremental Delay, d2		20.0			68.4		0.8	2.0			30.6	
Delay (s)		47.0			96.4		2.9	5.3			47.7	
Level of Service		D			F		A	A			D	
Approach Delay (s)		47.0			96.4			5.0			47.7	
Approach LOS		D			F			A			D	

Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	547	77	1040	201	73	981
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	0.98			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	1583	3453			3527
Flt Permitted	0.95	1.00	1.00			0.68
Satd. Flow (perm)	1770	1583	3453			2411
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	595	84	1130	218	79	1066
RTOR Reduction (vph)	0	41	22	0	0	0
Lane Group Flow (vph)	595	43	1326	0	0	1145
Turn Type		custom			Perm	
Protected Phases	3		2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	24.6	24.6	37.4			37.4
Effective Green, g (s)	24.6	24.6	37.4			37.4
Actuated g/C Ratio	0.35	0.35	0.53			0.53
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	622	556	1845			1288
v/s Ratio Prot	c0.34		0.38			
v/s Ratio Perm		0.03				c0.47
v/c Ratio	0.96	0.08	0.72			0.89
Uniform Delay, d1	22.2	15.1	12.3			14.5
Progression Factor	1.00	1.00	0.49			0.79
Incremental Delay, d2	25.5	0.1	0.7			8.9
Delay (s)	47.6	15.2	6.8			20.3
Level of Service	D	B	A			C
Approach Delay (s)	43.6		6.8			20.3
Approach LOS	D		A			C

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	218	651	128	140	320	293	178	755	160	440	826	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3452		1770	3286		1770	3446		1770	3459	
Flt Permitted	0.22	1.00		0.25	1.00		0.22	1.00		0.18	1.00	
Satd. Flow (perm)	414	3452		466	3286		414	3446		339	3459	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	237	708	139	152	348	318	193	821	174	478	898	161
RTOR Reduction (vph)	0	23	0	0	237	0	0	25	0	0	21	0
Lane Group Flow (vph)	237	824	0	152	429	0	193	970	0	478	1038	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	24.0	18.0		20.0	16.0		25.0	18.0		36.0	25.0	
Effective Green, g (s)	24.0	18.0		20.0	16.0		25.0	18.0		36.0	25.0	
Actuated g/C Ratio	0.34	0.26		0.29	0.23		0.36	0.26		0.51	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	258	888		208	751		283	886		461	1235	
v/s Ratio Prot	c0.08	c0.24		0.04	0.13		0.07	0.28		c0.21	0.30	
v/s Ratio Perm	0.24			0.17			0.18			c0.33		
v/c Ratio	0.92	0.93		0.73	0.57		0.68	1.09		1.04	0.84	
Uniform Delay, d1	20.1	25.4		21.8	24.0		17.0	26.0		18.1	20.7	
Progression Factor	1.00	1.00		1.00	1.00		0.95	1.00		1.02	0.99	
Incremental Delay, d2	34.6	17.1		12.4	3.1		4.8	55.4		36.5	2.2	
Delay (s)	54.7	42.5		34.2	27.1		20.9	81.2		54.9	22.6	
Level of Service	D	D		C	C		C	F		D	C	
Approach Delay (s)		45.1			28.4			71.4			32.6	
Approach LOS		D			C			E			C	

Intersection Summary			
HCM Average Control Delay	44.8	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (vph)	501	234	113	507	226	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	1.00	1.00	0.95	1.00	0.95	
Satd. Flow (prot)	3539	1583	1770	3539	1770	
Flt Permitted	1.00	1.00	0.44	1.00	0.95	
Satd. Flow (perm)	3539	1583	827	3539	1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	545	254	123	551	246	0
RTOR Reduction (vph)	0	81	0	0	0	0
Lane Group Flow (vph)	545	173	123	551	246	0
Turn Type		Prot	Perm			
Protected Phases	2	2		6	8	
Permitted Phases			6			
Actuated Green, G (s)	51.2	51.2	51.2	51.2	15.8	
Effective Green, g (s)	51.2	51.2	51.2	51.2	15.8	
Actuated g/C Ratio	0.68	0.68	0.68	0.68	0.21	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	2416	1081	565	2416	373	
v/s Ratio Prot	0.15	0.11		c0.16	c0.14	
v/s Ratio Perm			0.15			
v/c Ratio	0.23	0.16	0.22	0.23	0.66	
Uniform Delay, d1	4.5	4.2	4.4	4.5	27.1	
Progression Factor	0.97	1.29	0.98	0.97	1.00	
Incremental Delay, d2	0.2	0.3	0.8	0.2	4.2	
Delay (s)	4.6	5.8	5.2	4.5	31.3	
Level of Service	A	A	A	A	C	
Approach Delay (s)	4.9			4.7	31.3	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	8.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	559	271	86	261	27	118	113	80	48	121	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1780			1824			1765			1809	
Flt Permitted		0.99			0.71			0.76			0.85	
Satd. Flow (perm)		1763			1318			1362			1552	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	608	295	93	284	29	128	123	87	52	132	26
RTOR Reduction (vph)	0	22	0	0	4	0	0	17	0	0	7	0
Lane Group Flow (vph)	0	901	0	0	402	0	0	321	0	0	203	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		45.0			45.0			22.0			22.0	
Effective Green, g (s)		45.0			45.0			22.0			22.0	
Actuated g/C Ratio		0.60			0.60			0.29			0.29	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1058			791			400			455	
v/s Ratio Prot												
v/s Ratio Perm		c0.51			0.31			c0.24			0.13	
v/c Ratio		0.85			0.51			0.80			0.45	
Uniform Delay, d1		12.3			8.6			24.5			21.5	
Progression Factor		1.00			1.00			0.75			1.00	
Incremental Delay, d2		8.6			2.3			11.5			0.7	
Delay (s)		20.9			11.0			30.0			22.2	
Level of Service		C			B			C			C	
Approach Delay (s)		20.9			11.0			30.0			22.2	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	12	28	14	8	94	19	702	36	175	857	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.90			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1732			1656			3502			3489	
Flt Permitted		0.63			0.96			0.89			0.67	
Satd. Flow (perm)		1122			1599			3139			2361	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	40	16	32	20	12	112	28	739	48	197	902	44
RTOR Reduction (vph)	0	28	0	0	99	0	0	4	0	0	3	0
Lane Group Flow (vph)	0	60	0	0	45	0	0	811	0	0	1140	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		8.4			8.4			58.6			58.6	
Effective Green, g (s)		8.4			8.4			58.6			58.6	
Actuated g/C Ratio		0.11			0.11			0.78			0.78	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		126			179			2453			1845	
v/s Ratio Prot												
v/s Ratio Perm		c0.05			0.03			0.26			c0.48	
v/c Ratio		0.47			0.25			0.33			0.62	
Uniform Delay, d1		31.2			30.4			2.4			3.5	
Progression Factor		1.00			1.00			0.56			0.53	
Incremental Delay, d2		2.8			0.7			0.3			1.2	
Delay (s)		34.0			31.1			1.6			3.1	
Level of Service		C			C			A			A	
Approach Delay (s)		34.0			31.1			1.6			3.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	5.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.60		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	360	356	603	445	378	348
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.97	1.00	
Satd. Flow (prot)	3433	1583		3440	3285	
Flt Permitted	0.95	1.00		0.54	1.00	
Satd. Flow (perm)	3433	1583		1915	3285	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	391	387	655	484	411	378
RTOR Reduction (vph)	0	317	0	0	108	0
Lane Group Flow (vph)	391	70	0	1139	681	0
Turn Type		custom	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	4	2			
Actuated Green, G (s)	13.5	13.5		53.5	53.5	
Effective Green, g (s)	13.5	13.5		53.5	53.5	
Actuated g/C Ratio	0.18	0.18		0.71	0.71	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	618	285		1366	2343	
v/s Ratio Prot	c0.11				0.21	
v/s Ratio Perm		0.04		c0.59		
v/c Ratio	0.63	0.24		1.46dl	0.29	
Uniform Delay, d1	28.5	26.4		7.6	3.9	
Progression Factor	1.00	1.00		0.67	0.10	
Incremental Delay, d2	2.1	0.4		4.5	0.3	
Delay (s)	30.6	26.8		9.6	0.6	
Level of Service	C	C		A	A	
Approach Delay (s)	28.7			9.6	0.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	12.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	23	52	58	29	69	99	751	96	74	989	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.94			0.98			0.98	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		1719			1720			3467			3458	
Flt Permitted		0.79			0.80			0.68			0.81	
Satd. Flow (perm)		1389			1407			2361			2819	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	25	57	63	32	75	108	816	104	80	1075	178
RTOR Reduction (vph)	0	43	0	0	41	0	0	8	0	0	11	0
Lane Group Flow (vph)	0	82	0	0	129	0	0	1020	0	0	1322	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.2			11.2			55.8			55.8	
Effective Green, g (s)		11.2			11.2			55.8			55.8	
Actuated g/C Ratio		0.15			0.15			0.74			0.74	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		207			210			1757			2097	
v/s Ratio Prot												
v/s Ratio Perm		0.06			c0.09			0.43			c0.47	
v/c Ratio		0.39			0.62			0.58			0.63	
Uniform Delay, d1		28.8			29.9			4.3			4.6	
Progression Factor		1.00			1.00			0.86			1.05	
Incremental Delay, d2		1.2			5.3			0.5			0.6	
Delay (s)		30.1			35.1			4.2			5.4	
Level of Service		C			D			A			A	
Approach Delay (s)		30.1			35.1			4.2			5.4	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	60	43	827	1081	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1689			3530	3513	
Flt Permitted	0.98			0.84	1.00	
Satd. Flow (perm)	1689			2972	3513	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	65	47	899	1175	60
RTOR Reduction (vph)	59	0	0	0	3	0
Lane Group Flow (vph)	63	0	0	946	1232	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	7.3			59.7	59.7	
Effective Green, g (s)	7.3			59.7	59.7	
Actuated g/C Ratio	0.10			0.80	0.80	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	164			2366	2796	
v/s Ratio Prot	c0.04				c0.35	
v/s Ratio Perm				0.32		
v/c Ratio	0.39			0.40	0.44	
Uniform Delay, d1	31.7			2.3	2.4	
Progression Factor	1.00			0.78	1.00	
Incremental Delay, d2	1.5			0.4	0.5	
Delay (s)	33.3			2.2	2.9	
Level of Service	C			A	A	
Approach Delay (s)	33.3			2.2	2.9	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	777	267	144	879	105	298	376	115	176	365	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	5004		1770	3415		1770	1764	
Flt Permitted	0.29	1.00		0.29	1.00		0.15	1.00		0.41	1.00	
Satd. Flow (perm)	532	4890		532	5004		271	3415		767	1764	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	845	290	157	955	114	324	409	125	191	397	218
RTOR Reduction (vph)	0	82	0	0	20	0	0	38	0	0	27	0
Lane Group Flow (vph)	183	1053	0	157	1049	0	324	496	0	191	588	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	19.0	19.0		18.0	18.0		38.5	27.5		33.5	25.0	
Effective Green, g (s)	19.0	19.0		18.0	18.0		38.5	27.5		33.5	25.0	
Actuated g/C Ratio	0.25	0.25		0.24	0.24		0.51	0.37		0.45	0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	1239		194	1201		359	1252		456	588	
v/s Ratio Prot	0.06	c0.22		0.04	c0.21		c0.13	0.15		0.05	c0.33	
v/s Ratio Perm	0.16			0.15			0.33			0.14		
v/c Ratio	0.84	0.85		0.81	0.87		0.90	0.40		0.42	1.00	
Uniform Delay, d1	25.9	26.6		29.2	27.4		18.0	17.6		12.9	25.0	
Progression Factor	1.00	1.00		0.77	0.73		1.00	1.00		0.88	0.77	
Incremental Delay, d2	24.6	7.4		15.2	6.3		24.9	0.2		0.6	36.8	
Delay (s)	50.5	34.0		37.9	26.4		42.9	17.8		11.9	56.0	
Level of Service	D	C		D	C		D	B		B	E	
Approach Delay (s)		36.3			27.8			27.3			45.5	
Approach LOS		D			C			C			D	

Intersection Summary			
HCM Average Control Delay	33.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1965	85	36	1110	116	71	41	72	199	46	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1686		1770	1636	
Flt Permitted	0.10	1.00	1.00	0.11	1.00		0.40	1.00		0.67	1.00	
Satd. Flow (perm)	184	5085	1583	205	3489		750	1686		1250	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	2136	92	39	1207	126	77	45	78	216	50	215
RTOR Reduction (vph)	0	0	16	0	10	0	0	59	0	0	125	0
Lane Group Flow (vph)	225	2136	76	39	1323	0	77	64	0	216	140	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	49.0	42.6	42.6	38.8	36.4		18.0	18.0		18.0	18.0	
Effective Green, g (s)	49.0	42.6	42.6	38.8	36.4		18.0	18.0		18.0	18.0	
Actuated g/C Ratio	0.65	0.57	0.57	0.52	0.49		0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	302	2888	899	156	1693		180	405		300	393	
v/s Ratio Prot	c0.09	0.42		0.01	0.38			0.04			0.09	
v/s Ratio Perm	c0.40		0.05	0.12			0.10			c0.17		
v/c Ratio	0.75	0.74	0.08	0.25	0.78		0.43	0.16		0.72	0.36	
Uniform Delay, d1	15.5	12.1	7.4	10.6	16.0		24.1	22.5		26.2	23.7	
Progression Factor	1.18	0.64	0.66	1.00	1.00		1.00	1.00		0.89	0.80	
Incremental Delay, d2	9.2	1.7	0.2	0.8	3.7		7.3	0.8		5.9	0.4	
Delay (s)	27.5	9.4	5.0	11.4	19.7		31.4	23.3		29.3	19.4	
Level of Service	C	A	A	B	B		C	C		C	B	
Approach Delay (s)		10.9			19.4			26.4			23.8	
Approach LOS		B			B			C			C	

Intersection Summary			
HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL2	NBL	SER	SER2
Lane Configurations						
Volume (vph)	93	137	134	615	1042	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	0.88	
Frt	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	0	1611		3433	2787	
Flt Permitted	0.95	1.00		0.57	1.00	
Satd. Flow (perm)	0	1611		2062	2787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	149	146	668	1133	124
RTOR Reduction (vph)	0	97	0	0	10	0
Lane Group Flow (vph)	101	52	0	814	1247	0
Turn Type		custom	Perm			
Protected Phases				2	6	
Permitted Phases	4	4	2			
Actuated Green, G (s)	15.0	15.0		52.0	52.0	
Effective Green, g (s)	15.0	15.0		52.0	52.0	
Actuated g/C Ratio	0.20	0.20		0.69	0.69	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	0	322		1430	1932	
v/s Ratio Prot					c0.45	
v/s Ratio Perm		c0.03		0.39		
v/c Ratio	no cap	0.16		0.57	0.65	
Uniform Delay, d1	Error	24.8		5.8	6.4	
Progression Factor		1.00		1.00	0.91	
Incremental Delay, d2	Error	0.2		1.6	0.5	
Delay (s)	Error	25.0		7.5	6.3	
Level of Service	F	C		A	A	
Approach Delay (s)	Error			7.5	6.3	
Approach LOS	F			A	A	

Intersection Summary			
HCM Average Control Delay	Error	HCM Level of Service	F
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	258	0	25	1	0	1	15	1207	2	1032	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3411	
Flt Permitted		0.95	1.00		0.98		0.17	1.00	0.12	0.96	
Satd. Flow (perm)		1770	1583		1695		322	2787	222	3411	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	280	0	27	1	0	1	16	1312	2	1122	107
RTOR Reduction (vph)	0	0	21	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	280	6	0	1	0	16	1312	2	1222	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		14.5	14.5		1.2		42.3	42.3	42.3	42.3	
Effective Green, g (s)		14.5	14.5		1.2		42.3	42.3	42.3	42.3	
Actuated g/C Ratio		0.21	0.21		0.02		0.60	0.60	0.60	0.60	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		367	328		29		195	1684	134	2061	
v/s Ratio Prot		c0.16			c0.00			c0.47		0.36	
v/s Ratio Perm			0.00				0.05		0.01		
v/c Ratio		0.76	0.02		0.04		0.08	0.78	0.01	0.59	
Uniform Delay, d1		26.1	22.1		33.8		5.8	10.4	5.5	8.5	
Progression Factor		1.00	1.00		1.00		0.79	0.72	0.61	0.59	
Incremental Delay, d2		9.1	0.0		0.5		0.8	3.4	0.2	1.0	
Delay (s)		35.2	22.1		34.3		5.3	10.8	3.6	6.0	
Level of Service		D	C		C		A	B	A	A	
Approach Delay (s)		34.1			34.3		10.8			6.0	
Approach LOS		C			C		B			A	

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	189	0	284	973	0	1105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	205	0	309	1058	0	1201
RTOR Reduction (vph)	0	0	0	0	0	367
Lane Group Flow (vph)	205	0	309	1058	0	834
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	13.4		48.6	48.6		48.6
Effective Green, g (s)	13.4		48.6	48.6		48.6
Actuated g/C Ratio	0.19		0.69	0.69		0.69
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	339		1229	2457		1935
v/s Ratio Prot	c0.12			0.30		
v/s Ratio Perm			0.17			c0.30
v/c Ratio	0.60		0.25	0.43		0.43
Uniform Delay, d1	25.9		4.0	4.7		4.7
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	3.0		0.5	0.6		0.6
Delay (s)	28.9		4.5	5.2		5.3
Level of Service	C		A	A		A
Approach Delay (s)	28.9			5.0	5.3	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	8	78	6	2	10	75	640	9	7	537	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.87			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	1612			1793	1583		3508		1770	1863	1583
Flt Permitted	0.60	1.00			1.00	1.00		0.80		0.30	1.00	1.00
Satd. Flow (perm)	1112	1612			1863	1583		2823		564	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	132	10	86	7	2	11	110	674	11	8	559	162
RTOR Reduction (vph)	0	73	0	0	0	11	0	1	0	0	0	42
Lane Group Flow (vph)	132	23	0	0	9	0	0	794	0	8	559	120
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	11.5	11.5			2.7	2.7		50.3		55.5	55.5	55.5
Effective Green, g (s)	11.5	11.5			2.7	2.7		50.3		55.5	55.5	55.5
Actuated g/C Ratio	0.15	0.15			0.04	0.04		0.67		0.74	0.74	0.74
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	213	247			67	57		1893		437	1379	1171
v/s Ratio Prot	c0.04	0.01								0.00	c0.30	
v/s Ratio Perm	c0.06				0.00	0.00		0.28		0.01		0.08
v/c Ratio	0.62	0.09			0.13	0.01		0.42		0.02	0.41	0.10
Uniform Delay, d1	29.3	27.3			35.0	34.9		5.7		2.9	3.6	2.7
Progression Factor	1.00	1.00			1.00	1.00		0.88		0.83	0.90	0.96
Incremental Delay, d2	5.3	0.2			0.9	0.0		0.1		0.0	0.9	0.2
Delay (s)	34.5	27.4			35.9	34.9		5.1		2.4	4.1	2.8
Level of Service	C	C			D	C		A		A	A	A
Approach Delay (s)		31.6			35.4			5.1			3.8	
Approach LOS		C			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	75.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Arterial Level of Service: NB Monroe

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Midtown Prom. shoppi	III	30	51.9	5.1	57.0	0.41	25.8	B
Virginia	III	30	10.4	5.2	15.6	0.07	15.4	D
Total	III		62.3	10.3	72.6	0.48	23.6	C

Arterial Level of Service: SB Monroe

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Virginia	IV	30	12.5	5.2	17.7	0.06	11.2	D
8th	IV	30	15.2	4.3	19.5	0.07	12.3	D
Total	IV		27.7	9.5	37.2	0.12	11.8	D

Arterial Level of Service: SB Piedmont

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
14th	III	30	55.3	1.3	56.6	0.44	27.7	B
Total	III		55.3	1.3	56.6	0.44	27.7	B

Atlanta BeltLine Subarea 6

Existing Conditions

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	86	39	18	47	164	11	1110	12	483	1071	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1776		1770	1646		1770	3534		1770	3529	
Flt Permitted	0.25	1.00		0.49	1.00		0.19	1.00		0.10	1.00	
Satd. Flow (perm)	460	1776		909	1646		345	3534		183	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	93	42	20	51	178	12	1207	13	525	1164	22
RTOR Reduction (vph)	0	14	0	0	109	0	0	1	0	0	1	0
Lane Group Flow (vph)	57	121	0	20	120	0	12	1219	0	525	1185	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.2	16.2		16.2	16.2		55.0	53.4		95.8	90.2	
Effective Green, g (s)	16.2	16.2		16.2	16.2		55.0	53.4		95.8	90.2	
Actuated g/C Ratio	0.13	0.13		0.13	0.13		0.46	0.44		0.80	0.75	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	62	240		123	222		177	1573		654	2653	
v/s Ratio Prot		0.07			0.07		0.00	0.35		c0.26	0.34	
v/s Ratio Perm	c0.12			0.02			0.03			c0.38		
v/c Ratio	0.92	0.50		0.16	0.54		0.07	0.78		0.80	0.45	
Uniform Delay, d1	51.3	48.2		45.9	48.4		18.3	28.2		26.2	5.6	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	84.9	1.7		0.6	2.7		0.2	3.8		7.1	0.5	
Delay (s)	136.1	49.8		46.5	51.1		18.5	32.0		33.3	6.1	
Level of Service	F	D		D	D		B	C		C	A	
Approach Delay (s)		75.5			50.7			31.9			14.4	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM Average Control Delay	26.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	94	252	91	97	16	108	590	51	10	876	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1803		1770	1841			1850	
Flt Permitted		0.92			0.45		0.21	1.00			0.99	
Satd. Flow (perm)		1571			837		385	1841			1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	102	274	99	105	17	117	641	55	11	952	47
RTOR Reduction (vph)	0	61	0	0	3	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	374	0	0	218	0	117	693	0	0	1008	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		26.9			26.9		65.1	65.1			56.7	
Effective Green, g (s)		26.9			26.9		65.1	65.1			56.7	
Actuated g/C Ratio		0.27			0.27		0.65	0.65			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		423			225		312	1198			1042	
v/s Ratio Prot							0.02	c0.38				
v/s Ratio Perm		0.24			c0.26		0.23				c0.55	
v/c Ratio		0.88			0.97		0.38	0.58			0.97	
Uniform Delay, d1		35.0			36.1		10.6	9.8			20.8	
Progression Factor		1.00			1.00		0.43	0.62			1.00	
Incremental Delay, d2		19.1			50.6		0.7	1.8			21.1	
Delay (s)		54.1			86.8		5.2	7.8			41.9	
Level of Service		D			F		A	A			D	
Approach Delay (s)		54.1			86.8			7.4			41.9	
Approach LOS		D			F			A			D	

Intersection Summary			
HCM Average Control Delay	36.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	111.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	547	77	1040	201	73	981
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	0.98			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1770	1583	3453			3527
Flt Permitted	0.95	1.00	1.00			0.65
Satd. Flow (perm)	1770	1583	3453			2302
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	595	84	1130	218	79	1066
RTOR Reduction (vph)	0	31	14	0	0	0
Lane Group Flow (vph)	595	53	1334	0	0	1145
Turn Type		custom			Perm	
Protected Phases	3		2			6
Permitted Phases	8	8			6	
Actuated Green, G (s)	37.0	37.0	67.0			67.0
Effective Green, g (s)	37.0	37.0	67.0			67.0
Actuated g/C Ratio	0.33	0.33	0.60			0.60
Clearance Time (s)	4.0	4.0	4.0			4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	585	523	2066			1377
v/s Ratio Prot	c0.34		0.39			
v/s Ratio Perm		0.03				c0.50
v/c Ratio	1.02	0.10	0.65			0.83
Uniform Delay, d1	37.5	26.0	14.7			18.0
Progression Factor	1.00	1.00	1.00			1.00
Incremental Delay, d2	41.6	0.1	1.6			6.0
Delay (s)	79.1	26.1	16.3			24.0
Level of Service	E	C	B			C
Approach Delay (s)	72.5		16.3			24.0
Approach LOS	E		B			C

Intersection Summary			
HCM Average Control Delay	31.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	112.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	218	651	128	140	320	293	178	755	160	440	826	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3452		1770	3286		1770	3446		1770	3459	
Flt Permitted	0.23	1.00		0.13	1.00		0.15	1.00		0.13	1.00	
Satd. Flow (perm)	428	3452		239	3286		276	3446		240	3459	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	237	708	139	152	348	318	193	821	174	478	898	161
RTOR Reduction (vph)	0	17	0	0	172	0	0	15	0	0	11	0
Lane Group Flow (vph)	237	830	0	152	494	0	193	980	0	478	1048	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	41.6	37.6		41.6	37.6		45.8	27.0		66.4	43.6	
Effective Green, g (s)	41.6	37.6		41.6	37.6		45.8	27.0		66.4	43.6	
Actuated g/C Ratio	0.35	0.31		0.35	0.31		0.38	0.22		0.55	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	193	1082		134	1030		339	775		584	1257	
v/s Ratio Prot	c0.04	0.24		0.04	0.15		0.09	c0.28		c0.24	0.30	
v/s Ratio Perm	c0.38			0.36			0.13			0.21		
v/c Ratio	1.23	0.77		1.13	0.48		0.57	1.26		0.82	0.83	
Uniform Delay, d1	40.4	37.2		38.5	33.3		26.9	46.5		29.9	34.9	
Progression Factor	1.00	1.00		1.00	1.00		1.00	0.92		1.00	1.00	
Incremental Delay, d2	139.5	5.2		118.4	1.6		1.7	127.3		8.7	4.9	
Delay (s)	179.9	42.5		156.9	34.9		28.6	170.0		38.7	39.8	
Level of Service	F	D		F	C		C	F		D	D	
Approach Delay (s)		72.5			57.6			147.1			39.4	
Approach LOS		E			E			F			D	

Intersection Summary			
HCM Average Control Delay	78.0	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.0%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (vph)	501	234	208	914	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	
Frt	1.00	0.85	1.00	1.00	1.00	
Flt Protected	1.00	1.00	0.95	1.00	0.95	
Satd. Flow (prot)	3539	1583	1770	3539	1770	
Flt Permitted	1.00	1.00	0.45	1.00	0.95	
Satd. Flow (perm)	3539	1583	834	3539	1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	545	254	226	993	154	0
RTOR Reduction (vph)	0	56	0	0	0	0
Lane Group Flow (vph)	545	198	226	993	154	0
Turn Type		Prot	Perm			
Protected Phases	2	2		6	8	
Permitted Phases			6			
Actuated Green, G (s)	78.0	78.0	78.0	78.0	14.0	
Effective Green, g (s)	78.0	78.0	78.0	78.0	14.0	
Actuated g/C Ratio	0.78	0.78	0.78	0.78	0.14	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	2760	1235	651	2760	248	
v/s Ratio Prot	0.15	0.13		c0.28	c0.09	
v/s Ratio Perm			0.27			
v/c Ratio	0.20	0.16	0.35	0.36	0.62	
Uniform Delay, d1	2.9	2.8	3.3	3.4	40.5	
Progression Factor	0.39	0.19	1.00	1.00	1.00	
Incremental Delay, d2	0.1	0.3	1.5	0.4	4.8	
Delay (s)	1.3	0.8	4.8	3.7	45.3	
Level of Service	A	A	A	A	D	
Approach Delay (s)	1.1			3.9	45.3	
Approach LOS	A			A	D	

Intersection Summary			
HCM Average Control Delay	5.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	43.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	559	271	86	261	27	118	113	80	48	121	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1780			1824			1765			1809	
Flt Permitted		0.99			0.69			0.73			0.83	
Satd. Flow (perm)		1761			1267			1319			1527	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	608	295	93	284	29	128	123	87	52	132	26
RTOR Reduction (vph)	0	17	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	906	0	0	403	0	0	325	0	0	205	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		62.0			62.0			30.0			30.0	
Effective Green, g (s)		62.0			62.0			30.0			30.0	
Actuated g/C Ratio		0.62			0.62			0.30			0.30	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1092			786			396			458	
v/s Ratio Prot												
v/s Ratio Perm		c0.51			0.32			c0.25			0.13	
v/c Ratio		0.83			0.51			0.82			0.45	
Uniform Delay, d1		14.9			10.6			32.5			28.3	
Progression Factor		1.00			1.00			0.95			1.00	
Incremental Delay, d2		7.3			2.4			13.4			0.7	
Delay (s)		22.2			13.0			44.3			29.0	
Level of Service		C			B			D			C	
Approach Delay (s)		22.2			13.0			44.3			29.0	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	24.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	12	28	14	8	94	19	702	36	175	857	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.90			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1732			1656			3502			3489	
Flt Permitted		0.53			0.95			0.89			0.65	
Satd. Flow (perm)		943			1586			3107			2296	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	40	16	32	20	12	112	28	739	48	197	902	44
RTOR Reduction (vph)	0	22	0	0	100	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	66	0	0	44	0	0	812	0	0	1141	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.3			10.3			81.7			81.7	
Effective Green, g (s)		10.3			10.3			81.7			81.7	
Actuated g/C Ratio		0.10			0.10			0.82			0.82	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		97			163			2538			1876	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.03			0.26			c0.50	
v/c Ratio		0.69			0.27			0.32			0.61	
Uniform Delay, d1		43.3			41.4			2.3			3.3	
Progression Factor		1.00			1.00			0.66			0.67	
Incremental Delay, d2		18.2			0.9			0.3			1.2	
Delay (s)		61.5			42.3			1.8			3.4	
Level of Service		E			D			A			A	
Approach Delay (s)		61.5			42.3			1.8			3.4	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM Average Control Delay	7.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	462	559	304	354	690	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.97	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	3433	1583		3459	3432	
Flt Permitted	0.95	1.00		0.53	1.00	
Satd. Flow (perm)	3433	1583		1858	3432	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	502	608	330	385	750	189
RTOR Reduction (vph)	0	364	0	0	10	0
Lane Group Flow (vph)	502	244	0	715	929	0
Turn Type		custom	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	4	2			
Actuated Green, G (s)	22.7	22.7		69.3	69.3	
Effective Green, g (s)	22.7	22.7		69.3	69.3	
Actuated g/C Ratio	0.23	0.23		0.69	0.69	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	779	359		1288	2378	
v/s Ratio Prot	0.15				0.27	
v/s Ratio Perm		c0.15		c0.38		
v/c Ratio	0.64	0.68		0.94dl	0.39	
Uniform Delay, d1	35.0	35.3		7.7	6.5	
Progression Factor	1.00	1.00		1.00	0.76	
Incremental Delay, d2	1.8	5.1		0.5	0.4	
Delay (s)	36.8	40.4		8.2	5.3	
Level of Service	D	D		A	A	
Approach Delay (s)	38.8			8.2	5.3	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	23	52	58	29	69	99	751	96	74	989	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.94			0.98			0.98	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		1719			1720			3467			3458	
Flt Permitted		0.76			0.77			0.65			0.79	
Satd. Flow (perm)		1335			1344			2250			2756	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	25	57	63	32	75	108	816	104	80	1075	178
RTOR Reduction (vph)	0	33	0	0	31	0	0	6	0	0	8	0
Lane Group Flow (vph)	0	92	0	0	139	0	0	1022	0	0	1325	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.3			14.3			77.7			77.7	
Effective Green, g (s)		14.3			14.3			77.7			77.7	
Actuated g/C Ratio		0.14			0.14			0.78			0.78	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		191			192			1748			2141	
v/s Ratio Prot												
v/s Ratio Perm		0.07			c0.10			0.45			c0.48	
v/c Ratio		0.48			0.72			0.58			0.62	
Uniform Delay, d1		39.5			41.0			4.6			4.8	
Progression Factor		1.00			1.00			1.44			0.84	
Incremental Delay, d2		1.9			12.7			0.5			0.5	
Delay (s)		41.4			53.7			7.0			4.5	
Level of Service		D			D			A			A	
Approach Delay (s)		41.4			53.7			7.0			4.5	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	60	43	827	1081	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1689			3530	3513	
Flt Permitted	0.98			0.82	1.00	
Satd. Flow (perm)	1689			2912	3513	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	65	47	899	1175	60
RTOR Reduction (vph)	45	0	0	0	3	0
Lane Group Flow (vph)	77	0	0	946	1232	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	9.9			82.1	82.1	
Effective Green, g (s)	9.9			82.1	82.1	
Actuated g/C Ratio	0.10			0.82	0.82	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	167			2391	2884	
v/s Ratio Prot	c0.05				c0.35	
v/s Ratio Perm				0.32		
v/c Ratio	0.46			0.40	0.43	
Uniform Delay, d1	42.5			2.4	2.5	
Progression Factor	1.00			0.95	1.00	
Incremental Delay, d2	2.0			0.4	0.5	
Delay (s)	44.5			2.7	2.9	
Level of Service	D			A	A	
Approach Delay (s)	44.5			2.7	2.9	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	168	777	267	144	879	105	298	376	115	176	365	201
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	5004		1770	3415		1770	1764	
Flt Permitted	0.14	1.00		0.15	1.00		0.09	1.00		0.45	1.00	
Satd. Flow (perm)	255	4890		271	5004		171	3415		845	1764	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	183	845	290	157	955	114	324	409	125	191	397	218
RTOR Reduction (vph)	0	55	0	0	14	0	0	27	0	0	19	0
Lane Group Flow (vph)	183	1080	0	157	1056	0	324	507	0	191	596	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	38.5	29.2		35.1	27.5		61.2	47.6		49.1	39.5	
Effective Green, g (s)	38.5	29.2		35.1	27.5		61.2	47.6		49.1	39.5	
Actuated g/C Ratio	0.35	0.27		0.32	0.25		0.56	0.43		0.45	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	217	1298		190	1251		352	1478		458	633	
v/s Ratio Prot	c0.07	0.22		0.06	0.21		c0.15	0.15		0.04	0.34	
v/s Ratio Perm	c0.22			0.21			c0.36			0.15		
v/c Ratio	0.84	0.83		0.83	0.84		0.92	0.34		0.42	0.94	
Uniform Delay, d1	28.4	38.1		29.9	39.2		32.7	20.8		18.9	34.1	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	24.6	6.3		24.4	7.1		28.7	0.1		0.6	22.5	
Delay (s)	53.0	44.4		54.4	46.3		61.3	20.9		19.5	56.6	
Level of Service	D	D		D	D		E	C		B	E	
Approach Delay (s)		45.6			47.3			36.2			47.8	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	44.6	HCM Level of Service	D
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1965	85	36	1110	116	71	41	72	199	46	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1686		1770	1636	
Flt Permitted	0.08	1.00	1.00	0.08	1.00		0.39	1.00		0.64	1.00	
Satd. Flow (perm)	155	5085	1583	149	3489		735	1686		1194	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	225	2136	92	39	1207	126	77	45	78	216	50	215
RTOR Reduction (vph)	0	0	12	0	8	0	0	58	0	0	155	0
Lane Group Flow (vph)	225	2136	80	39	1325	0	77	65	0	216	110	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	66.0	59.0	59.0	52.9	49.9		26.0	26.0		26.0	26.0	
Effective Green, g (s)	66.0	59.0	59.0	52.9	49.9		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.66	0.59	0.59	0.53	0.50		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	298	3000	934	127	1741		191	438		310	425	
v/s Ratio Prot	c0.09	0.42		0.01	0.38			0.04			0.07	
v/s Ratio Perm	c0.41		0.05	0.15			0.10			c0.18		
v/c Ratio	0.76	0.71	0.09	0.31	0.76		0.40	0.15		0.70	0.26	
Uniform Delay, d1	23.8	14.5	8.9	13.4	20.2		30.6	28.5		33.4	29.4	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		0.89	0.83	
Incremental Delay, d2	10.4	1.5	0.2	1.4	3.2		6.2	0.7		4.9	0.2	
Delay (s)	34.1	16.0	9.0	14.8	23.4		36.8	29.2		34.7	24.5	
Level of Service	C	B	A	B	C		D	C		C	C	
Approach Delay (s)		17.4			23.2			32.1			29.1	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL2	NBL	SER	SER2
Lane Configurations						
Volume (vph)	93	137	134	615	1042	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	0.88	
Frt	1.00	0.86		1.00	0.85	
Flt Protected	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	0	1611		3433	2787	
Flt Permitted	0.95	1.00		0.58	1.00	
Satd. Flow (perm)	0	1611		2107	2787	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	149	146	668	1133	124
RTOR Reduction (vph)	0	44	0	0	13	0
Lane Group Flow (vph)	101	105	0	814	1244	0
Turn Type		custom	Perm			
Protected Phases				2	6	
Permitted Phases	4	4	2			
Actuated Green, G (s)	12.8	12.8		29.2	29.2	
Effective Green, g (s)	12.8	12.8		29.2	29.2	
Actuated g/C Ratio	0.26	0.26		0.58	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	0	412		1230	1628	
v/s Ratio Prot					c0.45	
v/s Ratio Perm		c0.07		0.39		
v/c Ratio	no cap	0.26		0.93dl	0.76	
Uniform Delay, d1	Error	14.8		7.1	7.8	
Progression Factor		1.00		1.00	1.45	
Incremental Delay, d2	Error	0.3		2.8	1.1	
Delay (s)	Error	15.1		9.9	12.5	
Level of Service	F	B		A	B	
Approach Delay (s)	Error			9.9	12.5	
Approach LOS	F			A	B	

Intersection Summary			
HCM Average Control Delay	Error	HCM Level of Service	F
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	Err%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



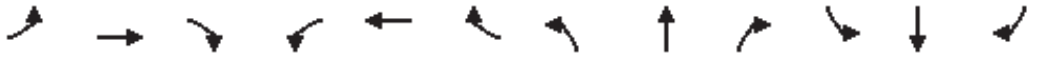
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	258	0	25	1	0	1	15	1207	2	1032	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3411	
Flt Permitted		0.95	1.00		0.98		0.19	1.00	0.14	0.96	
Satd. Flow (perm)		1770	1583		1695		350	2787	257	3411	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	280	0	27	1	0	1	16	1312	2	1122	107
RTOR Reduction (vph)	0	0	22	0	1	0	0	0	0	4	0
Lane Group Flow (vph)	0	280	5	0	1	0	16	1312	2	1225	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		24.0	24.0		1.2		82.8	82.8	82.8	82.8	
Effective Green, g (s)		24.0	24.0		1.2		82.8	82.8	82.8	82.8	
Actuated g/C Ratio		0.20	0.20		0.01		0.69	0.69	0.69	0.69	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		354	317		17		242	1923	177	2354	
v/s Ratio Prot		c0.16			c0.00			c0.47		0.36	
v/s Ratio Perm			0.00				0.05		0.01		
v/c Ratio		0.79	0.02		0.06		0.07	0.68	0.01	0.52	
Uniform Delay, d1		45.6	38.5		58.8		6.0	10.9	5.8	9.0	
Progression Factor		1.00	1.00		1.00		0.82	0.91	0.68	0.51	
Incremental Delay, d2		11.4	0.0		1.5		0.5	1.8	0.1	0.6	
Delay (s)		57.0	38.6		60.3		5.5	11.8	4.0	5.2	
Level of Service		E	D		E		A	B	A	A	
Approach Delay (s)		55.4			60.3		11.7			5.2	
Approach LOS		E			E		B			A	

Intersection Summary			
HCM Average Control Delay	13.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	189	0	284	973	0	1105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	205	0	309	1058	0	1201
RTOR Reduction (vph)	0	0	0	0	0	404
Lane Group Flow (vph)	205	0	309	1058	0	797
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	12.2		39.8	39.8		39.8
Effective Green, g (s)	12.2		39.8	39.8		39.8
Actuated g/C Ratio	0.20		0.66	0.66		0.66
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	360		1174	2348		1849
v/s Ratio Prot	c0.12			c0.30		
v/s Ratio Perm			0.17			0.29
v/c Ratio	0.57		0.26	0.45		0.43
Uniform Delay, d1	21.5		4.1	4.8		4.8
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	2.1		0.5	0.6		0.7
Delay (s)	23.6		4.7	5.5		5.4
Level of Service	C		A	A		A
Approach Delay (s)	23.6			5.3	5.4	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	37	40	93	24	63	19	597	96	97	686	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1723			1792	1583		3453		1770	1863	1583
Flt Permitted	0.41	1.00			0.71	1.00		0.91		0.29	1.00	1.00
Satd. Flow (perm)	761	1723			1325	1583		3160		534	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	132	44	44	108	28	72	28	628	116	108	715	175
RTOR Reduction (vph)	0	33	0	0	0	62	0	14	0	0	0	54
Lane Group Flow (vph)	132	55	0	0	136	10	0	758	0	108	715	121
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	23.0	23.0			14.0	14.0		57.5		69.0	69.0	69.0
Effective Green, g (s)	23.0	23.0			14.0	14.0		57.5		69.0	69.0	69.0
Actuated g/C Ratio	0.23	0.23			0.14	0.14		0.57		0.69	0.69	0.69
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	225	396			186	222		1817		461	1285	1092
v/s Ratio Prot	c0.03	0.03								0.02	c0.38	
v/s Ratio Perm	0.11				c0.10	0.01		0.24		0.14		0.08
v/c Ratio	0.59	0.14			0.73	0.05		0.42		0.23	0.56	0.11
Uniform Delay, d1	33.5	30.6			41.2	37.2		11.9		6.0	7.8	5.2
Progression Factor	1.00	1.00			1.00	1.00		1.00		0.84	0.79	0.50
Incremental Delay, d2	3.9	0.2			13.8	0.1		0.2		0.2	1.7	0.2
Delay (s)	37.4	30.8			55.0	37.3		12.0		5.3	7.8	2.8
Level of Service	D	C			D	D		B		A	A	A
Approach Delay (s)		34.8			48.8			12.0			6.7	
Approach LOS		C			D			B			A	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Arterial Level of Service: NB Monroe

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Midtown Prom. shoppi	III	30	51.9	12.8	64.7	0.41	22.8	C
Virginia	III	30	10.4	1.4	11.8	0.07	20.4	C
Total	III		62.3	14.2	76.5	0.48	22.4	C

Arterial Level of Service: SB Monroe

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Virginia	IV	30	12.5	4.1	16.6	0.06	12.0	D
8th	IV	30	15.2	8.4	23.6	0.07	10.2	D
Total	IV		27.7	12.5	40.2	0.12	10.9	D

Arterial Level of Service: SB Piedmont

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
14th	III	30	55.3	2.0	57.3	0.44	27.4	B
Total	III		55.3	2.0	57.3	0.44	27.4	B

Atlanta BeltLine Subarea 6

2020 Baseline

AM PEAK HOUR

2020 AM Baseline
9: Piedmont &



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.62	1.00		0.27	1.00			0.68			0.71	
Satd. Flow (perm)	1150	1781		500	1815			2278			2494	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	9	0	0	19	0	0	161	0	0	2	0
Lane Group Flow (vph)	34	543	0	378	207	0	0	998	0	0	1345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	460	712		200	726			911			998	
v/s Ratio Prot		0.30			0.11							
v/s Ratio Perm	0.03			c0.76				0.44			c0.54	
v/c Ratio	0.07	0.76		1.89	0.29			1.10			1.35	
Uniform Delay, d1	7.4	10.4		12.0	8.1			12.0			12.0	
Progression Factor	0.72	0.69		1.00	1.00			1.00			0.85	
Incremental Delay, d2	0.3	6.5		418.8	1.0			59.5			157.9	
Delay (s)	5.6	13.6		430.8	9.1			71.5			168.2	
Level of Service	A	B		F	A			E			F	
Approach Delay (s)		13.2			273.0			71.5			168.2	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

2020 AM Baseline
12: Rock Springs & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	95	43	20	52	180	12	1221	13	531	1178	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1775		1770	1646		1770	3534		1770	3529	
Flt Permitted	0.22	1.00		0.49	1.00		0.14	1.00		0.08	1.00	
Satd. Flow (perm)	406	1775		908	1646		260	3534		142	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	103	47	22	57	196	13	1327	14	577	1280	24
RTOR Reduction (vph)	0	13	0	0	104	0	0	1	0	0	1	0
Lane Group Flow (vph)	62	137	0	22	149	0	13	1340	0	577	1303	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	19.5	19.5		19.5	19.5		49.9	48.3		92.5	86.9	
Effective Green, g (s)	19.5	19.5		19.5	19.5		49.9	48.3		92.5	86.9	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.42	0.40		0.77	0.72	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	66	288		148	267		128	1422		655	2556	
v/s Ratio Prot		0.08			0.09		0.00	c0.38		c0.30	0.37	
v/s Ratio Perm	c0.15			0.02			0.04			0.38		
v/c Ratio	0.94	0.47		0.15	0.56		0.10	0.94		0.88	0.51	
Uniform Delay, d1	49.7	45.6		43.1	46.3		21.8	34.5		32.3	7.2	
Progression Factor	1.00	1.00		1.00	1.00		1.03	0.85		1.00	1.00	
Incremental Delay, d2	88.5	1.2		0.5	2.5		0.3	12.7		13.2	0.7	
Delay (s)	138.1	46.8		43.6	48.8		22.7	42.1		45.4	8.0	
Level of Service	F	D		D	D		C	D		D	A	
Approach Delay (s)		73.5			48.4			41.9			19.5	
Approach LOS		E			D			D			B	

Intersection Summary			
HCM Average Control Delay	32.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.1%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
17: Montgomery Ferry & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	103	277	100	107	18	119	649	56	11	964	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1802		1770	1840			1850	
Flt Permitted		0.91			0.41		0.18	1.00			0.99	
Satd. Flow (perm)		1555			752		342	1840			1835	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	112	301	109	116	20	129	705	61	12	1048	51
RTOR Reduction (vph)	0	61	0	0	3	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	416	0	0	242	0	129	763	0	0	1109	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.0			27.0		65.0	65.0			57.0	
Effective Green, g (s)		27.0			27.0		65.0	65.0			57.0	
Actuated g/C Ratio		0.27			0.27		0.65	0.65			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		420			203		279	1196			1046	
v/s Ratio Prot							0.02	c0.41				
v/s Ratio Perm		0.27			c0.32		0.28				c0.60	
v/c Ratio		0.99			1.19		0.46	0.64			1.06	
Uniform Delay, d1		36.4			36.5		11.4	10.5			21.5	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		40.7			124.8		1.2	2.6			45.3	
Delay (s)		77.1			161.3		12.6	13.1			66.8	
Level of Service		E			F		B	B			E	
Approach Delay (s)		77.1			161.3			13.0			66.8	
Approach LOS		E			F			B			E	

Intersection Summary			
HCM Average Control Delay	59.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	122.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
21: E Morningside & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	602	0	85	0	1144	221	80	1079	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0			4.0			4.0	
Lane Util. Factor				1.00	1.00			0.95			0.95	
Frt				1.00	0.85			0.98			1.00	
Flt Protected				0.95	1.00			1.00			1.00	
Satd. Flow (prot)				1770	1583			3453			3527	
Flt Permitted				0.95	1.00			1.00			0.65	
Satd. Flow (perm)				1770	1583			3453			2286	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	654	0	92	0	1243	240	87	1173	0
RTOR Reduction (vph)	0	0	0	0	44	0	0	8	0	0	0	0
Lane Group Flow (vph)	0	0	0	654	48	0	0	1475	0	0	1260	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)				25.0	25.0			87.0			87.0	
Effective Green, g (s)				25.0	25.0			87.0			87.0	
Actuated g/C Ratio				0.21	0.21			0.72			0.72	
Clearance Time (s)				4.0	4.0			4.0			4.0	
Vehicle Extension (s)				3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)				369	330			2503			1657	
v/s Ratio Prot				c0.37	0.03			0.43				
v/s Ratio Perm											c0.55	
v/c Ratio				1.77	0.15			0.59			0.76	
Uniform Delay, d1				47.5	38.8			7.9			10.1	
Progression Factor				1.00	1.00			1.00			0.58	
Incremental Delay, d2				358.4	0.2			1.0			3.1	
Delay (s)				405.9	39.0			8.9			8.9	
Level of Service				F	D			A			A	
Approach Delay (s)		0.0			360.7			8.9			8.9	
Approach LOS		A			F			A			A	

Intersection Summary			
HCM Average Control Delay	84.1	HCM Level of Service	F
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
22: Monroe & Piedmont

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	136	257	133	195	673	344	165	506	56	321	1203	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3358		1770	3360		1770	3486		1770	3461	
Flt Permitted	0.09	1.00		0.44	1.00		0.13	1.00		0.18	1.00	
Satd. Flow (perm)	160	3358		811	3360		244	3486		341	3461	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	148	279	145	212	732	374	179	550	61	349	1308	225
RTOR Reduction (vph)	0	62	0	0	60	0	0	7	0	0	11	0
Lane Group Flow (vph)	148	362	0	212	1046	0	179	604	0	349	1522	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	50.6	46.6		50.6	46.6		43.8	30.5		57.4	40.1	
Effective Green, g (s)	50.6	46.6		50.6	46.6		43.8	30.5		57.4	40.1	
Actuated g/C Ratio	0.42	0.39		0.42	0.39		0.36	0.25		0.48	0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	121	1304		374	1305		258	886		436	1157	
v/s Ratio Prot	c0.04	0.11		0.02	0.31		0.08	0.17		c0.15	c0.44	
v/s Ratio Perm	c0.47			0.22			0.18			0.23		
v/c Ratio	1.22	0.28		0.57	0.80		0.69	0.68		0.80	1.32	
Uniform Delay, d1	32.3	25.2		26.8	32.6		30.2	40.4		23.7	39.9	
Progression Factor	1.24	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	123.8	0.2		2.0	5.3		7.8	2.2		10.1	148.1	
Delay (s)	163.8	25.1		28.8	37.9		38.0	42.6		33.8	188.0	
Level of Service	F	C		C	D		D	D		C	F	
Approach Delay (s)		61.0			36.4			41.5			159.4	
Approach LOS		E			D			D			F	

Intersection Summary			
HCM Average Control Delay	91.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	99.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
26: Virginia & Monroe



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	241	376	651	211	121	541
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.37	1.00
Satd. Flow (perm)	1770	1583	3539	1583	681	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	262	409	708	229	132	588
RTOR Reduction (vph)	0	227	0	63	0	0
Lane Group Flow (vph)	262	182	708	166	132	588
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	19.5	19.5	72.5	72.5	72.5	72.5
Effective Green, g (s)	19.5	19.5	72.5	72.5	72.5	72.5
Actuated g/C Ratio	0.20	0.20	0.72	0.72	0.72	0.72
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	345	309	2566	1148	494	2566
v/s Ratio Prot	c0.15		c0.20	0.10		0.17
v/s Ratio Perm		0.11			0.19	
v/c Ratio	0.76	0.59	0.28	0.14	0.27	0.23
Uniform Delay, d1	38.0	36.6	4.7	4.2	4.7	4.5
Progression Factor	1.00	1.00	1.20	2.23	1.21	1.19
Incremental Delay, d2	9.3	2.9	0.2	0.2	1.2	0.2
Delay (s)	47.3	39.5	5.9	9.7	6.9	5.6
Level of Service	D	D	A	A	A	A
Approach Delay (s)	42.5		6.8			5.8
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	16.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	48.1%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
27: Virginia & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	615	298	95	287	30	130	124	88	53	133	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1780			1823			1764			1810	
Flt Permitted		0.99			0.64			0.71			0.81	
Satd. Flow (perm)		1759			1183			1271			1486	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	668	324	103	312	33	141	135	96	58	145	28
RTOR Reduction (vph)	0	17	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	997	0	0	445	0	0	359	0	0	226	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		62.0			62.0			30.0			30.0	
Effective Green, g (s)		62.0			62.0			30.0			30.0	
Actuated g/C Ratio		0.62			0.62			0.30			0.30	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1091			733			381			446	
v/s Ratio Prot												
v/s Ratio Perm		c0.57			0.38			c0.28			0.15	
v/c Ratio		0.91			0.61			0.94			0.51	
Uniform Delay, d1		16.7			11.6			34.2			28.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		13.1			3.7			33.8			0.9	
Delay (s)		29.8			15.3			68.0			29.8	
Level of Service		C			B			E			C	
Approach Delay (s)		29.8			15.3			68.0			29.8	
Approach LOS		C			B			E			C	

Intersection Summary			
HCM Average Control Delay	33.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
28: Park & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	4	18	65	8	276	15	812	9	109	672	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.90			1.00			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1714			1654			3528			3495	
Flt Permitted		0.62			0.92			0.92			0.69	
Satd. Flow (perm)		1095			1546			3257			2444	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	21	5	20	93	12	329	22	855	12	122	707	32
RTOR Reduction (vph)	0	17	0	0	113	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	29	0	0	321	0	0	888	0	0	858	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			76.0			76.0	
Effective Green, g (s)		16.0			16.0			76.0			76.0	
Actuated g/C Ratio		0.16			0.16			0.76			0.76	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		175			247			2475			1857	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.21			0.27			c0.35	
v/c Ratio		0.17			1.30			0.36			0.46	
Uniform Delay, d1		36.2			42.0			4.0			4.4	
Progression Factor		1.00			1.00			0.64			0.83	
Incremental Delay, d2		0.5			162.0			0.4			0.8	
Delay (s)		36.7			204.0			2.9			4.5	
Level of Service		D			F			A			A	
Approach Delay (s)		36.7			204.0			2.9			4.5	
Approach LOS		D			F			A			A	

Intersection Summary			
HCM Average Control Delay	43.3	HCM Level of Service	D
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2020 AM Baseline
30: 10th Street & Piedmont



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	384	381	644	322	404	367
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.93	
Flt Protected	0.95	1.00		0.97	1.00	
Satd. Flow (prot)	3433	1583		3425	3286	
Flt Permitted	0.95	1.00		0.52	1.00	
Satd. Flow (perm)	3433	1583		1843	3286	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	417	414	700	350	439	399
RTOR Reduction (vph)	0	338	0	0	60	0
Lane Group Flow (vph)	417	76	0	1050	778	0
Turn Type		Perm	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	7	2			
Actuated Green, G (s)	18.4	18.4		73.6	73.6	
Effective Green, g (s)	18.4	18.4		73.6	73.6	
Actuated g/C Ratio	0.18	0.18		0.74	0.74	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	632	291		1356	2418	
v/s Ratio Prot	c0.12				0.24	
v/s Ratio Perm		0.05		c0.57		
v/c Ratio	0.66	0.26		1.61dl	0.32	
Uniform Delay, d1	37.9	35.0		8.1	4.6	
Progression Factor	1.00	1.00		1.63	0.52	
Incremental Delay, d2	2.5	0.5		2.6	0.3	
Delay (s)	40.4	35.5		15.8	2.7	
Level of Service	D	D		B	A	
Approach Delay (s)	37.9			15.8	2.7	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.6%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

2020 AM Baseline
32: Amsterdam Av & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	3	29	167	14	139	25	807	47	26	481	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.94			0.99			0.99	
Flt Protected		0.98			0.97			1.00			1.00	
Satd. Flow (prot)		1695			1709			3506			3503	
Flt Permitted		0.83			0.82			0.93			0.88	
Satd. Flow (perm)		1443			1433			3255			3091	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	3	32	182	15	151	27	877	51	28	523	30
RTOR Reduction (vph)	0	21	0	0	23	0	0	5	0	0	5	0
Lane Group Flow (vph)	0	40	0	0	325	0	0	950	0	0	576	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		33.4			33.4			58.6			58.6	
Effective Green, g (s)		33.4			33.4			58.6			58.6	
Actuated g/C Ratio		0.33			0.33			0.59			0.59	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		482			479			1907			1811	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.23			c0.29			0.19	
v/c Ratio		0.08			0.68			0.50			0.32	
Uniform Delay, d1		22.8			28.7			12.1			10.5	
Progression Factor		1.00			1.00			0.58			1.00	
Incremental Delay, d2		0.1			3.8			0.2			0.1	
Delay (s)		22.9			32.5			7.2			10.6	
Level of Service		C			C			A			B	
Approach Delay (s)		22.9			32.5			7.2			10.6	
Approach LOS		C			C			A			B	

Intersection Summary			
HCM Average Control Delay	13.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
41: Dutch Valley & Piedmont



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	42	24	58	1133	702	73
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.95			1.00	0.99	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1717			3531	3489	
Flt Permitted	0.97			0.86	1.00	
Satd. Flow (perm)	1717			3029	3489	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	26	63	1232	763	79
RTOR Reduction (vph)	23	0	0	0	5	0
Lane Group Flow (vph)	49	0	0	1295	837	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	7.3			84.7	84.7	
Effective Green, g (s)	7.3			84.7	84.7	
Actuated g/C Ratio	0.07			0.85	0.85	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	125			2566	2955	
v/s Ratio Prot	c0.03				0.24	
v/s Ratio Perm				c0.43		
v/c Ratio	0.39			0.50	0.28	
Uniform Delay, d1	44.2			2.0	1.5	
Progression Factor	1.00			1.00	1.00	
Incremental Delay, d2	2.0			0.7	0.2	
Delay (s)	46.2			2.8	1.8	
Level of Service	D			A	A	
Approach Delay (s)	46.2			2.8	1.8	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	3.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
42: Ponce De Leon & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	502	57	158	833	409	142	424	163	215	295	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.98		1.00	0.95		1.00	0.96		1.00	0.97	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5008		1770	4834		1770	3392		1770	1798	
Flt Permitted	0.11	1.00		0.32	1.00		0.17	1.00		0.25	1.00	
Satd. Flow (perm)	212	5008		598	4834		319	3392		461	1798	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	546	62	172	905	445	154	461	177	234	321	96
RTOR Reduction (vph)	0	11	0	0	62	0	0	47	0	0	12	0
Lane Group Flow (vph)	66	597	0	172	1288	0	154	591	0	234	405	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	47.4	40.7		55.7	45.0		44.0	32.3		40.6	30.6	
Effective Green, g (s)	47.4	40.7		55.7	45.0		44.0	32.3		40.6	30.6	
Actuated g/C Ratio	0.43	0.37		0.51	0.41		0.40	0.29		0.37	0.28	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	186	1853		420	1978		282	996		289	500	
v/s Ratio Prot	0.02	0.12		c0.04	c0.27		c0.06	0.17		c0.07	c0.23	
v/s Ratio Perm	0.13			0.17			0.16			0.23		
v/c Ratio	0.35	0.32		0.41	0.65		0.55	0.59		0.81	0.81	
Uniform Delay, d1	20.0	24.8		15.4	26.2		24.2	33.2		26.8	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	0.5		0.7	1.7		2.2	1.0		15.3	9.7	
Delay (s)	21.2	25.2		16.1	27.9		26.4	34.2		42.1	46.7	
Level of Service	C	C		B	C		C	C		D	D	
Approach Delay (s)		24.8			26.5			32.7			45.0	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	30.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	70.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
45: Ponce De Leon & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	228	2162	94	40	1221	128	78	45	79	219	51	218
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1685		1770	1636	
Flt Permitted	0.07	1.00	1.00	0.08	1.00		0.35	1.00		0.62	1.00	
Satd. Flow (perm)	140	5085	1583	151	3489		653	1685		1153	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	248	2350	102	43	1327	139	85	49	86	238	55	237
RTOR Reduction (vph)	0	0	12	0	8	0	0	63	0	0	155	0
Lane Group Flow (vph)	248	2350	90	43	1458	0	85	72	0	238	137	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	66.0	59.0	59.0	52.4	49.4		26.0	26.0		26.0	26.0	
Effective Green, g (s)	66.0	59.0	59.0	52.4	49.4		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.66	0.59	0.59	0.52	0.49		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	298	3000	934	128	1724		170	438		300	425	
v/s Ratio Prot	c0.10	0.46		0.01	0.42			0.04			0.08	
v/s Ratio Perm	c0.45		0.06	0.17			0.13			c0.21		
v/c Ratio	0.83	0.78	0.10	0.34	0.85		0.50	0.16		0.79	0.32	
Uniform Delay, d1	28.3	15.6	8.9	15.0	22.0		31.5	28.6		34.5	29.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	17.7	2.1	0.2	1.6	5.3		10.1	0.8		13.4	0.4	
Delay (s)	46.0	17.8	9.1	16.5	27.3		41.6	29.4		47.9	30.3	
Level of Service	D	B	A	B	C		D	C		D	C	
Approach Delay (s)		20.0			27.0			34.1			38.2	
Approach LOS		C			C			C			D	

Intersection Summary			
HCM Average Control Delay	24.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.2%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
59: Monroe &



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	102	0	151	0	0	0	147	677	0	0	1146	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0						4.0			4.0	
Lane Util. Factor		1.00						0.95			0.95	
Frt		0.92						1.00			0.99	
Flt Protected		0.98						0.99			1.00	
Satd. Flow (prot)		1679						3508			3487	
Flt Permitted		0.87						0.57			1.00	
Satd. Flow (perm)		1487						2011			3487	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	111	0	164	0	0	0	160	736	0	0	1246	136
RTOR Reduction (vph)	0	33	0	0	0	0	0	0	0	0	14	0
Lane Group Flow (vph)	0	242	0	0	0	0	0	896	0	0	1368	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.4						29.6			29.6	
Effective Green, g (s)		12.4						29.6			29.6	
Actuated g/C Ratio		0.25						0.59			0.59	
Clearance Time (s)		4.0						4.0			4.0	
Vehicle Extension (s)		3.0						3.0			3.0	
Lane Grp Cap (vph)		369						1191			2064	
v/s Ratio Prot											0.39	
v/s Ratio Perm		c0.16						c0.45				
v/c Ratio		0.66						1.07dl			0.66	
Uniform Delay, d1		16.9						7.5			6.8	
Progression Factor		1.00						1.00			1.00	
Incremental Delay, d2		4.2						4.4			1.7	
Delay (s)		21.0						11.9			8.5	
Level of Service		C						B			A	
Approach Delay (s)		21.0			0.0			11.9			8.5	
Approach LOS		C			A			B			A	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.6%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

2020 AM Baseline
70: The Prado & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	284	0	28	1	0	1	17	1328	2	1135	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3411	
Flt Permitted		0.95	1.00		0.98		0.16	1.00	0.11	0.96	
Satd. Flow (perm)		1770	1583		1695		290	2787	199	3411	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	309	0	30	1	0	1	18	1443	2	1234	117
RTOR Reduction (vph)	0	0	24	0	1	0	0	0	0	4	0
Lane Group Flow (vph)	0	309	6	0	1	0	18	1443	2	1347	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		25.4	25.4		1.2		81.4	81.4	81.4	81.4	
Effective Green, g (s)		25.4	25.4		1.2		81.4	81.4	81.4	81.4	
Actuated g/C Ratio		0.21	0.21		0.01		0.68	0.68	0.68	0.68	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		375	335		17		197	1891	135	2314	
v/s Ratio Prot		c0.17			c0.00			c0.52		0.39	
v/s Ratio Perm			0.00				0.06		0.01		
v/c Ratio		0.82	0.02		0.06		0.09	0.76	0.01	0.58	
Uniform Delay, d1		45.2	37.4		58.8		6.6	12.9	6.3	10.3	
Progression Factor		1.00	1.00		1.00		0.79	0.89	1.00	1.00	
Incremental Delay, d2		13.6	0.0		1.5		0.8	2.7	0.2	1.1	
Delay (s)		58.8	37.5		60.3		6.0	14.1	6.5	11.3	
Level of Service		E	D		E		A	B	A	B	
Approach Delay (s)		56.9			60.3		14.0			11.3	
Approach LOS		E			E		B			B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
75: 14th &



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	208	0	312	1070	0	1216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	226	0	339	1163	0	1322
RTOR Reduction (vph)	0	0	0	0	0	460
Lane Group Flow (vph)	226	0	339	1163	0	862
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	12.9		39.1	39.1		39.1
Effective Green, g (s)	12.9		39.1	39.1		39.1
Actuated g/C Ratio	0.22		0.65	0.65		0.65
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	381		1153	2306		1816
v/s Ratio Prot	c0.13			c0.33		
v/s Ratio Perm			0.19			0.31
v/c Ratio	0.59		0.29	0.50		0.47
Uniform Delay, d1	21.2		4.5	5.4		5.3
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	2.5		0.6	0.8		0.8
Delay (s)	23.7		5.2	6.2		6.0
Level of Service	C		A	A		A
Approach Delay (s)	23.7			6.0	6.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	7.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2020 AM Baseline
77: 8th & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	122	9	86	11	2	7	83	704	10	8	591	166
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.87			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	1612			1785	1583		3507		1770	1863	1583
Flt Permitted	0.56	1.00			1.00	1.00		0.77		0.29	1.00	1.00
Satd. Flow (perm)	1049	1612			1863	1583		2710		536	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	145	11	95	13	2	8	122	741	12	9	616	178
RTOR Reduction (vph)	0	83	0	0	0	8	0	1	0	0	0	36
Lane Group Flow (vph)	145	23	0	0	15	0	0	874	0	9	616	142
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	12.5	12.5			3.1	3.1		74.3		79.5	79.5	79.5
Effective Green, g (s)	12.5	12.5			3.1	3.1		74.3		79.5	79.5	79.5
Actuated g/C Ratio	0.12	0.12			0.03	0.03		0.74		0.80	0.80	0.80
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	170	202			58	49		2014		441	1481	1258
v/s Ratio Prot	c0.05	0.01								0.00	c0.33	
v/s Ratio Perm	c0.06				0.01	0.00		c0.32		0.02		0.09
v/c Ratio	0.85	0.11			0.26	0.01		0.43		0.02	0.42	0.11
Uniform Delay, d1	42.6	38.8			47.3	47.0		4.9		2.5	3.1	2.3
Progression Factor	1.00	1.00			1.00	1.00		1.00		0.61	0.66	0.40
Incremental Delay, d2	31.6	0.3			2.4	0.0		0.2		0.0	0.8	0.2
Delay (s)	74.2	39.1			49.7	47.0		5.0		1.6	2.9	1.1
Level of Service	E	D			D	D		A		A	A	A
Approach Delay (s)		59.4			48.8			5.0			2.5	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2020 Baseline

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.62	1.00		0.27	1.00			0.68			0.71	
Satd. Flow (perm)	1150	1781		500	1815			2278			2494	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	9	0	0	19	0	0	161	0	0	2	0
Lane Group Flow (vph)	34	543	0	378	207	0	0	998	0	0	1345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	460	712		200	726			911			998	
v/s Ratio Prot		0.30			0.11							
v/s Ratio Perm	0.03			c0.76				0.44			c0.54	
v/c Ratio	0.07	0.76		1.89	0.29			1.10			1.35	
Uniform Delay, d1	7.4	10.4		12.0	8.1			12.0			12.0	
Progression Factor	0.72	0.69		1.00	1.00			1.00			0.85	
Incremental Delay, d2	0.3	6.5		418.8	1.0			59.5			157.9	
Delay (s)	5.6	13.6		430.8	9.1			71.5			168.2	
Level of Service	A	B		F	A			E			F	
Approach Delay (s)		13.2			273.0			71.5			168.2	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	89	41	19	49	171	11	1154	12	502	1114	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1774		1770	1645		1770	3534		1770	3529	
Flt Permitted	0.23	1.00		0.48	1.00		0.17	1.00		0.08	1.00	
Satd. Flow (perm)	426	1774		902	1645		311	3534		140	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	97	45	21	53	186	12	1254	13	546	1211	23
RTOR Reduction (vph)	0	15	0	0	108	0	0	1	0	0	1	0
Lane Group Flow (vph)	59	127	0	21	131	0	12	1266	0	546	1233	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.5	17.5		17.5	17.5		53.0	51.4		94.5	88.9	
Effective Green, g (s)	17.5	17.5		17.5	17.5		53.0	51.4		94.5	88.9	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.44	0.43		0.79	0.74	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	62	259		132	240		157	1514		641	2614	
v/s Ratio Prot		0.07			0.08		0.00	0.36		c0.28	0.35	
v/s Ratio Perm	c0.14			0.02			0.03			c0.39		
v/c Ratio	0.95	0.49		0.16	0.55		0.08	0.84		0.85	0.47	
Uniform Delay, d1	50.8	47.2		44.8	47.6		19.6	30.6		29.2	6.2	
Progression Factor	1.00	1.00		1.00	1.00		0.74	0.73		1.00	1.00	
Incremental Delay, d2	96.6	1.5		0.6	2.5		0.2	5.0		10.6	0.6	
Delay (s)	147.4	48.6		45.4	50.1		14.6	27.4		39.8	6.8	
Level of Service	F	D		D	D		B	C		D	A	
Approach Delay (s)		77.6			49.7			27.3			16.9	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	98	262	95	101	17	112	614	53	10	911	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1803		1770	1840			1850	
Flt Permitted		0.92			0.44		0.20	1.00			0.99	
Satd. Flow (perm)		1565			803		369	1840			1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	107	285	103	110	18	122	667	58	11	990	49
RTOR Reduction (vph)	0	61	0	0	3	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	392	0	0	228	0	122	722	0	0	1048	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.0			27.0		65.0	65.0			57.0	
Effective Green, g (s)		27.0			27.0		65.0	65.0			57.0	
Actuated g/C Ratio		0.27			0.27		0.65	0.65			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		423			217		296	1196			1047	
v/s Ratio Prot							0.02	c0.39				
v/s Ratio Perm		0.25			c0.28		0.25				c0.57	
v/c Ratio		0.93			1.05		0.41	0.60			1.00	
Uniform Delay, d1		35.5			36.5		10.9	10.1			21.5	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		26.0			75.2		0.9	2.3			28.1	
Delay (s)		61.6			111.7		11.8	12.3			49.6	
Level of Service		E			F		B	B			D	
Approach Delay (s)		61.6			111.7			12.3			49.6	
Approach LOS		E			F			B			D	

Intersection Summary			
HCM Average Control Delay	45.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	30	20	169	30	80	20	1082	209	76	1020	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.89			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1767		1770	1660			3452			3513	
Flt Permitted		0.83		0.51	1.00			0.92			0.65	
Satd. Flow (perm)		1501		951	1660			3167			2287	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	22	184	33	87	22	1176	227	83	1109	33
RTOR Reduction (vph)	0	11	0	0	49	0	0	9	0	0	1	0
Lane Group Flow (vph)	0	77	0	184	71	0	0	1416	0	0	1224	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.3		31.2	31.2			80.8			80.8	
Effective Green, g (s)		11.3		31.2	31.2			80.8			80.8	
Actuated g/C Ratio		0.09		0.26	0.26			0.67			0.67	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		141		356	432			2132			1540	
v/s Ratio Prot				c0.07	0.04							
v/s Ratio Perm		0.05		c0.07				0.45			c0.54	
v/c Ratio		0.55		0.52	0.16			0.66			0.79	
Uniform Delay, d1		51.9		37.1	34.3			11.6			13.8	
Progression Factor		1.00		1.00	1.00			1.00			0.75	
Incremental Delay, d2		4.3		1.3	0.2			1.7			4.0	
Delay (s)		56.2		38.4	34.5			13.2			14.3	
Level of Service		E		D	C			B			B	
Approach Delay (s)		56.2			36.9			13.2			14.3	
Approach LOS		E			D			B			B	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	227	677	133	146	333	305	185	785	166	458	859	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3452		1770	3285		1770	3447		1770	3459	
Flt Permitted	0.22	1.00		0.12	1.00		0.15	1.00		0.13	1.00	
Satd. Flow (perm)	414	3452		229	3285		276	3447		240	3459	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	247	736	145	159	362	332	201	853	180	498	934	167
RTOR Reduction (vph)	0	17	0	0	170	0	0	15	0	0	12	0
Lane Group Flow (vph)	247	864	0	159	524	0	201	1018	0	498	1089	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	43.0	39.0		43.0	39.0		46.4	27.0		65.0	41.6	
Effective Green, g (s)	43.0	39.0		43.0	39.0		46.4	27.0		65.0	41.6	
Actuated g/C Ratio	0.36	0.32		0.36	0.32		0.39	0.22		0.54	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	194	1122		133	1068		348	776		564	1199	
v/s Ratio Prot	c0.04	0.25		0.04	0.16		0.09	c0.30		c0.25	0.31	
v/s Ratio Perm	c0.41			0.39			0.13			0.23		
v/c Ratio	1.27	0.77		1.20	0.49		0.58	1.31		0.88	0.91	
Uniform Delay, d1	39.8	36.5		37.6	32.5		27.3	46.5		31.9	37.4	
Progression Factor	0.85	0.85		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	126.7	0.5		140.0	1.6		2.3	149.6		15.1	10.1	
Delay (s)	160.5	31.4		177.6	34.1		29.6	196.1		47.1	47.4	
Level of Service	F	C		F	C		C	F		D	D	
Approach Delay (s)		59.6			60.9			169.0			47.3	
Approach LOS		E			E			F			D	

Intersection Summary			
HCM Average Control Delay	83.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	97.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	147	52	518	242	341	946
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.44	1.00
Satd. Flow (perm)	1770	1583	3539	1583	817	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	57	563	263	371	1028
RTOR Reduction (vph)	0	49	0	59	0	0
Lane Group Flow (vph)	160	8	563	204	371	1028
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	14.3	14.3	77.7	77.7	77.7	77.7
Effective Green, g (s)	14.3	14.3	77.7	77.7	77.7	77.7
Actuated g/C Ratio	0.14	0.14	0.78	0.78	0.78	0.78
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	253	226	2750	1230	635	2750
v/s Ratio Prot	c0.09		0.16	0.13		0.29
v/s Ratio Perm		0.01			c0.45	
v/c Ratio	0.63	0.04	0.20	0.17	0.58	0.37
Uniform Delay, d1	40.4	36.9	3.0	2.9	4.6	3.5
Progression Factor	1.00	1.00	0.39	0.17	1.48	1.37
Incremental Delay, d2	5.1	0.1	0.2	0.3	3.2	0.3
Delay (s)	45.5	37.0	1.3	0.8	9.9	5.1
Level of Service	D	D	A	A	A	A
Approach Delay (s)	43.2		1.1			6.4
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.4%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	500	241	89	270	28	122	117	83	50	125	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.71			0.72			0.83	
Satd. Flow (perm)		1763			1314			1300			1512	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	543	262	97	293	30	133	127	90	54	136	27
RTOR Reduction (vph)	0	17	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	805	0	0	417	0	0	337	0	0	212	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		62.0			62.0			30.0			30.0	
Effective Green, g (s)		62.0			62.0			30.0			30.0	
Actuated g/C Ratio		0.62			0.62			0.30			0.30	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1093			815			390			454	
v/s Ratio Prot												
v/s Ratio Perm		c0.46			0.32			c0.26			0.14	
v/c Ratio		0.74			0.51			0.87			0.47	
Uniform Delay, d1		13.3			10.6			33.1			28.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.4			2.3			21.8			0.8	
Delay (s)		17.7			12.9			54.9			29.3	
Level of Service		B			B			D			C	
Approach Delay (s)		17.7			12.9			54.9			29.3	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	25.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	12	29	15	8	98	20	730	37	182	891	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.89			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1731			1655			3502			3489	
Flt Permitted		0.52			0.95			0.88			0.64	
Satd. Flow (perm)		918			1583			3091			2263	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	41	16	33	21	12	117	29	768	49	204	938	45
RTOR Reduction (vph)	0	22	0	0	105	0	0	4	0	0	2	0
Lane Group Flow (vph)	0	68	0	0	45	0	0	842	0	0	1185	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.5			10.5			81.5			81.5	
Effective Green, g (s)		10.5			10.5			81.5			81.5	
Actuated g/C Ratio		0.10			0.10			0.82			0.82	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		96			166			2519			1844	
v/s Ratio Prot												
v/s Ratio Perm		c0.07			0.03			0.27			c0.52	
v/c Ratio		0.70			0.27			0.33			0.64	
Uniform Delay, d1		43.3			41.2			2.4			3.6	
Progression Factor		1.00			1.00			0.65			0.70	
Incremental Delay, d2		20.9			0.9			0.3			1.3	
Delay (s)		64.1			42.1			1.9			3.8	
Level of Service		E			D			A			A	
Approach Delay (s)		64.1			42.1			1.9			3.8	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	479	579	366	367	952	181
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.98	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	3433	1583		3453	3454	
Flt Permitted	0.95	1.00		0.51	1.00	
Satd. Flow (perm)	3433	1583		1810	3454	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	521	629	398	399	1035	197
RTOR Reduction (vph)	0	342	0	0	7	0
Lane Group Flow (vph)	521	287	0	797	1225	0
Turn Type		Perm	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	7	2			
Actuated Green, G (s)	25.3	25.3		66.7	66.7	
Effective Green, g (s)	25.3	25.3		66.7	66.7	
Actuated g/C Ratio	0.25	0.25		0.67	0.67	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	869	400		1207	2304	
v/s Ratio Prot	0.15				0.35	
v/s Ratio Perm		c0.18		c0.44		
v/c Ratio	0.60	0.72		1.81dl	0.53	
Uniform Delay, d1	32.9	34.1		9.9	8.6	
Progression Factor	1.00	1.00		0.98	0.73	
Incremental Delay, d2	1.1	6.0		1.4	0.8	
Delay (s)	34.0	40.1		11.0	7.0	
Level of Service	C	D		B	A	
Approach Delay (s)	37.4			11.0	7.0	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	19.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.5%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	24	54	60	30	72	103	781	100	77	1029	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.94			0.98			0.98	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		1719			1720			3467			3458	
Flt Permitted		0.75			0.76			0.63			0.78	
Satd. Flow (perm)		1318			1337			2191			2716	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	26	59	65	33	78	112	849	109	84	1118	186
RTOR Reduction (vph)	0	32	0	0	31	0	0	6	0	0	9	0
Lane Group Flow (vph)	0	99	0	0	145	0	0	1064	0	0	1379	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.7			14.7			77.3			77.3	
Effective Green, g (s)		14.7			14.7			77.3			77.3	
Actuated g/C Ratio		0.15			0.15			0.77			0.77	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		194			197			1694			2099	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.11			0.49			c0.51	
v/c Ratio		0.51			0.74			0.63			0.66	
Uniform Delay, d1		39.3			40.8			5.0			5.2	
Progression Factor		1.00			1.00			1.17			0.80	
Incremental Delay, d2		2.3			13.4			0.7			0.7	
Delay (s)		41.6			54.2			6.6			4.9	
Level of Service		D			D			A			A	
Approach Delay (s)		41.6			54.2			6.6			4.9	
Approach LOS		D			D			A			A	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.3%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	54	62	45	860	1124	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1689			3530	3514	
Flt Permitted	0.98			0.81	1.00	
Satd. Flow (perm)	1689			2880	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	67	49	935	1222	62
RTOR Reduction (vph)	45	0	0	0	3	0
Lane Group Flow (vph)	81	0	0	984	1281	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.1			81.9	81.9	
Effective Green, g (s)	10.1			81.9	81.9	
Actuated g/C Ratio	0.10			0.82	0.82	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	171			2359	2878	
v/s Ratio Prot	c0.05				c0.36	
v/s Ratio Perm				0.34		
v/c Ratio	0.47			0.42	0.45	
Uniform Delay, d1	42.4			2.5	2.6	
Progression Factor	1.00			1.01	1.00	
Incremental Delay, d2	2.1			0.4	0.5	
Delay (s)	44.5			3.0	3.1	
Level of Service	D			A	A	
Approach Delay (s)	44.5			3.0	3.1	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	5.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	70.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	175	808	278	150	914	109	310	391	120	183	380	209
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	5004		1770	3415		1770	1764	
Flt Permitted	0.14	1.00		0.15	1.00		0.09	1.00		0.44	1.00	
Satd. Flow (perm)	266	4890		283	5004		169	3415		827	1764	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	190	878	302	163	993	118	337	425	130	199	413	227
RTOR Reduction (vph)	0	57	0	0	13	0	0	26	0	0	18	0
Lane Group Flow (vph)	190	1123	0	163	1098	0	337	529	0	199	622	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.5	28.0		34.1	26.3		62.2	48.5		49.9	40.2	
Effective Green, g (s)	37.5	28.0		34.1	26.3		62.2	48.5		49.9	40.2	
Actuated g/C Ratio	0.34	0.25		0.31	0.24		0.57	0.44		0.45	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	221	1245		193	1196		358	1506		458	645	
v/s Ratio Prot	c0.07	c0.23		0.06	0.22		c0.15	0.15		0.04	0.35	
v/s Ratio Perm	0.22			0.20			c0.38			0.16		
v/c Ratio	0.86	0.90		0.84	0.92		0.94	0.35		0.43	0.96	
Uniform Delay, d1	29.4	39.7		31.0	40.8		33.5	20.3		18.5	34.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	26.7	10.7		27.2	12.6		32.6	0.1		0.7	26.5	
Delay (s)	56.1	50.4		58.1	53.4		66.1	20.5		19.2	60.7	
Level of Service	E	D		E	D		E	C		B	E	
Approach Delay (s)		51.2			54.0			37.7			50.8	
Approach LOS		D			D			D			D	

Intersection Summary			
HCM Average Control Delay	49.2	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	215	2044	88	37	1154	121	74	43	75	207	48	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1685		1770	1636	
Flt Permitted	0.07	1.00	1.00	0.08	1.00		0.38	1.00		0.63	1.00	
Satd. Flow (perm)	139	5085	1583	150	3489		701	1685		1173	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	234	2222	96	40	1254	132	80	47	82	225	52	224
RTOR Reduction (vph)	0	0	12	0	8	0	0	61	0	0	155	0
Lane Group Flow (vph)	234	2222	84	40	1378	0	80	68	0	225	121	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	66.0	59.0	59.0	52.6	49.6		26.0	26.0		26.0	26.0	
Effective Green, g (s)	66.0	59.0	59.0	52.6	49.6		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.66	0.59	0.59	0.53	0.50		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	294	3000	934	128	1731		182	438		305	425	
v/s Ratio Prot	c0.10	0.44		0.01	0.40			0.04			0.07	
v/s Ratio Perm	c0.43		0.05	0.16			0.11			c0.19		
v/c Ratio	0.80	0.74	0.09	0.31	0.80		0.44	0.16		0.74	0.28	
Uniform Delay, d1	26.8	14.9	8.9	14.0	21.0		30.9	28.5		33.9	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.8	1.7	0.2	1.4	3.9		7.5	0.8		9.0	0.4	
Delay (s)	40.7	16.6	9.1	15.4	24.9		38.4	29.3		42.9	29.9	
Level of Service	D	B	A	B	C		D	C		D	C	
Approach Delay (s)		18.5			24.6			32.8			35.7	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	20	142	10	30	20	139	640	20	40	1084	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.95			1.00			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1693			1764			3495			3483	
Flt Permitted		0.85			0.95			0.58			0.91	
Satd. Flow (perm)		1468			1682			2059			3170	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	22	154	11	33	22	151	696	22	43	1178	129
RTOR Reduction (vph)	0	39	0	0	17	0	0	3	0	0	13	0
Lane Group Flow (vph)	0	242	0	0	49	0	0	866	0	0	1337	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.4			12.4			29.6			29.6	
Effective Green, g (s)		12.4			12.4			29.6			29.6	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		364			417			1219			1877	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.03			0.42			c0.42	
v/c Ratio		0.66			0.12			0.97dl			0.71	
Uniform Delay, d1		16.9			14.6			7.2			7.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.5			0.1			3.5			2.3	
Delay (s)		21.5			14.7			10.7			9.5	
Level of Service		C			B			B			A	
Approach Delay (s)		21.5			14.7			10.7			9.5	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	268	0	27	1	0	1	16	1255	2	1173	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3413	
Flt Permitted		0.95	1.00		0.98		0.15	1.00	0.13	0.96	
Satd. Flow (perm)		1770	1583		1695		279	2787	233	3413	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	291	0	29	1	0	1	17	1364	2	1275	111
RTOR Reduction (vph)	0	0	23	0	1	0	0	0	0	3	0
Lane Group Flow (vph)	0	291	6	0	1	0	17	1364	2	1383	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		24.5	24.5		1.2		82.3	82.3	82.3	82.3	
Effective Green, g (s)		24.5	24.5		1.2		82.3	82.3	82.3	82.3	
Actuated g/C Ratio		0.20	0.20		0.01		0.69	0.69	0.69	0.69	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		361	323		17		191	1911	160	2341	
v/s Ratio Prot		c0.16			c0.00			c0.49		0.41	
v/s Ratio Perm			0.00				0.06		0.01		
v/c Ratio		0.81	0.02		0.06		0.09	0.71	0.01	0.59	
Uniform Delay, d1		45.5	38.1		58.8		6.3	11.6	6.0	10.0	
Progression Factor		1.00	1.00		1.00		0.80	0.90	1.00	1.00	
Incremental Delay, d2		12.3	0.0		1.5		0.8	2.1	0.1	1.1	
Delay (s)		57.8	38.2		60.3		5.9	12.6	6.1	11.1	
Level of Service		E	D		E		A	B	A	B	
Approach Delay (s)		56.1			60.3		12.5			11.0	
Approach LOS		E			E		B			B	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	197	0	295	1012	0	1149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	214	0	321	1100	0	1249
RTOR Reduction (vph)	0	0	0	0	0	427
Lane Group Flow (vph)	214	0	321	1100	0	822
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	12.5		39.5	39.5		39.5
Effective Green, g (s)	12.5		39.5	39.5		39.5
Actuated g/C Ratio	0.21		0.66	0.66		0.66
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	369		1165	2330		1835
v/s Ratio Prot	c0.12			c0.31		
v/s Ratio Perm			0.18			0.30
v/c Ratio	0.58		0.28	0.47		0.45
Uniform Delay, d1	21.4		4.3	5.1		5.0
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	2.2		0.6	0.7		0.7
Delay (s)	23.6		4.9	5.8		5.6
Level of Service	C		A	A		A
Approach Delay (s)	23.6			5.6	5.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	38	42	97	25	66	20	621	100	101	713	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1722			1791	1583		3454		1770	1863	1583
Flt Permitted	0.40	1.00			0.71	1.00		0.91		0.27	1.00	1.00
Satd. Flow (perm)	740	1722			1321	1583		3153		510	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	137	45	46	113	29	75	29	654	120	112	743	183
RTOR Reduction (vph)	0	34	0	0	0	64	0	15	0	0	0	57
Lane Group Flow (vph)	137	57	0	0	142	11	0	788	0	112	743	126
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	23.2	23.2			14.2	14.2		57.2		68.8	68.8	68.8
Effective Green, g (s)	23.2	23.2			14.2	14.2		57.2		68.8	68.8	68.8
Actuated g/C Ratio	0.23	0.23			0.14	0.14		0.57		0.69	0.69	0.69
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	223	400			188	225		1804		447	1282	1089
v/s Ratio Prot	c0.03	0.03								0.02	c0.40	
v/s Ratio Perm	0.11				c0.11	0.01		0.25		0.15		0.08
v/c Ratio	0.61	0.14			0.76	0.05		0.44		0.25	0.58	0.12
Uniform Delay, d1	33.8	30.5			41.2	37.1		12.2		6.2	8.1	5.3
Progression Factor	1.00	1.00			1.00	1.00		1.00		0.53	0.51	0.00
Incremental Delay, d2	5.0	0.2			15.8	0.1		0.2		0.3	1.8	0.2
Delay (s)	38.7	30.7			57.0	37.1		12.4		3.6	6.0	0.2
Level of Service	D	C			E	D		B		A	A	A
Approach Delay (s)		35.5			50.1			12.4			4.7	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	14.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2020 BeltLine

AM PEAK HOUR, 4-LANE MONROE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.59	1.00		0.29	1.00			0.64			0.66	
Satd. Flow (perm)	1104	1781		533	1815			2149			2315	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	10	0	0	11	0	0	92	0	0	1	0
Lane Group Flow (vph)	34	542	0	378	215	0	0	1067	0	0	1346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Effective Green, g (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.41			0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	520	840		251	856			890			959	
v/s Ratio Prot		0.30			0.12							
v/s Ratio Perm	0.03			c0.71				0.50			c0.58	
v/c Ratio	0.07	0.65		1.51	0.25			1.20			1.40	
Uniform Delay, d1	10.1	14.1		18.5	11.1			20.5			20.5	
Progression Factor	1.04	0.89		1.00	1.00			0.41			0.52	
Incremental Delay, d2	0.2	3.4		247.3	0.7			99.5			186.1	
Delay (s)	10.7	16.0		265.8	11.8			107.9			196.8	
Level of Service	B	B		F	B			F			F	
Approach Delay (s)		15.7			170.8			107.9			196.8	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	136.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	16	10	31	67	231	6	860	33	106	786	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		1770	1646		1770	3520		1770	3535	
Flt Permitted	0.40	1.00		0.74	1.00		0.26	1.00		0.28	1.00	
Satd. Flow (perm)	738	1753		1377	1646		491	3520		516	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	17	11	34	73	251	7	935	36	115	854	7
RTOR Reduction (vph)	0	9	0	0	215	0	0	3	0	0	1	0
Lane Group Flow (vph)	14	19	0	34	109	0	7	968	0	115	860	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.1	10.1		10.1	10.1		40.8	40.8		46.7	46.7	
Effective Green, g (s)	10.1	10.1		10.1	10.1		40.8	40.8		46.7	46.7	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.58	0.58		0.67	0.67	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	106	253		199	237		308	2052		471	2358	
v/s Ratio Prot		0.01			c0.07		0.00	c0.28		0.02	c0.24	
v/s Ratio Perm	0.02			0.02			0.01			0.14		
v/c Ratio	0.13	0.07		0.17	0.46		0.02	0.47		0.24	0.36	
Uniform Delay, d1	26.1	25.9		26.3	27.5		6.6	8.4		6.0	5.1	
Progression Factor	1.00	1.00		1.00	1.00		0.84	0.63		1.36	1.36	
Incremental Delay, d2	0.6	0.1		0.4	1.4		0.0	0.7		0.0	0.0	
Delay (s)	26.7	26.0		26.7	28.9		5.5	6.0		8.1	7.0	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		26.2			28.7			6.0			7.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	28	80	21	101	5	219	627	7	1	317	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			1.00		1.00	1.00			0.98	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1689			1838		1770	1860			1831	
Flt Permitted		0.95			0.93		0.46	1.00			1.00	
Satd. Flow (perm)		1614			1719		857	1860			1830	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	30	87	23	110	5	238	682	8	1	345	50
RTOR Reduction (vph)	0	75	0	0	3	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	60	0	0	135	0	238	690	0	0	390	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.4			9.4		52.6	52.6			40.1	
Effective Green, g (s)		9.4			9.4		52.6	52.6			40.1	
Actuated g/C Ratio		0.13			0.13		0.75	0.75			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		217			231		755	1398			1048	
v/s Ratio Prot							0.04	c0.37				
v/s Ratio Perm		0.04			c0.08		0.20				0.21	
v/c Ratio		0.28			0.59		0.32	0.49			0.37	
Uniform Delay, d1		27.2			28.5		3.3	3.4			8.1	
Progression Factor		1.00			0.78		1.46	1.58			1.00	
Incremental Delay, d2		0.7			3.7		0.2	1.1			1.0	
Delay (s)		27.9			26.0		5.1	6.6			9.1	
Level of Service		C			C		A	A			A	
Approach Delay (s)		27.9			26.0			6.2			9.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	23	19	342	9	69	4	767	142	55	752	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.96		1.00	0.87			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1760		1770	1616			3456			3522	
Flt Permitted		0.82		0.60	1.00			0.95			0.82	
Satd. Flow (perm)		1475		1123	1616			3293			2891	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	25	21	372	10	75	4	834	154	60	817	9
RTOR Reduction (vph)	0	19	0	0	34	0	0	17	0	0	1	0
Lane Group Flow (vph)	0	62	0	372	51	0	0	975	0	0	885	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.2		26.4	26.4			35.6			35.6	
Effective Green, g (s)		7.2		26.4	26.4			35.6			35.6	
Actuated g/C Ratio		0.10		0.38	0.38			0.51			0.51	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		152		564	609			1675			1470	
v/s Ratio Prot				c0.14	0.03							
v/s Ratio Perm		0.04		c0.11				0.30			c0.31	
v/c Ratio		0.41		0.66	0.08			0.58			0.60	
Uniform Delay, d1		29.4		17.5	14.0			12.0			12.2	
Progression Factor		1.00		1.00	1.00			0.17			0.93	
Incremental Delay, d2		1.8		2.8	0.1			1.4			1.8	
Delay (s)		31.2		20.3	14.1			3.4			13.1	
Level of Service		C		C	B			A			B	
Approach Delay (s)		31.2			19.2			3.4			13.1	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	71	358	104	133	638	323	109	494	43	315	866	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3420		1770	3361		1770	3496		1770	3460	
Flt Permitted	0.20	1.00		0.33	1.00		0.25	1.00		0.20	1.00	
Satd. Flow (perm)	365	3420		606	3361		466	3496		373	3460	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	389	113	145	693	351	118	537	47	342	941	164
RTOR Reduction (vph)	0	38	0	0	90	0	0	9	0	0	20	0
Lane Group Flow (vph)	77	464	0	145	954	0	118	575	0	342	1085	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	23.6	20.4		28.4	22.8		19.2	16.0		32.0	24.8	
Effective Green, g (s)	23.6	20.4		28.4	22.8		19.2	16.0		32.0	24.8	
Actuated g/C Ratio	0.34	0.29		0.41	0.33		0.27	0.23		0.46	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	997		339	1095		187	799		410	1226	
v/s Ratio Prot	0.02	0.14		c0.03	c0.28		0.03	0.16		c0.14	c0.31	
v/s Ratio Perm	0.12			0.14			0.14			0.24		
v/c Ratio	0.41	0.47		0.43	0.87		0.63	0.72		0.83	0.88	
Uniform Delay, d1	17.6	20.3		13.9	22.2		21.2	24.9		14.3	21.3	
Progression Factor	0.93	0.39		0.92	0.93		1.02	0.73		0.88	0.80	
Incremental Delay, d2	1.1	1.2		0.8	9.1		6.4	3.0		12.6	7.3	
Delay (s)	17.5	9.1		13.6	29.6		28.2	21.2		25.2	24.4	
Level of Service	B	A		B	C		C	C		C	C	
Approach Delay (s)		10.2			27.7			22.3			24.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



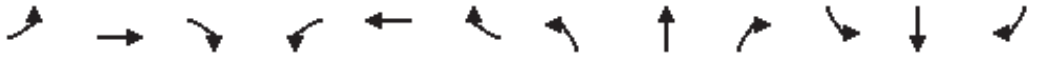
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	177	0	574	148	119	587
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frt	1.00		1.00	0.85	1.00	1.00
Flt Protected	0.95		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770		3539	1583	1770	3539
Flt Permitted	0.95		1.00	1.00	0.41	1.00
Satd. Flow (perm)	1770		3539	1583	763	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	0	624	161	129	638
RTOR Reduction (vph)	0	0	0	48	0	0
Lane Group Flow (vph)	192	0	624	113	129	638
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	12.8		49.2	49.2	49.2	49.2
Effective Green, g (s)	12.8		49.2	49.2	49.2	49.2
Actuated g/C Ratio	0.18		0.70	0.70	0.70	0.70
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	324		2487	1113	536	2487
v/s Ratio Prot	c0.11		0.18	0.07		c0.18
v/s Ratio Perm					0.17	
v/c Ratio	0.59		0.25	0.10	0.24	0.26
Uniform Delay, d1	26.2		3.8	3.3	3.7	3.8
Progression Factor	0.75		0.78	0.63	0.49	0.48
Incremental Delay, d2	2.8		0.2	0.2	1.0	0.2
Delay (s)	22.4		3.2	2.3	2.8	2.0
Level of Service	C		A	A	A	A
Approach Delay (s)	22.4		3.0			2.2
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	4.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.33		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	226	77	33	339	40	137	98	27	20	37	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1797			1831			1790			1743	
Flt Permitted		0.96			0.96			0.80			0.92	
Satd. Flow (perm)		1726			1756			1470			1613	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	246	84	36	368	43	149	107	29	22	40	42
RTOR Reduction (vph)	0	16	0	0	5	0	0	6	0	0	26	0
Lane Group Flow (vph)	0	340	0	0	442	0	0	279	0	0	78	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		36.0			36.0			26.0			26.0	
Effective Green, g (s)		36.0			36.0			26.0			26.0	
Actuated g/C Ratio		0.51			0.51			0.37			0.37	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		888			903			546			599	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.25			c0.19			0.05	
v/c Ratio		0.38			0.49			0.51			0.13	
Uniform Delay, d1		10.3			11.0			17.1			14.5	
Progression Factor		0.30			1.00			1.00			1.00	
Incremental Delay, d2		1.0			1.9			3.4			0.1	
Delay (s)		4.1			12.9			20.5			14.6	
Level of Service		A			B			C			B	
Approach Delay (s)		4.1			12.9			20.5			14.6	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	3	12	41	5	177	10	748	5	70	763	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.90			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1713			1654			3531			3512	
Flt Permitted		0.71			0.92			0.94			0.82	
Satd. Flow (perm)		1249			1535			3311			2880	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	13	4	14	59	7	211	15	787	7	79	803	21
RTOR Reduction (vph)	0	12	0	0	159	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	19	0	0	118	0	0	808	0	0	901	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.5			10.5			51.5			51.5	
Effective Green, g (s)		10.5			10.5			51.5			51.5	
Actuated g/C Ratio		0.15			0.15			0.74			0.74	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		187			230			2436			2119	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.08			0.24			c0.31	
v/c Ratio		0.10			0.51			0.33			0.43	
Uniform Delay, d1		25.7			27.4			3.2			3.6	
Progression Factor		1.00			1.00			0.62			0.67	
Incremental Delay, d2		0.2			1.9			0.3			0.6	
Delay (s)		25.9			29.3			2.3			3.0	
Level of Service		C			C			A			A	
Approach Delay (s)		25.9			29.3			2.3			3.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.2%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	263	48	209	0	10	86	366	474	0	71	529	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00		0.95	0.95		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.88	0.85		1.00		1.00	0.95	
Flt Protected	0.95	0.97	1.00		1.00	1.00		0.98		0.95	1.00	
Satd. Flow (prot)	1681	1710	1583		1559	1504		3464		1770	3356	
Flt Permitted	0.42	0.55	1.00		1.00	1.00		0.54		0.26	1.00	
Satd. Flow (perm)	745	974	1583		1559	1504		1900		486	3356	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	286	52	227	0	11	93	398	515	0	77	575	304
RTOR Reduction (vph)	0	0	188	0	39	47	0	0	0	0	55	0
Lane Group Flow (vph)	169	169	39	0	14	4	0	913	0	77	824	0
Turn Type	pm+pt		custom			Perm	pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		7			8	2			6		
Actuated Green, G (s)	21.4	21.4	11.9		5.5	5.5		40.6		40.6	40.6	
Effective Green, g (s)	21.4	21.4	11.9		5.5	5.5		40.6		40.6	40.6	
Actuated g/C Ratio	0.31	0.31	0.17		0.08	0.08		0.58		0.58	0.58	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	387	423	269		122	118		1102		282	1946	
v/s Ratio Prot	c0.07	0.07			0.01						0.25	
v/s Ratio Perm	c0.06	0.05	0.02			0.00		c0.48		0.16		
v/c Ratio	0.44	0.40	0.14		0.12	0.03		1.32dl		0.27	0.42	
Uniform Delay, d1	18.9	19.2	24.7		30.0	29.8		11.9		7.3	8.2	
Progression Factor	1.00	1.00	1.00		0.76	0.83		0.77		0.52	0.49	
Incremental Delay, d2	0.8	0.6	0.2		0.4	0.1		5.2		2.2	0.6	
Delay (s)	19.7	19.8	25.0		23.2	24.7		14.4		6.0	4.6	
Level of Service	B	B	C		C	C		B		A	A	
Approach Delay (s)		21.8			24.0			14.4			4.8	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	4	48	112	14	116	29	745	35	48	631	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.92			0.94			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1688			1703			3510			3505	
Flt Permitted		0.82			0.83			0.91			0.85	
Satd. Flow (perm)		1408			1451			3207			2996	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	4	52	122	15	126	32	810	38	52	686	32
RTOR Reduction (vph)	0	41	0	0	56	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	51	0	0	207	0	0	877	0	0	767	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.1			15.1			46.9			46.9	
Effective Green, g (s)		15.1			15.1			46.9			46.9	
Actuated g/C Ratio		0.22			0.22			0.67			0.67	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		304			313			2149			2007	
v/s Ratio Prot												
v/s Ratio Perm		0.04			c0.14			c0.27			0.26	
v/c Ratio		0.17			0.66			0.41			0.38	
Uniform Delay, d1		22.3			25.1			5.2			5.1	
Progression Factor		1.00			1.00			1.06			0.79	
Incremental Delay, d2		0.3			5.0			0.1			0.1	
Delay (s)		22.6			30.1			5.7			4.2	
Level of Service		C			C			A			A	
Approach Delay (s)		22.6			30.1			5.7			4.2	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	52	52	979	743	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1695			3530	3504	
Flt Permitted	0.98			0.87	1.00	
Satd. Flow (perm)	1695			3077	3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	57	57	1064	808	58
RTOR Reduction (vph)	51	0	0	0	5	0
Lane Group Flow (vph)	63	0	0	1121	861	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	7.1			54.9	54.9	
Effective Green, g (s)	7.1			54.9	54.9	
Actuated g/C Ratio	0.10			0.78	0.78	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	172			2413	2748	
v/s Ratio Prot	c0.04				0.25	
v/s Ratio Perm				c0.36		
v/c Ratio	0.37			0.46	0.31	
Uniform Delay, d1	29.3			2.6	2.2	
Progression Factor	1.00			0.94	0.72	
Incremental Delay, d2	1.3			0.6	0.3	
Delay (s)	30.7			3.0	1.8	
Level of Service	C			A	A	
Approach Delay (s)	30.7			3.0	1.8	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	323	35	111	1010	233	97	380	79	248	395	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5011		1770	4942		1770	3448		1770	1779	
Flt Permitted	0.20	1.00		0.47	1.00		0.24	1.00		0.27	1.00	
Satd. Flow (perm)	363	5011		876	4942		441	3448		495	1779	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	351	38	121	1098	253	105	413	86	270	429	183
RTOR Reduction (vph)	0	18	0	0	51	0	0	24	0	0	22	0
Lane Group Flow (vph)	112	371	0	121	1300	0	105	475	0	270	590	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	23.7	20.5		26.9	22.1		20.1	16.9		32.7	25.5	
Effective Green, g (s)	23.7	20.5		26.9	22.1		20.1	16.9		32.7	25.5	
Actuated g/C Ratio	0.34	0.29		0.38	0.32		0.29	0.24		0.47	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	1468		398	1560		187	832		446	648	
v/s Ratio Prot	c0.03	0.07		c0.02	c0.26		0.03	0.14		c0.10	c0.33	
v/s Ratio Perm	0.17			0.10			0.14			0.18		
v/c Ratio	0.60	0.25		0.30	0.83		0.56	0.57		0.61	0.91	
Uniform Delay, d1	17.6	18.9		14.3	22.2		19.7	23.4		12.6	21.2	
Progression Factor	1.00	1.00		0.22	0.30		1.00	1.00		0.57	0.62	
Incremental Delay, d2	5.1	0.4		0.4	5.0		3.8	0.9		2.3	16.7	
Delay (s)	22.7	19.3		3.6	11.7		23.6	24.3		9.4	29.7	
Level of Service	C	B		A	B		C	C		A	C	
Approach Delay (s)		20.1			11.1			24.2			23.5	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	17.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	564	11	8	1170	78	15	12	14	69	10	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3506		1770	1713		1770	1601	
Flt Permitted	0.11	1.00	1.00	0.41	1.00		0.58	1.00		0.74	1.00	
Satd. Flow (perm)	205	5085	1583	762	3506		1087	1713		1377	1601	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	613	12	9	1272	85	16	13	15	75	11	159
RTOR Reduction (vph)	0	0	5	0	7	0	0	12	0	0	112	0
Lane Group Flow (vph)	66	613	7	9	1350	0	16	16	0	75	58	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	44.2	41.2	41.2	39.8	39.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	44.2	41.2	41.2	39.8	39.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.63	0.59	0.59	0.57	0.56		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	197	2993	932	445	1953		248	392		315	366	
v/s Ratio Prot	c0.01	0.12		0.00	c0.39			0.01			0.04	
v/s Ratio Perm	0.20		0.00	0.01			0.01			c0.05		
v/c Ratio	0.34	0.20	0.01	0.02	0.69		0.06	0.04		0.24	0.16	
Uniform Delay, d1	7.9	6.7	6.0	6.5	11.2		21.1	21.0		22.0	21.6	
Progression Factor	0.20	0.45	0.67	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2	0.0	0.0	2.0		0.5	0.2		0.4	0.2	
Delay (s)	2.6	3.2	4.0	6.6	13.2		21.6	21.2		22.4	21.8	
Level of Service	A	A	A	A	B		C	C		C	C	
Approach Delay (s)		3.1			13.2			21.4			22.0	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	14	23	16	6	3	35	855	15	10	399	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.98			1.00			0.99	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1721			1779			3524			3510	
Flt Permitted		0.92			0.90			0.93			0.93	
Satd. Flow (perm)		1596			1647			3266			3283	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	15	25	17	7	3	38	929	16	11	434	22
RTOR Reduction (vph)	0	23	0	0	3	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	28	0	0	24	0	0	982	0	0	464	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.7			4.7			57.3			57.3	
Effective Green, g (s)		4.7			4.7			57.3			57.3	
Actuated g/C Ratio		0.07			0.07			0.82			0.82	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		107			111			2673			2687	
v/s Ratio Prot												
v/s Ratio Perm		c0.02			0.01			c0.30			0.14	
v/c Ratio		0.26			0.22			0.37			0.17	
Uniform Delay, d1		31.0			30.9			1.6			1.3	
Progression Factor		1.00			1.00			0.97			0.88	
Incremental Delay, d2		1.3			1.0			0.2			0.1	
Delay (s)		32.3			31.9			1.8			1.3	
Level of Service		C			C			A			A	
Approach Delay (s)		32.3			31.9			1.8			1.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	54	0	13	0	0	1	13	484	1	774	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.86		1.00	0.85	1.00	0.98	
Flt Protected		0.95	1.00		1.00		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1611		1770	2787	1770	3397	
Flt Permitted		0.95	1.00		1.00		0.29	1.00	0.44	0.96	
Satd. Flow (perm)		1770	1583		1611		531	2787	817	3397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	14	0	0	1	14	526	1	841	122
RTOR Reduction (vph)	0	0	13	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	59	1	0	0	0	14	526	1	956	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Effective Green, g (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Actuated g/C Ratio		0.08	0.08		0.02		0.74	0.74	0.74	0.74	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		137	122		25		391	2050	601	2499	
v/s Ratio Prot		c0.03			c0.00			0.19		c0.28	
v/s Ratio Perm			0.00				0.03		0.00		
v/c Ratio		0.43	0.01		0.00		0.04	0.26	0.00	0.38	
Uniform Delay, d1		30.8	29.8		33.9		2.5	3.0	2.4	3.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00	0.06	0.08	
Incremental Delay, d2		2.2	0.0		0.0		0.2	0.3	0.0	0.4	
Delay (s)		33.0	29.9		33.9		2.7	3.3	0.1	0.7	
Level of Service		C	C		C		A	A	A	A	
Approach Delay (s)		32.4			33.9		3.3			0.7	
Approach LOS		C			C		A			A	

Intersection Summary			
HCM Average Control Delay	3.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	0	403	364	0	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	0	438	396	0	898
RTOR Reduction (vph)	0	0	0	0	0	260
Lane Group Flow (vph)	86	0	438	396	0	638
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	3.3		27.7	27.7		27.7
Effective Green, g (s)	3.3		27.7	27.7		27.7
Actuated g/C Ratio	0.08		0.71	0.71		0.71
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	150		1257	2514		1979
v/s Ratio Prot	c0.05			0.11		
v/s Ratio Perm			c0.25			0.23
v/c Ratio	0.57		0.35	0.16		0.32
Uniform Delay, d1	17.2		2.2	1.8		2.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	5.2		0.8	0.1		0.4
Delay (s)	22.4		2.9	2.0		2.6
Level of Service	C		A	A		A
Approach Delay (s)	22.4			2.5	2.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	5	55	4	1	7	53	603	6	5	625	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.86			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	1609			1788	1583		3515		1770	1863	1583
Flt Permitted	0.75	1.00			1.00	1.00		0.83		0.33	1.00	1.00
Satd. Flow (perm)	1406	1609			1863	1583		2927		619	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	94	6	60	5	1	8	78	635	7	6	651	115
RTOR Reduction (vph)	0	52	0	0	0	8	0	1	0	0	0	29
Lane Group Flow (vph)	94	14	0	0	6	0	0	719	0	6	651	86
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	9.8	9.8			1.3	1.3		47.0		52.2	52.2	52.2
Effective Green, g (s)	9.8	9.8			1.3	1.3		47.0		52.2	52.2	52.2
Actuated g/C Ratio	0.14	0.14			0.02	0.02		0.67		0.75	0.75	0.75
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	220	225			35	29		1965		481	1389	1180
v/s Ratio Prot	c0.03	0.01								0.00	c0.35	
v/s Ratio Perm	c0.03				0.00	0.00		0.25		0.01		0.05
v/c Ratio	0.43	0.06			0.17	0.01		0.37		0.01	0.47	0.07
Uniform Delay, d1	27.4	26.1			33.8	33.7		5.0		2.5	3.5	2.4
Progression Factor	1.00	1.00			1.00	1.00		0.65		0.71	0.60	0.35
Incremental Delay, d2	1.3	0.1			2.3	0.1		0.1		0.0	1.1	0.1
Delay (s)	28.7	26.2			36.1	33.8		3.4		1.8	3.2	1.0
Level of Service	C	C			D	C		A		A	A	A
Approach Delay (s)		27.7			34.8			3.4			2.9	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	5.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2020 BeltLine

PM PEAK HOUR, 4-LANE MONROE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.62	1.00		0.27	1.00			0.68			0.71	
Satd. Flow (perm)	1150	1781		500	1815			2278			2494	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	9	0	0	19	0	0	161	0	0	2	0
Lane Group Flow (vph)	34	543	0	378	207	0	0	998	0	0	1345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	460	712		200	726			911			998	
v/s Ratio Prot		0.30			0.11							
v/s Ratio Perm	0.03			c0.76				0.44			c0.54	
v/c Ratio	0.07	0.76		1.89	0.29			1.10			1.35	
Uniform Delay, d1	7.4	10.4		12.0	8.1			12.0			12.0	
Progression Factor	0.72	0.69		1.00	1.00			1.00			0.85	
Incremental Delay, d2	0.3	6.5		418.8	1.0			59.5			157.9	
Delay (s)	5.6	13.6		430.8	9.1			71.5			168.2	
Level of Service	A	B		F	A			E			F	
Approach Delay (s)		13.2			273.0			71.5			168.2	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	54	89	41	19	49	171	11	1154	12	502	1114	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1774		1770	1645		1770	3534		1770	3529	
Flt Permitted	0.23	1.00		0.48	1.00		0.17	1.00		0.08	1.00	
Satd. Flow (perm)	426	1774		902	1645		311	3534		140	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	97	45	21	53	186	12	1254	13	546	1211	23
RTOR Reduction (vph)	0	15	0	0	108	0	0	1	0	0	1	0
Lane Group Flow (vph)	59	127	0	21	131	0	12	1266	0	546	1233	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.5	17.5		17.5	17.5		53.0	51.4		94.5	88.9	
Effective Green, g (s)	17.5	17.5		17.5	17.5		53.0	51.4		94.5	88.9	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.44	0.43		0.79	0.74	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	62	259		132	240		157	1514		641	2614	
v/s Ratio Prot		0.07			0.08		0.00	0.36		c0.28	0.35	
v/s Ratio Perm	c0.14			0.02			0.03			c0.39		
v/c Ratio	0.95	0.49		0.16	0.55		0.08	0.84		0.85	0.47	
Uniform Delay, d1	50.8	47.2		44.8	47.6		19.6	30.6		29.2	6.2	
Progression Factor	1.00	1.00		1.00	1.00		0.74	0.73		1.00	1.00	
Incremental Delay, d2	96.6	1.5		0.6	2.5		0.2	5.0		10.6	0.6	
Delay (s)	147.4	48.6		45.4	50.1		14.6	27.4		39.8	6.8	
Level of Service	F	D		D	D		B	C		D	A	
Approach Delay (s)		77.6			49.7			27.3			16.9	
Approach LOS		E			D			C			B	

Intersection Summary			
HCM Average Control Delay	26.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.85		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	98	262	95	101	17	112	614	53	10	911	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1803		1770	1840			1850	
Flt Permitted		0.92			0.44		0.20	1.00			0.99	
Satd. Flow (perm)		1565			803		369	1840			1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	61	107	285	103	110	18	122	667	58	11	990	49
RTOR Reduction (vph)	0	61	0	0	3	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	392	0	0	228	0	122	722	0	0	1048	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.0			27.0		65.0	65.0			57.0	
Effective Green, g (s)		27.0			27.0		65.0	65.0			57.0	
Actuated g/C Ratio		0.27			0.27		0.65	0.65			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		423			217		296	1196			1047	
v/s Ratio Prot							0.02	c0.39				
v/s Ratio Perm		0.25			c0.28		0.25				c0.57	
v/c Ratio		0.93			1.05		0.41	0.60			1.00	
Uniform Delay, d1		35.5			36.5		10.9	10.1			21.5	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		26.0			75.2		0.9	2.3			28.1	
Delay (s)		61.6			111.7		11.8	12.3			49.6	
Level of Service		E			F		B	B			D	
Approach Delay (s)		61.6			111.7			12.3			49.6	
Approach LOS		E			F			B			D	

Intersection Summary			
HCM Average Control Delay	45.0	HCM Level of Service	D
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	30	20	169	30	80	20	1082	209	76	1020	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.89			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1767		1770	1660			3452			3513	
Flt Permitted		0.83		0.51	1.00			0.92			0.65	
Satd. Flow (perm)		1501		951	1660			3167			2287	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	22	184	33	87	22	1176	227	83	1109	33
RTOR Reduction (vph)	0	11	0	0	49	0	0	9	0	0	1	0
Lane Group Flow (vph)	0	77	0	184	71	0	0	1416	0	0	1224	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.3		31.2	31.2			80.8			80.8	
Effective Green, g (s)		11.3		31.2	31.2			80.8			80.8	
Actuated g/C Ratio		0.09		0.26	0.26			0.67			0.67	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		141		356	432			2132			1540	
v/s Ratio Prot				c0.07	0.04							
v/s Ratio Perm		0.05		c0.07				0.45			c0.54	
v/c Ratio		0.55		0.52	0.16			0.66			0.79	
Uniform Delay, d1		51.9		37.1	34.3			11.6			13.8	
Progression Factor		1.00		1.00	1.00			1.00			0.75	
Incremental Delay, d2		4.3		1.3	0.2			1.7			4.0	
Delay (s)		56.2		38.4	34.5			13.2			14.3	
Level of Service		E		D	C			B			B	
Approach Delay (s)		56.2			36.9			13.2			14.3	
Approach LOS		E			D			B			B	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	94.5%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	227	741	156	182	445	431	205	871	202	598	982	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3447		1770	3278		1770	3439		1770	3467	
Flt Permitted	0.12	1.00		0.11	1.00		0.15	1.00		0.13	1.00	
Satd. Flow (perm)	219	3447		201	3278		276	3439		240	3467	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	247	805	170	198	484	468	223	947	220	650	1067	167
RTOR Reduction (vph)	0	17	0	0	172	0	0	17	0	0	10	0
Lane Group Flow (vph)	247	958	0	198	780	0	223	1150	0	650	1224	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	46.5	42.5		46.5	42.5		45.5	27.0		61.5	39.0	
Effective Green, g (s)	46.5	42.5		46.5	42.5		45.5	27.0		61.5	39.0	
Actuated g/C Ratio	0.39	0.35		0.39	0.35		0.38	0.22		0.51	0.32	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	137	1221		130	1161		335	774		512	1127	
v/s Ratio Prot	c0.06	0.28		0.05	0.24		0.10	c0.33		c0.32	0.35	
v/s Ratio Perm	c0.64			0.54			0.15			0.33		
v/c Ratio	1.80	0.78		1.52	0.67		0.67	1.49		1.27	1.09	
Uniform Delay, d1	36.1	34.7		35.5	32.8		29.0	46.5		35.6	40.5	
Progression Factor	0.97	0.93		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	363.9	0.5		270.5	3.1		4.9	225.5		136.1	53.3	
Delay (s)	399.0	32.5		306.0	36.0		33.9	272.0		171.6	93.8	
Level of Service	F	C		F	D		C	F		F	F	
Approach Delay (s)		106.6			82.5			233.8			120.7	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	137.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	115.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	147	52	725	242	383	1053
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.34	1.00
Satd. Flow (perm)	1770	1583	3539	1583	636	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	160	57	788	263	416	1145
RTOR Reduction (vph)	0	49	0	59	0	0
Lane Group Flow (vph)	160	8	788	204	416	1145
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	14.3	14.3	77.7	77.7	77.7	77.7
Effective Green, g (s)	14.3	14.3	77.7	77.7	77.7	77.7
Actuated g/C Ratio	0.14	0.14	0.78	0.78	0.78	0.78
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	253	226	2750	1230	494	2750
v/s Ratio Prot	c0.09		0.22	0.13		0.32
v/s Ratio Perm		0.01			c0.65	
v/c Ratio	0.63	0.04	0.29	0.17	0.84	0.42
Uniform Delay, d1	40.4	36.9	3.2	2.9	7.2	3.7
Progression Factor	1.00	1.00	0.28	0.05	1.53	1.31
Incremental Delay, d2	5.1	0.1	0.2	0.2	12.2	0.3
Delay (s)	45.5	37.0	1.1	0.4	23.2	5.1
Level of Service	D	D	A	A	C	A
Approach Delay (s)	43.2		0.9			9.9
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	500	241	89	270	28	122	117	83	50	125	25
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.71			0.72			0.83	
Satd. Flow (perm)		1763			1314			1300			1512	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	543	262	97	293	30	133	127	90	54	136	27
RTOR Reduction (vph)	0	17	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	805	0	0	417	0	0	337	0	0	212	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		62.0			62.0			30.0			30.0	
Effective Green, g (s)		62.0			62.0			30.0			30.0	
Actuated g/C Ratio		0.62			0.62			0.30			0.30	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1093			815			390			454	
v/s Ratio Prot												
v/s Ratio Perm		c0.46			0.32			c0.26			0.14	
v/c Ratio		0.74			0.51			0.87			0.47	
Uniform Delay, d1		13.3			10.6			33.1			28.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.4			2.3			21.8			0.8	
Delay (s)		17.7			12.9			54.9			29.3	
Level of Service		B			B			D			C	
Approach Delay (s)		17.7			12.9			54.9			29.3	
Approach LOS		B			B			D			C	

Intersection Summary			
HCM Average Control Delay	25.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	12	59	20	8	98	30	1180	47	182	1141	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.90			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1706			1661			3509			3494	
Flt Permitted		0.59			0.89			0.84			0.55	
Satd. Flow (perm)		1034			1490			2937			1937	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	54	16	67	29	12	117	44	1242	63	204	1201	58
RTOR Reduction (vph)	0	36	0	0	103	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	101	0	0	55	0	0	1346	0	0	1461	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.3			12.3			79.7			79.7	
Effective Green, g (s)		12.3			12.3			79.7			79.7	
Actuated g/C Ratio		0.12			0.12			0.80			0.80	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		127			183			2341			1544	
v/s Ratio Prot												
v/s Ratio Perm		c0.10			0.04			0.46			c0.75	
v/c Ratio		0.80			0.30			0.57			0.95	
Uniform Delay, d1		42.6			39.9			3.8			8.4	
Progression Factor		1.00			1.00			0.85			0.89	
Incremental Delay, d2		28.1			0.9			0.9			7.3	
Delay (s)		70.8			40.9			4.1			14.8	
Level of Service		E			D			A			B	
Approach Delay (s)		70.8			40.9			4.1			14.8	
Approach LOS		E			D			A			B	

Intersection Summary			
HCM Average Control Delay	14.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	96.6%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	566	582	366	474	1098	253
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.97	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	3433	1583		3464	3440	
Flt Permitted	0.95	1.00		0.52	1.00	
Satd. Flow (perm)	3433	1583		1829	3440	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	615	633	398	515	1193	275
RTOR Reduction (vph)	0	332	0	0	10	0
Lane Group Flow (vph)	615	301	0	913	1458	0
Turn Type		Perm	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	7	2			
Actuated Green, G (s)	27.3	27.3		64.7	64.7	
Effective Green, g (s)	27.3	27.3		64.7	64.7	
Actuated g/C Ratio	0.27	0.27		0.65	0.65	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	937	432		1183	2226	
v/s Ratio Prot	0.18				0.42	
v/s Ratio Perm		c0.19		c0.50		
v/c Ratio	0.66	0.70		2.82dl	0.66	
Uniform Delay, d1	32.2	32.6		12.4	10.8	
Progression Factor	1.00	1.00		1.24	0.75	
Incremental Delay, d2	1.7	4.9		3.1	0.8	
Delay (s)	33.9	37.5		18.5	8.9	
Level of Service	C	D		B	A	
Approach Delay (s)	35.7			18.5	8.9	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.3%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	24	73	70	30	84	135	1021	123	99	1199	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.94			0.99			0.98	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		1707			1716			3470			3464	
Flt Permitted		0.76			0.72			0.55			0.67	
Satd. Flow (perm)		1327			1265			1923			2334	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	50	26	79	76	33	91	147	1110	134	108	1303	193
RTOR Reduction (vph)	0	39	0	0	32	0	0	6	0	0	8	0
Lane Group Flow (vph)	0	116	0	0	168	0	0	1385	0	0	1596	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.3			16.3			75.7			75.7	
Effective Green, g (s)		16.3			16.3			75.7			75.7	
Actuated g/C Ratio		0.16			0.16			0.76			0.76	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		216			206			1456			1767	
v/s Ratio Prot												
v/s Ratio Perm		0.09			c0.13			c0.72			0.68	
v/c Ratio		0.54			0.82			0.95			0.90	
Uniform Delay, d1		38.4			40.4			10.5			9.3	
Progression Factor		1.00			1.00			0.66			0.75	
Incremental Delay, d2		2.5			21.5			11.9			6.1	
Delay (s)		40.9			61.9			18.8			13.1	
Level of Service		D			E			B			B	
Approach Delay (s)		40.9			61.9			18.8			13.1	
Approach LOS		D			E			B			B	

Intersection Summary			
HCM Average Control Delay	19.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.7%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	59	72	50	1110	1374	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1687			3532	3514	
Flt Permitted	0.98			0.78	1.00	
Satd. Flow (perm)	1687			2774	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	78	54	1207	1493	73
RTOR Reduction (vph)	48	0	0	0	2	0
Lane Group Flow (vph)	94	0	0	1261	1564	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.8			81.2	81.2	
Effective Green, g (s)	10.8			81.2	81.2	
Actuated g/C Ratio	0.11			0.81	0.81	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	182			2252	2853	
v/s Ratio Prot	c0.06				0.44	
v/s Ratio Perm				c0.45		
v/c Ratio	0.52			0.56	0.55	
Uniform Delay, d1	42.1			3.2	3.2	
Progression Factor	1.00			1.37	1.00	
Incremental Delay, d2	2.5			0.4	0.8	
Delay (s)	44.6			4.9	3.9	
Level of Service	D			A	A	
Approach Delay (s)	44.6			4.9	3.9	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.8%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	264	808	278	150	914	198	368	391	120	260	429	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	0.96		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	4950		1770	3415		1770	1759	
Flt Permitted	0.14	1.00		0.15	1.00		0.09	1.00		0.44	1.00	
Satd. Flow (perm)	266	4890		287	4950		166	3415		827	1759	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	287	878	302	163	993	215	400	425	130	283	466	274
RTOR Reduction (vph)	0	57	0	0	31	0	0	26	0	0	19	0
Lane Group Flow (vph)	287	1123	0	163	1177	0	400	529	0	283	721	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	28.0		33.0	26.0		63.0	49.0		51.0	41.0	
Effective Green, g (s)	37.0	28.0		33.0	26.0		63.0	49.0		51.0	41.0	
Actuated g/C Ratio	0.34	0.25		0.30	0.24		0.57	0.45		0.46	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	213	1245		180	1170		358	1521		469	656	
v/s Ratio Prot	c0.11	0.23		0.06	0.24		c0.18	0.15		0.05	0.41	
v/s Ratio Perm	c0.34			0.21			c0.46			0.22		
v/c Ratio	1.35	0.90		0.91	1.01		1.12	0.35		0.60	1.10	
Uniform Delay, d1	32.3	39.7		33.5	42.0		35.0	20.0		18.9	34.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	184.2	10.7		41.0	27.7		83.2	0.1		2.2	65.1	
Delay (s)	216.4	50.4		74.4	69.7		118.2	20.2		21.1	99.6	
Level of Service	F	D		E	E		F	C		C	F	
Approach Delay (s)		82.9			70.3			61.2			77.9	
Approach LOS		F			E			E			E	

Intersection Summary			
HCM Average Control Delay	73.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.21		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	215	2044	88	37	1154	121	74	43	75	207	48	206
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1685		1770	1636	
Flt Permitted	0.07	1.00	1.00	0.08	1.00		0.38	1.00		0.63	1.00	
Satd. Flow (perm)	139	5085	1583	150	3489		701	1685		1173	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	234	2222	96	40	1254	132	80	47	82	225	52	224
RTOR Reduction (vph)	0	0	12	0	8	0	0	61	0	0	155	0
Lane Group Flow (vph)	234	2222	84	40	1378	0	80	68	0	225	121	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	66.0	59.0	59.0	52.6	49.6		26.0	26.0		26.0	26.0	
Effective Green, g (s)	66.0	59.0	59.0	52.6	49.6		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.66	0.59	0.59	0.53	0.50		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	294	3000	934	128	1731		182	438		305	425	
v/s Ratio Prot	c0.10	0.44		0.01	0.40			0.04			0.07	
v/s Ratio Perm	c0.43		0.05	0.16			0.11			c0.19		
v/c Ratio	0.80	0.74	0.09	0.31	0.80		0.44	0.16		0.74	0.28	
Uniform Delay, d1	26.8	14.9	8.9	14.0	21.0		30.9	28.5		33.9	29.6	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.8	1.7	0.2	1.4	3.9		7.5	0.8		9.0	0.4	
Delay (s)	40.7	16.6	9.1	15.4	24.9		38.4	29.3		42.9	29.9	
Level of Service	D	B	A	B	C		D	C		D	C	
Approach Delay (s)		18.5			24.6			32.8			35.7	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	22.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	97	20	142	10	30	20	139	640	20	40	1084	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.95			1.00			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1693			1764			3495			3483	
Flt Permitted		0.85			0.95			0.58			0.91	
Satd. Flow (perm)		1468			1682			2059			3170	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	22	154	11	33	22	151	696	22	43	1178	129
RTOR Reduction (vph)	0	39	0	0	17	0	0	3	0	0	13	0
Lane Group Flow (vph)	0	242	0	0	49	0	0	866	0	0	1337	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.4			12.4			29.6			29.6	
Effective Green, g (s)		12.4			12.4			29.6			29.6	
Actuated g/C Ratio		0.25			0.25			0.59			0.59	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		364			417			1219			1877	
v/s Ratio Prot												
v/s Ratio Perm		c0.16			0.03			0.42			c0.42	
v/c Ratio		0.66			0.12			0.97dl			0.71	
Uniform Delay, d1		16.9			14.6			7.2			7.2	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.5			0.1			3.5			2.3	
Delay (s)		21.5			14.7			10.7			9.5	
Level of Service		C			B			B			A	
Approach Delay (s)		21.5			14.7			10.7			9.5	
Approach LOS		C			B			B			A	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	268	0	27	1	0	1	16	1255	2	1173	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3413	
Flt Permitted		0.95	1.00		0.98		0.15	1.00	0.13	0.96	
Satd. Flow (perm)		1770	1583		1695		279	2787	233	3413	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	291	0	29	1	0	1	17	1364	2	1275	111
RTOR Reduction (vph)	0	0	23	0	1	0	0	0	0	3	0
Lane Group Flow (vph)	0	291	6	0	1	0	17	1364	2	1383	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		24.5	24.5		1.2		82.3	82.3	82.3	82.3	
Effective Green, g (s)		24.5	24.5		1.2		82.3	82.3	82.3	82.3	
Actuated g/C Ratio		0.20	0.20		0.01		0.69	0.69	0.69	0.69	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		361	323		17		191	1911	160	2341	
v/s Ratio Prot		c0.16			c0.00			c0.49		0.41	
v/s Ratio Perm			0.00				0.06		0.01		
v/c Ratio		0.81	0.02		0.06		0.09	0.71	0.01	0.59	
Uniform Delay, d1		45.5	38.1		58.8		6.3	11.6	6.0	10.0	
Progression Factor		1.00	1.00		1.00		0.80	0.90	1.00	1.00	
Incremental Delay, d2		12.3	0.0		1.5		0.8	2.1	0.1	1.1	
Delay (s)		57.8	38.2		60.3		5.9	12.6	6.1	11.1	
Level of Service		E	D		E		A	B	A	B	
Approach Delay (s)		56.1			60.3		12.5			11.0	
Approach LOS		E			E		B			B	

Intersection Summary			
HCM Average Control Delay	16.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	197	0	295	1012	0	1149
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	214	0	321	1100	0	1249
RTOR Reduction (vph)	0	0	0	0	0	427
Lane Group Flow (vph)	214	0	321	1100	0	822
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	12.5		39.5	39.5		39.5
Effective Green, g (s)	12.5		39.5	39.5		39.5
Actuated g/C Ratio	0.21		0.66	0.66		0.66
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	369		1165	2330		1835
v/s Ratio Prot	c0.12			c0.31		
v/s Ratio Perm			0.18			0.30
v/c Ratio	0.58		0.28	0.47		0.45
Uniform Delay, d1	21.4		4.3	5.1		5.0
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	2.2		0.6	0.7		0.7
Delay (s)	23.6		4.9	5.8		5.6
Level of Service	C		A	A		A
Approach Delay (s)	23.6			5.6	5.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	115	38	42	97	25	66	20	828	100	101	820	170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1722			1791	1583		3472		1770	1863	1583
Flt Permitted	0.40	1.00			0.71	1.00		0.91		0.20	1.00	1.00
Satd. Flow (perm)	740	1722			1321	1583		3176		367	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	137	45	46	113	29	75	29	872	120	112	854	183
RTOR Reduction (vph)	0	34	0	0	0	64	0	11	0	0	0	57
Lane Group Flow (vph)	137	57	0	0	142	11	0	1010	0	112	854	126
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	23.2	23.2			14.2	14.2		57.2		68.8	68.8	68.8
Effective Green, g (s)	23.2	23.2			14.2	14.2		57.2		68.8	68.8	68.8
Actuated g/C Ratio	0.23	0.23			0.14	0.14		0.57		0.69	0.69	0.69
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	223	400			188	225		1817		359	1282	1089
v/s Ratio Prot	c0.03	0.03								0.02	c0.46	
v/s Ratio Perm	0.11				c0.11	0.01		0.32		0.19		0.08
v/c Ratio	0.61	0.14			0.76	0.05		0.56		0.31	0.67	0.12
Uniform Delay, d1	33.8	30.5			41.2	37.1		13.4		7.3	9.0	5.3
Progression Factor	1.00	1.00			1.00	1.00		1.00		0.55	0.47	0.00
Incremental Delay, d2	5.0	0.2			15.8	0.1		0.4		0.5	2.6	0.2
Delay (s)	38.7	30.7			57.0	37.1		13.8		4.5	6.8	0.2
Level of Service	D	C			E	D		B		A	A	A
Approach Delay (s)		35.5			50.1			13.8			5.5	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	15.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	93.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2020 BeltLine

AM PEAK HOUR, 3-LANE MONROE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.59	1.00		0.29	1.00			0.64			0.66	
Satd. Flow (perm)	1104	1781		533	1815			2149			2315	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	10	0	0	11	0	0	92	0	0	1	0
Lane Group Flow (vph)	34	542	0	378	215	0	0	1067	0	0	1346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Effective Green, g (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.41			0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	520	840		251	856			890			959	
v/s Ratio Prot		0.30			0.12							
v/s Ratio Perm	0.03			c0.71				0.50			c0.58	
v/c Ratio	0.07	0.65		1.51	0.25			1.20			1.40	
Uniform Delay, d1	10.1	14.1		18.5	11.1			20.5			20.5	
Progression Factor	1.04	0.89		1.00	1.00			0.41			0.52	
Incremental Delay, d2	0.2	3.4		247.3	0.7			99.5			186.1	
Delay (s)	10.7	16.0		265.8	11.8			107.9			196.8	
Level of Service	B	B		F	B			F			F	
Approach Delay (s)		15.7			170.8			107.9			196.8	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	136.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	16	10	31	67	231	6	860	33	106	786	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		1770	1646		1770	3520		1770	3535	
Flt Permitted	0.40	1.00		0.74	1.00		0.26	1.00		0.28	1.00	
Satd. Flow (perm)	738	1753		1377	1646		491	3520		516	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	17	11	34	73	251	7	935	36	115	854	7
RTOR Reduction (vph)	0	9	0	0	215	0	0	3	0	0	1	0
Lane Group Flow (vph)	14	19	0	34	109	0	7	968	0	115	860	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.1	10.1		10.1	10.1		40.8	40.8		46.7	46.7	
Effective Green, g (s)	10.1	10.1		10.1	10.1		40.8	40.8		46.7	46.7	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.58	0.58		0.67	0.67	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	106	253		199	237		308	2052		471	2358	
v/s Ratio Prot		0.01			c0.07		0.00	c0.28		0.02	c0.24	
v/s Ratio Perm	0.02			0.02			0.01			0.14		
v/c Ratio	0.13	0.07		0.17	0.46		0.02	0.47		0.24	0.36	
Uniform Delay, d1	26.1	25.9		26.3	27.5		6.6	8.4		6.0	5.1	
Progression Factor	1.00	1.00		1.00	1.00		0.84	0.63		1.36	1.36	
Incremental Delay, d2	0.6	0.1		0.4	1.4		0.0	0.7		0.0	0.0	
Delay (s)	26.7	26.0		26.7	28.9		5.5	6.0		8.1	7.0	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		26.2			28.7			6.0			7.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	17	28	80	21	101	5	219	627	7	1	317	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			1.00		1.00	1.00			0.98	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1689			1838		1770	1860			1831	
Flt Permitted		0.95			0.93		0.46	1.00			1.00	
Satd. Flow (perm)		1614			1719		857	1860			1830	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	18	30	87	23	110	5	238	682	8	1	345	50
RTOR Reduction (vph)	0	75	0	0	3	0	0	0	0	0	6	0
Lane Group Flow (vph)	0	60	0	0	135	0	238	690	0	0	390	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.4			9.4		52.6	52.6			40.1	
Effective Green, g (s)		9.4			9.4		52.6	52.6			40.1	
Actuated g/C Ratio		0.13			0.13		0.75	0.75			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		217			231		755	1398			1048	
v/s Ratio Prot							0.04	c0.37				
v/s Ratio Perm		0.04			c0.08		0.20				0.21	
v/c Ratio		0.28			0.59		0.32	0.49			0.37	
Uniform Delay, d1		27.2			28.5		3.3	3.4			8.1	
Progression Factor		1.00			0.78		1.46	1.58			1.00	
Incremental Delay, d2		0.7			3.7		0.2	1.1			1.0	
Delay (s)		27.9			26.0		5.1	6.6			9.1	
Level of Service		C			C		A	A			A	
Approach Delay (s)		27.9			26.0			6.2			9.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	23	19	342	9	69	4	767	142	55	752	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.96		1.00	0.87			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1760		1770	1616			3456			3522	
Flt Permitted		0.82		0.60	1.00			0.95			0.82	
Satd. Flow (perm)		1475		1123	1616			3293			2891	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	25	21	372	10	75	4	834	154	60	817	9
RTOR Reduction (vph)	0	19	0	0	34	0	0	17	0	0	1	0
Lane Group Flow (vph)	0	62	0	372	51	0	0	975	0	0	885	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.2		26.4	26.4			35.6			35.6	
Effective Green, g (s)		7.2		26.4	26.4			35.6			35.6	
Actuated g/C Ratio		0.10		0.38	0.38			0.51			0.51	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		152		564	609			1675			1470	
v/s Ratio Prot				c0.14	0.03							
v/s Ratio Perm		0.04		c0.11				0.30			c0.31	
v/c Ratio		0.41		0.66	0.08			0.58			0.60	
Uniform Delay, d1		29.4		17.5	14.0			12.0			12.2	
Progression Factor		1.00		1.00	1.00			0.16			0.93	
Incremental Delay, d2		1.8		2.8	0.1			1.4			1.8	
Delay (s)		31.2		20.3	14.1			3.3			13.1	
Level of Service		C		C	B			A			B	
Approach Delay (s)		31.2			19.2			3.3			13.1	
Approach LOS		C			B			A			B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	71	358	104	133	638	323	109	494	43	315	866	151
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.95		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3420		1770	3361		1770	3496		1770	3460	
Flt Permitted	0.20	1.00		0.33	1.00		0.25	1.00		0.20	1.00	
Satd. Flow (perm)	365	3420		606	3361		466	3496		373	3460	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	77	389	113	145	693	351	118	537	47	342	941	164
RTOR Reduction (vph)	0	38	0	0	90	0	0	9	0	0	20	0
Lane Group Flow (vph)	77	464	0	145	954	0	118	575	0	342	1085	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	23.6	20.4		28.4	22.8		19.2	16.0		32.0	24.8	
Effective Green, g (s)	23.6	20.4		28.4	22.8		19.2	16.0		32.0	24.8	
Actuated g/C Ratio	0.34	0.29		0.41	0.33		0.27	0.23		0.46	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	997		339	1095		187	799		410	1226	
v/s Ratio Prot	0.02	0.14		c0.03	c0.28		0.03	0.16		c0.14	c0.31	
v/s Ratio Perm	0.12			0.14			0.14			0.24		
v/c Ratio	0.41	0.47		0.43	0.87		0.63	0.72		0.83	0.88	
Uniform Delay, d1	17.6	20.3		13.9	22.2		21.2	24.9		14.3	21.3	
Progression Factor	0.93	0.39		0.87	0.90		1.02	0.73		0.88	0.80	
Incremental Delay, d2	1.1	1.2		0.7	7.9		6.4	3.0		12.6	7.3	
Delay (s)	17.5	9.1		12.8	27.9		28.2	21.2		25.2	24.4	
Level of Service	B	A		B	C		C	C		C	C	
Approach Delay (s)		10.2			26.0			22.3			24.6	
Approach LOS		B			C			C			C	

Intersection Summary			
HCM Average Control Delay	22.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	177	0	574	148	119	587
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		0.95	1.00	1.00	0.95
Frt	1.00		1.00	0.85	1.00	1.00
Flt Protected	0.95		1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770		3539	1583	1770	3539
Flt Permitted	0.95		1.00	1.00	0.42	1.00
Satd. Flow (perm)	1770		3539	1583	774	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	192	0	624	161	129	638
RTOR Reduction (vph)	0	0	0	66	0	0
Lane Group Flow (vph)	192	0	624	95	129	638
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	8.4		23.6	23.6	23.6	23.6
Effective Green, g (s)	8.4		23.6	23.6	23.6	23.6
Actuated g/C Ratio	0.21		0.59	0.59	0.59	0.59
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	372		2088	934	457	2088
v/s Ratio Prot	c0.11		0.18	0.06		c0.18
v/s Ratio Perm					0.17	
v/c Ratio	0.52		0.30	0.10	0.28	0.31
Uniform Delay, d1	14.0		4.1	3.6	4.0	4.1
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	1.2		0.4	0.2	1.5	0.4
Delay (s)	15.2		4.4	3.8	5.6	4.5
Level of Service	B		A	A	A	A
Approach Delay (s)	15.2		4.3			4.7
Approach LOS	B		A			A

Intersection Summary			
HCM Average Control Delay	5.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	42.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	226	77	33	339	40	137	98	27	20	37	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1797			1831			1790			1743	
Flt Permitted		0.96			0.96			0.80			0.92	
Satd. Flow (perm)		1726			1756			1470			1613	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	246	84	36	368	43	149	107	29	22	40	42
RTOR Reduction (vph)	0	16	0	0	5	0	0	6	0	0	26	0
Lane Group Flow (vph)	0	340	0	0	442	0	0	279	0	0	78	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		36.0			36.0			26.0			26.0	
Effective Green, g (s)		36.0			36.0			26.0			26.0	
Actuated g/C Ratio		0.51			0.51			0.37			0.37	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		888			903			546			599	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.25			c0.19			0.05	
v/c Ratio		0.38			0.49			0.51			0.13	
Uniform Delay, d1		10.3			11.0			17.1			14.5	
Progression Factor		0.31			1.00			1.00			1.00	
Incremental Delay, d2		1.0			1.9			3.4			0.1	
Delay (s)		4.2			12.9			20.5			14.6	
Level of Service		A			B			C			B	
Approach Delay (s)		4.2			12.9			20.5			14.6	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	3	12	41	5	177	10	748	5	70	763	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1713			1654		1770	1860		1770	1856	
Flt Permitted		0.71			0.92		0.28	1.00		0.29	1.00	
Satd. Flow (perm)		1249			1535		513	1860		541	1856	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	13	4	14	59	7	211	15	787	7	79	803	21
RTOR Reduction (vph)	0	12	0	0	159	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	19	0	0	118	0	15	794	0	79	823	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.5			10.5		51.5	51.5		51.5	51.5	
Effective Green, g (s)		10.5			10.5		51.5	51.5		51.5	51.5	
Actuated g/C Ratio		0.15			0.15		0.74	0.74		0.74	0.74	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		187			230		377	1368		398	1365	
v/s Ratio Prot								0.43			c0.44	
v/s Ratio Perm		0.02			c0.08		0.03			0.15		
v/c Ratio		0.10			0.51		0.04	0.58		0.20	0.60	
Uniform Delay, d1		25.7			27.4		2.5	4.3		2.9	4.4	
Progression Factor		1.00			1.00		1.00	1.00		0.80	0.70	
Incremental Delay, d2		0.2			1.9		0.2	1.8		0.9	1.7	
Delay (s)		25.9			29.3		2.7	6.1		3.2	4.7	
Level of Service		C			C		A	A		A	A	
Approach Delay (s)		25.9			29.3			6.0			4.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	263	48	209	0	10	86	366	474	0	71	529	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95	0.95	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		0.88	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1559	1504	1770	1863		1770	1863	1583
Flt Permitted	0.42	1.00	1.00		1.00	1.00	0.12	1.00		0.47	1.00	1.00
Satd. Flow (perm)	789	1863	1583		1559	1504	225	1863		882	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	286	52	227	0	11	93	398	515	0	77	575	304
RTOR Reduction (vph)	0	0	188	0	39	48	0	0	0	0	0	206
Lane Group Flow (vph)	286	52	39	0	14	3	398	515	0	77	575	98
Turn Type	pm+pt		custom			Perm	pm+pt			Perm		Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		7			8	2			6		6
Actuated Green, G (s)	25.1	25.1	15.4		5.7	5.7	56.9	56.9		29.1	29.1	29.1
Effective Green, g (s)	25.1	25.1	15.4		5.7	5.7	56.9	56.9		29.1	29.1	29.1
Actuated g/C Ratio	0.28	0.28	0.17		0.06	0.06	0.63	0.63		0.32	0.32	0.32
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	388	520	271		99	95	551	1178		285	602	512
v/s Ratio Prot	c0.13	0.03			0.01		c0.19	0.28			c0.31	
v/s Ratio Perm	c0.08		0.02			0.00	0.27			0.09		0.06
v/c Ratio	0.74	0.10	0.14		0.14	0.03	0.72	0.44		0.27	0.96	0.19
Uniform Delay, d1	28.0	24.1	31.7		39.8	39.6	20.6	8.4		22.6	29.8	22.0
Progression Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	7.1	0.1	0.2		0.6	0.1	4.7	1.2		2.3	27.2	0.8
Delay (s)	35.2	24.2	31.9		40.5	39.7	25.3	9.6		24.9	57.0	22.8
Level of Service	D	C	C		D	D	C	A		C	E	C
Approach Delay (s)		32.9			40.1			16.4			43.5	
Approach LOS		C			D			B			D	

Intersection Summary			
HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	4	48	112	14	116	29	745	35	48	631	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.92			0.94		1.00	0.99		1.00	0.99	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1688			1703		1770	1850		1770	1850	
Flt Permitted		0.82			0.83		0.25	1.00		0.14	1.00	
Satd. Flow (perm)		1408			1451		465	1850		252	1850	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	4	52	122	15	126	32	810	38	52	686	32
RTOR Reduction (vph)	0	41	0	0	56	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	51	0	0	207	0	32	846	0	52	716	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.1			15.1		41.6	39.2		44.2	40.5	
Effective Green, g (s)		15.1			15.1		41.6	39.2		44.2	40.5	
Actuated g/C Ratio		0.22			0.22		0.59	0.56		0.63	0.58	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		304			313		321	1036		239	1070	
v/s Ratio Prot							0.00	c0.46		c0.01	0.39	
v/s Ratio Perm		0.04			c0.14		0.06			0.13		
v/c Ratio		0.17			0.66		0.10	0.82		0.22	0.67	
Uniform Delay, d1		22.3			25.1		7.4	12.5		9.7	10.1	
Progression Factor		1.00			1.00		1.30	1.01		0.85	0.85	
Incremental Delay, d2		0.3			5.0		0.1	6.1		0.4	3.2	
Delay (s)		22.6			30.1		9.7	18.8		8.6	11.9	
Level of Service		C			C		A	B		A	B	
Approach Delay (s)		22.6			30.1			18.4			11.7	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	17.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	52	52	979	743	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1695		1770	1863	1863	1583
Flt Permitted	0.98		0.31	1.00	1.00	1.00
Satd. Flow (perm)	1695		570	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	57	57	57	1064	808	58
RTOR Reduction (vph)	51	0	0	0	0	13
Lane Group Flow (vph)	63	0	57	1064	808	45
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	7.1		54.9	54.9	54.9	54.9
Effective Green, g (s)	7.1		54.9	54.9	54.9	54.9
Actuated g/C Ratio	0.10		0.78	0.78	0.78	0.78
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	172		447	1461	1461	1242
v/s Ratio Prot	c0.04			c0.57	0.43	
v/s Ratio Perm			0.10			0.03
v/c Ratio	0.37		0.13	0.73	0.55	0.04
Uniform Delay, d1	29.3		1.8	3.8	2.9	1.7
Progression Factor	1.00		1.86	2.14	1.27	0.78
Incremental Delay, d2	1.3		0.5	2.7	1.3	0.0
Delay (s)	30.7		3.9	10.9	4.9	1.4
Level of Service	C		A	B	A	A
Approach Delay (s)	30.7			10.5	4.7	
Approach LOS	C			B	A	

Intersection Summary			
HCM Average Control Delay	9.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	103	323	35	111	1010	233	97	380	79	248	395	168
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5011		1770	4942		1770	3448		1770	1779	
Flt Permitted	0.20	1.00		0.47	1.00		0.24	1.00		0.27	1.00	
Satd. Flow (perm)	363	5011		876	4942		441	3448		495	1779	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	351	38	121	1098	253	105	413	86	270	429	183
RTOR Reduction (vph)	0	18	0	0	51	0	0	24	0	0	22	0
Lane Group Flow (vph)	112	371	0	121	1300	0	105	475	0	270	590	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	23.7	20.5		26.9	22.1		20.1	16.9		32.7	25.5	
Effective Green, g (s)	23.7	20.5		26.9	22.1		20.1	16.9		32.7	25.5	
Actuated g/C Ratio	0.34	0.29		0.38	0.32		0.29	0.24		0.47	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	1468		398	1560		187	832		446	648	
v/s Ratio Prot	c0.03	0.07		c0.02	c0.26		0.03	0.14		c0.10	c0.33	
v/s Ratio Perm	0.17			0.10			0.14			0.18		
v/c Ratio	0.60	0.25		0.30	0.83		0.56	0.57		0.61	0.91	
Uniform Delay, d1	17.6	18.9		14.3	22.2		19.7	23.4		12.6	21.2	
Progression Factor	1.00	1.00		0.22	0.30		1.00	1.00		0.66	0.76	
Incremental Delay, d2	5.1	0.4		0.4	5.0		3.8	0.9		2.3	16.7	
Delay (s)	22.7	19.3		3.6	11.7		23.6	24.3		10.5	32.7	
Level of Service	C	B		A	B		C	C		B	C	
Approach Delay (s)		20.1			11.1			24.2			25.9	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	564	11	8	1170	78	15	12	14	69	10	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3506		1770	1713		1770	1601	
Flt Permitted	0.11	1.00	1.00	0.41	1.00		0.58	1.00		0.74	1.00	
Satd. Flow (perm)	205	5085	1583	762	3506		1087	1713		1377	1601	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	613	12	9	1272	85	16	13	15	75	11	159
RTOR Reduction (vph)	0	0	5	0	7	0	0	12	0	0	112	0
Lane Group Flow (vph)	66	613	7	9	1350	0	16	16	0	75	58	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	44.2	41.2	41.2	39.8	39.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	44.2	41.2	41.2	39.8	39.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.63	0.59	0.59	0.57	0.56		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	197	2993	932	445	1953		248	392		315	366	
v/s Ratio Prot	c0.01	0.12		0.00	c0.39			0.01			0.04	
v/s Ratio Perm	0.20		0.00	0.01			0.01			c0.05		
v/c Ratio	0.34	0.20	0.01	0.02	0.69		0.06	0.04		0.24	0.16	
Uniform Delay, d1	7.9	6.7	6.0	6.5	11.2		21.1	21.0		22.0	21.6	
Progression Factor	0.20	0.45	0.67	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2	0.0	0.0	2.0		0.5	0.2		0.4	0.2	
Delay (s)	2.6	3.2	4.0	6.6	13.2		21.6	21.2		22.4	21.8	
Level of Service	A	A	A	A	B		C	C		C	C	
Approach Delay (s)		3.1			13.2			21.4			22.0	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	60.7%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	14	23	16	6	3	35	855	15	10	399	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.98			1.00			0.99	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1721			1779			3524			3510	
Flt Permitted		0.92			0.90			0.93			0.93	
Satd. Flow (perm)		1596			1647			3266			3283	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	15	25	17	7	3	38	929	16	11	434	22
RTOR Reduction (vph)	0	23	0	0	3	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	28	0	0	24	0	0	982	0	0	464	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.7			4.7			57.3			57.3	
Effective Green, g (s)		4.7			4.7			57.3			57.3	
Actuated g/C Ratio		0.07			0.07			0.82			0.82	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		107			111			2673			2687	
v/s Ratio Prot												
v/s Ratio Perm		c0.02			0.01			c0.30			0.14	
v/c Ratio		0.26			0.22			0.37			0.17	
Uniform Delay, d1		31.0			30.9			1.6			1.3	
Progression Factor		1.00			1.00			0.96			0.88	
Incremental Delay, d2		1.3			1.0			0.2			0.1	
Delay (s)		32.3			31.9			1.7			1.3	
Level of Service		C			C			A			A	
Approach Delay (s)		32.3			31.9			1.7			1.3	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	3.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	54	0	13	0	0	1	13	484	1	774	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.86		1.00	0.85	1.00	0.98	
Flt Protected		0.95	1.00		1.00		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1611		1770	2787	1770	3397	
Flt Permitted		0.95	1.00		1.00		0.29	1.00	0.44	0.96	
Satd. Flow (perm)		1770	1583		1611		531	2787	817	3397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	14	0	0	1	14	526	1	841	122
RTOR Reduction (vph)	0	0	13	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	59	1	0	0	0	14	526	1	956	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Effective Green, g (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Actuated g/C Ratio		0.08	0.08		0.02		0.74	0.74	0.74	0.74	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		137	122		25		391	2050	601	2499	
v/s Ratio Prot		c0.03			c0.00			0.19		c0.28	
v/s Ratio Perm			0.00				0.03		0.00		
v/c Ratio		0.43	0.01		0.00		0.04	0.26	0.00	0.38	
Uniform Delay, d1		30.8	29.8		33.9		2.5	3.0	2.4	3.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00	0.06	0.08	
Incremental Delay, d2		2.2	0.0		0.0		0.2	0.3	0.0	0.4	
Delay (s)		33.0	29.9		33.9		2.7	3.3	0.1	0.7	
Level of Service		C	C		C		A	A	A	A	
Approach Delay (s)		32.4			33.9		3.3			0.7	
Approach LOS		C			C		A			A	

Intersection Summary			
HCM Average Control Delay	3.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	0	403	364	0	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	0	438	396	0	898
RTOR Reduction (vph)	0	0	0	0	0	260
Lane Group Flow (vph)	86	0	438	396	0	638
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	3.3		27.7	27.7		27.7
Effective Green, g (s)	3.3		27.7	27.7		27.7
Actuated g/C Ratio	0.08		0.71	0.71		0.71
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	150		1257	2514		1979
v/s Ratio Prot	c0.05			0.11		
v/s Ratio Perm			c0.25			0.23
v/c Ratio	0.57		0.35	0.16		0.32
Uniform Delay, d1	17.2		2.2	1.8		2.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	5.2		0.8	0.1		0.4
Delay (s)	22.4		2.9	2.0		2.6
Level of Service	C		A	A		A
Approach Delay (s)	22.4			2.5	2.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	79	5	55	4	1	7	53	603	6	5	625	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.86			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		0.99		0.95	1.00	1.00
Satd. Flow (prot)	1770	1609			1788	1583		3515		1770	1863	1583
Flt Permitted	0.75	1.00			1.00	1.00		0.83		0.33	1.00	1.00
Satd. Flow (perm)	1406	1609			1863	1583		2938		611	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	94	6	60	5	1	8	78	635	7	6	651	115
RTOR Reduction (vph)	0	51	0	0	0	8	0	1	0	0	0	31
Lane Group Flow (vph)	94	15	0	0	6	0	0	719	0	6	651	84
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	9.7	9.7			1.3	1.3		42.1		47.3	47.3	47.3
Effective Green, g (s)	9.7	9.7			1.3	1.3		42.1		47.3	47.3	47.3
Actuated g/C Ratio	0.15	0.15			0.02	0.02		0.65		0.73	0.73	0.73
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	234	240			37	32		1903		466	1356	1152
v/s Ratio Prot	c0.03	0.01								0.00	c0.35	
v/s Ratio Perm	c0.03				0.00	0.00		0.24		0.01		0.05
v/c Ratio	0.40	0.06			0.16	0.01		0.38		0.01	0.48	0.07
Uniform Delay, d1	24.9	23.7			31.3	31.2		5.3		2.7	3.7	2.5
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.00	1.00	1.00
Incremental Delay, d2	1.1	0.1			2.1	0.1		0.1		0.0	1.2	0.1
Delay (s)	26.0	23.9			33.4	31.3		5.5		2.7	4.9	2.7
Level of Service	C	C			C	C		A		A	A	A
Approach Delay (s)		25.1			32.2			5.5			4.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.3%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2020 BeltLine

PM PEAK HOUR, 3-LANE MONROE



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	30	20	30	1400	1700	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.95			1.00	1.00	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1710			3536	3527	
Flt Permitted	0.97			0.83	1.00	
Satd. Flow (perm)	1710			2933	3527	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	34	23	34	1598	1940	46
RTOR Reduction (vph)	19	0	0	0	2	0
Lane Group Flow (vph)	38	0	0	1632	1984	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	16.0			66.0	66.0	
Effective Green, g (s)	16.0			66.0	66.0	
Actuated g/C Ratio	0.18			0.73	0.73	
Clearance Time (s)	4.0			4.0	4.0	
Lane Grp Cap (vph)	304			2151	2586	
v/s Ratio Prot	c0.02				c0.56	
v/s Ratio Perm				0.56		
v/c Ratio	0.13			0.76	0.77	
Uniform Delay, d1	31.1			7.2	7.3	
Progression Factor	1.00			0.63	1.05	
Incremental Delay, d2	0.8			0.2	0.2	
Delay (s)	32.0			4.8	7.9	
Level of Service	C			A	A	
Approach Delay (s)	32.0			4.8	7.9	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	30	20	750	1175	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.92			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1679			3535	3521	
Flt Permitted	0.98			0.89	1.00	
Satd. Flow (perm)	1679			3162	3521	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	23	34	23	856	1341	48
RTOR Reduction (vph)	28	0	0	0	3	0
Lane Group Flow (vph)	29	0	0	879	1386	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	17.0			65.0	65.0	
Effective Green, g (s)	17.0			65.0	65.0	
Actuated g/C Ratio	0.19			0.72	0.72	
Clearance Time (s)	4.0			4.0	4.0	
Lane Grp Cap (vph)	317			2284	2543	
v/s Ratio Prot	c0.02				c0.39	
v/s Ratio Perm				0.28		
v/c Ratio	0.09			0.38	0.55	
Uniform Delay, d1	30.1			4.8	5.7	
Progression Factor	1.00			0.65	0.60	
Incremental Delay, d2	0.6			0.4	0.1	
Delay (s)	30.7			3.5	3.5	
Level of Service	C			A	A	
Approach Delay (s)	30.7			3.5	3.5	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.9%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	20	20	30	20	30	20	30	1100	20	20	1200	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.96			1.00			1.00	
Flt Protected		0.99			0.99			1.00			1.00	
Satd. Flow (prot)		1731			1765			3525			3528	
Flt Permitted		0.92			0.92			0.88			0.92	
Satd. Flow (perm)		1610			1641			3090			3235	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	23	23	34	23	34	23	34	1255	23	23	1370	23
RTOR Reduction (vph)	0	27	0	0	16	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	53	0	0	64	0	0	1311	0	0	1415	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		19.0			19.0			63.0			63.0	
Effective Green, g (s)		19.0			19.0			63.0			63.0	
Actuated g/C Ratio		0.21			0.21			0.70			0.70	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		340			346			2163			2265	
v/s Ratio Prot												
v/s Ratio Perm		0.03			c0.04			0.42			c0.44	
v/c Ratio		0.16			0.19			0.61			0.62	
Uniform Delay, d1		29.0			29.1			7.0			7.2	
Progression Factor		1.00			0.95			0.21			0.35	
Incremental Delay, d2		1.0			1.0			1.1			0.4	
Delay (s)		29.9			28.8			2.6			3.0	
Level of Service		C			C			A			A	
Approach Delay (s)		29.9			28.8			2.6			3.0	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.5%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	52	86	39	18	47	164	11	1500	12	483	1505	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1775		1770	1646		1770	3535		1770	3505	
Flt Permitted	0.31	1.00		0.53	1.00		0.12	1.00		0.10	1.00	
Satd. Flow (perm)	587	1775		979	1646		229	3535		190	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	59	98	45	21	54	187	13	1712	14	551	1718	120
RTOR Reduction (vph)	0	19	0	0	144	0	0	1	0	0	5	0
Lane Group Flow (vph)	59	124	0	21	97	0	13	1725	0	551	1833	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	12.7	12.7		12.7	12.7		40.0	40.0		64.5	64.5	
Effective Green, g (s)	12.7	12.7		12.7	12.7		40.0	40.0		64.5	64.5	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.44	0.44		0.72	0.72	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	83	250		138	232		115	1571		580	2512	
v/s Ratio Prot		0.07			0.06		0.00	c0.49		c0.27	0.52	
v/s Ratio Perm	c0.10			0.02			0.05			0.41		
v/c Ratio	0.71	0.50		0.15	0.42		0.11	1.10		0.95	0.73	
Uniform Delay, d1	36.9	35.7		33.9	35.3		14.7	25.0		25.7	7.6	
Progression Factor	1.00	1.00		1.00	1.00		0.37	0.52		1.00	1.00	
Incremental Delay, d2	24.8	1.6		0.5	1.2		0.3	50.6		25.5	1.9	
Delay (s)	61.7	37.2		34.4	36.5		5.7	63.6		51.2	9.5	
Level of Service	E	D		C	D		A	E		D	A	
Approach Delay (s)		44.4			36.3			63.2			19.1	
Approach LOS		D			D			E			B	

Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.99		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	101.9%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	144	252	121	127	23	113	663	129	10	896	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			0.99		1.00	0.98			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1712			1801		1770	1817			1850	
Flt Permitted		0.92			0.44		0.16	1.00			0.99	
Satd. Flow (perm)		1580			807		290	1817			1833	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	64	164	288	138	145	26	129	757	147	11	1023	49
RTOR Reduction (vph)	0	51	0	0	3	0	0	8	0	0	2	0
Lane Group Flow (vph)	0	465	0	0	306	0	129	896	0	0	1081	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		29.0			29.0		53.0	53.0			45.0	
Effective Green, g (s)		29.0			29.0		53.0	53.0			45.0	
Actuated g/C Ratio		0.32			0.32		0.59	0.59			0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		509			260		237	1070			917	
v/s Ratio Prot							0.02	c0.49				
v/s Ratio Perm		0.29			c0.38		0.30				c0.59	
v/c Ratio		0.91			1.18		0.54	0.84			1.18	
Uniform Delay, d1		29.3			30.5		14.0	15.0			22.5	
Progression Factor		1.00			0.84		1.30	0.99			1.00	
Incremental Delay, d2		20.9			108.3		2.5	7.6			91.8	
Delay (s)		50.2			134.0		20.7	22.4			114.3	
Level of Service		D			F		C	C			F	
Approach Delay (s)		50.2			134.0			22.2			114.3	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	72.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	132.5%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	68	29	28	30	22	79	750	35	23	1150	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.94			0.99			1.00	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1785		1770	1744			3502			3527	
Flt Permitted		0.95		0.59	1.00			0.68			0.92	
Satd. Flow (perm)		1711		1092	1744			2386			3257	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	23	78	33	32	34	25	90	856	40	26	1312	23
RTOR Reduction (vph)	0	13	0	0	20	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	121	0	32	39	0	0	983	0	0	1360	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0		18.0	18.0			64.0			64.0	
Effective Green, g (s)		18.0		18.0	18.0			64.0			64.0	
Actuated g/C Ratio		0.20		0.20	0.20			0.71			0.71	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		342		218	349			1697			2316	
v/s Ratio Prot					0.02							
v/s Ratio Perm		c0.07		0.03				0.41			c0.42	
v/c Ratio		0.35		0.15	0.11			0.58			0.59	
Uniform Delay, d1		31.0		29.7	29.5			6.4			6.4	
Progression Factor		1.00		1.00	1.00			0.71			0.34	
Incremental Delay, d2		2.9		1.4	0.6			1.4			0.9	
Delay (s)		33.9		31.1	30.1			5.9			3.1	
Level of Service		C		C	C			A			A	
Approach Delay (s)		33.9			30.5			5.9			3.1	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	6.8	HCM Level of Service	A
HCM Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	38	51	579	40	94	25	1218	206	105	1205	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.95		1.00	0.90			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1736		1770	1667			3461			3503	
Flt Permitted		0.85		0.44	1.00			0.82			0.53	
Satd. Flow (perm)		1493		817	1667			2853			1858	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	46	43	58	661	46	107	29	1390	235	120	1375	68
RTOR Reduction (vph)	0	28	0	0	17	0	0	13	0	0	3	0
Lane Group Flow (vph)	0	119	0	661	136	0	0	1641	0	0	1560	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.8		31.8	31.8			50.2			50.2	
Effective Green, g (s)		11.8		31.8	31.8			50.2			50.2	
Actuated g/C Ratio		0.13		0.35	0.35			0.56			0.56	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		196		458	589			1591			1036	
v/s Ratio Prot				c0.26	0.08							
v/s Ratio Perm		0.08		c0.25				0.58			c0.84	
v/c Ratio		0.61		1.44	0.23			1.03			1.51	
Uniform Delay, d1		36.9		28.0	20.5			19.9			19.9	
Progression Factor		1.00		1.00	1.00			0.52			0.73	
Incremental Delay, d2		5.3		211.5	0.2			26.9			231.3	
Delay (s)		42.2		239.5	20.7			37.2			245.9	
Level of Service		D		F	C			D			F	
Approach Delay (s)		42.2			198.4			37.2			245.9	
Approach LOS		D			F			D			F	

Intersection Summary			
HCM Average Control Delay	146.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	137.8%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	218	715	128	176	452	419	198	841	196	580	949	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3459		1770	3284		1770	3439		1770	3468	
Flt Permitted	0.17	1.00		0.17	1.00		0.16	1.00		0.14	1.00	
Satd. Flow (perm)	310	3459		324	3284		298	3439		257	3468	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	249	816	146	201	516	478	226	960	224	662	1083	169
RTOR Reduction (vph)	0	16	0	0	185	0	0	22	0	0	14	0
Lane Group Flow (vph)	249	946	0	201	809	0	226	1162	0	662	1238	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	29.0	24.0		27.0	23.0		34.8	25.0		50.0	36.2	
Effective Green, g (s)	29.0	24.0		27.0	23.0		34.8	25.0		50.0	36.2	
Actuated g/C Ratio	0.32	0.27		0.30	0.26		0.39	0.28		0.56	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	181	922		161	839		276	955		496	1395	
v/s Ratio Prot	c0.08	0.27		0.06	0.25		0.09	0.34		c0.31	0.36	
v/s Ratio Perm	c0.37			0.32			0.23			c0.43		
v/c Ratio	1.38	1.03		1.25	0.96		0.82	1.22		1.33	0.89	
Uniform Delay, d1	29.7	33.0		31.8	33.1		21.3	32.5		25.7	25.0	
Progression Factor	0.54	0.68		0.73	0.72		1.40	0.71		1.50	0.95	
Incremental Delay, d2	190.9	31.2		142.1	18.4		14.7	105.6		159.2	4.7	
Delay (s)	207.1	53.6		165.3	42.2		44.6	128.6		197.8	28.4	
Level of Service	F	D		F	D		D	F		F	C	
Approach Delay (s)		85.1			62.9			115.1			87.0	
Approach LOS		F			E			F			F	

Intersection Summary			
HCM Average Control Delay	88.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.28		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	118.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (vph)	750	234	0	914	142	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	1.00		0.95	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	1.00	1.00		1.00	0.95	
Satd. Flow (prot)	3539	1583		3539	1770	
Flt Permitted	1.00	1.00		1.00	0.95	
Satd. Flow (perm)	3539	1583		3539	1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	856	267	0	1043	162	0
RTOR Reduction (vph)	0	64	0	0	0	0
Lane Group Flow (vph)	856	203	0	1043	162	0
Turn Type		Prot				
Protected Phases	2	2		6	8	
Permitted Phases						
Actuated Green, G (s)	68.4	68.4		68.4	13.6	
Effective Green, g (s)	68.4	68.4		68.4	13.6	
Actuated g/C Ratio	0.76	0.76		0.76	0.15	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	2690	1203		2690	267	
v/s Ratio Prot	0.24	0.13		c0.29	c0.09	
v/s Ratio Perm						
v/c Ratio	0.32	0.17		0.39	0.61	
Uniform Delay, d1	3.4	3.0		3.7	35.7	
Progression Factor	0.61	0.31		1.81	0.48	
Incremental Delay, d2	0.3	0.3		0.0	3.8	
Delay (s)	2.4	1.2		6.7	21.0	
Level of Service	A	A		A	C	
Approach Delay (s)	2.1			6.7	21.0	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	5.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.42		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	459	221	86	261	27	118	113	80	48	121	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.71			0.76			0.85	
Satd. Flow (perm)		1763			1306			1362			1549	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	17	524	252	98	298	31	135	129	91	55	138	27
RTOR Reduction (vph)	0	19	0	0	3	0	0	14	0	0	6	0
Lane Group Flow (vph)	0	774	0	0	424	0	0	341	0	0	214	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		51.0			51.0			31.0			31.0	
Effective Green, g (s)		51.0			51.0			31.0			31.0	
Actuated g/C Ratio		0.57			0.57			0.34			0.34	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		999			740			469			534	
v/s Ratio Prot												
v/s Ratio Perm		c0.44			0.32			c0.25			0.14	
v/c Ratio		0.78			0.57			0.73			0.40	
Uniform Delay, d1		15.1			12.5			25.8			22.4	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		5.9			3.2			9.5			0.5	
Delay (s)		20.9			15.7			35.3			22.9	
Level of Service		C			B			D			C	
Approach Delay (s)		20.9			15.7			35.3			22.9	
Approach LOS		C			B			D			C	

Intersection Summary			
HCM Average Control Delay	22.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	33	12	28	14	8	94	29	1100	46	175	1057	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.95			0.90		1.00	0.99		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1733			1656		1770	1849		1770	1852	
Flt Permitted		0.52			0.95		0.08	1.00		0.06	1.00	
Satd. Flow (perm)		924			1586		158	1849		106	1852	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	42	17	33	21	13	118	45	1216	64	206	1168	46
RTOR Reduction (vph)	0	22	0	0	105	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	70	0	0	47	0	45	1278	0	206	1213	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.5			10.5		69.3	66.0		79.5	72.2	
Effective Green, g (s)		10.5			10.5		69.3	66.0		79.5	72.2	
Actuated g/C Ratio		0.11			0.11		0.71	0.67		0.81	0.74	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		99			170		166	1245		247	1364	
v/s Ratio Prot							0.01	c0.69		c0.08	0.65	
v/s Ratio Perm		c0.08			0.03		0.18			0.59		
v/c Ratio		0.70			0.27		0.27	1.03		0.83	0.89	
Uniform Delay, d1		42.2			40.2		14.9	16.0		34.2	9.8	
Progression Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2		20.3			0.9		0.9	32.5		20.8	9.0	
Delay (s)		62.5			41.1		15.8	48.5		55.1	18.8	
Level of Service		E			D		B	D		E	B	
Approach Delay (s)		62.5			41.1			47.4			24.1	
Approach LOS		E			D			D			C	

Intersection Summary			
HCM Average Control Delay	36.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	98.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	549	103	459	0	52	202	304	461	0	268	797	246
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00		0.95	0.95	1.00	1.00		1.00	1.00	1.00
Frt	1.00	1.00	0.85		0.91	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1863	1583		1609	1504	1770	1863		1770	1863	1583
Flt Permitted	0.30	1.00	1.00		1.00	1.00	0.15	1.00		0.47	1.00	1.00
Satd. Flow (perm)	562	1863	1583		1609	1504	287	1863		873	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	627	118	524	0	59	231	347	526	0	306	910	281
RTOR Reduction (vph)	0	0	308	0	66	125	0	0	0	0	0	136
Lane Group Flow (vph)	627	118	216	0	83	16	347	526	0	306	910	145
Turn Type	pm+pt		Perm			Perm	pm+pt			Perm		Perm
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		4			8	2			6		6
Actuated Green, G (s)	30.1	30.1	30.1		10.1	10.1	51.9	51.9		22.0	22.0	22.0
Effective Green, g (s)	30.1	30.1	30.1		10.1	10.1	51.9	51.9		22.0	22.0	22.0
Actuated g/C Ratio	0.33	0.33	0.33		0.11	0.11	0.58	0.58		0.24	0.24	0.24
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	403	623	529		181	169	592	1074		213	455	387
v/s Ratio Prot	c0.28	0.06			0.05		c0.17	0.28			c0.49	
v/s Ratio Perm	c0.24		0.14			0.01	0.17			0.35		0.09
v/c Ratio	1.56	0.19	0.41		0.46	0.09	0.59	0.49		1.44	2.00	0.37
Uniform Delay, d1	27.0	21.3	23.1		37.4	35.8	15.7	11.2		34.0	34.0	28.3
Progression Factor	1.00	1.00	1.00		0.89	0.65	1.28	0.53		1.00	1.00	1.00
Incremental Delay, d2	262.1	0.1	0.5		1.8	0.2	1.4	1.5		221.2	457.8	2.8
Delay (s)	289.1	21.4	23.6		35.0	23.4	21.6	7.5		255.2	491.8	31.0
Level of Service	F	C	C		D	C	C	A		F	F	C
Approach Delay (s)		154.6			29.4			13.1			356.9	
Approach LOS		F			C			B			F	

Intersection Summary			
HCM Average Control Delay	191.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.34		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	114.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	23	71	68	29	81	131	990	119	96	1139	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.94		1.00	0.98		1.00	0.98	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1706			1716		1770	1833		1770	1826	
Flt Permitted		0.77			0.72		0.07	1.00		0.07	1.00	
Satd. Flow (perm)		1330			1263		127	1833		128	1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	50	26	81	78	33	92	150	1130	136	110	1300	195
RTOR Reduction (vph)	0	44	0	0	34	0	0	5	0	0	6	0
Lane Group Flow (vph)	0	113	0	0	169	0	150	1261	0	110	1489	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.4			14.4		64.2	58.9		63.0	58.3	
Effective Green, g (s)		14.4			14.4		64.2	58.9		63.0	58.3	
Actuated g/C Ratio		0.16			0.16		0.71	0.65		0.70	0.65	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		213			202		187	1200		175	1183	
v/s Ratio Prot							c0.05	0.69		0.03	c0.82	
v/s Ratio Perm		0.09			c0.13		0.53			0.41		
v/c Ratio		0.53			0.84		0.80	1.05		0.63	1.26	
Uniform Delay, d1		34.7			36.7		25.1	15.6		21.7	15.8	
Progression Factor		1.00			1.00		1.00	1.00		1.47	0.46	
Incremental Delay, d2		2.5			25.1		21.4	40.5		2.2	118.7	
Delay (s)		37.3			61.7		46.5	56.0		34.2	126.0	
Level of Service		D			E		D	E		C	F	
Approach Delay (s)		37.3			61.7			55.0			119.7	
Approach LOS		D			E			E			F	

Intersection Summary			
HCM Average Control Delay	85.3	HCM Level of Service	F
HCM Volume to Capacity ratio	1.15		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	106.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	70	63	1027	1331	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.92		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1682		1770	1863	1863	1583
Flt Permitted	0.98		0.06	1.00	1.00	1.00
Satd. Flow (perm)	1682		103	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	59	80	72	1172	1519	63
RTOR Reduction (vph)	59	0	0	0	0	6
Lane Group Flow (vph)	80	0	72	1172	1519	57
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	9.7		72.3	72.3	72.3	72.3
Effective Green, g (s)	9.7		72.3	72.3	72.3	72.3
Actuated g/C Ratio	0.11		0.80	0.80	0.80	0.80
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	181		83	1497	1497	1272
v/s Ratio Prot	c0.05			0.63	c0.82	
v/s Ratio Perm			0.70			0.04
v/c Ratio	0.44		0.87	0.78	1.01	0.04
Uniform Delay, d1	37.6		5.7	4.7	8.8	1.8
Progression Factor	1.00		2.01	2.17	0.89	0.39
Incremental Delay, d2	1.7		24.5	1.0	11.1	0.0
Delay (s)	39.3		36.0	11.2	19.0	0.7
Level of Service	D		D	B	B	A
Approach Delay (s)	39.3			12.7	18.2	
Approach LOS	D			B	B	

Intersection Summary			
HCM Average Control Delay	16.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	257	777	267	144	879	194	298	434	115	253	414	274
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	4948		1770	3428		1770	1751	
Flt Permitted	0.27	1.00		0.27	1.00		0.13	1.00		0.27	1.00	
Satd. Flow (perm)	497	4890		497	4948		236	3428		511	1751	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	293	887	305	164	1003	221	340	495	131	289	472	313
RTOR Reduction (vph)	0	69	0	0	39	0	0	25	0	0	27	0
Lane Group Flow (vph)	293	1123	0	164	1185	0	340	601	0	289	758	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	24.0	24.0		20.0	20.0		42.6	31.6		47.4	34.0	
Effective Green, g (s)	24.0	24.0		20.0	20.0		42.6	31.6		47.4	34.0	
Actuated g/C Ratio	0.27	0.27		0.22	0.22		0.47	0.35		0.53	0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	260	1304		181	1100		299	1204		457	661	
v/s Ratio Prot	c0.11	0.23		0.05	c0.24		c0.14	0.18		c0.09	c0.43	
v/s Ratio Perm	c0.19			0.15			0.40			0.24		
v/c Ratio	1.13	0.86		0.91	1.08		1.14	0.50		0.63	1.15	
Uniform Delay, d1	31.1	31.4		36.0	35.0		24.3	23.0		13.2	28.0	
Progression Factor	1.00	1.00		0.66	0.64		1.00	1.00		1.30	0.82	
Incremental Delay, d2	94.3	7.6		30.6	46.1		94.4	0.3		2.5	81.2	
Delay (s)	125.4	39.0		54.4	68.3		118.7	23.3		19.7	104.1	
Level of Service	F	D		D	E		F	C		B	F	
Approach Delay (s)		56.1			66.7			56.9			81.4	
Approach LOS		E			E			E			F	

Intersection Summary			
HCM Average Control Delay	64.8	HCM Level of Service	E
HCM Volume to Capacity ratio	1.10		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.4%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1965	85	36	1110	116	71	41	72	199	46	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1685		1770	1636	
Flt Permitted	0.08	1.00	1.00	0.09	1.00		0.36	1.00		0.64	1.00	
Satd. Flow (perm)	152	5085	1583	165	3489		677	1685		1185	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	236	2243	97	41	1267	132	81	47	82	227	52	226
RTOR Reduction (vph)	0	0	14	0	8	0	0	62	0	0	148	0
Lane Group Flow (vph)	236	2243	83	41	1391	0	81	67	0	227	130	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	60.0	53.6	53.6	47.5	45.1		22.0	22.0		22.0	22.0	
Effective Green, g (s)	60.0	53.6	53.6	47.5	45.1		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.67	0.60	0.60	0.53	0.50		0.24	0.24		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	297	3028	943	130	1748		165	412		290	400	
v/s Ratio Prot	c0.10	0.44		0.01	0.40			0.04			0.08	
v/s Ratio Perm	c0.43		0.05	0.16			0.12			c0.19		
v/c Ratio	0.79	0.74	0.09	0.32	0.80		0.49	0.16		0.78	0.32	
Uniform Delay, d1	23.0	13.2	7.8	12.4	18.6		29.2	26.8		31.8	27.9	
Progression Factor	1.14	0.58	0.57	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	12.9	1.6	0.2	1.4	3.8		10.1	0.8		12.9	0.5	
Delay (s)	39.0	9.2	4.6	13.8	22.5		39.3	27.6		44.7	28.4	
Level of Service	D	A	A	B	C		D	C		D	C	
Approach Delay (s)		11.8			22.2			32.1			35.7	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	18.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.0%	ICU Level of Service	D
Analysis Period (min)	15		

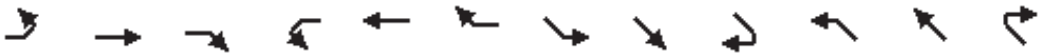
c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	20	137	20	30	30	134	749	20	20	1042	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95			0.95	
Frt		0.93			0.95		1.00	1.00			0.99	
Flt Protected		0.98			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1694			1747		1770	3525			3485	
Flt Permitted		0.84			0.85		0.16	1.00			0.93	
Satd. Flow (perm)		1447			1505		305	3525			3248	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	106	23	156	23	34	34	153	855	23	23	1189	130
RTOR Reduction (vph)	0	48	0	0	24	0	0	2	0	0	9	0
Lane Group Flow (vph)	0	237	0	0	67	0	153	876	0	0	1333	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.7			17.7		64.3	64.3			64.3	
Effective Green, g (s)		17.7			17.7		64.3	64.3			64.3	
Actuated g/C Ratio		0.20			0.20		0.71	0.71			0.71	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		285			296		218	2518			2321	
v/s Ratio Prot								0.25				
v/s Ratio Perm		c0.16			0.04		c0.50				0.41	
v/c Ratio		0.83			0.23		0.70	0.35			0.57	
Uniform Delay, d1		34.7			30.4		7.4	4.9			6.2	
Progression Factor		1.00			1.00		0.89	0.43			0.63	
Incremental Delay, d2		18.2			0.4		16.5	0.4			0.9	
Delay (s)		52.9			30.8		23.1	2.5			4.8	
Level of Service		D			C		C	A			A	
Approach Delay (s)		52.9			30.8			5.5			4.8	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM Average Control Delay	10.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	89.1%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	22	30	102	20	20	20	30	932	190	200	750	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.91			0.96		1.00	0.97		1.00	1.00	
Flt Protected		0.99			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1684			1750		1770	3449		1770	3525	
Flt Permitted		0.96			0.90		0.32	1.00		0.10	1.00	
Satd. Flow (perm)		1620			1595		602	3449		191	3525	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	25	34	116	23	23	23	34	1064	217	228	856	23
RTOR Reduction (vph)	0	78	0	0	18	0	0	19	0	0	2	0
Lane Group Flow (vph)	0	97	0	0	51	0	34	1262	0	228	877	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		2			6		7	4		3	8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		18.0			18.0		43.0	43.0		56.0	56.0	
Effective Green, g (s)		18.0			18.0		43.0	43.0		56.0	56.0	
Actuated g/C Ratio		0.20			0.20		0.48	0.48		0.62	0.62	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		324			319		340	1648		417	2193	
v/s Ratio Prot							0.00	c0.37		c0.10	0.25	
v/s Ratio Perm		c0.06			0.03		0.04			0.24		
v/c Ratio		0.30			0.16		0.10	0.77		0.55	0.40	
Uniform Delay, d1		30.6			29.7		13.0	19.4		16.6	8.5	
Progression Factor		1.00			1.00		0.67	0.82		0.67	0.95	
Incremental Delay, d2		2.3			1.1		0.5	2.8		3.3	0.3	
Delay (s)		33.0			30.8		9.2	18.7		14.4	8.5	
Level of Service		C			C		A	B		B	A	
Approach Delay (s)		33.0			30.8			18.5			9.7	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	16.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	65.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL2	SWL	SWR
Lane Configurations												
Volume (vph)	258	20	25	9	20	9	35	1207	20	14	1132	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88		1.00	0.97	
Frt		1.00	0.85		0.97		1.00	0.85		1.00	0.99	
Flt Protected		0.96	1.00		0.99		0.95	1.00		0.95	0.96	
Satd. Flow (prot)		1780	1583		1784		1770	2787		1770	3413	
Flt Permitted		0.96	1.00		0.99		0.13	1.00		0.10	0.96	
Satd. Flow (perm)		1780	1583		1784		243	2787		188	3413	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	294	23	29	10	23	10	40	1378	23	16	1292	112
RTOR Reduction (vph)	0	0	24	0	9	0	0	1	0	0	6	0
Lane Group Flow (vph)	0	317	5	0	34	0	40	1400	0	16	1398	0
Turn Type	Split		Perm	Split				custom		Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)		17.0	17.0		5.0		56.0	56.0		56.0	56.0	
Effective Green, g (s)		17.0	17.0		5.0		56.0	56.0		56.0	56.0	
Actuated g/C Ratio		0.19	0.19		0.06		0.62	0.62		0.62	0.62	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		336	299		99		151	1734		117	2124	
v/s Ratio Prot		c0.18			c0.02			c0.50			0.41	
v/s Ratio Perm			0.00				0.16			0.09		
v/c Ratio		0.94	0.02		0.34		0.26	0.81		0.14	0.66	
Uniform Delay, d1		36.0	29.7		40.9		7.7	12.9		7.0	10.9	
Progression Factor		1.00	1.00		1.00		0.71	0.77		0.38	0.33	
Incremental Delay, d2		34.4	0.0		2.0		3.7	3.6		2.1	1.4	
Delay (s)		70.4	29.7		42.9		9.1	13.6		4.8	5.0	
Level of Service		E	C		D		A	B		A	A	
Approach Delay (s)		67.0			42.9		13.5				5.0	
Approach LOS		E			D		B				A	

Intersection Summary			
HCM Average Control Delay	15.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.81		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	240	0	284	1024	42	1147
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	0.95	0.95
Frt	1.00		1.00	1.00	0.86	0.85
Flt Protected	0.95		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770		1770	3539	1523	1504
Flt Permitted	0.95		0.32	1.00	1.00	1.00
Satd. Flow (perm)	1770		597	3539	1523	1504
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	274	0	324	1169	48	1309
RTOR Reduction (vph)	0	0	0	0	173	188
Lane Group Flow (vph)	274	0	324	1169	503	493
Turn Type		Perm	Perm			Perm
Protected Phases	4			2	6	
Permitted Phases		4	2			6
Actuated Green, G (s)	16.8		65.2	65.2	65.2	65.2
Effective Green, g (s)	16.8		65.2	65.2	65.2	65.2
Actuated g/C Ratio	0.19		0.72	0.72	0.72	0.72
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	330		432	2564	1103	1090
v/s Ratio Prot	c0.15			0.33	0.33	
v/s Ratio Perm			c0.54			0.33
v/c Ratio	0.83		0.75	0.46	0.46	0.45
Uniform Delay, d1	35.2		7.5	5.1	5.1	5.1
Progression Factor	1.00		1.00	1.00	1.18	2.01
Incremental Delay, d2	16.1		11.4	0.6	1.1	1.1
Delay (s)	51.3		18.8	5.7	7.1	11.3
Level of Service	D		B	A	A	B
Approach Delay (s)	51.3			8.5	9.2	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	37	60	93	24	63	19	804	96	97	700	270
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.91			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1695			1791	1583		3473		1770	1863	1583
Flt Permitted	0.43	1.00			0.69	1.00		0.92		0.18	1.00	1.00
Satd. Flow (perm)	806	1695			1292	1583		3200		342	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Growth Factor (vph)	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	139	46	69	114	29	75	29	889	121	113	766	305
RTOR Reduction (vph)	0	51	0	0	0	63	0	10	0	0	0	107
Lane Group Flow (vph)	139	64	0	0	143	12	0	1029	0	113	766	198
Turn Type	pm+pt			Perm		Perm	Perm			pm+pt		Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	23.6	23.6			14.6	14.6		49.3		58.4	58.4	58.4
Effective Green, g (s)	23.6	23.6			14.6	14.6		49.3		58.4	58.4	58.4
Actuated g/C Ratio	0.26	0.26			0.16	0.16		0.55		0.65	0.65	0.65
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	265	444			210	257		1753		303	1209	1027
v/s Ratio Prot	c0.03	0.04								0.02	c0.41	
v/s Ratio Perm	0.11				c0.11	0.01		0.32		0.22		0.12
v/c Ratio	0.52	0.14			0.68	0.05		0.59		0.37	0.63	0.19
Uniform Delay, d1	27.5	25.5			35.5	31.8		13.6		8.2	9.4	6.3
Progression Factor	1.00	1.00			1.00	1.00		0.61		1.48	1.68	4.76
Incremental Delay, d2	1.9	0.2			8.8	0.1		0.9		0.7	2.4	0.4
Delay (s)	29.4	25.6			44.3	31.9		9.1		12.8	18.2	30.5
Level of Service	C	C			D	C		A		B	B	C
Approach Delay (s)		27.7			40.0			9.1			20.9	
Approach LOS		C			D			A			C	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	20	30	30	1100	1200	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.92		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1679		1770	3539	3530	
Flt Permitted	0.98		0.15	1.00	1.00	
Satd. Flow (perm)	1679		277	3539	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	105%	105%	105%	105%	105%	105%
Adj. Flow (vph)	23	34	34	1255	1370	23
RTOR Reduction (vph)	27	0	0	0	1	0
Lane Group Flow (vph)	30	0	34	1255	1392	0
Turn Type			Perm			
Protected Phases	6			4	8	
Permitted Phases			4			
Actuated Green, G (s)	19.0		63.0	63.0	63.0	
Effective Green, g (s)	19.0		63.0	63.0	63.0	
Actuated g/C Ratio	0.21		0.70	0.70	0.70	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Lane Grp Cap (vph)	354		194	2477	2471	
v/s Ratio Prot	c0.02			0.35	c0.39	
v/s Ratio Perm			0.12			
v/c Ratio	0.09		0.18	0.51	0.56	
Uniform Delay, d1	28.5		4.6	6.3	6.7	
Progression Factor	1.00		0.39	0.61	0.98	
Incremental Delay, d2	0.5		1.2	0.5	0.7	
Delay (s)	29.0		3.0	4.3	7.3	
Level of Service	C		A	A	A	
Approach Delay (s)	29.0			4.3	7.3	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	6.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.5%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2030 Baseline

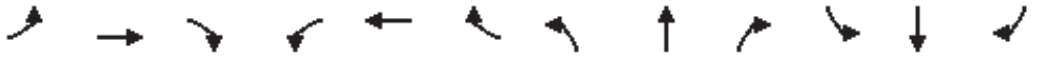
AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.58	1.00		0.28	1.00			0.64			0.65	
Satd. Flow (perm)	1089	1781		525	1815			2137			2290	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	11	0	0	9	0	0	81	0	0	1	0
Lane Group Flow (vph)	34	542	0	378	217	0	0	1079	0	0	1346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	38.0	38.0		38.0	38.0			34.0			34.0	
Effective Green, g (s)	38.0	38.0		38.0	38.0			34.0			34.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.42			0.42	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	517	846		249	862			908			973	
v/s Ratio Prot		0.30			0.12							
v/s Ratio Perm	0.03			c0.72				0.50			c0.59	
v/c Ratio	0.07	0.64		1.52	0.25			1.19			1.38	
Uniform Delay, d1	11.4	15.8		21.0	12.5			23.0			23.0	
Progression Factor	1.00	1.00		1.00	1.00			0.61			1.00	
Incremental Delay, d2	0.2	3.7		252.7	0.7			94.8			178.9	
Delay (s)	11.6	19.5		273.7	13.2			108.9			201.9	
Level of Service	B	B		F	B			F			F	
Approach Delay (s)		19.1			176.2			108.9			201.9	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	139.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	16	10	31	67	231	6	860	33	106	786	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		1770	1646		1770	3520		1770	3535	
Flt Permitted	0.34	1.00		0.74	1.00		0.27	1.00		0.28	1.00	
Satd. Flow (perm)	637	1753		1377	1646		506	3520		514	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	17	11	34	73	251	7	935	36	115	854	7
RTOR Reduction (vph)	0	9	0	0	192	0	0	2	0	0	0	0
Lane Group Flow (vph)	14	19	0	34	132	0	7	969	0	115	861	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	11.7	11.7		11.7	11.7		49.1	49.1		55.1	55.1	
Effective Green, g (s)	11.7	11.7		11.7	11.7		49.1	49.1		55.1	55.1	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.61	0.61		0.69	0.69	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	93	256		201	241		330	2160		467	2435	
v/s Ratio Prot		0.01			c0.08		0.00	c0.28		0.02	c0.24	
v/s Ratio Perm	0.02			0.02			0.01			0.15		
v/c Ratio	0.15	0.07		0.17	0.55		0.02	0.45		0.25	0.35	
Uniform Delay, d1	29.8	29.5		29.9	31.7		6.4	8.2		6.2	5.1	
Progression Factor	1.00	1.00		1.00	1.00		0.37	0.54		0.94	1.03	
Incremental Delay, d2	0.8	0.1		0.4	2.5		0.0	0.4		0.0	0.0	
Delay (s)	30.6	29.6		30.3	34.2		2.4	4.9		5.8	5.3	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		29.9			33.9			4.9			5.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	42	121	32	154	9	335	898	11	2	449	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	1.00			0.98	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1690			1836		1770	1859			1829	
Flt Permitted		0.85			0.81		0.39	1.00			1.00	
Satd. Flow (perm)		1454			1490		721	1859			1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	46	132	35	167	10	364	976	12	2	488	75
RTOR Reduction (vph)	0	52	0	0	2	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	154	0	0	210	0	364	988	0	0	561	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.9			21.9		100.1	100.1			82.4	
Effective Green, g (s)		21.9			21.9		100.1	100.1			82.4	
Actuated g/C Ratio		0.17			0.17		0.77	0.77			0.63	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		245			251		666	1431			1157	
v/s Ratio Prot							0.06	c0.53				
v/s Ratio Perm		0.11			c0.14		0.36				0.31	
v/c Ratio		0.63			0.84		0.55	0.69			0.49	
Uniform Delay, d1		50.3			52.3		6.2	7.3			12.6	
Progression Factor		1.00			1.00		1.91	1.44			1.00	
Incremental Delay, d2		4.9			21.0		0.8	2.5			1.5	
Delay (s)		55.2			73.3		12.7	13.0			14.0	
Level of Service		E			E		B	B			B	
Approach Delay (s)		55.2			73.3			12.9			14.0	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	26	20	528	9	95	5	1222	232	76	1147	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.86			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1761		1770	1608			3454			3525	
Flt Permitted		0.82		0.57	1.00			0.95			0.61	
Satd. Flow (perm)		1465		1059	1608			3286			2169	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	28	22	574	10	103	5	1328	252	83	1247	9
RTOR Reduction (vph)	0	18	0	0	13	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	67	0	574	100	0	0	1569	0	0	1339	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.8		27.8	27.8			44.2			44.2	
Effective Green, g (s)		7.8		27.8	27.8			44.2			44.2	
Actuated g/C Ratio		0.10		0.35	0.35			0.55			0.55	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		143		510	559			1816			1198	
v/s Ratio Prot				c0.23	0.06							
v/s Ratio Perm		0.05		c0.17				0.48			c0.62	
v/c Ratio		0.47		1.13	0.18			0.86			1.12	
Uniform Delay, d1		34.1		25.6	18.2			15.3			17.9	
Progression Factor		1.00		1.00	1.00			1.00			1.02	
Incremental Delay, d2		2.4		79.1	0.2			5.8			64.4	
Delay (s)		36.6		104.6	18.3			21.1			82.6	
Level of Service		D		F	B			C			F	
Approach Delay (s)		36.6			90.4			21.1			82.6	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	56.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	121.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	108	482	153	201	913	615	168	684	70	483	1300	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.94		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3411		1770	3326		1770	3490		1770	3461	
Flt Permitted	0.18	1.00		0.18	1.00		0.21	1.00		0.17	1.00	
Satd. Flow (perm)	334	3411		329	3326		392	3490		324	3461	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	524	166	218	992	668	183	743	76	525	1413	245
RTOR Reduction (vph)	0	38	0	0	145	0	0	10	0	0	17	0
Lane Group Flow (vph)	117	652	0	218	1515	0	183	809	0	525	1641	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	25.4	22.3		35.1	28.0		23.0	19.0		36.0	28.0	
Effective Green, g (s)	25.4	22.3		35.1	28.0		23.0	19.0		36.0	28.0	
Actuated g/C Ratio	0.32	0.28		0.44	0.35		0.29	0.24		0.46	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	164	962		306	1177		184	838		385	1225	
v/s Ratio Prot	0.03	0.19		c0.08	c0.46		0.05	0.23		c0.22	0.47	
v/s Ratio Perm	0.20			0.24			0.24			c0.40		
v/c Ratio	0.71	0.68		0.71	1.29		0.99	0.97		1.36	1.34	
Uniform Delay, d1	24.2	25.2		15.8	25.5		28.3	29.7		20.4	25.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.7	1.9		7.6	135.9		64.4	22.8		179.6	158.2	
Delay (s)	37.9	27.1		23.4	161.4		92.7	52.5		200.0	183.8	
Level of Service	D	C		C	F		F	D		F	F	
Approach Delay (s)		28.7			145.4			59.9			187.7	
Approach LOS		C			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	79.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	265	0	1049	223	0	869
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		0.95	1.00		0.95
Frt	1.00		1.00	0.85		1.00
Flt Protected	0.95		1.00	1.00		1.00
Satd. Flow (prot)	1770		3539	1583		3539
Flt Permitted	0.95		1.00	1.00		1.00
Satd. Flow (perm)	1770		3539	1583		3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	0	1140	242	0	945
RTOR Reduction (vph)	0	0	0	65	0	0
Lane Group Flow (vph)	288	0	1140	177	0	945
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	26.8		95.2	95.2		95.2
Effective Green, g (s)	26.8		95.2	95.2		95.2
Actuated g/C Ratio	0.21		0.73	0.73		0.73
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	365		2592	1159		2592
v/s Ratio Prot	c0.16		c0.32	0.11		0.27
v/s Ratio Perm						
v/c Ratio	0.79		0.44	0.15		0.36
Uniform Delay, d1	48.9		6.9	5.2		6.4
Progression Factor	0.89		0.53	0.34		0.62
Incremental Delay, d2	10.7		0.4	0.2		0.3
Delay (s)	54.4		4.1	2.0		4.3
Level of Service	D		A	A		A
Approach Delay (s)	54.4		3.7			4.3
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	226	77	33	339	40	137	98	27	20	37	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1797			1831			1790			1743	
Flt Permitted		0.96			0.96			0.79			0.92	
Satd. Flow (perm)		1726			1756			1451			1615	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	246	84	36	368	43	149	107	29	22	40	42
RTOR Reduction (vph)	0	17	0	0	6	0	0	6	0	0	26	0
Lane Group Flow (vph)	0	339	0	0	441	0	0	279	0	0	78	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		32.0			32.0			25.0			25.0	
Effective Green, g (s)		32.0			32.0			25.0			25.0	
Actuated g/C Ratio		0.49			0.49			0.38			0.38	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		850			864			558			621	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.25			c0.19			0.05	
v/c Ratio		0.40			0.51			0.50			0.13	
Uniform Delay, d1		10.4			11.2			15.2			12.9	
Progression Factor		0.60			1.00			1.00			1.00	
Incremental Delay, d2		1.3			2.2			3.2			0.1	
Delay (s)		7.6			13.3			18.4			13.0	
Level of Service		A			B			B			B	
Approach Delay (s)		7.6			13.3			18.4			13.0	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	12.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	4	17	64	8	272	15	1250	9	113	1098	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.90			1.00			1.00	
Flt Protected		0.98			0.99			1.00			1.00	
Satd. Flow (prot)		1715			1654			3532			3509	
Flt Permitted		0.75			0.92			0.92			0.64	
Satd. Flow (perm)		1310			1537			3257			2248	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	20	5	19	91	12	324	22	1316	12	127	1156	32
RTOR Reduction (vph)	0	14	0	0	51	0	0	1	0	0	3	0
Lane Group Flow (vph)	0	30	0	0	376	0	0	1349	0	0	1312	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			41.0			41.0	
Effective Green, g (s)		16.0			16.0			41.0			41.0	
Actuated g/C Ratio		0.25			0.25			0.63			0.63	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		322			378			2054			1418	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.25			0.41			c0.58	
v/c Ratio		0.09			1.00			0.66			0.93	
Uniform Delay, d1		18.9			24.5			7.6			10.6	
Progression Factor		1.00			1.00			1.26			0.76	
Incremental Delay, d2		0.1			44.9			0.2			9.2	
Delay (s)		19.0			69.4			9.6			17.3	
Level of Service		B			E			A			B	
Approach Delay (s)		19.0			69.4			9.6			17.3	
Approach LOS		B			E			A			B	

Intersection Summary			
HCM Average Control Delay	21.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	101.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	399	84	408	0	11	145	744	790	0	101	770	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00		0.95	0.95		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.87	0.85		1.00		1.00	0.95	
Flt Protected	0.95	0.97	1.00		1.00	1.00		0.98		0.95	1.00	
Satd. Flow (prot)	1681	1713	1583		1541	1504		3455		1770	3354	
Flt Permitted	0.47	0.50	1.00		1.00	1.00		0.50		0.09	1.00	
Satd. Flow (perm)	825	883	1583		1541	1504		1772		159	3354	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	91	443	0	12	158	809	859	0	110	837	449
RTOR Reduction (vph)	0	0	317	0	66	75	0	0	0	0	44	0
Lane Group Flow (vph)	260	265	126	0	20	9	0	1668	0	110	1242	0
Turn Type	pm+pt		custom			Perm	pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		7			8	2			6		
Actuated Green, G (s)	34.4	34.4	16.0		14.4	14.4		87.6		87.6	87.6	
Effective Green, g (s)	34.4	34.4	16.0		14.4	14.4		87.6		87.6	87.6	
Actuated g/C Ratio	0.26	0.26	0.12		0.11	0.11		0.67		0.67	0.67	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	324	336	195		171	167		1194		107	2260	
v/s Ratio Prot	c0.10	0.10			0.01						0.37	
v/s Ratio Perm	c0.11	0.11	0.08			0.01		c0.94		0.69		
v/c Ratio	0.80	0.79	0.64		0.12	0.06		3.97dl		1.03	0.55	
Uniform Delay, d1	42.3	44.4	54.3		52.1	51.7		21.2		21.2	11.0	
Progression Factor	1.00	1.00	1.00		0.64	0.69		0.63		0.63	0.58	
Incremental Delay, d2	13.3	11.6	7.1		0.3	0.1		183.6		70.4	0.5	
Delay (s)	55.6	56.0	61.4		33.7	35.7		197.0		83.7	6.9	
Level of Service	E	E	E		C	D		F		F	A	
Approach Delay (s)		58.4			34.7			197.0			13.0	
Approach LOS		E			C			F			B	

Intersection Summary			
HCM Average Control Delay	97.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.9%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	7	59	178	18	167	39	1233	72	60	891	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.94			0.99			0.99	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1695			1705			3506			3506	
Flt Permitted		0.79			0.81			0.90			0.74	
Satd. Flow (perm)		1364			1407			3142			2597	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	8	64	193	20	182	42	1340	78	65	968	47
RTOR Reduction (vph)	0	46	0	0	25	0	0	5	0	0	4	0
Lane Group Flow (vph)	0	74	0	0	370	0	0	1455	0	0	1076	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.5			18.5			38.5			38.5	
Effective Green, g (s)		18.5			18.5			38.5			38.5	
Actuated g/C Ratio		0.28			0.28			0.59			0.59	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		388			400			1861			1538	
v/s Ratio Prot												
v/s Ratio Perm		0.05			c0.26			c0.46			0.41	
v/c Ratio		0.19			0.92			0.78			0.70	
Uniform Delay, d1		17.6			22.6			10.1			9.2	
Progression Factor		1.00			1.00			0.74			0.84	
Incremental Delay, d2		0.2			26.9			1.5			1.3	
Delay (s)		17.8			49.5			9.0			9.1	
Level of Service		B			D			A			A	
Approach Delay (s)		17.8			49.5			9.0			9.1	
Approach LOS		B			D			A			A	

Intersection Summary			
HCM Average Control Delay	14.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	103.0%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	90	79	65	1574	1082	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.94			1.00	0.99	
Flt Protected	0.97			1.00	1.00	
Satd. Flow (prot)	1700			3532	3504	
Flt Permitted	0.97			0.83	1.00	
Satd. Flow (perm)	1700			2952	3504	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	86	71	1711	1176	84
RTOR Reduction (vph)	54	0	0	0	6	0
Lane Group Flow (vph)	130	0	0	1782	1254	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.1			46.9	46.9	
Effective Green, g (s)	10.1			46.9	46.9	
Actuated g/C Ratio	0.16			0.72	0.72	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	264			2130	2528	
v/s Ratio Prot	c0.08				0.36	
v/s Ratio Perm				c0.60		
v/c Ratio	0.49			0.84	0.50	
Uniform Delay, d1	25.1			6.4	3.9	
Progression Factor	1.00			0.55	1.00	
Incremental Delay, d2	1.4			3.5	0.7	
Delay (s)	26.5			7.0	4.6	
Level of Service	C			A	A	
Approach Delay (s)	26.5			7.0	4.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	97.6%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	506	54	170	1579	329	148	564	128	336	604	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5011		1770	4954		1770	3441		1770	1788	
Flt Permitted	0.13	1.00		0.26	1.00		0.14	1.00		0.12	1.00	
Satd. Flow (perm)	251	5011		487	4954		262	3441		230	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	146	550	59	185	1716	358	161	613	139	365	657	241
RTOR Reduction (vph)	0	12	0	0	29	0	0	17	0	0	12	0
Lane Group Flow (vph)	146	597	0	185	2045	0	161	735	0	365	886	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	33.7	33.7		41.0	41.0		32.4	28.4		53.0	45.0	
Effective Green, g (s)	33.7	33.7		41.0	41.0		32.4	28.4		53.0	45.0	
Actuated g/C Ratio	0.31	0.31		0.37	0.37		0.29	0.26		0.48	0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	132	1535		313	1846		132	888		399	731	
v/s Ratio Prot	c0.04	0.12		0.06	c0.41		0.04	0.21		c0.17	c0.50	
v/s Ratio Perm	0.30			0.16			0.31			0.27		
v/c Ratio	1.11	0.39		0.59	1.11		1.22	0.83		0.91	1.21	
Uniform Delay, d1	50.1	30.0		24.9	34.5		39.2	38.5		30.5	32.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	109.6	0.2		3.0	57.1		149.1	6.4		25.1	108.0	
Delay (s)	159.7	30.2		27.8	91.6		188.2	44.9		55.6	140.5	
Level of Service	F	C		C	F		F	D		E	F	
Approach Delay (s)		55.2			86.3			70.2			115.9	
Approach LOS		E			F			E			F	

Intersection Summary			
HCM Average Control Delay	86.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	861	16	13	1776	119	23	17	21	106	14	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3506		1770	1706		1770	1600	
Flt Permitted	0.05	1.00	1.00	0.29	1.00		0.25	1.00		0.73	1.00	
Satd. Flow (perm)	96	5085	1583	546	3506		459	1706		1360	1600	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	936	17	14	1930	129	25	18	23	115	15	242
RTOR Reduction (vph)	0	0	4	0	4	0	0	19	0	0	63	0
Lane Group Flow (vph)	101	936	13	14	2055	0	25	22	0	115	194	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	83.3	77.7	77.7	74.9	73.3		19.0	19.0		19.0	19.0	
Effective Green, g (s)	83.3	77.7	77.7	74.9	73.3		19.0	19.0		19.0	19.0	
Actuated g/C Ratio	0.76	0.70	0.70	0.68	0.66		0.17	0.17		0.17	0.17	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	164	3582	1115	389	2330		79	294		234	276	
v/s Ratio Prot	c0.03	0.18		0.00	c0.59			0.01			c0.12	
v/s Ratio Perm	0.43		0.01	0.02			0.05			0.08		
v/c Ratio	0.62	0.26	0.01	0.04	0.88		0.32	0.07		0.49	0.70	
Uniform Delay, d1	24.4	5.9	4.9	5.7	15.0		40.0	38.3		41.3	43.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.7	0.0	0.0	0.0	4.3		10.2	0.5		1.6	7.9	
Delay (s)	31.1	5.9	4.9	5.8	19.3		50.2	38.8		42.9	50.9	
Level of Service	C	A	A	A	B		D	D		D	D	
Approach Delay (s)		8.3			19.2			43.1			48.4	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	14	23	16	6	3	35	1210	15	10	593	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.98			1.00			1.00	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1721			1779			3528			3519	
Flt Permitted		0.94			0.75			0.91			0.92	
Satd. Flow (perm)		1627			1385			3223			3255	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	15	25	17	7	3	38	1315	16	11	645	22
RTOR Reduction (vph)	0	24	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	27	0	0	24	0	0	1369	0	0	677	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		6.8			6.8			115.2			115.2	
Effective Green, g (s)		6.8			6.8			115.2			115.2	
Actuated g/C Ratio		0.05			0.05			0.89			0.89	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		85			72			2856			2884	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.02			c0.42			0.21	
v/c Ratio		0.32			0.34			0.48			0.23	
Uniform Delay, d1		59.4			59.4			1.5			1.1	
Progression Factor		1.00			1.00			0.20			1.31	
Incremental Delay, d2		2.2			2.8			0.2			0.2	
Delay (s)		61.6			62.2			0.5			1.6	
Level of Service		E			E			A			A	
Approach Delay (s)		61.6			62.2			0.5			1.6	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	3.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	54	0	13	0	0	1	13	484	1	774	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.86		1.00	0.85	1.00	0.98	
Flt Protected		0.95	1.00		1.00		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1611		1770	2787	1770	3397	
Flt Permitted		0.95	1.00		1.00		0.29	1.00	0.44	0.96	
Satd. Flow (perm)		1770	1583		1611		531	2787	817	3397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	14	0	0	1	14	526	1	841	122
RTOR Reduction (vph)	0	0	13	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	59	1	0	0	0	14	526	1	956	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		4.9	4.9		1.1		47.5	47.5	47.5	47.5	
Effective Green, g (s)		4.9	4.9		1.1		47.5	47.5	47.5	47.5	
Actuated g/C Ratio		0.07	0.07		0.02		0.73	0.73	0.73	0.73	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		132	118		27		385	2021	592	2463	
v/s Ratio Prot		c0.03			c0.00			0.19		c0.28	
v/s Ratio Perm			0.00				0.03		0.00		
v/c Ratio		0.45	0.01		0.00		0.04	0.26	0.00	0.39	
Uniform Delay, d1		29.0	28.1		31.7		2.5	3.0	2.5	3.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.4	0.0		0.0		0.2	0.3	0.0	0.5	
Delay (s)		31.4	28.1		31.7		2.7	3.4	2.5	3.9	
Level of Service		C	C		C		A	A	A	A	
Approach Delay (s)		30.8			31.7		3.3			3.9	
Approach LOS		C			C		A			A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	0	403	364	0	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	0	438	396	0	898
RTOR Reduction (vph)	0	0	0	0	0	260
Lane Group Flow (vph)	86	0	438	396	0	638
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	3.3		27.7	27.7		27.7
Effective Green, g (s)	3.3		27.7	27.7		27.7
Actuated g/C Ratio	0.08		0.71	0.71		0.71
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	150		1257	2514		1979
v/s Ratio Prot	c0.05			0.11		
v/s Ratio Perm			c0.25			0.23
v/c Ratio	0.57		0.35	0.16		0.32
Uniform Delay, d1	17.2		2.2	1.8		2.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	5.2		0.8	0.1		0.4
Delay (s)	22.4		2.9	2.0		2.6
Level of Service	C		A	A		A
Approach Delay (s)	22.4			2.5	2.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	9	84	6	2	93	81	1008	10	41	889	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.87			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1613			1793	1583		3516		1770	1863	1583
Flt Permitted	0.49	1.00			0.75	1.00		0.69		0.19	1.00	1.00
Satd. Flow (perm)	905	1613			1397	1583		2421		356	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	143	11	92	7	2	106	119	1061	12	46	926	176
RTOR Reduction (vph)	0	79	0	0	0	100	0	1	0	0	0	35
Lane Group Flow (vph)	143	24	0	0	9	6	0	1191	0	46	926	141
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	18.3	18.3			7.3	7.3		94.6		103.7	103.7	103.7
Effective Green, g (s)	18.3	18.3			7.3	7.3		94.6		103.7	103.7	103.7
Actuated g/C Ratio	0.14	0.14			0.06	0.06		0.73		0.80	0.80	0.80
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	174	227			78	89		1762		339	1486	1263
v/s Ratio Prot	c0.04	0.01								0.01	c0.50	
v/s Ratio Perm	c0.07				0.01	0.00		c0.49		0.10		0.09
v/c Ratio	0.82	0.11			0.12	0.07		0.68		0.14	0.62	0.11
Uniform Delay, d1	53.5	48.7			58.3	58.1		9.5		4.3	5.3	2.9
Progression Factor	1.00	1.00			1.00	1.00		1.22		0.67	0.86	0.49
Incremental Delay, d2	25.7	0.2			0.7	0.3		1.0		0.2	1.9	0.2
Delay (s)	79.2	48.9			58.9	58.4		12.6		3.0	6.4	1.6
Level of Service	E	D			E	E		B		A	A	A
Approach Delay (s)		66.5			58.5			12.6			5.5	
Approach LOS		E			E			B			A	

Intersection Summary			
HCM Average Control Delay	16.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2030 Baseline

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.62	1.00		0.27	1.00			0.68			0.71	
Satd. Flow (perm)	1150	1781		500	1815			2278			2494	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	9	0	0	19	0	0	161	0	0	2	0
Lane Group Flow (vph)	34	543	0	378	207	0	0	998	0	0	1345	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Effective Green, g (s)	16.0	16.0		16.0	16.0			16.0			16.0	
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	460	712		200	726			911			998	
v/s Ratio Prot		0.30			0.11							
v/s Ratio Perm	0.03			c0.76				0.44			c0.54	
v/c Ratio	0.07	0.76		1.89	0.29			1.10			1.35	
Uniform Delay, d1	7.4	10.4		12.0	8.1			12.0			12.0	
Progression Factor	0.72	0.69		1.00	1.00			1.00			0.85	
Incremental Delay, d2	0.3	6.5		418.8	1.0			59.5			157.9	
Delay (s)	5.6	13.6		430.8	9.1			71.5			168.2	
Level of Service	A	B		F	A			E			F	
Approach Delay (s)		13.2			273.0			71.5			168.2	
Approach LOS		B			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.62		
Actuated Cycle Length (s)	40.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	57	94	43	20	51	179	12	1210	13	526	1167	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.88		1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1775		1770	1645		1770	3534		1770	3529	
Flt Permitted	0.21	1.00		0.48	1.00		0.15	1.00		0.08	1.00	
Satd. Flow (perm)	394	1775		899	1645		271	3534		140	3529	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	102	47	22	55	195	13	1315	14	572	1268	24
RTOR Reduction (vph)	0	14	0	0	108	0	0	1	0	0	1	0
Lane Group Flow (vph)	62	135	0	22	142	0	13	1328	0	572	1291	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	18.9	18.9		18.9	18.9		50.7	49.1		93.1	87.5	
Effective Green, g (s)	18.9	18.9		18.9	18.9		50.7	49.1		93.1	87.5	
Actuated g/C Ratio	0.16	0.16		0.16	0.16		0.42	0.41		0.78	0.73	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	62	280		142	259		134	1446		652	2573	
v/s Ratio Prot		0.08			0.09		0.00	c0.38		c0.29	0.37	
v/s Ratio Perm	c0.16			0.02			0.04			0.39		
v/c Ratio	1.00	0.48		0.15	0.55		0.10	0.92		0.88	0.50	
Uniform Delay, d1	50.6	46.1		43.7	46.6		21.2	33.6		31.6	6.9	
Progression Factor	1.00	1.00		1.00	1.00		0.69	0.72		1.00	1.00	
Incremental Delay, d2	114.3	1.3		0.5	2.4		0.3	9.5		12.7	0.7	
Delay (s)	164.9	47.4		44.2	49.0		15.0	33.6		44.3	7.6	
Level of Service	F	D		D	D		B	C		D	A	
Approach Delay (s)		81.9			48.6			33.4			18.9	
Approach LOS		F			D			C			B	

Intersection Summary			
HCM Average Control Delay	30.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.4%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	59	102	275	99	106	17	118	643	56	10	955	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	0.99			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1693			1804		1770	1840			1850	
Flt Permitted		0.91			0.41		0.19	1.00			0.99	
Satd. Flow (perm)		1556			758		347	1840			1837	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	64	111	299	108	115	18	128	699	61	11	1038	51
RTOR Reduction (vph)	0	61	0	0	3	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	413	0	0	238	0	128	757	0	0	1098	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.0			27.0		65.0	65.0			57.0	
Effective Green, g (s)		27.0			27.0		65.0	65.0			57.0	
Actuated g/C Ratio		0.27			0.27		0.65	0.65			0.57	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		420			205		282	1196			1047	
v/s Ratio Prot							0.02	c0.41				
v/s Ratio Perm		0.27			c0.31		0.28				c0.60	
v/c Ratio		0.98			1.16		0.45	0.63			1.05	
Uniform Delay, d1		36.3			36.5		11.3	10.4			21.5	
Progression Factor		1.00			1.00		1.00	1.00			1.00	
Incremental Delay, d2		39.1			113.2		1.2	2.6			41.6	
Delay (s)		75.4			149.7		12.5	13.0			63.1	
Level of Service		E			F		B	B			E	
Approach Delay (s)		75.4			149.7			12.9			63.1	
Approach LOS		E			F			B			E	

Intersection Summary			
HCM Average Control Delay	56.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.08		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	122.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	30	30	20	196	30	84	20	1134	219	80	1069	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.89			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1767		1770	1658			3452			3514	
Flt Permitted		0.83		0.51	1.00			0.92			0.62	
Satd. Flow (perm)		1498		951	1658			3163			2189	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	33	33	22	213	33	91	22	1233	238	87	1162	33
RTOR Reduction (vph)	0	11	0	0	41	0	0	10	0	0	1	0
Lane Group Flow (vph)	0	77	0	213	83	0	0	1483	0	0	1281	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.3		32.9	32.9			79.1			79.1	
Effective Green, g (s)		11.3		32.9	32.9			79.1			79.1	
Actuated g/C Ratio		0.09		0.27	0.27			0.66			0.66	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		141		381	455			2085			1443	
v/s Ratio Prot				c0.08	0.05							
v/s Ratio Perm		0.05		c0.07				0.47			c0.59	
v/c Ratio		0.55		0.56	0.18			0.71			0.89	
Uniform Delay, d1		51.9		36.4	33.3			13.1			16.8	
Progression Factor		1.00		1.00	1.00			1.00			0.76	
Incremental Delay, d2		4.3		1.8	0.2			2.1			7.9	
Delay (s)		56.2		38.2	33.5			15.2			20.7	
Level of Service		E		D	C			B			C	
Approach Delay (s)		56.2			36.4			15.2			20.7	
Approach LOS		E			D			B			C	

Intersection Summary			
HCM Average Control Delay	20.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	238	710	140	153	349	319	194	823	174	480	900	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.98		1.00	0.93		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3452		1770	3285		1770	3447		1770	3459	
Flt Permitted	0.22	1.00		0.12	1.00		0.15	1.00		0.13	1.00	
Satd. Flow (perm)	402	3452		218	3285		276	3447		240	3459	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	259	772	152	166	379	347	211	895	189	522	978	175
RTOR Reduction (vph)	0	17	0	0	166	0	0	15	0	0	12	0
Lane Group Flow (vph)	259	908	0	166	560	0	211	1069	0	522	1141	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	44.8	40.8		44.8	40.8		46.8	27.0		63.2	39.4	
Effective Green, g (s)	44.8	40.8		44.8	40.8		46.8	27.0		63.2	39.4	
Actuated g/C Ratio	0.37	0.34		0.37	0.34		0.39	0.22		0.53	0.33	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	196	1174		133	1117		354	776		537	1136	
v/s Ratio Prot	c0.04	0.26		0.04	0.17		0.10	c0.31		c0.26	0.33	
v/s Ratio Perm	c0.45			0.42			0.13			0.25		
v/c Ratio	1.32	0.77		1.25	0.50		0.60	1.38		0.97	1.00	
Uniform Delay, d1	38.9	35.5		36.7	31.5		27.8	46.5		34.6	40.3	
Progression Factor	0.89	0.89		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	148.0	0.5		159.4	1.6		2.7	178.1		31.6	27.8	
Delay (s)	182.7	32.0		196.1	33.1		30.5	224.6		66.2	68.1	
Level of Service	F	C		F	C		C	F		E	E	
Approach Delay (s)		65.0			63.4			193.0			67.5	
Approach LOS		E			E			F			E	

Intersection Summary			
HCM Average Control Delay	98.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.23		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	101.3%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	155	55	546	255	359	996
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.42	1.00
Satd. Flow (perm)	1770	1583	3539	1583	789	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	60	593	277	390	1083
RTOR Reduction (vph)	0	51	0	63	0	0
Lane Group Flow (vph)	168	9	593	214	390	1083
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	14.8	14.8	77.2	77.2	77.2	77.2
Effective Green, g (s)	14.8	14.8	77.2	77.2	77.2	77.2
Actuated g/C Ratio	0.15	0.15	0.77	0.77	0.77	0.77
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	262	234	2732	1222	609	2732
v/s Ratio Prot	c0.09		0.17	0.14		0.31
v/s Ratio Perm		0.01			c0.49	
v/c Ratio	0.64	0.04	0.22	0.17	0.64	0.40
Uniform Delay, d1	40.1	36.5	3.1	3.0	5.1	3.7
Progression Factor	1.00	1.00	0.39	0.15	1.43	1.30
Incremental Delay, d2	5.3	0.1	0.2	0.3	4.0	0.3
Delay (s)	45.4	36.6	1.4	0.7	11.3	5.2
Level of Service	D	D	A	A	B	A
Approach Delay (s)	43.1		1.2			6.8
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	8.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	53.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	500	241	94	284	29	129	123	87	52	132	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.71			0.71			0.81	
Satd. Flow (perm)		1762			1302			1275			1491	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	543	262	102	309	32	140	134	95	57	143	28
RTOR Reduction (vph)	0	17	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	805	0	0	440	0	0	356	0	0	223	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		62.0			62.0			30.0			30.0	
Effective Green, g (s)		62.0			62.0			30.0			30.0	
Actuated g/C Ratio		0.62			0.62			0.30			0.30	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1092			807			383			447	
v/s Ratio Prot												
v/s Ratio Perm		c0.46			0.34			c0.28			0.15	
v/c Ratio		0.74			0.55			0.93			0.50	
Uniform Delay, d1		13.3			10.9			34.0			28.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		4.5			2.6			31.4			0.9	
Delay (s)		17.8			13.6			65.4			29.7	
Level of Service		B			B			E			C	
Approach Delay (s)		17.8			13.6			65.4			29.7	
Approach LOS		B			B			E			C	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	36	13	31	15	9	102	21	872	39	191	934	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.89			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1731			1655			3506			3489	
Flt Permitted		0.51			0.95			0.88			0.60	
Satd. Flow (perm)		901			1583			3087			2122	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	44	17	35	21	13	121	31	918	52	215	983	48
RTOR Reduction (vph)	0	22	0	0	108	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	74	0	0	47	0	0	998	0	0	1244	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		10.9			10.9			81.1			81.1	
Effective Green, g (s)		10.9			10.9			81.1			81.1	
Actuated g/C Ratio		0.11			0.11			0.81			0.81	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		98			173			2504			1721	
v/s Ratio Prot												
v/s Ratio Perm		c0.08			0.03			0.32			c0.59	
v/c Ratio		0.75			0.27			0.40			0.72	
Uniform Delay, d1		43.2			40.9			2.6			4.3	
Progression Factor		1.00			1.00			0.69			0.72	
Incremental Delay, d2		27.3			0.9			0.4			1.9	
Delay (s)		70.6			41.8			2.3			5.0	
Level of Service		E			D			A			A	
Approach Delay (s)		70.6			41.8			2.3			5.0	
Approach LOS		E			D			A			A	

Intersection Summary			
HCM Average Control Delay	8.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	79.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	504	609	386	386	1002	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.98	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	3433	1583		3453	3454	
Flt Permitted	0.95	1.00		0.52	1.00	
Satd. Flow (perm)	3433	1583		1824	3454	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	548	662	420	420	1089	207
RTOR Reduction (vph)	0	335	0	0	8	0
Lane Group Flow (vph)	548	327	0	840	1288	0
Turn Type		Perm	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	7	2			
Actuated Green, G (s)	26.7	26.7		65.3	65.3	
Effective Green, g (s)	26.7	26.7		65.3	65.3	
Actuated g/C Ratio	0.27	0.27		0.65	0.65	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	917	423		1191	2255	
v/s Ratio Prot	0.16				0.37	
v/s Ratio Perm		c0.21		c0.46		
v/c Ratio	0.60	0.77		2.20dl	0.57	
Uniform Delay, d1	32.0	33.9		11.2	9.6	
Progression Factor	1.00	1.00		1.00	0.75	
Incremental Delay, d2	1.1	8.5		1.9	0.9	
Delay (s)	33.0	42.4		13.1	8.1	
Level of Service	C	D		B	A	
Approach Delay (s)	38.1			13.1	8.1	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	20.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	25	57	63	32	75	108	819	105	81	1078	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.94			0.94			0.98			0.98	
Flt Protected		0.98			0.98			0.99			1.00	
Satd. Flow (prot)		1719			1720			3467			3458	
Flt Permitted		0.75			0.76			0.61			0.77	
Satd. Flow (perm)		1307			1328			2123			2672	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	27	62	68	35	82	117	890	114	88	1172	195
RTOR Reduction (vph)	0	31	0	0	31	0	0	6	0	0	9	0
Lane Group Flow (vph)	0	106	0	0	154	0	0	1115	0	0	1446	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.2			15.2			76.8			76.8	
Effective Green, g (s)		15.2			15.2			76.8			76.8	
Actuated g/C Ratio		0.15			0.15			0.77			0.77	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		199			202			1630			2052	
v/s Ratio Prot												
v/s Ratio Perm		0.08			c0.12			0.53			c0.54	
v/c Ratio		0.53			0.76			0.68			0.70	
Uniform Delay, d1		39.1			40.7			5.7			5.9	
Progression Factor		1.00			1.00			1.10			0.79	
Incremental Delay, d2		2.7			15.7			1.1			1.0	
Delay (s)		41.8			56.4			7.4			5.7	
Level of Service		D			E			A			A	
Approach Delay (s)		41.8			56.4			7.4			5.7	
Approach LOS		D			E			A			A	

Intersection Summary			
HCM Average Control Delay	11.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	57	65	47	901	1178	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1689			3530	3514	
Flt Permitted	0.98			0.80	1.00	
Satd. Flow (perm)	1689			2843	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	71	51	979	1280	65
RTOR Reduction (vph)	45	0	0	0	3	0
Lane Group Flow (vph)	88	0	0	1030	1342	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	10.5			81.5	81.5	
Effective Green, g (s)	10.5			81.5	81.5	
Actuated g/C Ratio	0.10			0.82	0.82	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	177			2317	2864	
v/s Ratio Prot	c0.05				c0.38	
v/s Ratio Perm				0.36		
v/c Ratio	0.50			0.44	0.47	
Uniform Delay, d1	42.3			2.7	2.8	
Progression Factor	1.00			1.01	1.00	
Incremental Delay, d2	2.2			0.5	0.6	
Delay (s)	44.5			3.2	3.3	
Level of Service	D			A	A	
Approach Delay (s)	44.5			3.2	3.3	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	5.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	73.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	183	847	291	157	958	114	325	410	125	192	398	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.98		1.00	0.96		1.00	0.95	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4890		1770	5004		1770	3415		1770	1764	
Flt Permitted	0.14	1.00		0.15	1.00		0.09	1.00		0.43	1.00	
Satd. Flow (perm)	266	4890		287	5004		166	3415		803	1764	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	199	921	316	171	1041	124	353	446	136	209	433	238
RTOR Reduction (vph)	0	56	0	0	14	0	0	26	0	0	18	0
Lane Group Flow (vph)	199	1181	0	171	1151	0	353	556	0	209	653	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	28.0		33.0	26.0		63.0	49.3		50.7	41.0	
Effective Green, g (s)	37.0	28.0		33.0	26.0		63.0	49.3		50.7	41.0	
Actuated g/C Ratio	0.34	0.25		0.30	0.24		0.57	0.45		0.46	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	213	1245		180	1183		358	1531		455	657	
v/s Ratio Prot	c0.08	c0.24		0.06	0.23		c0.16	0.16		0.04	0.37	
v/s Ratio Perm	0.24			0.22			c0.40			0.17		
v/c Ratio	0.93	0.95		0.95	0.97		0.99	0.36		0.46	0.99	
Uniform Delay, d1	30.7	40.3		34.7	41.7		34.8	20.0		18.1	34.4	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	43.3	15.8		52.5	20.5		43.4	0.1		0.7	33.3	
Delay (s)	74.0	56.1		87.2	62.1		78.2	20.2		18.9	67.7	
Level of Service	E	E		F	E		E	C		B	E	
Approach Delay (s)		58.6			65.3			42.1			56.1	
Approach LOS		E			E			D			E	

Intersection Summary			
HCM Average Control Delay	56.7	HCM Level of Service	E
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	97.2%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	226	2142	93	39	1210	126	77	45	78	217	50	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1686		1770	1636	
Flt Permitted	0.07	1.00	1.00	0.08	1.00		0.36	1.00		0.62	1.00	
Satd. Flow (perm)	140	5085	1583	151	3489		662	1686		1157	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	2328	101	42	1315	137	84	49	85	236	54	235
RTOR Reduction (vph)	0	0	12	0	8	0	0	62	0	0	155	0
Lane Group Flow (vph)	246	2328	89	42	1444	0	84	72	0	236	134	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	66.0	59.0	59.0	52.4	49.4		26.0	26.0		26.0	26.0	
Effective Green, g (s)	66.0	59.0	59.0	52.4	49.4		26.0	26.0		26.0	26.0	
Actuated g/C Ratio	0.66	0.59	0.59	0.52	0.49		0.26	0.26		0.26	0.26	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	298	3000	934	128	1724		172	438		301	425	
v/s Ratio Prot	c0.10	0.46		0.01	0.41			0.04			0.08	
v/s Ratio Perm	c0.44		0.06	0.16			0.13			c0.20		
v/c Ratio	0.83	0.78	0.09	0.33	0.84		0.49	0.16		0.78	0.31	
Uniform Delay, d1	28.1	15.5	8.9	14.8	21.8		31.4	28.6		34.4	29.8	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	16.8	2.0	0.2	1.5	5.0		9.6	0.8		12.5	0.4	
Delay (s)	44.9	17.5	9.1	16.3	26.9		41.0	29.4		46.9	30.2	
Level of Service	D	B	A	B	C		D	C		D	C	
Approach Delay (s)		19.7			26.6			33.9			37.7	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	24.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	20	149	10	30	20	146	670	20	40	1136	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.96			1.00			0.99	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1693			1764			3496			3483	
Flt Permitted		0.85			0.94			0.56			0.91	
Satd. Flow (perm)		1468			1678			1981			3168	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	22	162	11	33	22	159	728	22	43	1235	135
RTOR Reduction (vph)	0	33	0	0	16	0	0	3	0	0	14	0
Lane Group Flow (vph)	0	261	0	0	50	0	0	906	0	0	1399	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		12.9			12.9			29.1			29.1	
Effective Green, g (s)		12.9			12.9			29.1			29.1	
Actuated g/C Ratio		0.26			0.26			0.58			0.58	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		379			433			1153			1844	
v/s Ratio Prot												
v/s Ratio Perm		c0.18			0.03			c0.46			0.44	
v/c Ratio		0.69			0.11			1.05dl			0.76	
Uniform Delay, d1		16.7			14.2			8.0			7.8	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		5.1			0.1			5.4			3.0	
Delay (s)		21.9			14.3			13.5			10.8	
Level of Service		C			B			B			B	
Approach Delay (s)		21.9			14.3			13.5			10.8	
Approach LOS		C			B			B			B	

Intersection Summary			
HCM Average Control Delay	13.0	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	50.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



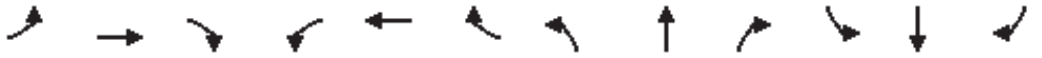
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	281	0	27	1	0	1	16	1316	2	1125	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.93		1.00	0.85	1.00	0.99	
Flt Protected		0.95	1.00		0.98		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1695		1770	2787	1770	3411	
Flt Permitted		0.95	1.00		0.98		0.16	1.00	0.11	0.96	
Satd. Flow (perm)		1770	1583		1695		295	2787	204	3411	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	305	0	29	1	0	1	17	1430	2	1223	116
RTOR Reduction (vph)	0	0	23	0	1	0	0	0	0	4	0
Lane Group Flow (vph)	0	305	6	0	1	0	17	1430	2	1335	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		25.3	25.3		1.2		81.5	81.5	81.5	81.5	
Effective Green, g (s)		25.3	25.3		1.2		81.5	81.5	81.5	81.5	
Actuated g/C Ratio		0.21	0.21		0.01		0.68	0.68	0.68	0.68	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		373	334		17		200	1893	139	2317	
v/s Ratio Prot		c0.17			c0.00			c0.51		0.39	
v/s Ratio Perm			0.00				0.06		0.01		
v/c Ratio		0.82	0.02		0.06		0.08	0.76	0.01	0.58	
Uniform Delay, d1		45.2	37.5		58.8		6.6	12.7	6.2	10.1	
Progression Factor		1.00	1.00		1.00		0.79	0.89	1.00	1.00	
Incremental Delay, d2		13.0	0.0		1.5		0.8	2.6	0.2	1.1	
Delay (s)		58.2	37.5		60.3		5.9	13.9	6.4	11.2	
Level of Service		E	D		E		A	B	A	B	
Approach Delay (s)		56.4			60.3		13.8			11.2	
Approach LOS		E			E		B			B	

Intersection Summary			
HCM Average Control Delay	17.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	206	0	310	1061	0	1204
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	224	0	337	1153	0	1309
RTOR Reduction (vph)	0	0	0	0	0	454
Lane Group Flow (vph)	224	0	337	1153	0	855
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	12.8		39.2	39.2		39.2
Effective Green, g (s)	12.8		39.2	39.2		39.2
Actuated g/C Ratio	0.21		0.65	0.65		0.65
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	378		1156	2312		1821
v/s Ratio Prot	c0.13			c0.33		
v/s Ratio Perm			0.19			0.31
v/c Ratio	0.59		0.29	0.50		0.47
Uniform Delay, d1	21.3		4.5	5.3		5.2
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	2.5		0.6	0.8		0.8
Delay (s)	23.7		5.1	6.1		6.0
Level of Service	C		A	A		A
Approach Delay (s)	23.7			5.9	6.0	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	7.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	60.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	40	44	101	26	69	21	651	105	106	748	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1723			1791	1583		3453		1770	1863	1583
Flt Permitted	0.39	1.00			0.71	1.00		0.91		0.26	1.00	1.00
Satd. Flow (perm)	721	1723			1315	1583		3136		480	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	144	48	48	117	30	78	31	685	127	118	779	191
RTOR Reduction (vph)	0	33	0	0	0	67	0	15	0	0	0	60
Lane Group Flow (vph)	144	63	0	0	147	11	0	828	0	118	779	131
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	23.3	23.3			14.3	14.3		57.0		68.7	68.7	68.7
Effective Green, g (s)	23.3	23.3			14.3	14.3		57.0		68.7	68.7	68.7
Actuated g/C Ratio	0.23	0.23			0.14	0.14		0.57		0.69	0.69	0.69
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	220	401			188	226		1788		429	1280	1088
v/s Ratio Prot	c0.03	0.04								0.02	c0.42	
v/s Ratio Perm	0.12				c0.11	0.01		0.26		0.17		0.08
v/c Ratio	0.65	0.16			0.78	0.05		0.46		0.28	0.61	0.12
Uniform Delay, d1	34.2	30.5			41.3	37.0		12.6		6.5	8.4	5.3
Progression Factor	1.00	1.00			1.00	1.00		1.00		0.53	0.51	0.00
Incremental Delay, d2	6.8	0.2			18.8	0.1		0.2		0.3	2.0	0.2
Delay (s)	41.0	30.7			60.1	37.1		12.8		3.7	6.3	0.2
Level of Service	D	C			E	D		B		A	A	A
Approach Delay (s)		36.9			52.1			12.8			4.9	
Approach LOS		D			D			B			A	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	100.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	84.9%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2030 BeltLine

AM PEAK HOUR, 4-LANE MONROE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.59	1.00		0.29	1.00			0.64			0.66	
Satd. Flow (perm)	1104	1781		533	1815			2149			2315	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	10	0	0	11	0	0	92	0	0	1	0
Lane Group Flow (vph)	34	542	0	378	215	0	0	1067	0	0	1346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Effective Green, g (s)	33.0	33.0		33.0	33.0			29.0			29.0	
Actuated g/C Ratio	0.47	0.47		0.47	0.47			0.41			0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	520	840		251	856			890			959	
v/s Ratio Prot		0.30			0.12							
v/s Ratio Perm	0.03			c0.71				0.50			c0.58	
v/c Ratio	0.07	0.65		1.51	0.25			1.20			1.40	
Uniform Delay, d1	10.1	14.1		18.5	11.1			20.5			20.5	
Progression Factor	1.04	0.89		1.00	1.00			0.48			0.52	
Incremental Delay, d2	0.2	3.4		247.3	0.7			99.5			186.1	
Delay (s)	10.7	16.0		265.8	11.8			109.3			196.8	
Level of Service	B	B		F	B			F			F	
Approach Delay (s)		15.7			170.8			109.3			196.8	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	136.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

2030 AM BeltLine Build, With Transit, Monroe 4-lane
12: Rock Springs & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	16	10	31	67	231	6	860	33	106	786	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		1770	1646		1770	3520		1770	3535	
Flt Permitted	0.40	1.00		0.74	1.00		0.33	1.00		0.22	1.00	
Satd. Flow (perm)	738	1753		1377	1646		613	3520		402	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	17	11	34	73	251	7	935	36	115	854	7
RTOR Reduction (vph)	0	9	0	0	215	0	0	3	0	0	1	0
Lane Group Flow (vph)	14	19	0	34	109	0	7	968	0	115	860	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	10.1	10.1		10.1	10.1		42.1	42.1		47.1	47.1	
Effective Green, g (s)	10.1	10.1		10.1	10.1		42.1	42.1		47.1	47.1	
Actuated g/C Ratio	0.14	0.14		0.14	0.14		0.60	0.60		0.67	0.67	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	106	253		199	237		382	2117		384	2379	
v/s Ratio Prot		0.01			c0.07		0.00	c0.28		0.02	c0.24	
v/s Ratio Perm	0.02			0.02			0.01			0.18		
v/c Ratio	0.13	0.07		0.17	0.46		0.02	0.46		0.30	0.36	
Uniform Delay, d1	26.1	25.9		26.3	27.5		5.6	7.7		5.1	5.0	
Progression Factor	1.00	1.00		1.00	1.00		0.56	0.40		0.67	0.74	
Incremental Delay, d2	0.6	0.1		0.4	1.4		0.0	0.6		0.0	0.0	
Delay (s)	26.7	26.0		26.7	28.9		3.1	3.6		3.5	3.7	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		26.2			28.7			3.6			3.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
17: Montgomery Ferry & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	18	29	84	22	107	6	232	677	8	1	338	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	1.00			0.98	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1691			1836		1770	1859			1831	
Flt Permitted		0.94			0.92		0.44	1.00			1.00	
Satd. Flow (perm)		1599			1709		824	1859			1830	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	20	32	91	24	116	7	252	736	9	1	367	52
RTOR Reduction (vph)	0	78	0	0	3	0	0	1	0	0	7	0
Lane Group Flow (vph)	0	65	0	0	144	0	252	744	0	0	413	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		9.7			9.7		52.3	52.3			39.5	
Effective Green, g (s)		9.7			9.7		52.3	52.3			39.5	
Actuated g/C Ratio		0.14			0.14		0.75	0.75			0.56	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		222			237		735	1389			1033	
v/s Ratio Prot							0.04	c0.40				
v/s Ratio Perm		0.04			c0.08		0.21				0.23	
v/c Ratio		0.29			0.61		0.34	0.54			0.40	
Uniform Delay, d1		27.1			28.4		3.6	3.7			8.6	
Progression Factor		1.00			0.83		0.24	0.62			1.00	
Incremental Delay, d2		0.7			4.4		0.3	1.4			1.2	
Delay (s)		27.8			28.0		1.1	3.7			9.7	
Level of Service		C			C		A	A			A	
Approach Delay (s)		27.8			28.0			3.0			9.7	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	8.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.1%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
21: E Morningside & Piedmont

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	23	19	370	9	72	4	929	172	58	830	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.96		1.00	0.87			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1760		1770	1615			3456			3523	
Flt Permitted		0.82		0.60	1.00			0.95			0.74	
Satd. Flow (perm)		1473		1123	1615			3293			2629	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	25	21	402	10	78	4	1010	187	63	902	9
RTOR Reduction (vph)	0	19	0	0	17	0	0	17	0	0	0	0
Lane Group Flow (vph)	0	62	0	402	71	0	0	1184	0	0	974	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.2		26.8	26.8			35.2			35.2	
Effective Green, g (s)		7.2		26.8	26.8			35.2			35.2	
Actuated g/C Ratio		0.10		0.38	0.38			0.50			0.50	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		152		574	618			1656			1322	
v/s Ratio Prot				c0.16	0.04							
v/s Ratio Perm		0.04		c0.11				0.36			c0.37	
v/c Ratio		0.41		0.70	0.12			0.72			0.74	
Uniform Delay, d1		29.4		17.6	13.9			13.5			13.7	
Progression Factor		1.00		1.00	1.00			1.00			0.50	
Incremental Delay, d2		1.8		3.8	0.1			2.7			3.6	
Delay (s)		31.2		21.4	14.0			16.2			10.4	
Level of Service		C		C	B			B			B	
Approach Delay (s)		31.2			20.1			16.2			10.4	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	15.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
22: Monroe & Piedmont

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	75	376	110	141	687	490	116	514	51	377	914	159
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.94		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3419		1770	3318		1770	3492		1770	3460	
Flt Permitted	0.22	1.00		0.26	1.00		0.25	1.00		0.20	1.00	
Satd. Flow (perm)	412	3419		484	3318		460	3492		369	3460	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	82	409	120	153	747	533	126	559	55	410	993	173
RTOR Reduction (vph)	0	39	0	0	181	0	0	11	0	0	20	0
Lane Group Flow (vph)	82	490	0	153	1099	0	126	603	0	410	1146	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	21.3	18.1		29.8	22.6		19.4	16.2		32.2	25.0	
Effective Green, g (s)	21.3	18.1		29.8	22.6		19.4	16.2		32.2	25.0	
Actuated g/C Ratio	0.30	0.26		0.43	0.32		0.28	0.23		0.46	0.36	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	884		348	1071		187	808		410	1236	
v/s Ratio Prot	0.02	0.14		c0.05	c0.33		0.03	0.17		c0.17	0.33	
v/s Ratio Perm	0.11			0.14			0.16			c0.29		
v/c Ratio	0.44	0.55		0.44	1.03		0.67	0.75		1.00	0.93	
Uniform Delay, d1	19.2	22.5		13.4	23.7		22.0	25.0		16.5	21.6	
Progression Factor	0.55	0.11		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.2	1.8		0.9	34.2		9.2	3.8		44.4	11.9	
Delay (s)	11.8	4.2		14.3	57.9		31.2	28.8		61.0	33.5	
Level of Service	B	A		B	E		C	C		E	C	
Approach Delay (s)		5.2			53.3			29.2			40.7	
Approach LOS		A			D			C			D	

Intersection Summary			
HCM Average Control Delay	37.9	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	89.0%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	187	0	819	156	0	656
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		0.95	1.00		0.95
Frt	1.00		1.00	0.85		1.00
Flt Protected	0.95		1.00	1.00		1.00
Satd. Flow (prot)	1770		3539	1583		3539
Flt Permitted	0.95		1.00	1.00		1.00
Satd. Flow (perm)	1770		3539	1583		3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	203	0	890	170	0	713
RTOR Reduction (vph)	0	0	0	52	0	0
Lane Group Flow (vph)	203	0	890	118	0	713
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	13.3		48.7	48.7		48.7
Effective Green, g (s)	13.3		48.7	48.7		48.7
Actuated g/C Ratio	0.19		0.70	0.70		0.70
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	336		2462	1101		2462
v/s Ratio Prot	c0.11		c0.25	0.07		0.20
v/s Ratio Perm						
v/c Ratio	0.60		0.36	0.11		0.29
Uniform Delay, d1	25.9		4.3	3.5		4.1
Progression Factor	0.73		0.72	0.71		0.37
Incremental Delay, d2	3.0		0.4	0.2		0.2
Delay (s)	21.9		3.5	2.7		1.7
Level of Service	C		A	A		A
Approach Delay (s)	21.9		3.4			1.7
Approach LOS	C		A			A

Intersection Summary			
HCM Average Control Delay	4.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	39.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

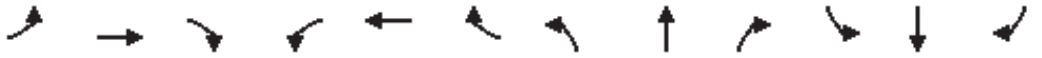
2030 AM BeltLine Build, With Transit, Monroe 4-lane
27: Virginia & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	226	77	33	339	40	137	98	27	20	37	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1797			1831			1790			1743	
Flt Permitted		0.96			0.96			0.80			0.92	
Satd. Flow (perm)		1726			1756			1470			1613	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	246	84	36	368	43	149	107	29	22	40	42
RTOR Reduction (vph)	0	16	0	0	5	0	0	6	0	0	26	0
Lane Group Flow (vph)	0	340	0	0	442	0	0	279	0	0	78	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		36.0			36.0			26.0			26.0	
Effective Green, g (s)		36.0			36.0			26.0			26.0	
Actuated g/C Ratio		0.51			0.51			0.37			0.37	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		888			903			546			599	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.25			c0.19			0.05	
v/c Ratio		0.38			0.49			0.51			0.13	
Uniform Delay, d1		10.3			11.0			17.1			14.5	
Progression Factor		0.30			1.00			1.00			1.00	
Incremental Delay, d2		1.0			1.9			3.4			0.1	
Delay (s)		4.1			12.9			20.5			14.6	
Level of Service		A			B			C			B	
Approach Delay (s)		4.1			12.9			20.5			14.6	
Approach LOS		A			B			C			B	

Intersection Summary			
HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
28: Park & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	3	12	44	6	188	10	974	6	74	857	18
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1713			1655		1770	1861		1770	1856	
Flt Permitted		0.83			0.93		0.19	1.00		0.13	1.00	
Satd. Flow (perm)		1444			1547		360	1861		251	1856	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	13	4	14	63	9	224	15	1025	8	83	902	22
RTOR Reduction (vph)	0	11	0	0	86	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	20	0	0	210	0	15	1033	0	83	923	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.1			14.1		47.9	47.9		47.9	47.9	
Effective Green, g (s)		14.1			14.1		47.9	47.9		47.9	47.9	
Actuated g/C Ratio		0.20			0.20		0.68	0.68		0.68	0.68	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		291			312		246	1273		172	1270	
v/s Ratio Prot								c0.56			0.50	
v/s Ratio Perm		0.01			c0.14		0.04			0.33		
v/c Ratio		0.07			0.67		0.06	0.81		0.48	0.73	
Uniform Delay, d1		22.6			25.8		3.6	7.8		5.2	6.9	
Progression Factor		1.00			1.00		0.87	0.91		0.99	0.88	
Incremental Delay, d2		0.1			5.6		0.4	5.3		7.3	2.8	
Delay (s)		22.7			31.4		3.6	12.4		12.4	8.9	
Level of Service		C			C		A	B		B	A	
Approach Delay (s)		22.7			31.4			12.3			9.2	
Approach LOS		C			C			B			A	

Intersection Summary			
HCM Average Control Delay	13.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.1%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

2030 AM BeltLine Build, With Transit, Monroe 4-lane
30: 10th Street & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	278	70	220	0	10	86	366	474	0	71	529	280
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00		0.95	0.95	1.00	1.00		1.00	0.95	
Frt	1.00	1.00	0.85		0.88	0.85	1.00	1.00		1.00	0.95	
Flt Protected	0.95	1.00	1.00		1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1863	1583		1559	1504	1770	1863		1770	3356	
Flt Permitted	0.42	1.00	1.00		1.00	1.00	0.19	1.00		0.47	1.00	
Satd. Flow (perm)	784	1863	1583		1559	1504	353	1863		882	3356	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	302	76	239	0	11	93	398	515	0	77	575	304
RTOR Reduction (vph)	0	0	188	0	39	47	0	0	0	0	100	0
Lane Group Flow (vph)	302	76	51	0	14	4	398	515	0	77	779	0
Turn Type	pm+pt		custom			Perm	pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		7			8	2			6		
Actuated Green, G (s)	24.3	24.3	14.8		5.5	5.5	37.7	37.7		17.1	17.1	
Effective Green, g (s)	24.3	24.3	14.8		5.5	5.5	37.7	37.7		17.1	17.1	
Actuated g/C Ratio	0.35	0.35	0.21		0.08	0.08	0.54	0.54		0.24	0.24	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	481	647	335		122	118	526	1003		215	820	
v/s Ratio Prot	c0.13	0.04			0.01		c0.18	0.28			c0.23	
v/s Ratio Perm	c0.09		0.03			0.00	0.23			0.09		
v/c Ratio	0.63	0.12	0.15		0.12	0.03	0.76	0.51		0.36	0.95	
Uniform Delay, d1	18.1	15.6	22.5		30.0	29.8	13.7	10.3		21.9	26.0	
Progression Factor	1.00	1.00	1.00		0.81	0.88	1.87	1.13		0.72	0.70	
Incremental Delay, d2	2.6	0.1	0.2		0.4	0.1	5.9	1.8		3.2	16.7	
Delay (s)	20.7	15.6	22.7		24.7	26.2	31.4	13.4		18.9	34.8	
Level of Service	C	B	C		C	C	C	B		B	C	
Approach Delay (s)		20.8			25.5			21.3			33.5	
Approach LOS		C			C			C			C	

Intersection Summary			
HCM Average Control Delay	25.9	HCM Level of Service	C
HCM Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	75.9%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
32: Amsterdam Av & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	34	4	49	124	14	122	30	953	58	49	713	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.92			0.94		1.00	0.99		1.00	0.99	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1688			1704		1770	1847		1770	1851	
Flt Permitted		0.81			0.83		0.19	1.00		0.10	1.00	
Satd. Flow (perm)		1400			1442		348	1847		184	1851	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	4	53	135	15	133	33	1036	63	53	775	33
RTOR Reduction (vph)	0	41	0	0	51	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	53	0	0	232	0	33	1096	0	53	806	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.6			15.6		41.2	39.2		43.6	40.4	
Effective Green, g (s)		15.6			15.6		41.2	39.2		43.6	40.4	
Actuated g/C Ratio		0.22			0.22		0.59	0.56		0.62	0.58	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		312			321		245	1034		187	1068	
v/s Ratio Prot							0.00	c0.59		c0.01	0.44	
v/s Ratio Perm		0.04			c0.16		0.08			0.16		
v/c Ratio		0.17			0.72		0.13	1.06		0.28	0.75	
Uniform Delay, d1		22.0			25.2		8.7	15.4		14.9	11.1	
Progression Factor		1.00			1.00		1.33	1.02		0.86	1.05	
Incremental Delay, d2		0.3			7.9		0.2	40.2		0.8	4.7	
Delay (s)		22.2			33.1		11.7	55.9		13.6	16.4	
Level of Service		C			C		B	E		B	B	
Approach Delay (s)		22.2			33.1			54.7			16.2	
Approach LOS		C			C			D			B	

Intersection Summary			
HCM Average Control Delay	36.8	HCM Level of Service	D
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	81.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	78	70	54	1199	833	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1699		1770	1863	1863	1583
Flt Permitted	0.97		0.24	1.00	1.00	1.00
Satd. Flow (perm)	1699		450	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	85	76	59	1303	905	60
RTOR Reduction (vph)	52	0	0	0	0	15
Lane Group Flow (vph)	109	0	59	1303	905	45
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	9.7		52.3	52.3	52.3	52.3
Effective Green, g (s)	9.7		52.3	52.3	52.3	52.3
Actuated g/C Ratio	0.14		0.75	0.75	0.75	0.75
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	235		336	1392	1392	1183
v/s Ratio Prot	c0.06			c0.70	0.49	
v/s Ratio Perm			0.13			0.03
v/c Ratio	0.47		0.18	0.94	0.65	0.04
Uniform Delay, d1	27.8		2.6	7.4	4.4	2.3
Progression Factor	1.00		0.41	0.75	1.00	1.00
Incremental Delay, d2	1.5		0.6	8.0	2.4	0.1
Delay (s)	29.2		1.7	13.5	6.7	2.4
Level of Service	C		A	B	A	A
Approach Delay (s)	29.2			13.0	6.4	
Approach LOS	C			B	A	

Intersection Summary			
HCM Average Control Delay	11.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
42: Ponce De Leon & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	106	353	37	118	1100	243	102	400	91	257	438	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5013		1770	4947		1770	3441		1770	1782	
Flt Permitted	0.20	1.00		0.48	1.00		0.22	1.00		0.26	1.00	
Satd. Flow (perm)	378	5013		890	4947		403	3441		487	1782	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	115	384	40	128	1196	264	111	435	99	279	476	192
RTOR Reduction (vph)	0	18	0	0	50	0	0	27	0	0	20	0
Lane Group Flow (vph)	115	406	0	128	1410	0	111	507	0	279	648	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	22.9	19.7		26.1	21.3		21.7	18.5		33.5	26.3	
Effective Green, g (s)	22.9	19.7		26.1	21.3		21.7	18.5		33.5	26.3	
Actuated g/C Ratio	0.33	0.28		0.37	0.30		0.31	0.26		0.48	0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	187	1411		392	1505		187	909		435	670	
v/s Ratio Prot	c0.03	0.08		c0.02	c0.28		0.03	0.15		c0.10	c0.36	
v/s Ratio Perm	0.17			0.10			0.16			0.21		
v/c Ratio	0.61	0.29		0.33	0.94		0.59	0.56		0.64	0.97	
Uniform Delay, d1	30.0	19.7		16.5	23.7		19.4	22.2		12.3	21.4	
Progression Factor	1.00	1.00		0.22	0.31		1.00	1.00		0.64	0.63	
Incremental Delay, d2	5.9	0.5		0.4	11.6		5.0	0.7		3.2	26.2	
Delay (s)	35.9	20.2		4.1	18.9		24.4	23.0		11.0	39.7	
Level of Service	D	C		A	B		C	C		B	D	
Approach Delay (s)		23.5			17.7			23.2			31.3	
Approach LOS		C			B			C			C	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	20.0
Intersection Capacity Utilization	85.4%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
45: Ponce De Leon & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	64	631	11	9	1249	83	16	12	15	73	10	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3506		1770	1709		1770	1601	
Flt Permitted	0.10	1.00	1.00	0.38	1.00		0.57	1.00		0.74	1.00	
Satd. Flow (perm)	181	5085	1583	707	3506		1053	1709		1375	1601	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	70	686	12	10	1358	90	17	13	16	79	11	168
RTOR Reduction (vph)	0	0	5	0	7	0	0	12	0	0	106	0
Lane Group Flow (vph)	70	686	7	10	1441	0	17	17	0	79	73	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	45.2	41.2	41.2	38.8	38.0		16.0	16.0		16.0	16.0	
Effective Green, g (s)	45.2	41.2	41.2	38.8	38.0		16.0	16.0		16.0	16.0	
Actuated g/C Ratio	0.65	0.59	0.59	0.55	0.54		0.23	0.23		0.23	0.23	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	208	2993	932	404	1903		241	391		314	366	
v/s Ratio Prot	c0.02	0.13		0.00	c0.41			0.01			0.05	
v/s Ratio Perm	0.20		0.00	0.01			0.02			c0.06		
v/c Ratio	0.34	0.23	0.01	0.02	0.76		0.07	0.04		0.25	0.20	
Uniform Delay, d1	9.0	6.8	6.0	7.0	12.4		21.2	21.0		22.1	21.8	
Progression Factor	0.28	0.55	0.68	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	1.0	0.2	0.0	0.0	2.9		0.6	0.2		0.4	0.3	
Delay (s)	3.4	3.9	4.1	7.0	15.3		21.7	21.2		22.5	22.1	
Level of Service	A	A	A	A	B		C	C		C	C	
Approach Delay (s)		3.9			15.2			21.4			22.2	
Approach LOS		A			B			C			C	

Intersection Summary			
HCM Average Control Delay	12.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.63		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	64.0%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
59: Monroe &



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	14	23	16	6	3	35	866	15	10	435	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.98			1.00			0.99	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1721			1779			3524			3512	
Flt Permitted		0.92			0.90			0.92			0.94	
Satd. Flow (perm)		1596			1647			3260			3289	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	15	25	17	7	3	38	941	16	11	473	22
RTOR Reduction (vph)	0	23	0	0	3	0	0	1	0	0	2	0
Lane Group Flow (vph)	0	28	0	0	24	0	0	994	0	0	504	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		4.7			4.7			57.3			57.3	
Effective Green, g (s)		4.7			4.7			57.3			57.3	
Actuated g/C Ratio		0.07			0.07			0.82			0.82	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		107			111			2669			2692	
v/s Ratio Prot												
v/s Ratio Perm		c0.02			0.01			c0.30			0.15	
v/c Ratio		0.26			0.22			0.37			0.19	
Uniform Delay, d1		31.0			30.9			1.7			1.4	
Progression Factor		1.00			1.00			0.31			0.34	
Incremental Delay, d2		1.3			1.0			0.2			0.2	
Delay (s)		32.3			31.9			0.7			0.6	
Level of Service		C			C			A			A	
Approach Delay (s)		32.3			31.9			0.7			0.6	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	2.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.36		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	51.8%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
70: The Prado & Piedmont

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	54	0	13	0	0	1	13	484	1	774	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.86		1.00	0.85	1.00	0.98	
Flt Protected		0.95	1.00		1.00		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1611		1770	2787	1770	3397	
Flt Permitted		0.95	1.00		1.00		0.29	1.00	0.44	0.96	
Satd. Flow (perm)		1770	1583		1611		531	2787	817	3397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	14	0	0	1	14	526	1	841	122
RTOR Reduction (vph)	0	0	13	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	59	1	0	0	0	14	526	1	956	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Effective Green, g (s)		5.4	5.4		1.1		51.5	51.5	51.5	51.5	
Actuated g/C Ratio		0.08	0.08		0.02		0.74	0.74	0.74	0.74	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		137	122		25		391	2050	601	2499	
v/s Ratio Prot		c0.03			c0.00			0.19		c0.28	
v/s Ratio Perm			0.00				0.03		0.00		
v/c Ratio		0.43	0.01		0.00		0.04	0.26	0.00	0.38	
Uniform Delay, d1		30.8	29.8		33.9		2.5	3.0	2.4	3.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00	0.03	0.06	
Incremental Delay, d2		2.2	0.0		0.0		0.2	0.3	0.0	0.4	
Delay (s)		33.0	29.9		33.9		2.7	3.3	0.1	0.6	
Level of Service		C	C		C		A	A	A	A	
Approach Delay (s)		32.4			33.9		3.3			0.6	
Approach LOS		C			C		A			A	

Intersection Summary			
HCM Average Control Delay	3.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
75: 14th &



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	0	403	364	0	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	0	438	396	0	898
RTOR Reduction (vph)	0	0	0	0	0	260
Lane Group Flow (vph)	86	0	438	396	0	638
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	3.3		27.7	27.7		27.7
Effective Green, g (s)	3.3		27.7	27.7		27.7
Actuated g/C Ratio	0.08		0.71	0.71		0.71
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	150		1257	2514		1979
v/s Ratio Prot	c0.05			0.11		
v/s Ratio Perm			c0.25			0.23
v/c Ratio	0.57		0.35	0.16		0.32
Uniform Delay, d1	17.2		2.2	1.8		2.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	5.2		0.8	0.1		0.4
Delay (s)	22.4		2.9	2.0		2.6
Level of Service	C		A	A		A
Approach Delay (s)	22.4			2.5	2.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 4-lane
77: 8th & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	83	6	58	4	1	86	56	771	7	33	686	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.86			1.00	0.85		1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1611			1788	1583		3519		1770	1863	1583
Flt Permitted	0.44	1.00			0.74	1.00		0.83		0.25	1.00	1.00
Satd. Flow (perm)	819	1611			1384	1583		2932		464	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	99	7	64	5	1	98	82	812	8	37	715	123
RTOR Reduction (vph)	0	52	0	0	0	90	0	1	0	0	0	37
Lane Group Flow (vph)	99	19	0	0	6	8	0	901	0	37	715	86
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	12.8	12.8			5.6	5.6		42.6		49.2	49.2	49.2
Effective Green, g (s)	12.8	12.8			5.6	5.6		42.6		49.2	49.2	49.2
Actuated g/C Ratio	0.18	0.18			0.08	0.08		0.61		0.70	0.70	0.70
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	193	295			111	127		1784		375	1309	1113
v/s Ratio Prot	c0.02	0.01								0.00	c0.38	
v/s Ratio Perm	c0.07				0.00	0.00		0.31		0.07		0.05
v/c Ratio	0.51	0.06			0.05	0.06		0.51		0.10	0.55	0.08
Uniform Delay, d1	25.1	23.6			29.8	29.8		7.7		3.9	5.0	3.3
Progression Factor	1.00	1.00			1.00	1.00		0.87		0.95	0.86	1.13
Incremental Delay, d2	2.3	0.1			0.2	0.2		0.2		0.1	1.6	0.1
Delay (s)	27.4	23.7			30.0	30.0		6.9		3.8	5.9	3.8
Level of Service	C	C			C	C		A		A	A	A
Approach Delay (s)		25.9			30.0			6.9			5.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	70.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.5%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2030 BeltLine

PM PEAK HOUR, 4-LANE MONROE



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	39	171	184	579	265	45	37	1038	811	91	1630	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.98		1.00	0.93		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1718		3433	1822		1770	3306		1770	3533	
Flt Permitted	0.25	1.00		0.95	1.00		0.07	1.00		0.07	1.00	
Satd. Flow (perm)	466	1718		3433	1822		131	3306		131	3533	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	42	186	200	629	288	49	40	1128	882	99	1772	22
RTOR Reduction (vph)	0	32	0	0	5	0	0	118	0	0	0	0
Lane Group Flow (vph)	42	354	0	629	332	0	40	1892	0	99	1794	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	21.0	21.0		18.0	34.0		61.0	61.0		61.0	61.0	
Effective Green, g (s)	21.0	21.0		18.0	34.0		61.0	61.0		61.0	61.0	
Actuated g/C Ratio	0.18	0.18		0.15	0.28		0.51	0.51		0.51	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	136	301		515	516		121	1681		121	1796	
v/s Ratio Prot	0.01	c0.21		c0.18	0.18		0.01	c0.57		0.03	c0.51	
v/s Ratio Perm	0.04						0.16			0.39		
v/c Ratio	0.31	1.18		1.22	0.64		0.33	1.13		0.82	1.00	
Uniform Delay, d1	42.4	49.5		51.0	37.7		53.4	29.5		27.7	29.5	
Progression Factor	0.86	0.81		0.97	0.96		0.21	0.15		1.67	0.71	
Incremental Delay, d2	5.6	107.3		113.8	5.1		0.7	57.5		31.0	16.6	
Delay (s)	42.1	147.2		163.3	41.2		11.8	61.8		77.3	37.6	
Level of Service	D	F		F	D		B	E		E	D	
Approach Delay (s)		136.9			120.7			60.9			39.7	
Approach LOS		F			F			E			D	

Intersection Summary			
HCM Average Control Delay	70.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	109.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	94	81	20	51	179	146	1540	13	526	1760	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	0.88		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1733		1770	1645		1770	3535		1770	3509	
Flt Permitted	0.36	1.00		0.47	1.00		0.09	1.00		0.09	1.00	
Satd. Flow (perm)	667	1733		881	1645		169	3535		169	3509	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	102	88	22	55	195	159	1674	14	572	1913	116
RTOR Reduction (vph)	0	26	0	0	106	0	0	1	0	0	4	0
Lane Group Flow (vph)	180	164	0	22	144	0	159	1687	0	572	2025	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	27.0	27.0		27.0	27.0		52.0	52.0		73.0	73.0	
Effective Green, g (s)	27.0	27.0		27.0	27.0		52.0	52.0		73.0	73.0	
Actuated g/C Ratio	0.22	0.22		0.22	0.22		0.43	0.43		0.61	0.61	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	150	390		198	370		180	1532		490	2135	
v/s Ratio Prot		0.09			0.09		0.06	c0.48		c0.28	0.58	
v/s Ratio Perm	c0.27			0.02			0.32			c0.43		
v/c Ratio	1.20	0.42		0.11	0.39		0.88	1.10		1.17	0.95	
Uniform Delay, d1	46.5	39.8		37.0	39.5		28.5	34.0		42.2	21.8	
Progression Factor	1.00	1.00		1.00	1.00		1.00	0.63		0.68	0.42	
Incremental Delay, d2	137.2	0.7		0.2	0.7		25.1	52.4		77.5	1.3	
Delay (s)	183.7	40.6		37.2	40.2		53.6	73.7		106.2	10.5	
Level of Service	F	D		D	D		D	E		F	B	
Approach Delay (s)		110.2			39.9			72.0			31.5	
Approach LOS		F			D			E			C	

Intersection Summary			
HCM Average Control Delay	52.4	HCM Level of Service	D
HCM Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	108.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	61	152	275	129	136	24	123	720	134	16	983	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			0.99		1.00	0.98			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1710			1802		1770	1819			1849	
Flt Permitted		0.91			0.41		0.16	1.00			0.88	
Satd. Flow (perm)		1561			753		307	1819			1638	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	66	165	299	140	148	26	134	783	146	17	1068	54
RTOR Reduction (vph)	0	39	0	0	3	0	0	5	0	0	1	0
Lane Group Flow (vph)	0	491	0	0	311	0	134	924	0	0	1138	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		39.0			39.0		73.0	73.0			65.0	
Effective Green, g (s)		39.0			39.0		73.0	73.0			65.0	
Actuated g/C Ratio		0.32			0.32		0.61	0.61			0.54	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		507			245		236	1107			887	
v/s Ratio Prot							0.02	c0.51				
v/s Ratio Perm		0.31			c0.41		0.33				c0.69	
v/c Ratio		0.97			1.27		0.57	0.83			1.28	
Uniform Delay, d1		39.9			40.5		16.3	18.7			27.5	
Progression Factor		1.00			1.42		0.77	0.74			1.00	
Incremental Delay, d2		31.6			135.1		2.9	7.0			135.8	
Delay (s)		71.4			192.8		15.4	20.8			163.3	
Level of Service		E			F		B	C			F	
Approach Delay (s)		71.4			192.8			20.1			163.3	
Approach LOS		E			F			C			F	

Intersection Summary			
HCM Average Control Delay	100.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	38	51	251	40	101	25	1402	237	112	1452	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.95		1.00	0.89			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1736		1770	1662			3461			3508	
Flt Permitted		0.85		0.40	1.00			0.84			0.52	
Satd. Flow (perm)		1492		740	1662			2897			1827	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	41	55	273	43	110	27	1524	258	122	1578	65
RTOR Reduction (vph)	0	20	0	0	31	0	0	10	0	0	2	0
Lane Group Flow (vph)	0	119	0	273	122	0	0	1799	0	0	1763	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		13.3		33.1	33.1			78.9			78.9	
Effective Green, g (s)		13.3		33.1	33.1			78.9			78.9	
Actuated g/C Ratio		0.11		0.28	0.28			0.66			0.66	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		165		340	458			1905			1201	
v/s Ratio Prot				c0.11	0.07							
v/s Ratio Perm		0.08		c0.12				0.62			c0.97	
v/c Ratio		0.72		0.80	0.27			0.94			1.65dl	
Uniform Delay, d1		51.5		38.0	34.0			18.6			20.5	
Progression Factor		1.00		1.00	1.00			0.43			0.50	
Incremental Delay, d2		13.9		12.8	0.3			8.2			212.6	
Delay (s)		65.4		50.9	34.3			16.1			222.9	
Level of Service		E		D	C			B			F	
Approach Delay (s)		65.4			44.9			16.1			222.9	
Approach LOS		E			D			B			F	

Intersection Summary			
HCM Average Control Delay	108.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.27		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.9%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	238	782	163	211	465	548	214	909	248	802	1023	161
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.92		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3448		1770	3252		1770	3425		1770	3467	
Flt Permitted	0.14	1.00		0.15	1.00		0.12	1.00		0.11	1.00	
Satd. Flow (perm)	266	3448		276	3252		233	3425		207	3467	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	259	850	177	229	505	596	233	988	270	872	1112	175
RTOR Reduction (vph)	0	15	0	0	177	0	0	21	0	0	10	0
Lane Group Flow (vph)	259	1012	0	229	924	0	233	1237	0	872	1277	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	28.0		35.0	27.0		46.1	32.0		72.0	53.9	
Effective Green, g (s)	37.0	28.0		35.0	27.0		46.1	32.0		72.0	53.9	
Actuated g/C Ratio	0.31	0.23		0.29	0.22		0.38	0.27		0.60	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	195	805		180	732		270	913		593	1557	
v/s Ratio Prot	c0.10	0.29		0.08	0.28		0.10	0.36		c0.44	0.37	
v/s Ratio Perm	c0.31			0.29			0.23			c0.44		
v/c Ratio	1.33	1.26		1.27	1.26		0.86	1.36		1.47	0.82	
Uniform Delay, d1	37.2	46.0		39.0	46.5		28.1	44.0		34.9	28.8	
Progression Factor	0.88	0.34		1.02	1.03		1.27	0.75		1.13	1.10	
Incremental Delay, d2	151.0	116.9		153.4	127.3		18.6	165.3		219.1	2.9	
Delay (s)	183.7	132.7		193.1	175.0		54.2	198.3		258.6	34.5	
Level of Service	F	F		F	F		D	F		F	C	
Approach Delay (s)		143.0			178.1			175.8			125.0	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	152.1	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	134.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	164	63	794	260	372	1170
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt	1.00	0.85	1.00	0.85	1.00	1.00
Flt Protected	0.95	1.00	1.00	1.00	0.95	1.00
Satd. Flow (prot)	1770	1583	3539	1583	1770	3539
Flt Permitted	0.95	1.00	1.00	1.00	0.32	1.00
Satd. Flow (perm)	1770	1583	3539	1583	588	3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	178	68	863	283	404	1272
RTOR Reduction (vph)	0	60	0	54	0	0
Lane Group Flow (vph)	178	9	863	229	404	1272
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	15.0	15.0	97.0	97.0	97.0	97.0
Effective Green, g (s)	15.0	15.0	97.0	97.0	97.0	97.0
Actuated g/C Ratio	0.12	0.12	0.81	0.81	0.81	0.81
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	221	198	2861	1280	475	2861
v/s Ratio Prot	c0.10		0.24	0.14		0.36
v/s Ratio Perm		0.01			c0.69	
v/c Ratio	0.81	0.04	0.30	0.18	0.85	0.44
Uniform Delay, d1	51.1	46.2	2.9	2.6	7.1	3.4
Progression Factor	0.82	0.87	0.50	0.32	0.94	0.76
Incremental Delay, d2	18.4	0.1	0.2	0.2	10.4	0.3
Delay (s)	60.1	40.4	1.7	1.1	17.0	2.9
Level of Service	E	D	A	A	B	A
Approach Delay (s)	54.7		1.5			6.3
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	8.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	500	241	94	284	29	129	123	87	52	132	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.65			0.73			0.82	
Satd. Flow (perm)		1761			1207			1314			1510	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	17	543	262	102	309	32	140	134	95	57	143	28
RTOR Reduction (vph)	0	14	0	0	2	0	0	10	0	0	4	0
Lane Group Flow (vph)	0	808	0	0	441	0	0	359	0	0	224	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		69.0			69.0			43.0			43.0	
Effective Green, g (s)		69.0			69.0			43.0			43.0	
Actuated g/C Ratio		0.57			0.57			0.36			0.36	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		1013			694			471			541	
v/s Ratio Prot												
v/s Ratio Perm		c0.46			0.37			c0.27			0.15	
v/c Ratio		0.80			0.64			0.76			0.41	
Uniform Delay, d1		20.0			17.1			34.0			29.0	
Progression Factor		0.66			1.00			1.00			1.00	
Incremental Delay, d2		6.0			4.4			11.1			0.5	
Delay (s)		19.1			21.5			45.0			29.5	
Level of Service		B			C			D			C	
Approach Delay (s)		19.1			21.5			45.0			29.5	
Approach LOS		B			C			D			C	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.2%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	46	13	41	20	9	132	25	1122	44	211	1184	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.95			0.89			0.99			0.99	
Flt Protected		0.98			0.99			1.00			0.99	
Satd. Flow (prot)		1724			1652			3510			3494	
Flt Permitted		0.45			0.93			0.84			0.55	
Satd. Flow (perm)		788			1549			2945			1943	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	56	17	47	29	13	157	37	1181	59	237	1246	54
RTOR Reduction (vph)	0	19	0	0	112	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	101	0	0	87	0	0	1274	0	0	1535	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			96.0			96.0	
Effective Green, g (s)		16.0			16.0			96.0			96.0	
Actuated g/C Ratio		0.13			0.13			0.80			0.80	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		105			207			2356			1554	
v/s Ratio Prot												
v/s Ratio Perm		c0.13			0.06			0.43			c0.79	
v/c Ratio		0.96			0.42			0.54			0.99	
Uniform Delay, d1		51.7			47.7			4.2			11.4	
Progression Factor		1.00			1.00			0.89			0.62	
Incremental Delay, d2		75.1			1.4			0.8			4.6	
Delay (s)		126.7			49.1			4.6			11.7	
Level of Service		F			D			A			B	
Approach Delay (s)		126.7			49.1			4.6			11.7	
Approach LOS		F			D			A			B	

Intersection Summary			
HCM Average Control Delay	15.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	591	646	399	386	1002	190
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.97	1.00		0.95	0.95	
Frt	1.00	0.85		1.00	0.98	
Flt Protected	0.95	1.00		0.98	1.00	
Satd. Flow (prot)	3433	1583		3452	3454	
Flt Permitted	0.95	1.00		0.53	1.00	
Satd. Flow (perm)	3433	1583		1882	3454	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	642	702	434	420	1089	207
RTOR Reduction (vph)	0	65	0	0	11	0
Lane Group Flow (vph)	642	637	0	854	1285	0
Turn Type		Perm	pm+pt			
Protected Phases	7		5	2	6	
Permitted Phases	4	7	2			
Actuated Green, G (s)	50.9	50.9		61.1	61.1	
Effective Green, g (s)	50.9	50.9		61.1	61.1	
Actuated g/C Ratio	0.42	0.42		0.51	0.51	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	1456	671		958	1759	
v/s Ratio Prot	0.19				0.37	
v/s Ratio Perm		c0.40		c0.45		
v/c Ratio	0.44	0.95		4.47dl	0.73	
Uniform Delay, d1	24.5	33.3		26.5	23.0	
Progression Factor	1.00	1.00		0.77	0.76	
Incremental Delay, d2	0.2	22.7		10.2	0.7	
Delay (s)	24.7	56.0		30.6	18.3	
Level of Service	C	E		C	B	
Approach Delay (s)	41.1			30.6	18.3	
Approach LOS	D			C	B	

Intersection Summary			
HCM Average Control Delay	30.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.92		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.9%	ICU Level of Service	E
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	25	76	73	32	87	140	1188	128	103	1476	186
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.94			0.99			0.98	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1707			1716			3476			3473	
Flt Permitted		0.70			0.66			0.51			0.63	
Satd. Flow (perm)		1207			1153			1776			2186	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	52	27	83	79	35	95	152	1291	139	112	1604	202
RTOR Reduction (vph)	0	31	0	0	25	0	0	5	0	0	6	0
Lane Group Flow (vph)	0	131	0	0	184	0	0	1577	0	0	1912	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0			96.0			96.0	
Effective Green, g (s)		16.0			16.0			96.0			96.0	
Actuated g/C Ratio		0.13			0.13			0.80			0.80	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		161			154			1421			1749	
v/s Ratio Prot												
v/s Ratio Perm		0.11			c0.16			c0.89			0.87	
v/c Ratio		0.81			1.19			1.19dl			1.09	
Uniform Delay, d1		50.5			52.0			12.0			12.0	
Progression Factor		1.00			1.00			0.69			0.51	
Incremental Delay, d2		25.8			134.1			58.8			49.8	
Delay (s)		76.4			186.1			67.1			56.0	
Level of Service		E			F			E			E	
Approach Delay (s)		76.4			186.1			67.1			56.0	
Approach LOS		E			F			E			E	

Intersection Summary			
HCM Average Control Delay	68.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	57	65	47	1201	1658	90
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	0.99	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1689			3533	3512	
Flt Permitted	0.98			0.74	1.00	
Satd. Flow (perm)	1689			2633	3512	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	71	51	1305	1802	98
RTOR Reduction (vph)	36	0	0	0	3	0
Lane Group Flow (vph)	97	0	0	1356	1897	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	11.9			100.1	100.1	
Effective Green, g (s)	11.9			100.1	100.1	
Actuated g/C Ratio	0.10			0.83	0.83	
Clearance Time (s)	4.0			4.0	4.0	
Vehicle Extension (s)	3.0			3.0	3.0	
Lane Grp Cap (vph)	167			2196	2930	
v/s Ratio Prot	c0.06				c0.54	
v/s Ratio Perm				0.52		
v/c Ratio	0.58			0.62	0.65	
Uniform Delay, d1	51.7			3.4	3.6	
Progression Factor	1.00			1.32	0.42	
Incremental Delay, d2	5.1			0.1	0.1	
Delay (s)	56.7			4.6	1.6	
Level of Service	E			A	A	
Approach Delay (s)	56.7			4.6	1.6	
Approach LOS	E			A	A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	289	865	291	163	968	229	325	480	137	301	454	302
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4893		1770	4939		1770	3421		1770	1751	
Flt Permitted	0.12	1.00		0.14	1.00		0.09	1.00		0.25	1.00	
Satd. Flow (perm)	226	4893		257	4939		169	3421		473	1751	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	314	940	316	177	1052	249	353	522	149	327	493	328
RTOR Reduction (vph)	0	51	0	0	33	0	0	20	0	0	20	0
Lane Group Flow (vph)	314	1205	0	177	1268	0	353	651	0	327	801	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	46.0	33.0		38.0	29.0		60.0	44.0		64.0	46.0	
Effective Green, g (s)	46.0	33.0		38.0	29.0		60.0	44.0		64.0	46.0	
Actuated g/C Ratio	0.38	0.28		0.32	0.24		0.50	0.37		0.53	0.38	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	254	1346		195	1194		298	1254		447	671	
v/s Ratio Prot	c0.13	0.25		0.07	0.26		c0.16	0.19		c0.11	c0.46	
v/s Ratio Perm	c0.34			0.22			0.43			0.28		
v/c Ratio	1.24	0.90		0.91	1.06		1.18	0.52		0.73	1.19	
Uniform Delay, d1	33.3	41.8		33.8	45.5		37.4	29.7		18.1	37.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.68	0.72	
Incremental Delay, d2	135.4	9.5		39.2	44.3		111.8	0.4		5.5	100.4	
Delay (s)	168.7	51.4		73.0	89.8		149.3	30.1		17.9	127.2	
Level of Service	F	D		E	F		F	C		B	F	
Approach Delay (s)		74.8			87.8			71.2			96.0	
Approach LOS		E			F			E			F	

Intersection Summary			
HCM Average Control Delay	82.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	113.5%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	226	2142	93	39	1210	126	77	45	78	217	50	216
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1686		1770	1636	
Flt Permitted	0.06	1.00	1.00	0.07	1.00		0.35	1.00		0.61	1.00	
Satd. Flow (perm)	115	5085	1583	123	3489		650	1686		1130	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	246	2328	101	42	1315	137	84	49	85	236	54	235
RTOR Reduction (vph)	0	0	10	0	6	0	0	52	0	0	131	0
Lane Group Flow (vph)	246	2328	91	42	1446	0	84	82	0	236	158	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	80.0	72.0	72.0	64.7	60.7		32.0	32.0		32.0	32.0	
Effective Green, g (s)	80.0	72.0	72.0	64.7	60.7		32.0	32.0		32.0	32.0	
Actuated g/C Ratio	0.67	0.60	0.60	0.54	0.51		0.27	0.27		0.27	0.27	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	288	3051	950	121	1765		173	450		301	436	
v/s Ratio Prot	c0.11	0.46		0.01	0.41			0.05			0.10	
v/s Ratio Perm	c0.46		0.06	0.18			0.13			c0.21		
v/c Ratio	0.85	0.76	0.10	0.35	0.82		0.49	0.18		0.78	0.36	
Uniform Delay, d1	36.7	17.7	10.2	17.0	25.0		37.1	33.9		40.8	35.7	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	21.1	1.9	0.2	1.7	4.4		9.4	0.9		12.5	0.5	
Delay (s)	57.7	19.6	10.4	18.8	29.4		46.5	34.8		53.3	36.2	
Level of Service	E	B	B	B	C		D	C		D	D	
Approach Delay (s)		22.7			29.1			39.3			43.9	
Approach LOS		C			C			D			D	

Intersection Summary			
HCM Average Control Delay	27.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	68	158	18	40	22	205	828	35	43	1119	146
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.96			1.00			0.98	
Flt Protected		0.98			0.99			0.99			1.00	
Satd. Flow (prot)		1715			1773			3488			3474	
Flt Permitted		0.85			0.84			0.51			0.85	
Satd. Flow (perm)		1481			1512			1780			2965	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	74	172	20	43	24	223	900	38	47	1216	159
RTOR Reduction (vph)	0	28	0	0	12	0	0	2	0	0	8	0
Lane Group Flow (vph)	0	328	0	0	75	0	0	1159	0	0	1414	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		27.6			27.6			84.4			84.4	
Effective Green, g (s)		27.6			27.6			84.4			84.4	
Actuated g/C Ratio		0.23			0.23			0.70			0.70	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		341			348			1252			2085	
v/s Ratio Prot												
v/s Ratio Perm		c0.22			0.05			c0.65			0.48	
v/c Ratio		0.96			0.22			1.20dl			0.68	
Uniform Delay, d1		45.7			37.4			15.1			10.1	
Progression Factor		1.00			1.00			1.73			0.25	
Incremental Delay, d2		38.2			0.3			1.5			1.5	
Delay (s)		83.8			37.8			27.7			4.0	
Level of Service		F			D			C			A	
Approach Delay (s)		83.8			37.8			27.7			4.0	
Approach LOS		F			D			C			A	

Intersection Summary			
HCM Average Control Delay	23.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.93		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	102.3%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	NBR2	SWL2	SWL	SWR
Lane Configurations												
Volume (vph)	281	0	27	1	0	5	21	1366	10	2	1275	107
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88		1.00	0.97	
Frt		1.00	0.85		0.89		1.00	0.85		1.00	0.99	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	0.96	
Satd. Flow (prot)		1770	1583		1640		1770	2787		1770	3414	
Flt Permitted		0.95	1.00		0.99		0.13	1.00		0.10	0.96	
Satd. Flow (perm)		1770	1583		1640		240	2787		190	3414	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	305	0	29	1	0	5	23	1485	11	2	1386	116
RTOR Reduction (vph)	0	0	23	0	5	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	305	6	0	1	0	23	1496	0	2	1498	0
Turn Type	Split		Perm	Split				custom		Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)		23.0	23.0		1.3		83.7	83.7		83.7	83.7	
Effective Green, g (s)		23.0	23.0		1.3		83.7	83.7		83.7	83.7	
Actuated g/C Ratio		0.19	0.19		0.01		0.70	0.70		0.70	0.70	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		339	303		18		167	1944		133	2381	
v/s Ratio Prot		c0.17			c0.00			c0.54			0.44	
v/s Ratio Perm			0.00				0.10			0.01		
v/c Ratio		0.90	0.02		0.06		0.14	0.77		0.02	0.63	
Uniform Delay, d1		47.4	39.3		58.7		6.1	11.8		5.5	9.8	
Progression Factor		1.00	1.00		1.00		0.74	0.69		0.38	0.72	
Incremental Delay, d2		25.2	0.0		1.4		1.5	2.7		0.2	1.1	
Delay (s)		72.6	39.4		60.1		6.0	10.9		2.3	8.1	
Level of Service		E	D		E		A	B		A	A	
Approach Delay (s)		69.7			60.1		10.8				8.1	
Approach LOS		E			E		B				A	

Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	653	22	4	37	35	100	35	187	0	65	150	674
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	0.98			0.92			1.00			1.00	0.85
Flt Protected	0.95	1.00			0.99			0.99			0.99	1.00
Satd. Flow (prot)	1770	1823			1698			1848			1835	1583
Flt Permitted	0.30	1.00			0.93			0.92			0.82	1.00
Satd. Flow (perm)	562	1823			1591			1718			1526	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	710	24	4	40	38	109	38	203	0	71	163	733
RTOR Reduction (vph)	0	2	0	0	42	0	0	0	0	0	0	476
Lane Group Flow (vph)	710	26	0	0	145	0	0	241	0	0	234	257
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	70.0	70.0			16.0			42.0			42.0	42.0
Effective Green, g (s)	70.0	70.0			16.0			42.0			42.0	42.0
Actuated g/C Ratio	0.58	0.58			0.13			0.35			0.35	0.35
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	831	1063			212			601			534	554
v/s Ratio Prot	c0.36	0.01										
v/s Ratio Perm	c0.14				0.09			0.14			0.15	c0.16
v/c Ratio	0.85	0.02			0.69			0.40			0.44	0.46
Uniform Delay, d1	21.7	10.6			49.6			29.5			29.9	30.3
Progression Factor	0.21	0.18			1.00			0.68			1.00	1.00
Incremental Delay, d2	1.1	0.0			16.6			1.6			2.6	2.8
Delay (s)	5.8	1.9			66.2			21.7			32.5	33.0
Level of Service	A	A			E			C			C	C
Approach Delay (s)		5.6			66.2			21.7			32.9	
Approach LOS		A			E			C			C	

Intersection Summary			
HCM Average Control Delay	25.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.8%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	276	0	310	1131	0	1257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	0	337	1229	0	1366
RTOR Reduction (vph)	0	0	0	0	0	386
Lane Group Flow (vph)	300	0	337	1229	0	980
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	25.9		86.1	86.1		86.1
Effective Green, g (s)	25.9		86.1	86.1		86.1
Actuated g/C Ratio	0.22		0.72	0.72		0.72
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	382		1270	2539		2000
v/s Ratio Prot	c0.17			0.35		
v/s Ratio Perm			0.19			c0.35
v/c Ratio	0.79		0.27	0.48		0.49
Uniform Delay, d1	44.4		5.9	7.3		7.4
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	10.2		0.5	0.7		0.7
Delay (s)	54.6		6.4	8.0		8.1
Level of Service	D		A	A		A
Approach Delay (s)	54.6			7.7	8.1	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	12.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.56		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	121	40	44	106	26	116	21	922	113	188	966	178
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1723			1791	1583		3471		1770	1863	1583
Flt Permitted	0.34	1.00			0.70	1.00		0.90		0.18	1.00	1.00
Satd. Flow (perm)	642	1723			1311	1583		3129		337	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	144	48	48	123	30	132	31	971	136	209	1006	191
RTOR Reduction (vph)	0	28	0	0	0	114	0	10	0	0	0	49
Lane Group Flow (vph)	144	68	0	0	153	18	0	1128	0	209	1006	142
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	24.2	24.2			16.2	16.2		75.9		87.8	87.8	87.8
Effective Green, g (s)	24.2	24.2			16.2	16.2		75.9		87.8	87.8	87.8
Actuated g/C Ratio	0.20	0.20			0.13	0.13		0.63		0.73	0.73	0.73
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	167	347			177	214		1979		341	1363	1158
v/s Ratio Prot	c0.03	0.04								0.04	c0.54	
v/s Ratio Perm	c0.15				0.12	0.01		0.36		0.41		0.09
v/c Ratio	0.86	0.20			0.86	0.08		0.57		0.61	0.74	0.12
Uniform Delay, d1	47.1	39.8			50.8	45.4		12.7		8.6	9.4	4.7
Progression Factor	1.00	1.00			1.00	1.00		0.09		1.36	0.56	0.05
Incremental Delay, d2	33.9	0.3			32.7	0.2		0.4		2.9	3.2	0.2
Delay (s)	81.0	40.1			83.6	45.6		1.5		14.5	8.5	0.4
Level of Service	F	D			F	D		A		B	A	A
Approach Delay (s)		64.6			66.0			1.5			8.3	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	15.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.76		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.4%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	258	16	196	101	455	84	1036	2	419	1529	40
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1847		1770	1863	1583	1770	3538		1770	3526	
Flt Permitted	0.69	1.00		0.18	1.00	1.00	0.11	1.00		0.11	1.00	
Satd. Flow (perm)	1278	1847		339	1863	1583	209	3538		198	3526	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	280	17	213	110	495	91	1126	2	455	1662	43
RTOR Reduction (vph)	0	2	0	0	0	270	0	0	0	0	1	0
Lane Group Flow (vph)	180	295	0	213	110	225	91	1128	0	455	1704	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	23.0	18.0		33.0	24.0	24.0	53.0	53.0		79.0	79.0	
Effective Green, g (s)	23.0	18.0		33.0	24.0	24.0	53.0	53.0		79.0	79.0	
Actuated g/C Ratio	0.19	0.15		0.28	0.20	0.20	0.44	0.44		0.66	0.66	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	265	277		224	373	317	92	1563		419	2321	
v/s Ratio Prot	0.03	0.16		c0.09	0.06			0.32		c0.20	0.48	
v/s Ratio Perm	0.10			c0.17		0.14	0.44			c0.52		
v/c Ratio	0.68	1.07		0.95	0.29	0.71	0.99	0.72		1.09	0.73	
Uniform Delay, d1	44.2	51.0		38.5	40.8	44.8	33.2	27.5		34.6	13.6	
Progression Factor	0.71	0.78		0.93	0.90	0.75	1.01	1.05		1.00	1.00	
Incremental Delay, d2	12.0	70.0		39.7	1.4	9.3	25.7	0.3		69.1	2.1	
Delay (s)	43.6	109.6		75.6	38.3	42.7	59.2	29.1		103.7	15.7	
Level of Service	D	F		E	D	D	E	C		F	B	
Approach Delay (s)		84.7			50.7			31.3			34.2	
Approach LOS		F			D			C			C	

Intersection Summary			
HCM Average Control Delay	41.5	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	424	337	57	168	243	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1761	
Flt Permitted	1.00	1.00	0.38	1.00	0.96	
Satd. Flow (perm)	1863	1583	706	1863	1761	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	461	366	62	183	264	25
RTOR Reduction (vph)	0	171	0	0	3	0
Lane Group Flow (vph)	461	195	62	183	286	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	64.0	64.0	64.0	64.0	48.0	
Effective Green, g (s)	64.0	64.0	64.0	64.0	48.0	
Actuated g/C Ratio	0.53	0.53	0.53	0.53	0.40	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	994	844	377	994	704	
v/s Ratio Prot	c0.25			0.10	c0.16	
v/s Ratio Perm		0.12	0.09			
v/c Ratio	0.46	0.23	0.16	0.18	0.41	
Uniform Delay, d1	17.4	14.9	14.3	14.5	25.8	
Progression Factor	0.89	0.36	0.44	0.45	0.30	
Incremental Delay, d2	1.4	0.6	0.7	0.3	1.3	
Delay (s)	16.7	5.9	7.0	6.9	9.1	
Level of Service	B	A	A	A	A	
Approach Delay (s)	11.9			6.9	9.1	
Approach LOS	B			A	A	

Intersection Summary			
HCM Average Control Delay	10.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	209	398	184	227	363	506
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3479	1863	1583	1770	1583
Flt Permitted		0.74	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2608	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	227	433	200	247	395	550
RTOR Reduction (vph)	0	0	0	138	0	280
Lane Group Flow (vph)	0	660	200	109	395	270
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		53.0	53.0	53.0	59.0	59.0
Effective Green, g (s)		53.0	53.0	53.0	59.0	59.0
Actuated g/C Ratio		0.44	0.44	0.44	0.49	0.49
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1152	823	699	870	778
v/s Ratio Prot			0.11		c0.22	
v/s Ratio Perm		c0.25		0.07		0.17
v/c Ratio		0.57	0.24	0.16	0.45	0.35
Uniform Delay, d1		25.0	21.0	20.1	20.0	18.7
Progression Factor		1.00	0.60	1.29	0.76	1.20
Incremental Delay, d2		2.1	0.7	0.5	1.2	0.9
Delay (s)		27.1	13.2	26.3	16.4	23.2
Level of Service		C	B	C	B	C
Approach Delay (s)		27.1	20.4		20.4	
Approach LOS		C	C		C	

Intersection Summary			
HCM Average Control Delay	22.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	641	6	31	327	109	0	0	228	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1631		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.54	1.00			1.00	1.00
Satd. Flow (perm)				1770	1631		1002	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	697	7	34	355	118	0	0	248	90
RTOR Reduction (vph)	0	0	0	0	18	0	0	0	0	0	0	48
Lane Group Flow (vph)	0	0	0	697	23	0	355	118	0	0	248	42
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				56.0	56.0		56.0	56.0			56.0	56.0
Effective Green, g (s)				56.0	56.0		56.0	56.0			56.0	56.0
Actuated g/C Ratio				0.47	0.47		0.47	0.47			0.47	0.47
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				826	761		468	869			869	739
v/s Ratio Prot					0.01			0.06			0.13	
v/s Ratio Perm				c0.39			c0.35					0.03
v/c Ratio				0.84	0.03		0.76	0.14			0.29	0.06
Uniform Delay, d1				28.2	17.3		26.4	18.2			19.7	17.5
Progression Factor				1.00	1.00		0.33	0.26			1.00	1.00
Incremental Delay, d2				10.3	0.1		10.2	0.3			0.8	0.1
Delay (s)				38.4	17.4		18.8	5.1			20.5	17.7
Level of Service				D	B		B	A			C	B
Approach Delay (s)		0.0			37.3			15.4			19.8	
Approach LOS		A			D			B			B	

Intersection Summary			
HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	224	849	690	30	25	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	0.99		0.88	
Flt Protected	0.95	1.00	1.00		0.99	
Satd. Flow (prot)	1770	1863	1852		1630	
Flt Permitted	0.29	1.00	1.00		0.99	
Satd. Flow (perm)	542	1863	1852		1630	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	243	923	750	33	27	216
RTOR Reduction (vph)	0	0	1	0	176	0
Lane Group Flow (vph)	243	923	782	0	67	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)	90.0	90.0	90.0		22.0	
Effective Green, g (s)	90.0	90.0	90.0		22.0	
Actuated g/C Ratio	0.75	0.75	0.75		0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	407	1397	1389		299	
v/s Ratio Prot		c0.50	0.42		c0.04	
v/s Ratio Perm	0.45					
v/c Ratio	0.60	0.66	0.56		0.22	
Uniform Delay, d1	6.8	7.4	6.5		41.7	
Progression Factor	0.13	0.11	1.00		1.68	
Incremental Delay, d2	0.6	0.2	1.7		1.6	
Delay (s)	1.5	1.0	8.1		71.5	
Level of Service	A	A	A		E	
Approach Delay (s)		1.1	8.1		71.5	
Approach LOS		A	A		E	

Intersection Summary			
HCM Average Control Delay	11.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	120.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

2030 BeltLine

AM PEAK HOUR, 3-LANE MONROE

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	359	149	348	172	36	53	653	360	73	1151	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			0.95			0.95	
Frt	1.00	0.96		1.00	0.97			0.95			1.00	
Flt Protected	0.95	1.00		0.95	1.00			1.00			1.00	
Satd. Flow (prot)	1770	1781		1770	1815			3352			3522	
Flt Permitted	0.58	1.00		0.28	1.00			0.64			0.65	
Satd. Flow (perm)	1089	1781		525	1815			2137			2290	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	390	162	378	187	39	58	710	391	79	1251	17
RTOR Reduction (vph)	0	11	0	0	9	0	0	81	0	0	1	0
Lane Group Flow (vph)	34	542	0	378	217	0	0	1079	0	0	1346	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	38.0	38.0		38.0	38.0			34.0			34.0	
Effective Green, g (s)	38.0	38.0		38.0	38.0			34.0			34.0	
Actuated g/C Ratio	0.48	0.48		0.48	0.48			0.42			0.42	
Clearance Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)	517	846		249	862			908			973	
v/s Ratio Prot		0.30			0.12							
v/s Ratio Perm	0.03			c0.72				0.50			c0.59	
v/c Ratio	0.07	0.64		1.52	0.25			1.19			1.38	
Uniform Delay, d1	11.4	15.8		21.0	12.5			23.0			23.0	
Progression Factor	1.00	1.00		1.00	1.00			0.61			1.00	
Incremental Delay, d2	0.2	3.7		252.7	0.7			94.8			178.9	
Delay (s)	11.6	19.5		273.7	13.2			108.9			201.9	
Level of Service	B	B		F	B			F			F	
Approach Delay (s)		19.1			176.2			108.9			201.9	
Approach LOS		B			F			F			F	

Intersection Summary			
HCM Average Control Delay	139.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.45		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group

2030 AM BeltLine Build, With Transit, Monroe 3-lane
12: Rock Springs & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	16	10	31	67	231	6	860	33	106	786	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.88		1.00	0.99		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		1770	1646		1770	3520		1770	3535	
Flt Permitted	0.34	1.00		0.74	1.00		0.27	1.00		0.28	1.00	
Satd. Flow (perm)	637	1753		1377	1646		506	3520		514	3535	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	17	11	34	73	251	7	935	36	115	854	7
RTOR Reduction (vph)	0	9	0	0	192	0	0	2	0	0	0	0
Lane Group Flow (vph)	14	19	0	34	132	0	7	969	0	115	861	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	11.7	11.7		11.7	11.7		49.1	49.1		55.1	55.1	
Effective Green, g (s)	11.7	11.7		11.7	11.7		49.1	49.1		55.1	55.1	
Actuated g/C Ratio	0.15	0.15		0.15	0.15		0.61	0.61		0.69	0.69	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	93	256		201	241		330	2160		467	2435	
v/s Ratio Prot		0.01			c0.08		0.00	c0.28		0.02	c0.24	
v/s Ratio Perm	0.02			0.02			0.01			0.15		
v/c Ratio	0.15	0.07		0.17	0.55		0.02	0.45		0.25	0.35	
Uniform Delay, d1	29.8	29.5		29.9	31.7		6.4	8.2		6.2	5.1	
Progression Factor	1.00	1.00		1.00	1.00		0.37	0.54		0.94	1.03	
Incremental Delay, d2	0.8	0.1		0.4	2.5		0.0	0.4		0.0	0.0	
Delay (s)	30.6	29.6		30.3	34.2		2.4	4.9		5.8	5.3	
Level of Service	C	C		C	C		A	A		A	A	
Approach Delay (s)		29.9			33.9			4.9			5.4	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.44		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	58.4%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
17: Montgomery Ferry & Monroe

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	26	42	121	32	154	9	335	898	11	2	449	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.91			0.99		1.00	1.00			0.98	
Flt Protected		0.99			0.99		0.95	1.00			1.00	
Satd. Flow (prot)		1690			1836		1770	1859			1829	
Flt Permitted		0.85			0.81		0.39	1.00			1.00	
Satd. Flow (perm)		1454			1490		721	1859			1826	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	28	46	132	35	167	10	364	976	12	2	488	75
RTOR Reduction (vph)	0	52	0	0	2	0	0	0	0	0	4	0
Lane Group Flow (vph)	0	154	0	0	210	0	364	988	0	0	561	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.9			21.9		100.1	100.1			82.4	
Effective Green, g (s)		21.9			21.9		100.1	100.1			82.4	
Actuated g/C Ratio		0.17			0.17		0.77	0.77			0.63	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		245			251		666	1431			1157	
v/s Ratio Prot							0.06	c0.53				
v/s Ratio Perm		0.11			c0.14		0.36				0.31	
v/c Ratio		0.63			0.84		0.55	0.69			0.49	
Uniform Delay, d1		50.3			52.3		6.2	7.3			12.6	
Progression Factor		1.00			1.00		1.91	1.44			1.00	
Incremental Delay, d2		4.9			21.0		0.8	2.5			1.5	
Delay (s)		55.2			73.3		12.7	13.0			14.0	
Level of Service		E			E		B	B			B	
Approach Delay (s)		55.2			73.3			12.9			14.0	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	22.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	100.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
21: E Morningside & Piedmont

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	32	26	20	528	9	95	5	1222	232	76	1147	8
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.86			0.98			1.00	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1761		1770	1608			3454			3525	
Flt Permitted		0.82		0.57	1.00			0.95			0.61	
Satd. Flow (perm)		1465		1059	1608			3286			2169	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	35	28	22	574	10	103	5	1328	252	83	1247	9
RTOR Reduction (vph)	0	18	0	0	13	0	0	16	0	0	0	0
Lane Group Flow (vph)	0	67	0	574	100	0	0	1569	0	0	1339	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		7.8		27.8	27.8			44.2			44.2	
Effective Green, g (s)		7.8		27.8	27.8			44.2			44.2	
Actuated g/C Ratio		0.10		0.35	0.35			0.55			0.55	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		143		510	559			1816			1198	
v/s Ratio Prot				c0.23	0.06							
v/s Ratio Perm		0.05		c0.17				0.48			c0.62	
v/c Ratio		0.47		1.13	0.18			0.86			1.12	
Uniform Delay, d1		34.1		25.6	18.2			15.3			17.9	
Progression Factor		1.00		1.00	1.00			1.00			1.02	
Incremental Delay, d2		2.4		79.1	0.2			5.8			64.4	
Delay (s)		36.6		104.6	18.3			21.1			82.6	
Level of Service		D		F	B			C			F	
Approach Delay (s)		36.6			90.4			21.1			82.6	
Approach LOS		D			F			C			F	

Intersection Summary			
HCM Average Control Delay	56.6	HCM Level of Service	E
HCM Volume to Capacity ratio	1.11		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	121.4%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
22: Monroe & Piedmont

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	108	482	153	201	913	615	168	684	70	483	1300	225
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.96		1.00	0.94		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3411		1770	3326		1770	3490		1770	3461	
Flt Permitted	0.18	1.00		0.18	1.00		0.21	1.00		0.17	1.00	
Satd. Flow (perm)	334	3411		329	3326		392	3490		324	3461	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	117	524	166	218	992	668	183	743	76	525	1413	245
RTOR Reduction (vph)	0	38	0	0	145	0	0	10	0	0	17	0
Lane Group Flow (vph)	117	652	0	218	1515	0	183	809	0	525	1641	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	25.4	22.3		35.1	28.0		23.0	19.0		36.0	28.0	
Effective Green, g (s)	25.4	22.3		35.1	28.0		23.0	19.0		36.0	28.0	
Actuated g/C Ratio	0.32	0.28		0.44	0.35		0.29	0.24		0.46	0.35	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	164	962		306	1177		184	838		385	1225	
v/s Ratio Prot	0.03	0.19		c0.08	c0.46		0.05	0.23		c0.22	0.47	
v/s Ratio Perm	0.20			0.24			0.24			c0.40		
v/c Ratio	0.71	0.68		0.71	1.29		0.99	0.97		1.36	1.34	
Uniform Delay, d1	24.2	25.2		15.8	25.5		28.3	29.7		20.4	25.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	13.7	1.9		7.6	135.9		64.4	22.8		179.6	158.2	
Delay (s)	37.9	27.1		23.4	161.4		92.7	52.5		200.0	183.8	
Level of Service	D	C		C	F		F	D		F	F	
Approach Delay (s)		28.7			145.4			59.9			187.7	
Approach LOS		C			F			E			F	

Intersection Summary			
HCM Average Control Delay	130.5	HCM Level of Service	F
HCM Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	79.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	116.7%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
26: Virginia & Monroe



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	265	0	1049	223	0	869
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		0.95	1.00		0.95
Frt	1.00		1.00	0.85		1.00
Flt Protected	0.95		1.00	1.00		1.00
Satd. Flow (prot)	1770		3539	1583		3539
Flt Permitted	0.95		1.00	1.00		1.00
Satd. Flow (perm)	1770		3539	1583		3539
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	288	0	1140	242	0	945
RTOR Reduction (vph)	0	0	0	65	0	0
Lane Group Flow (vph)	288	0	1140	177	0	945
Turn Type		Perm		Prot	Perm	
Protected Phases	8		2	2		6
Permitted Phases		8			6	
Actuated Green, G (s)	26.8		95.2	95.2		95.2
Effective Green, g (s)	26.8		95.2	95.2		95.2
Actuated g/C Ratio	0.21		0.73	0.73		0.73
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	365		2592	1159		2592
v/s Ratio Prot	c0.16		c0.32	0.11		0.27
v/s Ratio Perm						
v/c Ratio	0.79		0.44	0.15		0.36
Uniform Delay, d1	48.9		6.9	5.2		6.4
Progression Factor	0.89		0.87	0.66		0.62
Incremental Delay, d2	10.7		0.5	0.3		0.3
Delay (s)	54.4		6.5	3.7		4.3
Level of Service	D		A	A		A
Approach Delay (s)	54.4		6.0			4.3
Approach LOS	D		A			A

Intersection Summary			
HCM Average Control Delay	10.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
27: Virginia & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	226	77	33	339	40	137	98	27	20	37	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.97			0.99			0.99			0.95	
Flt Protected		1.00			1.00			0.97			0.99	
Satd. Flow (prot)		1797			1831			1790			1743	
Flt Permitted		0.96			0.96			0.79			0.92	
Satd. Flow (perm)		1726			1756			1451			1615	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	246	84	36	368	43	149	107	29	22	40	42
RTOR Reduction (vph)	0	17	0	0	6	0	0	6	0	0	26	0
Lane Group Flow (vph)	0	339	0	0	441	0	0	279	0	0	78	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		32.0			32.0			25.0			25.0	
Effective Green, g (s)		32.0			32.0			25.0			25.0	
Actuated g/C Ratio		0.49			0.49			0.38			0.38	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		850			864			558			621	
v/s Ratio Prot												
v/s Ratio Perm		0.20			c0.25			c0.19			0.05	
v/c Ratio		0.40			0.51			0.50			0.13	
Uniform Delay, d1		10.4			11.2			15.2			12.9	
Progression Factor		0.58			1.00			1.00			1.00	
Incremental Delay, d2		1.3			2.2			3.2			0.1	
Delay (s)		7.3			13.3			18.4			13.0	
Level of Service		A			B			B			B	
Approach Delay (s)		7.3			13.3			18.4			13.0	
Approach LOS		A			B			B			B	

Intersection Summary			
HCM Average Control Delay	12.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
28: Park & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	16	4	17	64	8	272	15	1250	9	113	1098	26
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	1.00		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1715			1654		1770	1860		1770	1855	
Flt Permitted		0.75			0.92		0.10	1.00		0.10	1.00	
Satd. Flow (perm)		1310			1537		182	1860		182	1855	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Adj. Flow (vph)	20	5	19	91	12	324	22	1316	12	127	1156	32
RTOR Reduction (vph)	0	14	0	0	51	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	30	0	0	376	0	22	1328	0	127	1187	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		16.0			16.0		41.0	41.0		41.0	41.0	
Effective Green, g (s)		16.0			16.0		41.0	41.0		41.0	41.0	
Actuated g/C Ratio		0.25			0.25		0.63	0.63		0.63	0.63	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		322			378		115	1173		115	1170	
v/s Ratio Prot								c0.71			0.64	
v/s Ratio Perm		0.02			c0.25		0.12			0.70		
v/c Ratio		0.09			1.00		0.19	1.13		1.10	1.01	
Uniform Delay, d1		18.9			24.5		5.0	12.0		12.0	12.0	
Progression Factor		1.00			1.00		1.13	1.29		1.27	1.16	
Incremental Delay, d2		0.1			44.9		0.3	60.5		84.3	20.3	
Delay (s)		19.0			69.4		6.0	75.9		99.5	34.3	
Level of Service		B			E		A	E		F	C	
Approach Delay (s)		19.0			69.4			74.8			40.6	
Approach LOS		B			E			E			D	

Intersection Summary			
HCM Average Control Delay	58.9	HCM Level of Service	E
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.7%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group

2030 AM BeltLine Build, With Transit, Monroe 3-lane
30: 10th Street & Piedmont



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	399	84	408	0	11	145	744	790	0	101	770	413
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00		0.95	0.95		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		0.87	0.85		1.00		1.00	0.95	
Flt Protected	0.95	0.97	1.00		1.00	1.00		0.98		0.95	1.00	
Satd. Flow (prot)	1681	1713	1583		1541	1504		3455		1770	3354	
Flt Permitted	0.47	0.50	1.00		1.00	1.00		0.50		0.09	1.00	
Satd. Flow (perm)	825	883	1583		1541	1504		1772		159	3354	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	91	443	0	12	158	809	859	0	110	837	449
RTOR Reduction (vph)	0	0	317	0	66	75	0	0	0	0	44	0
Lane Group Flow (vph)	260	265	126	0	20	9	0	1668	0	110	1242	0
Turn Type	pm+pt		custom			Perm	pm+pt			Perm		
Protected Phases	7	4			8		5	2			6	
Permitted Phases	4		7			8	2			6		
Actuated Green, G (s)	34.4	34.4	16.0		14.4	14.4		87.6		87.6	87.6	
Effective Green, g (s)	34.4	34.4	16.0		14.4	14.4		87.6		87.6	87.6	
Actuated g/C Ratio	0.26	0.26	0.12		0.11	0.11		0.67		0.67	0.67	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	324	336	195		171	167		1194		107	2260	
v/s Ratio Prot	c0.10	0.10			0.01						0.37	
v/s Ratio Perm	c0.11	0.11	0.08			0.01		c0.94		0.69		
v/c Ratio	0.80	0.79	0.64		0.12	0.06		3.97dl		1.03	0.55	
Uniform Delay, d1	42.3	44.4	54.3		52.1	51.7		21.2		21.2	11.0	
Progression Factor	1.00	1.00	1.00		0.64	0.69		0.71		0.63	0.59	
Incremental Delay, d2	13.3	11.6	7.1		0.3	0.1		183.6		62.7	0.4	
Delay (s)	55.6	56.0	61.4		33.7	35.7		198.7		76.1	6.9	
Level of Service	E	E	E		C	D		F		E	A	
Approach Delay (s)		58.4			34.7			198.7			12.3	
Approach LOS		E			C			F			B	

Intersection Summary			
HCM Average Control Delay	97.8	HCM Level of Service	F
HCM Volume to Capacity ratio	1.22		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	107.9%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group

2030 AM BeltLine Build, With Transit, Monroe 3-lane
32: Amsterdam Av & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	7	59	178	18	167	39	1233	72	60	891	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.94		1.00	0.99		1.00	0.99	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1695			1705		1770	1847		1770	1850	
Flt Permitted		0.79			0.81		0.12	1.00		0.12	1.00	
Satd. Flow (perm)		1360			1407		229	1847		229	1850	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	48	8	64	193	20	182	42	1340	78	65	968	47
RTOR Reduction (vph)	0	46	0	0	48	0	0	3	0	0	2	0
Lane Group Flow (vph)	0	74	0	0	347	0	42	1415	0	65	1013	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.0			18.0		35.0	32.6		35.0	32.6	
Effective Green, g (s)		18.0			18.0		35.0	32.6		35.0	32.6	
Actuated g/C Ratio		0.28			0.28		0.54	0.50		0.54	0.50	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		377			390		180	926		180	928	
v/s Ratio Prot							0.01	c0.77		c0.01	0.55	
v/s Ratio Perm		0.05			c0.25		0.12			0.18		
v/c Ratio		0.20			0.89		0.23	1.53		0.36	1.09	
Uniform Delay, d1		18.0			22.5		13.5	16.2		13.7	16.2	
Progression Factor		1.00			1.00		1.25	1.07		0.57	0.77	
Incremental Delay, d2		0.3			21.0		0.1	238.1		0.9	54.0	
Delay (s)		18.2			43.5		17.0	255.5		8.7	66.5	
Level of Service		B			D		B	F		A	E	
Approach Delay (s)		18.2			43.5			248.6			63.0	
Approach LOS		B			D			F			E	

Intersection Summary			
HCM Average Control Delay	147.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	103.6%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
41: Dutch Valley & Piedmont



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	90	79	65	1574	1082	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.94		1.00	1.00	1.00	0.85
Flt Protected	0.97		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1700		1770	1863	1863	1583
Flt Permitted	0.97		0.09	1.00	1.00	1.00
Satd. Flow (perm)	1700		170	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	86	71	1711	1176	84
RTOR Reduction (vph)	54	0	0	0	0	23
Lane Group Flow (vph)	130	0	71	1711	1176	61
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	10.1		46.9	46.9	46.9	46.9
Effective Green, g (s)	10.1		46.9	46.9	46.9	46.9
Actuated g/C Ratio	0.16		0.72	0.72	0.72	0.72
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	264		123	1344	1344	1142
v/s Ratio Prot	c0.08			c0.92	0.63	
v/s Ratio Perm			0.42			0.04
v/c Ratio	0.49		0.58	1.27	0.88	0.05
Uniform Delay, d1	25.1		4.3	9.1	6.8	2.6
Progression Factor	1.00		0.43	0.51	1.00	1.00
Incremental Delay, d2	1.4		7.1	125.1	8.2	0.1
Delay (s)	26.5		8.9	129.7	15.0	2.7
Level of Service	C		A	F	B	A
Approach Delay (s)	26.5			124.9	14.2	
Approach LOS	C			F	B	

Intersection Summary			
HCM Average Control Delay	76.1	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	65.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	99.3%	ICU Level of Service	F
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
42: Ponce De Leon & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	134	506	54	170	1579	329	148	564	128	336	604	222
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.99		1.00	0.97		1.00	0.97		1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5011		1770	4954		1770	3441		1770	1788	
Flt Permitted	0.13	1.00		0.26	1.00		0.14	1.00		0.12	1.00	
Satd. Flow (perm)	251	5011		487	4954		262	3441		230	1788	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	146	550	59	185	1716	358	161	613	139	365	657	241
RTOR Reduction (vph)	0	12	0	0	29	0	0	17	0	0	12	0
Lane Group Flow (vph)	146	597	0	185	2045	0	161	735	0	365	886	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	33.7	33.7		41.0	41.0		32.4	28.4		53.0	45.0	
Effective Green, g (s)	33.7	33.7		41.0	41.0		32.4	28.4		53.0	45.0	
Actuated g/C Ratio	0.31	0.31		0.37	0.37		0.29	0.26		0.48	0.41	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	132	1535		313	1846		132	888		399	731	
v/s Ratio Prot	c0.04	0.12		0.06	c0.41		0.04	0.21		c0.17	c0.50	
v/s Ratio Perm	0.30			0.16			0.31			0.27		
v/c Ratio	1.11	0.39		0.59	1.11		1.22	0.83		0.91	1.21	
Uniform Delay, d1	50.1	30.0		24.9	34.5		39.2	38.5		30.5	32.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	109.6	0.2		3.0	57.1		149.1	6.4		25.1	108.0	
Delay (s)	159.7	30.2		27.8	91.6		188.2	44.9		55.6	140.5	
Level of Service	F	C		C	F		F	D		E	F	
Approach Delay (s)		55.2			86.3			70.2			115.9	
Approach LOS		E			F			E			F	

Intersection Summary			
HCM Average Control Delay	86.2	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	112.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
45: Ponce De Leon & Ponce Place



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	861	16	13	1776	119	23	17	21	106	14	223
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.92		1.00	0.86	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3506		1770	1706		1770	1600	
Flt Permitted	0.05	1.00	1.00	0.29	1.00		0.25	1.00		0.73	1.00	
Satd. Flow (perm)	96	5085	1583	546	3506		459	1706		1360	1600	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	101	936	17	14	1930	129	25	18	23	115	15	242
RTOR Reduction (vph)	0	0	4	0	4	0	0	19	0	0	63	0
Lane Group Flow (vph)	101	936	13	14	2055	0	25	22	0	115	194	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	83.3	77.7	77.7	74.9	73.3		19.0	19.0		19.0	19.0	
Effective Green, g (s)	83.3	77.7	77.7	74.9	73.3		19.0	19.0		19.0	19.0	
Actuated g/C Ratio	0.76	0.70	0.70	0.68	0.66		0.17	0.17		0.17	0.17	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	164	3582	1115	389	2330		79	294		234	276	
v/s Ratio Prot	c0.03	0.18		0.00	c0.59			0.01			c0.12	
v/s Ratio Perm	0.43		0.01	0.02			0.05			0.08		
v/c Ratio	0.62	0.26	0.01	0.04	0.88		0.32	0.07		0.49	0.70	
Uniform Delay, d1	24.4	5.9	4.9	5.7	15.0		40.0	38.3		41.3	43.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	6.7	0.0	0.0	0.0	4.3		10.2	0.5		1.6	7.9	
Delay (s)	31.1	5.9	4.9	5.8	19.3		50.2	38.8		42.9	50.9	
Level of Service	C	A	A	A	B		D	D		D	D	
Approach Delay (s)		8.3			19.2			43.1			48.4	
Approach LOS		A			B			D			D	

Intersection Summary			
HCM Average Control Delay	19.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	110.3	Sum of lost time (s)	12.0
Intersection Capacity Utilization	87.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
59: Monroe &



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	14	23	16	6	3	35	1210	15	10	593	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.93			0.98			1.00			1.00	
Flt Protected		0.99			0.97			1.00			1.00	
Satd. Flow (prot)		1721			1779			3528			3519	
Flt Permitted		0.94			0.75			0.91			0.92	
Satd. Flow (perm)		1627			1385			3223			3255	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	15	25	17	7	3	38	1315	16	11	645	22
RTOR Reduction (vph)	0	24	0	0	3	0	0	0	0	0	1	0
Lane Group Flow (vph)	0	27	0	0	24	0	0	1369	0	0	677	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		6.8			6.8			115.2			115.2	
Effective Green, g (s)		6.8			6.8			115.2			115.2	
Actuated g/C Ratio		0.05			0.05			0.89			0.89	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		85			72			2856			2884	
v/s Ratio Prot												
v/s Ratio Perm		0.02			c0.02			c0.42			0.21	
v/c Ratio		0.32			0.34			0.48			0.23	
Uniform Delay, d1		59.4			59.4			1.5			1.1	
Progression Factor		1.00			1.00			0.20			1.31	
Incremental Delay, d2		2.2			2.8			0.2			0.2	
Delay (s)		61.6			62.2			0.5			1.6	
Level of Service		E			E			A			A	
Approach Delay (s)		61.6			62.2			0.5			1.6	
Approach LOS		E			E			A			A	

Intersection Summary			
HCM Average Control Delay	3.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	65.7%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
70: The Prado & Piedmont

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBR	SWL2	SWL	SWR
Lane Configurations											
Volume (vph)	54	0	13	0	0	1	13	484	1	774	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.88	1.00	0.97	
Frt		1.00	0.85		0.86		1.00	0.85	1.00	0.98	
Flt Protected		0.95	1.00		1.00		0.95	1.00	0.95	0.96	
Satd. Flow (prot)		1770	1583		1611		1770	2787	1770	3397	
Flt Permitted		0.95	1.00		1.00		0.29	1.00	0.44	0.96	
Satd. Flow (perm)		1770	1583		1611		531	2787	817	3397	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	0	14	0	0	1	14	526	1	841	122
RTOR Reduction (vph)	0	0	13	0	1	0	0	0	0	7	0
Lane Group Flow (vph)	0	59	1	0	0	0	14	526	1	956	0
Turn Type	Split		Perm	Split				custom	Perm		
Protected Phases	4	4		8	8			2		6	
Permitted Phases			4				2		6		
Actuated Green, G (s)		4.9	4.9		1.1		47.5	47.5	47.5	47.5	
Effective Green, g (s)		4.9	4.9		1.1		47.5	47.5	47.5	47.5	
Actuated g/C Ratio		0.07	0.07		0.02		0.73	0.73	0.73	0.73	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0	4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)		132	118		27		385	2021	592	2463	
v/s Ratio Prot		c0.03			c0.00			0.19		c0.28	
v/s Ratio Perm			0.00				0.03		0.00		
v/c Ratio		0.45	0.01		0.00		0.04	0.26	0.00	0.39	
Uniform Delay, d1		29.0	28.1		31.7		2.5	3.0	2.5	3.4	
Progression Factor		1.00	1.00		1.00		1.00	1.00	1.00	1.00	
Incremental Delay, d2		2.4	0.0		0.0		0.2	0.3	0.0	0.5	
Delay (s)		31.4	28.1		31.7		2.7	3.4	2.5	3.9	
Level of Service		C	C		C		A	A	A	A	
Approach Delay (s)		30.8			31.7		3.3			3.9	
Approach LOS		C			C		A			A	

Intersection Summary			
HCM Average Control Delay	5.0	HCM Level of Service	A
HCM Volume to Capacity ratio	0.39		
Actuated Cycle Length (s)	65.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	48.6%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
75: 14th &



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	79	0	403	364	0	826
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0		4.0
Lane Util. Factor	1.00		1.00	0.95		0.88
Frt	1.00		1.00	1.00		0.85
Flt Protected	0.95		0.95	1.00		1.00
Satd. Flow (prot)	1770		1770	3539		2787
Flt Permitted	0.95		0.95	1.00		1.00
Satd. Flow (perm)	1770		1770	3539		2787
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	86	0	438	396	0	898
RTOR Reduction (vph)	0	0	0	0	0	260
Lane Group Flow (vph)	86	0	438	396	0	638
Turn Type			Perm			custom
Protected Phases	4			2		
Permitted Phases			2			6
Actuated Green, G (s)	3.3		27.7	27.7		27.7
Effective Green, g (s)	3.3		27.7	27.7		27.7
Actuated g/C Ratio	0.08		0.71	0.71		0.71
Clearance Time (s)	4.0		4.0	4.0		4.0
Vehicle Extension (s)	3.0		3.0	3.0		3.0
Lane Grp Cap (vph)	150		1257	2514		1979
v/s Ratio Prot	c0.05			0.11		
v/s Ratio Perm			c0.25			0.23
v/c Ratio	0.57		0.35	0.16		0.32
Uniform Delay, d1	17.2		2.2	1.8		2.1
Progression Factor	1.00		1.00	1.00		1.00
Incremental Delay, d2	5.2		0.8	0.1		0.4
Delay (s)	22.4		2.9	2.0		2.6
Level of Service	C		A	A		A
Approach Delay (s)	22.4			2.5	2.6	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	3.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.37		
Actuated Cycle Length (s)	39.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	57.9%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

2030 AM BeltLine Build, With Transit, Monroe 3-lane
77: 8th & Monroe



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	120	9	84	6	2	93	81	1008	10	41	889	164
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00	0.91	0.91		1.00	1.00	1.00
Frt	1.00	0.87			1.00	0.85	1.00	1.00		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00	0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1613			1793	1583	1610	3383		1770	1863	1583
Flt Permitted	0.49	1.00			0.75	1.00	0.19	0.94		0.25	1.00	1.00
Satd. Flow (perm)	905	1613			1397	1583	327	3194		468	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Adj. Flow (vph)	143	11	92	7	2	106	119	1061	12	46	926	176
RTOR Reduction (vph)	0	79	0	0	0	100	0	0	0	0	0	51
Lane Group Flow (vph)	143	24	0	0	9	6	107	1085	0	46	926	125
Turn Type	pm+pt			pm+pt		Perm	pm+pt			pm+pt		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	18.3	18.3			7.3	7.3	101.9	101.9		97.5	92.4	92.4
Effective Green, g (s)	18.3	18.3			7.3	7.3	101.9	101.9		97.5	92.4	92.4
Actuated g/C Ratio	0.14	0.14			0.06	0.06	0.78	0.78		0.75	0.71	0.71
Clearance Time (s)	4.0	4.0			4.0	4.0	4.0	4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0	3.0	3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	174	227			78	89	328	2514		402	1324	1125
v/s Ratio Prot	c0.04	0.01					0.02	c0.02		0.00	c0.50	
v/s Ratio Perm	c0.07				0.01	0.00	0.24	0.31		0.08		0.08
v/c Ratio	0.82	0.11			0.12	0.07	0.33	0.43		0.11	0.70	0.11
Uniform Delay, d1	53.5	48.7			58.3	58.1	10.2	4.6		4.2	10.8	5.9
Progression Factor	1.00	1.00			1.00	1.00	1.13	1.28		0.69	1.04	0.85
Incremental Delay, d2	25.7	0.2			0.7	0.3	0.6	0.1		0.1	2.9	0.2
Delay (s)	79.2	48.9			58.9	58.4	12.1	6.0		3.0	14.2	5.2
Level of Service	E	D			E	E	B	A		A	B	A
Approach Delay (s)		66.5			58.5			6.5			12.3	
Approach LOS		E			E			A			B	

Intersection Summary			
HCM Average Control Delay	16.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.72		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.0%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

2030 BeltLine

PM PEAK HOUR, 3-LANE MONROE



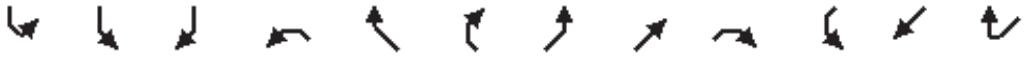
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	20	20	1550	1850	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	1.00	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1695			3537	3533	
Flt Permitted	0.98			0.86	1.00	
Satd. Flow (perm)	1695			3046	3533	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	24	24	1836	2192	24
RTOR Reduction (vph)	21	0	0	0	1	0
Lane Group Flow (vph)	27	0	0	1860	2215	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	16.0			106.0	106.0	
Effective Green, g (s)	16.0			106.0	106.0	
Actuated g/C Ratio	0.12			0.82	0.82	
Clearance Time (s)	4.0			4.0	4.0	
Lane Grp Cap (vph)	209			2484	2881	
v/s Ratio Prot	c0.02				c0.63	
v/s Ratio Perm				0.61		
v/c Ratio	0.13			0.75	0.77	
Uniform Delay, d1	50.8			5.7	5.9	
Progression Factor	1.00			1.00	0.76	
Incremental Delay, d2	1.3			2.1	0.2	
Delay (s)	52.1			7.8	4.7	
Level of Service	D			A	A	
Approach Delay (s)	52.1			7.8	4.7	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	6.7	HCM Level of Service	A
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



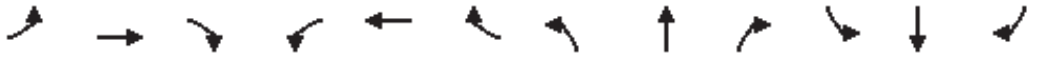
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	20	20	780	1200	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0			4.0	4.0	
Lane Util. Factor	1.00			0.95	0.95	
Frt	0.93			1.00	1.00	
Flt Protected	0.98			1.00	1.00	
Satd. Flow (prot)	1695			3535	3530	
Flt Permitted	0.98			0.89	1.00	
Satd. Flow (perm)	1695			3144	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	24	24	924	1422	24
RTOR Reduction (vph)	20	0	0	0	1	0
Lane Group Flow (vph)	28	0	0	948	1445	0
Turn Type			Perm			
Protected Phases	4			2	6	
Permitted Phases			2			
Actuated Green, G (s)	17.0			70.0	70.0	
Effective Green, g (s)	17.0			70.0	70.0	
Actuated g/C Ratio	0.18			0.74	0.74	
Clearance Time (s)	4.0			4.0	4.0	
Lane Grp Cap (vph)	303			2317	2601	
v/s Ratio Prot	c0.02				c0.41	
v/s Ratio Perm				0.30		
v/c Ratio	0.09			0.41	0.56	
Uniform Delay, d1	32.6			4.7	5.6	
Progression Factor	1.00			0.75	0.60	
Incremental Delay, d2	0.6			0.4	0.1	
Delay (s)	33.2			4.0	3.4	
Level of Service	C			A	A	
Approach Delay (s)	33.2			4.0	3.4	
Approach LOS	C			A	A	

Intersection Summary			
HCM Average Control Delay	4.2	HCM Level of Service	A
HCM Volume to Capacity ratio	0.47		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.2%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	SBL2	SBL	SBR	NWL	NWR	NWR2	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	20	20	20	0	20	20	20	1200	30	20	1150	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.86			1.00			1.00	
Flt Protected		0.97			1.00			1.00			1.00	
Satd. Flow (prot)		1722			1611			3523			3527	
Flt Permitted		0.90			1.00			0.90			0.89	
Satd. Flow (perm)		1609			1611			3178			3159	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	24	24	0	24	24	24	1422	36	24	1362	24
RTOR Reduction (vph)	0	14	0	0	20	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	58	0	0	28	0	0	1481	0	0	1409	0
Turn Type	Perm				custom		Perm			Perm		
Protected Phases		6			2			4			8	
Permitted Phases	6						4			8		
Actuated Green, G (s)		21.0			21.0			101.0			101.0	
Effective Green, g (s)		21.0			21.0			101.0			101.0	
Actuated g/C Ratio		0.16			0.16			0.78			0.78	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		260			260			2469			2454	
v/s Ratio Prot					0.02							
v/s Ratio Perm		c0.04						c0.47			0.45	
v/c Ratio		0.22			0.11			0.60			0.57	
Uniform Delay, d1		47.4			46.5			6.1			5.8	
Progression Factor		1.00			1.00			0.18			1.00	
Incremental Delay, d2		2.0			0.8			0.9			1.0	
Delay (s)		49.4			47.3			2.0			6.8	
Level of Service		D			D			A			A	
Approach Delay (s)		49.4		47.3				2.0			6.8	
Approach LOS		D		D				A			A	

Intersection Summary			
HCM Average Control Delay	6.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.1%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	161	86	67	18	47	164	145	1390	12	483	1564	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.93		1.00	0.88		1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1741		1770	1646		1770	3535		1770	3506	
Flt Permitted	0.39	1.00		0.53	1.00		0.12	1.00		0.11	1.00	
Satd. Flow (perm)	717	1741		984	1646		219	3535		196	3506	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	191	102	79	21	56	194	172	1647	14	572	1853	124
RTOR Reduction (vph)	0	35	0	0	153	0	0	1	0	0	6	0
Lane Group Flow (vph)	191	146	0	21	97	0	172	1660	0	572	1971	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)	17.0	17.0		17.0	17.0		39.0	34.0		55.0	46.0	
Effective Green, g (s)	17.0	17.0		17.0	17.0		39.0	34.0		55.0	46.0	
Actuated g/C Ratio	0.21	0.21		0.21	0.21		0.49	0.42		0.69	0.57	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	152	370		209	350		204	1502		469	2016	
v/s Ratio Prot		0.08			0.06		0.05	0.47		c0.26	0.56	
v/s Ratio Perm	c0.27			0.02			0.36			c0.58		
v/c Ratio	1.26	0.40		0.10	0.28		0.84	1.11		1.22	0.98	
Uniform Delay, d1	31.5	27.1		25.3	26.4		17.8	23.0		24.4	16.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	157.9	0.7		0.2	0.4		25.8	57.8		116.9	15.4	
Delay (s)	189.4	27.8		25.6	26.8		43.7	80.8		141.3	31.9	
Level of Service	F	C		C	C		D	F		F	C	
Approach Delay (s)		110.8			26.7			77.3			56.5	
Approach LOS		F			C			E			E	

Intersection Summary			
HCM Average Control Delay	66.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.20		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	108.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	56	144	252	121	127	23	113	667	129	16	904	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0			4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00			1.00	
Frt		0.92			0.99		1.00	0.98			0.99	
Flt Protected		0.99			0.98		0.95	1.00			1.00	
Satd. Flow (prot)		1712			1801		1770	1817			1849	
Flt Permitted		0.91			0.40		0.15	1.00			0.87	
Satd. Flow (perm)		1571			745		285	1817			1605	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	66	171	299	143	150	27	134	790	153	19	1071	54
RTOR Reduction (vph)	0	48	0	0	3	0	0	7	0	0	2	0
Lane Group Flow (vph)	0	488	0	0	317	0	134	936	0	0	1142	0
Turn Type	Perm			Perm			pm+pt			Perm		
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		30.0			30.0		57.0	57.0			49.0	
Effective Green, g (s)		30.0			30.0		57.0	57.0			49.0	
Actuated g/C Ratio		0.32			0.32		0.60	0.60			0.52	
Clearance Time (s)		4.0			4.0		4.0	4.0			4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)		496			235		234	1090			828	
v/s Ratio Prot							0.02	c0.51				
v/s Ratio Perm		0.31			c0.42		0.32				c0.71	
v/c Ratio		0.98			1.35		0.57	0.86			1.38	
Uniform Delay, d1		32.3			32.5		14.4	15.7			23.0	
Progression Factor		1.00			1.00		0.90	0.55			1.00	
Incremental Delay, d2		36.0			181.8		3.2	8.4			178.3	
Delay (s)		68.3			214.3		16.2	17.1			201.3	
Level of Service		E			F		B	B			F	
Approach Delay (s)		68.3			214.3			17.0			201.3	
Approach LOS		E			F			B			F	

Intersection Summary			
HCM Average Control Delay	114.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	130.9%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	78	29	28	30	42	79	748	35	53	1133	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.97		1.00	0.91			0.99			0.99	
Flt Protected		0.99		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1791		1770	1700			3502			3513	
Flt Permitted		0.95		0.52	1.00			0.65			0.84	
Satd. Flow (perm)		1709		966	1700			2291			2970	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	92	34	33	36	50	94	886	41	63	1342	50
RTOR Reduction (vph)	0	11	0	0	41	0	0	3	0	0	3	0
Lane Group Flow (vph)	0	139	0	33	45	0	0	1018	0	0	1452	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		17.0		17.0	17.0			70.0			70.0	
Effective Green, g (s)		17.0		17.0	17.0			70.0			70.0	
Actuated g/C Ratio		0.18		0.18	0.18			0.74			0.74	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Grp Cap (vph)		306		173	304			1688			2188	
v/s Ratio Prot					0.03							
v/s Ratio Perm		c0.08		0.03				0.44			c0.49	
v/c Ratio		0.45		0.19	0.15			0.60			0.66	
Uniform Delay, d1		34.8		33.2	32.9			5.9			6.4	
Progression Factor		1.00		1.00	1.00			1.03			0.10	
Incremental Delay, d2		4.8		2.4	1.0			1.6			1.4	
Delay (s)		39.6		35.6	33.9			7.6			2.0	
Level of Service		D		D	C			A			A	
Approach Delay (s)		39.6			34.4			7.6			2.0	
Approach LOS		D			C			A			A	

Intersection Summary			
HCM Average Control Delay	7.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.62		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.8%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	38	51	602	40	94	25	1308	219	105	1364	60
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0		4.0	4.0			4.0			4.0	
Lane Util. Factor		1.00		1.00	1.00			0.95			0.95	
Frt		0.95		1.00	0.89			0.98			0.99	
Flt Protected		0.98		0.95	1.00			1.00			1.00	
Satd. Flow (prot)		1737		1770	1666			3462			3506	
Flt Permitted		0.84		0.37	1.00			0.74			0.49	
Satd. Flow (perm)		1485		697	1666			2546			1720	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	47	45	60	713	47	111	30	1550	259	124	1616	71
RTOR Reduction (vph)	0	19	0	0	21	0	0	10	0	0	2	0
Lane Group Flow (vph)	0	133	0	713	137	0	0	1829	0	0	1809	0
Turn Type	Perm			pm+pt			Perm			Perm		
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		14.6		43.6	43.6			78.4			78.4	
Effective Green, g (s)		14.6		43.6	43.6			78.4			78.4	
Actuated g/C Ratio		0.11		0.34	0.34			0.60			0.60	
Clearance Time (s)		4.0		4.0	4.0			4.0			4.0	
Vehicle Extension (s)		3.0		3.0	3.0			3.0			3.0	
Lane Grp Cap (vph)		167		440	559			1535			1037	
v/s Ratio Prot				c0.31	0.08							
v/s Ratio Perm		0.09		c0.23				0.72			c1.05	
v/c Ratio		0.80		1.62	0.24			1.19			2.10dl	
Uniform Delay, d1		56.3		40.5	31.3			25.8			25.8	
Progression Factor		1.00		1.00	1.00			0.78			1.00	
Incremental Delay, d2		22.7		289.5	0.2			90.7			339.0	
Delay (s)		79.0		330.0	31.5			110.7			364.8	
Level of Service		E		F	C			F			F	
Approach Delay (s)		79.0			275.9			110.7			364.8	
Approach LOS		E			F			F			F	

Intersection Summary			
HCM Average Control Delay	239.0	HCM Level of Service	F
HCM Volume to Capacity ratio	1.69		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	150.6%	ICU Level of Service	H
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	218	723	151	198	436	522	198	841	234	762	949	148
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	
Frt	1.00	0.97		1.00	0.92		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	3447		1770	3250		1770	3424		1770	3468	
Flt Permitted	0.16	1.00		0.17	1.00		0.17	1.00		0.14	1.00	
Satd. Flow (perm)	298	3447		310	3250		310	3424		266	3468	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	258	857	179	235	517	618	235	996	277	903	1124	175
RTOR Reduction (vph)	0	18	0	0	227	0	0	27	0	0	13	0
Lane Group Flow (vph)	258	1018	0	235	908	0	235	1246	0	903	1286	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	31.0	25.0		29.0	24.0		34.7	24.0		53.0	38.3	
Effective Green, g (s)	31.0	25.0		29.0	24.0		34.7	24.0		53.0	38.3	
Actuated g/C Ratio	0.33	0.26		0.31	0.25		0.37	0.25		0.56	0.40	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	190	907		171	821		278	865		544	1398	
v/s Ratio Prot	c0.09	0.30		0.07	0.28		0.10	0.36		c0.44	0.37	
v/s Ratio Perm	c0.36			0.35			0.21			c0.49		
v/c Ratio	1.36	1.12		1.37	1.11		0.85	1.44		1.66	0.92	
Uniform Delay, d1	30.2	35.0		32.1	35.5		23.9	35.5		26.9	26.9	
Progression Factor	0.98	0.78		0.98	0.97		1.00	1.00		1.00	1.00	
Incremental Delay, d2	187.9	67.8		190.9	59.6		20.4	204.8		305.1	9.9	
Delay (s)	217.5	95.2		222.3	93.9		44.3	240.3		331.9	36.8	
Level of Service	F	F		F	F		D	F		F	D	
Approach Delay (s)		119.6			116.0			209.8			157.8	
Approach LOS		F			F			F			F	

Intersection Summary			
HCM Average Control Delay	153.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.47		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	137.4%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations						
Volume (vph)	851	239	0	1114	151	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	
Lane Util. Factor	0.95	1.00		0.95	1.00	
Frt	1.00	0.85		1.00	1.00	
Flt Protected	1.00	1.00		1.00	0.95	
Satd. Flow (prot)	3539	1583		3539	1770	
Flt Permitted	1.00	1.00		1.00	0.95	
Satd. Flow (perm)	3539	1583		3539	1770	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	1008	283	0	1320	179	0
RTOR Reduction (vph)	0	68	0	0	0	0
Lane Group Flow (vph)	1008	215	0	1320	179	0
Turn Type		Prot				
Protected Phases	2	2		6	8	
Permitted Phases						
Actuated Green, G (s)	72.1	72.1		72.1	14.9	
Effective Green, g (s)	72.1	72.1		72.1	14.9	
Actuated g/C Ratio	0.76	0.76		0.76	0.16	
Clearance Time (s)	4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	2686	1201		2686	278	
v/s Ratio Prot	0.28	0.14		c0.37	c0.10	
v/s Ratio Perm						
v/c Ratio	0.38	0.18		0.49	0.64	
Uniform Delay, d1	3.9	3.2		4.4	37.6	
Progression Factor	0.54	0.30		0.29	0.54	
Incremental Delay, d2	0.3	0.3		0.4	4.9	
Delay (s)	2.4	1.2		1.7	25.2	
Level of Service	A	A		A	C	
Approach Delay (s)	2.1			1.7	25.2	
Approach LOS	A			A	C	

Intersection Summary			
HCM Average Control Delay	3.4	HCM Level of Service	A
HCM Volume to Capacity ratio	0.52		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	49.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	15	459	221	86	261	27	118	113	80	48	121	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			1.00			1.00	
Frt		0.96			0.99			0.97			0.98	
Flt Protected		1.00			0.99			0.98			0.99	
Satd. Flow (prot)		1781			1824			1765			1809	
Flt Permitted		0.99			0.66			0.78			0.86	
Satd. Flow (perm)		1761			1224			1405			1570	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	18	544	262	102	309	32	140	134	95	57	143	28
RTOR Reduction (vph)	0	21	0	0	3	0	0	13	0	0	5	0
Lane Group Flow (vph)	0	803	0	0	440	0	0	356	0	0	223	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)		41.2			41.2			31.5			31.5	
Effective Green, g (s)		41.2			41.2			31.5			31.5	
Actuated g/C Ratio		0.51			0.51			0.39			0.39	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Vehicle Extension (s)		3.0			3.0			3.0			3.0	
Lane Grp Cap (vph)		899			625			548			613	
v/s Ratio Prot												
v/s Ratio Perm		c0.46			0.36			c0.25			0.14	
v/c Ratio		0.89			0.70			0.65			0.36	
Uniform Delay, d1		17.8			15.1			20.1			17.5	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		11.2			3.6			5.9			0.4	
Delay (s)		29.0			18.7			26.0			17.8	
Level of Service		C			B			C			B	
Approach Delay (s)		29.0			18.7			26.0			17.8	
Approach LOS		C			B			C			B	

Intersection Summary			
HCM Average Control Delay	24.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	80.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	104.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	37	12	47	14	8	94	19	1200	36	175	1307	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.94			0.90		1.00	0.99		1.00	1.00	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1711			1656		1770	1853		1770	1854	
Flt Permitted		0.58			0.93		0.06	1.00		0.06	1.00	
Satd. Flow (perm)		1005			1554		120	1853		120	1854	
Peak-hour factor, PHF	0.82	0.75	0.88	0.70	0.67	0.84	0.68	0.95	0.75	0.89	0.95	0.80
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	49	17	58	22	13	122	30	1377	52	214	1500	48
RTOR Reduction (vph)	0	35	0	0	108	0	0	1	0	0	1	0
Lane Group Flow (vph)	0	89	0	0	49	0	30	1428	0	214	1547	0
Parking (#/hr)				0								
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		11.2			11.2		65.3	65.3		68.7	68.7	
Effective Green, g (s)		11.2			11.2		65.3	65.3		68.7	68.7	
Actuated g/C Ratio		0.12			0.12		0.69	0.69		0.72	0.72	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		118			183		136	1274		200	1341	
v/s Ratio Prot							0.01	c0.77		0.07	c0.83	
v/s Ratio Perm		c0.09			0.03		0.14			0.70		
v/c Ratio		0.75			0.27		0.22	1.12		1.07	1.15	
Uniform Delay, d1		40.6			38.2		22.8	14.9		41.1	13.2	
Progression Factor		1.00			1.00		0.86	1.28		0.63	0.30	
Incremental Delay, d2		23.3			0.8		0.1	55.5		41.0	70.0	
Delay (s)		63.9			39.0		19.8	74.4		66.8	74.0	
Level of Service		E			D		B	E		E	E	
Approach Delay (s)		63.9			39.0			73.3			73.1	
Approach LOS		E			D			E			E	

Intersection Summary			
HCM Average Control Delay	71.3	HCM Level of Service	E
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.5%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	549	113	483	0	58	240	317	652	0	336	957	281
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Lane Util. Factor	0.95	0.95	1.00		1.00	1.00		0.95		1.00	0.95	
Frt	1.00	1.00	0.85		1.00	0.85		1.00		1.00	0.97	
Flt Protected	0.95	0.97	1.00		1.00	1.00		0.98		0.95	1.00	
Satd. Flow (prot)	1681	1713	1583		1863	1583		3482		1770	3419	
Flt Permitted	0.95	0.97	1.00		1.00	1.00		0.52		0.16	1.00	
Satd. Flow (perm)	1681	1713	1583		1863	1583		1850		289	3419	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	650	134	572	0	69	284	376	772	0	398	1134	333
RTOR Reduction (vph)	0	0	476	0	0	255	0	0	0	0	16	0
Lane Group Flow (vph)	390	394	96	0	69	29	0	1148	0	398	1451	0
Turn Type	Split		Perm			Perm	pm+pt			pm+pt		
Protected Phases	4	4			8		5	2		1	6	
Permitted Phases			4			8	2			6		
Actuated Green, G (s)	16.0	16.0	16.0		9.6	9.6		48.4		57.4	57.4	
Effective Green, g (s)	16.0	16.0	16.0		9.6	9.6		48.4		57.4	57.4	
Actuated g/C Ratio	0.17	0.17	0.17		0.10	0.10		0.51		0.60	0.60	
Clearance Time (s)	4.0	4.0	4.0		4.0	4.0		4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0		3.0	3.0		3.0		3.0	3.0	
Lane Grp Cap (vph)	283	289	267		188	160		943		253	2066	
v/s Ratio Prot	c0.23	0.23			c0.04					c0.08	0.42	
v/s Ratio Perm			0.06			0.02		0.62		c0.87		
v/c Ratio	1.38	1.36	0.36		0.37	0.18		4.42dl		1.57	0.70	
Uniform Delay, d1	39.5	39.5	35.0		39.9	39.1		23.3		28.0	12.9	
Progression Factor	1.00	1.00	1.00		0.92	0.52		1.25		0.61	0.37	
Incremental Delay, d2	190.8	184.2	0.8		1.1	0.5		107.2		264.7	0.7	
Delay (s)	230.3	223.7	35.8		37.8	20.8		136.3		281.8	5.5	
Level of Service	F	F	D		D	C		F		F	A	
Approach Delay (s)		146.4			24.1			136.3			64.5	
Approach LOS		F			C			F			E	

Intersection Summary			
HCM Average Control Delay	102.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.36		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	104.8%	ICU Level of Service	G
Analysis Period (min)	15		

dl Defacto Left Lane. Recode with 1 though lane as a left lane.

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	44	23	71	68	29	81	131	1120	119	96	1387	171
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	1.00		1.00	1.00	
Frt		0.93			0.94		1.00	0.99		1.00	0.98	
Flt Protected		0.98			0.98		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1706			1715		1770	1836		1770	1832	
Flt Permitted		0.76			0.71		0.06	1.00		0.06	1.00	
Satd. Flow (perm)		1309			1239		118	1836		118	1832	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	52	27	84	81	34	96	155	1327	141	114	1643	203
RTOR Reduction (vph)	0	40	0	0	32	0	0	4	0	0	5	0
Lane Group Flow (vph)	0	123	0	0	179	0	155	1464	0	114	1841	0
Turn Type	Perm			Perm			pm+pt			pm+pt		
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		15.3			15.3		67.9	63.2		67.5	63.0	
Effective Green, g (s)		15.3			15.3		67.9	63.2		67.5	63.0	
Actuated g/C Ratio		0.16			0.16		0.71	0.67		0.71	0.66	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		211			200		166	1221		162	1215	
v/s Ratio Prot							c0.05	0.80		0.03	c1.01	
v/s Ratio Perm		0.09			c0.14		0.62			0.47		
v/c Ratio		0.58			0.90		0.93	1.20		0.70	1.52	
Uniform Delay, d1		36.9			39.1		29.1	15.9		23.8	16.0	
Progression Factor		1.00			1.00		1.07	0.88		1.00	1.28	
Incremental Delay, d2		4.0			36.0		20.9	91.8		1.3	232.3	
Delay (s)		40.9			75.1		52.0	105.8		25.0	252.8	
Level of Service		D			E		D	F		C	F	
Approach Delay (s)		40.9			75.1			100.7			239.6	
Approach LOS		D			E			F			F	

Intersection Summary			
HCM Average Control Delay	165.7	HCM Level of Service	F
HCM Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	124.6%	ICU Level of Service	H
Analysis Period (min)	15		
Description:			
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	52	60	43	1127	1481	55
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	1.00	1.00	1.00
Frt	0.93		1.00	1.00	1.00	0.85
Flt Protected	0.98		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1689		1770	1863	1863	1583
Flt Permitted	0.98		0.05	1.00	1.00	1.00
Satd. Flow (perm)	1689		97	1863	1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	62	71	51	1335	1755	65
RTOR Reduction (vph)	42	0	0	0	0	10
Lane Group Flow (vph)	91	0	51	1335	1755	55
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	10.4		76.6	76.6	76.6	76.6
Effective Green, g (s)	10.4		76.6	76.6	76.6	76.6
Actuated g/C Ratio	0.11		0.81	0.81	0.81	0.81
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	185		78	1502	1502	1276
v/s Ratio Prot	c0.05			0.72	c0.94	
v/s Ratio Perm			0.52			0.03
v/c Ratio	0.49		0.65	0.89	1.17	0.04
Uniform Delay, d1	39.8		3.8	6.3	9.2	1.8
Progression Factor	1.00		0.26	0.26	0.75	0.41
Incremental Delay, d2	2.1		3.8	0.8	76.5	0.0
Delay (s)	41.9		4.8	2.5	83.4	0.8
Level of Service	D		A	A	F	A
Approach Delay (s)	41.9			2.6	80.5	
Approach LOS	D			A	F	

Intersection Summary			
HCM Average Control Delay	46.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.09		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	98.8%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	274	795	267	150	889	220	298	446	127	285	421	284
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91		1.00	0.91		1.00	0.95		1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	0.97		1.00	0.94	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	4894		1770	4934		1770	3422		1770	1750	
Flt Permitted	0.15	1.00		0.17	1.00		0.13	1.00		0.21	1.00	
Satd. Flow (perm)	276	4894		324	4934		245	3422		393	1750	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	325	942	316	178	1053	261	353	528	150	338	499	336
RTOR Reduction (vph)	0	64	0	0	45	0	0	27	0	0	25	0
Lane Group Flow (vph)	325	1194	0	178	1269	0	353	651	0	338	810	0
Turn Type	pm+pt			pm+pt			pm+pt			pm+pt		
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2			6			8			4		
Actuated Green, G (s)	37.0	27.0		29.0	23.0		41.4	30.4		50.0	35.0	
Effective Green, g (s)	37.0	27.0		29.0	23.0		41.4	30.4		50.0	35.0	
Actuated g/C Ratio	0.39	0.28		0.31	0.24		0.44	0.32		0.53	0.37	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	265	1391		190	1195		283	1095		433	645	
v/s Ratio Prot	c0.13	0.24		0.06	0.26		c0.14	0.19		c0.13	c0.46	
v/s Ratio Perm	c0.35			0.23			0.40			0.28		
v/c Ratio	1.23	0.86		0.94	1.06		1.25	0.59		0.78	1.26	
Uniform Delay, d1	24.4	32.2		29.5	36.0		25.1	27.1		15.7	30.0	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		0.73	0.78	
Incremental Delay, d2	130.6	7.1		47.0	44.2		137.3	0.9		8.2	126.4	
Delay (s)	155.0	39.3		76.6	80.2		162.4	28.0		19.7	149.9	
Level of Service	F	D		E	F		F	C		B	F	
Approach Delay (s)		63.0			79.8			74.0			112.4	
Approach LOS		E			E			E			F	

Intersection Summary			
HCM Average Control Delay	80.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.17		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	115.0%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	207	1965	85	36	1110	116	71	41	72	199	46	198
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	0.91	1.00	1.00	0.95		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.99		1.00	0.90		1.00	0.88	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	5085	1583	1770	3489		1770	1686		1770	1636	
Flt Permitted	0.08	1.00	1.00	0.09	1.00		0.35	1.00		0.63	1.00	
Satd. Flow (perm)	154	5085	1583	167	3489		644	1686		1168	1636	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	245	2328	101	43	1315	137	84	49	85	236	54	235
RTOR Reduction (vph)	0	0	14	0	9	0	0	64	0	0	145	0
Lane Group Flow (vph)	245	2328	87	43	1443	0	84	70	0	236	144	0
Turn Type	pm+pt		Perm	pm+pt			Perm			Perm		
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6			8			4		
Actuated Green, G (s)	59.7	52.8	52.8	47.4	44.5		22.0	22.0		22.0	22.0	
Effective Green, g (s)	59.7	52.8	52.8	47.4	44.5		22.0	22.0		22.0	22.0	
Actuated g/C Ratio	0.67	0.59	0.59	0.53	0.50		0.25	0.25		0.25	0.25	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	304	2993	932	140	1731		158	414		286	401	
v/s Ratio Prot	c0.10	0.46		0.01	0.41			0.04			0.09	
v/s Ratio Perm	c0.44		0.06	0.15			0.13			c0.20		
v/c Ratio	0.81	0.78	0.09	0.31	0.83		0.53	0.17		0.83	0.36	
Uniform Delay, d1	23.7	14.0	8.0	13.0	19.4		29.4	26.7		32.0	28.0	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	14.4	1.3	0.0	1.2	3.6		12.2	0.9		17.3	0.6	
Delay (s)	38.0	15.3	8.1	14.3	23.0		41.6	27.5		49.4	28.6	
Level of Service	D	B	A	B	C		D	C		D	C	
Approach Delay (s)		17.1			22.8			33.0			37.9	
Approach LOS		B			C			C			D	

Intersection Summary			
HCM Average Control Delay	21.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.80		
Actuated Cycle Length (s)	89.7	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	20	20	20	20	20	800	20	20	880	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0			4.0			4.0	
Lane Util. Factor		1.00			1.00			0.95			0.95	
Frt		0.96			0.96			1.00			1.00	
Flt Protected		0.98			0.98			1.00			1.00	
Satd. Flow (prot)		1750			1750			3522			3524	
Flt Permitted		0.91			0.91			0.91			0.92	
Satd. Flow (perm)		1614			1614			3211			3240	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	24	24	24	24	24	24	948	24	24	1043	24
RTOR Reduction (vph)	0	19	0	0	19	0	0	2	0	0	2	0
Lane Group Flow (vph)	0	53	0	0	53	0	0	994	0	0	1089	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		21.0			21.0			66.0			66.0	
Effective Green, g (s)		21.0			21.0			66.0			66.0	
Actuated g/C Ratio		0.22			0.22			0.69			0.69	
Clearance Time (s)		4.0			4.0			4.0			4.0	
Lane Grp Cap (vph)		357			357			2231			2251	
v/s Ratio Prot												
v/s Ratio Perm		c0.03			0.03			0.31			c0.34	
v/c Ratio		0.15			0.15			0.45			0.48	
Uniform Delay, d1		29.8			29.8			6.4			6.7	
Progression Factor		1.00			1.00			0.33			0.31	
Incremental Delay, d2		0.9			0.9			0.3			0.5	
Delay (s)		30.7			30.7			2.4			2.5	
Level of Service		C			C			A			A	
Approach Delay (s)		30.7			30.7			2.4			2.5	
Approach LOS		C			C			A			A	

Intersection Summary			
HCM Average Control Delay	4.3	HCM Level of Service	A
HCM Volume to Capacity ratio	0.40		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.3%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	93	20	137	10	30	20	134	615	20	40	1042	114
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.93			0.96		1.00	1.00		1.00	0.99	
Flt Protected		0.98			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1694			1764		1770	3522		1770	3487	
Flt Permitted		0.86			0.92		0.16	1.00		0.35	1.00	
Satd. Flow (perm)		1482			1640		293	3522		646	3487	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	110	24	162	12	36	24	159	729	24	47	1235	135
RTOR Reduction (vph)	0	46	0	0	19	0	0	2	0	0	8	0
Lane Group Flow (vph)	0	250	0	0	53	0	159	751	0	47	1362	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Actuated Green, G (s)		18.9			18.9		68.1	68.1		68.1	68.1	
Effective Green, g (s)		18.9			18.9		68.1	68.1		68.1	68.1	
Actuated g/C Ratio		0.20			0.20		0.72	0.72		0.72	0.72	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0			3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		295			326		210	2525		463	2500	
v/s Ratio Prot								0.21			0.39	
v/s Ratio Perm		c0.17			0.03		c0.54			0.07		
v/c Ratio		0.85			0.16		0.76	0.30		0.10	0.54	
Uniform Delay, d1		36.6			31.5		8.3	4.8		4.1	6.2	
Progression Factor		1.00			1.00		0.85	0.97		0.36	0.56	
Incremental Delay, d2		19.5			0.2		21.9	0.3		0.3	0.7	
Delay (s)		56.1			31.7		29.0	5.0		1.8	4.2	
Level of Service		E			C		C	A		A	A	
Approach Delay (s)		56.1			31.7			9.2			4.1	
Approach LOS		E			C			A			A	

Intersection Summary			
HCM Average Control Delay	12.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	76.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	22	30	102	20	30	30	50	950	190	200	580	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00			1.00		1.00	0.95		1.00	0.95	
Frt		0.91			0.95		1.00	0.98		1.00	0.99	
Flt Protected		0.99			0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1685			1747		1770	3451		1770	3521	
Flt Permitted		0.95			0.86		0.37	1.00		0.17	1.00	
Satd. Flow (perm)		1612			1529		687	3451		314	3521	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	26	36	121	24	36	36	59	1126	225	237	687	24
RTOR Reduction (vph)	0	74	0	0	22	0	0	17	0	0	3	0
Lane Group Flow (vph)	0	109	0	0	74	0	59	1334	0	237	708	0
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		2			6			4			8	
Permitted Phases	2			6			4			8		
Actuated Green, G (s)		16.0			16.0		71.0	71.0		71.0	71.0	
Effective Green, g (s)		16.0			16.0		71.0	71.0		71.0	71.0	
Actuated g/C Ratio		0.17			0.17		0.75	0.75		0.75	0.75	
Clearance Time (s)		4.0			4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)		271			258		513	2579		235	2631	
v/s Ratio Prot								0.39			0.20	
v/s Ratio Perm		c0.07			0.05		0.09			c0.76		
v/c Ratio		0.40			0.29		0.12	0.52		1.01	0.27	
Uniform Delay, d1		35.2			34.5		3.3	4.9		12.0	3.8	
Progression Factor		1.00			1.00		0.70	0.67		0.82	0.69	
Incremental Delay, d2		4.4			2.8		0.4	0.6		33.9	0.1	
Delay (s)		39.6			37.3		2.7	3.9		43.7	2.7	
Level of Service		D			D		A	A		D	A	
Approach Delay (s)		39.6			37.3			3.9			12.9	
Approach LOS		D			D			A			B	

Intersection Summary			
HCM Average Control Delay	10.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	271	0	37	17	0	39	35	1207	13	14	1282	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor		1.00	1.00		1.00		1.00	0.95		1.00	0.95	
Frt		1.00	0.85		0.91		1.00	1.00		1.00	0.99	
Flt Protected		0.95	1.00		0.99		0.95	1.00		0.95	1.00	
Satd. Flow (prot)		1770	1583		1662		1770	3534		1770	3502	
Flt Permitted		0.95	1.00		0.99		0.08	1.00		0.12	1.00	
Satd. Flow (perm)		1770	1583		1662		157	3534		224	3502	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	321	0	44	20	0	46	41	1430	15	17	1519	116
RTOR Reduction (vph)	0	0	35	0	44	0	0	0	0	0	3	0
Lane Group Flow (vph)	0	321	9	0	22	0	41	1445	0	17	1632	0
Turn Type	Split		Perm	Split			Perm			Perm		
Protected Phases	4	4		8	8			2			6	
Permitted Phases			4				2			6		
Actuated Green, G (s)		26.7	26.7		6.5		84.8	84.8		84.8	84.8	
Effective Green, g (s)		26.7	26.7		6.5		84.8	84.8		84.8	84.8	
Actuated g/C Ratio		0.21	0.21		0.05		0.65	0.65		0.65	0.65	
Clearance Time (s)		4.0	4.0		4.0		4.0	4.0		4.0	4.0	
Vehicle Extension (s)		3.0	3.0		3.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		364	325		83		102	2305		146	2284	
v/s Ratio Prot		c0.18			c0.01			0.41			c0.47	
v/s Ratio Perm			0.01				0.26			0.08		
v/c Ratio		0.88	0.03		0.27		0.40	0.63		0.12	0.71	
Uniform Delay, d1		50.1	41.3		59.5		10.7	13.3		8.5	14.7	
Progression Factor		1.00	1.00		1.00		0.71	0.70		0.66	0.62	
Incremental Delay, d2		21.3	0.0		1.7		9.3	1.1		1.5	1.8	
Delay (s)		71.4	41.3		61.2		16.9	10.4		7.2	11.0	
Level of Service		E	D		E		B	B		A	B	
Approach Delay (s)		67.8			61.2			10.5			11.0	
Approach LOS		E			E			B			B	

Intersection Summary			
HCM Average Control Delay	17.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	259	0	284	1043	1158	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	1.00		1.00	0.95	0.95	1.00
Frt	1.00		1.00	1.00	1.00	0.85
Flt Protected	0.95		0.95	1.00	1.00	1.00
Satd. Flow (prot)	1770		1770	3539	3539	1583
Flt Permitted	0.95		0.17	1.00	1.00	1.00
Satd. Flow (perm)	1770		317	3539	3539	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	307	0	336	1236	1372	63
RTOR Reduction (vph)	0	0	0	0	0	13
Lane Group Flow (vph)	307	0	336	1236	1372	50
Turn Type			Perm			Perm
Protected Phases	4			2	6	
Permitted Phases			2			6
Actuated Green, G (s)	19.0		103.0	103.0	103.0	103.0
Effective Green, g (s)	19.0		103.0	103.0	103.0	103.0
Actuated g/C Ratio	0.15		0.79	0.79	0.79	0.79
Clearance Time (s)	4.0		4.0	4.0	4.0	4.0
Vehicle Extension (s)	3.0		3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	259		251	2804	2804	1254
v/s Ratio Prot	c0.17			0.35	0.39	
v/s Ratio Perm			c1.06			0.03
v/c Ratio	1.19		1.34	0.44	0.49	0.04
Uniform Delay, d1	55.5		13.5	4.3	4.6	2.9
Progression Factor	1.00		1.00	1.00	0.76	1.21
Incremental Delay, d2	115.5		176.8	0.5	0.4	0.0
Delay (s)	171.0		190.3	4.8	3.9	3.5
Level of Service	F		F	A	A	A
Approach Delay (s)	171.0			44.5	3.9	
Approach LOS	F			D	A	

Intersection Summary			
HCM Average Control Delay	38.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.31		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	111	37	40	97	24	110	19	868	104	179	904	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95		1.00	1.00	1.00
Frt	1.00	0.92			1.00	0.85		0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00			0.96	1.00		1.00		0.95	1.00	1.00
Satd. Flow (prot)	1770	1723			1791	1583		3472		1770	1863	1583
Flt Permitted	0.39	1.00			0.70	1.00		0.88		0.15	1.00	1.00
Satd. Flow (perm)	729	1723			1311	1583		3053		282	1863	1583
Peak-hour factor, PHF	0.84	0.84	0.91	0.86	0.86	0.88	0.68	0.95	0.83	0.90	0.96	0.93
Growth Factor (vph)	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	144	48	48	123	30	136	30	996	137	217	1026	191
RTOR Reduction (vph)	0	37	0	0	0	115	0	11	0	0	0	61
Lane Group Flow (vph)	144	59	0	0	153	21	0	1152	0	217	1026	130
Turn Type	pm+pt			Perm		Perm	Perm			pm+pt		Perm
Protected Phases	7	4			8			2		1	6	
Permitted Phases	4			8		8	2			6		6
Actuated Green, G (s)	22.4	22.4			14.4	14.4		53.1		64.6	64.6	64.6
Effective Green, g (s)	22.4	22.4			14.4	14.4		53.1		64.6	64.6	64.6
Actuated g/C Ratio	0.24	0.24			0.15	0.15		0.56		0.68	0.68	0.68
Clearance Time (s)	4.0	4.0			4.0	4.0		4.0		4.0	4.0	4.0
Vehicle Extension (s)	3.0	3.0			3.0	3.0		3.0		3.0	3.0	3.0
Lane Grp Cap (vph)	216	406			199	240		1706		309	1267	1076
v/s Ratio Prot	c0.03	0.03								0.06	c0.55	
v/s Ratio Perm	c0.13				0.12	0.01		0.38		0.42		0.08
v/c Ratio	0.67	0.15			0.77	0.09		0.68		0.70	0.81	0.12
Uniform Delay, d1	33.2	28.7			38.7	34.6		14.8		10.2	10.8	5.3
Progression Factor	1.00	1.00			1.00	1.00		1.00		1.83	0.50	0.07
Incremental Delay, d2	7.6	0.2			16.2	0.2		2.0		6.3	5.1	0.2
Delay (s)	40.7	28.9			54.9	34.8		16.9		25.0	10.5	0.6
Level of Service	D	C			D	C		B		C	B	A
Approach Delay (s)		36.0			45.5			16.9			11.4	
Approach LOS		D			D			B			B	

Intersection Summary			
HCM Average Control Delay	18.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.77		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	20	20	40	1250	1150	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	
Lane Util. Factor	1.00		1.00	0.95	0.95	
Frt	0.93		1.00	1.00	1.00	
Flt Protected	0.98		0.95	1.00	1.00	
Satd. Flow (prot)	1695		1770	3539	3530	
Flt Permitted	0.98		0.16	1.00	1.00	
Satd. Flow (perm)	1695		306	3539	3530	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor (vph)	109%	109%	109%	109%	109%	109%
Adj. Flow (vph)	24	24	47	1481	1362	24
RTOR Reduction (vph)	20	0	0	0	1	0
Lane Group Flow (vph)	28	0	47	1481	1385	0
Turn Type			Perm			
Protected Phases	6			4	8	
Permitted Phases			4			
Actuated Green, G (s)	21.0		101.0	101.0	101.0	
Effective Green, g (s)	21.0		101.0	101.0	101.0	
Actuated g/C Ratio	0.16		0.78	0.78	0.78	
Clearance Time (s)	4.0		4.0	4.0	4.0	
Lane Grp Cap (vph)	274		238	2750	2743	
v/s Ratio Prot	c0.02			c0.42	0.39	
v/s Ratio Perm			0.15			
v/c Ratio	0.10		0.20	0.54	0.50	
Uniform Delay, d1	46.5		3.8	5.6	5.3	
Progression Factor	1.00		1.04	0.94	0.83	
Incremental Delay, d2	0.7		1.5	0.6	0.6	
Delay (s)	47.2		5.4	5.8	5.0	
Level of Service	D		A	A	A	
Approach Delay (s)	47.2			5.8	5.0	
Approach LOS	D			A	A	

Intersection Summary			
HCM Average Control Delay	6.1	HCM Level of Service	A
HCM Volume to Capacity ratio	0.46		
Actuated Cycle Length (s)	130.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.7%	ICU Level of Service	A
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

Monroe Crescent: Existing Volumes, Reconfigured Network

AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	24	180	130	487	293	53	69	1049	482	24	727	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.98		1.00	0.95		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1746		3433	1820		1770	3372		1770	3525	
Flt Permitted	0.25	1.00		0.95	1.00		0.21	1.00		0.09	1.00	
Satd. Flow (perm)	466	1746		3433	1820		382	3372		162	3525	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	26	196	141	529	318	58	75	1140	524	26	790	22
RTOR Reduction (vph)	0	24	0	0	6	0	0	49	0	0	2	0
Lane Group Flow (vph)	26	313	0	529	370	0	75	1615	0	26	810	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	20.0	20.0		18.0	34.0		52.0	52.0		50.0	50.0	
Effective Green, g (s)	20.0	20.0		18.0	34.0		52.0	52.0		50.0	50.0	
Actuated g/C Ratio	0.18	0.18		0.16	0.31		0.47	0.47		0.45	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	132	317		562	563		256	1594		132	1602	
v/s Ratio Prot	0.01	c0.18		c0.15	0.20		0.02	c0.48		0.01	c0.23	
v/s Ratio Perm	0.03						0.12			0.08		
v/c Ratio	0.20	0.99		0.94	0.66		0.29	1.01		0.20	0.51	
Uniform Delay, d1	38.0	44.9		45.5	32.9		17.8	29.0		47.2	21.2	
Progression Factor	0.82	0.86		0.89	0.85		1.00	1.00		0.70	0.70	
Incremental Delay, d2	3.1	46.2		23.1	5.0		2.9	25.9		3.2	1.1	
Delay (s)	34.3	84.7		63.6	32.9		20.7	54.9		36.1	15.9	
Level of Service	C	F		E	C		C	D		D	B	
Approach Delay (s)		81.0			50.8			53.5			16.5	
Approach LOS		F			D			D			B	

Intersection Summary			
HCM Average Control Delay	47.4	HCM Level of Service	D
HCM Volume to Capacity ratio	0.95		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	92.4%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	318	14	25	0	0	0	0	122	0	58	100	521
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0			4.0	4.0
Lane Util. Factor	1.00	1.00						1.00			1.00	1.00
Frt	1.00	0.90						1.00			1.00	0.85
Flt Protected	0.95	1.00						1.00			0.98	1.00
Satd. Flow (prot)	1770	1683						1863			1829	1583
Flt Permitted	0.76	1.00						1.00			0.87	1.00
Satd. Flow (perm)	1410	1683						1863			1614	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	346	15	27	0	0	0	0	133	0	63	109	566
RTOR Reduction (vph)	0	14	0	0	0	0	0	0	0	0	0	350
Lane Group Flow (vph)	346	28	0	0	0	0	0	133	0	0	172	216
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	26.0	26.0						21.0			21.0	21.0
Effective Green, g (s)	26.0	26.0						21.0			21.0	21.0
Actuated g/C Ratio	0.47	0.47						0.38			0.38	0.38
Clearance Time (s)	4.0	4.0						4.0			4.0	4.0
Lane Grp Cap (vph)	706	796						711			616	604
v/s Ratio Prot	c0.05	0.02						0.07				
v/s Ratio Perm	c0.18										0.11	c0.14
v/c Ratio	0.49	0.03						0.19			0.28	0.36
Uniform Delay, d1	10.1	7.8						11.3			11.8	12.2
Progression Factor	0.39	0.19						1.24			1.00	1.00
Incremental Delay, d2	2.0	0.1						0.6			1.1	1.7
Delay (s)	5.9	1.6						14.6			12.9	13.8
Level of Service	A	A						B			B	B
Approach Delay (s)		5.4			0.0			14.6			13.6	
Approach LOS		A			A			B			B	

Intersection Summary			
HCM Average Control Delay	11.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.43		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	45.3%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	101	157	6	212	76	223	83	851	3	200	509	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1852		1770	1863	1583	1770	3537		1770	3523	
Flt Permitted	0.70	1.00		0.45	1.00	1.00	0.44	1.00		0.16	1.00	
Satd. Flow (perm)	1310	1852		846	1863	1583	815	3537		290	3523	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	110	171	7	230	83	242	90	925	3	217	553	17
RTOR Reduction (vph)	0	2	0	0	0	180	0	0	0	0	2	0
Lane Group Flow (vph)	110	176	0	230	83	62	90	928	0	217	568	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	23.0	17.0		38.0	28.0	28.0	45.0	45.0		64.0	64.0	
Effective Green, g (s)	23.0	17.0		38.0	28.0	28.0	45.0	45.0		64.0	64.0	
Actuated g/C Ratio	0.21	0.15		0.35	0.25	0.25	0.41	0.41		0.58	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	299	286		435	474	403	333	1447		371	2050	
v/s Ratio Prot	0.02	c0.10		c0.08	0.04			c0.26		c0.08	0.16	
v/s Ratio Perm	0.06			0.10		0.04	0.11			0.26		
v/c Ratio	0.37	0.62		0.53	0.18	0.15	0.27	0.64		0.58	0.28	
Uniform Delay, d1	37.6	43.5		33.3	32.0	31.8	21.6	26.0		15.2	11.5	
Progression Factor	0.99	0.91		0.96	0.95	0.73	0.21	0.22		1.00	1.00	
Incremental Delay, d2	3.3	9.1		3.7	0.7	0.7	0.5	0.6		6.6	0.3	
Delay (s)	40.4	48.8		35.7	31.1	23.7	5.0	6.4		21.9	11.8	
Level of Service	D	D		D	C	C	A	A		C	B	
Approach Delay (s)		45.6			29.8			6.3			14.6	
Approach LOS		D			C			A			B	

Intersection Summary					
HCM Average Control Delay	18.0	HCM Level of Service		B	
HCM Volume to Capacity ratio	0.59				
Actuated Cycle Length (s)	110.0	Sum of lost time (s)		12.0	
Intersection Capacity Utilization	68.4%	ICU Level of Service		C	
Analysis Period (min)	15				

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	277	334	24	27	243	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1761	
Flt Permitted	1.00	1.00	0.52	1.00	0.96	
Satd. Flow (perm)	1863	1583	974	1863	1761	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	301	363	26	29	264	25
RTOR Reduction (vph)	0	205	0	0	6	0
Lane Group Flow (vph)	301	158	26	29	283	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	24.0	24.0	24.0	24.0	23.0	
Effective Green, g (s)	24.0	24.0	24.0	24.0	23.0	
Actuated g/C Ratio	0.44	0.44	0.44	0.44	0.42	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	813	691	425	813	736	
v/s Ratio Prot	c0.16			0.02	c0.16	
v/s Ratio Perm		0.10	0.03			
v/c Ratio	0.37	0.23	0.06	0.04	0.38	
Uniform Delay, d1	10.4	9.7	9.0	8.9	11.1	
Progression Factor	0.75	1.37	1.14	1.14	0.58	
Incremental Delay, d2	1.2	0.7	0.3	0.1	1.2	
Delay (s)	9.0	14.0	10.5	10.2	7.7	
Level of Service	A	B	B	B	A	
Approach Delay (s)	11.8			10.3	7.7	
Approach LOS	B			B	A	

Intersection Summary			
HCM Average Control Delay	10.5	HCM Level of Service	B
HCM Volume to Capacity ratio	0.38		
Actuated Cycle Length (s)	55.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	41.5%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	268	394	207	503	217	271
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3469	1863	1583	1770	1583
Flt Permitted		0.72	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2560	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	291	428	225	547	236	295
RTOR Reduction (vph)	0	0	0	229	0	193
Lane Group Flow (vph)	0	719	225	318	236	102
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		64.0	64.0	64.0	38.0	38.0
Effective Green, g (s)		64.0	64.0	64.0	38.0	38.0
Actuated g/C Ratio		0.58	0.58	0.58	0.35	0.35
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1489	1084	921	611	547
v/s Ratio Prot			0.12		c0.13	
v/s Ratio Perm		c0.28		0.20		0.06
v/c Ratio		0.48	0.21	0.35	0.39	0.19
Uniform Delay, d1		13.4	10.9	12.0	27.2	25.2
Progression Factor		1.00	0.84	0.93	0.40	0.01
Incremental Delay, d2		1.1	0.4	1.0	1.6	0.6
Delay (s)		14.5	9.6	12.2	12.5	1.0
Level of Service		B	A	B	B	A
Approach Delay (s)		14.5	11.5		6.1	
Approach LOS		B	B		A	

Intersection Summary			
HCM Average Control Delay	11.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.5%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	289	7	8	677	121	0	0	174	93
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1715		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.64	1.00			1.00	1.00
Satd. Flow (perm)				1770	1715		1189	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	314	8	9	736	132	0	0	189	101
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	0	29
Lane Group Flow (vph)	0	0	0	314	10	0	736	132	0	0	189	72
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				24.0	24.0		78.0	78.0			78.0	78.0
Effective Green, g (s)				24.0	24.0		78.0	78.0			78.0	78.0
Actuated g/C Ratio				0.22	0.22		0.71	0.71			0.71	0.71
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				386	374		843	1321			1321	1122
v/s Ratio Prot					0.01			0.07			0.10	
v/s Ratio Perm				c0.18			c0.62					0.05
v/c Ratio				0.81	0.03		0.87	0.10			0.14	0.06
Uniform Delay, d1				40.9	33.8		12.2	5.0			5.2	4.9
Progression Factor				1.00	1.00		0.54	0.65			1.00	1.00
Incremental Delay, d2				16.9	0.1		11.1	0.1			0.2	0.1
Delay (s)				57.8	33.9		17.8	3.4			5.4	5.0
Level of Service				E	C		B	A			A	A
Approach Delay (s)		0.0			56.6			15.6			5.3	
Approach LOS		A			E			B			A	

Intersection Summary			
HCM Average Control Delay	22.7	HCM Level of Service	C
HCM Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	72.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	122	303	733	0	25	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.89	
Flt Protected	0.95	1.00	1.00		0.99	
Satd. Flow (prot)	1770	1863	1863		1645	
Flt Permitted	0.28	1.00	1.00		0.99	
Satd. Flow (perm)	519	1863	1863		1645	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	133	329	797	0	27	109
RTOR Reduction (vph)	0	0	0	0	88	0
Lane Group Flow (vph)	133	329	797	0	48	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)	81.0	81.0	81.0		21.0	
Effective Green, g (s)	81.0	81.0	81.0		21.0	
Actuated g/C Ratio	0.74	0.74	0.74		0.19	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	382	1372	1372		314	
v/s Ratio Prot		0.18	c0.43		c0.03	
v/s Ratio Perm	0.26					
v/c Ratio	0.35	0.24	0.58		0.15	
Uniform Delay, d1	5.1	4.6	6.7		37.1	
Progression Factor	0.08	0.08	1.00		1.32	
Incremental Delay, d2	0.7	0.1	1.8		1.0	
Delay (s)	1.1	0.5	8.5		50.0	
Level of Service	A	A	A		D	
Approach Delay (s)		0.7	8.5		50.0	
Approach LOS		A	A		D	

Intersection Summary			
HCM Average Control Delay	9.9	HCM Level of Service	A
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	62.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: Existing Volumes, Reconfigured Network

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	31	137	149	468	172	36	23	653	510	73	1318	16
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.97		1.00	0.93		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1717		3433	1815		1770	3307		1770	3533	
Flt Permitted	0.62	1.00		0.95	1.00		0.11	1.00		0.11	1.00	
Satd. Flow (perm)	1150	1717		3433	1815		207	3307		207	3533	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	34	149	162	509	187	39	25	710	554	79	1433	17
RTOR Reduction (vph)	0	44	0	0	9	0	0	156	0	0	1	0
Lane Group Flow (vph)	34	267	0	509	217	0	25	1108	0	79	1449	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	16.0	16.0		14.0	26.0		40.0	40.0		40.0	40.0	
Effective Green, g (s)	16.0	16.0		14.0	26.0		40.0	40.0		40.0	40.0	
Actuated g/C Ratio	0.18	0.18		0.16	0.29		0.44	0.44		0.44	0.44	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	232	305		534	524		161	1470		161	1570	
v/s Ratio Prot	0.01	c0.16		c0.15	0.12		0.01	c0.34		0.02	c0.41	
v/s Ratio Perm	0.02						0.06			0.20		
v/c Ratio	0.15	0.88		0.95	0.42		0.16	0.75		0.49	0.92	
Uniform Delay, d1	31.3	36.0		37.7	25.9		32.3	20.9		19.7	23.5	
Progression Factor	0.79	0.76		0.84	0.79		1.00	1.00		0.47	0.69	
Incremental Delay, d2	1.3	27.5		25.5	2.0		2.0	3.6		8.0	8.4	
Delay (s)	25.9	54.8		57.1	22.3		34.3	24.5		17.3	24.6	
Level of Service	C	D		E	C		C	C		B	C	
Approach Delay (s)		52.0			46.4			24.7			24.2	
Approach LOS		D			D			C			C	

Intersection Summary			
HCM Average Control Delay	31.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.89		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	531	18	3	0	0	0	0	150	0	58	100	520
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0						4.0			4.0	4.0
Lane Util. Factor	1.00	1.00						1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00						1.00			1.00	0.90
Flpb, ped/bikes	1.00	1.00						1.00			0.91	1.00
Frt	1.00	0.98						1.00			1.00	0.85
Flt Protected	0.95	1.00						1.00			0.98	1.00
Satd. Flow (prot)	1770	1826						1863			1658	1428
Flt Permitted	0.76	1.00						1.00			0.85	1.00
Satd. Flow (perm)	1410	1826						1863			1434	1428
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	577	20	3	0	0	0	0	163	0	63	109	565
RTOR Reduction (vph)	0	1	0	0	0	0	0	0	0	0	0	352
Lane Group Flow (vph)	577	22	0	0	0	0	0	163	0	0	172	213
Confl. Peds. (#/hr)										120		52
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	48.0	48.0						34.0			34.0	34.0
Effective Green, g (s)	48.0	48.0						34.0			34.0	34.0
Actuated g/C Ratio	0.53	0.53						0.38			0.38	0.38
Clearance Time (s)	4.0	4.0						4.0			4.0	4.0
Lane Grp Cap (vph)	864	974						704			542	539
v/s Ratio Prot	c0.21	0.01						0.09				
v/s Ratio Perm	c0.15										0.12	c0.15
v/c Ratio	0.67	0.02						0.23			0.32	0.40
Uniform Delay, d1	15.0	9.9						19.1			19.8	20.5
Progression Factor	0.38	0.27						0.48			1.00	1.00
Incremental Delay, d2	3.0	0.0						0.7			1.5	2.2
Delay (s)	8.6	2.8						9.8			21.3	22.7
Level of Service	A	A						A			C	C
Approach Delay (s)		8.4			0.0			9.8			22.3	
Approach LOS		A			A			A			C	

Intersection Summary			
HCM Average Control Delay	15.4	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.6%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	135	210	13	158	82	370	54	668	1	341	1236	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1847		1770	1863	1583	1770	3538		1770	3525	
Flt Permitted	0.70	1.00		0.37	1.00	1.00	0.12	1.00		0.25	1.00	
Satd. Flow (perm)	1303	1847		696	1863	1583	233	3538		473	3525	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	147	228	14	172	89	402	59	726	1	371	1343	36
RTOR Reduction (vph)	0	2	0	0	0	317	0	0	0	0	2	0
Lane Group Flow (vph)	147	240	0	172	89	85	59	727	0	371	1377	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	22.0	17.0		26.0	19.0	19.0	32.0	32.0		54.0	54.0	
Effective Green, g (s)	22.0	17.0		26.0	19.0	19.0	32.0	32.0		54.0	54.0	
Actuated g/C Ratio	0.24	0.19		0.29	0.21	0.21	0.36	0.36		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	344	349		285	393	334	83	1258		543	2115	
v/s Ratio Prot	0.02	c0.13		c0.05	0.05			0.21		0.14	c0.39	
v/s Ratio Perm	0.08			0.13		0.05	0.25			c0.27		
v/c Ratio	0.43	0.69		0.60	0.23	0.25	0.71	0.58		0.68	0.65	
Uniform Delay, d1	29.0	34.0		33.0	29.4	29.6	25.0	23.5		20.2	11.8	
Progression Factor	0.72	0.65		0.98	0.94	0.61	0.51	0.47		1.00	1.00	
Incremental Delay, d2	3.4	9.3		7.8	1.1	1.6	29.0	1.3		6.8	1.6	
Delay (s)	24.2	31.5		40.0	28.8	19.6	41.7	12.3		27.0	13.4	
Level of Service	C	C		D	C	B	D	B		C	B	
Approach Delay (s)		28.7			26.1			14.5			16.3	
Approach LOS		C			C			B			B	

Intersection Summary			
HCM Average Control Delay	19.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.5%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	364	234	44	46	243	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1761	
Flt Permitted	1.00	1.00	0.44	1.00	0.96	
Satd. Flow (perm)	1863	1583	812	1863	1761	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	396	254	48	50	264	25
RTOR Reduction (vph)	0	147	0	0	8	0
Lane Group Flow (vph)	396	107	48	50	281	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	19.0	19.0	19.0	19.0	18.0	
Effective Green, g (s)	19.0	19.0	19.0	19.0	18.0	
Actuated g/C Ratio	0.42	0.42	0.42	0.42	0.40	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	787	668	343	787	704	
v/s Ratio Prot	c0.21			0.03	c0.16	
v/s Ratio Perm		0.07	0.06			
v/c Ratio	0.50	0.16	0.14	0.06	0.40	
Uniform Delay, d1	9.5	8.1	8.0	7.7	9.6	
Progression Factor	1.09	2.65	1.74	1.74	1.27	
Incremental Delay, d2	1.9	0.4	0.8	0.1	1.6	
Delay (s)	12.3	21.8	14.7	13.5	13.9	
Level of Service	B	C	B	B	B	
Approach Delay (s)	16.0			14.1	13.9	
Approach LOS	B			B	B	

Intersection Summary			
HCM Average Control Delay	15.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	47.4%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	199	378	266	328	345	482
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3479	1863	1583	1770	1583
Flt Permitted		0.73	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2571	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	216	411	289	357	375	524
RTOR Reduction (vph)	0	0	0	222	0	226
Lane Group Flow (vph)	0	627	289	135	375	298
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		17.0	17.0	17.0	20.0	20.0
Effective Green, g (s)		17.0	17.0	17.0	20.0	20.0
Actuated g/C Ratio		0.38	0.38	0.38	0.44	0.44
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		971	704	598	787	704
v/s Ratio Prot			0.16		c0.21	
v/s Ratio Perm		c0.24		0.09		0.19
v/c Ratio		0.65	0.41	0.23	0.48	0.42
Uniform Delay, d1		11.5	10.3	9.5	8.8	8.6
Progression Factor		1.00	0.73	0.99	0.90	2.03
Incremental Delay, d2		3.3	1.8	0.9	1.4	1.2
Delay (s)		14.8	9.3	10.3	9.3	18.6
Level of Service		B	A	B	A	B
Approach Delay (s)		14.8	9.9		14.7	
Approach LOS		B	A		B	

Intersection Summary			
HCM Average Control Delay	13.3	HCM Level of Service	B
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	45.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	59.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	620	6	30	413	137	0	0	220	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1632		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.57	1.00			1.00	1.00
Satd. Flow (perm)				1770	1632		1058	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	674	7	33	449	149	0	0	239	87
RTOR Reduction (vph)	0	0	0	0	19	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	0	0	674	21	0	449	149	0	0	239	43
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				38.0	38.0		44.0	44.0			44.0	44.0
Effective Green, g (s)				38.0	38.0		44.0	44.0			44.0	44.0
Actuated g/C Ratio				0.42	0.42		0.49	0.49			0.49	0.49
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				747	689		517	911			911	774
v/s Ratio Prot					0.01			0.08			0.13	
v/s Ratio Perm				c0.38			c0.42					0.03
v/c Ratio				0.90	0.03		0.87	0.16			0.26	0.05
Uniform Delay, d1				24.3	15.2		20.4	12.8			13.5	12.1
Progression Factor				1.00	1.00		1.06	1.06			1.00	1.00
Incremental Delay, d2				16.2	0.1		16.0	0.3			0.7	0.1
Delay (s)				40.5	15.3		37.6	13.9			14.2	12.2
Level of Service				D	B		D	B			B	B
Approach Delay (s)		0.0			39.1			31.7			13.7	
Approach LOS		A			D			C			B	

Intersection Summary			
HCM Average Control Delay	31.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.88		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	78.8%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	150	570	733	0	25	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frpb, ped/bikes	1.00	1.00	1.00		1.00	
Flpb, ped/bikes	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.88	
Flt Protected	0.95	1.00	1.00		0.99	
Satd. Flow (prot)	1770	1863	1863		1634	
Flt Permitted	0.26	1.00	1.00		0.99	
Satd. Flow (perm)	491	1863	1863		1634	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	620	797	0	27	174
RTOR Reduction (vph)	0	0	0	0	137	0
Lane Group Flow (vph)	163	620	797	0	64	0
Confl. Bikes (#/hr)				556		
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)	63.0	63.0	63.0		19.0	
Effective Green, g (s)	63.0	63.0	63.0		19.0	
Actuated g/C Ratio	0.70	0.70	0.70		0.21	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	344	1304	1304		345	
v/s Ratio Prot		0.33	c0.43		c0.04	
v/s Ratio Perm	0.33					
v/c Ratio	0.47	0.48	0.61		0.18	
Uniform Delay, d1	6.1	6.1	7.1		29.1	
Progression Factor	0.33	0.35	1.00		0.27	
Incremental Delay, d2	2.9	0.8	2.1		1.2	
Delay (s)	4.8	2.9	9.2		9.1	
Level of Service	A	A	A		A	
Approach Delay (s)		3.3	9.2		9.1	
Approach LOS		A	A		A	

Intersection Summary			
HCM Average Control Delay	6.6	HCM Level of Service	A
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	68.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Atlanta BeltLine Subarea 6

Monroe Crescent: 2020 BeltLine

AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	47	222	143	540	330	62	64	990	465	36	814	32
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.98		1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1753		3433	1819		1770	3370		1770	3519	
Flt Permitted	0.21	1.00		0.95	1.00		0.16	1.00		0.08	1.00	
Satd. Flow (perm)	392	1753		3433	1819		299	3370		155	3519	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	51	241	155	587	359	67	70	1076	505	39	885	35
RTOR Reduction (vph)	0	20	0	0	6	0	0	49	0	0	2	0
Lane Group Flow (vph)	51	376	0	587	420	0	70	1532	0	39	918	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	23.0	23.0		19.0	38.0		53.0	53.0		52.0	52.0	
Effective Green, g (s)	23.0	23.0		19.0	38.0		53.0	53.0		52.0	52.0	
Actuated g/C Ratio	0.20	0.20		0.17	0.33		0.46	0.46		0.45	0.45	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	126	351		567	601		202	1553		126	1591	
v/s Ratio Prot	0.01	c0.21		c0.17	0.23		0.02	c0.45		0.01	c0.26	
v/s Ratio Perm	0.07						0.14			0.13		
v/c Ratio	0.40	1.07		1.04	0.70		0.35	0.99		0.31	0.58	
Uniform Delay, d1	38.9	46.0		48.0	33.5		20.1	30.7		48.3	23.3	
Progression Factor	0.94	0.90		0.99	0.99		1.00	1.00		0.70	0.72	
Incremental Delay, d2	8.7	66.4		47.2	6.6		4.7	19.9		5.8	1.4	
Delay (s)	45.4	108.0		94.9	39.8		24.7	50.6		39.5	18.3	
Level of Service	D	F		F	D		C	D		D	B	
Approach Delay (s)		100.8			71.7			49.5			19.2	
Approach LOS		F			E			D			B	

Intersection Summary			
HCM Average Control Delay	53.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.97		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	94.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	372	19	26	16	16	20	0	144	0	65	122	566
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	0.91			0.95			1.00			1.00	0.85
Flt Protected	0.95	1.00			0.99			1.00			0.98	1.00
Satd. Flow (prot)	1770	1703			1738			1863			1831	1583
Flt Permitted	0.63	1.00			0.92			1.00			0.85	1.00
Satd. Flow (perm)	1168	1703			1617			1863			1585	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	404	21	28	17	17	22	0	157	0	71	133	615
RTOR Reduction (vph)	0	15	0	0	19	0	0	0	0	0	0	321
Lane Group Flow (vph)	404	34	0	0	37	0	0	157	0	0	204	294
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	52.0	52.0			16.0			55.0			55.0	55.0
Effective Green, g (s)	52.0	52.0			16.0			55.0			55.0	55.0
Actuated g/C Ratio	0.45	0.45			0.14			0.48			0.48	0.48
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	696	770			225			891			758	757
v/s Ratio Prot	c0.16	0.02						0.08				
v/s Ratio Perm	c0.10				0.02						0.13	c0.19
v/c Ratio	0.58	0.04			0.16			0.18			0.27	0.39
Uniform Delay, d1	22.6	17.6			43.6			17.1			18.0	19.2
Progression Factor	0.34	0.01			1.00			0.32			1.00	1.00
Incremental Delay, d2	2.4	0.1			1.6			0.4			0.9	1.5
Delay (s)	10.0	0.3			45.2			5.8			18.8	20.7
Level of Service	B	A			D			A			B	C
Approach Delay (s)		9.0			45.2			5.8			20.3	
Approach LOS		A			D			A			C	

Intersection Summary			
HCM Average Control Delay	16.2	HCM Level of Service	B
HCM Volume to Capacity ratio	0.48		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	56.0%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	124	184	6	241	82	248	88	985	3	233	589	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1853		1770	1863	1583	1770	3538		1770	3520	
Flt Permitted	0.70	1.00		0.27	1.00	1.00	0.40	1.00		0.10	1.00	
Satd. Flow (perm)	1303	1853		500	1863	1583	744	3538		183	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	135	200	7	262	89	270	96	1071	3	253	640	24
RTOR Reduction (vph)	0	1	0	0	0	207	0	0	0	0	3	0
Lane Group Flow (vph)	135	206	0	262	89	63	96	1074	0	253	661	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	27.0	18.0		40.0	27.0	27.0	46.0	46.0		67.0	67.0	
Effective Green, g (s)	27.0	18.0		40.0	27.0	27.0	46.0	46.0		67.0	67.0	
Actuated g/C Ratio	0.23	0.16		0.35	0.23	0.23	0.40	0.40		0.58	0.58	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	342	290		373	437	372	298	1415		341	2051	
v/s Ratio Prot	0.03	0.11		c0.11	0.05			0.30		c0.11	0.19	
v/s Ratio Perm	0.06			c0.13		0.04	0.13			c0.32		
v/c Ratio	0.39	0.71		0.70	0.20	0.17	0.32	0.76		0.74	0.32	
Uniform Delay, d1	36.5	46.0		29.6	35.4	35.1	23.8	29.7		26.6	12.3	
Progression Factor	0.64	0.80		0.94	0.94	0.62	0.26	0.28		1.00	1.00	
Incremental Delay, d2	3.2	13.0		8.9	0.9	0.8	0.9	1.3		13.6	0.4	
Delay (s)	26.4	50.0		36.7	34.2	22.7	7.2	9.6		40.2	12.8	
Level of Service	C	D		D	C	C	A	A		D	B	
Approach Delay (s)		40.7			30.3			9.4			20.3	
Approach LOS		D			C			A			C	

Intersection Summary			
HCM Average Control Delay	20.5	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	77.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	320	410	27	33	286	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1759	
Flt Permitted	1.00	1.00	0.45	1.00	0.96	
Satd. Flow (perm)	1863	1583	842	1863	1759	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	348	446	29	36	311	34
RTOR Reduction (vph)	0	229	0	0	3	0
Lane Group Flow (vph)	348	217	29	36	342	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	410	907	780	
v/s Ratio Prot	c0.19			0.02	c0.19	
v/s Ratio Perm		0.14	0.03			
v/c Ratio	0.38	0.28	0.07	0.04	0.44	
Uniform Delay, d1	18.6	17.5	15.7	15.4	22.1	
Progression Factor	1.04	3.00	1.31	1.32	0.34	
Incremental Delay, d2	1.1	0.8	0.3	0.1	1.4	
Delay (s)	20.5	53.5	20.9	20.5	8.8	
Level of Service	C	D	C	C	A	
Approach Delay (s)	39.0			20.7	8.8	
Approach LOS	D			C	A	

Intersection Summary			
HCM Average Control Delay	29.4	HCM Level of Service	C
HCM Volume to Capacity ratio	0.41		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	46.8%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	341	416	218	569	262	296
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3461	1863	1583	1770	1583
Flt Permitted		0.70	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2489	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	371	452	237	618	285	322
RTOR Reduction (vph)	0	0	0	258	0	210
Lane Group Flow (vph)	0	823	237	360	285	112
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		67.0	67.0	67.0	40.0	40.0
Effective Green, g (s)		67.0	67.0	67.0	40.0	40.0
Actuated g/C Ratio		0.58	0.58	0.58	0.35	0.35
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1450	1085	922	616	551
v/s Ratio Prot			0.13		c0.16	
v/s Ratio Perm		c0.33		0.23		0.07
v/c Ratio		0.57	0.22	0.39	0.46	0.20
Uniform Delay, d1		15.0	11.5	13.0	29.1	26.3
Progression Factor		1.00	0.70	0.11	0.42	0.00
Incremental Delay, d2		1.6	0.5	1.2	2.0	0.7
Delay (s)		16.6	8.5	2.7	14.2	0.8
Level of Service		B	A	A	B	A
Approach Delay (s)		16.6	4.3		7.1	
Approach LOS		B	A		A	

Intersection Summary			
HCM Average Control Delay	9.5	HCM Level of Service	A
HCM Volume to Capacity ratio	0.53		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	63.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	305	7	8	748	191	0	0	227	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1715		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.60	1.00			1.00	1.00
Satd. Flow (perm)				1770	1715		1118	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	332	8	9	813	208	0	0	247	107
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	0	28
Lane Group Flow (vph)	0	0	0	332	10	0	813	208	0	0	247	79
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				22.0	22.0		85.0	85.0			85.0	85.0
Effective Green, g (s)				22.0	22.0		85.0	85.0			85.0	85.0
Actuated g/C Ratio				0.19	0.19		0.74	0.74			0.74	0.74
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				339	328		826	1377			1377	1170
v/s Ratio Prot					0.01			0.11			0.13	
v/s Ratio Perm				c0.19			c0.73					0.05
v/c Ratio				0.98	0.03		0.98	0.15			0.18	0.07
Uniform Delay, d1				46.3	37.8		14.4	4.4			4.5	4.1
Progression Factor				1.00	1.00		0.67	0.74			1.00	1.00
Incremental Delay, d2				44.0	0.2		25.5	0.2			0.3	0.1
Delay (s)				90.2	38.0		35.1	3.5			4.8	4.2
Level of Service				F	D		D	A			A	A
Approach Delay (s)		0.0			87.7			28.7			4.6	
Approach LOS		A			F			C			A	

Intersection Summary			
HCM Average Control Delay	35.7	HCM Level of Service	D
HCM Volume to Capacity ratio	0.98		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: 2020 BeltLine

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	55	177	189	526	208	56	25	751	560	103	1471	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.97		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1718		3433	1803		1770	3312		1770	3521	
Flt Permitted	0.58	1.00		0.95	1.00		0.09	1.00		0.09	1.00	
Satd. Flow (perm)	1088	1718		3433	1803		159	3312		159	3521	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	192	205	572	226	61	27	816	609	112	1599	58
RTOR Reduction (vph)	0	34	0	0	9	0	0	117	0	0	2	0
Lane Group Flow (vph)	60	363	0	572	278	0	27	1308	0	112	1655	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	27.0	23.0		19.0	38.0		51.0	51.0		53.0	53.0	
Effective Green, g (s)	27.0	23.0		19.0	38.0		51.0	51.0		53.0	53.0	
Actuated g/C Ratio	0.23	0.20		0.17	0.33		0.44	0.44		0.46	0.46	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	279	344		567	596		127	1469		157	1623	
v/s Ratio Prot	0.01	c0.21		c0.17	0.15		0.01	c0.39		0.04	c0.47	
v/s Ratio Perm	0.04						0.09			0.29		
v/c Ratio	0.22	1.06		1.01	0.47		0.21	0.89		0.71	1.02	
Uniform Delay, d1	34.9	46.0		48.0	30.5		26.2	29.4		45.9	31.0	
Progression Factor	0.94	0.94		0.95	1.00		1.00	1.00		0.79	0.69	
Incremental Delay, d2	1.7	63.3		37.2	2.2		3.8	8.5		16.4	23.1	
Delay (s)	34.3	106.4		82.5	32.9		30.0	37.9		52.5	44.5	
Level of Service	C	F		F	C		C	D		D	D	
Approach Delay (s)		96.9			65.9			37.8			45.0	
Approach LOS		F			E			D			D	

Intersection Summary			
HCM Average Control Delay	51.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.03		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	94.9%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	560	61	13	4	32	40	2	174	0	64	139	589
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	0.97			0.93			1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.98	1.00
Satd. Flow (prot)	1770	1814			1727			1862			1834	1583
Flt Permitted	0.50	1.00			0.99			1.00			0.86	1.00
Satd. Flow (perm)	938	1814			1712			1859			1597	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	609	66	14	4	35	43	2	189	0	70	151	640
RTOR Reduction (vph)	0	6	0	0	34	0	0	0	0	0	0	401
Lane Group Flow (vph)	609	74	0	0	48	0	0	191	0	0	221	239
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	64.0	64.0			16.0			43.0			43.0	43.0
Effective Green, g (s)	64.0	64.0			16.0			43.0			43.0	43.0
Actuated g/C Ratio	0.56	0.56			0.14			0.37			0.37	0.37
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	840	1010			238			695			597	592
v/s Ratio Prot	c0.28	0.04										
v/s Ratio Perm	c0.13				0.03			0.10			0.14	c0.15
v/c Ratio	0.72	0.07			0.20			0.27			0.37	0.40
Uniform Delay, d1	17.8	11.8			43.8			25.1			26.2	26.6
Progression Factor	0.36	0.33			1.00			0.52			1.00	1.00
Incremental Delay, d2	2.2	0.1			1.9			0.9			1.8	2.0
Delay (s)	8.7	3.9			45.7			13.9			27.9	28.6
Level of Service	A	A			D			B			C	C
Approach Delay (s)		8.2			45.7			13.9			28.4	
Approach LOS		A			D			B			C	

Intersection Summary			
HCM Average Control Delay	20.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.8%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	272	14	189	131	398	57	807	1	362	1424	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	1.00	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1849		1770	1863	1583	1770	3539		1770	3522	
Flt Permitted	0.67	1.00		0.16	1.00	1.00	0.12	1.00		0.18	1.00	
Satd. Flow (perm)	1241	1849		298	1863	1583	217	3539		343	3522	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	296	15	205	142	433	62	877	1	393	1548	51
RTOR Reduction (vph)	0	2	0	0	0	262	0	0	0	0	2	0
Lane Group Flow (vph)	167	309	0	205	142	171	62	878	0	393	1597	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	26.0	21.0		36.0	27.0	27.0	49.0	49.0		71.0	71.0	
Effective Green, g (s)	26.0	21.0		36.0	27.0	27.0	49.0	49.0		71.0	71.0	
Actuated g/C Ratio	0.23	0.18		0.31	0.23	0.23	0.43	0.43		0.62	0.62	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	304	338		234	437	372	92	1508		435	2174	
v/s Ratio Prot	0.02	0.17		c0.08	0.08			0.25		c0.14	0.45	
v/s Ratio Perm	0.10			c0.19		0.11	0.29			c0.42		
v/c Ratio	0.55	0.92		0.88	0.32	0.46	0.67	0.58		0.90	0.73	
Uniform Delay, d1	38.4	46.1		32.7	36.5	37.8	26.6	25.2		20.3	15.4	
Progression Factor	0.47	0.60		0.97	0.93	0.76	0.71	0.70		1.00	1.00	
Incremental Delay, d2	6.1	28.5		30.0	1.7	3.5	19.2	0.9		24.7	2.2	
Delay (s)	24.1	56.3		61.7	35.7	32.3	37.9	18.4		45.0	17.7	
Level of Service	C	E		E	D	C	D	B		D	B	
Approach Delay (s)		45.0			40.7			19.7			23.0	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM Average Control Delay	28.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	83.2%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	434	325	57	94	308	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1758	
Flt Permitted	1.00	1.00	0.34	1.00	0.96	
Satd. Flow (perm)	1863	1583	640	1863	1758	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	472	353	62	102	335	39
RTOR Reduction (vph)	0	181	0	0	4	0
Lane Group Flow (vph)	472	172	62	102	370	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	312	907	780	
v/s Ratio Prot	c0.25			0.05	c0.21	
v/s Ratio Perm		0.11	0.10			
v/c Ratio	0.52	0.22	0.20	0.11	0.47	
Uniform Delay, d1	20.3	17.0	16.8	16.0	22.6	
Progression Factor	0.99	1.95	0.53	0.54	0.67	
Incremental Delay, d2	1.7	0.5	1.3	0.2	1.9	
Delay (s)	21.8	33.7	10.1	8.9	16.9	
Level of Service	C	C	B	A	B	
Approach Delay (s)	26.9			9.3	16.9	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	22.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.50		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	55.4%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	243	399	281	380	417	529
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3474	1863	1583	1770	1583
Flt Permitted		0.67	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2364	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	264	434	305	413	453	575
RTOR Reduction (vph)	0	0	0	219	0	255
Lane Group Flow (vph)	0	698	305	194	453	320
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		54.0	54.0	54.0	53.0	53.0
Effective Green, g (s)		54.0	54.0	54.0	53.0	53.0
Actuated g/C Ratio		0.47	0.47	0.47	0.46	0.46
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1110	875	743	816	730
v/s Ratio Prot			0.16		c0.26	
v/s Ratio Perm		c0.30		0.12		0.20
v/c Ratio		0.63	0.35	0.26	0.56	0.44
Uniform Delay, d1		23.0	19.3	18.4	22.5	20.9
Progression Factor		1.00	0.63	0.17	0.70	0.55
Incremental Delay, d2		2.7	1.1	0.8	1.6	1.2
Delay (s)		25.7	13.2	4.0	17.3	12.6
Level of Service		C	B	A	B	B
Approach Delay (s)		25.7	7.9		14.7	
Approach LOS		C	A		B	

Intersection Summary			
HCM Average Control Delay	15.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.59		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	66.0%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	654	6	32	436	212	0	0	305	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1630		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.48	1.00			1.00	1.00
Satd. Flow (perm)				1770	1630		897	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	711	7	35	474	230	0	0	332	91
RTOR Reduction (vph)	0	0	0	0	21	0	0	0	0	0	0	44
Lane Group Flow (vph)	0	0	0	711	21	0	474	230	0	0	332	47
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				47.0	47.0		60.0	60.0			60.0	60.0
Effective Green, g (s)				47.0	47.0		60.0	60.0			60.0	60.0
Actuated g/C Ratio				0.41	0.41		0.52	0.52			0.52	0.52
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				723	666		468	972			972	826
v/s Ratio Prot					0.01			0.12			0.18	
v/s Ratio Perm				c0.40			c0.53					0.03
v/c Ratio				0.98	0.03		1.01	0.24			0.34	0.06
Uniform Delay, d1				33.6	20.4		27.5	15.0			16.0	13.6
Progression Factor				1.00	1.00		0.45	0.55			1.00	1.00
Incremental Delay, d2				29.7	0.1		42.4	0.5			1.0	0.1
Delay (s)				63.3	20.5		54.7	8.8			17.0	13.7
Level of Service				E	C		D	A			B	B
Approach Delay (s)		0.0			60.9			39.7			16.3	
Approach LOS		A			E			D			B	

Intersection Summary			
HCM Average Control Delay	42.9	HCM Level of Service	D
HCM Volume to Capacity ratio	1.00		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	86.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: 2030 Baseline

AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	85	281	157	599	375	74	74	1117	508	55	916	51
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.95		1.00	0.98		1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1762		3433	1817		1770	3373		1770	3511	
Flt Permitted	0.22	1.00		0.95	1.00		0.10	1.00		0.09	1.00	
Satd. Flow (perm)	414	1762		3433	1817		189	3373		162	3511	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	92	305	171	651	408	80	80	1214	552	60	996	55
RTOR Reduction (vph)	0	17	0	0	6	0	0	46	0	0	3	0
Lane Group Flow (vph)	92	459	0	651	482	0	80	1720	0	60	1048	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	24.0	24.0		18.0	36.0		53.0	53.0		50.0	50.0	
Effective Green, g (s)	24.0	24.0		18.0	36.0		53.0	53.0		50.0	50.0	
Actuated g/C Ratio	0.21	0.21		0.16	0.31		0.46	0.46		0.43	0.43	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	157	368		537	569		183	1555		126	1527	
v/s Ratio Prot	0.03	c0.26		c0.19	0.27		0.03	c0.51		0.02	c0.30	
v/s Ratio Perm	0.09						0.17			0.19		
v/c Ratio	0.59	1.25		1.21	0.85		0.44	1.11		0.48	0.69	
Uniform Delay, d1	38.9	45.5		48.5	36.9		21.8	31.0		51.4	26.2	
Progression Factor	0.99	0.98		0.91	0.87		1.00	1.00		0.73	0.73	
Incremental Delay, d2	13.3	129.3		107.4	10.6		7.4	57.8		10.9	2.2	
Delay (s)	51.8	173.7		151.5	42.8		29.2	88.8		48.6	21.3	
Level of Service	D	F		F	D		C	F		D	C	
Approach Delay (s)		154.0			104.9			86.2			22.7	
Approach LOS		F			F			F			C	

Intersection Summary			
HCM Average Control Delay	83.9	HCM Level of Service	F
HCM Volume to Capacity ratio	1.12		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	105.2%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	443	26	27	43	43	53	3	173	0	74	151	609
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Flpb, ped/bikes	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	0.92			0.95			1.00			1.00	0.85
Flt Protected	0.95	1.00			0.98			1.00			0.98	1.00
Satd. Flow (prot)	1766	1721			1740			1861			1833	1583
Flt Permitted	0.47	1.00			0.89			1.00			0.85	1.00
Satd. Flow (perm)	871	1721			1572			1857			1576	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	482	28	29	47	47	58	3	188	0	80	164	662
RTOR Reduction (vph)	0	14	0	0	19	0	0	0	0	0	0	380
Lane Group Flow (vph)	482	43	0	0	133	0	0	191	0	0	244	282
Confl. Peds. (#/hr)	3											
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	58.0	58.0			19.0			49.0			49.0	49.0
Effective Green, g (s)	58.0	58.0			19.0			49.0			49.0	49.0
Actuated g/C Ratio	0.50	0.50			0.17			0.43			0.43	0.43
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	712	868			260			791			672	674
v/s Ratio Prot	c0.21	0.02										
v/s Ratio Perm	c0.14				0.08			0.10			0.15	c0.18
v/c Ratio	0.68	0.05			0.51			0.24			0.36	0.42
Uniform Delay, d1	20.5	14.5			43.8			21.1			22.4	23.0
Progression Factor	0.22	0.00			1.00			0.61			1.00	1.00
Incremental Delay, d2	2.1	0.0			7.0			0.5			1.5	1.9
Delay (s)	6.7	0.0			50.8			13.4			23.9	25.0
Level of Service	A	A			D			B			C	C
Approach Delay (s)		6.0			50.8			13.4			24.7	
Approach LOS		A			D			B			C	

Intersection Summary			
HCM Average Control Delay	20.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.55		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	64.9%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	155	219	7	276	88	277	90	1158	3	276	692	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1854		1770	1863	1583	1770	3538		1770	3516	
Flt Permitted	0.69	1.00		0.19	1.00	1.00	0.35	1.00		0.08	1.00	
Satd. Flow (perm)	1294	1854		355	1863	1583	660	3538		143	3516	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	168	238	8	300	96	301	98	1259	3	300	752	34
RTOR Reduction (vph)	0	1	0	0	0	236	0	0	0	0	3	0
Lane Group Flow (vph)	168	245	0	300	96	65	98	1262	0	300	783	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	26.0	17.0		38.0	25.0	25.0	48.0	48.0		69.0	69.0	
Effective Green, g (s)	26.0	17.0		38.0	25.0	25.0	48.0	48.0		69.0	69.0	
Actuated g/C Ratio	0.23	0.15		0.33	0.22	0.22	0.42	0.42		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	330	274		326	405	344	275	1477		326	2110	
v/s Ratio Prot	0.04	0.13		c0.14	0.05			0.36		c0.14	0.22	
v/s Ratio Perm	0.08			c0.17		0.04	0.15			c0.41		
v/c Ratio	0.51	0.89		0.92	0.24	0.19	0.36	0.85		0.92	0.37	
Uniform Delay, d1	38.1	48.1		32.4	37.1	36.7	22.9	30.3		35.2	11.8	
Progression Factor	0.60	0.76		0.98	0.92	0.54	0.29	0.32		1.00	1.00	
Incremental Delay, d2	5.0	30.6		28.0	1.1	1.0	0.3	0.6		33.1	0.5	
Delay (s)	28.0	67.2		59.7	35.2	20.8	7.1	10.4		68.3	12.3	
Level of Service	C	E		E	D	C	A	B		E	B	
Approach Delay (s)		51.3			39.5			10.2			27.8	
Approach LOS		D			D			B			C	

Intersection Summary			
HCM Average Control Delay	26.1	HCM Level of Service	C
HCM Volume to Capacity ratio	0.90		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	88.0%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	376	518	31	43	344	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1756	
Flt Permitted	1.00	1.00	0.40	1.00	0.96	
Satd. Flow (perm)	1863	1583	741	1863	1756	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	409	563	34	47	374	48
RTOR Reduction (vph)	0	289	0	0	4	0
Lane Group Flow (vph)	409	274	34	47	418	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	361	907	779	
v/s Ratio Prot	c0.22			0.03	c0.24	
v/s Ratio Perm		0.17	0.05			
v/c Ratio	0.45	0.36	0.09	0.05	0.54	
Uniform Delay, d1	19.4	18.3	15.9	15.5	23.4	
Progression Factor	1.03	2.13	1.42	1.43	0.40	
Incremental Delay, d2	1.4	1.1	0.5	0.1	1.6	
Delay (s)	21.5	40.1	23.1	22.2	10.9	
Level of Service	C	D	C	C	B	
Approach Delay (s)	32.2			22.6	10.9	
Approach LOS	C			C	B	

Intersection Summary			
HCM Average Control Delay	25.6	HCM Level of Service	C
HCM Volume to Capacity ratio	0.49		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	54.2%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	446	429	225	649	324	321
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3451	1863	1583	1770	1583
Flt Permitted		0.68	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2422	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	485	466	245	705	352	349
RTOR Reduction (vph)	0	0	0	294	0	228
Lane Group Flow (vph)	0	951	245	411	352	121
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		67.0	67.0	67.0	40.0	40.0
Effective Green, g (s)		67.0	67.0	67.0	40.0	40.0
Actuated g/C Ratio		0.58	0.58	0.58	0.35	0.35
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1411	1085	922	616	551
v/s Ratio Prot			0.13		c0.20	
v/s Ratio Perm		c0.39		0.26		0.08
v/c Ratio		0.67	0.23	0.45	0.57	0.22
Uniform Delay, d1		16.5	11.5	13.5	30.5	26.5
Progression Factor		1.00	0.79	0.31	0.70	0.54
Incremental Delay, d2		2.6	0.5	1.5	2.8	0.7
Delay (s)		19.1	9.6	5.7	24.2	15.0
Level of Service		B	A	A	C	B
Approach Delay (s)		19.1	6.7		19.6	
Approach LOS		B	A		B	

Intersection Summary			
HCM Average Control Delay	14.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	71.7%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	314	8	9	803	258	0	0	304	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1716		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.55	1.00			1.00	1.00
Satd. Flow (perm)				1770	1716		1021	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	341	9	10	873	280	0	0	330	110
RTOR Reduction (vph)	0	0	0	0	8	0	0	0	0	0	0	26
Lane Group Flow (vph)	0	0	0	341	11	0	873	280	0	0	330	84
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				19.0	19.0		88.0	88.0			88.0	88.0
Effective Green, g (s)				19.0	19.0		88.0	88.0			88.0	88.0
Actuated g/C Ratio				0.17	0.17		0.77	0.77			0.77	0.77
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				292	284		781	1426			1426	1211
v/s Ratio Prot					0.01			0.15			0.18	
v/s Ratio Perm				c0.19			c0.85					0.05
v/c Ratio				1.17	0.04		1.12	0.20			0.23	0.07
Uniform Delay, d1				48.0	40.3		13.5	3.7			3.9	3.3
Progression Factor				1.00	1.00		0.56	0.45			1.00	1.00
Incremental Delay, d2				106.1	0.2		66.7	0.2			0.4	0.1
Delay (s)				154.1	40.6		74.3	1.9			4.2	3.5
Level of Service				F	D		E	A			A	A
Approach Delay (s)		0.0			148.1			56.7			4.0	
Approach LOS		A			F			E			A	

Intersection Summary			
HCM Average Control Delay	61.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	87.9%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	173	450	907	2	81	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0		4.0	
Lane Util. Factor	1.00	1.00	1.00		1.00	
Frt	1.00	1.00	1.00		0.91	
Flt Protected	0.95	1.00	1.00		0.98	
Satd. Flow (prot)	1770	1863	1862		1673	
Flt Permitted	0.19	1.00	1.00		0.98	
Satd. Flow (perm)	361	1863	1862		1673	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	188	489	986	2	88	153
RTOR Reduction (vph)	0	0	0	0	55	0
Lane Group Flow (vph)	188	489	988	0	186	0
Turn Type	Perm					
Protected Phases		4	8		6	
Permitted Phases	4					
Actuated Green, G (s)	86.0	86.0	86.0		21.0	
Effective Green, g (s)	86.0	86.0	86.0		21.0	
Actuated g/C Ratio	0.75	0.75	0.75		0.18	
Clearance Time (s)	4.0	4.0	4.0		4.0	
Lane Grp Cap (vph)	270	1393	1392		306	
v/s Ratio Prot		0.26	c0.53		c0.11	
v/s Ratio Perm	0.52					
v/c Ratio	0.70	0.35	0.71		0.61	
Uniform Delay, d1	7.6	5.0	7.8		43.2	
Progression Factor	0.27	0.08	1.00		0.54	
Incremental Delay, d2	1.4	0.1	3.1		8.3	
Delay (s)	3.4	0.4	10.9		31.5	
Level of Service	A	A	B		C	
Approach Delay (s)		1.3	10.9		31.5	
Approach LOS		A	B		C	

Intersection Summary			
HCM Average Control Delay	10.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.69		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	80.6%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: 2030 Baseline

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	92	234	247	594	259	87	28	876	613	149	1647	113
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.96		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1719		3433	1792		1770	3321		1770	3505	
Flt Permitted	0.34	1.00		0.95	1.00		0.08	1.00		0.08	1.00	
Satd. Flow (perm)	638	1719		3433	1792		155	3321		155	3505	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	100	254	268	646	282	95	30	952	666	162	1790	123
RTOR Reduction (vph)	0	33	0	0	11	0	0	110	0	0	4	0
Lane Group Flow (vph)	100	489	0	646	366	0	30	1508	0	162	1909	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	32.0	24.0		17.0	33.0		52.0	52.0		54.0	54.0	
Effective Green, g (s)	32.0	24.0		17.0	33.0		52.0	52.0		54.0	54.0	
Actuated g/C Ratio	0.28	0.21		0.15	0.29		0.45	0.45		0.47	0.47	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	256	359		507	514		126	1502		157	1646	
v/s Ratio Prot	0.03	c0.28		c0.19	0.20		0.01	c0.45		0.05	c0.54	
v/s Ratio Perm	0.08						0.10			0.43		
v/c Ratio	0.39	1.36		1.27	0.71		0.24	1.00		1.03	1.16	
Uniform Delay, d1	32.1	45.5		49.0	36.8		26.1	31.5		51.4	30.5	
Progression Factor	1.01	0.95		0.94	0.98		1.00	1.00		0.81	0.72	
Incremental Delay, d2	4.1	178.4		134.9	6.3		4.4	24.3		54.9	75.0	
Delay (s)	36.4	221.5		180.7	42.3		30.5	55.8		96.7	97.1	
Level of Service	D	F		F	D		C	E		F	F	
Approach Delay (s)		191.7			129.7			55.3			97.1	
Approach LOS		F			F			E			F	

Intersection Summary			
HCM Average Control Delay	101.4	HCM Level of Service	F
HCM Volume to Capacity ratio	1.24		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	110.2%	ICU Level of Service	H
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	578	158	3	11	85	107	5	206	0	81	163	672
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.93			1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.98	1.00
Satd. Flow (prot)	1770	1858			1725			1861			1832	1583
Flt Permitted	0.29	1.00			0.98			0.99			0.80	1.00
Satd. Flow (perm)	531	1858			1693			1852			1492	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	628	172	3	12	92	116	5	224	0	88	177	730
RTOR Reduction (vph)	0	0	0	0	35	0	0	0	0	0	0	457
Lane Group Flow (vph)	628	175	0	0	185	0	0	229	0	0	265	273
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	64.0	64.0			16.0			43.0			43.0	43.0
Effective Green, g (s)	64.0	64.0			16.0			43.0			43.0	43.0
Actuated g/C Ratio	0.56	0.56			0.14			0.37			0.37	0.37
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	770	1034			236			692			558	592
v/s Ratio Prot	c0.31	0.09										
v/s Ratio Perm	c0.14				0.11			0.12			c0.18	0.17
v/c Ratio	0.82	0.17			0.78			0.33			0.47	0.46
Uniform Delay, d1	27.3	12.5			47.8			25.7			27.4	27.2
Progression Factor	0.42	0.43			1.00			0.67			1.00	1.00
Incremental Delay, d2	4.3	0.2			22.4			1.0			2.9	2.6
Delay (s)	15.8	5.5			70.2			18.3			30.3	29.8
Level of Service	B	A			E			B			C	C
Approach Delay (s)		13.6			70.2			18.3			29.9	
Approach LOS		B			E			B			C	

Intersection Summary			
HCM Average Control Delay	26.8	HCM Level of Service	C
HCM Volume to Capacity ratio	0.67		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	81.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	176	273	17	231	207	424	59	931	1	376	1665	68
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1847		1770	1863	1583	1770	3539		1770	3518	
Flt Permitted	0.62	1.00		0.25	1.00	1.00	0.08	1.00		0.13	1.00	
Satd. Flow (perm)	1151	1847		466	1863	1583	155	3539		241	3518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	191	297	18	251	225	461	64	1012	1	409	1810	74
RTOR Reduction (vph)	0	2	0	0	0	231	0	0	0	0	2	0
Lane Group Flow (vph)	191	313	0	251	225	230	64	1013	0	409	1882	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	22.0	22.0		28.0	28.0	28.0	48.0	48.0		69.0	69.0	
Effective Green, g (s)	22.0	22.0		28.0	28.0	28.0	48.0	48.0		69.0	69.0	
Actuated g/C Ratio	0.19	0.19		0.24	0.24	0.24	0.42	0.42		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	252	353		250	454	385	65	1477		371	2111	
v/s Ratio Prot	0.04	c0.17		c0.10	0.12			0.29		c0.16	0.53	
v/s Ratio Perm	0.11			c0.14		0.15	0.41			c0.50		
v/c Ratio	0.76	0.89		1.00	0.50	0.60	0.98	0.69		1.10	0.89	
Uniform Delay, d1	44.2	45.3		40.7	37.4	38.5	33.1	27.3		29.5	19.8	
Progression Factor	0.61	0.60		1.02	1.01	1.04	1.00	1.03		1.00	1.00	
Incremental Delay, d2	15.1	21.7		51.4	3.0	5.3	63.6	1.0		77.2	6.2	
Delay (s)	41.9	49.0		92.8	40.8	45.3	96.8	29.1		106.7	26.0	
Level of Service	D	D		F	D	D	F	C		F	C	
Approach Delay (s)		46.3			56.9			33.1			40.4	
Approach LOS		D			E			C			D	

Intersection Summary			
HCM Average Control Delay	42.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.02		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	93.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	529	463	71	176	403	57
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1755	
Flt Permitted	1.00	1.00	0.26	1.00	0.96	
Satd. Flow (perm)	1863	1583	481	1863	1755	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	575	503	77	191	438	62
RTOR Reduction (vph)	0	258	0	0	4	0
Lane Group Flow (vph)	575	245	77	191	496	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	234	907	778	
v/s Ratio Prot	c0.31			0.10	c0.28	
v/s Ratio Perm		0.15	0.16			
v/c Ratio	0.63	0.32	0.33	0.21	0.64	
Uniform Delay, d1	21.9	17.9	18.0	16.9	24.8	
Progression Factor	0.94	1.21	0.30	0.32	0.55	
Incremental Delay, d2	2.5	0.8	2.8	0.4	2.8	
Delay (s)	23.0	22.5	8.2	5.8	16.5	
Level of Service	C	C	A	A	B	
Approach Delay (s)	22.8			6.5	16.5	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	18.7	HCM Level of Service	B
HCM Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.6%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	304	411	289	447	517	578
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3466	1863	1583	1770	1583
Flt Permitted		0.65	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2303	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	330	447	314	486	562	628
RTOR Reduction (vph)	0	0	0	258	0	249
Lane Group Flow (vph)	0	777	314	228	562	379
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		54.0	54.0	54.0	53.0	53.0
Effective Green, g (s)		54.0	54.0	54.0	53.0	53.0
Actuated g/C Ratio		0.47	0.47	0.47	0.46	0.46
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1081	875	743	816	730
v/s Ratio Prot			0.17		c0.32	
v/s Ratio Perm		c0.34		0.14		0.24
v/c Ratio		0.72	0.36	0.31	0.69	0.52
Uniform Delay, d1		24.4	19.5	18.9	24.5	22.0
Progression Factor		1.00	0.61	0.32	0.76	0.67
Incremental Delay, d2		4.1	1.1	1.0	2.4	1.3
Delay (s)		28.5	12.9	7.0	20.9	16.1
Level of Service		C	B	A	C	B
Approach Delay (s)		28.5	9.3		18.4	
Approach LOS		C	A		B	

Intersection Summary			
HCM Average Control Delay	18.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	74.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	674	7	33	449	328	0	0	434	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1634		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.38	1.00			1.00	1.00
Satd. Flow (perm)				1770	1634		715	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	733	8	36	488	357	0	0	472	95
RTOR Reduction (vph)	0	0	0	0	23	0	0	0	0	0	0	42
Lane Group Flow (vph)	0	0	0	733	21	0	488	357	0	0	472	53
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				43.0	43.0		64.0	64.0			64.0	64.0
Effective Green, g (s)				43.0	43.0		64.0	64.0			64.0	64.0
Actuated g/C Ratio				0.37	0.37		0.56	0.56			0.56	0.56
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				662	611		398	1037			1037	881
v/s Ratio Prot					0.01			0.19			0.25	
v/s Ratio Perm				c0.41			c0.68					0.03
v/c Ratio				1.11	0.04		1.23	0.34			0.46	0.06
Uniform Delay, d1				36.0	22.8		25.5	14.0			15.1	11.7
Progression Factor				1.00	1.00		0.41	0.45			1.00	1.00
Incremental Delay, d2				68.1	0.1		119.3	0.8			1.4	0.1
Delay (s)				104.1	22.9		129.8	7.1			16.6	11.8
Level of Service				F	C		F	A			B	B
Approach Delay (s)		0.0			99.5			78.0			15.8	
Approach LOS		A			F			E			B	

Intersection Summary			
HCM Average Control Delay	69.5	HCM Level of Service	E
HCM Volume to Capacity ratio	1.18		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	95.1%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: 2030 BeltLine

AM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	69	254	149	566	351	68	69	1049	482	47	861	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.94		1.00	0.98		1.00	0.95		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1759		3433	1817		1770	3372		1770	3514	
Flt Permitted	0.20	1.00		0.95	1.00		0.13	1.00		0.09	1.00	
Satd. Flow (perm)	373	1759		3433	1817		233	3372		162	3514	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	276	162	615	382	74	75	1140	524	51	936	47
RTOR Reduction (vph)	0	18	0	0	6	0	0	47	0	0	3	0
Lane Group Flow (vph)	75	420	0	615	450	0	75	1617	0	51	980	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	24.0	24.0		19.0	39.0		52.0	52.0		50.0	50.0	
Effective Green, g (s)	24.0	24.0		19.0	39.0		52.0	52.0		50.0	50.0	
Actuated g/C Ratio	0.21	0.21		0.17	0.34		0.45	0.45		0.43	0.43	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	126	367		567	616		186	1525		126	1528	
v/s Ratio Prot	0.02	c0.24		c0.18	0.25		0.02	c0.48		0.01	c0.28	
v/s Ratio Perm	0.10						0.16			0.16		
v/c Ratio	0.60	1.14		1.08	0.73		0.40	1.06		0.40	0.64	
Uniform Delay, d1	38.8	45.5		48.0	33.4		21.5	31.5		51.2	25.5	
Progression Factor	0.92	0.93		0.91	0.86		1.00	1.00		0.71	0.72	
Incremental Delay, d2	17.2	89.9		58.0	5.6		6.4	41.0		8.5	1.9	
Delay (s)	53.0	132.4		101.5	34.3		27.9	72.5		44.8	20.2	
Level of Service	D	F		F	C		C	E		D	C	
Approach Delay (s)		120.7			72.9			70.6			21.4	
Approach LOS		F			E			E			C	

Intersection Summary			
HCM Average Control Delay	65.4	HCM Level of Service	E
HCM Volume to Capacity ratio	1.04		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	99.7%	ICU Level of Service	F
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	408	23	26	32	32	40	0	159	0	69	138	582
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	0.92			0.95			1.00			1.00	0.85
Flt Protected	0.95	1.00			0.98			1.00			0.98	1.00
Satd. Flow (prot)	1770	1715			1740			1863			1832	1583
Flt Permitted	0.51	1.00			0.90			1.00			0.85	1.00
Satd. Flow (perm)	951	1715			1584			1863			1579	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	443	25	28	35	35	43	0	173	0	75	150	633
RTOR Reduction (vph)	0	14	0	0	20	0	0	0	0	0	0	358
Lane Group Flow (vph)	443	39	0	0	93	0	0	173	0	0	225	275
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	57.0	57.0			17.0			50.0			50.0	50.0
Effective Green, g (s)	57.0	57.0			17.0			50.0			50.0	50.0
Actuated g/C Ratio	0.50	0.50			0.15			0.43			0.43	0.43
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	728	850			234			810			687	688
v/s Ratio Prot	c0.19	0.02						0.09				
v/s Ratio Perm	c0.11				0.06						0.14	c0.17
v/c Ratio	0.61	0.05			0.40			0.21			0.33	0.40
Uniform Delay, d1	20.2	15.0			44.4			20.3			21.4	22.2
Progression Factor	0.22	0.00			1.00			0.61			1.00	1.00
Incremental Delay, d2	2.0	0.1			5.0			0.5			1.3	1.7
Delay (s)	6.5	0.1			49.4			12.9			22.7	24.0
Level of Service	A	A			D			B			C	C
Approach Delay (s)		5.8			49.4			12.9			23.6	
Approach LOS		A			D			B			C	

Intersection Summary			
HCM Average Control Delay	18.9	HCM Level of Service	B
HCM Volume to Capacity ratio	0.51		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	60.3%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	141	202	6	258	84	261	88	1072	3	255	641	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	1.00		1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1854		1770	1863	1583	1770	3538		1770	3518	
Flt Permitted	0.70	1.00		0.20	1.00	1.00	0.38	1.00		0.08	1.00	
Satd. Flow (perm)	1300	1854		375	1863	1583	700	3538		150	3518	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	153	220	7	280	91	284	96	1165	3	277	697	29
RTOR Reduction (vph)	0	1	0	0	0	225	0	0	0	0	2	0
Lane Group Flow (vph)	153	226	0	280	91	59	96	1168	0	277	724	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	27.0	17.0		38.0	24.0	24.0	48.0	48.0		69.0	69.0	
Effective Green, g (s)	27.0	17.0		38.0	24.0	24.0	48.0	48.0		69.0	69.0	
Actuated g/C Ratio	0.23	0.15		0.33	0.21	0.21	0.42	0.42		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	346	274		330	389	330	292	1477		329	2111	
v/s Ratio Prot	0.04	0.12		c0.13	0.05			0.33		c0.12	0.21	
v/s Ratio Perm	0.07			c0.15		0.04	0.14			c0.38		
v/c Ratio	0.44	0.83		0.85	0.23	0.18	0.33	0.79		0.84	0.34	
Uniform Delay, d1	36.9	47.6		31.8	37.9	37.4	22.6	29.1		32.3	11.6	
Progression Factor	0.66	0.81		0.97	0.93	0.58	0.28	0.29		1.00	1.00	
Incremental Delay, d2	3.7	22.3		19.2	1.1	1.0	0.3	0.4		22.2	0.4	
Delay (s)	28.2	60.9		49.9	36.2	22.6	6.5	8.9		54.6	12.0	
Level of Service	C	E		D	D	C	A	A		D	B	
Approach Delay (s)		47.7			36.2			8.7			23.8	
Approach LOS		D			D			A			C	

Intersection Summary			
HCM Average Control Delay	23.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	348	468	29	38	316	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.99	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1757	
Flt Permitted	1.00	1.00	0.43	1.00	0.96	
Satd. Flow (perm)	1863	1583	792	1863	1757	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	378	509	32	41	343	41
RTOR Reduction (vph)	0	261	0	0	4	0
Lane Group Flow (vph)	378	248	32	41	380	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	386	907	779	
v/s Ratio Prot	c0.20			0.02	c0.22	
v/s Ratio Perm		0.16	0.04			
v/c Ratio	0.42	0.32	0.08	0.05	0.49	
Uniform Delay, d1	19.0	17.9	15.8	15.5	22.7	
Progression Factor	1.02	2.54	1.25	1.25	0.35	
Incremental Delay, d2	1.2	1.0	0.4	0.1	1.6	
Delay (s)	20.7	46.5	20.1	19.5	9.7	
Level of Service	C	D	C	B	A	
Approach Delay (s)	35.5			19.7	9.7	
Approach LOS	D			B	A	

Intersection Summary			
HCM Average Control Delay	27.2	HCM Level of Service	C
HCM Volume to Capacity ratio	0.45		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	50.6%	ICU Level of Service	A
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	399	416	218	607	295	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3455	1863	1583	1770	1583
Flt Permitted		0.69	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2451	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	434	452	237	660	321	333
RTOR Reduction (vph)	0	0	0	281	0	214
Lane Group Flow (vph)	0	886	237	379	321	119
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		66.0	66.0	66.0	41.0	41.0
Effective Green, g (s)		66.0	66.0	66.0	41.0	41.0
Actuated g/C Ratio		0.57	0.57	0.57	0.36	0.36
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1407	1069	909	631	564
v/s Ratio Prot			0.13		c0.18	
v/s Ratio Perm		c0.36		0.24		0.07
v/c Ratio		0.63	0.22	0.42	0.51	0.21
Uniform Delay, d1		16.3	12.0	13.7	29.1	25.7
Progression Factor		1.00	0.78	0.31	0.48	0.04
Incremental Delay, d2		2.1	0.5	1.4	2.2	0.6
Delay (s)		18.5	9.8	5.6	16.3	1.6
Level of Service		B	A	A	B	A
Approach Delay (s)		18.5	6.7		8.8	
Approach LOS		B	A		A	

Intersection Summary			
HCM Average Control Delay	11.6	HCM Level of Service	B
HCM Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	67.3%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	305	7	8	781	254	0	0	270	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.92		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1715		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.57	1.00			1.00	1.00
Satd. Flow (perm)				1770	1715		1064	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	332	8	9	849	276	0	0	293	107
RTOR Reduction (vph)	0	0	0	0	7	0	0	0	0	0	0	26
Lane Group Flow (vph)	0	0	0	332	10	0	849	276	0	0	293	81
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				20.0	20.0		87.0	87.0			87.0	87.0
Effective Green, g (s)				20.0	20.0		87.0	87.0			87.0	87.0
Actuated g/C Ratio				0.17	0.17		0.76	0.76			0.76	0.76
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				308	298		805	1409			1409	1198
v/s Ratio Prot					0.01			0.15			0.16	
v/s Ratio Perm				c0.19			c0.80					0.05
v/c Ratio				1.08	0.03		1.05	0.20			0.21	0.07
Uniform Delay, d1				47.5	39.5		14.0	4.0			4.0	3.6
Progression Factor				1.00	1.00		0.69	0.67			1.00	1.00
Incremental Delay, d2				73.6	0.2		44.4	0.3			0.3	0.1
Delay (s)				121.1	39.7		54.1	2.9			4.4	3.7
Level of Service				F	D		D	A			A	A
Approach Delay (s)		0.0			117.1			41.5			4.2	
Approach LOS		A			F			D			A	

Intersection Summary			
HCM Average Control Delay	47.6	HCM Level of Service	D
HCM Volume to Capacity ratio	1.06		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	84.4%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Atlanta BeltLine Subarea 6

Monroe Crescent: 2030 BeltLine

PM PEAK HOUR



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	77	209	221	558	235	74	25	751	560	129	1551	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		0.97	1.00		1.00	0.95		1.00	0.95	
Frt	1.00	0.92		1.00	0.96		1.00	0.94		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1719		3433	1796		1770	3312		1770	3510	
Flt Permitted	0.42	1.00		0.95	1.00		0.08	1.00		0.08	1.00	
Satd. Flow (perm)	792	1719		3433	1796		155	3312		155	3510	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	84	227	240	607	255	80	27	816	609	140	1686	97
RTOR Reduction (vph)	0	33	0	0	10	0	0	117	0	0	4	0
Lane Group Flow (vph)	84	434	0	607	325	0	27	1308	0	140	1779	0
Turn Type	pm+pt			Prot			pm+pt			pm+pt		
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4						2			6		
Actuated Green, G (s)	32.0	24.0		17.0	33.0		52.0	52.0		54.0	54.0	
Effective Green, g (s)	32.0	24.0		17.0	33.0		52.0	52.0		54.0	54.0	
Actuated g/C Ratio	0.28	0.21		0.15	0.29		0.45	0.45		0.47	0.47	
Clearance Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	288	359		507	515		126	1498		157	1648	
v/s Ratio Prot	0.02	c0.25		c0.18	0.18		0.01	c0.39		0.05	c0.51	
v/s Ratio Perm	0.06						0.09			0.37		
v/c Ratio	0.29	1.21		1.20	0.63		0.21	0.87		0.89	1.08	
Uniform Delay, d1	31.6	45.5		49.0	35.7		26.1	28.5		45.8	30.5	
Progression Factor	0.96	0.92		0.95	0.99		1.00	1.00		0.76	0.66	
Incremental Delay, d2	2.4	115.8		103.7	4.7		3.9	7.3		30.7	42.5	
Delay (s)	32.8	157.7		150.3	40.0		29.9	35.9		65.6	62.8	
Level of Service	C	F		F	D		C	D		E	E	
Approach Delay (s)		138.7			111.1			35.8			63.0	
Approach LOS		F			F			D			E	

Intersection Summary			
HCM Average Control Delay	72.7	HCM Level of Service	E
HCM Volume to Capacity ratio	1.14		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	102.8%	ICU Level of Service	G
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	560	123	3	8	64	80	4	190	0	73	151	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Util. Factor	1.00	1.00			1.00			1.00			1.00	1.00
Frt	1.00	1.00			0.93			1.00			1.00	0.85
Flt Protected	0.95	1.00			1.00			1.00			0.98	1.00
Satd. Flow (prot)	1770	1857			1726			1861			1833	1583
Flt Permitted	0.41	1.00			0.98			1.00			0.83	1.00
Satd. Flow (perm)	755	1857			1700			1855			1550	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	609	134	3	9	70	87	4	207	0	79	164	684
RTOR Reduction (vph)	0	1	0	0	34	0	0	0	0	0	0	428
Lane Group Flow (vph)	609	136	0	0	132	0	0	211	0	0	243	256
Turn Type	pm+pt			Perm			Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4			8			2			6		6
Actuated Green, G (s)	64.0	64.0			16.0			43.0			43.0	43.0
Effective Green, g (s)	64.0	64.0			16.0			43.0			43.0	43.0
Actuated g/C Ratio	0.56	0.56			0.14			0.37			0.37	0.37
Clearance Time (s)	4.0	4.0			4.0			4.0			4.0	4.0
Lane Grp Cap (vph)	809	1033			237			694			580	592
v/s Ratio Prot	c0.29	0.07										
v/s Ratio Perm	c0.13				0.08			0.11			0.16	c0.16
v/c Ratio	0.75	0.13			0.56			0.30			0.42	0.43
Uniform Delay, d1	24.1	12.2			46.2			25.4			26.7	26.9
Progression Factor	0.38	0.41			1.00			0.66			1.00	1.00
Incremental Delay, d2	1.6	0.1			9.1			1.0			2.2	2.3
Delay (s)	10.8	5.1			55.2			17.7			28.9	29.2
Level of Service	B	A			E			B			C	C
Approach Delay (s)		9.8			55.2			17.7			29.1	
Approach LOS		A			E			B			C	

Intersection Summary			
HCM Average Control Delay	23.0	HCM Level of Service	C
HCM Volume to Capacity ratio	0.61		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	75.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	166	322	14	211	175	406	57	807	1	364	1544	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00	1.00	0.95		1.00	0.95	
Frt	1.00	0.99		1.00	1.00	0.85	1.00	1.00		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00	1.00	0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1770	1851		1770	1863	1583	1770	3539		1770	3520	
Flt Permitted	0.64	1.00		0.25	1.00	1.00	0.08	1.00		0.18	1.00	
Satd. Flow (perm)	1188	1851		466	1863	1583	155	3539		334	3520	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	350	15	229	190	441	62	877	1	396	1678	64
RTOR Reduction (vph)	0	2	0	0	0	245	0	0	0	0	2	0
Lane Group Flow (vph)	180	363	0	229	190	196	62	878	0	396	1740	0
Turn Type	pm+pt			pm+pt		Perm	Perm			pm+pt		
Protected Phases	7	4		3	8			2		1	6	
Permitted Phases	4			8		8	2			6		
Actuated Green, G (s)	22.0	22.0		28.0	28.0	28.0	48.0	48.0		69.0	69.0	
Effective Green, g (s)	22.0	22.0		28.0	28.0	28.0	48.0	48.0		69.0	69.0	
Actuated g/C Ratio	0.19	0.19		0.24	0.24	0.24	0.42	0.42		0.60	0.60	
Clearance Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Lane Grp Cap (vph)	258	354		250	454	385	65	1477		413	2112	
v/s Ratio Prot	0.04	c0.20		c0.10	0.10			0.25		c0.14	0.49	
v/s Ratio Perm	0.10			0.13		0.12	0.40			c0.43		
v/c Ratio	0.70	1.03		0.92	0.42	0.51	0.95	0.59		0.96	0.82	
Uniform Delay, d1	44.1	46.5		39.3	36.6	37.6	32.4	26.0		22.4	18.2	
Progression Factor	0.60	0.61		1.00	1.00	0.99	0.94	0.96		1.00	1.00	
Incremental Delay, d2	12.1	50.3		33.8	2.3	3.9	71.6	1.0		35.1	3.8	
Delay (s)	38.6	78.6		73.2	38.8	41.0	101.9	26.0		57.4	22.0	
Level of Service	D	E		E	D	D	F	C		E	C	
Approach Delay (s)		65.4			49.1			31.0			28.6	
Approach LOS		E			D			C			C	

Intersection Summary			
HCM Average Control Delay	37.5	HCM Level of Service	D
HCM Volume to Capacity ratio	0.96		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	90.7%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Movement	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations						
Volume (vph)	484	403	65	142	360	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	
Frt	1.00	0.85	1.00	1.00	0.98	
Flt Protected	1.00	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1863	1583	1770	1863	1756	
Flt Permitted	1.00	1.00	0.30	1.00	0.96	
Satd. Flow (perm)	1863	1583	556	1863	1756	
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	526	438	71	154	391	52
RTOR Reduction (vph)	0	225	0	0	4	0
Lane Group Flow (vph)	526	213	71	154	439	0
Turn Type		Perm	Perm			
Protected Phases	4			8	2	
Permitted Phases		4	8			
Actuated Green, G (s)	56.0	56.0	56.0	56.0	51.0	
Effective Green, g (s)	56.0	56.0	56.0	56.0	51.0	
Actuated g/C Ratio	0.49	0.49	0.49	0.49	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.0	4.0	
Lane Grp Cap (vph)	907	771	271	907	779	
v/s Ratio Prot	c0.28			0.08	c0.25	
v/s Ratio Perm		0.13	0.13			
v/c Ratio	0.58	0.28	0.26	0.17	0.56	
Uniform Delay, d1	21.1	17.5	17.3	16.5	23.7	
Progression Factor	0.97	1.38	0.31	0.33	0.53	
Incremental Delay, d2	2.1	0.7	1.9	0.3	2.3	
Delay (s)	22.5	24.8	7.3	5.8	14.9	
Level of Service	C	C	A	A	B	
Approach Delay (s)	23.5			6.3	14.9	
Approach LOS	C			A	B	

Intersection Summary			
HCM Average Control Delay	18.8	HCM Level of Service	B
HCM Volume to Capacity ratio	0.57		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	61.9%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	276	399	281	414	470	549
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.0	4.0	4.0	4.0	4.0
Lane Util. Factor		0.95	1.00	1.00	1.00	1.00
Frt		1.00	1.00	0.85	1.00	0.85
Flt Protected		0.98	1.00	1.00	0.95	1.00
Satd. Flow (prot)		3468	1863	1583	1770	1583
Flt Permitted		0.66	1.00	1.00	0.95	1.00
Satd. Flow (perm)		2336	1863	1583	1770	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	300	434	305	450	511	597
RTOR Reduction (vph)	0	0	0	239	0	255
Lane Group Flow (vph)	0	734	305	211	511	342
Turn Type	Perm			Perm		Perm
Protected Phases		4	8		6	
Permitted Phases	4			8		6
Actuated Green, G (s)		54.0	54.0	54.0	53.0	53.0
Effective Green, g (s)		54.0	54.0	54.0	53.0	53.0
Actuated g/C Ratio		0.47	0.47	0.47	0.46	0.46
Clearance Time (s)		4.0	4.0	4.0	4.0	4.0
Lane Grp Cap (vph)		1097	875	743	816	730
v/s Ratio Prot			0.16		c0.29	
v/s Ratio Perm		c0.31		0.13		0.22
v/c Ratio		0.67	0.35	0.28	0.63	0.47
Uniform Delay, d1		23.6	19.3	18.7	23.5	21.3
Progression Factor		1.00	0.62	0.28	0.72	0.61
Incremental Delay, d2		3.2	1.1	0.9	2.0	1.2
Delay (s)		26.8	13.0	6.1	18.9	14.1
Level of Service		C	B	A	B	B
Approach Delay (s)		26.8	8.9		16.3	
Approach LOS		C	A		B	

Intersection Summary			
HCM Average Control Delay	17.1	HCM Level of Service	B
HCM Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	69.9%	ICU Level of Service	C
Analysis Period (min)	15		

c Critical Lane Group



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	654	6	32	436	279	0	0	378	84
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Util. Factor				1.00	1.00		1.00	1.00			1.00	1.00
Frt				1.00	0.88		1.00	1.00			1.00	0.85
Flt Protected				0.95	1.00		0.95	1.00			1.00	1.00
Satd. Flow (prot)				1770	1630		1770	1863			1863	1583
Flt Permitted				0.95	1.00		0.43	1.00			1.00	1.00
Satd. Flow (perm)				1770	1630		803	1863			1863	1583
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	711	7	35	474	303	0	0	411	91
RTOR Reduction (vph)	0	0	0	0	22	0	0	0	0	0	0	40
Lane Group Flow (vph)	0	0	0	711	20	0	474	303	0	0	411	51
Turn Type				Perm			Perm					Perm
Protected Phases					8			2			6	
Permitted Phases				8			2					6
Actuated Green, G (s)				43.0	43.0		64.0	64.0			64.0	64.0
Effective Green, g (s)				43.0	43.0		64.0	64.0			64.0	64.0
Actuated g/C Ratio				0.37	0.37		0.56	0.56			0.56	0.56
Clearance Time (s)				4.0	4.0		4.0	4.0			4.0	4.0
Lane Grp Cap (vph)				662	609		447	1037			1037	881
v/s Ratio Prot					0.01			0.16			0.22	
v/s Ratio Perm				c0.40			c0.59					0.03
v/c Ratio				1.07	0.03		1.06	0.29			0.40	0.06
Uniform Delay, d1				36.0	22.8		25.5	13.5			14.5	11.7
Progression Factor				1.00	1.00		0.40	0.47			1.00	1.00
Incremental Delay, d2				56.5	0.1		56.5	0.6			1.1	0.1
Delay (s)				92.5	22.9		66.8	6.9			15.6	11.8
Level of Service				F	C		E	A			B	B
Approach Delay (s)		0.0			88.7			43.4			14.9	
Approach LOS		A			F			D			B	

Intersection Summary			
HCM Average Control Delay	53.2	HCM Level of Service	D
HCM Volume to Capacity ratio	1.07		
Actuated Cycle Length (s)	115.0	Sum of lost time (s)	8.0
Intersection Capacity Utilization	90.3%	ICU Level of Service	E
Analysis Period (min)	15		

c Critical Lane Group

Appendix C: Meeting Summaries

STUDY GROUP AND PLANNING COMMITTEE MEETINGS		
MEETING TYPE	**PURPOSE**	**DATE**
Planning Committee Meeting	Kickoff Meeting	12/11/07
Study Group Meeting	Review Planning Process, Goals, and Objectives	02/04/08
Study Group Meeting	Study Area Existing Conditions, Refine Goals and Objectives	04/10/08
Planning Committee Meeting	Study Area master plan Concept Plans	06/30/08
Planning Committee Meeting	Study Area master plan Concept Plans	07/14/08
Study Group Meeting	Study Area master plan Concept Plans	07/17/08
Planning Committee Meeting	Workshop-style Land Use and Design Exercise	08/11/08
Study Group Meeting	Study Area master plan Revised Concept Plans	09/11/08
Study Group Meeting	Study Group Meeting, Discussion of Transit Supportive Development, Street Connectivity, and Zoning Entitlement	10/13/08
Planning Committee Meeting	Study Area master plan Draft	11/19/08
Study Group Meeting	Study Area master plan Draft	02/12/09
Planning Committee Meeting	Study Area master plan Revised Draft	05/07/09
Study Group Meeting	Study Area master plan Final Draft	06/11/09
Study Group Meeting	Study Area master plan Revised Final Draft	07/09/09
Office Hours	Various Topics	Sept. 2009

BeltLine
Atlanta Connected

Agenda
BeltLine Master Plan
Subarea 6 Steering Committee
December 11, 2007; 6:30 – 8:00 pm
Grady High School

1. Introductions

2. BeltLine Status Update

3. Previous Studies

4. Creating a Goals Framework

5. Questions and Answers

Pleases contact Jonathan Lewis with any questions.
jlewis@atlantaga.gov
(404) 865-8593

Subarea 6 Steering Committee
Kick-off
Study Goals

December 11, 2007

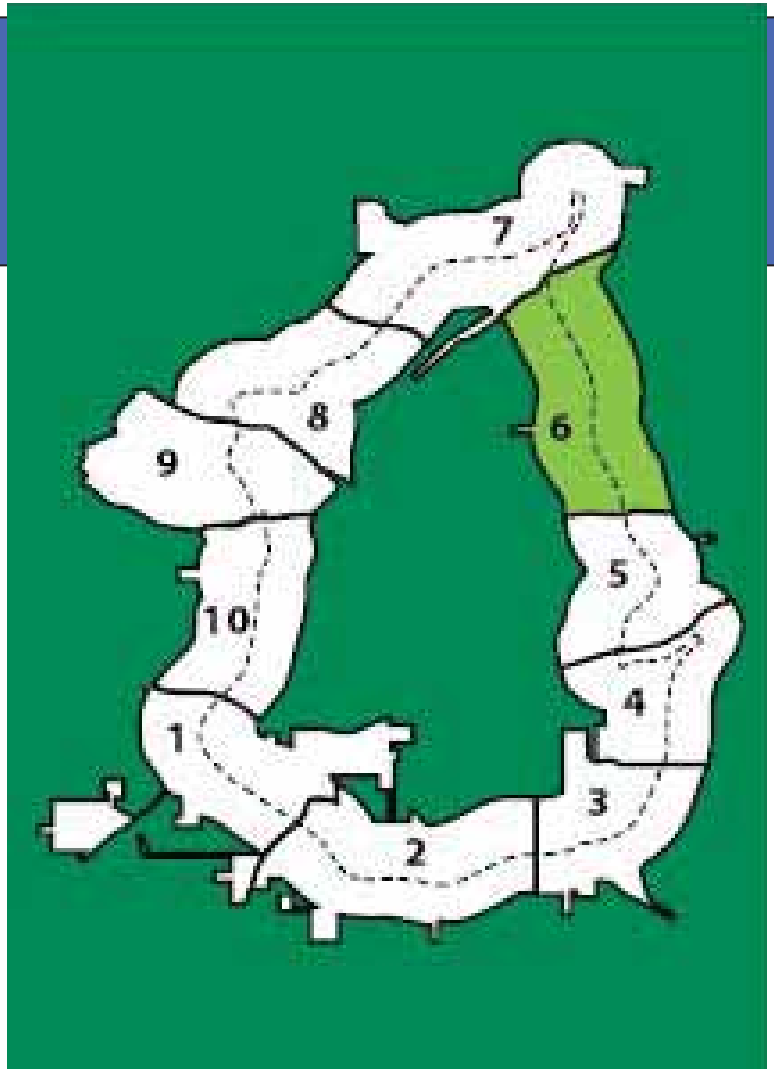
Introductions

BeltLine Status Update

Previous Studies

Goals

Questions and Answers



Key Elements of the BeltLine



Parks
~ 1300 new acres



Trails
33 miles



Transit
22-mile loop



Jobs and Economic Development
20 areas, 30k jobs



Workforce Housing
$240M ~5,600 units



Historic Preservation



Streetscapes and Transportation Infrastructure

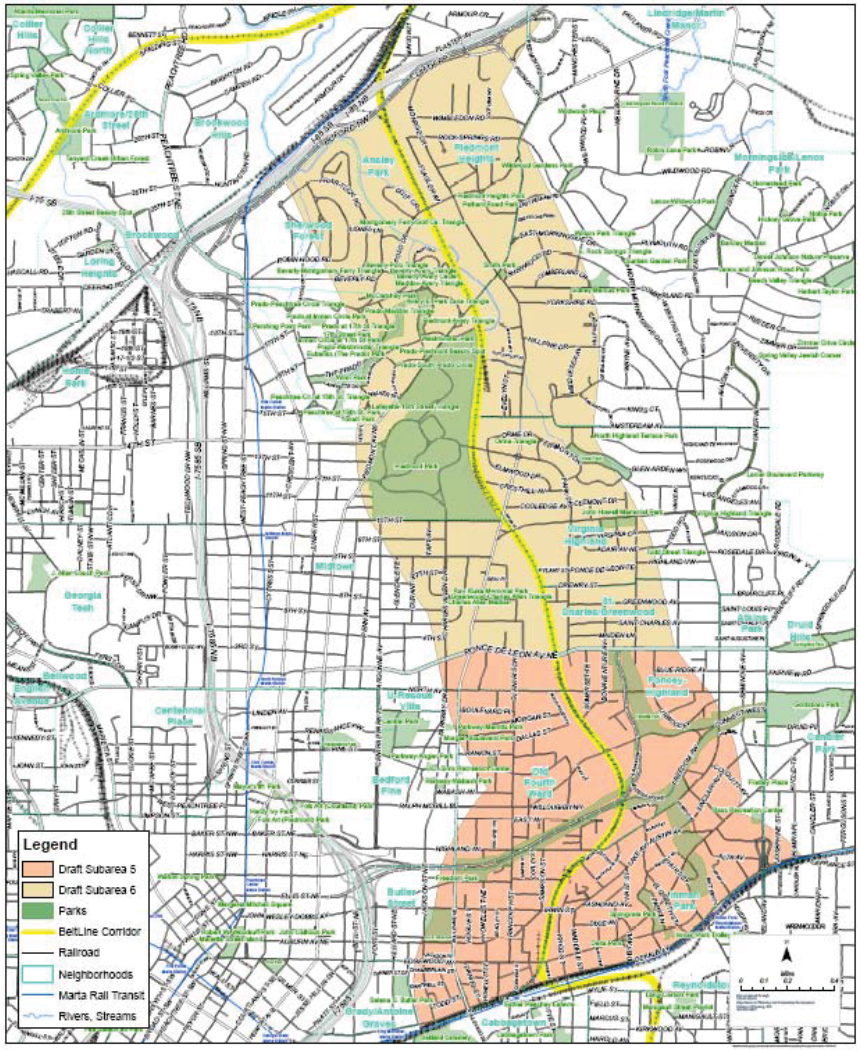


Environmental Clean-up

MASTER PLANNING
Overview

BeltLine
Atlanta Connected

City of Atlanta
Draft Northeast BeltLine Planning Area



Detailed interdisciplinary planning for focused study area

- Interdisciplinary consulting team support
- Provides an opportunity for comprehensive community engagement
- Technical analysis for transportation, land use and parks
- Creates implementation tools
- Builds on previous plans and studies

MASTER PLANNING
Overview

Provides an opportunity for comprehensive community engagement

- **Steering Committee will meet 6 times**
  - **3 Steering Committee meetings**
  - **3 Joint meetings with the public (Study Group)**
  - **2 Reserve meetings**

- **Stakeholder meetings and interviews as needed**

MASTER PLANNING
Overview

Detailed technical analysis of transportation, land use and parks

- ***Transportation connectivity and infrastructure needs including***
  - **Circulation planning**
  - **Streetscapes**
  - **Detailed traffic analysis**
  - **New roads, pedestrian and bicycle facilities**

MASTER PLANNING
Overview

Detailed technical analysis of transportation, land use and parks

- ***Confirmation of land use – based on BeltLine Redevelopment Plan and small area plans - including***
  - **Parks opportunities**
  - **Land Use Plan Updates**
  - **Survey of existing buildings**
  - **Potential historical and cultural features**
  - **Public and cultural arts opportunities**
  - **Zoning recommendations**

MASTER PLANNING
Overview

Delivers additional implementation tools

- **Atlanta Strategic Action Plan (formerly Comprehensive Development Plan) will be updated to include BeltLine supportive land uses**

- **Improve street grid to support the BeltLine, so that it can be constructed by both the public and private sectors**

- **Detail and prioritize the pedestrian, roadway and bicycle projects needed to provide access to the BeltLine and maintain mobility ($21 M in TAD funding available next 5 yrs)**

Introductions

BeltLine Status Update

Previous Studies

Goals

Questions and Answers

Introductions

BeltLine Status Update

Previous Studies

Goals

Questions and Answers

Previous Studies and Reviews

Transportation Studies

- North Highland Avenue Transportation and Parking Study
- Cheshire Bridge Road Corridor Study
- Peachtree Corridor Task Force Final Report

Small Area Studies

- Ponce de Leon Corridor Plan
- Moreland Ave Corridor Plan
- Moreland Ave LCI
- Blueprint Midtown
- Blueprint Piedmont Heights

BeltLine Studies

- BeltLine Emerald Necklace
- Atlanta BeltLine Redevelopment Plan
- BeltLine Street Framework Plan
- City of Atlanta BeltLine Brownfield Survey
- BeltLine Cultural Vision Document

City-Wide Plans

- City of Atlanta Greenspace Plan
- Mayor's Economic Development Plan
- Atlanta Strategic Action Plan (formerly COA CDP)
- City of Atlanta Cultural Master Planning activities
- City of Atlanta Capital Improvement Projects

Park Program Initiatives

- PATH – Multi-Use Trail Planning
- Piedmont Park Conservancy Master Plan

Developments of Regional Impact (DRI) Reviews

Others?

Introductions

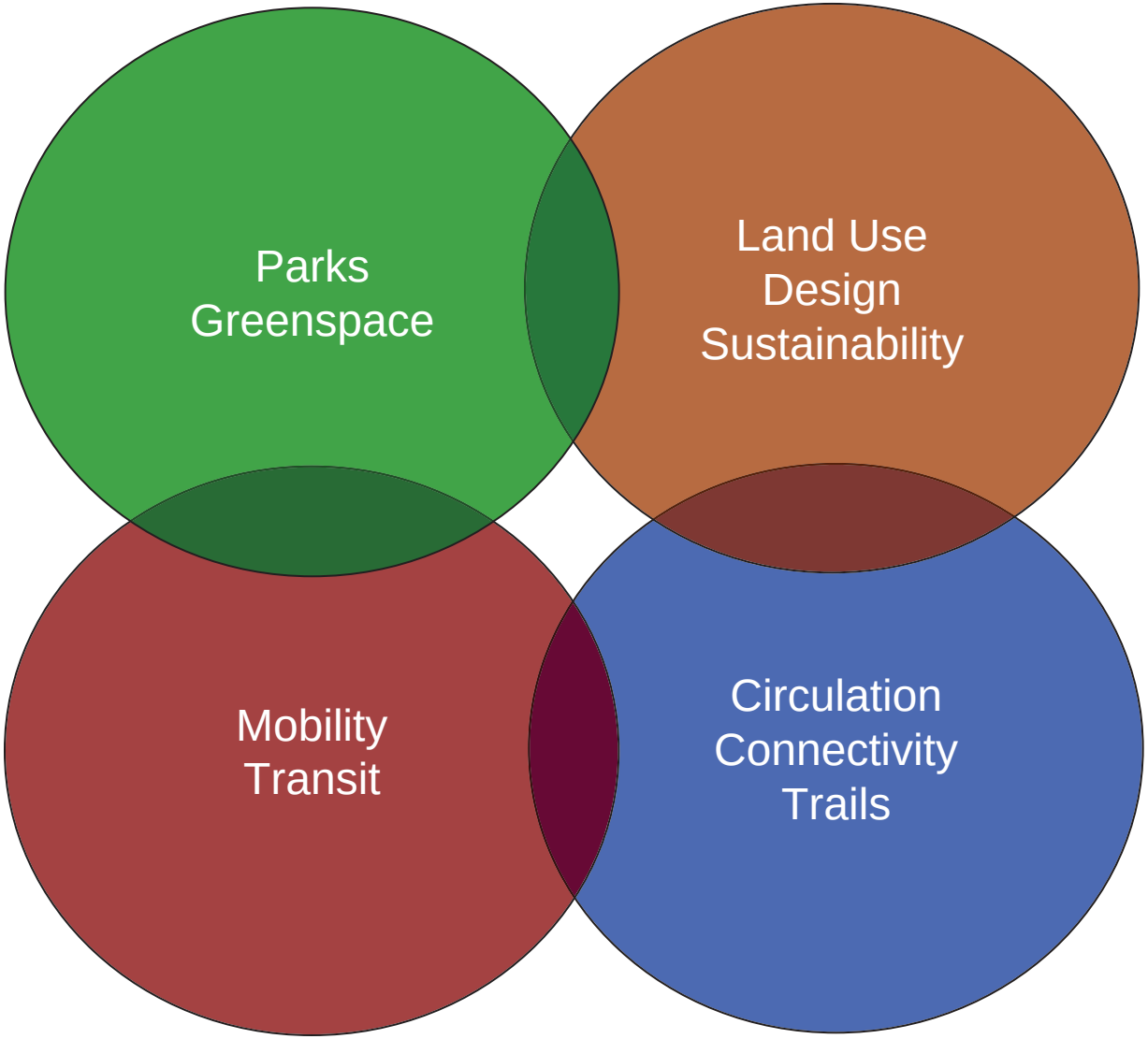
BeltLine Status Update

Previous Studies

Goals

Questions and Answers

Key Principles



Goals

Parks / Greenspace

- Preserve and encourage further greenspace opportunities
- Develop appropriate connections to schools



Goals

Circulation / Connectivity / Trails

- Develop logical networks of sidewalks and trails
- Establish seamless connectivity between parks and trails



Goals

Mobility / Transit

- Improve accessibility and mobility within the corridor.
  - Reduce travel times along corridor
  - Improve roadway network design promoting auto and pedestrian safety
  - Improve traffic signalization operations to help mitigate peak hour congestion
- Overcome physical constraints such as grade issues and lack of road connectivity to provide sufficient access and continuity to neighboring communities.
- Ensure adequate connectivity between existing and future transit services.
- Encourage transit supportive land use patterns and developments.



Goals

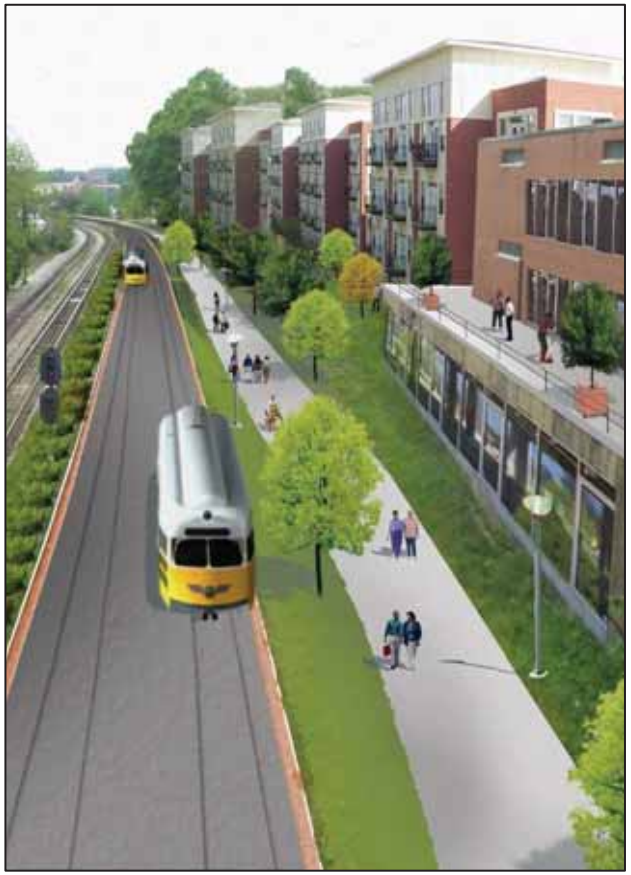
Land Use / Design / Sustainability

- Accommodate growth without compromising existing uses and environmentally or historically sensitive areas.
- Promote redevelopment patterns best suited to complement surrounding communities.
- Ensure character of surrounding communities remain undisturbed.
- Develop urban design standards promoting safe environments for bicyclists and pedestrians.





Study Goals Discussion



Introductions

BeltLine Status Update

Previous Studies

Goals and Objectives

Questions and Answers

Subarea 6 Steering Committee Beltline
Kickoff Meeting
December 11, 2007
Grady High School Media Center

Agenda Items Covered:

1. Introductions

2. BeltLine Status Update

3. Previous Studies

4. Creating a Goals Framework

5. Questions and Answers

Proceedings

- Meeting started at 6:15pm

Introduction and Welcome

- Jonathan Lewis and Tina Arbes provided a general welcome to the group as well as an update on the NE Corridor Acquisition, West End Trail Construction and the North Ave. Park.
- The update included specifics such as the commitment to the development of a park larger than the initial 13-16 acres for North Ave., as well as the exciting news that the West End Trail will start and finish construction in 2008.
- Ms. Arbes repeatedly stated that all of these accomplishments were only possible due to the many partnerships that have been formed because of interest in the project by a variety of groups, both public and private.
- The last update consisted of an update on the lawsuit filed by John Woodham against the BeltLine TAD. The Supreme Court has to rule by March; however, Ms. Arbes stated that the decision is expected to come down shortly after the New Year.

Master Planning

PowerPoint Presentation by Jonathan Lewis

- Detailed interdisciplinary study for focused area

- Focus will be Transportation, Greenspace, Trails and Land Use
- The Steering Committee will consist of six meetings (3 Steering Committee Meetings and 3 joint meetings with the Study Groups).
- The planning effort will include a look at key issues, such as possible street extensions to improve connectivity, transit supportive land uses and streetscape improvements among other things.
- The result of this planning effort will be used to influence the Atlanta Strategic Action Plan, as well as the Comprehensive Transportation Plan that the city has recently undertaken.

The plan will also aim to build on the efforts of area plans such as:

- North Highland Avenue Transportation and Parking Study
- Chesire Bridge Road Corridor Study
- Peachtree Corridor Task Force Final Report
- Ponce de Leon Corridor Plan
- Moreland Ave. Corridor Plan
- Moreland Ave. LCI
- Blueprint Midtown
- Blueprint Piedmont Heights
- If there are any other area plans that should be reviewed feel free to forward them to jlewis@atlantaga.gov or skendrick@atlantaga.gov

Goals & Concerns

Parks and Greenspace

- Do not harm existing parks
- Work not only to preserve greenspace but also enhance it
- Protect the public edges (Do not limit public access along any edge of the park)

Question

How will the BeltLine Arboretum fit into the area's plan?

Trees Atlanta created the BeltLine Arboretum, and until engineering studies are completed for the BeltLine corridor, we will not really know how it will look in this area. We do know that Trees Atlanta has divided the BeltLine up into fifteen smaller areas and will select unique plant palettes for each of those areas.

Circulation/Connectivity/Trails

- We must address specific at grade crossings of the rail lines and vehicular traffic, specifically at 10th St. and Monroe.
- We must also make the appropriate connection to area schools via this study.
- We would like to see seamless connections between the new trails and current area parks.

Mobility and Transit

- In this area, I think it is important to preserve historic artifacts in the BeltLine right-of-way.
- BeltLine Rail Stations should not be extremely large structures.

Question
Will the BeltLine look at parking issues in the area?
The BeltLine will indeed look at parking in the area, but there will be a more comprehensive parking study done later in order to fully understand the issue.

Land Use/Design/Sustainability

- Stations should reflect the identity of the area they represent.
- The type of transit chosen selected should be chosen not only based on performance, but also its ability to be sensitive to the history surrounding the BeltLine. The type of transit chosen could greatly affect preservation efforts throughout the area.

BeltLine Overlay District Ordinance – This link will provide you with a copy of the BeltLine Overlay District Ordinance, so you can understand its function and how it guides development activity throughout the BeltLine Planning Process.

Meeting Schedule
Monroe-Piedmont Master Plan
Subarea 6

Meeting Date*	Location	Topic	Steering Committee	Study Group
December 11, 2007	Grady High School – 929 Charles Allen Dr.	Process, Schedule and Background	x	
February 4, 2008	Inman Middle School 774 Virginia Ave.	Existing Conditions	x	x

***All meetings begin at 6:30 pm. Steering Committee only meetings end at 8:00 pm. Steering Committee and Study Group meetings end at 8:30 pm.**

Agenda
BeltLine Master Plan
Northeast Study Group
April 10, 2008; 6:30 – 8:30 pm
Hillside, 690 Courtenay Dr NE, Atlanta, Ga 30306

1. Welcome and Introductions

2. Overview of Tonight's Agenda

3. Existing Conditions for BeltLine Master Plan: Subarea 6
    - Demographics
    - Historic Resources
    - Land Use
    - Parks and Open Space
    - Transportation

4. Conclusion

The next Study Group Meeting will be held on May 8th at Hillside starting at 6:30pm

For questions or additional information, please contact:

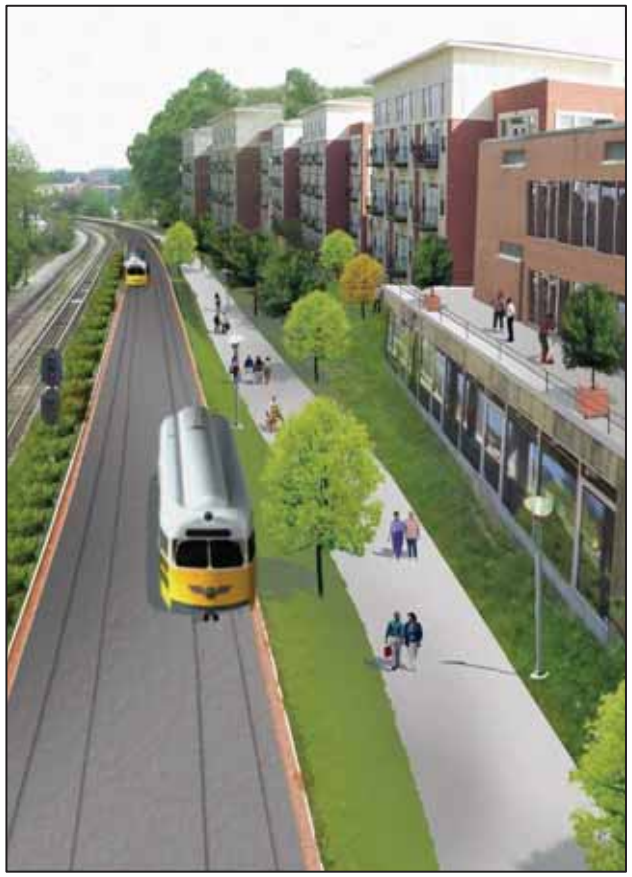
Jonathan Lewis
Project Manager
jlewis@atlantaga.gov
404.865.8593

Rukiya Eaddy
Citizen Participation Advocate
readdy@atlbeltline.org
404.614.8285

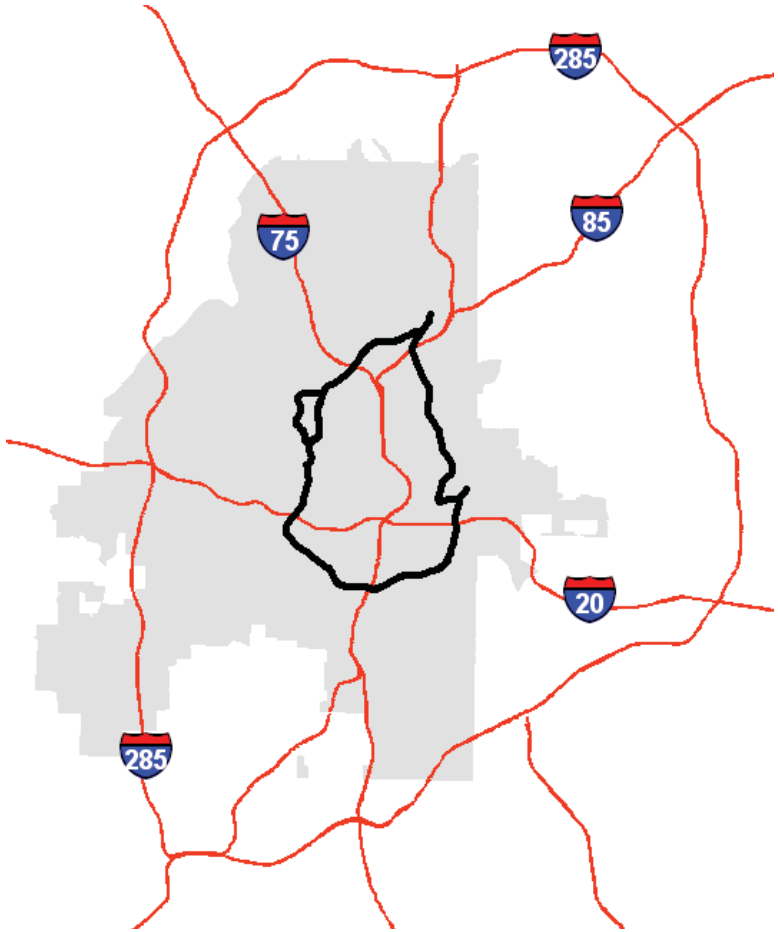
Atlanta Beltline

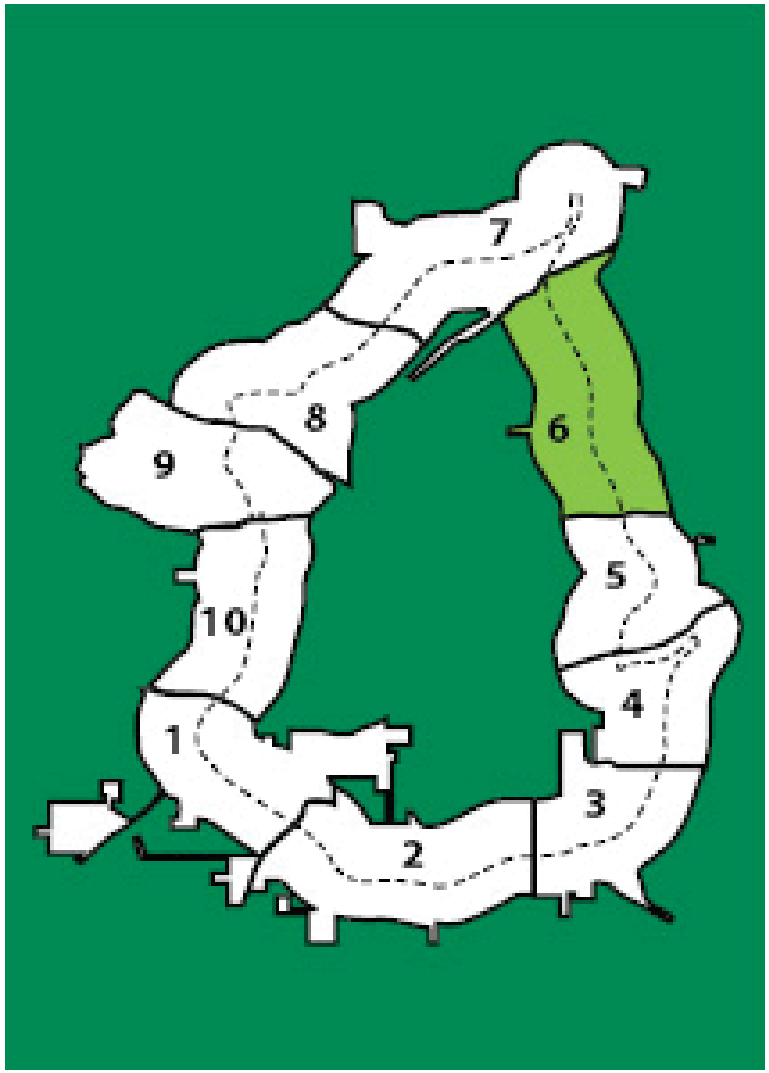
NE Study Group Meeting Presentation

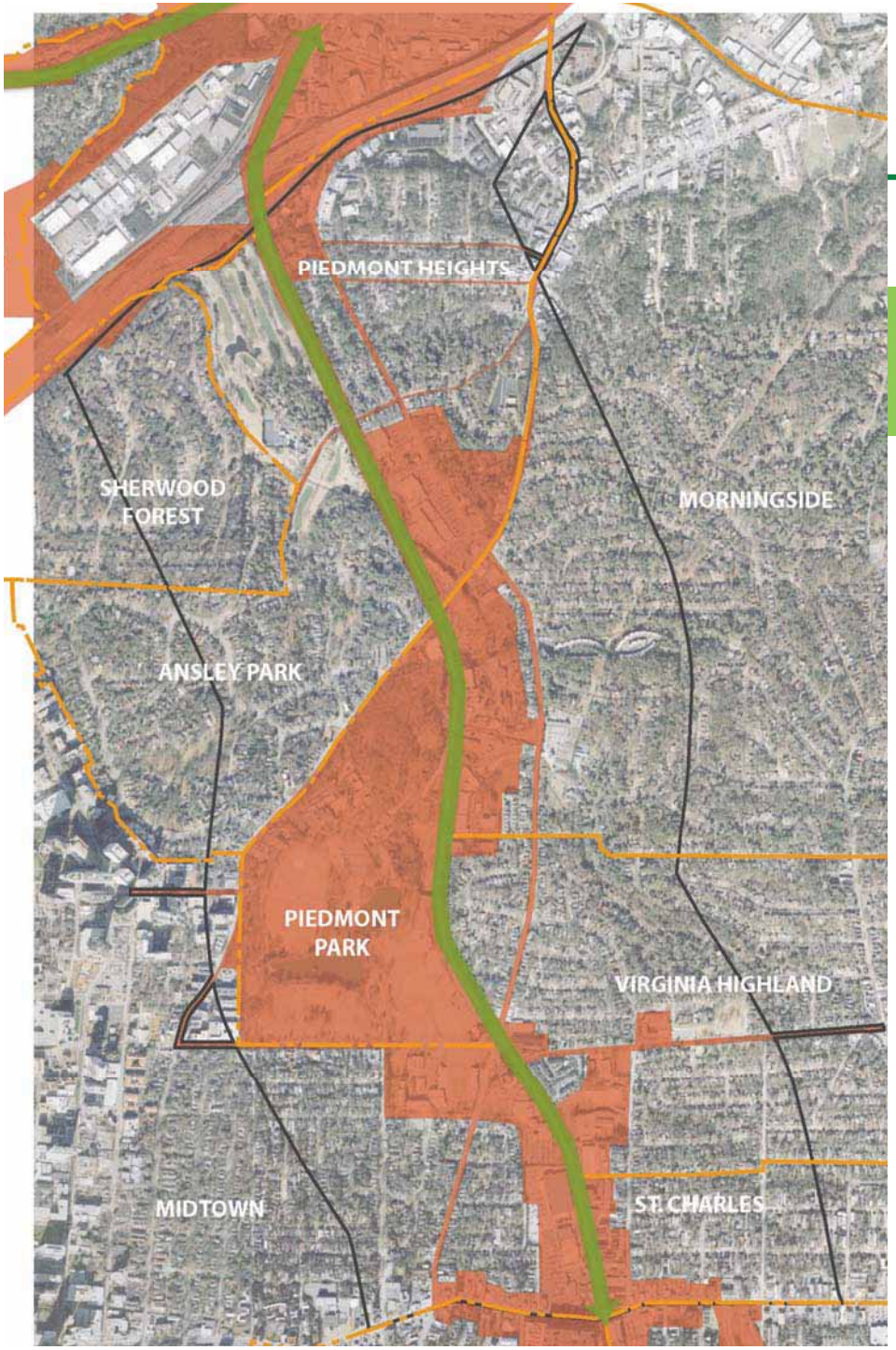
April 10, 2008



BELTLINE CONTEXT MAP







BeltLine

CONTEXT MAP

LEGEND

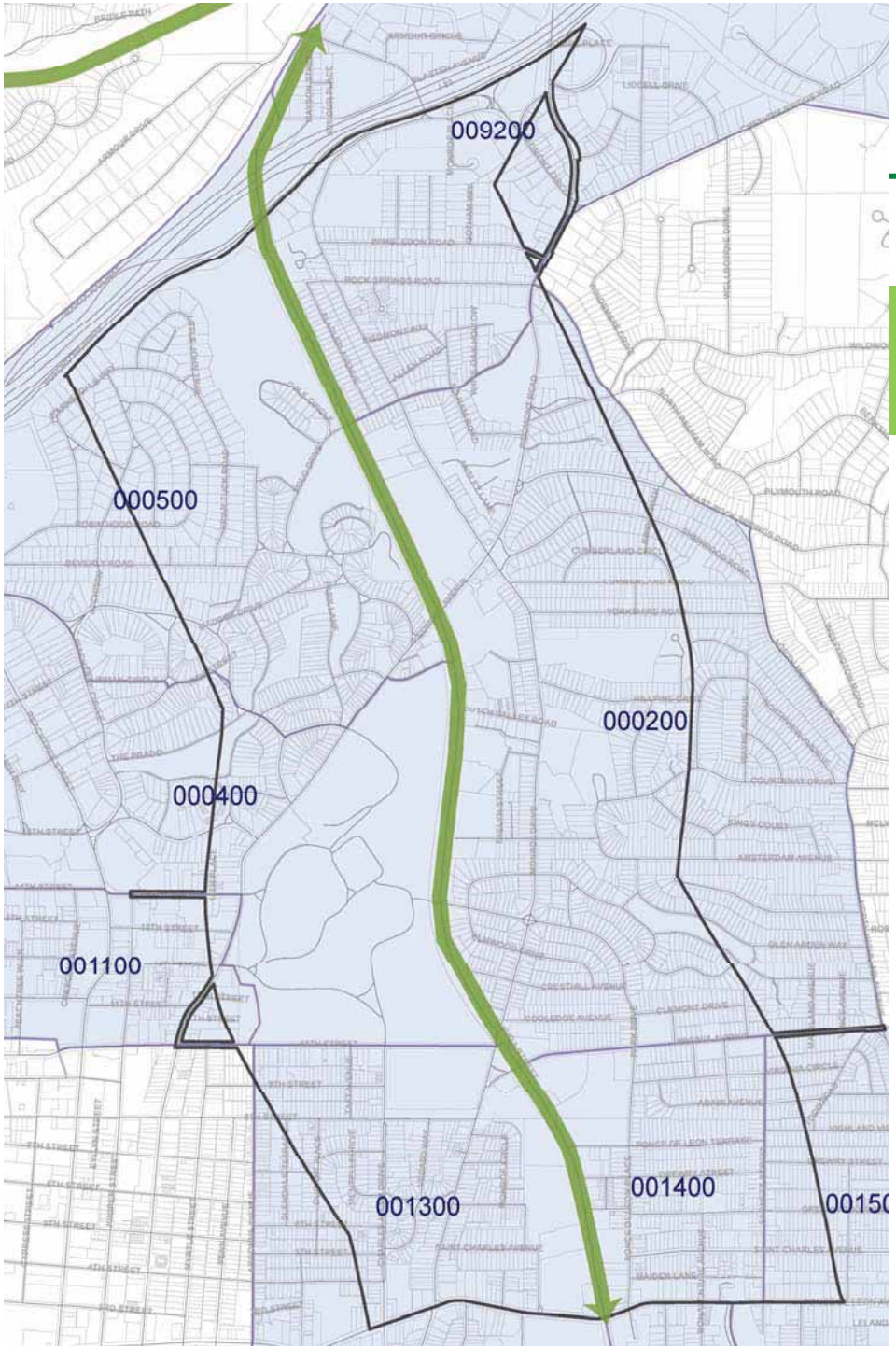
- Subarea 6 Study Area
- BeltLine Trail & Transit
- TAD Boundary
- Neighborhoods

DEMOGRAPHIC DATA

Broader Subarea Population and Employment Summary *

- 2005 **30,081** people lived in broader subarea
- 2030 **40,866** people forecasted – ***36% growth*** *(City of Atlanta - 43%)*
- 2005 **41,908** jobs estimated in broader subarea
- 2030 **55,179** jobs forecasted – ***32% growth*** *(City of Atlanta - 22.2%)*

* *Using ARC Envision6 estimates and forecast organizes data by Census tracts, which extend beyond study area boundary*



BeltLine

BROADER SUBAREA MAP

Population and Employment Growth

Broader Subarea Population and Employment Summary

Analysis Year	Households	Population	Jobs	Jobs/Housing Balance
2005	**17,936**	**30,081**	**41,908**	**2.1**
2010	**18,674**	**31,746**	**42,798**	**2.1**
2015	**20,278**	**33,992**	**45,338**	**1.9**
2020	**21,738**	**36,111**	**47,492**	**1.8**
2025	**23,194**	**38,415**	**51,289**	**1.7**
2030	**24,579**	**40,866**	**55,179**	**1.6**
Avg. Annual Increase	1.2%	1.2%	1.1%	

Jobs to housing balance of approximately 1.2 – 1.4 is desirable

** Source: ARC Envision6 Population and Employment Forecast organized by Subarea 6 Census tracts - (8 tracts for Subarea 6), which extend beyond study area boundary*

EMPLOYMENT

Broader Subarea Employment Summary *****

2005 **41,908 jobs:**

48.8% Services**,** 17.9% Finance, Insurance, and Real Estate, 15.9% Retail

(City of Atlanta: Services, 35.3%, Government 20.8%, Retail 12.4%)

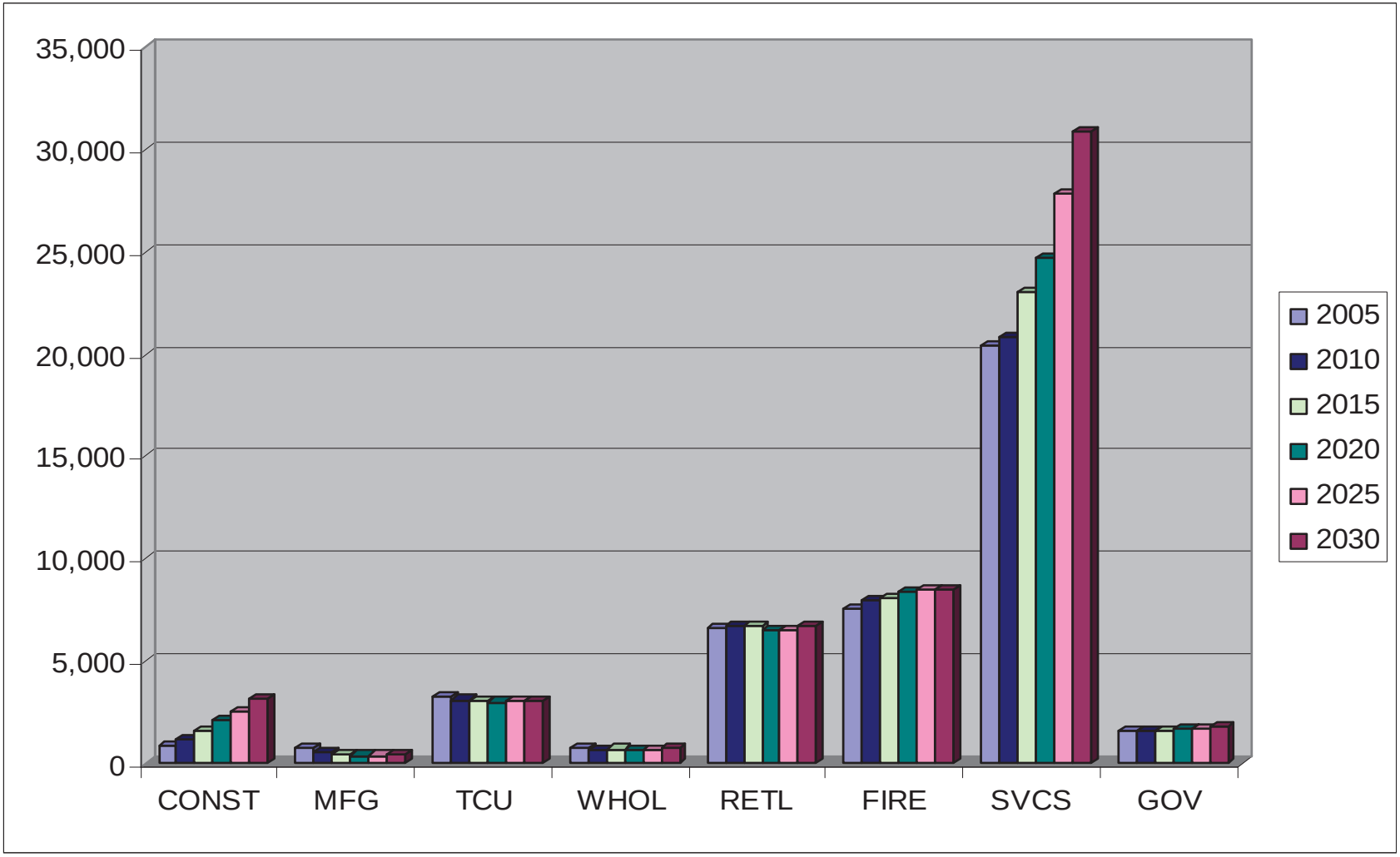
2030 **55,179 jobs:**

55.9% Services, 15.4% Finance, Insurance, and Real Estate, 12.2% Retail

**** Using ARC Envision6 estimates and forecast organizes data by Census tracts, which extend beyond study area boundary***

EMPLOYMENT

Broader Subarea Employment Summary *



2007 **Employment Profile:***

Total of All Employed	**10,174**	%
White Collar		84.8%
Management/Business/Financial		**26.4%**
Professional		**39.0%**
Sales		**11.9%**
Administrative Support		**7.5%**
Services		10.4%
Blue Collar		4.8%

** Source: ESRI for Subarea 6 only*

DEMOGRAPHIC PROFILE

2007 Total Population:	**14,110**
2012 Total Population:	**15,794**
2007-2012 Annual Rate of Change:	**2.28%**
2007 Median HH Income:	**$79,231**
2012 Median HH Income:	**$101,196**
2007-2012 Annual Rate:	**5.02%**

(City of Atlanta estimated median household income in 2005 was $39,752)

** Source: ESRI for Subarea 6*

DEMOGRAPHIC PROFILE

Median Home Value

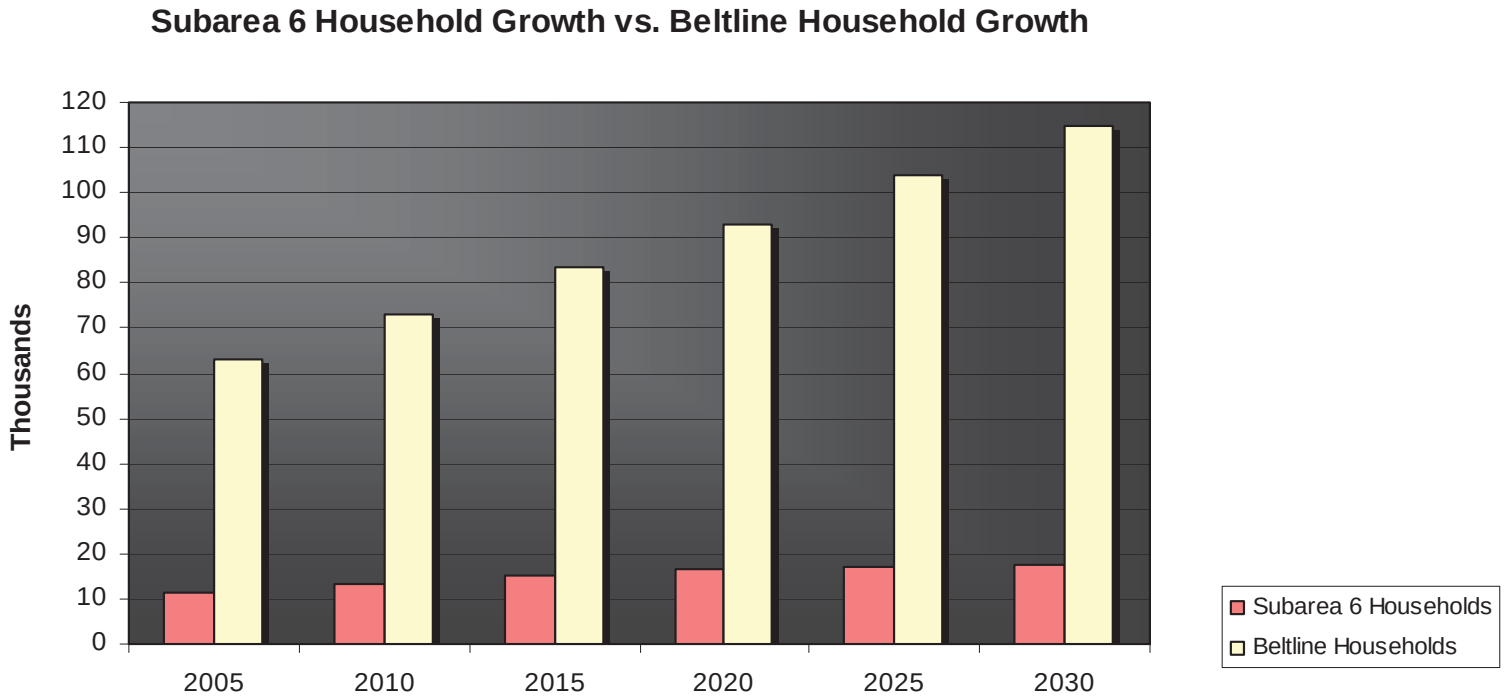
2000	**$308,543**	*(City of Atlanta median home value in 2000 was $130,600)*
2007	**$448,677**	
2012	**$605,369**	

Median Age

2000	**33.9**
2007	**35.7**
2012	**37.2**

** Source: ESRI for Subarea 6*

Population and Household Change*



	2005	2010	2015	2020	2025	2030
Beltline Households	**62,985**	**73,080**	**83,276**	**92,991**	**103,645**	**114,856**
SA6 Households	**11,337**	**13,154**	**14,989**	**16,370**	**17,272**	**17,761**
SA6 Population**	**19,273**	**22,362**	**25,481**	**27,829**	**29,362**	**30,104**
SA6 % Share of Total Beltline Household	**18.0%**	**18.0%**	**18.0%**	**17.6%**	**16.7%**	**15.5%**

* Source RCLCO - Beltline Market Study
** Assumes 1.7 people per household

Population and Household Change*

Subarea 6 Household Growth: New Households					
	2005-2010	2010-2015	2015-2020	2020-2025	2025-2030
Change in Beltline Households	**10,095**	**10,196**	**9,715**	**10,654**	**11,211**
SA 6 Households	**1,817**	**1,835**	**1,381**	**902**	**489**
Beltline Household Growth	**16.0%**	**14.0%**	**11.7%**	**11.5%**	**10.8%**
SA6 Household Growth	**16.0%**	**14.0%**	**9.2%**	**5.5%**	**2.8%**

Total Change 2005-2030

Beltline Household:	51,871
Percent Change:	82.4%
SA6 Households:	6,424
Percent Change:	56.7%

* Source RCLCO - Beltline Market Study

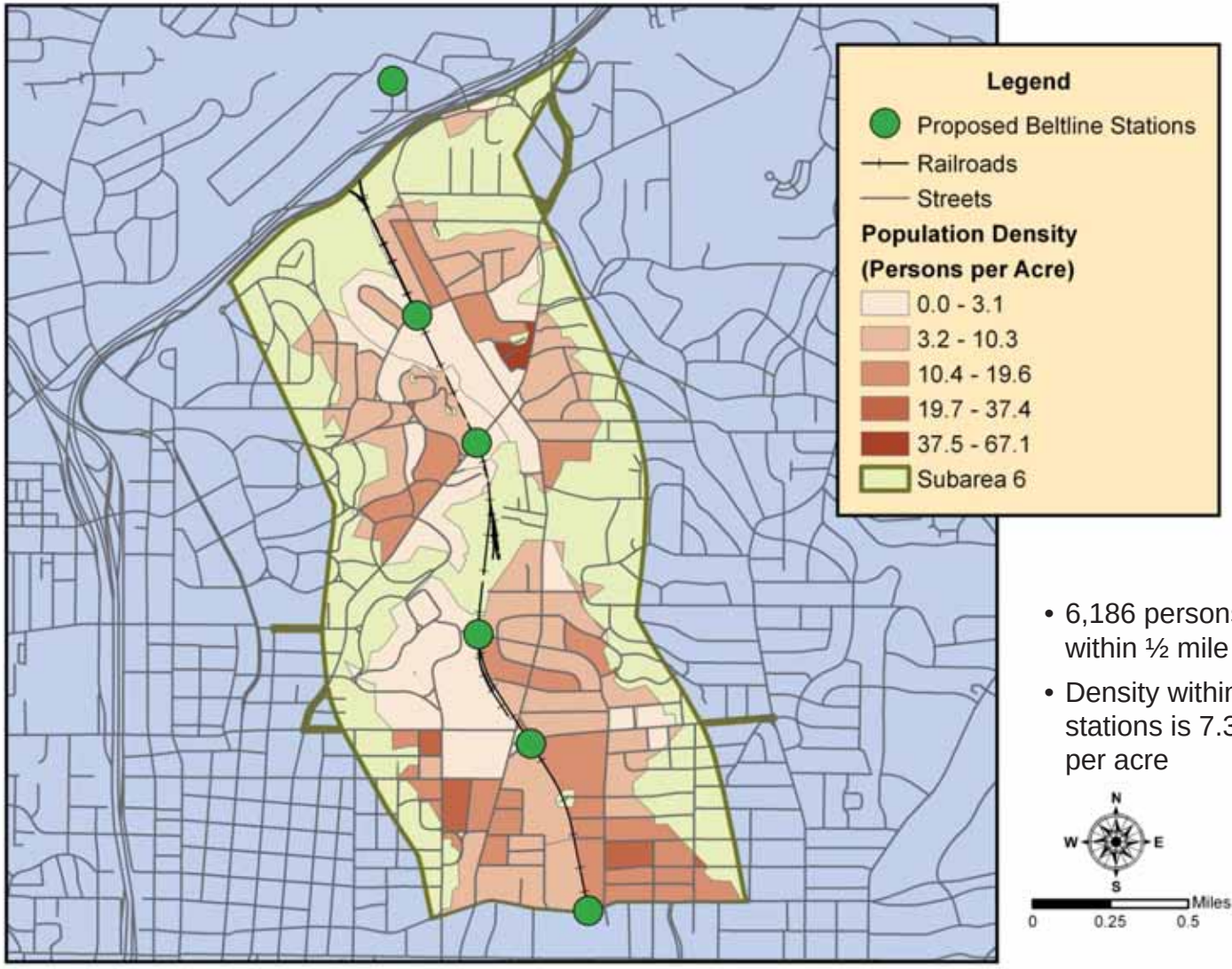
Summary of SA 6 Land Use Projections

	Beltline		SA6		SA 6 % of Beltline	
	2005	2020	2005	2020	2005	2020
Households						
Owners	**N/A**	**N/A**	**5,621**	**8,532**		
Renters	**N/A**	**N/A**	**5,716**	**7,838**		
Total	62,985	103,645	11,337	16,370	18.0%	15.8%
Office (SF)						
Local	**N/A**	**N/A**	**856,544**	**928,082**		
Regional	**N/A**	**N/A**	**157,825**	**351,001**		
Total	5,543,382	9,601,808	1,014,369	1,279,083	18.3%	13.3%
Retail (SF)						
Local	**N/A**	**N/A**	**819,539**	**1,010,306**		
Regional	**N/A**	**N/A**	**383,596**	**383,596**		
Total	4,232,075	8,268,009	1,203,135	1,393,902	28.4%	16.9%

Source RCLCO - Beltline Market Study

TRANSPORTATION

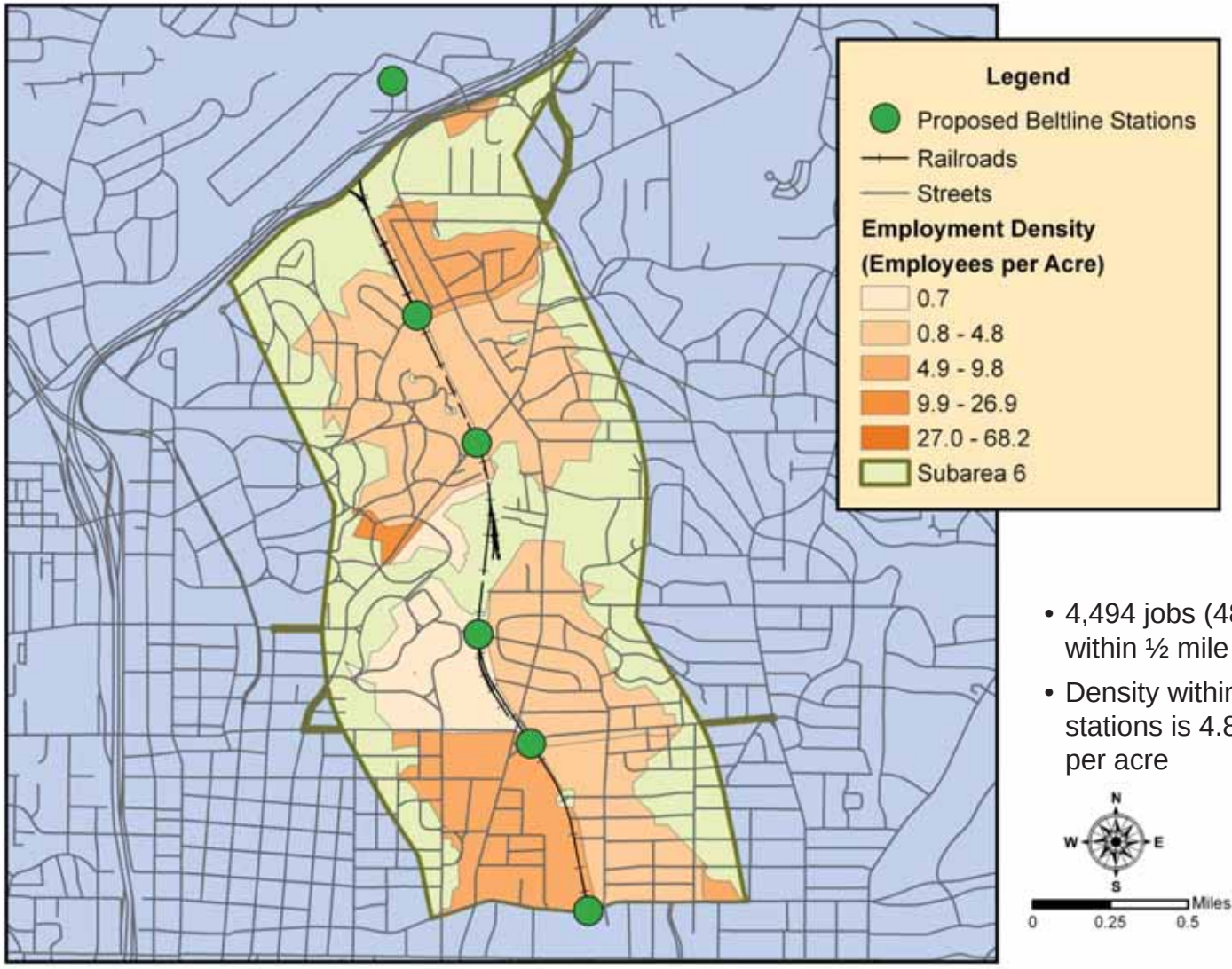
Population ½ Mile



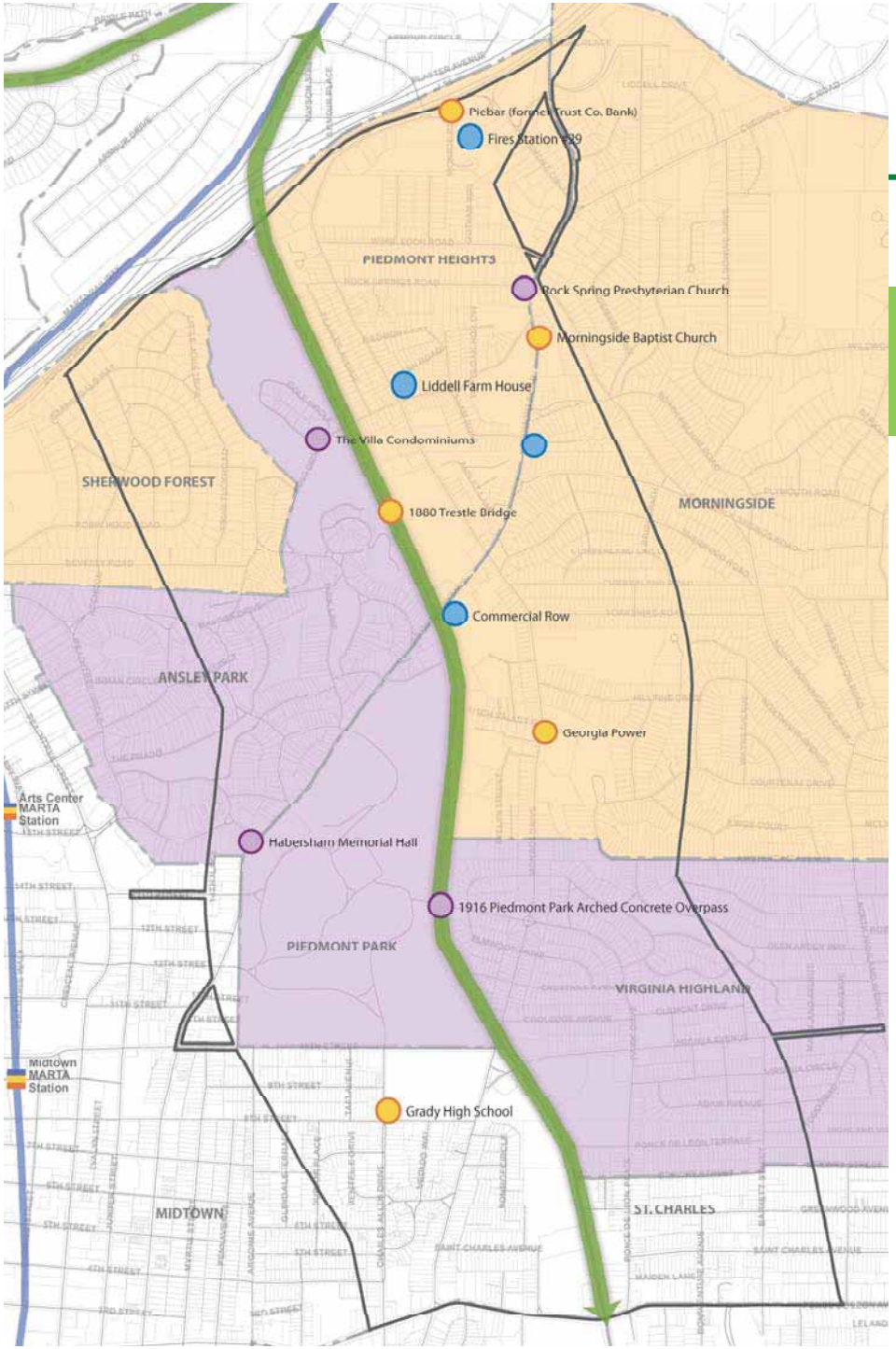
- 6,186 persons (57%) are within ½ mile of stations
- Density within ½ mile of stations is 7.3 persons per acre

TRANSPORTATION

Employment ½ Mile



- 4,494 jobs (48%) are within ½ mile of stations
- Density within ½ mile of stations is 4.8 employees per acre



BeltLine

HISTORIC RESOURCES

LEGEND

- Subarea 6 Study Area
- BeltLine Trail & Transit

SIGNIFICANT RESOURCES

- Urban Design Commission (UDC) Historic Neighborhood
- National Register of Historic Places Historic Neighborhood
- Urban Design Commission (UDC) Significant Structure
- National Register of Historic Places Significant Structure
- Other Significant Structures

HISTORIC RESOURCES

Subarea 6

National Register of Historic Places:

- Piedmont Park (district)
- Ansley Park (district)
- Virginia-Highlands (district)
- Rock Springs Presbyterian Church
- Habersham Memorial Hall
- Park Drive Overpass (in Piedmont Park district)
- The Villa (in Ansley Park district)



Source: National Register of Historic Places website, January 2008

HISTORIC RESOURCES

Subarea 6

Atlanta Urban Design Commission Significant Resources:

- Georgia Power Substation on Monroe Drive
- Grady High School
- Morningside Baptist Church
- Trust Company Bank (The Pie Bar)
- Wood Trestle bridge over Clear Creek behind Ansley Mall
- Neighborhoods:
  - Morningside/Lenox Park,
  - Piedmont Heights,
  - Sherwood Forest



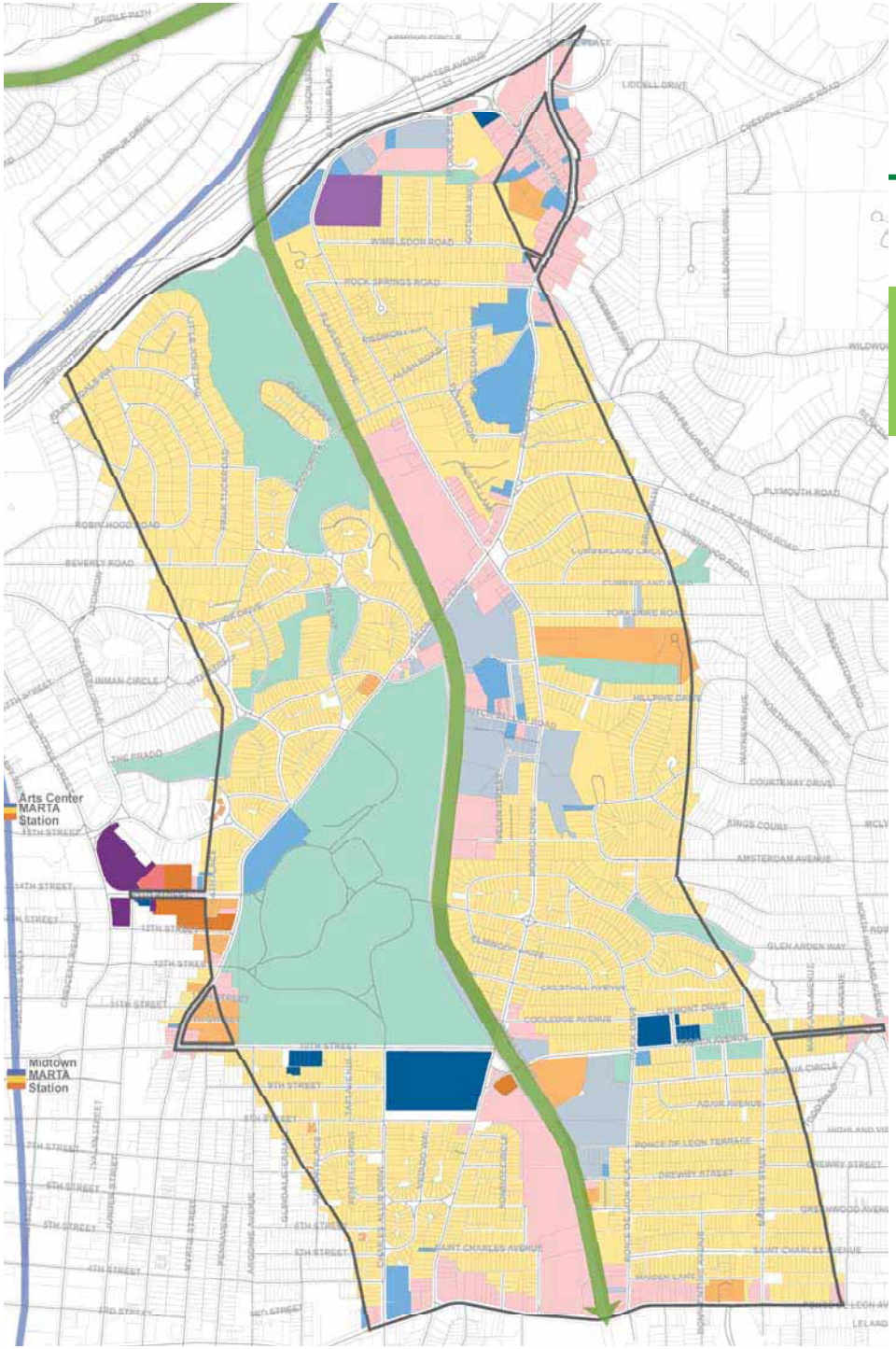
HISTORIC RESOURCES

Subarea 6

Other Significant Resources:

- Commercial Row (Smith's Olde Bar et al.)
- Old Monroe Family Nursery building on Ansley Monroe Villas property
- Fire Station #29 on Monroe across from the former Pie Bar site
- Gotham Way Park
- Liddell House at 464 Montgomery Ferry (farm house on Historic Register)
- Rock Spring Cemetery





BeltLine

EXISTING LAND USE

LEGEND

- Subarea 5 Study Area
- BeltLine Trail & Transit

BELTLINE LAND USE CATEGORIES

- Mixed Use 10+ stories
- Mixed Use 5-9 stories
- Mixed Use 1-4 stories
- Residential 10+ stories
- Residential 5-9 stories
- Residential 1-4 stories
- High Density Commercial
- LowDensity Commercial
- Office/Institutional
- Industrial
- Proposed Park Space
- Existing Park Space
- Community Facility

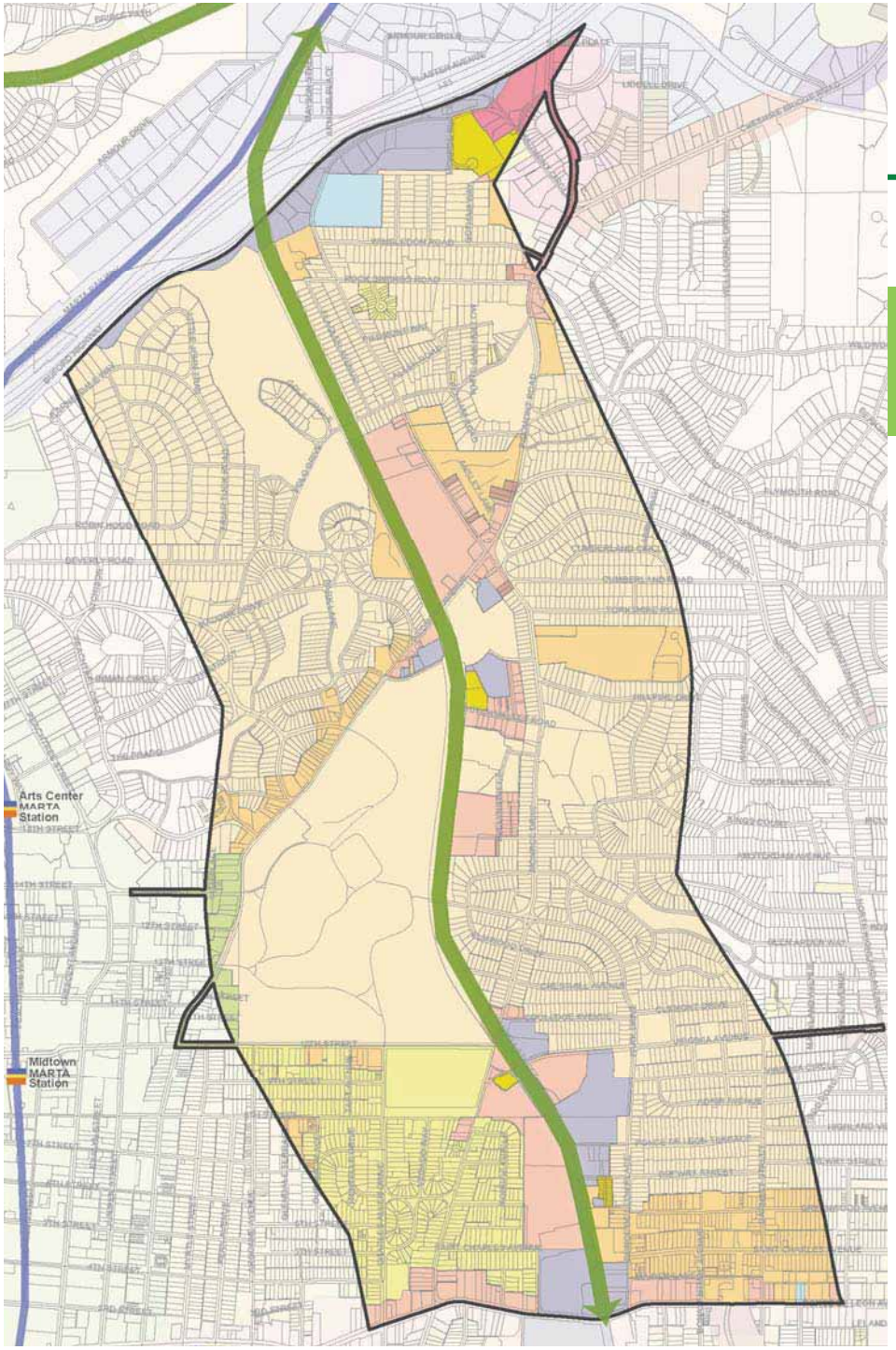
LAND USE & MOBILITY CHALLENGES

Subarea 6

- Georgia Power utility easement and substation
- Large commercial lots
- Piedmont Park
- Armour Yard connectivity
- Clear Creek







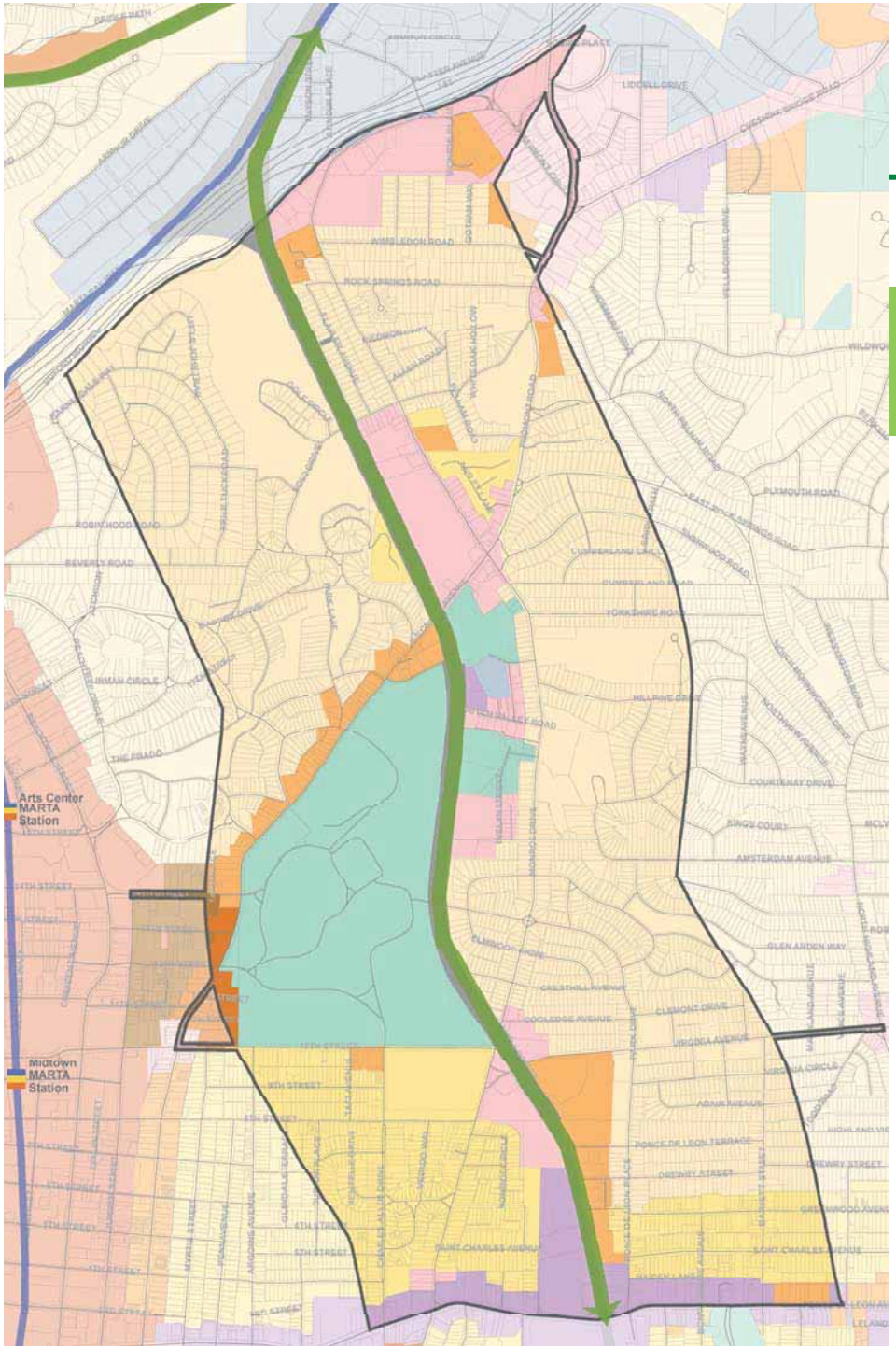
EXISTING ZONING

LEGEND

- Subarea 6 Study Area
- BeltLine Trail & Transit

ZONING

- Mixed Use
- Planned Development
- Residential- Multi
- Residential- Duplex
- Residential- Single Family
- Residential- Limited Commerical
- Live Work
- Commercial
- Neighborhood Commercial
- Office/ Institutional
- Industrial
- Special Public Interest



FUTURE LAND USE

City's CDP

LEGEND

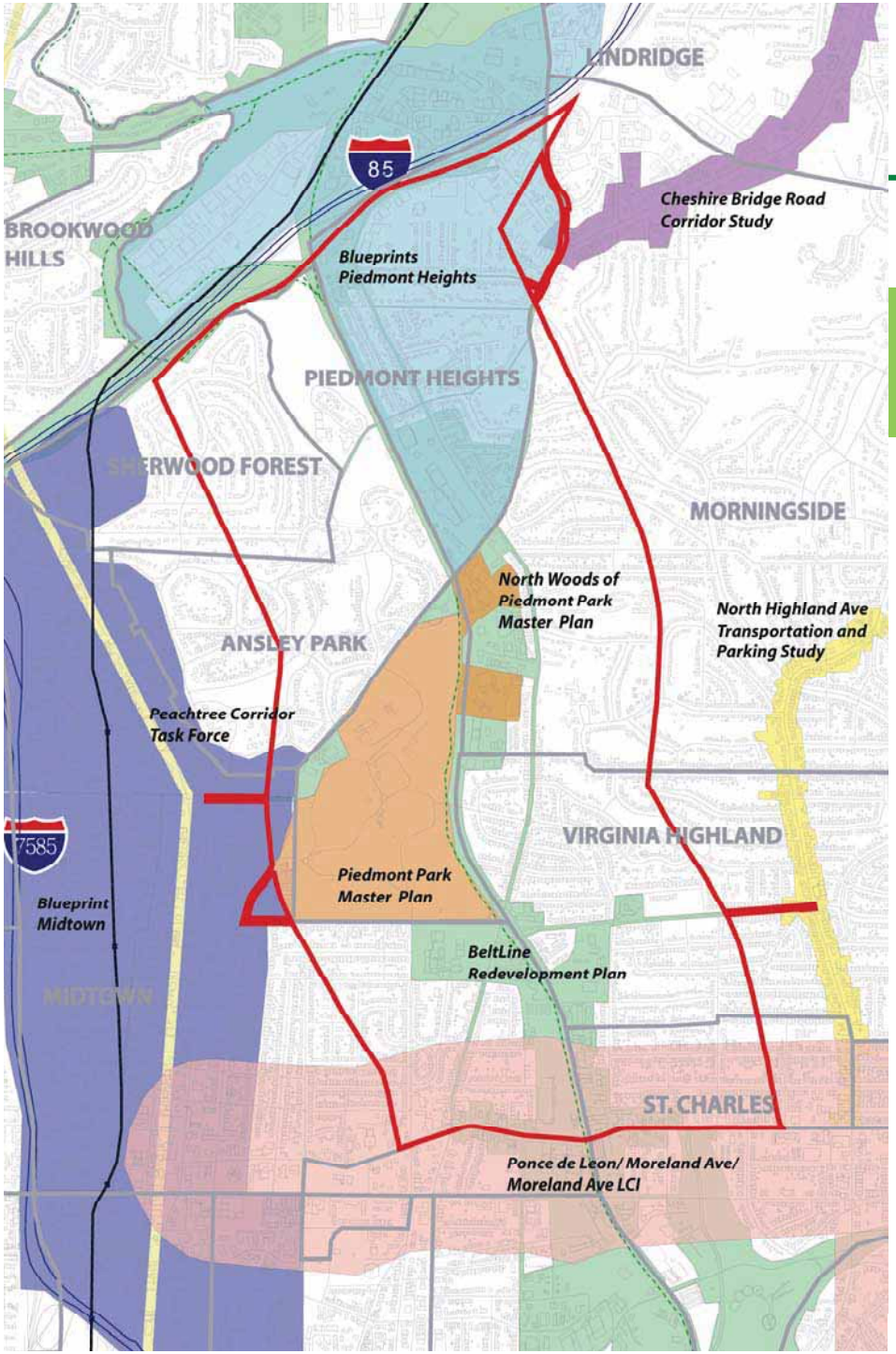
- Subarea 5 Study Area
- BeltLine Trail & Transit

BELTLINE LAND USE CATEGORIES

- Mixed Use
- Residential Very High Density
- Residential High Density
- Residential Medium Density
- Residential Low Density
- Residential Single Family
- High Density Commercial
- Low Density Commercial
- Office
- Office/Institutional/ Residnetial
- Industrial
- TCU
- Existing Park Space

Summary of Zoning

Zoning	Acreage	Percent of Subarea 6
Single-Family Residential	**1,076**	**65.3%**
Low Density Residential	**144**	**8.7%**
Low Density Commercial	**128**	**7.8%**
Industrial	**85**	**5.2%**
Medium Density Residential	**127**	**7.7%**
Mixed-Use (20% Residential)	**49**	**3.0%**
Office / Institutional	**27**	**1.6%**
Planned Development	**12**	**0.7%**
TOTAL	1,648	100.0%



BeltLine

PREVIOUS PLANS

LEGEND

- Subarea 6 Study Area
- BeltLine Trail & Transit

PREVIOUS PLANS

- Ponce de Leon/ Moreland Ave LCI (2005)
- Piedmont Park Master Plan (1995)
- North Woods of Piedmont Park Master Plan (2005)
- Cheshire Bridge Road Corridor Study (1999)
- Peachtree Corridor Task Force (2007)
- BeltLine Redevelopment Plan (2005)
- Blueprints Piedmont Heights (2007)
- Blueprint Midtown (2004)
- North Highland Ave Transportation and Parking Study
- Beltline Arboretum (2007)

Includes officially adopted and other community plans

EXISTING PLANS

Coordination Issues

1. **Monroe/Wimbledon area**:
    - Blueprints - Piedmont Heights calls for office and residential
    - BeltLine Redevelopment Plan and City ASAP call for medium density residential and lower density commercial
2. **Ansley Mall area**:
    - Both Piedmont Heights and the BeltLine Redevelopment Plan envision a redeveloped mall with low rise mixed use (4 to 6 stories) and medium density residential (5 to 8 stories)
    - City ASAP calls for low density commercial

EXISTING PLANS

Coordination Issues

3. **Piedmont/Westminster area**:
    - BeltLine Redevelopment Plan calls for low rise mixed use (4 to 6 stories)
    - City ASAP calls for medium density residential
4. **Piedmont Park area**:
    - BeltLine Redevelopment Plan proposes mixed use development (7 to 14 stories) at BeltLine and Piedmont
    - North Woods Master Plan identifies maintenance area near Westminster Drive
    - BeltLine Redevelopment Plan calls for redevelopment (4 to 6 stories) at corner of Piedmont and Monroe

5. **Dutch Valley/Amsterdam area**:

   - BeltLine Redevelopment Plan calls for medium density residential (5 to 8 stories), low rise mixed use (4 to 6 stories) and low density residential transitions (2 to 4 stories)
   - City ASAP identifies mostly low density commercial with some mixed use and industrial

6. **Monroe and Virginia area**:

   - BeltLine Redevelopment Plan calls for low rise mixed use (4 to 6 stories) and medium density residential (5 to 8 stories)
   - City ASAP calls for low density commercial uses with some medium density residential

rc3

EXISTING PLANS

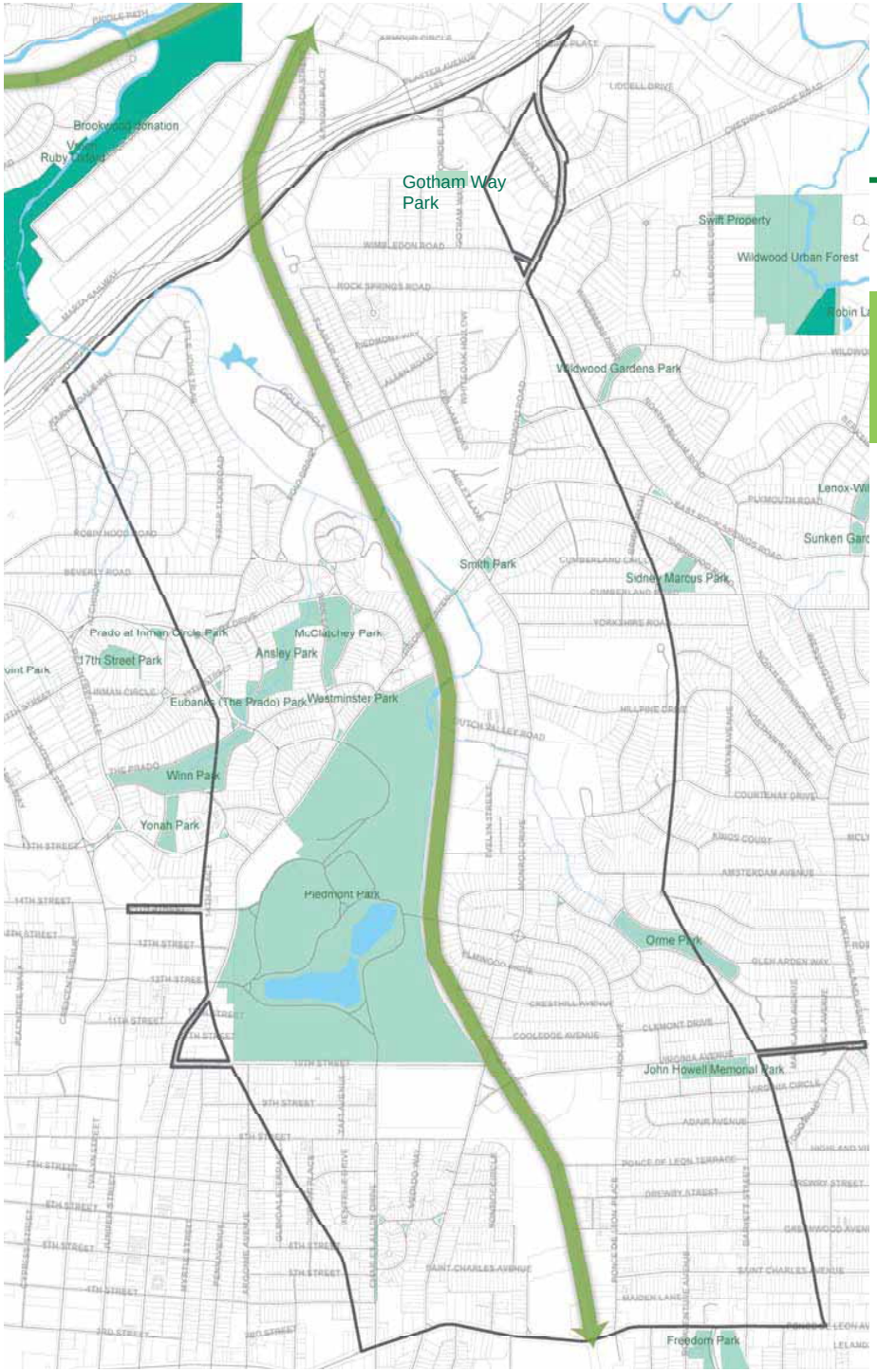
Land Use Conflicts

7. **Ponce de Leon area**:

   - Both the BeltLine Redevelopment Plan and ASAP propose mixed use along the corridor
   - Ponce de Leon Corridor Study proposes mixed use along corridor at intersections and multi-family residential between these nodes

Slide 30

rc3 Insert "Proposed Development" map after this slide
caillouxr, 4/9/2008



PARKS & OPEN SPACE

Existing and Proposed

Existing Parks

Proposed Parks

Major Parks (within Subarea 6)

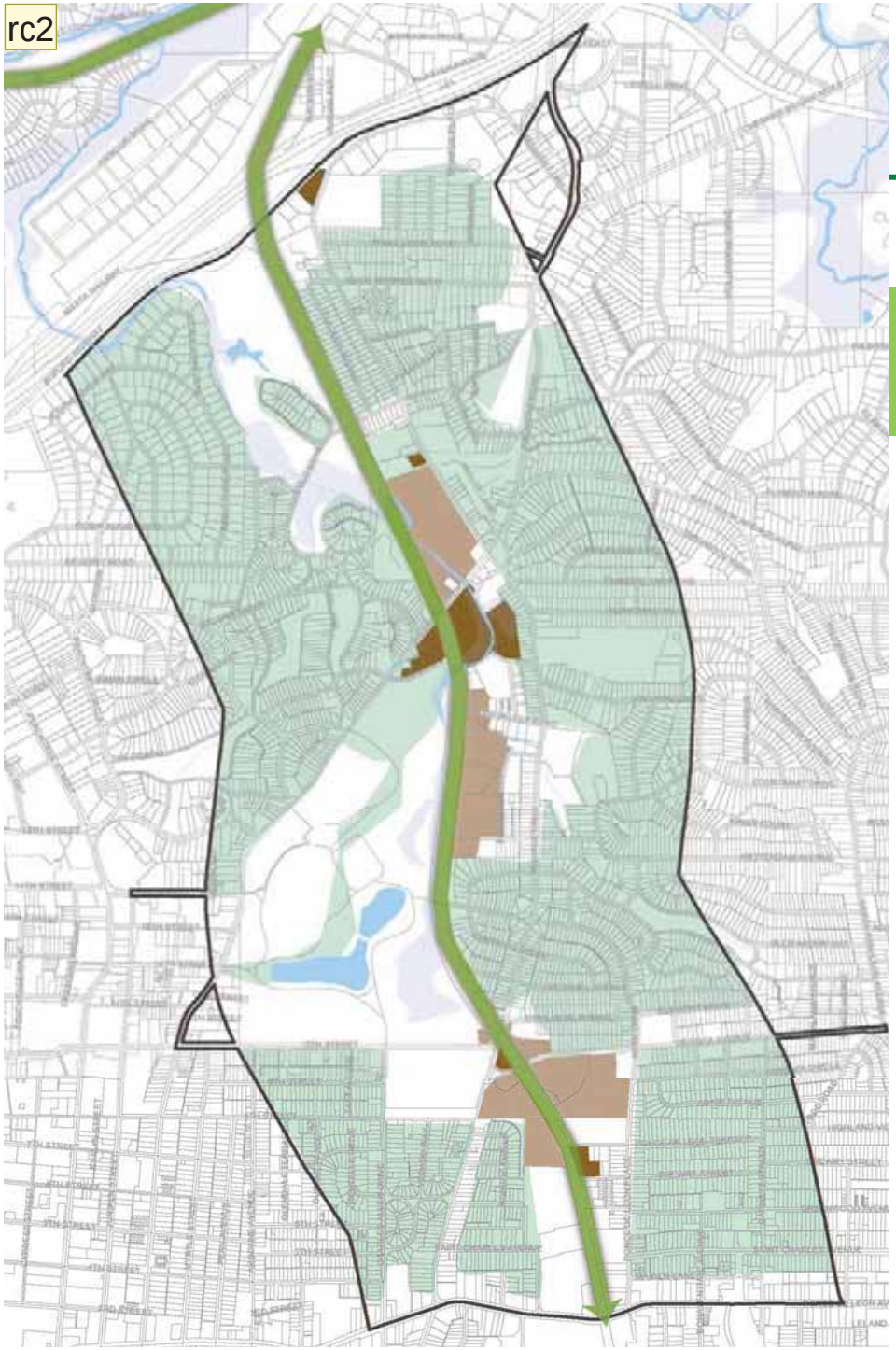
- Piedmont Park
- John Howell Memorial Park
- Orme Park
- McClatchey Park
- Ansley Park
- Winn Park



PARKS & OPEN SPACE

North Woods Plan

- Explore opportunities to weave BeltLine trail through portions of the park to create a complementary user experience



ENVIRONMENTAL

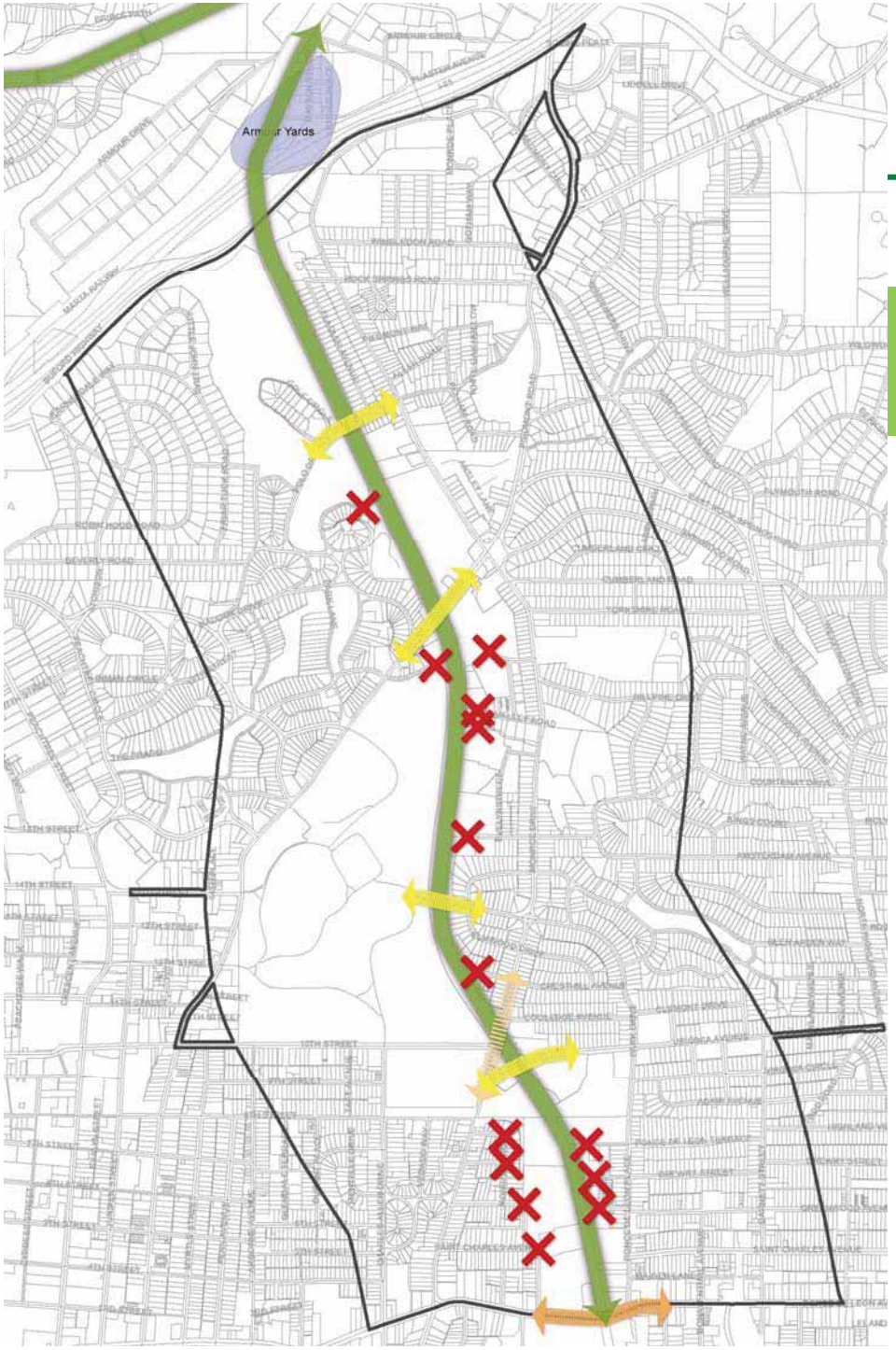
Environmental Features

- Tree Cover
- Active/Inactive Brownfield Sites
- Redeveloped Brownfield Sites
- 100 Year Floodplain
- Open Water

Slide 33

rc2 Emphasis flood plane- light purple will be hard to see on projector. Maybe bright green hatching?

Is this where we can add lines showing where historic creeks have been piped?
caillouxr, 4/9/2008



CONNECTIVITY

Barriers and Constraints

LEGEND

Subarea 6 Study Area

BeltLine Trail & Transit

CONSTRAINTS

Road passes over the BeltLine

Road passes at-grade to the BeltLine

Road passes under the BeltLine

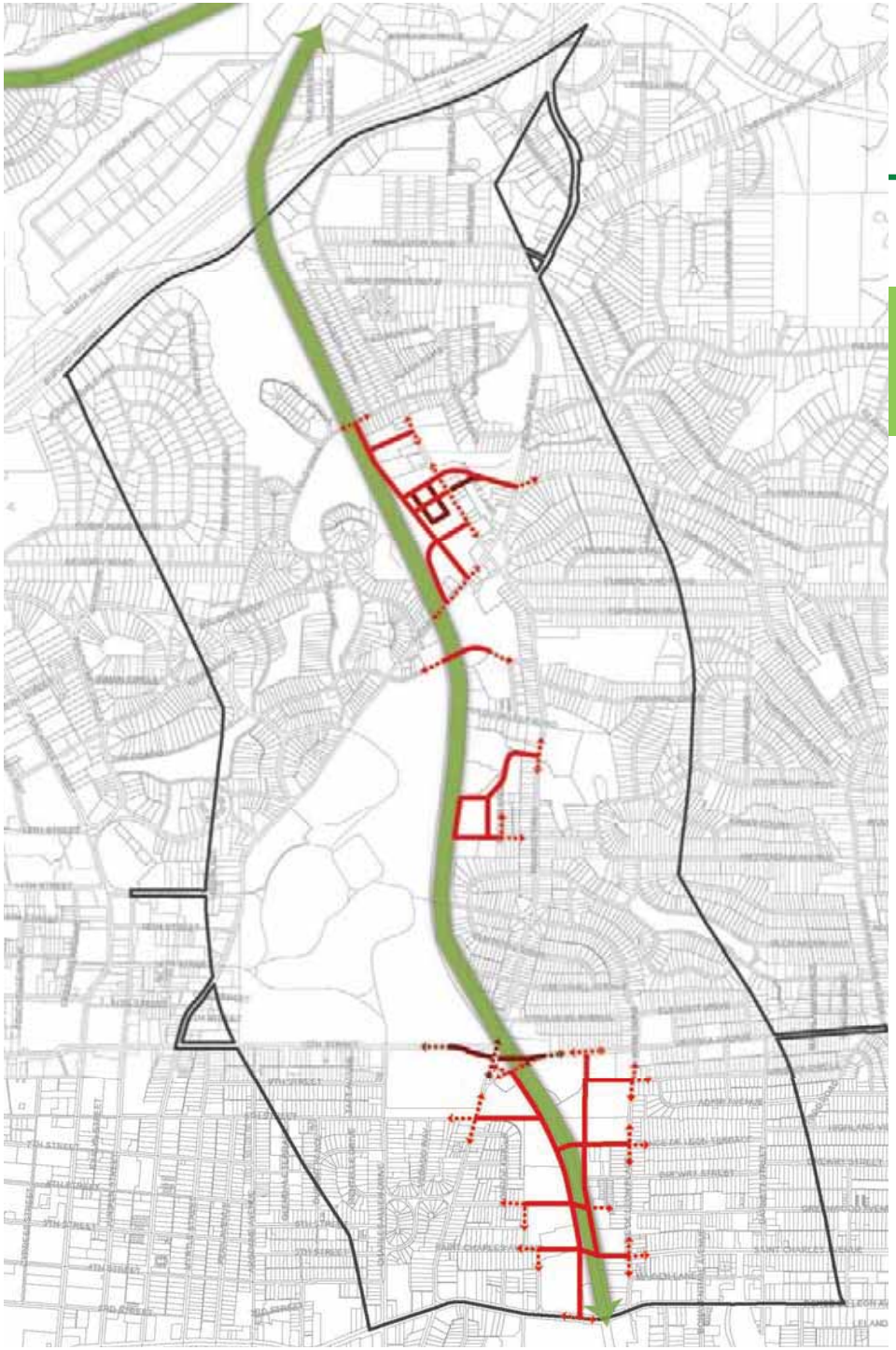
Street Ends at the BeltLine

Occurrence of Street Ends at the BeltLine

- Avery Drive
- Westminster Drive
- Dutch Valley Road
- Worchester Drive
- Amsterdam Avenue
- Cresthill Avenue
- Virginia Avenue
- Ponce de Leon Terrace
- Monroe Circle
- Drewery Street
- Seal Place
- Greenwood Avenue
- St. Charles Avenue

Occurrence of road crossings along the BeltLine

- Montgomery Ferry (passes over)
- Piedmont Avenue (passes over)
- Park Drive (passes over)
- Monroe Avenue (at-grade crossing)
- Virginia Avenue (passes over)
- North Avenue (passes under)

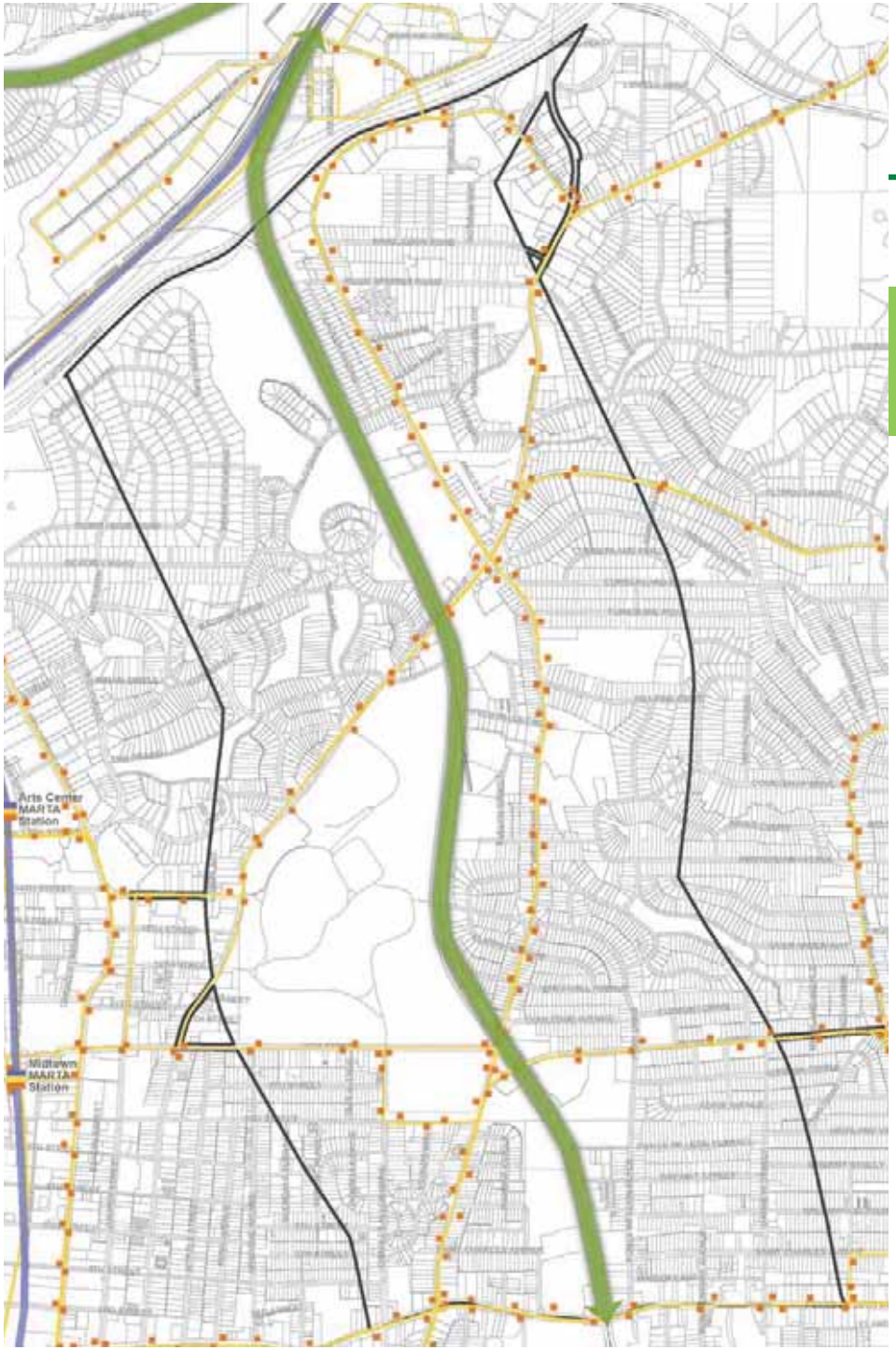


TRANSPORTATION

Potential Connections

BeltLine Street Framework

BeltLine Redevelopment Plan



TRANSPORTATION

Existing MARTA Coverage

MARTA Rail Line

MARTA Bus Routes

MARTA Bus Stops

MARTA Rail Stops (outside of Subarea 6)

- Arts Center MARTA Station
- Midtown MARTA Station

MARTA Bus Routes (within Subarea 6)

- Route 16 – Noble
- Route 23 – Peachtree Road / Buckhead
- Route 27 – Monroe Drive / Cheshire Br.
- Route 36 – North Decatur Road
- Route 45 – Virginia / Highlands

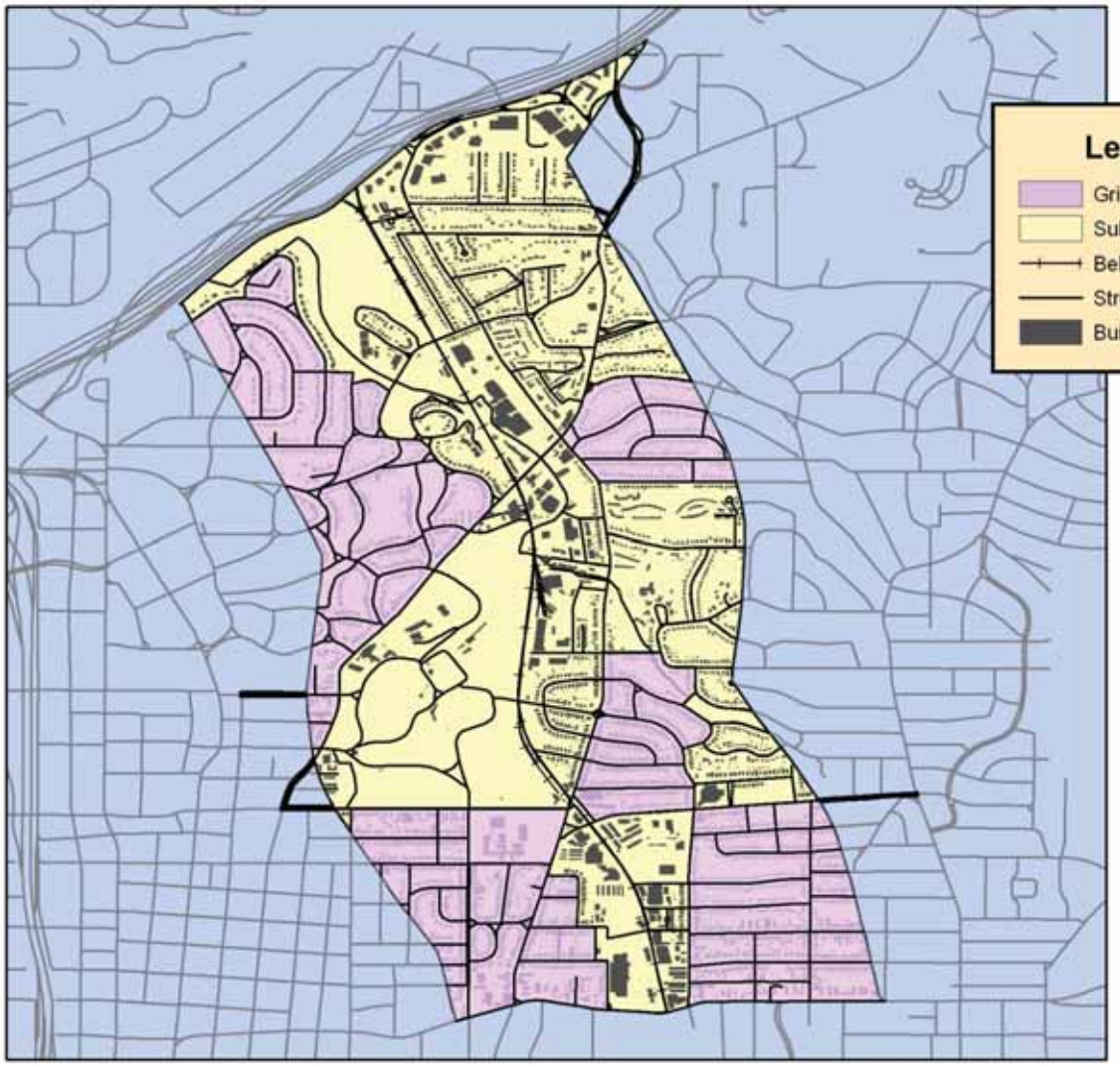
TRANSPORTATION

Means of Transportation (2000)

- **7.3%** of households in the subarea do not own a vehicle
- Average travel time to work: **20.3** minutes
- **75%** drove alone to work

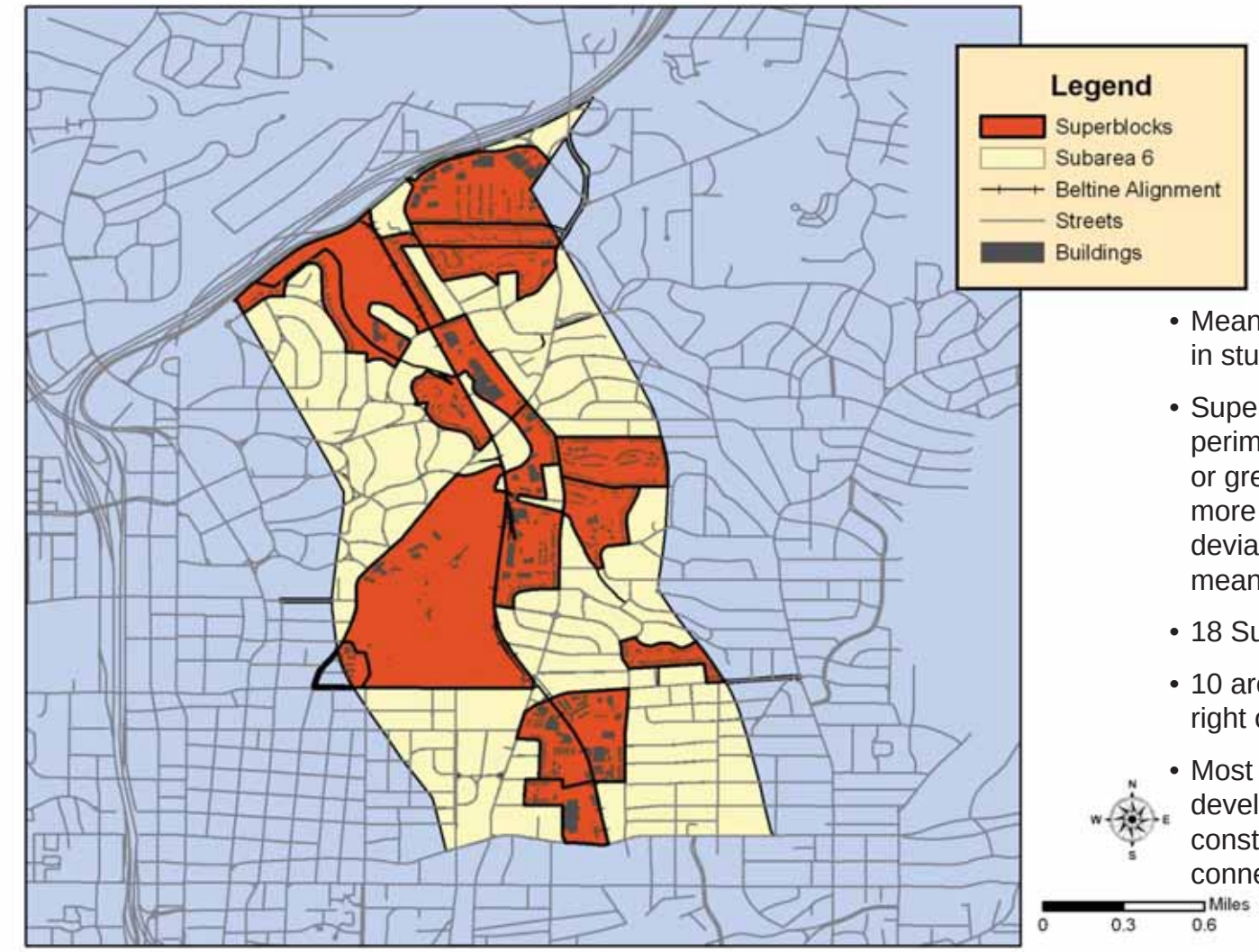
Means to Work	%
Drove Alone - Car, Truck, or Van	**74.7%**
Carpooled - Car, Truck, or Van	**8.1%**
Public Transportation	**5.7%**
Walked	**3.8%**
Other Means	**1.8%**
Worked at Home	**5.9%**

Block Analysis



- Some classic grid network in southern portion
- Block dimensions:
  1,500’ x 350’
  800’ x 300’
  450’ x 1,000’
- Curvilinear streets in northern portion, while less intuitive, offer connectivity similar to classic grid

Superblocks



- Mean block perimeter in study area: **2,538 ft.**
- Superblock has perimeter of **4,432 ft.** or greater (one or more standard deviations above mean)
- 18 Superblocks
- 10 are adjacent to rail right of way
- Most superblocks are developed, making the construction of new connections difficult

Block Size Summary

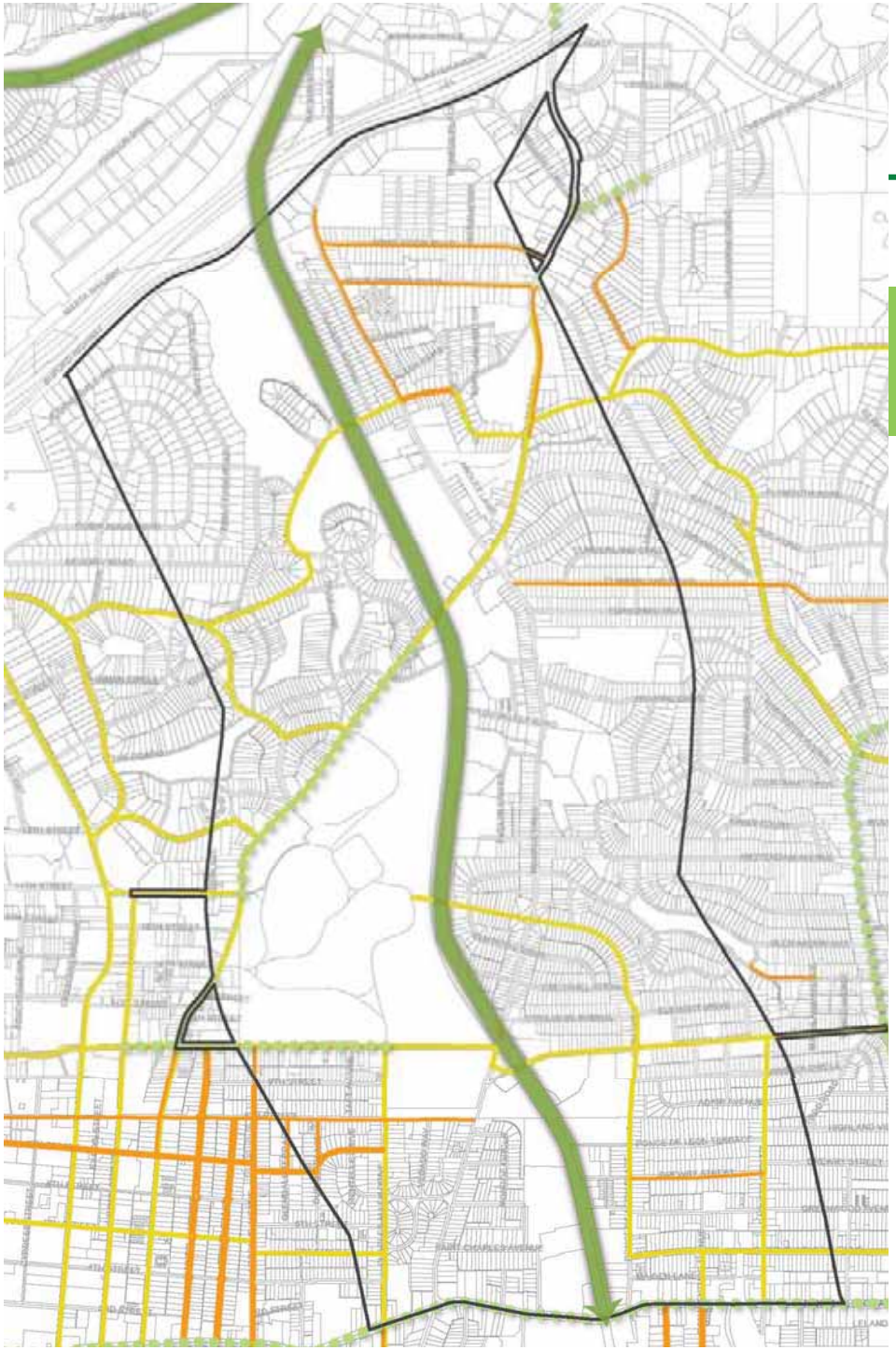
	Fairlie-Poplar	Midtown	Beltline Subarea 6
Min. Perimeter	669 ft.	1371 ft.	895 ft. (Smith Park)
Max. Perimeter	1,151 ft.	2,281 ft.	13,423 ft. (Piedmont Park)
Mean Perimeter	994 ft.	1,731 ft.	2,963 ft.
Min. Area	0.5 acres	0.11 acres	1 acre
Max. Area	1.9 acres	7.5 acres	191 acres
Mean Area	1.4 acres	4.3 acres	10.6 acres

- Widest range of block sizes compared to other neighborhoods (Fairlie-Poplar, Midtown)
- Largest mean block size

Transportation Improvements

- **Other than the Beltline, no substantial projects from the TIP or RTP are planned or programmed in this area**

- A pair of pedestrian projects in Midtown are scheduled for completion in 2009 and will intersect the western edge of the study area
- Sidewalk and streetscape improvements on 14th Street from West Peachtree Street to Piedmont Avenue
- Sidewalk improvements on 10th Street from Peachtree Street to Piedmont Avenue
- Just north and west of the study area MARTA is planning a high speed fixed guideway connection from Lindbergh Center to Emory and the CDC, which is expected to be in operation by 2015



TRANSPORTATION

Planned Pedestrian Improvements

LEGEND

- Subarea 6 Study Area
- BeltLine Trail & Transit
- Bike Lane Improvement/ Inclusion
- Sidewalk Improvement
- Streetscape Improvement

Transportation Improvements include:

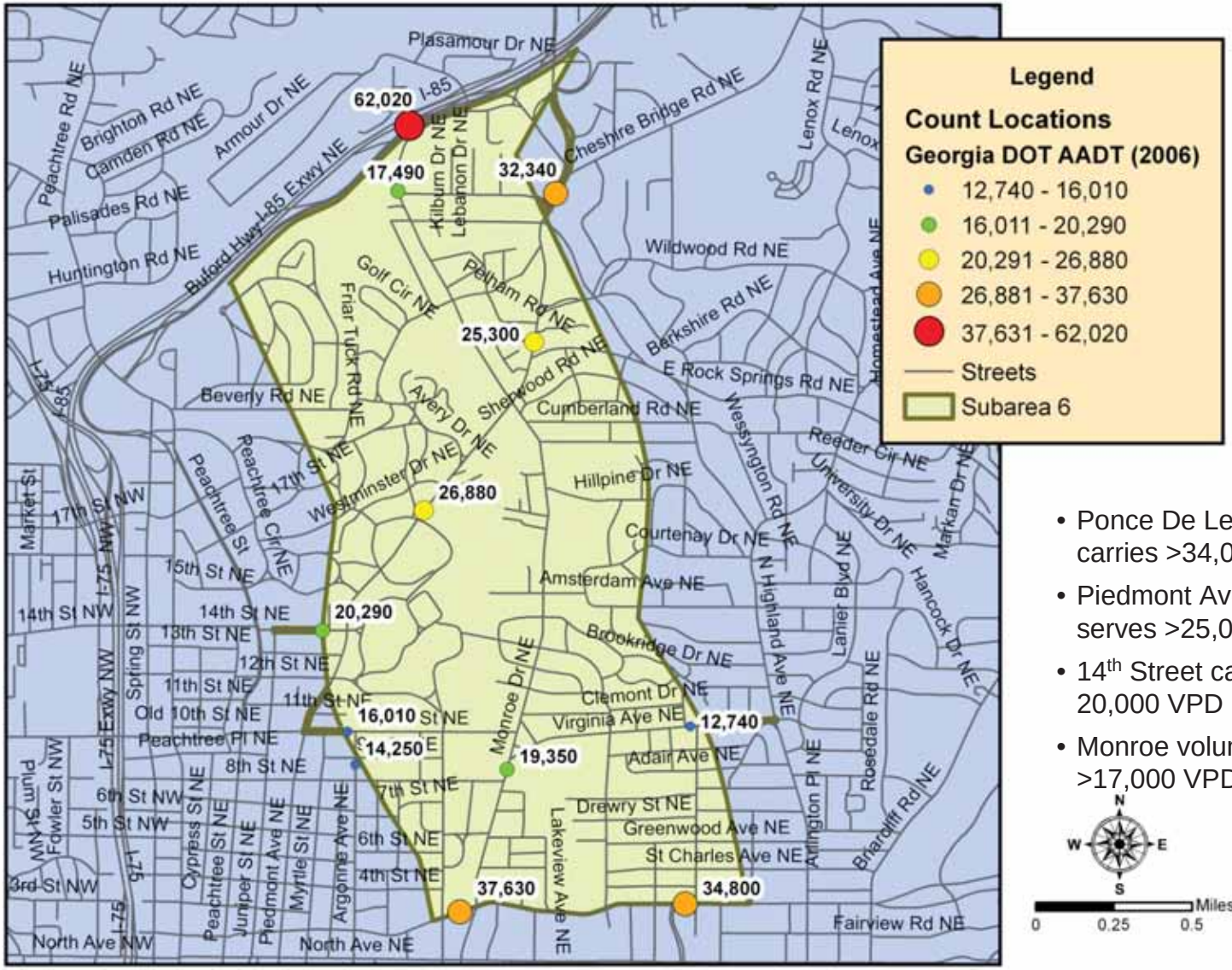
Sidewalk improvements in Piedmont Heights and Midtown

Streetscape projects around Piedmont Park

Proposed on-street bike lanes throughout study area on major arterials and collectors

TRANSPORTATION

Traffic Volumes



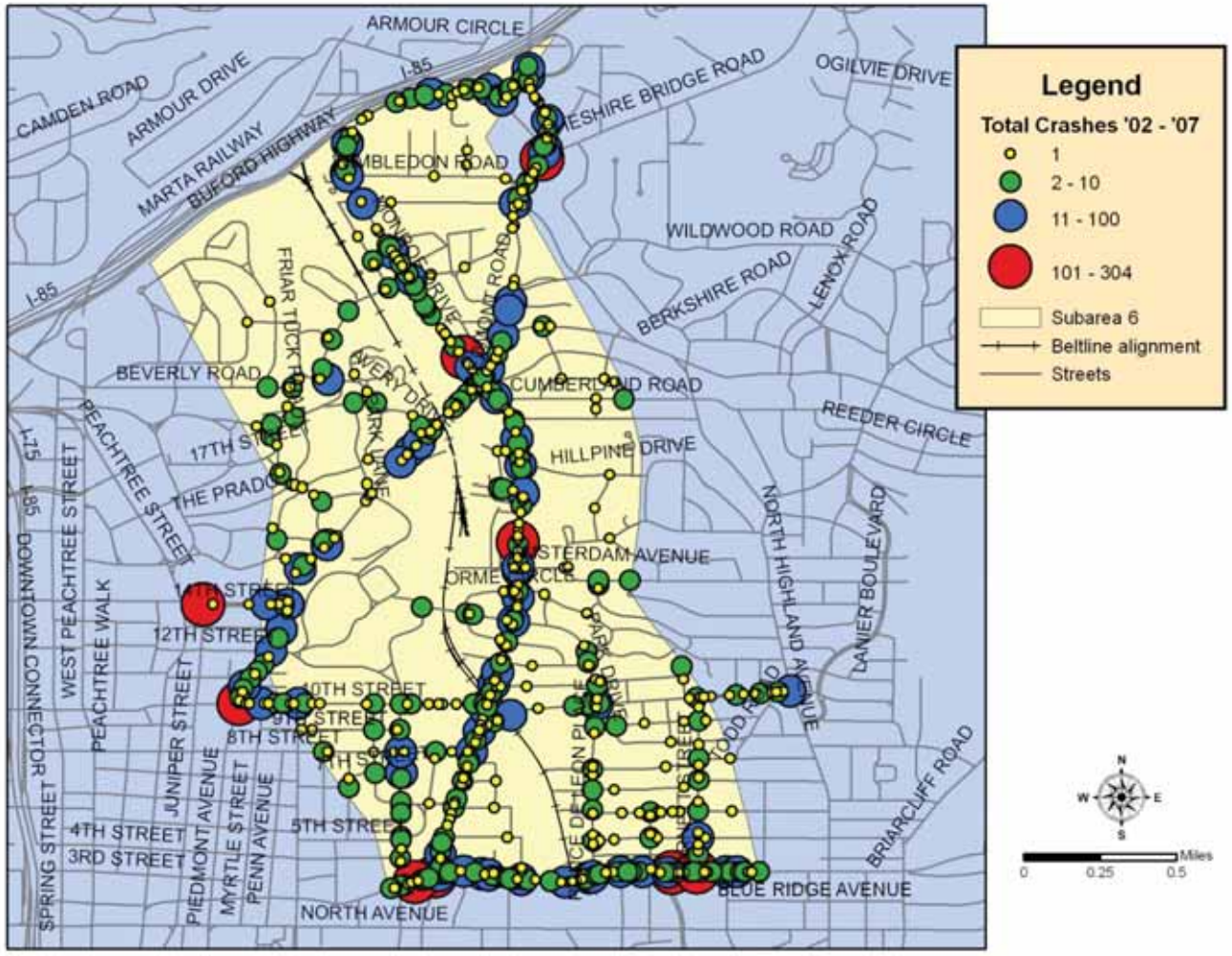
- Ponce De Leon carries >34,000 VPD
- Piedmont Avenue serves >25,000 VPD
- 14th Street carries > 20,000 VPD
- Monroe volume is >17,000 VPD

Origin/Destination

Summary of trips destined for Subarea 6

- 20% trips originated in the beltline study area
  - 10% within Subarea 6
  - 4% North Beltline district
  - 6% South Beltline district
- 18% trips originated in the Inside Beltline district
- 20% trips originated in the Northeast City district
- 10% trips originated in the Southern Suburbs district
- 6-8% trips originated in each of the remaining districts

Crash Data



2002 – 2007 Crash Data

- Total crashes: **5,247**
- Total # of vehicles: **10,641**
- Total # of crashes that resulted in one or more injuries: **936 (18%)**
- Total # of injuries: **1,280**
- Total # of fatalities: **2**

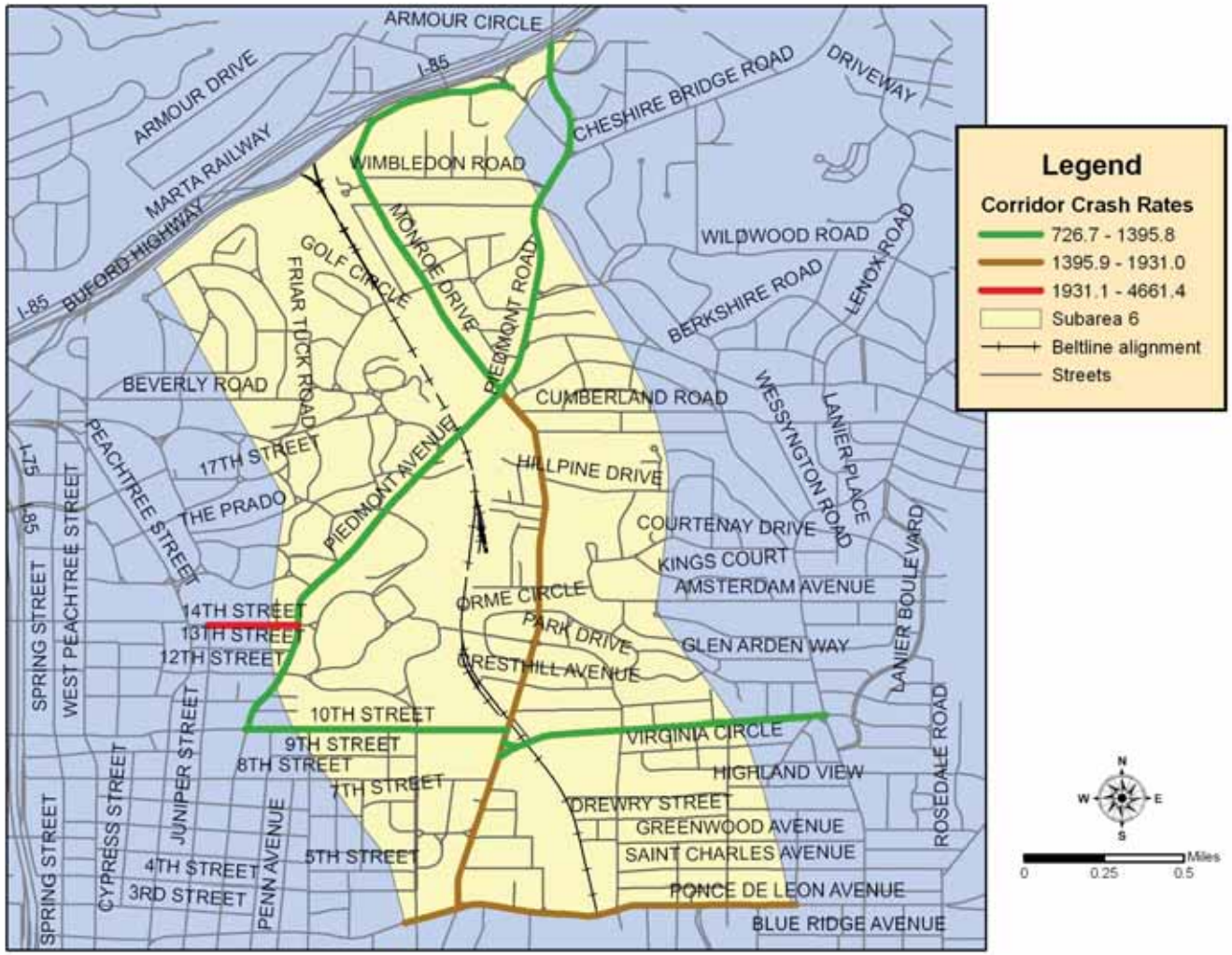
- Intersections w/ most crashes:

--Piedmont Ave./Cheshire Bridge Rd. (**304**)

--Ponce de Leon Ave./Monroe Dr. (**297**)

--14th St./Juniper St. (**279**)

Crash Rates



2002 – 2007 Crash Rates

- Corridors with highest crash rates (crashes per 100 million VMT):

--14th St. from Juniper St. to Piedmont Ave. (**4,661**)

-- Ponce de Leon Ave. from Parkway Dr. to Frederica St. (**1,931**)

-- Monroe Dr. from Ponce de Leon Ave. to Piedmont Ave. (**1,748**)

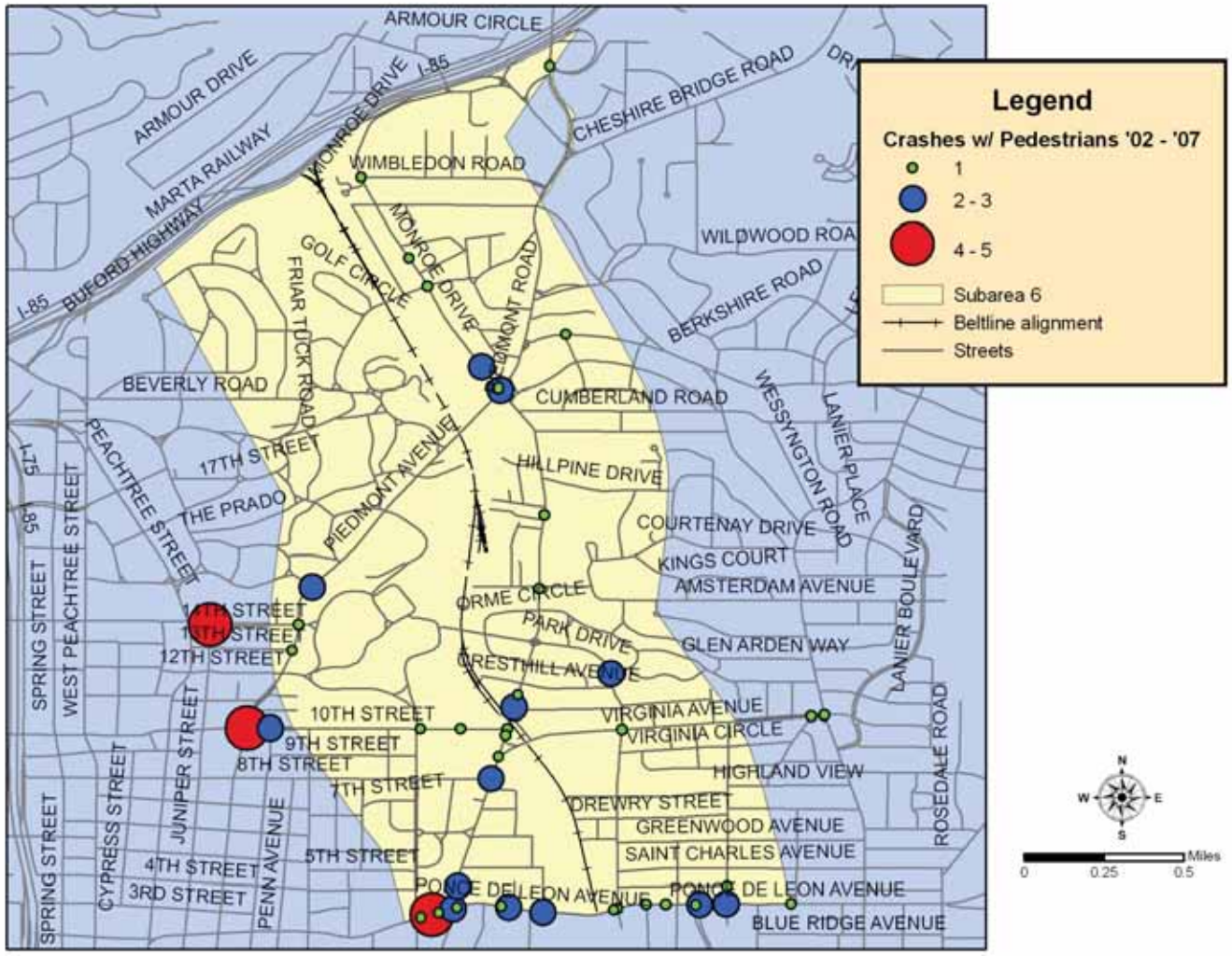
- Corridors w/ most total crashes:

--Piedmont Ave. from 10th St. to I-85 (**1,454**)

--Ponce de Leon Ave. from Parkway Dr. to Frederica St. (**1,289**)

--Monroe Dr. from Ponce de Leon Ave. to Piedmont Ave. (**1,031**)

Pedestrian Crash Data



2002 – 2007 Crashes Involving Pedestrians

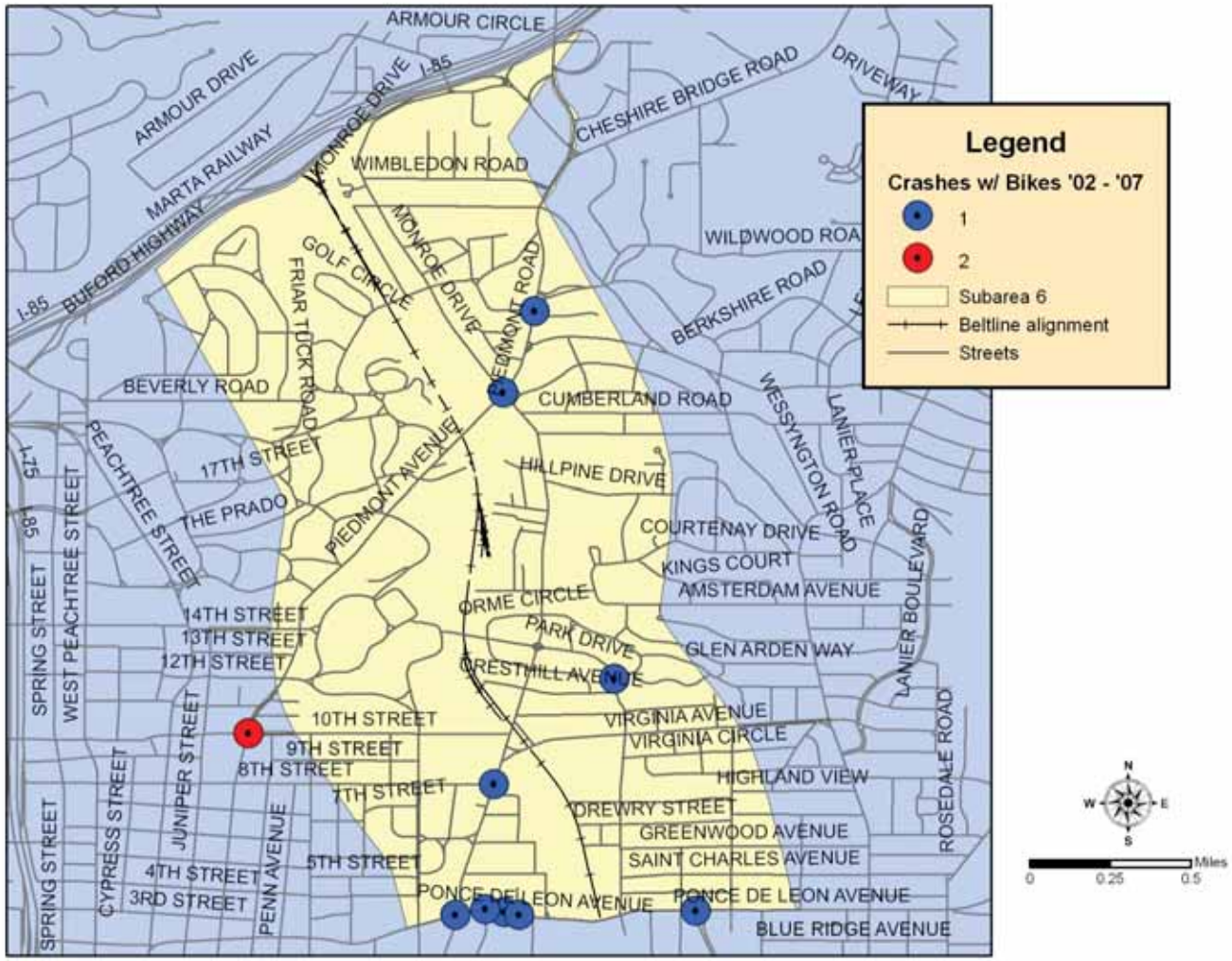
- Total crashes: **72**
- Fatalities: **0**
- Only **24%** of peds emerged uninjured
- **46%** occurred while ped crossing at crosswalk
- **28%** occurred while ped crossing, NOT at crosswalk
- Locations w/ most ped crashes:

--Ponce de Leon Ave. btwn Charles Allen Dr. and Monroe Dr. (**5**)

--14th St./Juniper St. (**5**)

--10th St./Piedmont Ave. (**4**)

Bicycle Crash Data



2002 – 2007 Crashes Involving Bicycles

- Total crashes: **11**
- Injuries: **10**
- Fatalities: **0**

- Location w/ most bike crashes:

--14th St./Juniper St. (**2**)

TRANSPORTATION

Crash Rates

Description	2002 - 2007 Crash Rate Per 100 Million VMT		
	All Crashes	Fatalities	Injuries
Monroe Drive from Ponce De Leon to Piedmont Avenue	1,748.2	1.70	485.0
Monroe Drive from Piedmont Avenue to Armour Drive	1,395.8	0.00	315.6
Piedmont Avenue from 10th Street to Interstate 85	1,168.9	0.00	268.5
14th Street from Juniper Street to Piedmont Avenue	4,661.4	0.00	998.0
10th Street from Piedmont Avenue to Monroe Drive	1,228.1	0.00	261.7
Virginia Avenue From Monroe Drive to North Highland Avenue	726.7	0.00	108.8
Ponce De Leon from Parkway Drive to Frederica Street	1,931.0	1.50	576.8
Total/Average	1,510.7	0.59	380.4

- 14th Street has the highest rate of crashes, more than triple the average, due mostly the intersection at Juniper Street being the third highest crash location in the study area
- 14th Street also has the highest rate of injuries at roughly 3 times the average
- Monroe Avenue and Ponce De Leon have the highest rate of fatalities and are the only facilities with fatalities in the study area from 2005 – 2007
- Virginia Avenue has the lowest crash rate and the lowest injury rate

Source: Georgia DOT

TRANSPORTATION

Crash Rates

Description	Over Statewide Rate		
	All Crashes	Fatalities	Injuries
Monroe Drive from Ponce De Leon to Piedmont Avenue	Yes	Yes	Yes
Monroe Drive from Piedmont Avenue to Armour Drive	Yes	No	Yes
Piedmont Avenue from 10th Street to Interstate 85	Yes	No	Yes
14th Street from Juniper Street to Piedmont Avenue	Yes	No	Yes
10th Street from Piedmont Avenue to Monroe Drive	Yes	No	Yes
Virginia Avenue From Monroe Drive to North Highland Avenue	Yes	No	No
Ponce De Leon from Parkway Drive to Frederica Street	Yes	Yes	Yes
Total/Average	Yes	No	Yes

- Monroe Drive from Ponce De Leon to Piedmont Avenue and Ponce De Leon are over the statewide rate for all crashes, fatalities, and injuries
- No facilities are lower than the statewide rate for all crashes, fatalities, and injuries
- Only Virginia Avenue is lower than the statewide rate for both fatalities and injuries
- On average, facilities analyzed are over the statewide rate for all crashes and injuries

Source: Georgia DOT

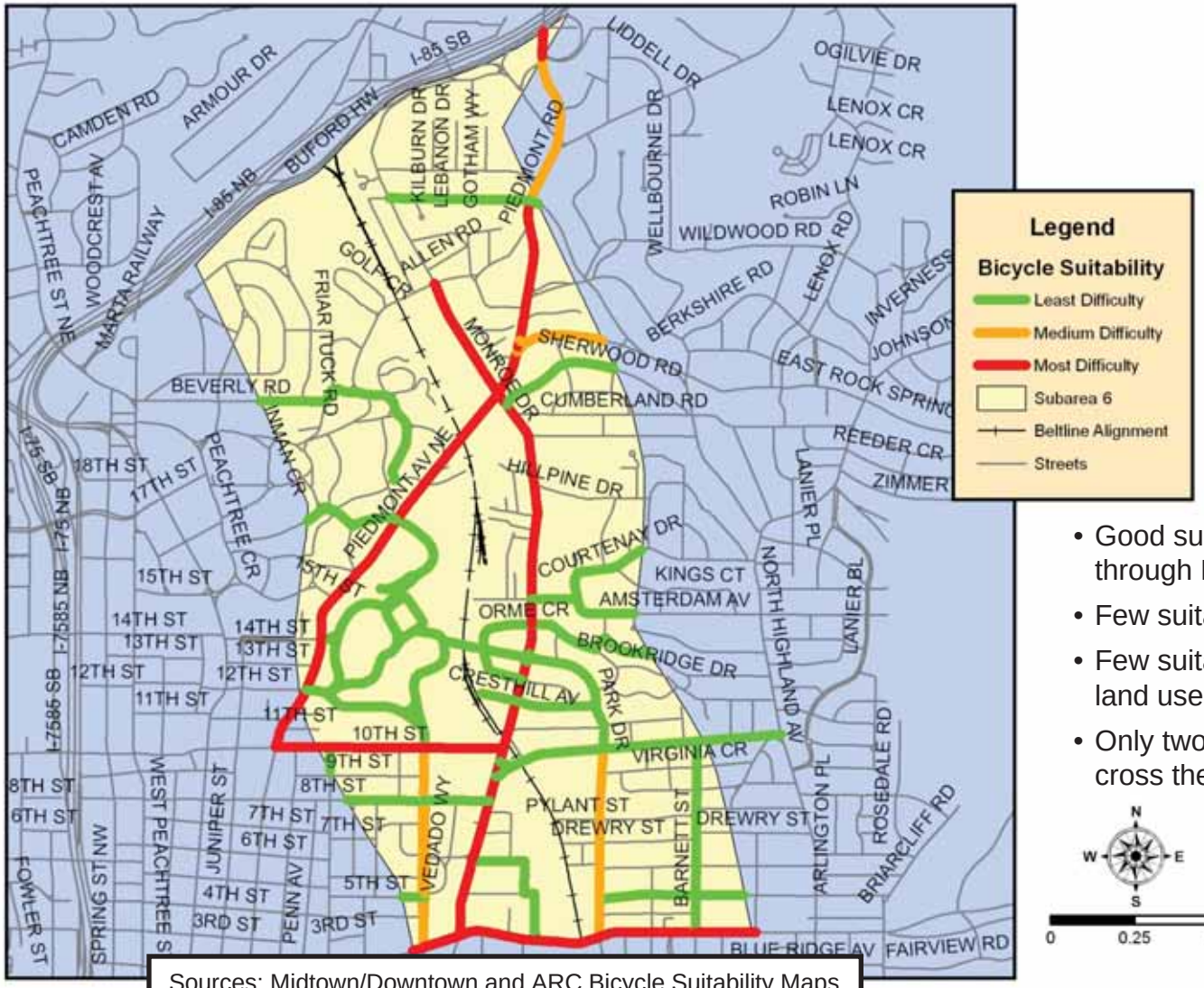
Sidewalk Inventory



- Subarea 6 has very good sidewalk coverage
- However, suffers from poor pavement quality like many areas of Atlanta
- Good sidewalk coverage on main corridors: Monroe Dr., Piedmont Ave., 10th St., Ponce de Leon Ave.
- However, main corridors provide poor crossings at some side streets (ex.: Montgomery Ferry Dr.)
- Corridor crossings are infrequent and often dangerous
- Pedestrian facilities at Beltline access points need improvement

TRANSPORTATION

Bicycle Suitability



- Good suitable routes to and through Piedmont Park
- Few suitable north-south routes
- Few suitable routes to commercial land uses
- Only two suitable routes currently cross the Beltline

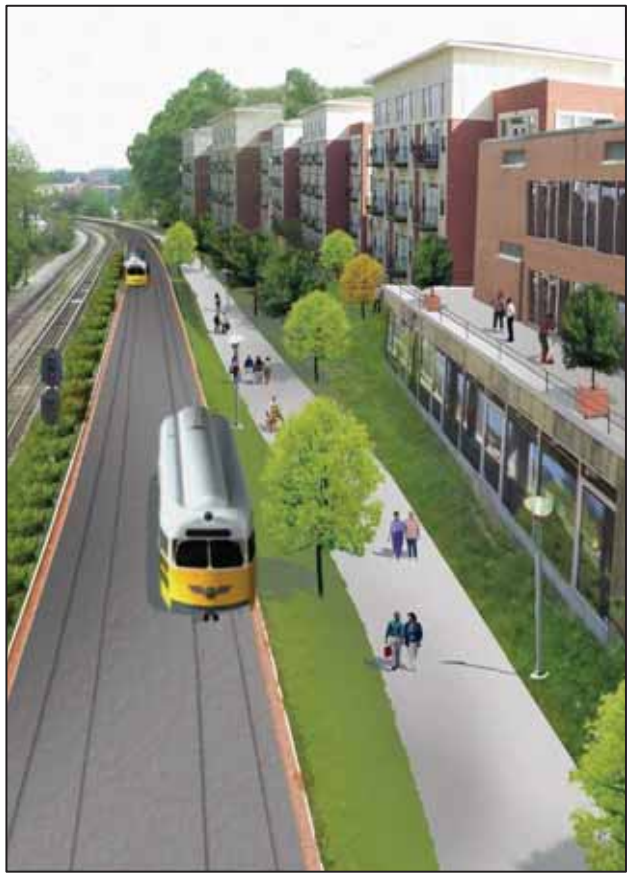
Sources: Midtown/Downtown and ARC Bicycle Suitability Maps

Next Steps

- Review of draft land use and circulation recommendations on June 12, 6:30 to 8:30pm
- Quarterly briefing on April 17 with flyer forthcoming

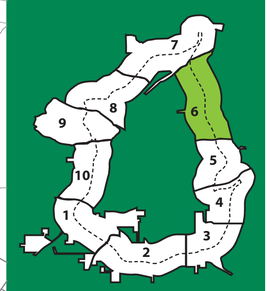
Atlanta Beltline

NE Study Group Meeting Presentation



Armour Yards

BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/
Piedmont / Monroe

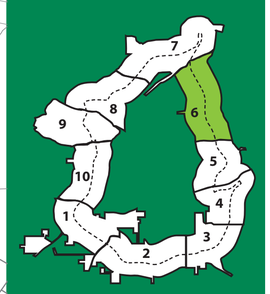
Constraints

EDAW | AECOM

FEBRUARY 4, 2008

SCALE IN FEET
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BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/ Piedmont / Monroe

Existing Land Use

Arts Center MARTA Station

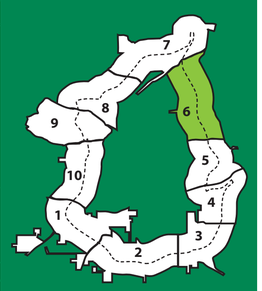
Midtown MARTA Station

EDAW | AECOM

FEBRUARY 4, 2008

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BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/ Piedmont / Monroe

CDP City's Future Land Use

Arts Center MARTA Station

Midtown MARTA Station

EDAW | AECOM

FEBRUARY 4, 2008

SCALE IN FEET

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BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/
Piedmont / Monroe

Historic/ Cultural Resources

- Piebar (former Trust Co. Bank)
- Fires Station #29
- Rock Spring Presbyterian Church
- Morningside Baptist Church
- Liddell Farm House
- The Villa Condominiums
- 1880 Trestle Bridge
- Commercial Row
- Georgia Power
- Arts Center MARTA Station
- Habersham Memorial Hall
- 1916 Piedmont Park Arched Concrete Overpass
- Midtown MARTA Station
- Grady High School

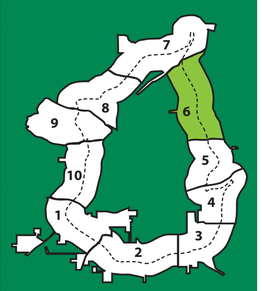
PIEDMONT HEIGHTS
SHERWOOD FOREST
MORNINGSIDE
ANSLEY PARK
PIEDMONT PARK
VIRGINIA HIGHLAND
MIDTOWN
ST. CHARLES

EDAW | AECOM

FEBRUARY 4, 2008

SCALE IN FEET
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BeltLine
Atlanta Connected



BeltLine Subarea 6:
NORTHEAST/ Piedmont / Monroe

Existing Zoning

- Arts Center MARTA Station
- Midtown MARTA Station

EDAW | AECOM

FEBRUARY 4, 2008

SCALE IN FEET
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Agenda
Northeast Study Group
July 17, 2008; 6:30 – 8:30 pm
Hillside, 690 Courtenay Dr NE, Atlanta, Ga 30306

1. Welcome and Introductions (6:30 to 6:35)

2. Overview of Tonight's Agenda (6:35 to 6:40)

3. Presentation Introducing Tonight's Exercise and the Focus Areas for the BeltLine Master Plan: Subarea 6 (6:40 to 7:15)
    a. Monroe Crescent
    b. Monroe/Piedmont
    c. Amsterdam Walk
    d. Monroe/Virginia/10th
    e. Midtown Promenade/Midtown Place

4. Table Exercise and Discussion (7:15 to 8:30)

The Next Study Group Meeting on August 14 will cover the Affordable Housing Trust Fund.

For questions or additional information, please contact:

Jonathan Lewis
Project Manager
jlewis@atlantaga.gov
404.865.8593

Rukiya Eaddy
Community Engagement Advocate
readdy@atlbeltline.org
404.614.8285



Subarea 6 Community Meeting

July 17, 2008

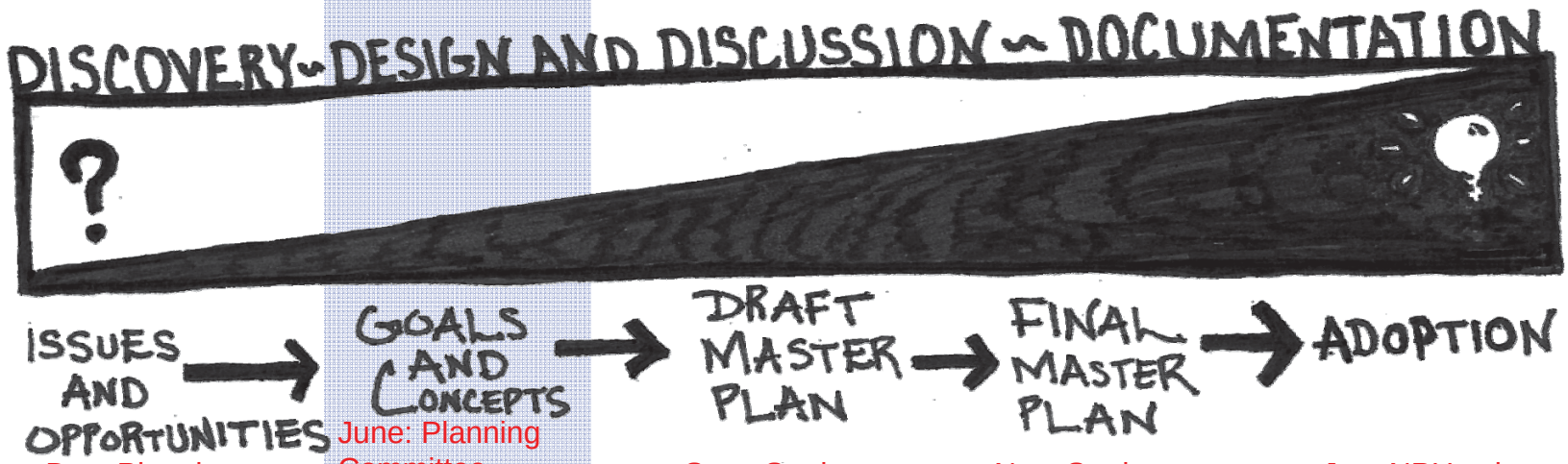
Agenda

Introductions
BeltLine Vision
Transportation
Vision for Subarea 6
Subarea 6 Visual Studies
Break Out Groups

July 17 Meeting Purpose
Public meeting #1

1. BeltLine Update
2. BeltLine vision
3. Transportation
4. Vision for Subarea 6
5. Land use and mobility

Master Planning – Process & Key Dates



Dec: Planning Committee April: Study Group	June: Planning Committee July: Study Group August: Planning Committee	Sept: Study Group Oct: Planning Com. (tentative)	Nov: Study Group (tentative) Dec: Office Hours (tentative)	Jan: NPUs, then City Council (tentative)
• Review vision statement and goals • Analyze existing conditions • Review previous studies		• Prepare concept plans • Draft plan recommendations • Refine master plan		• Take Master Plans to NPUs and City Council for adoption

Previous Plans Consulted

Transportation Studies

- Connect Atlanta
- North Highland Avenue Transportation and Parking Study
- BeltLine Emerald Necklace
- Cheshire Bridge Road Corridor Study
- Atlanta BeltLine Street Framework (Ga Tech)

Livable Centers Initiative (LCI)

- Ponce de Leon Corridor Plan
- Moreland Ave Corridor Plan
- Moreland Ave LCI

Redevelopment Plans

- BeltLine TAD Redevelopment Plan & FY 2006-2010 Work Program
- BeltLine Street Framework Plan
- Atlanta BeltLine Redevelopment Plan

Developments of Regional Impact (DRI) Reviews

- Ponce Park DRI/City Hall East Redevelopment
- Morningside Redevelopment DRI
- Northeast Atlanta BeltLine DRI

City-Wide Plans

- City of Atlanta Greenspace Plan
- City of Atlanta BeltLine Brownfield Survey
- Mayor's Economic Development Plan
- Atlanta Strategic Action Plan (formerly COA CDP)
- Project Greenspace
- City of Atlanta Cultural Master Planning activities

Park Program Initiatives

- PATH – Multi-Use Trail Planning
- Park Pride – Park Master Plan
- Studies conducted by Piedmont Park Conservancy
  - North Woods Strategic Plan
  - Park Master Plan

Other Studies

- City of Atlanta Capital Improvement Projects
- Peachtree Corridor Task Force Final Report
- Opus Master Plan

BeltLine Corridor Environmental Study

- MARTA /ABI 2-year study on developing transit and trails in the Corridor
- The study will examine a broad array of physical, social and economic impacts
- The study will help define the rights-of-way needed to build trail and transit and to select a transit technology
- The Federal Transit Administration will issue a Record of Decision on the Preferred Alternative at the conclusion of the Tier 1 Final Environmental Impact Statement

- Scoping Meetings for the Public (August 2008)
- Public Hearing on Environmental Effects Report on the Northeast Quadrant (February 2009)
- Public Hearing on Tier 1 Draft Environmental Impact Statement (January 2010)
- Circulation of Final Tier 1 Environmental Impact Statement (April 2010)

Source: MARTA 2008

Atlanta Growth Trends

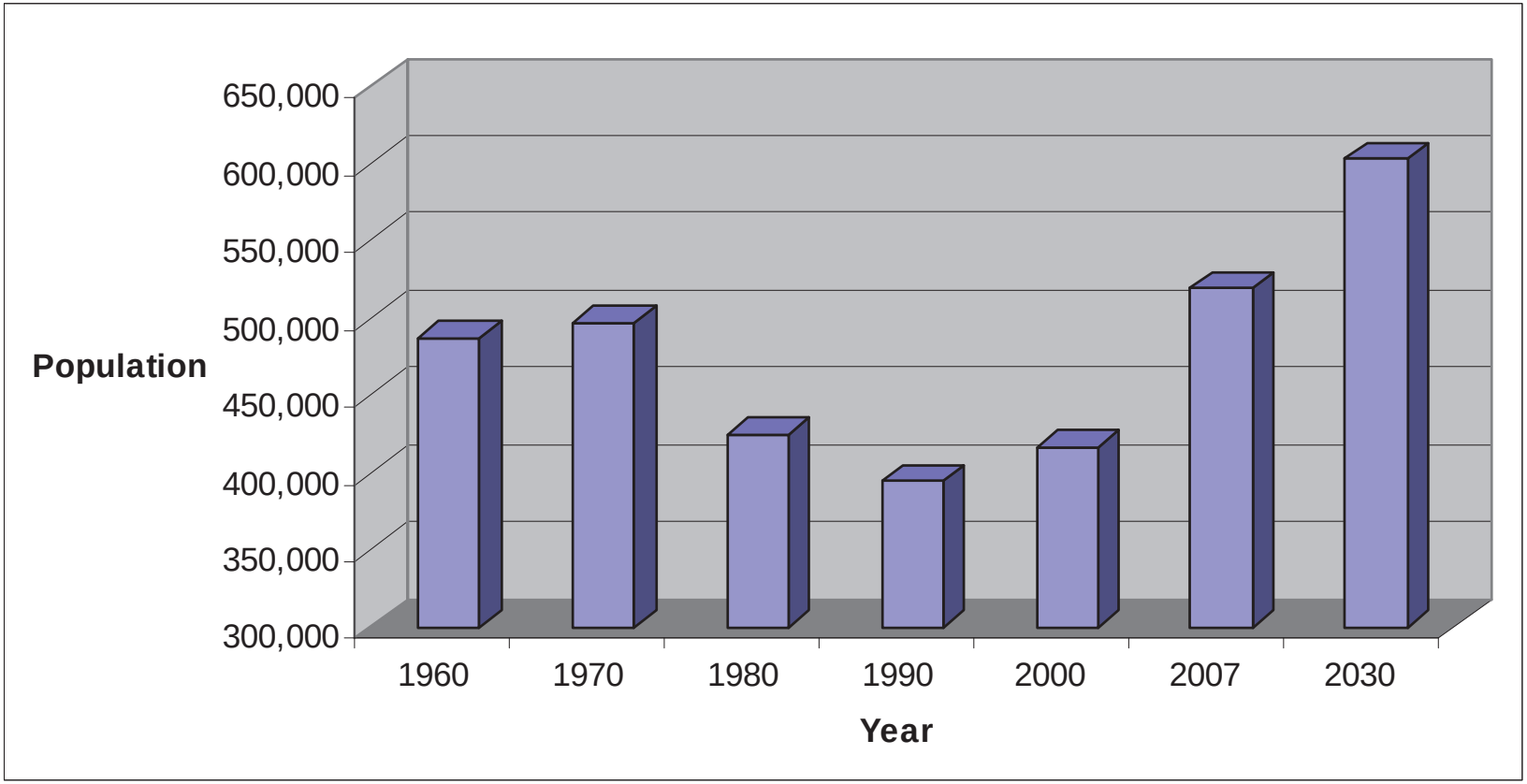
- Atlanta's estimated population in 2007 was 519,145
- More than 20,000 new residents are estimated to have moved to the city from July 1 2006 to July 1 2007
- ***More than 100,000 new residents have moved to the city since 2000***

Source: Population Division, U.S. Census Bureau

Table 1: Annual Estimates of the Population for Incorporated Places Over 100,000, Ranked by July 1, 2007 Population: April 1, 2000 to July 1, 2007 (SUB-EST2007-01)

Release Date: July 10, 2008

Atlanta Growth Trends



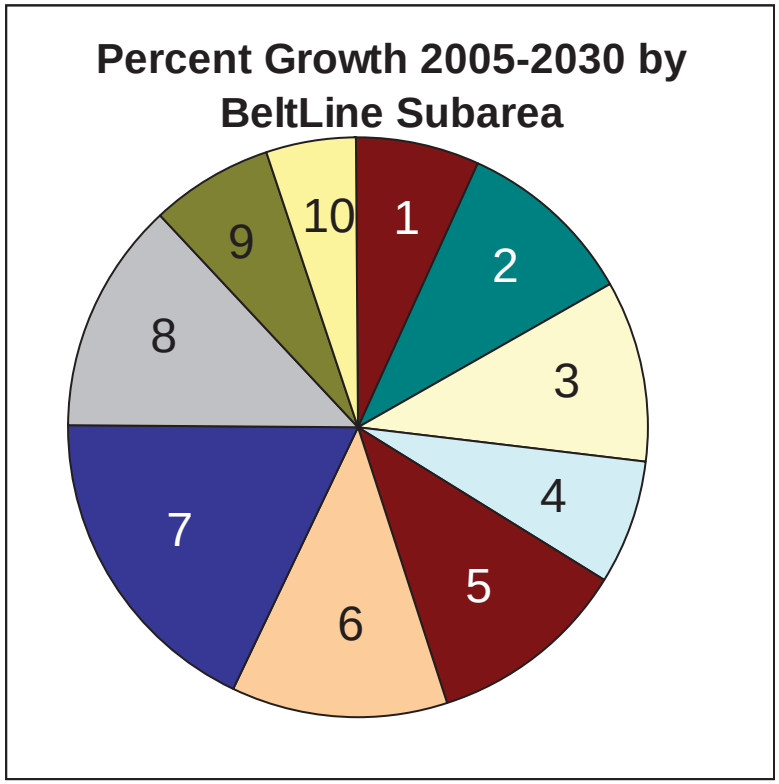
Source: U.S. Census Bureau and the Atlanta Regional Commission, September 2006

BeltLine Vision

- The city will experience strong growth in the years ahead
- The vision of the BeltLine is to shape new growth to support high quality of life, walkable urban neighborhoods with convenient access to housing, retail, parks, and trails and transit
- The BeltLine provides an opportunity to address existing and future development and related transportation issues in a comprehensive way

Household Growth by BeltLine Subarea

Subarea	2005 Existing HH	2005 % of SA	2030 Forecast	2005 -2030 % of Growth
1	7890	13%	11460	7%
2	6649	11%	11784	10%
3	4515	7%	9624	10%
4	3909	6%	7631	7%
5	6500	10%	12427	11%
6	11337	18%	17761	12%
7	9186	15%	18436	18%
8	5019	8%	11633	13%
9	2569	4%	6194	7%
10	5320	8%	7907	5%



Source: RCLCO 2008

Existing Conditions: Traffic

Monroe at 10th:

- Monroe Drive at 10th Street (LOS C)
- Monroe at Virginia Avenue (South leg C, North leg B)

Existing LOS for major intersections and those operating at an LOD of D or worse:

- Monroe Drive at Armour Drive (LOS E)
- Monroe Drive at Piedmont Circle (LOS F)
- Piedmont Road at Piedmont Circle (LOS D)
- Monroe Drive at Piedmont Road (LOS D)
- Monroe Drive at Ponce de Leon Avenue (LOS E)

Source: NorthEast Atlanta Beltline Traffic Impact Study

Existing Conditions: Safety

High crash locations:

- Piedmont Road at Cheshire Bridge Road
- Ponce de Leon Avenue at Monroe Drive
- 14th Street at Juniper Street
- Ponce de Leon Avenue between Charles Allen Drive and Monroe Drive, also from Bonaventure Avenue to Barnett Street
- Monroe Drive near Amsterdam Avenue and near Piedmont Avenue

Source: Georgia DOT crash data, analysis by ARCADIS

Traffic Analysis Process

- Evaluate existing and future traffic conditions under multiple years and scenarios:
  - Year 2020
  - Year 2030
  - Worst Case Scenario – No trip reduction due to transit
  - Best Case Scenario – Beltline transit provides at least a 26 percent trip reduction
  - Both Scenarios – 10 percent reduction in trips on mixed use parcels
- Develop and use a traffic computer model
- Include new trips from future development
  - Forecast using Institute of Transportation Engineers (ITE) trip generation rates for individual land uses

Issues and Opportunities

- Alternate routes and a more dense street grid are somewhat limited by manmade barriers and development patterns
- Potential new street connections
- Sidewalks and bicycle facilities
- Potential intersection projects
    - Add intersection turning lanes (particularly at Monroe/Ponce and at Piedmont/Monroe)
    - Re-align intersections (particularly at Piedmont/Piedmont Circle and at Monroe/10th/Virginia)
    - Urban grade separations (e.g. DuPont Circle in Washington, DC)

Issues and Opportunities

- Potential Monroe Drive capacity projects
  - Add a center left-turn lane (5 lanes total)
  - Add a raised median to improve safety
  - Reconfigure Monroe to 3 lanes total (center left-turn lane) and widen sidewalks or add bicycle facility
- Potential Piedmont Road capacity project
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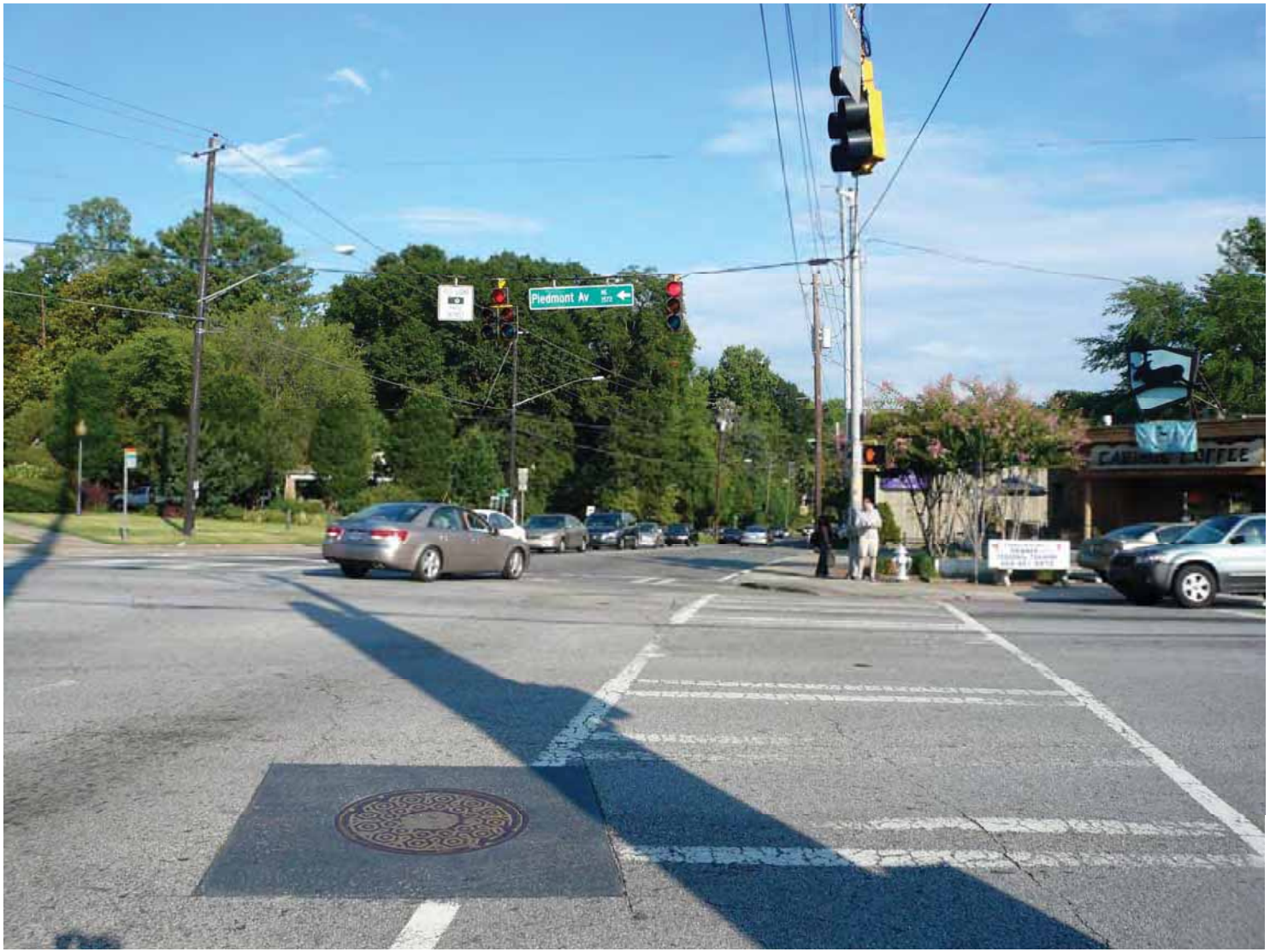
Existing Conditions



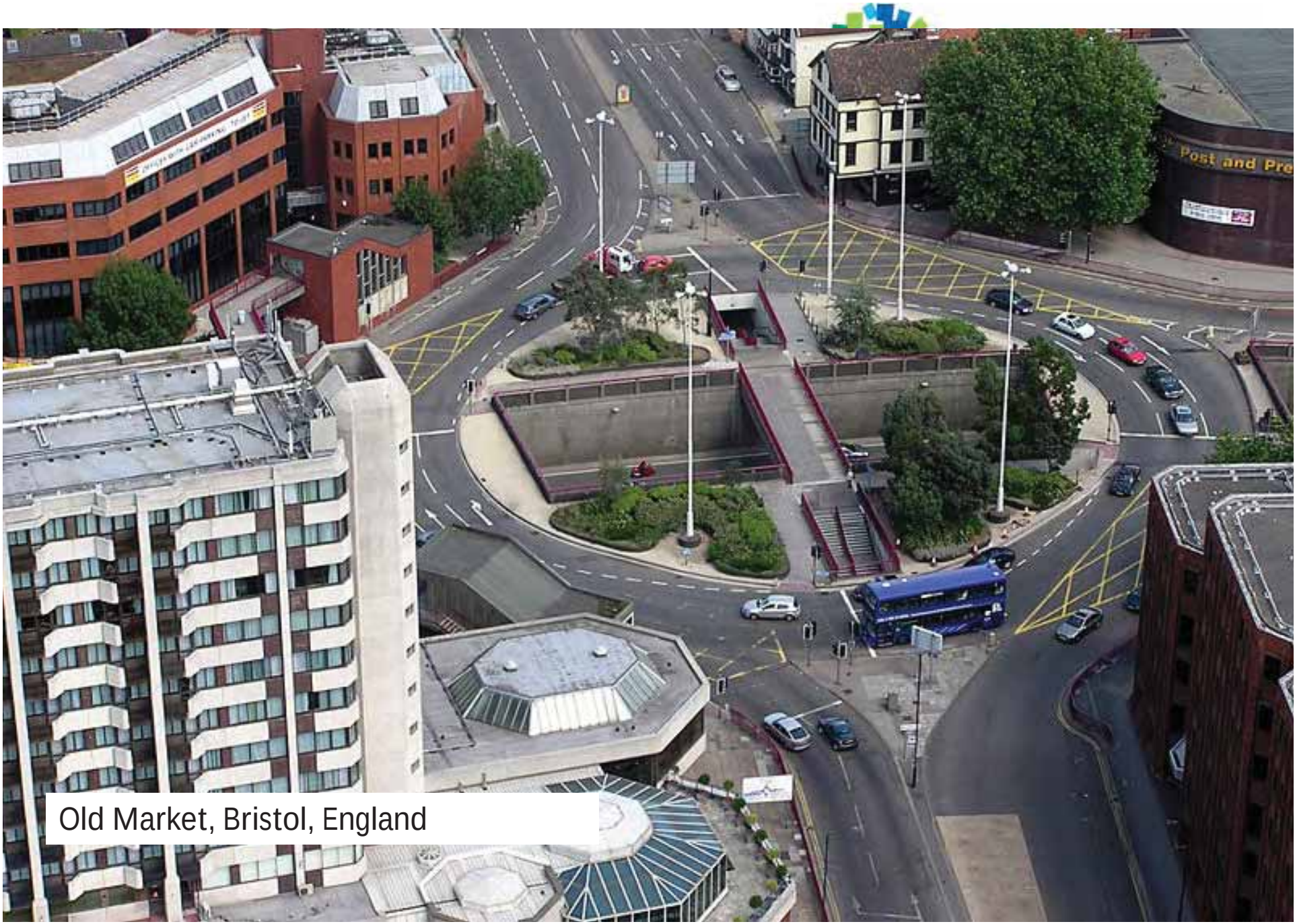
Existing Conditions



Existing Conditions




Massachusetts Avenue in D.C. passes under intersection at M Street and 14th Street



Old Market, Bristol, England

Subarea 6 tonight and next steps

Tonight is for your comments and ideas.

First look at updating the 2005 BeltLine Redevelopment Plan

Your 30-year view of land use, green space and access

Next step is DRAFT Alternatives and Public Meeting #2

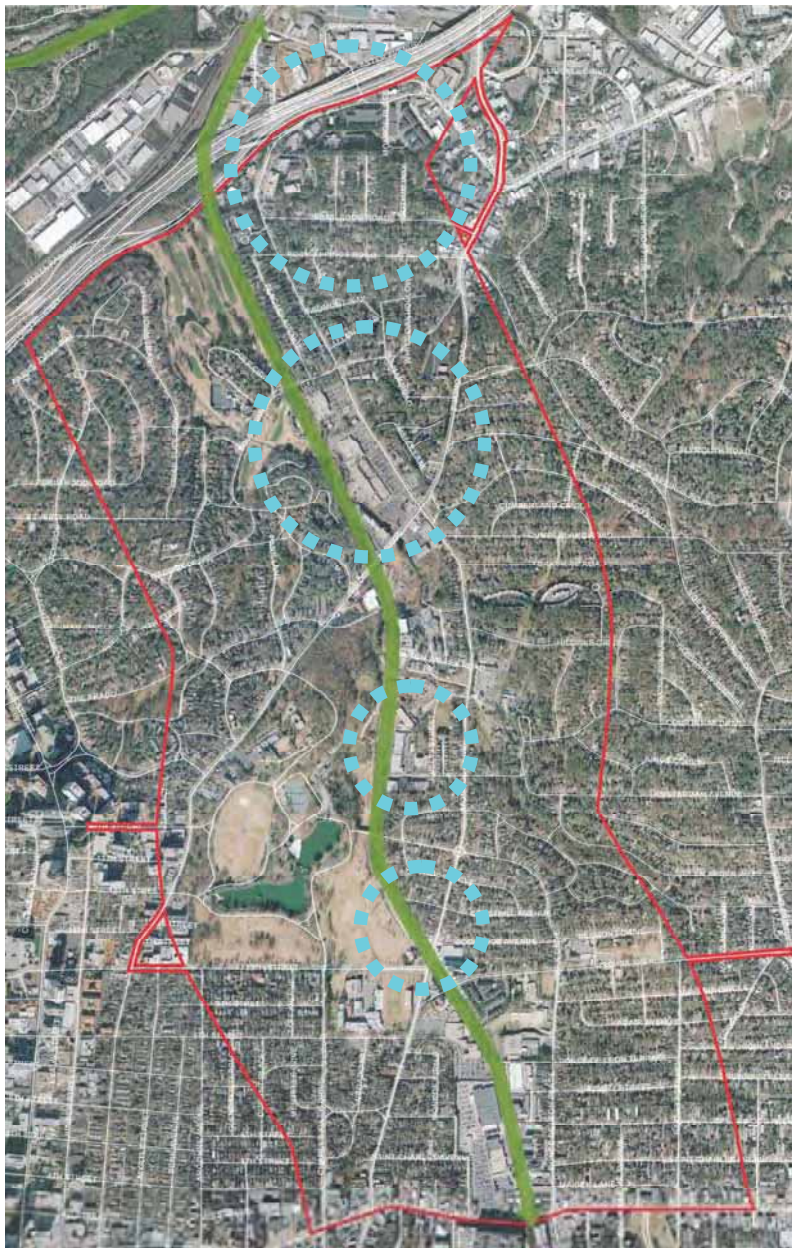
Subarea 6 Issues

- Vehicular and pedestrian
- Monroe Drive
- Lack of access to neighborhoods
- Weak east Piedmont Park edge
- Views into and out of Piedmont Park
- Clear Creek
- Buffers at new development and existing single-family neighborhoods

Subarea 6 The 25 Year Vision

- Increase green space
- Improve Clear Creek
- Improve pedestrian/transit/vehicular
- Define Piedmont Park's eastern edge
- Protect views
- Improve Monroe
- Connect neighborhoods, retail, park and transit
- Create transit oriented development (TOD)

Subarea 6 Visual Studies



- Monroe Crescent
- Ansley Mall
- Amsterdam Walk
- Monroe and 10th, Piedmont Park

Monroe Crescent



Context:

- Physical Constraints
  - Buford Connector on-ramp
  - Armour Drive overpass
  - Norfolk Southern freight easement
- Planning Efforts
  - Piedmont Heights Blueprint/GA Tech Studio
  - Cheshire Bridge Corridor Study

Monroe Crescent



Monroe Crescent



Monroe Crescent



Monroe Crescent



Piedmont Heights Blueprints, Monroe Crescent



Monroe Crescent Long Term Vision

Source: Piedmont Heights Blueprint

Monroe Crescent Focus Area Study

BeltLine
Atlanta Connected



Monroe Crescent Visual Study



Monroe Crescent Visual Study



Ansley Mall



Ansley Mall



Ansley Mall



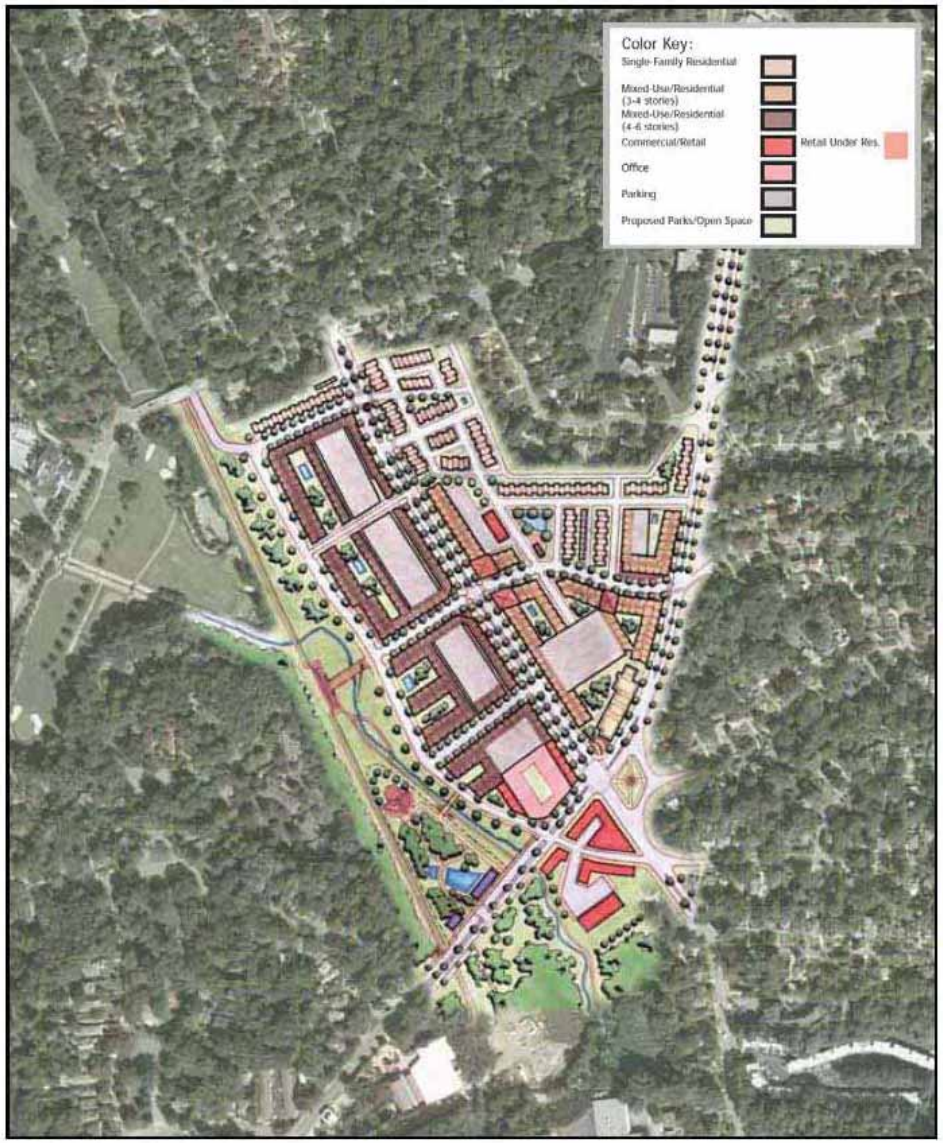
Ansley Mall



Context:

- Physical Constraints
  - Piedmont Avenue/Monroe Drive intersection
  - BeltLine crosses under Piedmont Ave.
  - High tension power lines
- Environmental Concerns
  - Clear Creek and flood plain
- Planning Efforts
  - Piedmont Heights Blueprints/GA Tech Studio

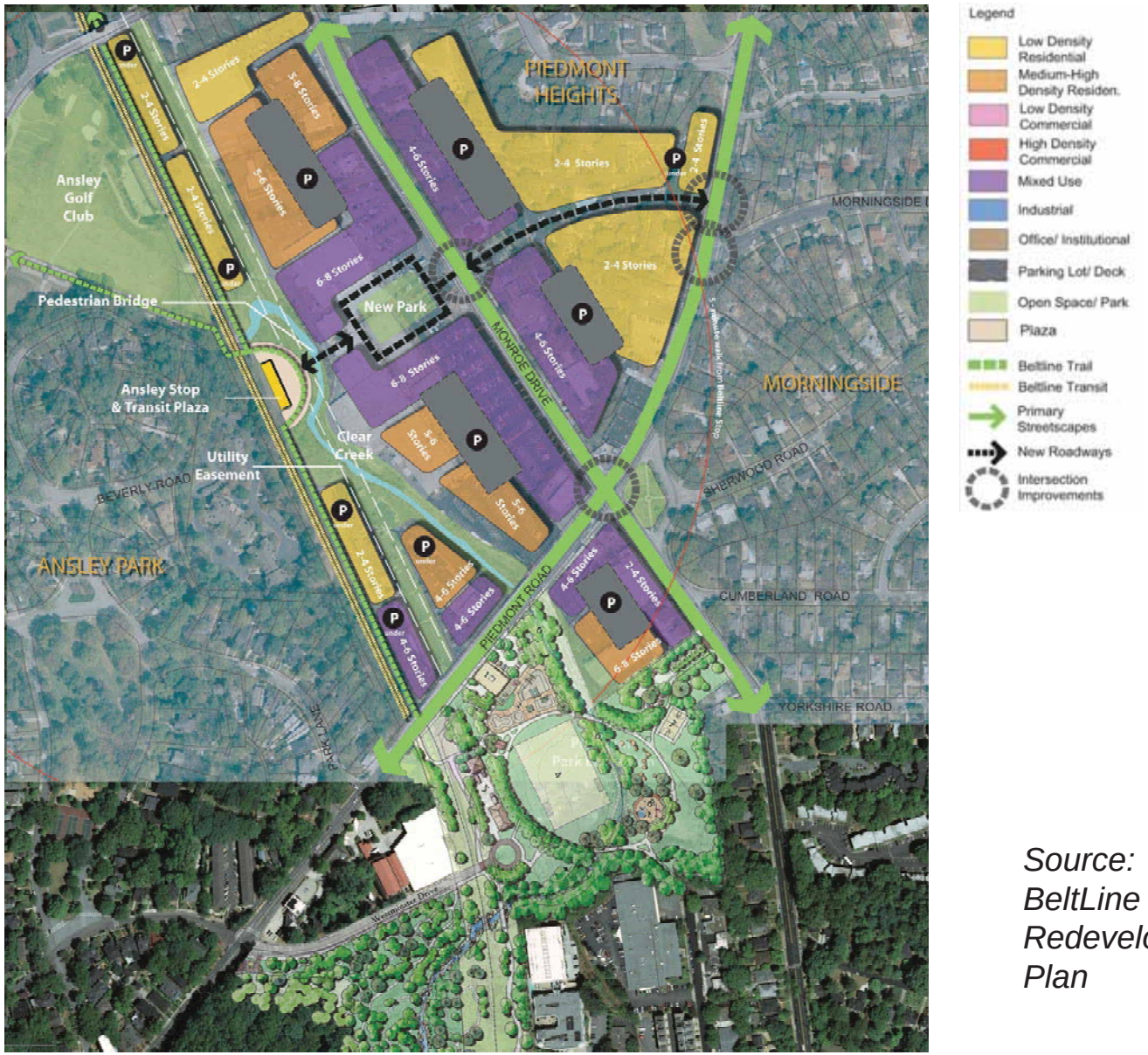
Piedmont Heights Ansley Mall Vision



Ansley Mall Long Term Vision

Source: Piedmont Heights Blueprint

Ansley Mall Focus Area Study

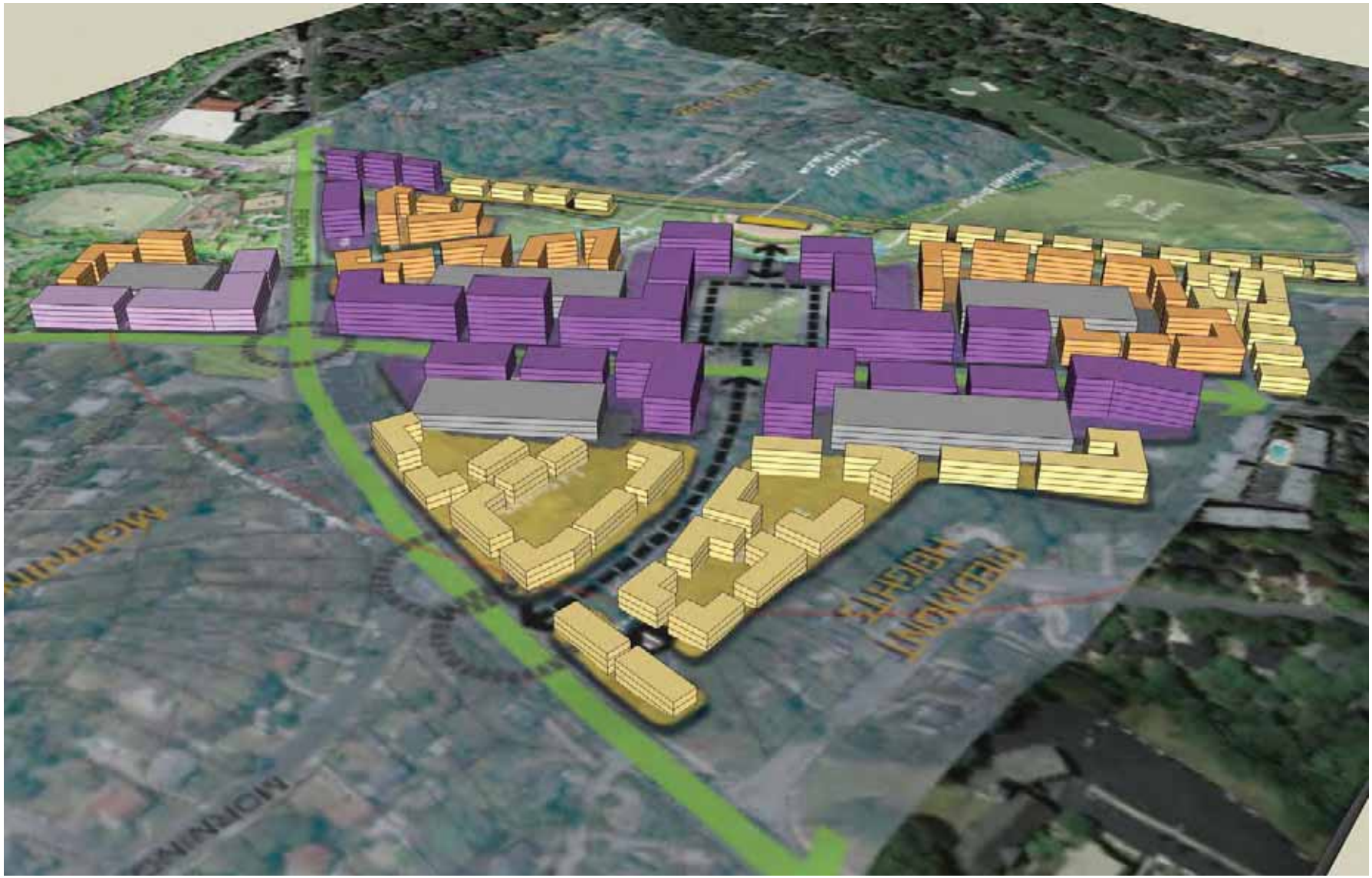


Source: BeltLine Redevelopment Plan

Ansley Mall Visual Study



Ansley Mall Visual Study



Amsterdam



Amsterdam



Context:

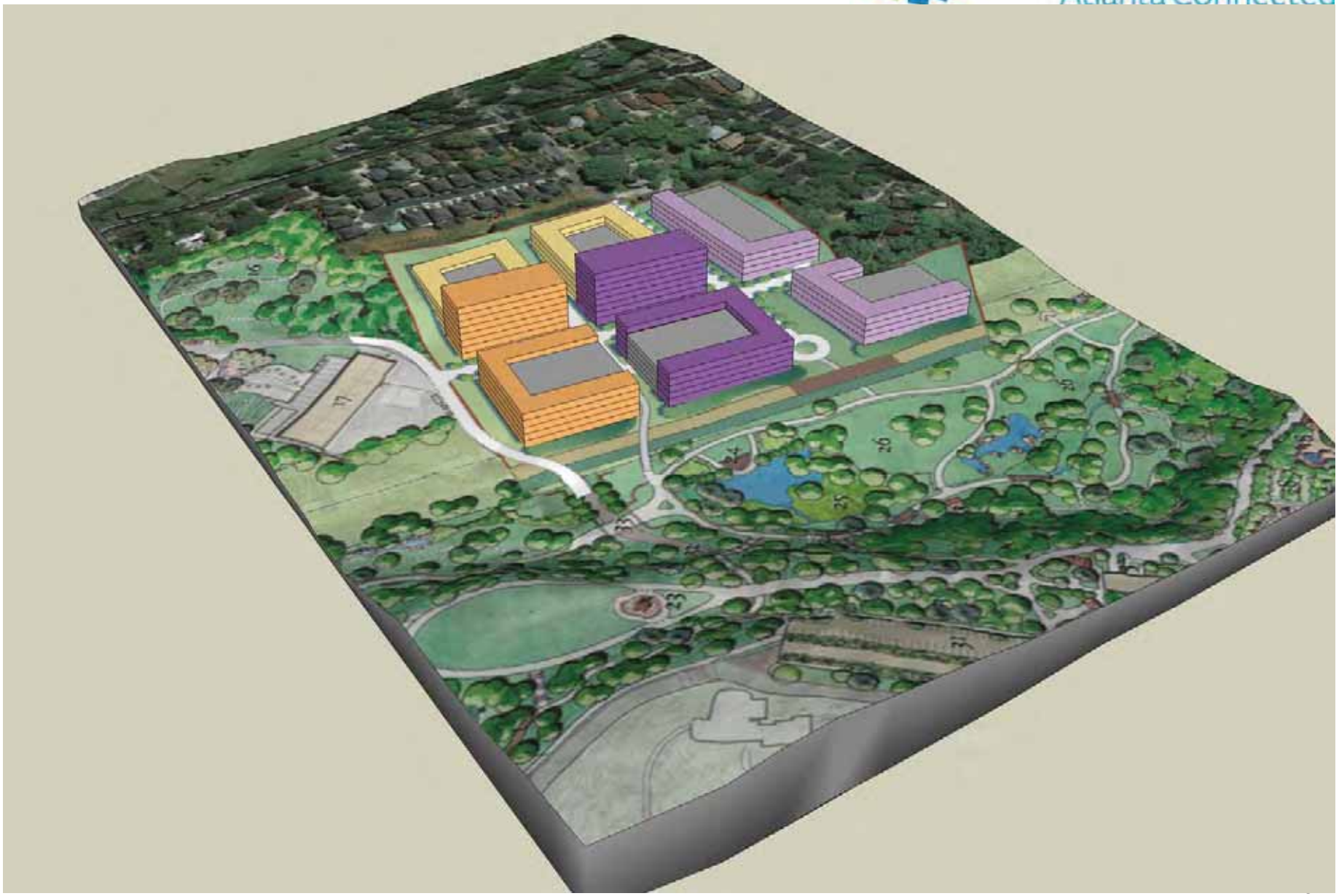
- Physical Constraints
  - Steep grade change
  - CSO facility nearby
- Environmental Concerns
  - Clear Creek and flood plain

Amsterdam Focus Area Study

BeltLine
Atlanta Connected



Amsterdam Visual Study



Amsterdam Visual Study



Monroe and 10th, Piedmont Park



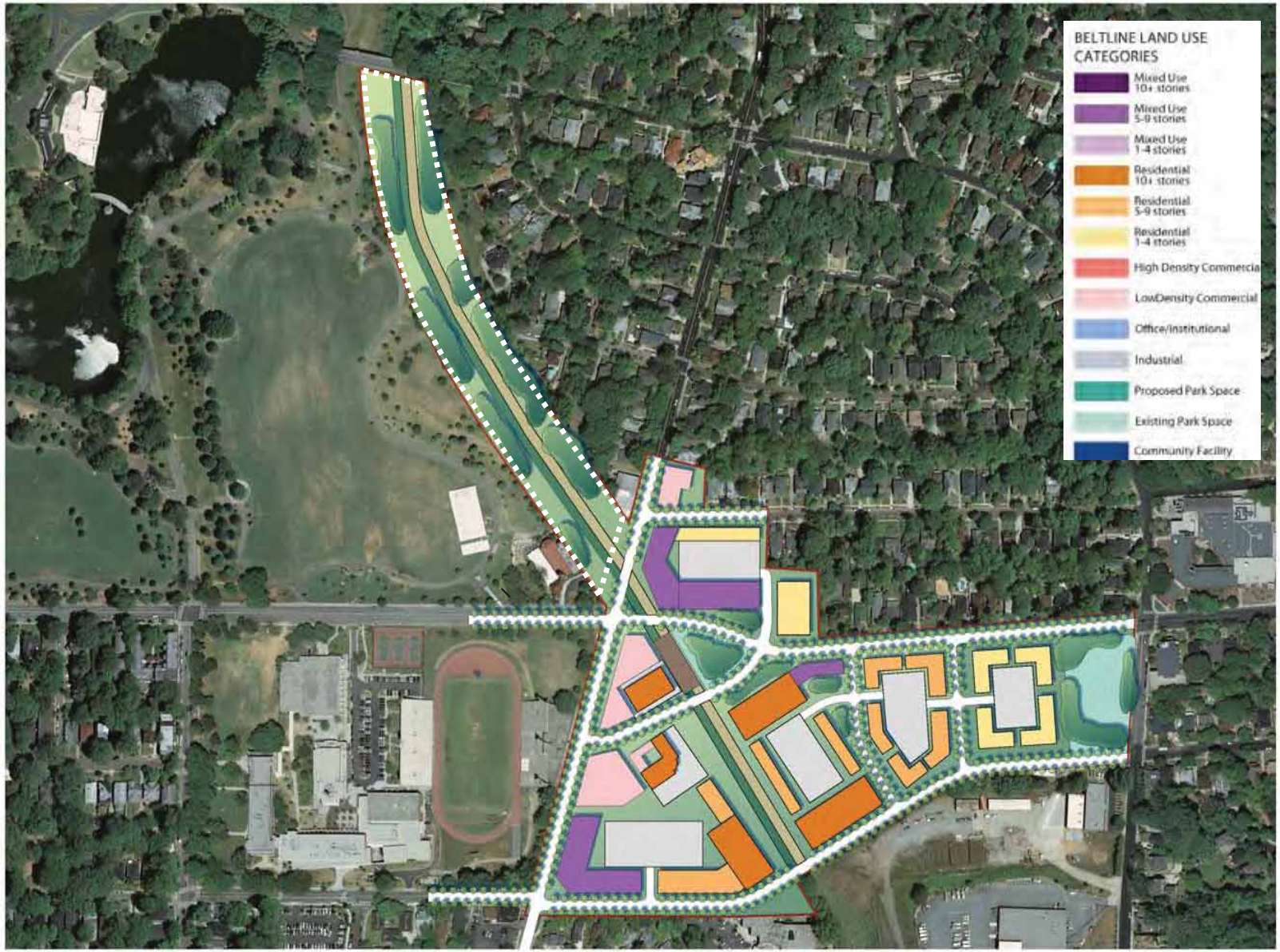
Monroe and 10th, Piedmont Park



Context:

- Physical Constraints
  - Awkward intersections of Virginia Ave., Monroe Dr., and 10th St.
  - BeltLine crosses at grade over Monroe
- Environmental Concerns
  - Flood plain in park

Monroe and 10th Visual Study



Monroe and 10th Visual Study



Monroe and 10th Focus Area Study

BeltLine
Atlanta Connected



Midtown Arts/Home Depot



Midtown Arts/Home Depot



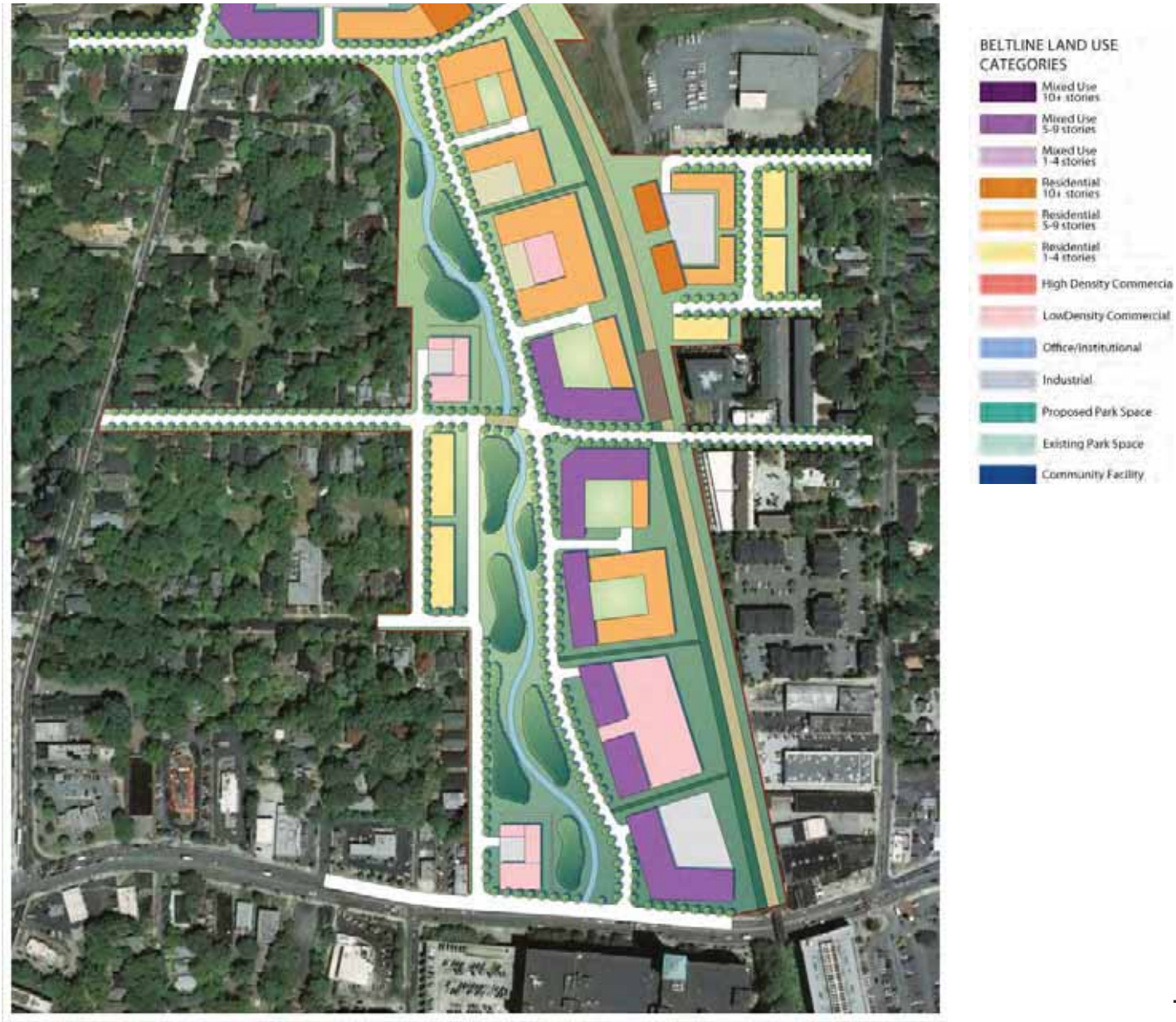
Midtown Arts/Home Depot



Context:

- Physical Constraints
  - Lack of connectivity among commercial super blocks
  - Severe grade change between BeltLine and Home Depot center
- Environmental Concerns
  - Buried stream/spring under City Hall East
  - Built in bottomlands, flooding problems

Home Depot Midtown Arts Visual Study



Home Depot Midtown Arts Visual Study



Home Depot/ Midtown Arts Visual Study



Agenda
BeltLine Master Plan
Monroe-Piedmont Subarea Planning Committee Meeting
July 14th, 2008; 6:30pm
Church of Our Saviour 1068 N Highland Ave NE, Atlanta, Ga 30306

1. Welcome and Introduction
2. Discussion of Outstanding Questions
3. Preview Study Group Agenda for July 17
4. Conclusion

The next Study Group Meeting will be held on July 17th at Hillside starting at 6:30pm

For questions or additional information, please contact:

Jonathan Lewis
Project Manager
jlewis@atlantaga.gov
404.865.8593

Rukiya Eaddy
Citizen Participation Advocate
readdy@atlbeltline.org
404.614.8285

BeltLine Subarea 6 Planning Committee Meeting
July 14, 2008 - 6:30 p.m.

Agenda Items Covered:

1. Welcome and Introduction
2. Discussion of Outstanding Questions
3. Preview Study Group Agenda for July 17
4. Conclusion

The meeting began with a few opening remarks by Fred Yalouris. Yalouris welcomed the committee and reviewed the agenda

Jonathan Lewis, project manager for the Subarea 6 master plan, responded three outstanding questions from a previous meeting.

1. Mr. Lewis introduced the BeltLine Land Use palette. The palette has three key differences from the City's palette. (1) It includes a "future parkspace" category, while the City does not have such a category. This category is needed to express land desired for new BeltLine parks. (2) Mixed Use is divided into three categories based on building heights. The City uses a single mixed use category. The BeltLine planners desired a more refinement to the mixed use category to allow a more robust conversation about urban form and scale. (3) Residential is broken out into three categories based on building height. Height was preferred to facilitate a conversation about urban form and scale. Several of the lower density residential categories were collapsed, because there will be little to no land within the BeltLine Tax Allocation District designated for single family.

   Q: How do land uses relate to FAR?
   A: We aren't focused on FAR at this time, more massing and height. FAR comes when we translate to ASAP Amendments. You will have a chance to comment.

2. Mr. Lewis walked through a list of all the current development activity in, or very close to, the study area.
3. The Planning Committee had questions about the transportation analysis methodology. The transportation planning consultant from ARCADIS was present to discuss the methods in greater detail.

Mr. Lewis then walked through the beginning of the presentation that would be shared with the community at the upcoming Study Group meeting on July 17, 2008.

Nathan Conable with ABI spoke briefly on the EIS
Q: What is NEPA?
A: The National Environmental Policy Act. The federal law that regulates Environmental Impact Statement or EIS for projects that may seek federal funds.

Barbara Faga with EDAW and Olen Dalehausen with ARCADIS walked through the remainder of the PowerPoint presentation, eliciting the following comments and questions:

Transportation Analysis:

Comment: Park Drive @ Monroe is a high crash location.
Comment: Amsterdam @ Monroe has problems with congestion.
Comment: Entrance to parking garage at Monroe needs to be taken into account (@ Piedmont Gardens)
Q: Does the park expansion figure into the traffic analysis?
A: Yes, there are ITE rates for active, passive recreation, regional park.
Comment: Botanical gardens becoming more of a large event destination—need to make sure this is included in the analysis.

Monroe Crescent and Ansley Mall Areas:

Q: Has anyone ever looked at extending Piedmont two-way all down 10th Street?
A: Yes. The Midtown Alliance did about 8 years ago.
Comment: Need to coordinate with the CTP
Answer: There is close and ongoing coordination
Comment: Need to look at the 2-waying to 10th Street of Piedmont (study done by Midtown Alliance)
Comment: Piedmont @ Monroe will have more pedestrian activity with park expansion.

Amsterdam Walk

Comment: Amsterdam site will be surrounded by park. It doesn't need to be auto focused.
Comment: Concerns about connection to Worchester Road from Amsterdam redevelopment.
Comment: Some supported the possibility that Worchester connection could improve connectivity and reduce stress on Amsterdam

10th/Monroe/Virginia

Comment: Support for redevelopment of storage facility near 10th and Monroe.
Comment: Is there a way to show a massing diagram of what could go there with existing zoning?
Comment: Why are we limiting of 10 stories? Could we show more in some locations at 10th and Monroe (such as Midtown Arts site), while protecting the ROW corridor?

Comment: The area next to single family should be lower density than shown in 10/Monroe concept plan near Coolidge.
Comment: Historic resources need to be protected and considered in the EIS

Comments on Process:
Comment: Need to be careful to make sure that Charrette on Thursday is open and doesn't present too much information.
Comment: Planning process could be given in hard copy to shorten presentation portion and allow for more input.
Comment: Appreciate the process on there being draft plans
Comment: Would like to have the density calculations for subarea to be shared with folks.
Comment: What consideration is being given to area near Ponce and Ponce Place?
Comment: Thank You for going back to the redevelopment plan, especially at 10/Monroe. Doesn't feel that anything coming out of the Planning Committee organically is pointing toward development of 10/Monroe.
Comment: Would ask that we respect the process, the JV is also a stakeholder; let the process unfold on Thursday.
Comment: This process has been going on for a long time. This has been a very vocal group, would like someone to start listening.
Comment: I've been involved in this process for the beginning; Piedmont Heights has been involved in the process. Would like to see the density for Subarea 6 transferred to Armour "artery" proposed at Connect Atlanta to be a pedestrian pilot project.
Comment: Excellent and very helpful presentation. Well done.

Subarea 6 Community Meeting

July 17, 2008

July 14 Meeting Purpose

1. June 30 issues:

   - current traffic challenges . . Monroe
   - existing community and City-wide plans
   - density (dwelling units per acre) under existing zoning
   - density examples

2. Review July 17 agenda

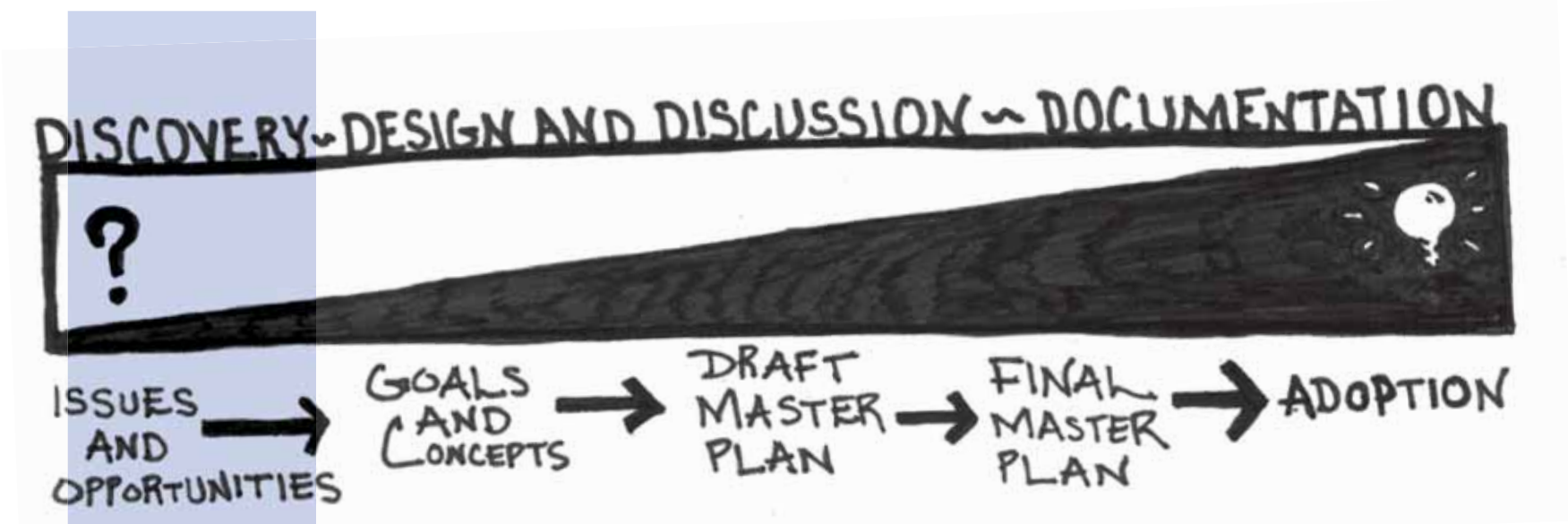
Agenda

Introductions
BeltLine Vision
Transportation
Vision for Subarea 6
Subarea 6 Visual Studies
Break Out Groups

July 17 Meeting Purpose

1. BeltLine Update
2. BeltLine vision
3. Transportation
4. vision for Subarea 6
5. land use and mobility

Study Area – Process & Key Dates



July 17	TBD	TBD	TBD	TBD	TBD
(Study Group)	(Study Group)	(Planning Committee)	(Study Group)	(Planning Committee)	(Study Group)

- Review vision statement and goals
- Draft existing conditions

- Refine goals
- Review existing conditions analysis
- Define & draft concepts & alternatives

- Review concepts & alternatives
- Review & input on Draft & Final Plan

Previous Plans Consulted

Transportation Studies

- Connect Atlanta
- North Highland Avenue Transportation and Parking Study
- BeltLine Emerald Necklace
- Cheshire Bridge Road Corridor Study
- Atlanta BeltLine Street Framework (Ga Tech)

Livable Centers Initiative (LCI)

- Ponce de Leon Corridor Plan
- Moreland Ave Corridor Plan
- Moreland Ave LCI

Redevelopment Plans

- BeltLine TAD Redevelopment Plan & FY 2006-2010 Work Program
- BeltLine Street Framework Plan
- Atlanta BeltLine Redevelopment Plan

Developments of Regional Impact (DRI) Reviews

- Ponce Park DRI/City Hall East Redevelopment
- Morningside Redevelopment DRI
- Northeast Atlanta BeltLine DRI

City-Wide Plans

- City of Atlanta Greenspace Plan
- City of Atlanta BeltLine Brownfield Survey
- Mayor's Economic Development Plan
- Atlanta Strategic Action Plan (formerly COA CDP)
- City of Atlanta Cultural Master Planning activities

Park Program Initiatives

- PATH – Multi-Use Trail Planning
- Park Pride – Park Master Plan
- Studies conducted by Piedmont Park Conservancy
  - North Woods Strategic Plan
  - Park Master Plan

Other Studies

- City of Atlanta Capital Improvement Projects
- Peachtree Corridor Task Force Final Report

- MARTA /ABI 2-year study on developing transit and trails in the Corridor
- The study will examine a broad array of physical, social and economic impacts
- The study will help define the rights-of-way needed to build trail and transit and to select a transit technology
- The Federal Transit Administration will issue a Record of Decision on the Preferred Alternative at the conclusion of the Tier 1 Final Environmental Impact Statement

- Scoping Meetings for the Public (August 2008)
- Public Hearing on Environmental Effects Report on the Northeast Quadrant (February 2009)
- Public Hearing on Tier 1 Draft Environmental Impact Statement (January 2010)
- Circulation of Final Tier 1 Environmental Impact Statement (April 2010)

Source: MARTA 2008

Atlanta Growth Trends

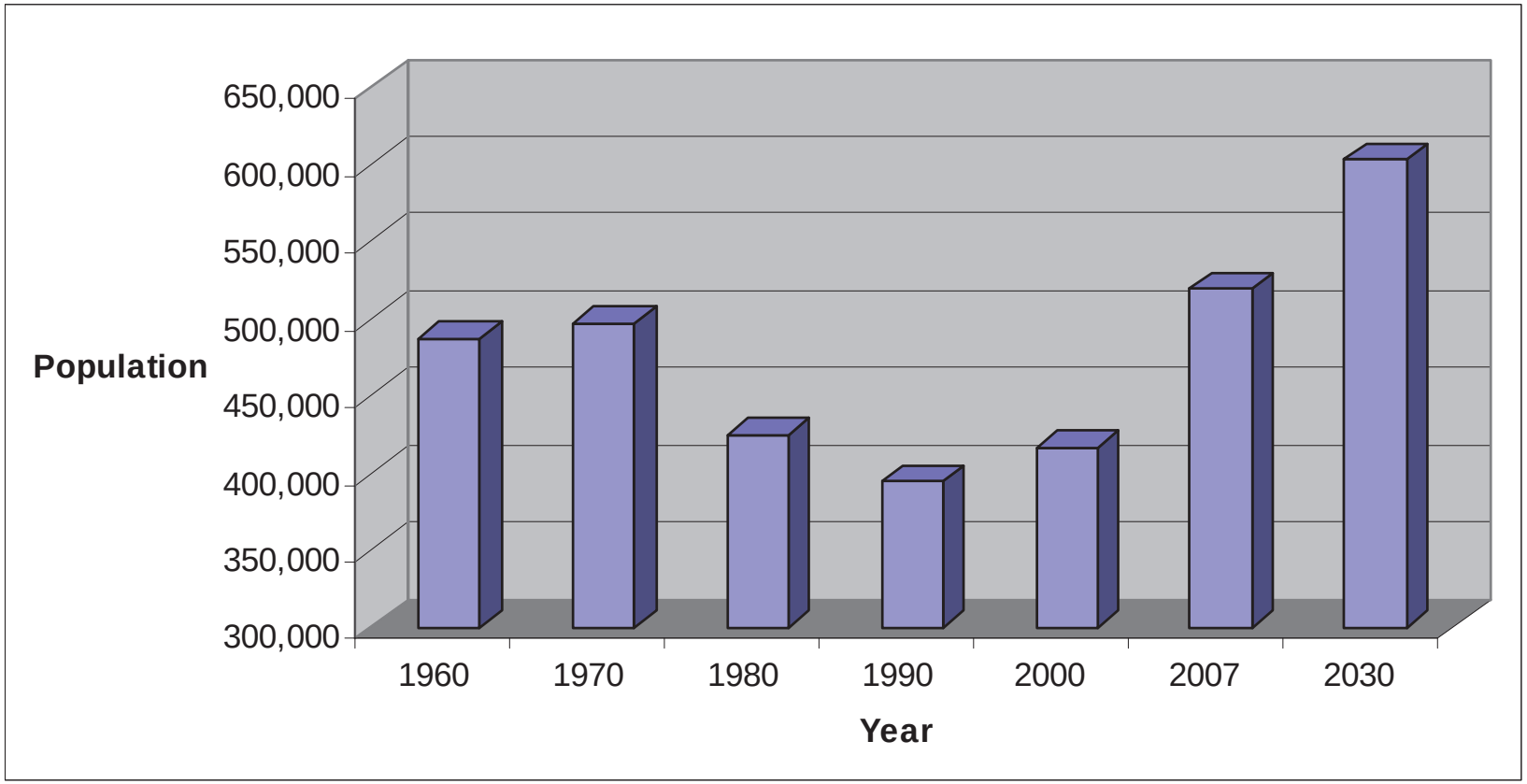
- Atlanta's estimated population in 2007 was 519,145
- More than 20,000 new residents are estimated to have moved to the city from July 1 2006 to July 1 2007
- ***More than 100,000 new residents have moved to the city since 2000***

Source: Population Division, U.S. Census Bureau

Table 1: Annual Estimates of the Population for Incorporated Places Over 100,000, Ranked by July 1, 2007 Population: April 1, 2000 to July 1, 2007 (SUB-EST2007-01)

Release Date: July 10, 2008

Atlanta Growth Trends



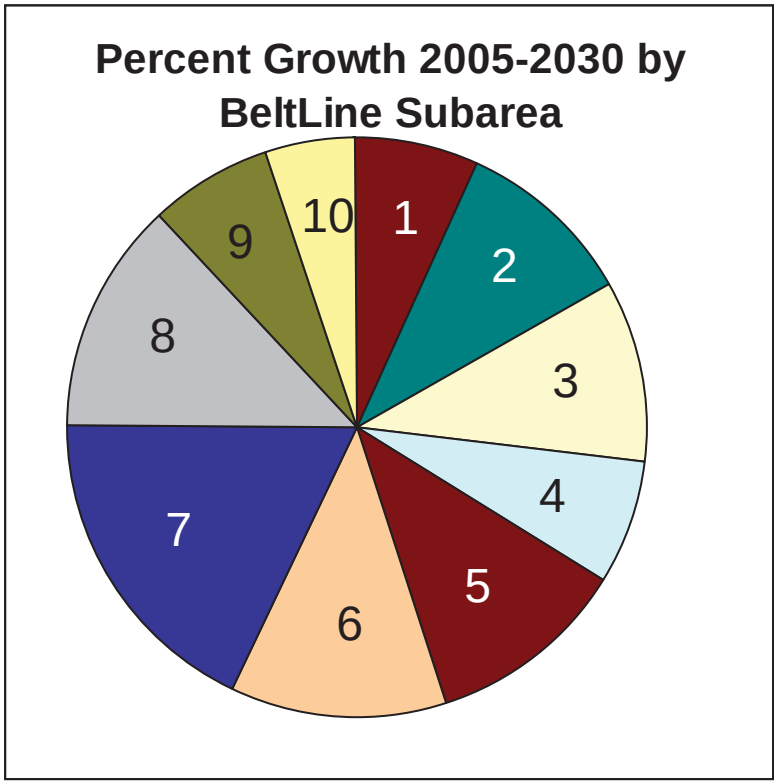
Source: U.S. Census Bureau and the Atlanta Regional Commission, September 2006

BeltLine Vision

- The city will experience strong growth in the years ahead
- The vision of the BeltLine is to shape new growth to support high quality of life, walkable urban neighborhoods with convenient access to housing, retail, parks, and trails and transit
- The BeltLine provides an opportunity to address existing and future development and related transportation issues in a comprehensive way

Household Growth by BeltLine Subarea

Subarea	2005 Existing HH	2005 % of SA	2030 Forecast	2005 -2030 % of Growth
1	7890	13%	11460	7%
2	6649	11%	11784	10%
3	4515	7%	9624	10%
4	3909	6%	7631	7%
5	6500	10%	12427	11%
6	11337	18%	17761	12%
7	9186	15%	18436	18%
8	5019	8%	11633	13%
9	2569	4%	6194	7%
10	5320	8%	7907	5%



Source: RCLCO 2008

NE Corridor Partners



- ABI and NE BeltLine, LLC joint ventured in 2007 to acquire 4.6 mile corridor from Wayne Mason
- The JV is a solution that:
  - Preserves ABI control and rights over the ROW corridor
  - Provides a permanent easement and ownership in ROW land
  - Allows flexibility to locate the transit corridor
  - Gives ABI a controlling interest in where and how development occurs on the Property
  - Generates potential financial returns that will be available for reinvestment in the BeltLine vision

TAD Boundary

Joint Venture Property

Recent Development Activity



- Intown Suites redevelopment
  - Potentially 250-300 apartment units and pharmacy
  - No official application to City
- Remax redevelopment
  - 20,000 square feet of commercial space
  - Under construction
- Spire Court- Artlite site redevelopment
  - 305 units at 51 du/acre, 100,000 sq. ft. of commercial space
  - Construction starts in September 2008
- Ansley Park Gables Apartments
  - 346 units
  - Under construction
- Ansley Park Townhomes
  - 44 units at 16 du/acre
  - Under construction
- Ansley on the Park Townhomes
  - 6 units at 7.5 du/acre
  - Ending construction
- Drewry Street pending rezoning
  - I-1 to R-4

Existing Conditions: Traffic

Intersections currently operating at LOS D or worse:

- Monroe Drive at Armour Drive (LOS E)
- Monroe Drive at Piedmont Circle (LOS F)
- Piedmont Road at Piedmont Circle (LOS D)
- Monroe Drive at Piedmont Road (LOS D)
- Monroe Drive at Ponce de Leon Avenue (LOS E)

Source: NorthEast Atlanta Beltline Traffic Impact Study

Existing Conditions: Safety

High crash locations:

- Piedmont Road at Cheshire Bridge Road
- Ponce de Leon Avenue at Monroe Drive
- 14th Street at Juniper Street
- Ponce de Leon Avenue between Charles Allen Drive and Monroe Drive, also from Bonaventure Avenue to Barnett Street
- Monroe Drive near Amsterdam Avenue and near Piedmont Avenue

Source: Georgia DOT crash data, analysis by ARCADIS

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    - Urban grade separations (e.g. DuPont Circle in Washington, DC)

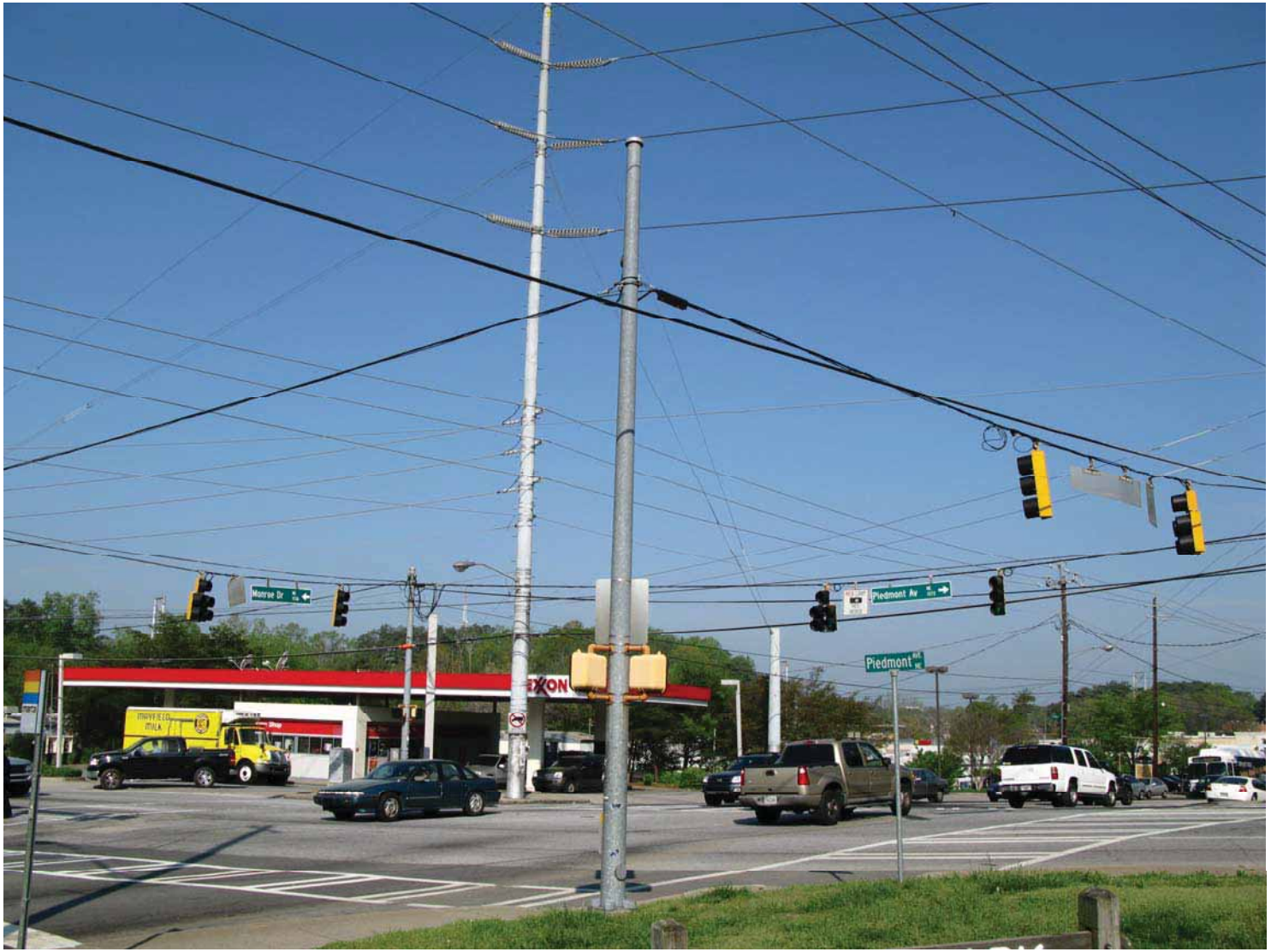
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Existing Conditions

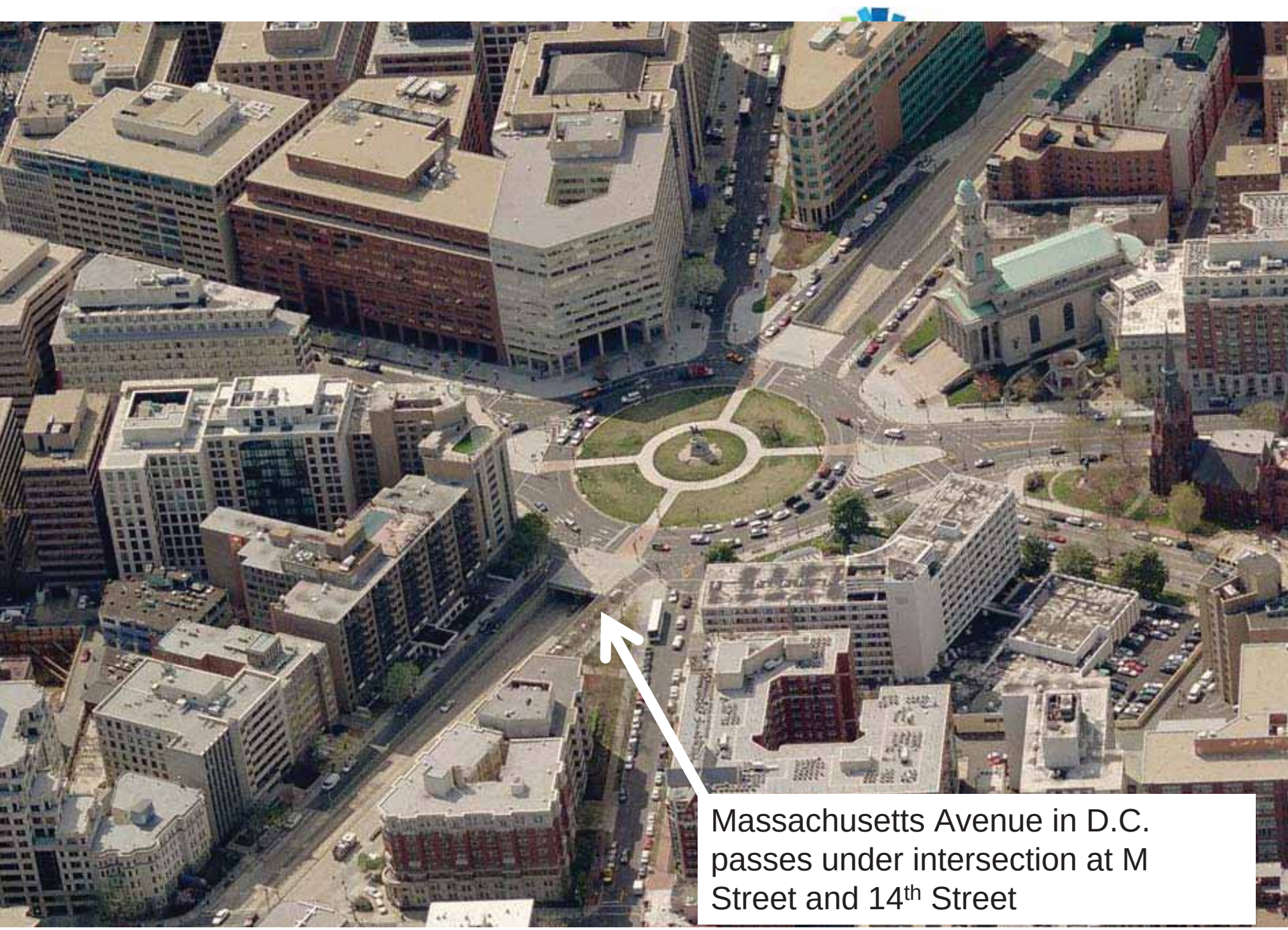


Existing Conditions



Existing Conditions

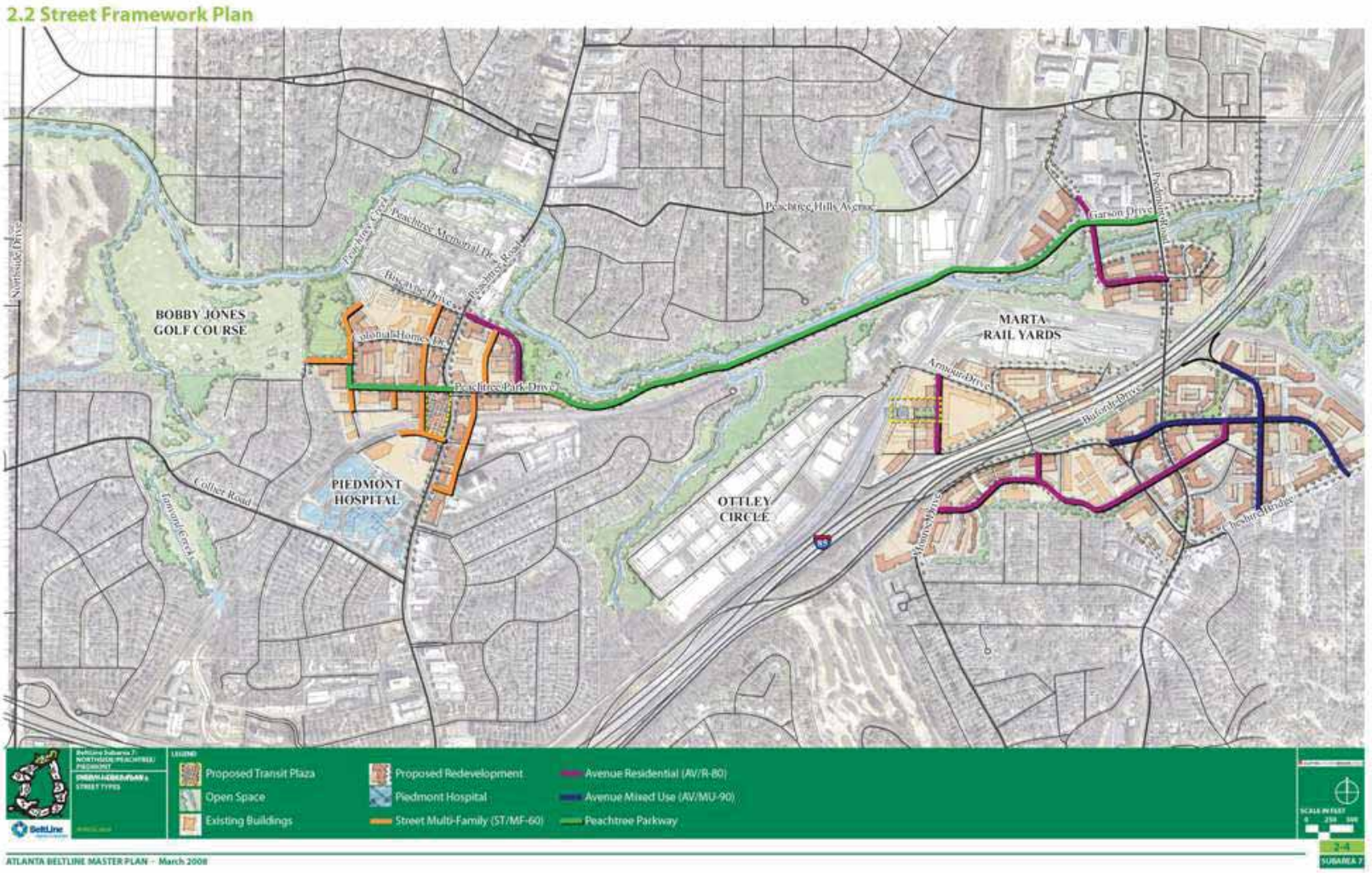



Massachusetts Avenue in D.C. passes under intersection at M Street and 14th Street



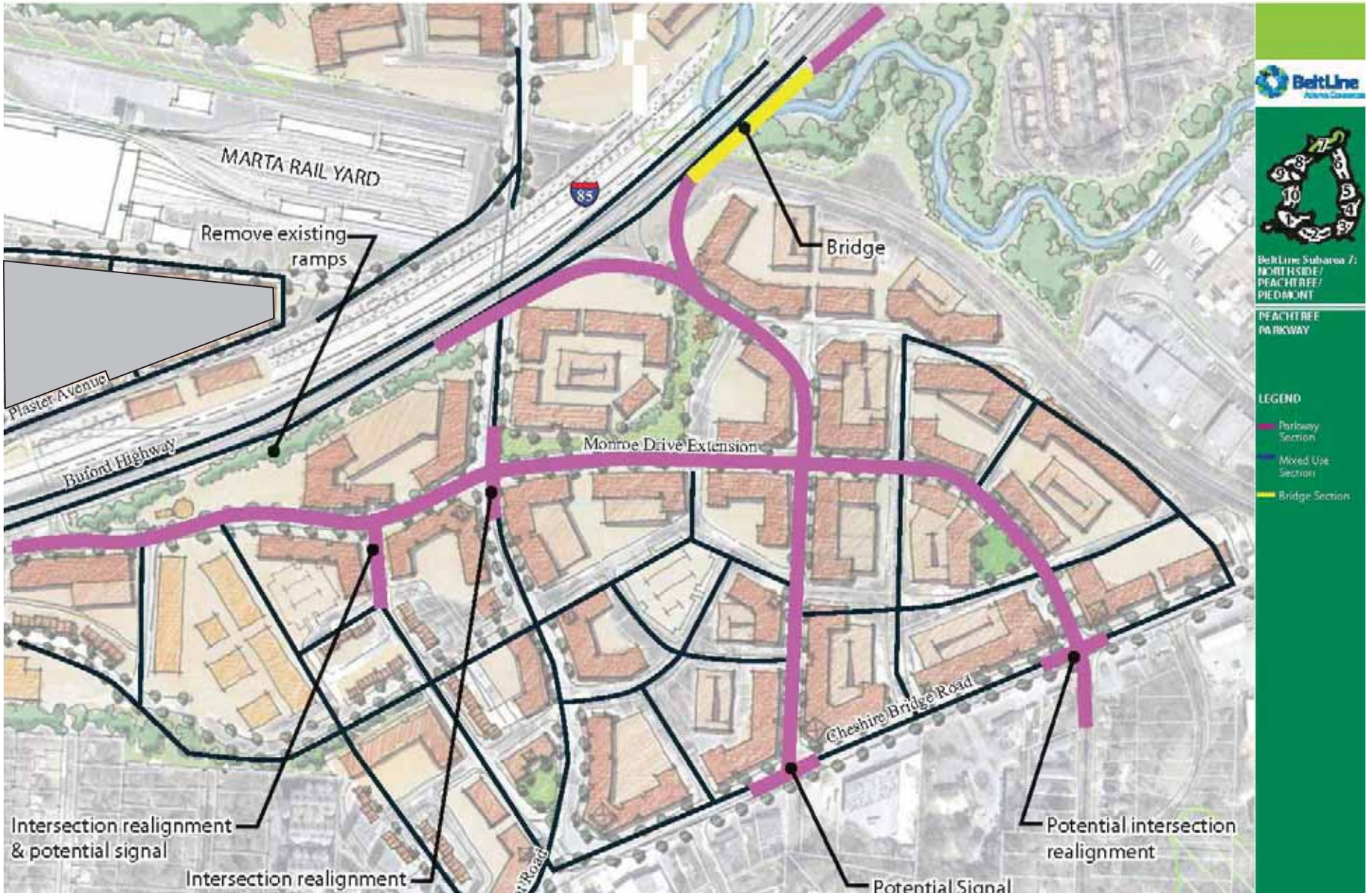
Old Market, Bristol, England

Subarea 7


2.2 Street Framework Plan
BOBBY JONES GOLF COURSE
PIEDMONT HOSPITAL
OTTLEY CIRCLE
MARTA RAIL YARDS
Northside Drive
Peachtree Creek
Peachtree Memorial Dr.
Peachtree Road
Peachtree Hills Avenue
Piedmont Road
Garson Drive
Peachtree Park Drive
Armour Drive
Buford Drive
Collier Road
Proposed Transit Plaza
Open Space
Existing Buildings
Proposed Redevelopment
Piedmont Hospital
Street Multi-Family (ST/MF-60)
Avenue Residential (AV/R-80)
Avenue Mixed Use (AV/MU-90)
Peachtree Parkway
ATLANTA BELTLINE MASTER PLAN - March 2008

Subarea 7

BeltLine
Atlanta Connected



Subarea 5

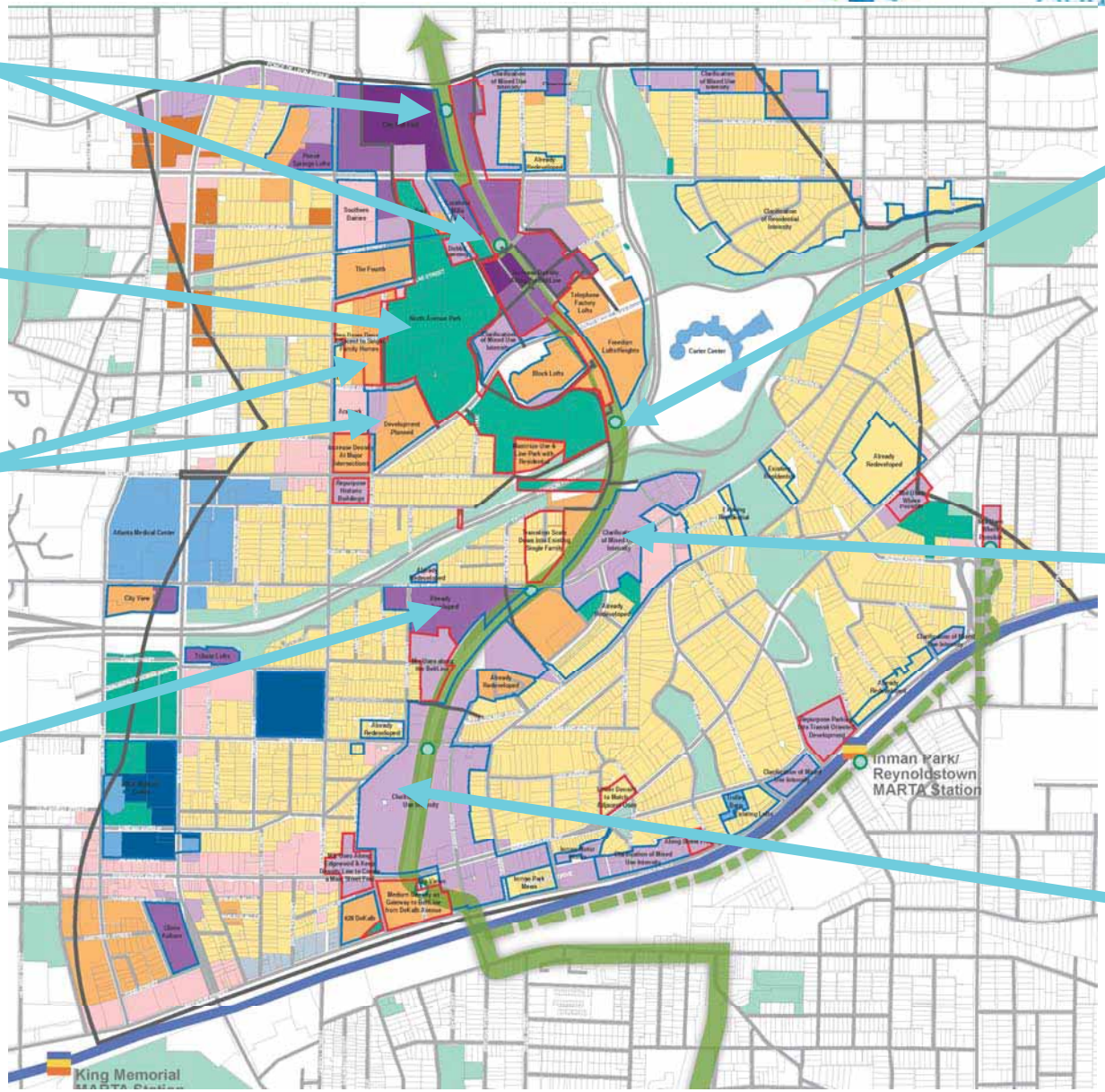
BeltLine
Atlanta Connected

Concentrated development at transit stops

New park with stormwater detention amenity pond

Line edge of park with more intense development and streets

Encourage compatible scale Mixed Use redevelopment like the Inman Park Village



Trail connection between Freedom PATH and BeltLine Trail at proposed transit stop

Focus Mixed Use along BeltLine

Preserve historic industrial structures

Subarea 6 Challenges and Issues

- Vehicular congestion, especially at intersections and poor pedestrian conditions along Monroe
- Lack of connectivity between neighborhoods and retail or park areas
- Weak park edge and concern over the loss of views into and out of Piedmont Park
- Environmental sensitivity of Clear Creek
- Appropriate buffers between new development and existing single-family neighborhoods

Subarea 6 Vision

- The vision plan is not a detailed development proposal for the subarea
- It is intended as a high level, 30-year view of land use, green space and mobility possibilities
- The purpose is to inspire dialogue, help to highlight likes and dislikes, take a fresh look at issues in the subarea, and give ideas for the break out exercises

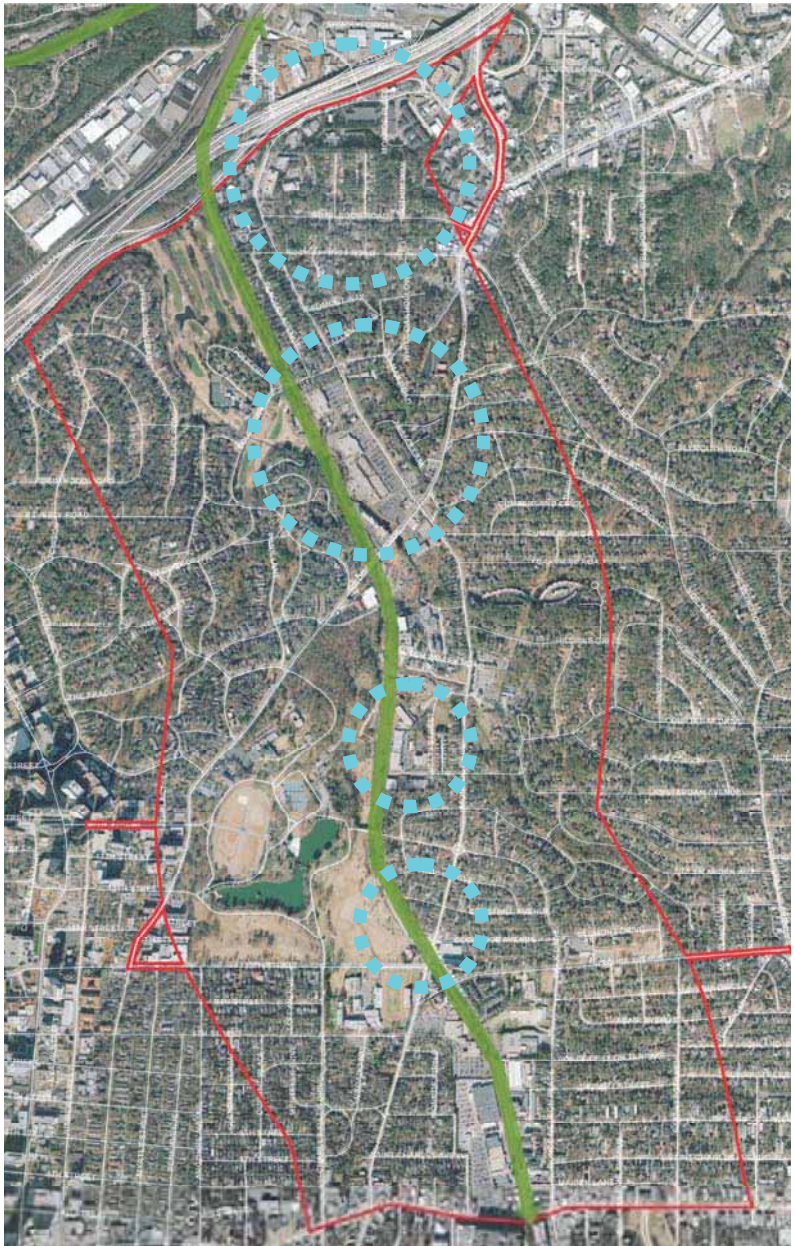
Subarea 6 Vision

- The vision plan focuses on the following outcomes:
  - Increasing the overall amount of accessible green space
  - Promoting more sustainable ways to treat storm water and reducing environmental impacts on Clear Creek
  - Reducing pedestrian/transit/vehicular conflicts at key intersections
  - Strengthening the park's eastern edge and thus protecting views
  - Improving conditions for pedestrians and cyclists, especially along Monroe
  - Improving connectivity among neighborhoods, retail areas, park space and transit
  - Creating truly transit oriented retail areas

Subarea 6 Vision

- Insert graphic

Subarea 6 Visual Studies



- Monroe Crescent
- Ansley Mall
- Amsterdam Walk
- Monroe and 10th, Piedmont Park

Monroe Crescent



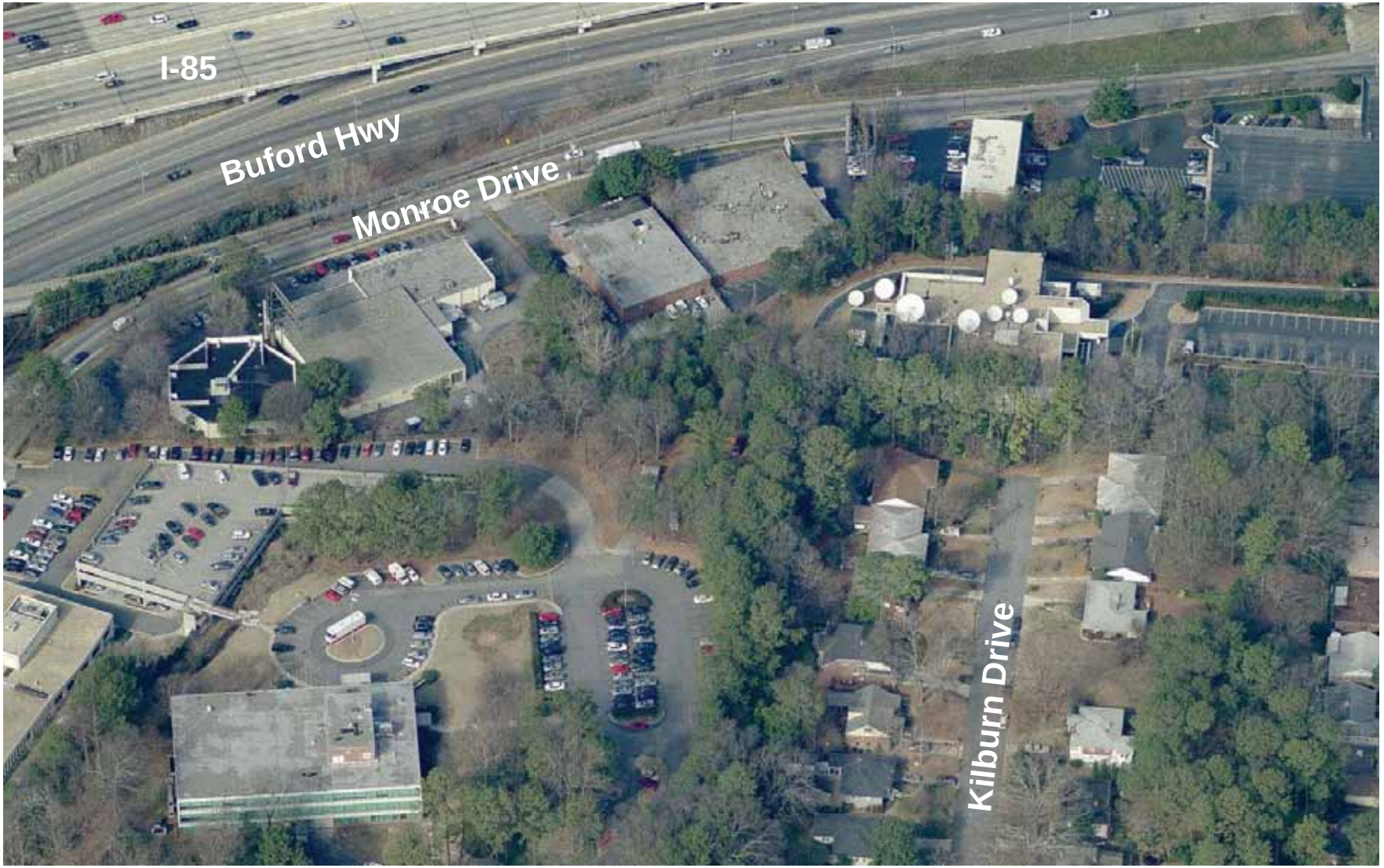
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  - Armour Drive overpass
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- Planning Efforts
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  - Cheshire Bridge Corridor Study

Monroe Crescent



Monroe Crescent



Monroe Crescent



Monroe Crescent

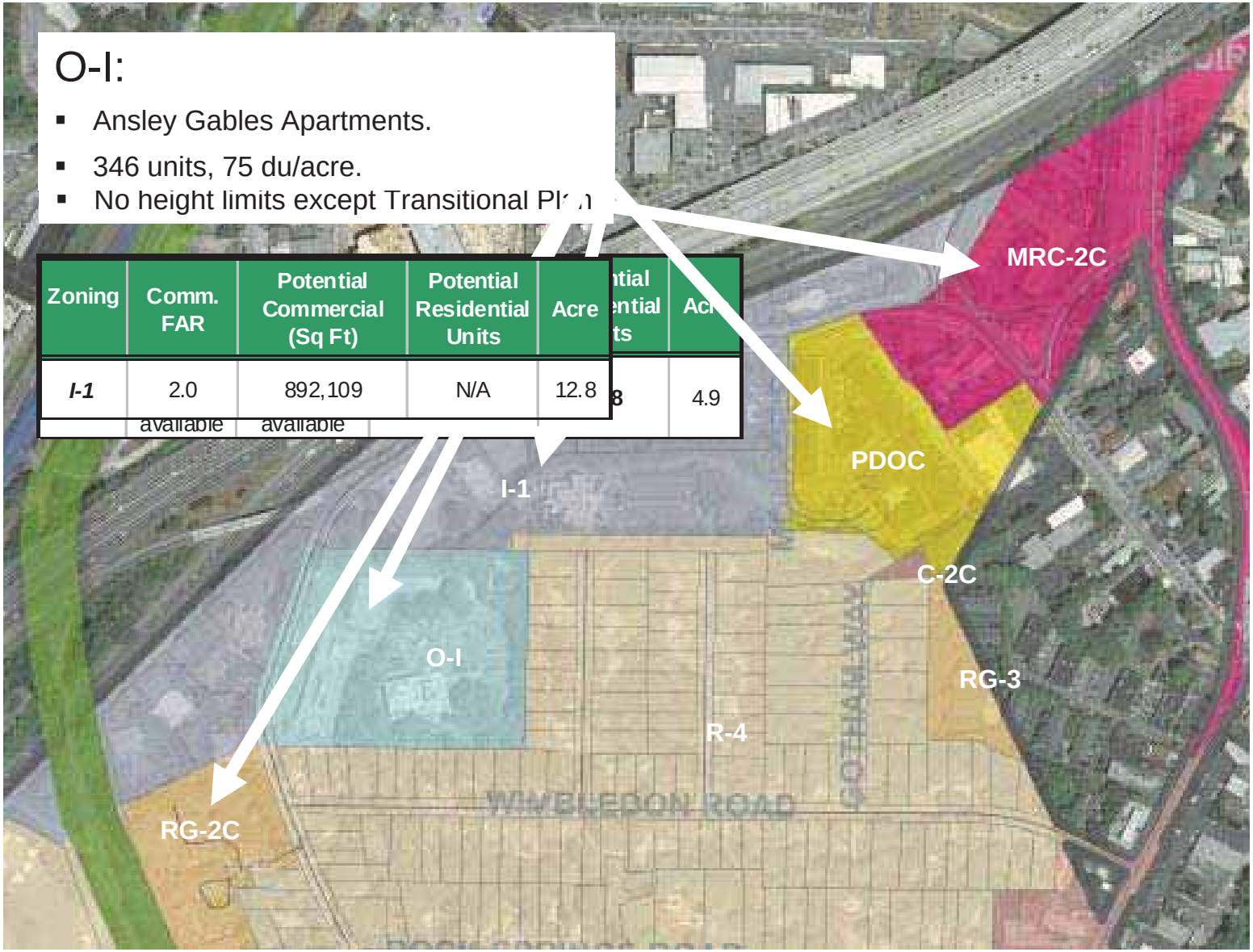


Monroe Crescent Existing Zoning

O-I:

- Ansley Gables Apartments.
- 346 units, 75 du/acre.
- No height limits except Transitional Pl[illegible]n

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre	[illegible]ntial [illegible]ts	Acr
I-1	2.0	892,109	N/A	12.8	[illegible]8	4.9
	available	available				



Piedmont Heights Monroe Crescent Vision



Monroe Crescent Long Term Vision

Monroe Crescent Visual Study



Ansley Mall



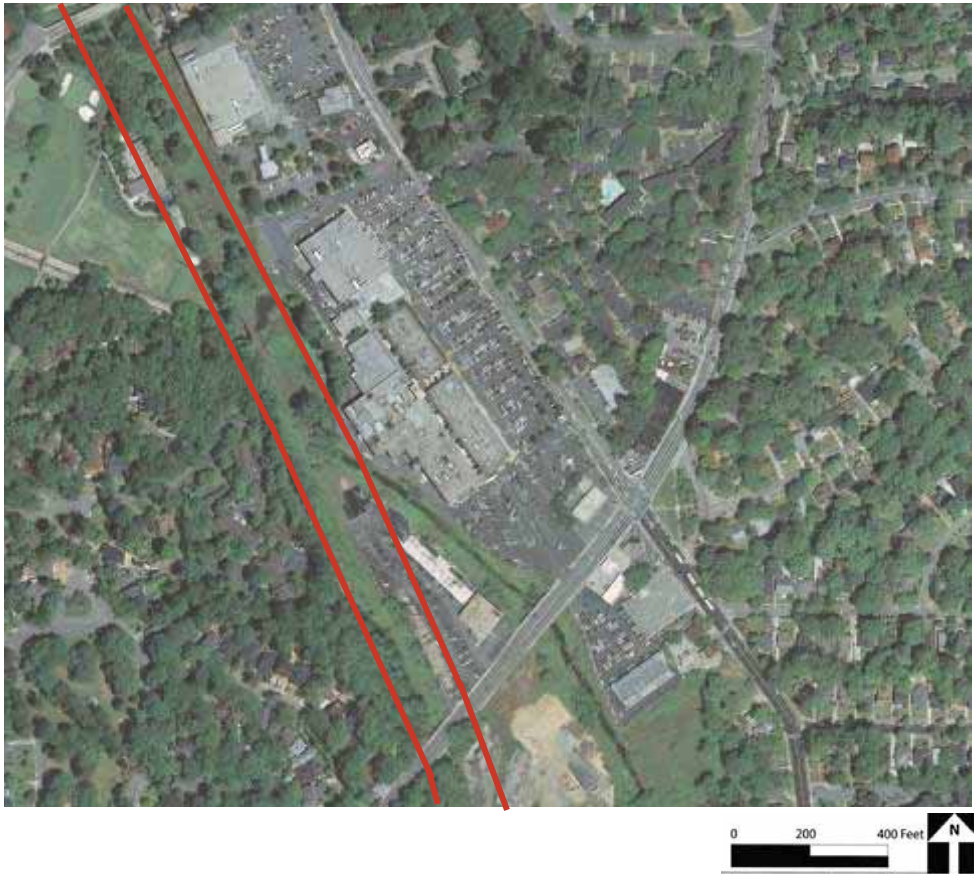
Ansley Mall



Ansley Mall



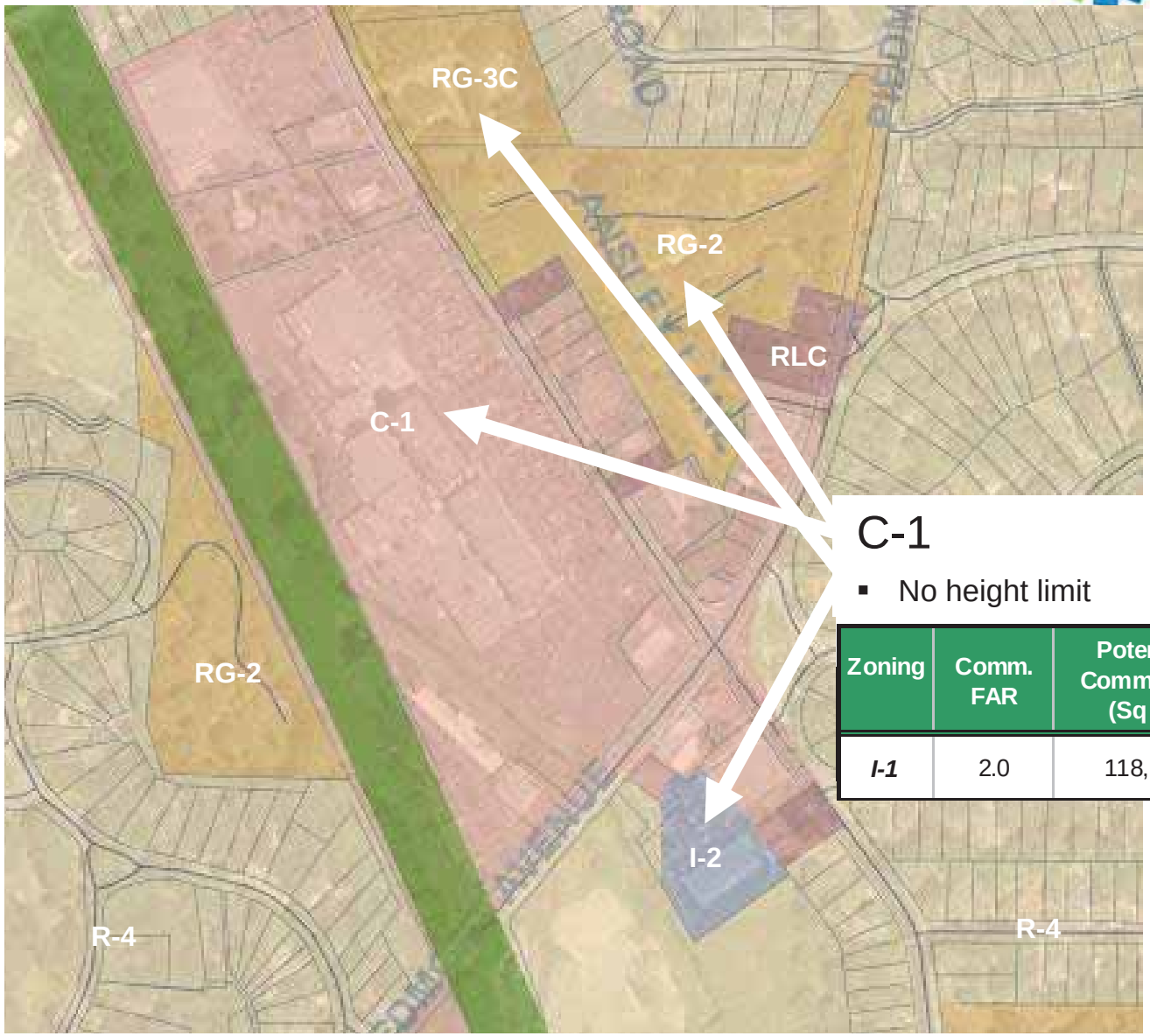
Ansley Mall



Context:

- Physical Constraints
  - Piedmont Avenue/Monroe Drive intersection
  - BeltLine crosses under Piedmont Ave.
  - High tension power lines
- Environmental Concerns
  - Clear Creek and flood plain
- Planning Efforts
  - Piedmont Heights Blueprints/GA Tech Studio

Ansley Mall Existing Zoning



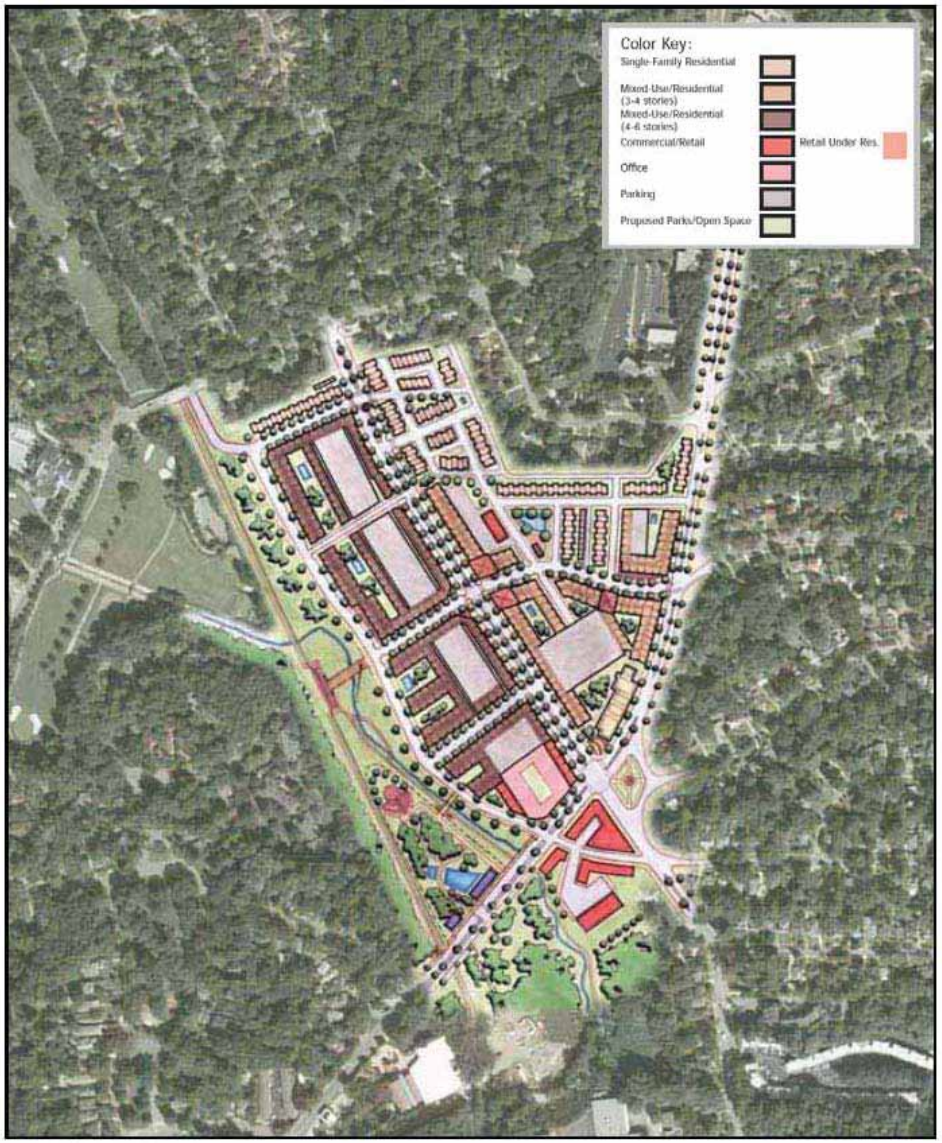
C-1

- No height limit

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	118,483	N/A	1.7

6	9.0
82	24.0

Piedmont Heights Ansley Mall Vision



Ansley Mall Long Term Vision

Ansley Mall Visual Study

Amsterdam



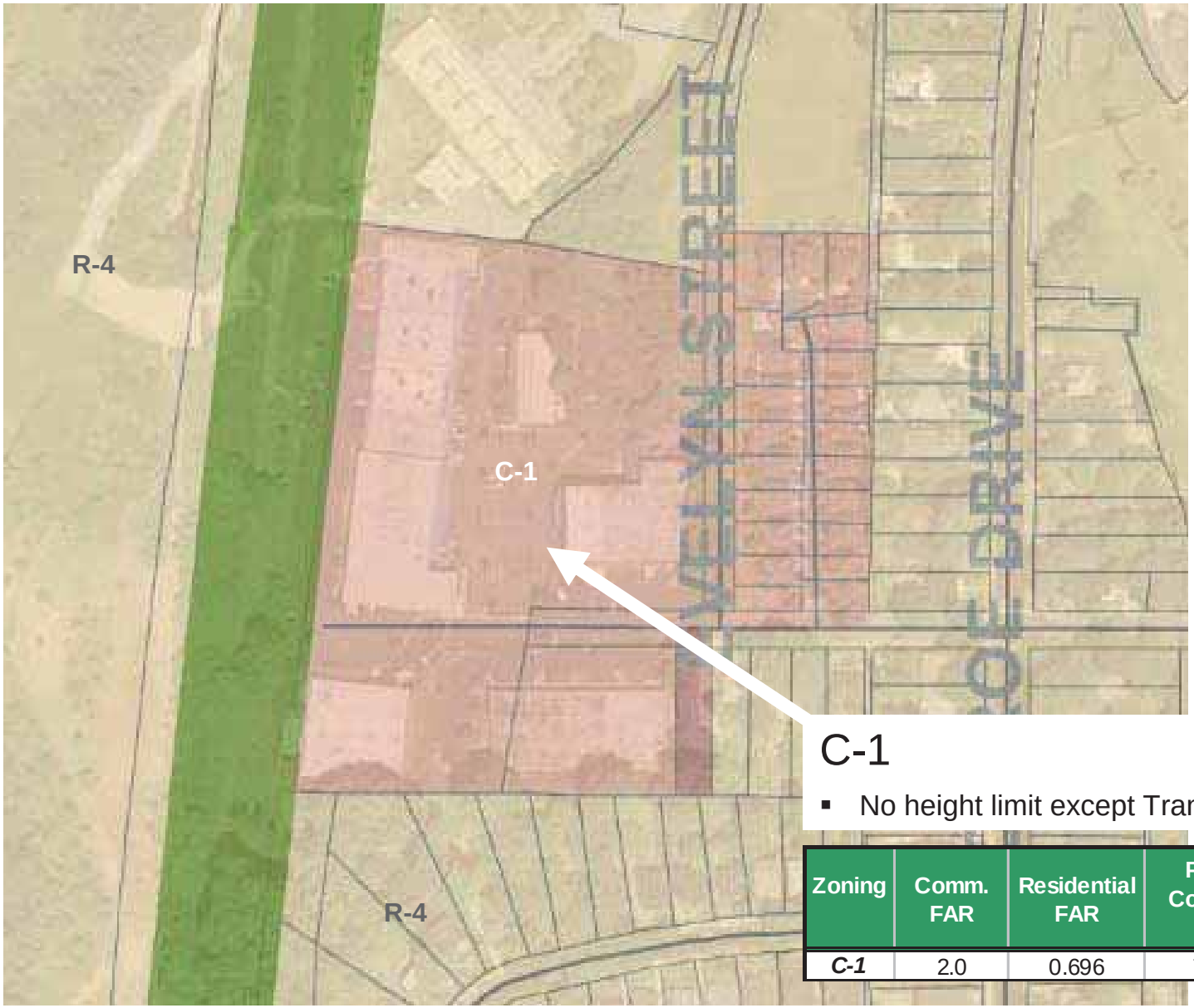
Amsterdam



Context:

- Physical Constraints
  - Steep grade change
  - CSO facility nearby
- Environmental Concerns
  - Clear Creek and flood plain

Amsterdam

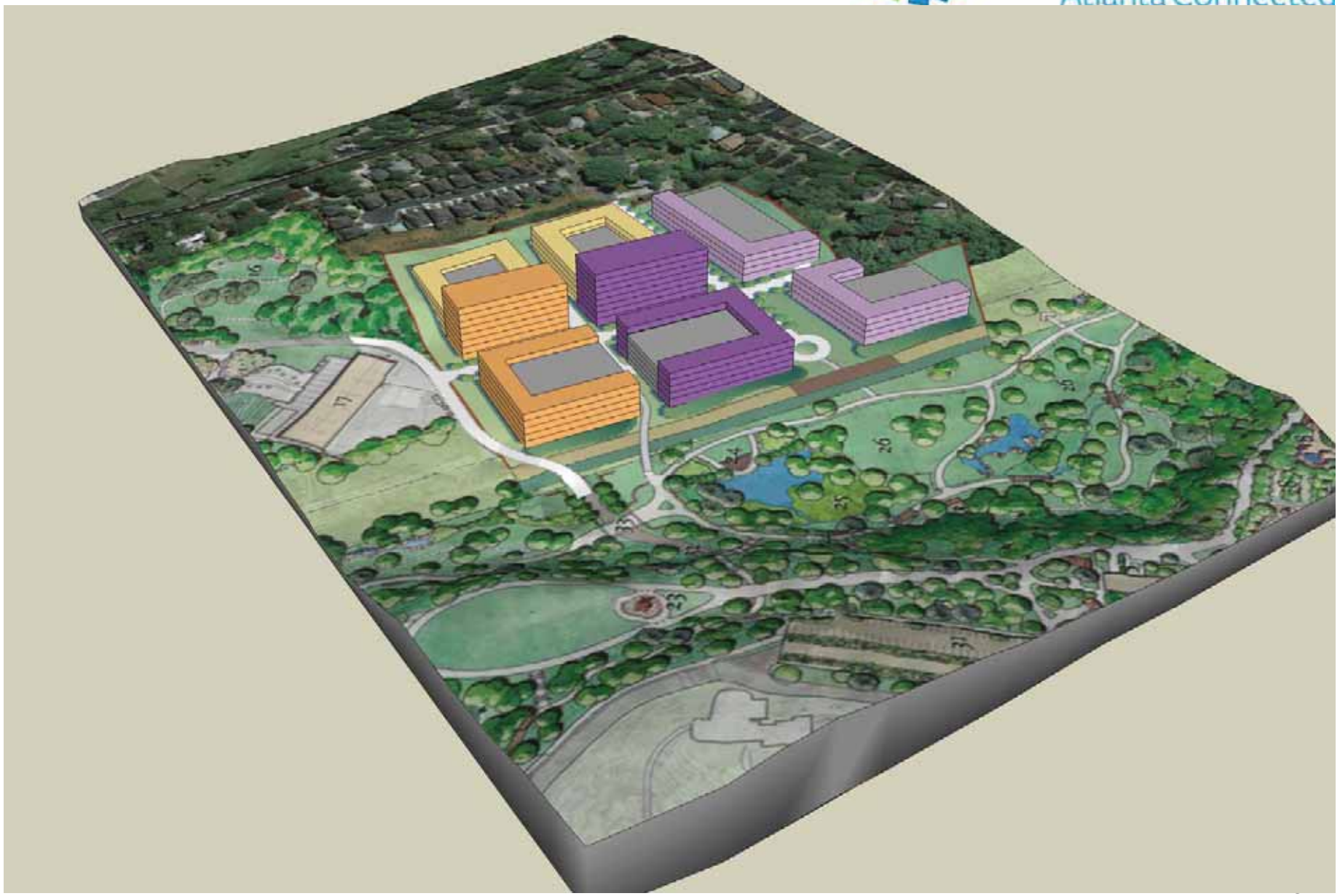


C-1

- No height limit except Transitional Plan

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-1	2.0	0.696	766,656	267	11.0

Amsterdam Concept



Monroe and 10th, Piedmont Park



Monroe and 10th, Piedmont Park

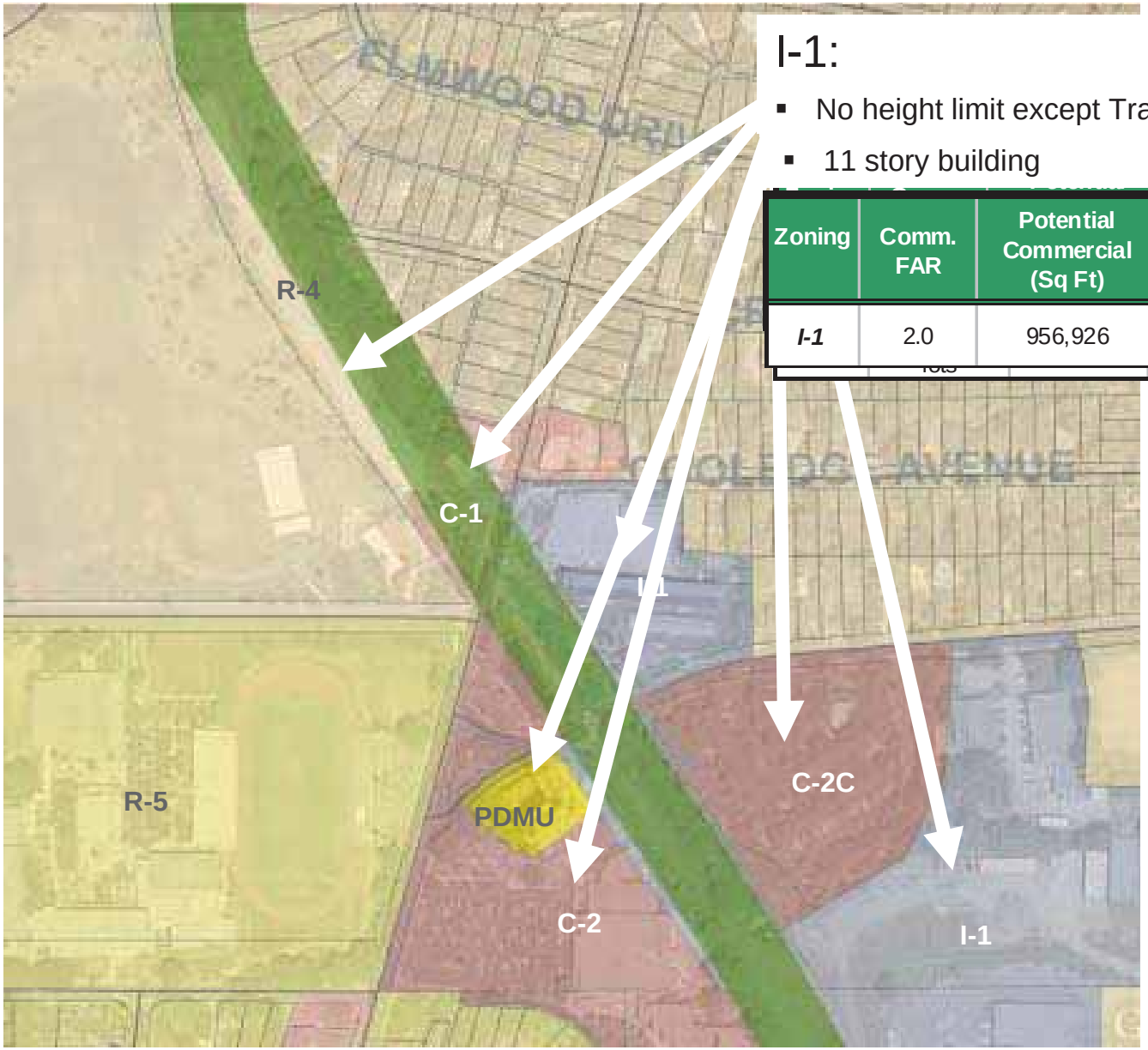


Context:

- Physical Constraints
  - Awkward intersections of Virginia Ave., Monroe Dr., and 10th St.
  - BeltLine crosses at grade over Monroe
- Environmental Concerns
  - Flood plain in park

Monroe and 10th, Piedmont Park

BeltLine
Atlanta Connected



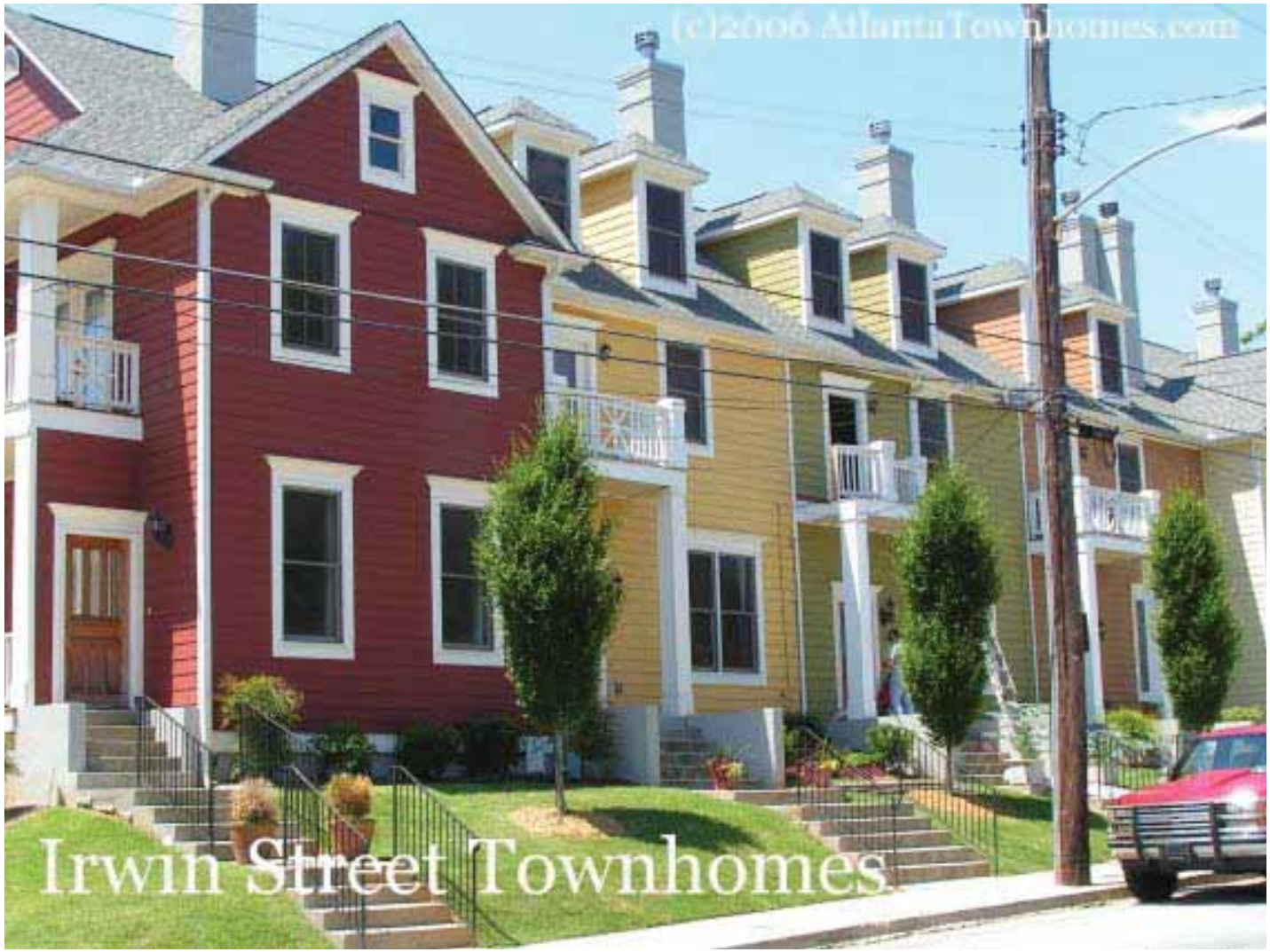
I-1:

- No height limit except Transitional Plan
- 11 story building

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre	ntial ential ts	Acre
I-1	2.0	956,926	N/A	13.7	0	4.5

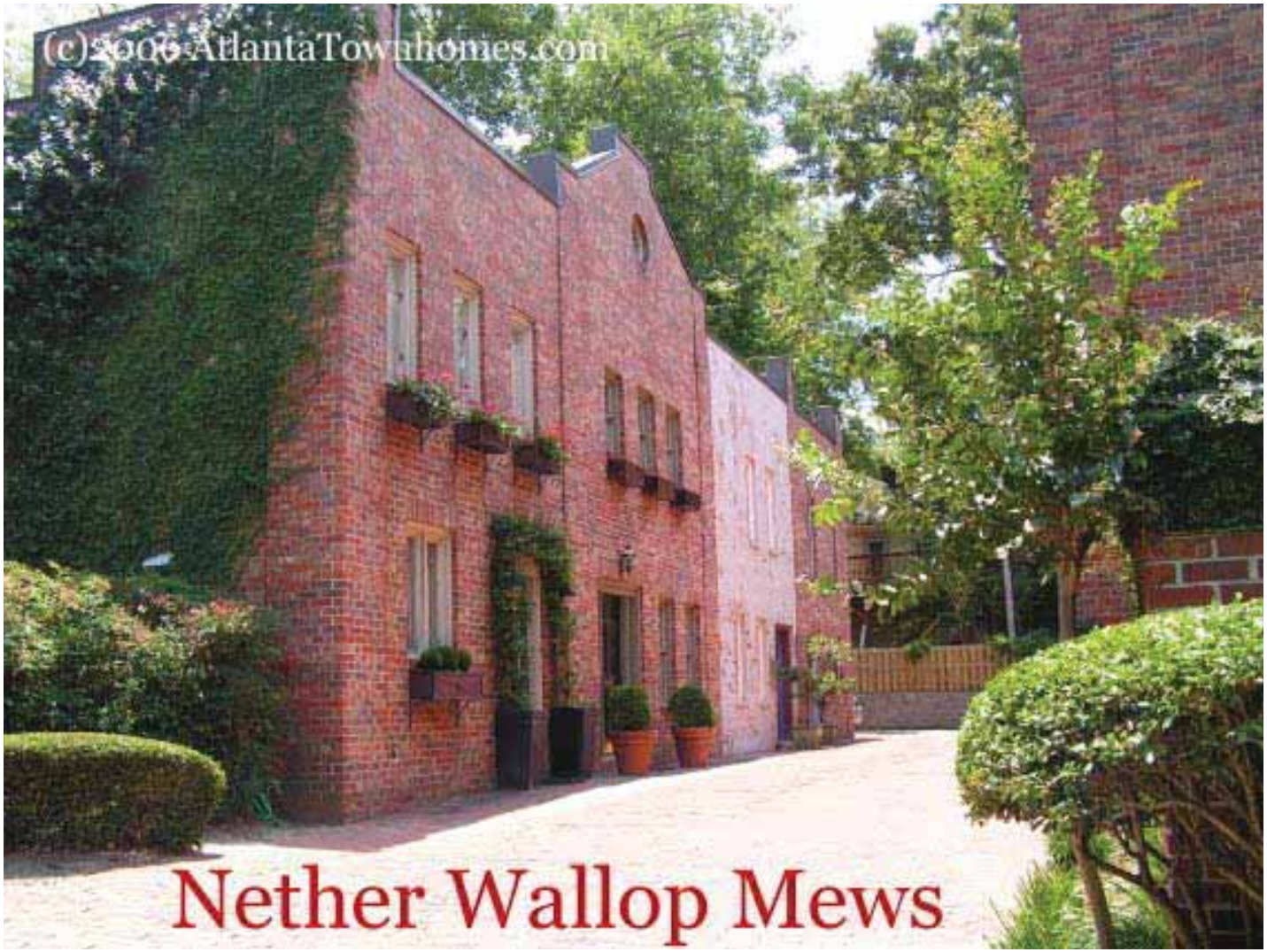
Monroe and 10th Visual Study

Density Comparables



- Irwin Street Townhomes
- 10 du/acre

Density Comparables



- Nether Wallop Mews
- 16 du/acre

Density Comparables



- Glenwood Park Central Green
- 20 du/acre (townhomes only)

Density Comparables



- Wilburn House
- 27 du/acre

Density Comparables



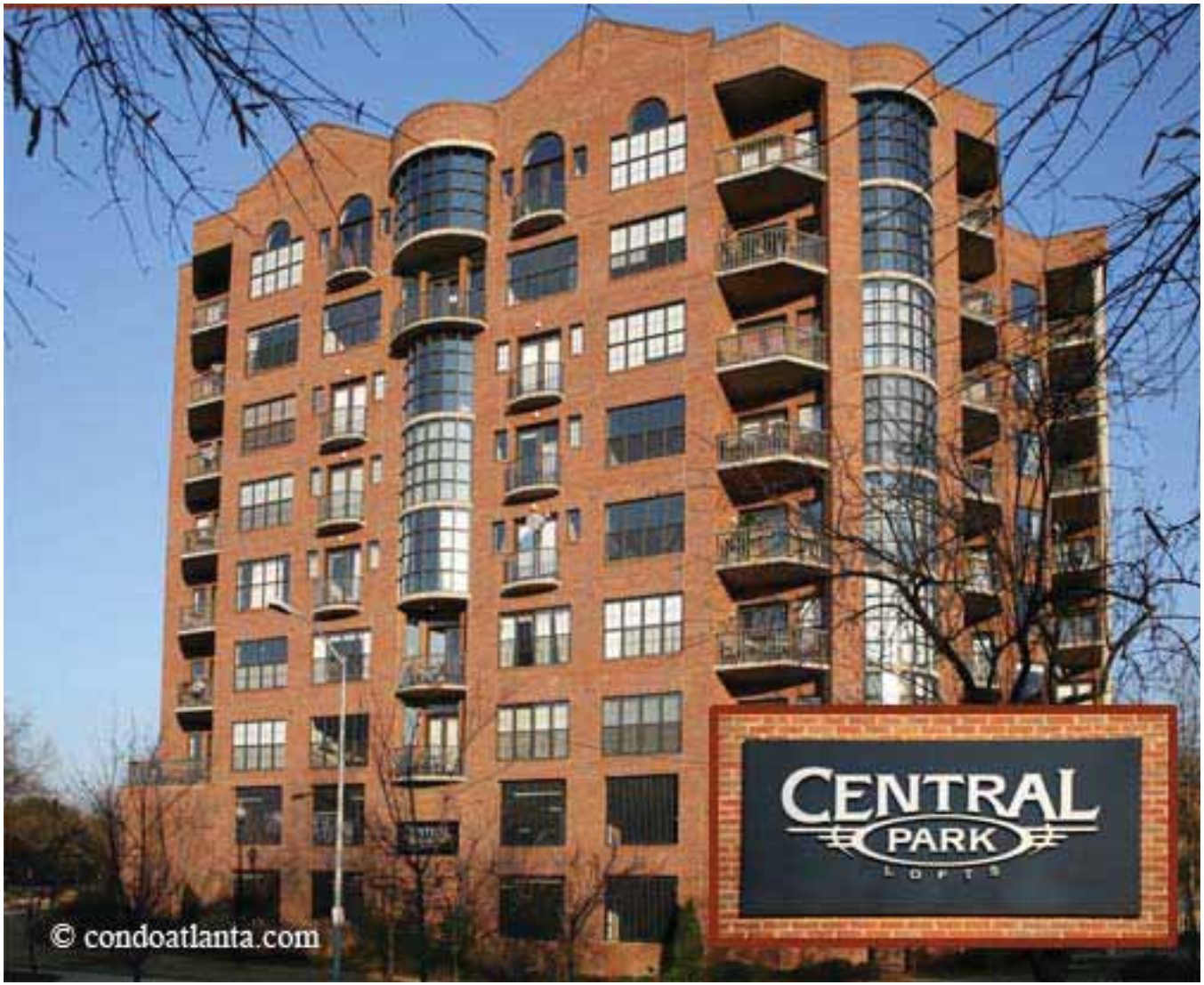
- Inman Park Village Townhomes
- 27 du/acre

Density Comparables



- Dynamic Metal Lofts
- 34 du/acre (including surface parking lot)

Density Comparables



- Central Park Lofts
- 35 du/acre (including private greenspace)

Density Comparables



- Condominiums at Glenwood Park
- 40 du/acre (including surface parking lot)

Density Comparables



- Monroe Place Apartments
- 43 du/acre

Density Comparables



- Capitol Gateway
- 55 du/acre

Density Comparables



- Tribute Lofts
- 72 du/acre

Density Comparables



- 905 Juniper
- 100 du/acre

Density Comparables



- Post Biltmore Apartments
- 162 du/acre



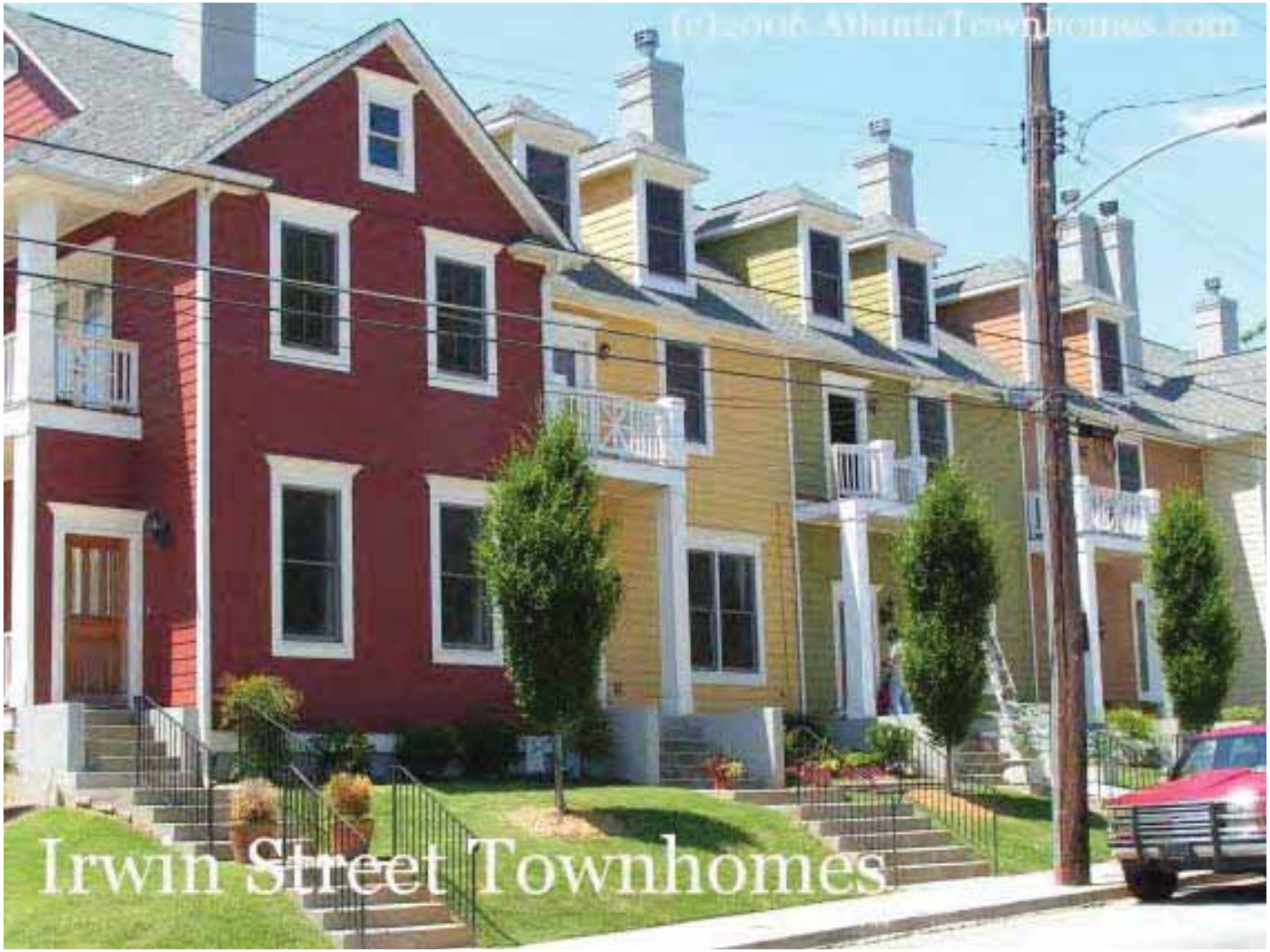
Subarea 6 Planning Committee

June 30, 2008

Home Depot/ Midtown Arts Visual Study

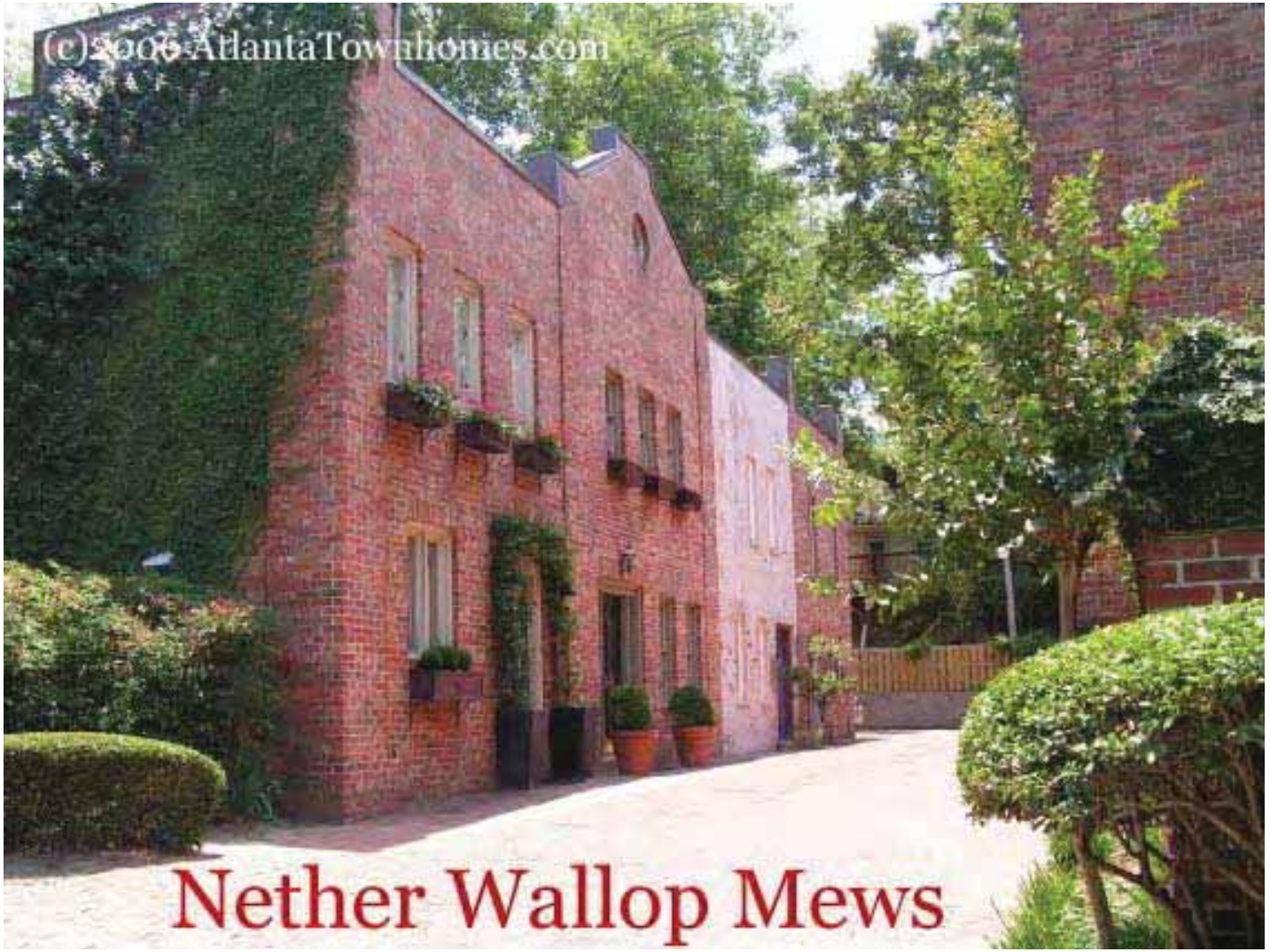


Density Comparables



- Irwin Street Townhomes
- 10 du/acre

Density Comparables



- Nether Wallop Mews
- 16 du/acre

Density Comparables



- Glenwood Park Central Green
- 20 du/acre (townhomes only)

Density Comparables



- Wilburn House
- 27 du/acre

Density Comparables



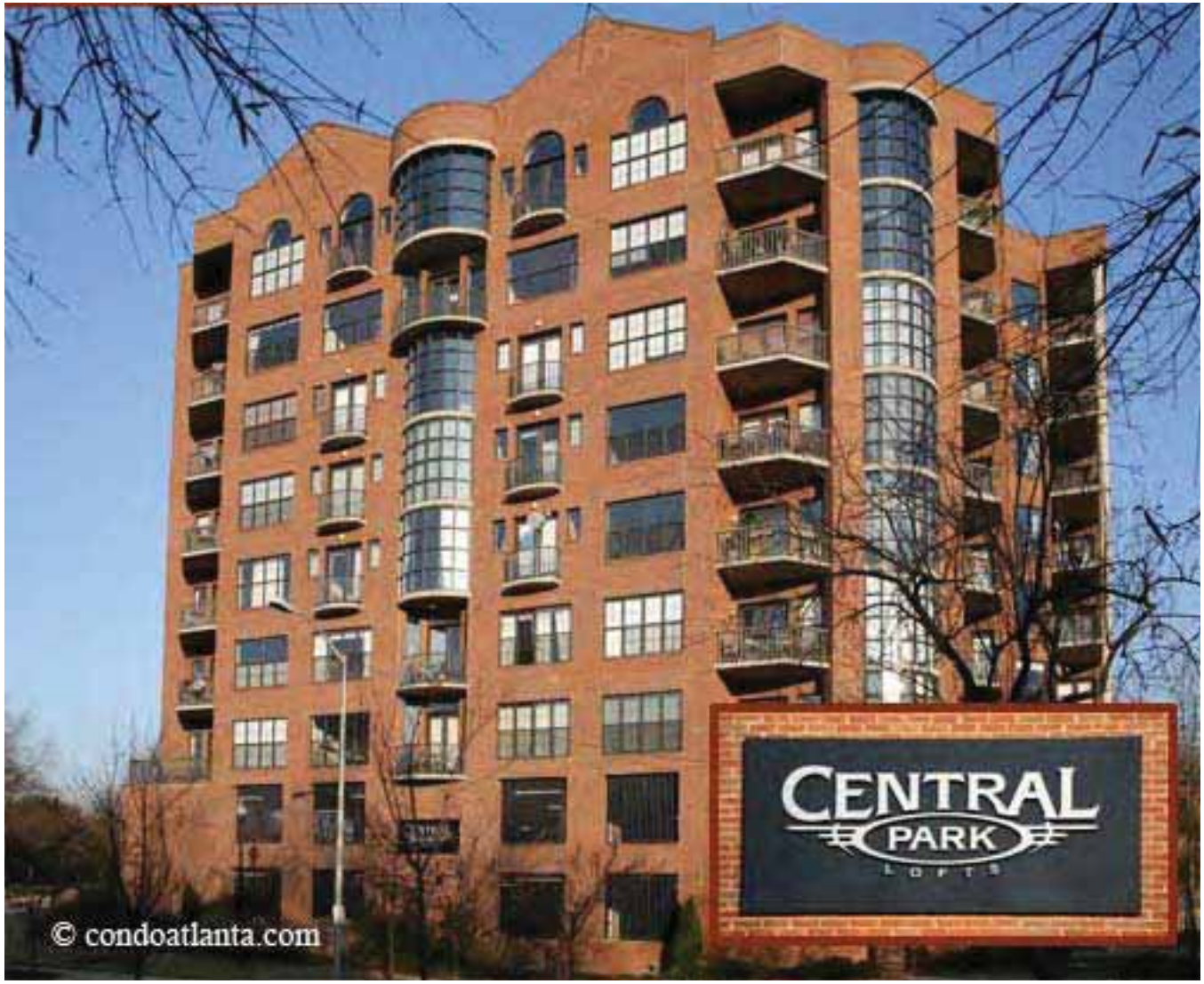
- Inman Park Village Townhomes
- 27 du/acre

Density Comparables



- Dynamic Metal Lofts
- 34 du/acre (including surface parking lot)

Density Comparables



- Central Park Lofts
- 35 du/acre (including private greenspace)

Density Comparables



- Condominiums at Glenwood Park
- 40 du/acre (including surface parking lot)

Density Comparables



- Monroe Place Apartments
- 43 du/acre

Density Comparables



- Capitol Gateway
- 55 du/acre

Density Comparables



- Tribute Lofts
- 72 du/acre

Density Comparables



- 905 Juniper
- 100 du/acre

Density Comparables



- Post Biltmore Apartments
- 162 du/acre

Next Steps

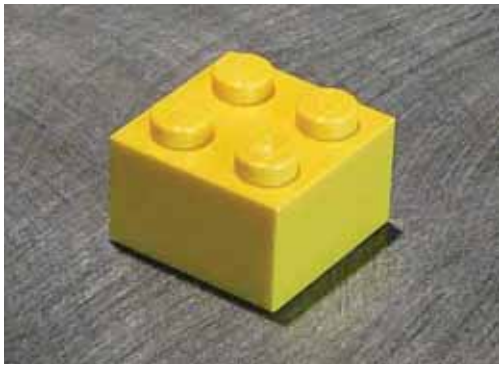
Next step is
DRAFT Alternatives based on
Community Input
and
Public Meeting #2
Thursday Sept. 11

Break Out Sessions by Table

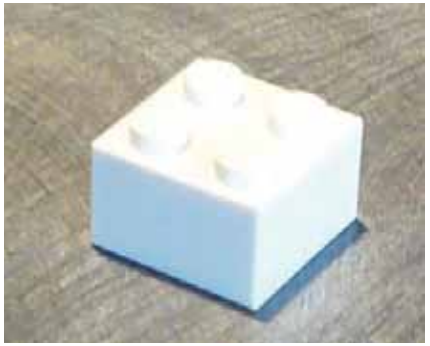
- Lego = building
- markers = streets, trails or green space
- Post it notes = historic resources, affordable housing, public art; transit stops, anything else

Reference boards and hand outs at tables

Lego Legend

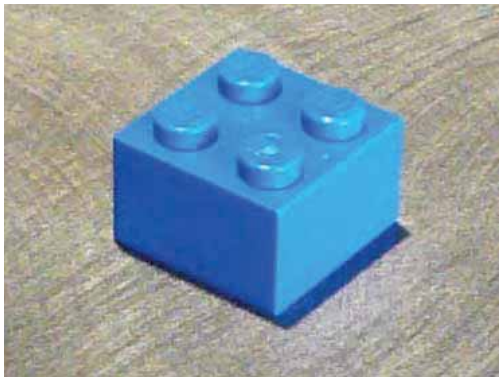


or



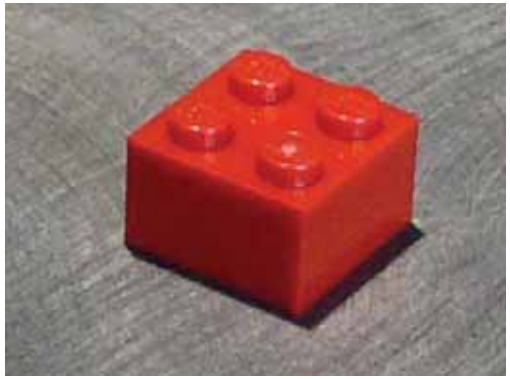
=

- **Residential**,
- about 3 stories
- about 32 dwelling units
- about 1/3 acre



=

- **Office**
- 1 story
- about 1/3 acre



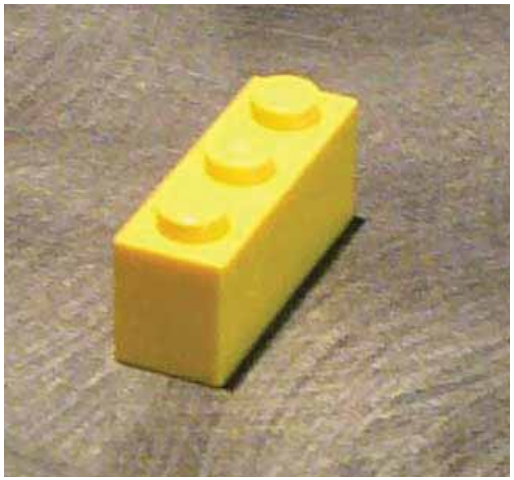
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- **Retail**
- 1 story
- about 1/3 acre

Lego Legend



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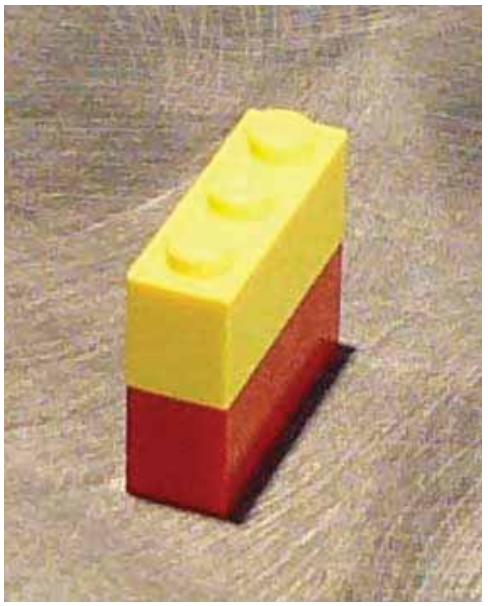


- 3 story townhome
- about 10-16 du/acre

Lego Legend



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- 3 story **townhome** with **retail** on ground floor

Lego Legend



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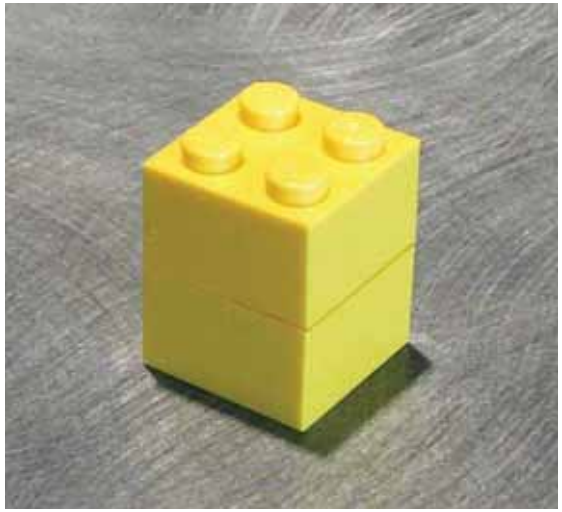


- 3 story **residential**
- range of 27- 50 du/acre

Lego Legend



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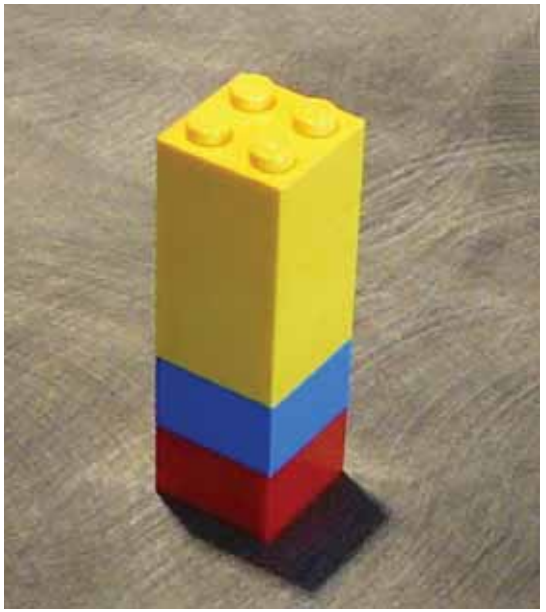


- 5-6 story **residential** building
- range of 50-130 du/acre

Lego Legend



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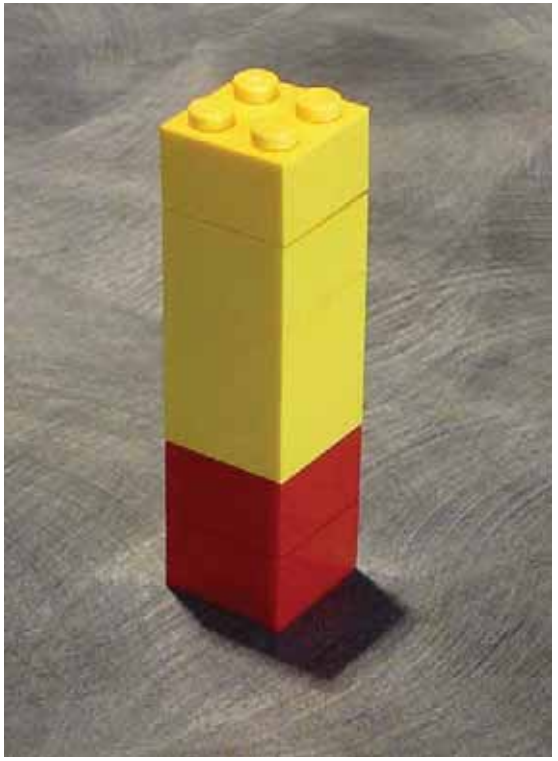


- 8-9 story **residential** building with **retail** on ground floor and **office** on second floor
- range of 50-130 du/acre

Lego Legend



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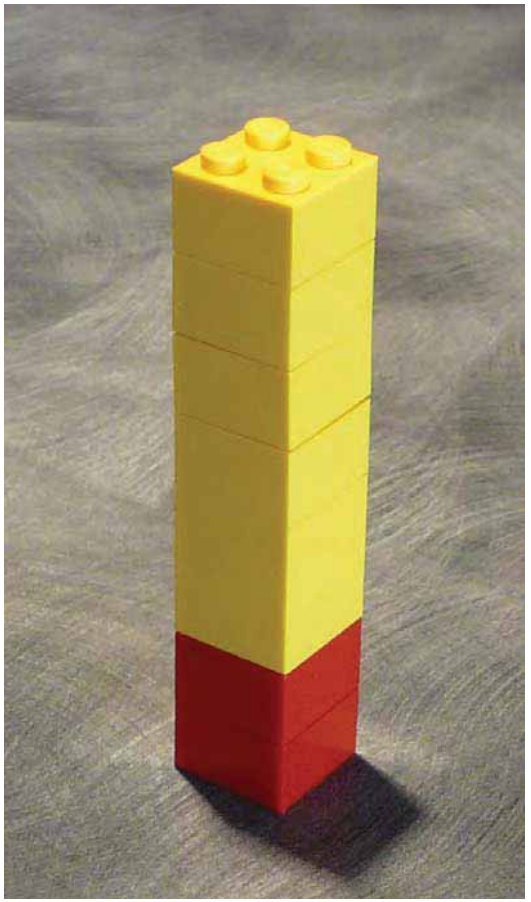


- 11-12 story **residential** building with **retail** on ground floor
- range of 80-160 du/acre

Lego Legend



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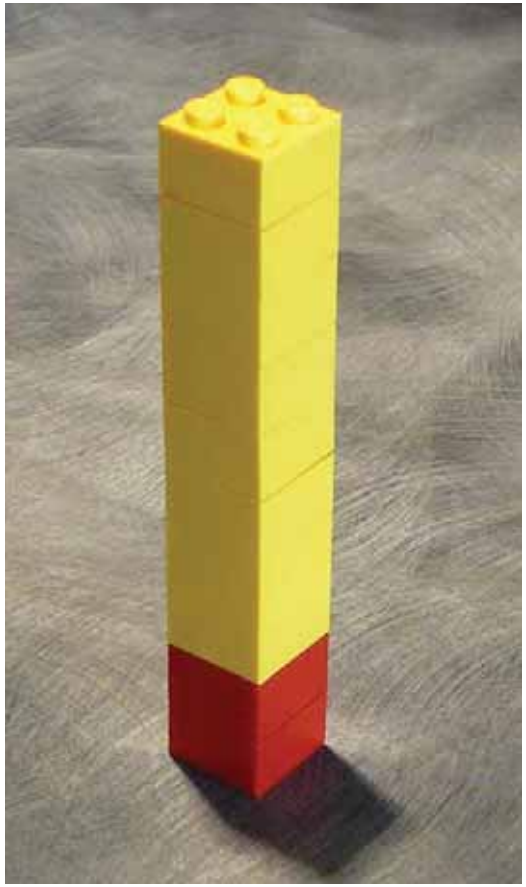


- 16-18 story **residential** building with **retail** on ground floor
- range of 90-180 du/acre

Lego Legend



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- 24-26 story **residential** building with **retail** on ground floors
- range of 120-230 du/acre

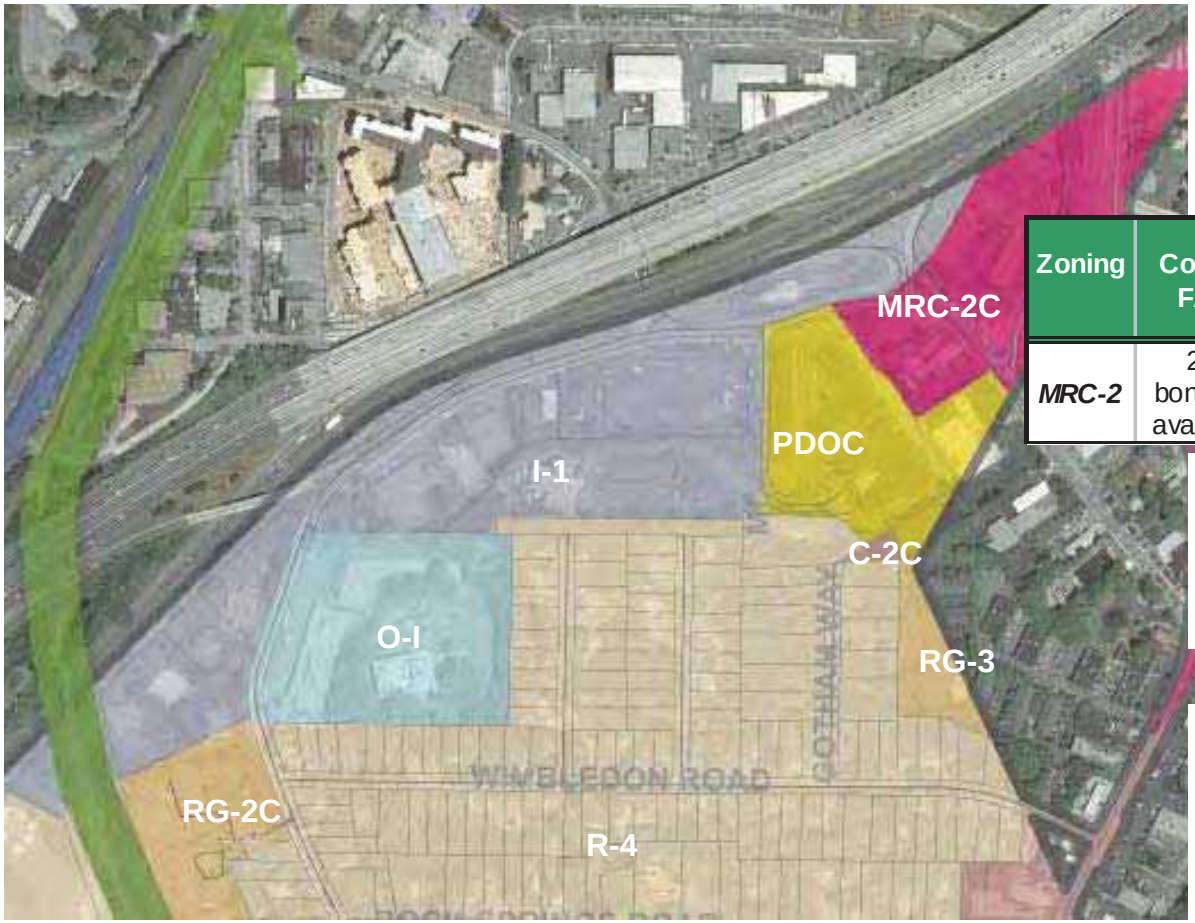
Recent Development Activity



- Intown Suites redevelopment
  - Potentially 250-300 apartment units and pharmacy
  - No official application to City
- Remax redevelopment
  - 20,000 square feet of commercial space
  - Under construction
- Spire Court- Artlite site redevelopment
  - 305 units at 51 du/acre, 100,000 sq. ft. of commercial space
  - Construction starts in September 2008
- Ansley Park Gables Apartments
  - 346 units
  - Under construction
- Ansley Park Townhomes
  - 44 units at 16 du/acre
  - Under construction
- Ansley on the Park Townhomes
  - 6 units at 7.5 du/acre
  - Ending construction
- Drewry Street pending rezoning
  - I-1 to R-4

Source: City of Atlanta Planning Department

Monroe Crescent Existing Zoning



MRC-2C:

- Pre-application meeting for about 300 apartments and a drug store. No official application to date.

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
MRC-2	2.5 bonuses available	0.696 bonuses available	**423,682**	**118**	4.9

PDOC:

- Monroe Place Apartments.
- 241 units, 43 du/acre.

I-1:

- Could be redeveloped into commercial without rezoning
- No height limits except Transitional Plane

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	892,109	N/A	12.8

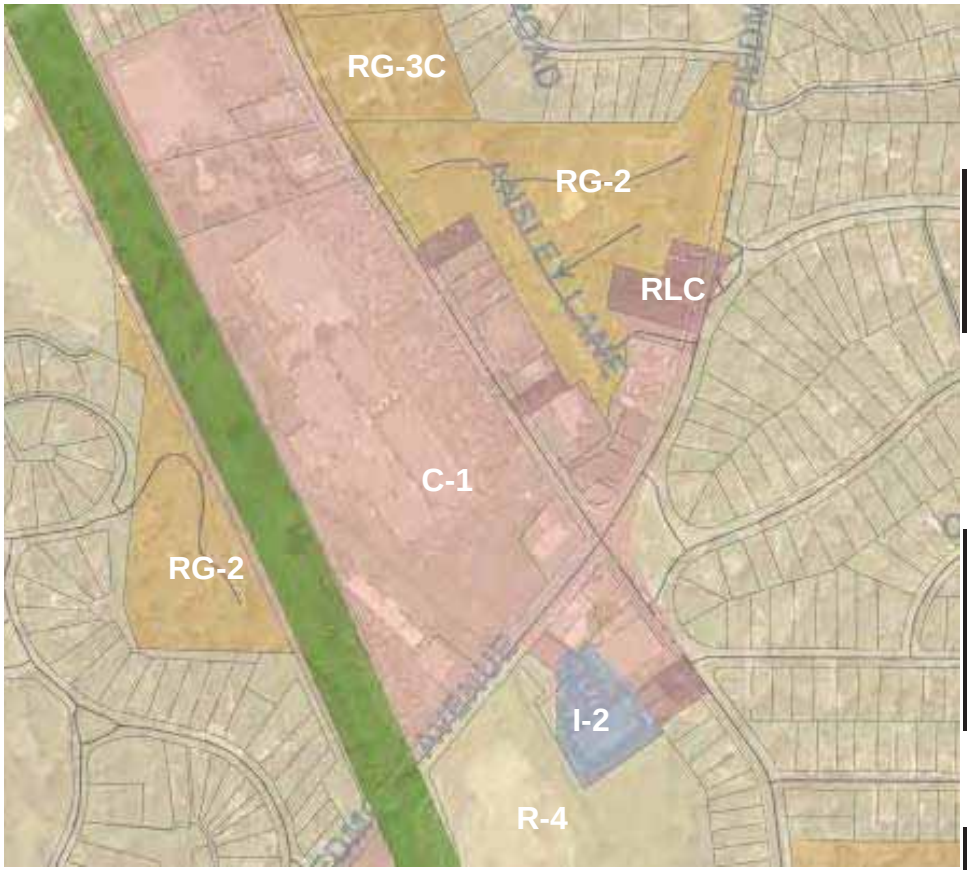
RG-2C:

- Monroe Villas.
- 36 units, 8 du/acre.

O-I:

- Ansley Gables Apartments.
- 346 units, 75 du/acre.

Ansley Mall Existing Zoning



C-1

- No height limit

Zoning Category	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-1	2.0	0.696	1,672,704	582	24.0

I-1:

- No height limit except Transitional Plane

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	118,483	N/A	1.7

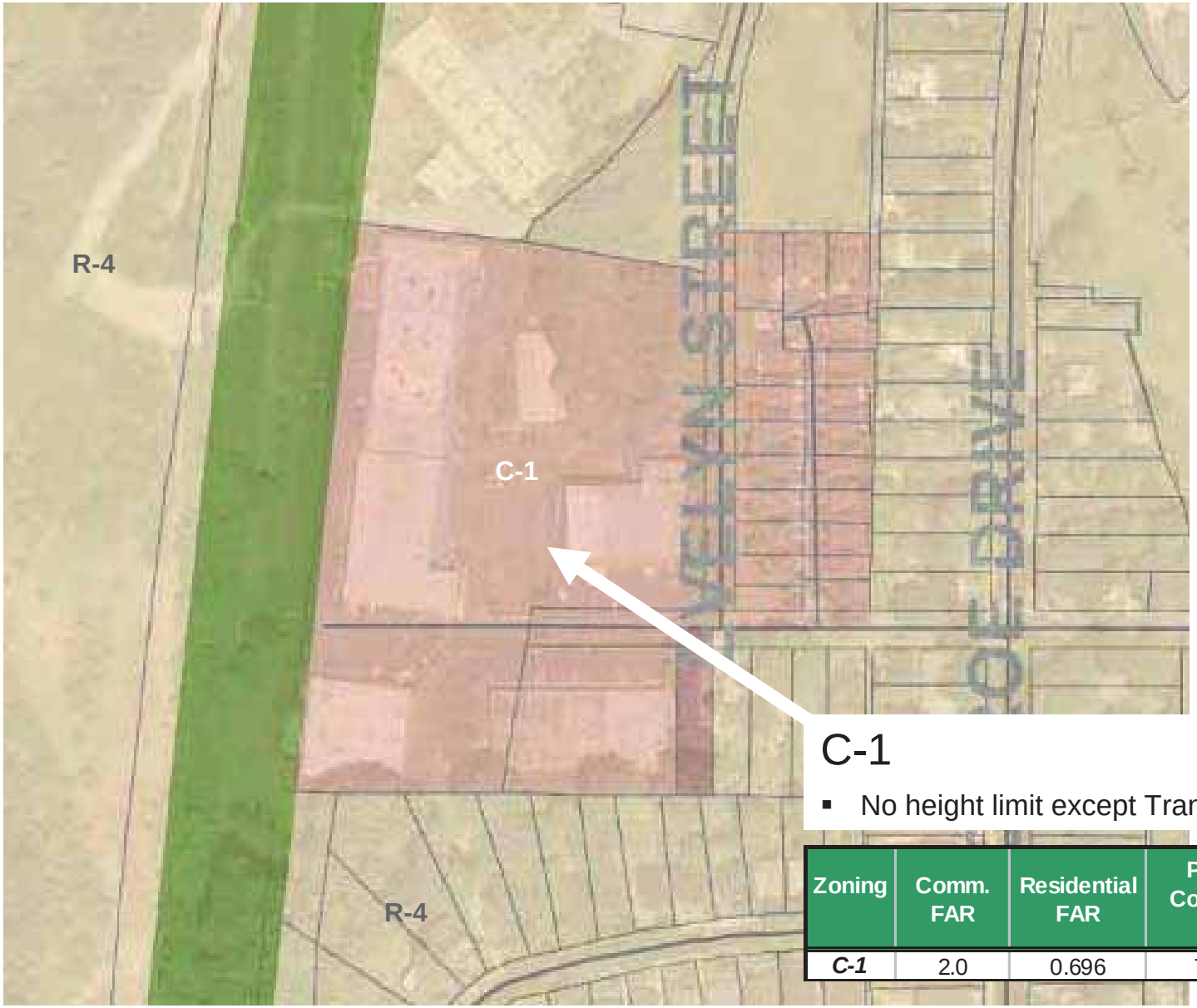
RG-2

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
RG-2	0.05	0.348	6,821	136	9.0

RG-3C:

- Ansley Parkside Townhomes
- 44 units, 16 du/ acre

Amsterdam



C-1

- No height limit except Transitional Plane

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-1	2.0	0.696	766,656	267	11.0

Monroe and 10th, Piedmont Park



R-4:

- Height limit: 35 feet

Zoning	Residential FAR	Potential Residential Units	Acre
R-4	0.5; Minimum 9,000 sq. ft. lots	11-15	6.0

C-1:

- No height limit except Transitional Plane

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-1	2.0	0.696	69,696	24	1.0

I-1:

- No height limit except Transitional Plane

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	216,058	N/A	3.1

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	956,926	N/A	13.7

Monroe and 10th, Piedmont Park, *cont.*



PDMU:

- Virginia Hill Condominiums
- 11 story building

C-2:

- No height limit

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-2	3.0	0.696	474,725	110	4.5

C-2C:

- Virginia Highland Apartments
- 270 units, 47 du/acre

Home Depot/ Midtown Arts



C-2:

- No height limit

Zoning	Comm. FAR	Residential FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
C-2	3.0	0.696	474,725	110	4.5

I-1:

- No height limit except Transitional Plane

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	209,088	N/A	3.0

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	620,294	N/A	8.9

Zoning	Comm. FAR	Potential Commercial (Sq Ft)	Potential Residential Units	Acre
I-1	2.0	233,757	N/A	3.4

RG-3:

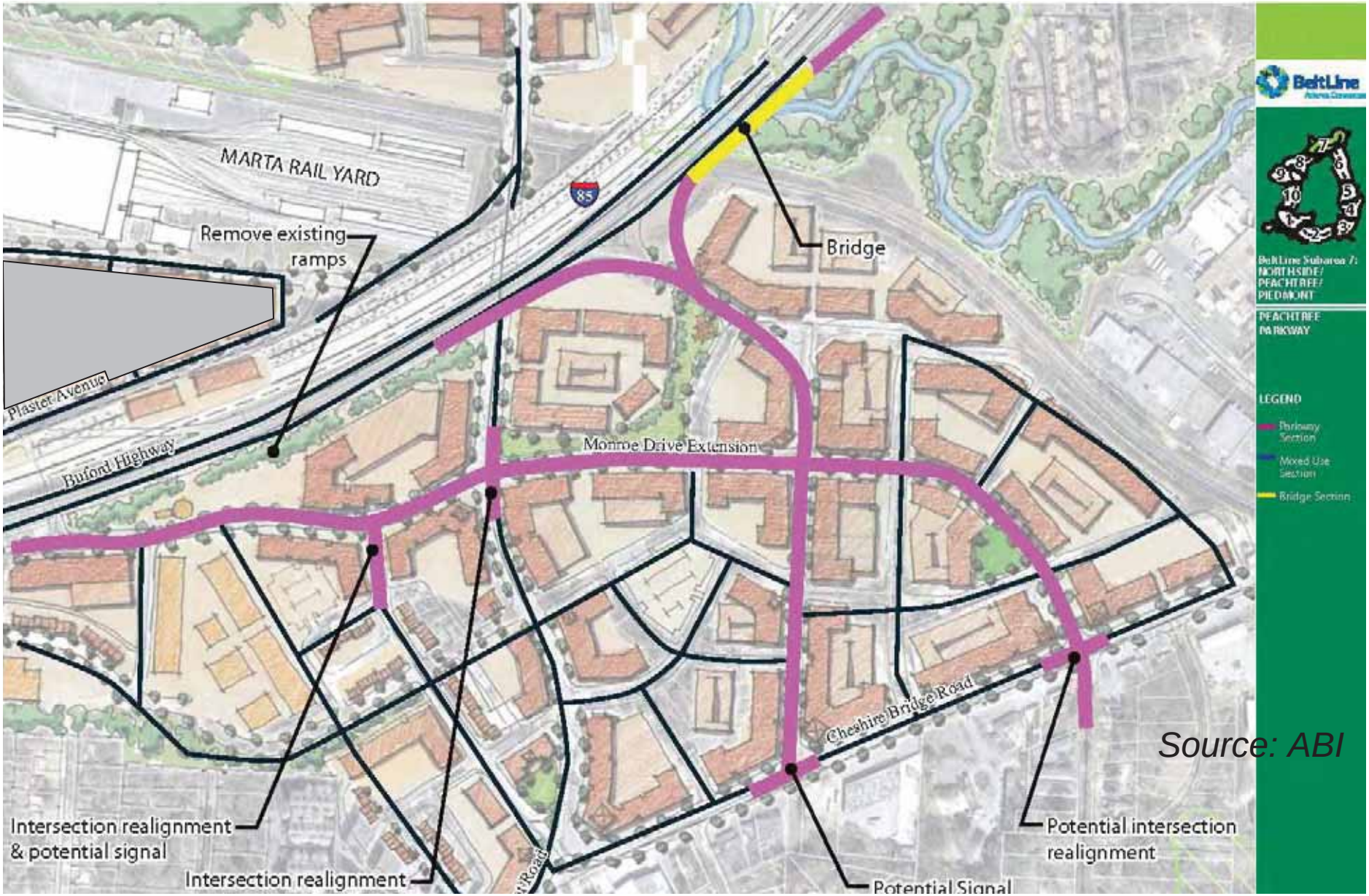
- Highland View Apartments
- Residential loft conversions and new townhomes

NE Corridor Partners



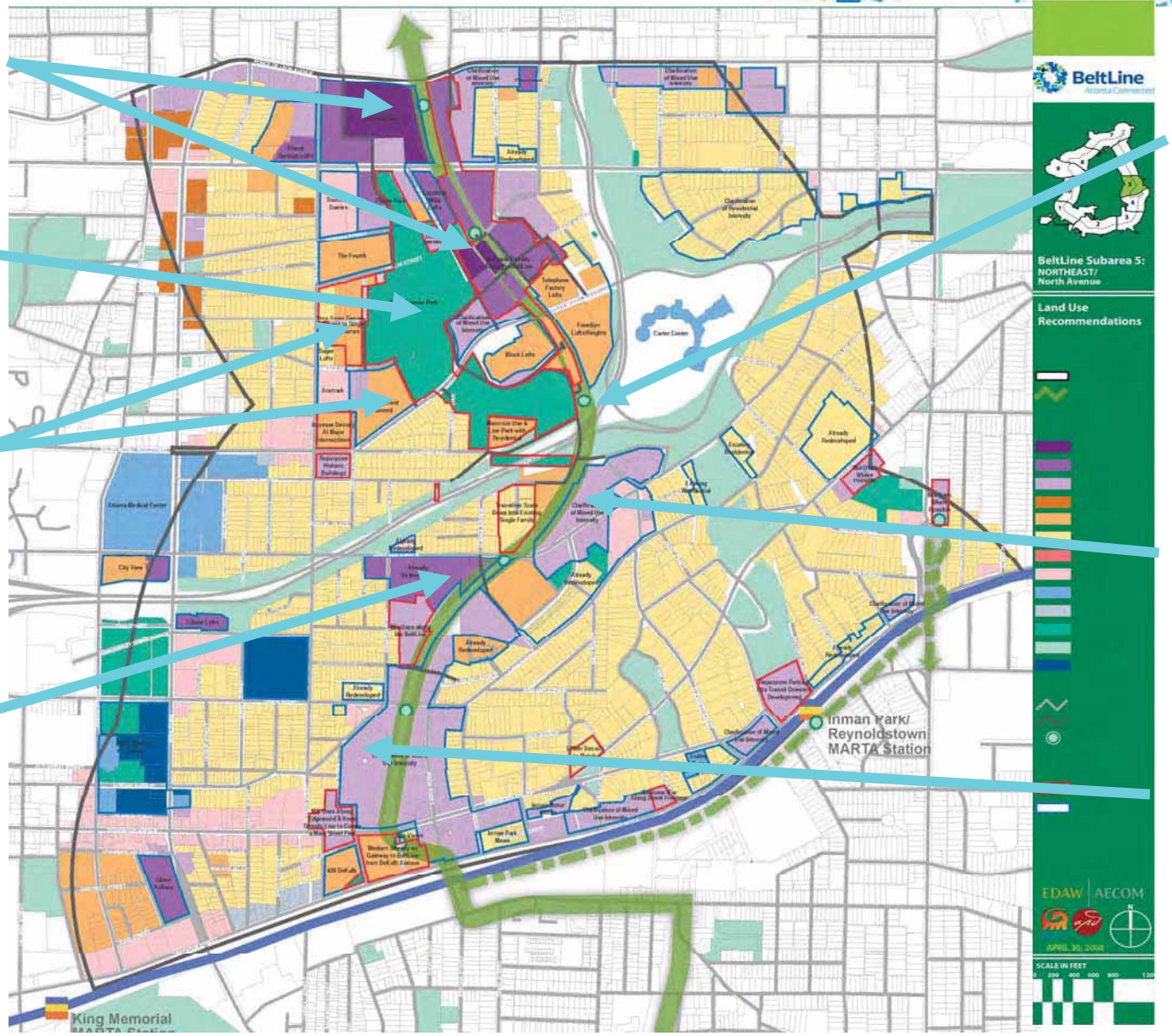
- ABI and NE BeltLine, LLC joint ventured in 2007 to acquire 4.6 mile corridor from Wayne Mason
- The JV is a solution that:
  - Preserves ABI control and rights over the ROW corridor
  - Provides a permanent easement and ownership in ROW land
  - Allows flexibility to locate the transit corridor
  - Gives ABI a controlling interest in where and how development occurs on the Property
  - Generates potential financial returns that will be available for reinvestment in the BeltLine vision

Subarea 7



Source: ABI

Subarea 5



Concentrated development at transit stops

New park with stormwater detention amenity pond

Line edge of park with more intense development and streets

Encourage compatible scale Mixed Use redevelopment like the Inman Park Village

Trail connection between Freedom PATH and BeltLine Trail at proposed transit stop

Focus Mixed Use along BeltLine

Preserve historic industrial structures



Atlanta BeltLine Master Plan

SUBAREA 6

July 18, 2008 Public Meeting Feedback

EDAW
July 21, 2008

TABLE: 1

FACILITATOR: Jay Gillespie





NOTES FROM LEGO MODEL:

- More ingress/egress in Armour area is needed
- All crosswalks need to be raised or otherwise well-marked. Pedestrian islands needed for wide intersections.
- Ansley Mall retail should be neighborhood centered (and have 2 groceries for competition)
- Piedmont and Monroe:
    - o Small park like green spaces
    - o Dupont circle or something similar for intersection
- Align new street from Ansley Mall and Monroe so that hits further north on Piedmont than E. Morningside
- Crosswalk or some safety measure for mid-walk crossing from Ansley Mall to Piedmont Park expansion entrance
- Armour Walk: need to ensure accessibility more than 1 street, and walkability within, plus mixed use

TABLE: 2

FACILITATOR: Jonathan Lewis





NOTES FROM LEGO MODEL:

- High quality density up to 6 stories (along Ponce)
- (Extension of St. Charles Ave. east to new street in what is now Midtown Place shopping center)
- (Extension of Drewry Street west to connect with new street in what is now Midtown Place shopping center)
- (Extension of Plyant Street west to connect with new street in what is now Midtown Place shopping center)
- Have as much greenspace along the BeltLine ROW as possible
- Limit surface parking (Ozone, runoff). Buried, stacked decks. Get rid of surface parking – green space!
- Cresthill path (connects Cresthill Avenue to BeltLine)
- Maintain as openspace – Adequate ROW for…(Piedmont Park just north of intersection of Monroe, 10th Street, and Virginia)
- Station stop (at development area just south of Piedmont Park deck)
- Carless, transit oriented! (at development area just south of Piedmont Park deck)
- No free parking! (at development area just south of Piedmont Park deck)
- 2-4 stories (at development area just south of Piedmont Park deck)
- MARTA connections for carless community (in Piedmont Park master plan area)
- No Street into park – connecting to deck driveway – compromises master plan and pedestrian. 2 – 4 stories (Park guidelines). Aggressive Park orientated, transit oriented. Radical showcase community. Live w/o cars!
- Fronts and embraces the park (Master Plan). Bury the Parking. No free parking. No surface parking.
- Throughout NE – BeltLine ROW wide enough to accommodate BeltLine vision transit, trails, arboretum.
- CONFLICT. ABI Deck Driveway and Lots of new pedestrians to Monroe (at entrance to Piedmont Park deck)
- New parking, 53 acres – Lots more pedestrians, traffic (on Monroe north of Dutch Valley Road)
- High energy Piedmont Commons skate park, etc. Many pedestrians to deal with (on Piedmont Road just south of intersection with Monroe)
- Dupont Circle Yes! (at Monroe and Piedmont intersection.) Need pro-pedestrian solution
- 4-6 Strories (some disagreement up or down). Must be park oriented. No free parking for residents or visitors.
- PHCA Blueprints Plan (at Ansley Mall). 6-8 stories. No tower?
- Awful logger jam PH, Sherwood Forest, Ansley, get trapped (at intersection of Monroe and Montgomery Ferry Drive.
- PH, SW Ansley want, first and foremost, Traffic solution—pedestrian improvements, MARTA connections.
- Consistent with PHCA Blueprints (at northern development area just south of interstate)

TABLE: 3

FACILITATOR: Robin Cailloux





NOTES FROM LEGO MODEL:

- Retail on ground with a 2-3 stories maximum building
- Add a linear green space along the western edge of the Home Depot site (from Ponce de Leon Ave to 8th street)
- Change alignment of the proposed Greenwood Ave.
- Add a transit stop near school
- Create a green boulevard along the new street connecting Virginia Circle to 8th Street
- Wider sidewalks
- View to the park (on the northern west side of the Home Depot site)
- No buildings in Piedmont Park
- Maximize Green space in Beltline Corridor
- Bike lanes on Monroe with 2 way center turn lane
- Do not connect the new street to Worchester Drive
- Support Piedmont Heights Study (For the Ansley Mall site and Crescent site)
- Three to Four story buildings
- Support Piedmont Heights Blue Print.
- Keep new street at E. Morningside offset

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FACILITATOR: Olen Daelhousen





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- Build sidewalks on both sides of the street (referencing streets in Piedmont Heights)
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- Uniform streetscape on Piedmont and Monroe
- Add small left turn lanes on Montgomery Ferry at Monroe – doesn't need much storage
- Left turn lane also needed in other direction
- Bad intersection – Monroe and Montgomery Ferry
- New road would relieve Monroe and Montgomery Ferry Intersection (referring to road along Ansley Mall site)
- Connect east Morningside with new street
- Road as buffer between development and park land (referencing new street along back of Ansley Mall site)
- Pedestrian safety along Piedmont from Westminster to BeltLine ROW
- No blocks greater than 500 feet – aim for 300 to 400 feet
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- Convert Monroe to 3 lanes with bike lanes and 2-way turn
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- Stays CSO plant – avoid close range of public
- Connection to Worchester is good for Amsterdam
- Retrofit Monroe with corner curb ramps as required by ADA
- We want creek (referencing eastern edge of Piedmont Park)
- No development (referencing ROW from 10th to Park)
- Pedestrian improvements at 10th and Monroe
- Pedestrian Bridge across 10th south of Piedmont Park Great Lawn
- Bike and pedestrian only on new street shown in Ho0me Depot site
- Daylighted creek and liknear greenway along Home Depot site
- Greenway along 8th Street extension
- 6 is maximum pedestrian scale – 10 stories is ugly
- No mixed use on Virginia – are next to residential

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FACILITATOR: Nate Conable





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- Transit stop shown just south of I-85
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- Halpern feels that this will not be financially viable
- Would like some retail in park to service park
- Overall sentiment was for this area to be greenspace – some felt park serving retail might be appropriate (referencing the ROW from 10th to Park)
- Could be a pedestrian bridge or a green bridge like 5th Street at Georgia Tech
- Park services
- Transit stop indicated at 10th and Monroe
- Existing flooding issue with piped creek
- Like Kirkwood
- This stop (10th and Monroe) will be highest volume – needs to be well designed, particularly for pedestrians
- Like this connection because it would provide activity to deter illicit activity (referencing Greenwood connection)
- Along Virginia leave Trolley Apartments
- New road identified in Home Depot site – parallel but west of new road shown on base
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FACILITATORS: Kent Findley, Stan Harvey





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- No development within Piedmont Park (at the corner of 10th)
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    - o Trestle at BL and Ponce
    - o Commercial buildings at Monroe and Cooledge
    - o Trestle at BL and Park Drive
    - o Commercial row at Piedmont and Monroe
- Areas within red dashed line should not be developed

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FACILITATOR: Holden Spaht





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- Increase density on Armour Drive north of Buford Highway
- Ansley Mall:
    - o buildings 2-4 stories along Monroe
    - o transit stations on back of property, away from homes
    - o buildings in Ansley Mall not on BL
    - o lowering the grade would allow for taller structures
- parking for ball field in North Woods expansion needs to be considered
- there is a pedestrian safety issue on Piedmont at the commercial off of Westminster
- pedestrian safety issues all along Monroe from Piedmont to park
- widen sidewalks and turn Monroe into 2 lanes plus a turn lane
- preserve BL ROW as green space
- 3 story residential in area of existing storage space at Virginia and Monroe
- JV property and small adjacent commercial
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- Preserve Woody's
- "10th and Monroe must be green space"
- Rail stop underground near park preserving green space
- Maximum 3 story residential/ mixed use at Cantoni and storage sites
- Green space where home depot/ midtown arts parking lots are should become green space
- Use green to minimize height impact to surrounding neighborhoods

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FACILITATOR: Liz Drake





NOTES FROM LEGO MODEL:

- Make Monroe 3 lanes one way south with one bike lane
- Historic Green Space (located at the intersection of St. Charles Ave. and Lakeview Ave)
- Do not connect Greenwood Ave.
- Add a linear green space along the west side of the Home Depot site from Ponce de Leone Ave to 10th street.
- Study the impact of reconnecting new east west roads on Virginia Highland's residential areas. (Crossed out new road connections between 8th street and Virginia Circle and Virginia Avenue and 10th Street)

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FACILITATOR: Heather Hussey-Coker





NOTES FROM LEGO MODEL:

- Greenway Connections
- Greenway small park connections that connect to Miami Circle
- Improve connector to keep non-local thru traffic off Monroe Drive
- Park and ride under new buildings
- Add transit stop (on Monroe site)
- Traffic calming on Monroe to have driver respect the neighborhood speed limit of 30mph
- Mixed use city center concept i.e. Lindeberg with more trees
- Add a beltline stop (at the intersection of 10th and Monroe)
- Like new street connection between Virginia and 10th Street
- Renderings are too Suburban make more urban
- Love the new street connections between Virginia /10th and 8th / Ponce de Leon Place
- Keep GA Power
- We like traffic circle (At Monroe and Piedmont)
- Add a transit stop (in between Piedmont Rd and Westminster Dr)
- Maintain open space on Beltline between Dutch Rd and Amsterdam Ave.
- Add a transit stop at the end of Amsterdam Ave
- Front of buildings on Beltline
- Pedestrian connections
- Conservation easement
- No development in Beltline; a linear park
- Like Greenwood ave. connecting from Ponce Place to Monroe Dr.
- Go Big (Home Depot Site)
- Add parking (at the intersection of 10th and Virginia)
- Park and Ride on Ponce De Leone
- Traffic circle at Ponce de Leone and Monroe Dr.
- Midtown Promenade some restriction acceptable; increase pedestrian connection between the stores and the developments

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FACILITATOR: Sam Castro





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- More local retail – less big box (Home Depot site)
- More options for transit along Ponce
- Continuous greenway beginning at Pone and continuing to 8th Street
- Support higher density with transit (Home Deport site)
- Establish frequent buses/trolleys with user friendly signs and stops
- Keep character of connecting roads (8th Street extension)
- Kanuga and Monroe and 10th – Doctors' offices, small retail – no big box
- Create a visual unity of architecture that fits existing neighborhoods
- Transit stop just east of Grady High School south of realigned 10th and Virginia
- Transit along major roads (Monroe, Piedmont, 10th and Ponce)
- Concern with safety for Grady students at the busy intersection of 10th and Monroe
- Gateway at the corner of Piedmont Park behind Park Tavern
- No development (indicated inside ROW from 10th to Park Dr)
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- Already strong park edge – trees
- Add nice pedestrian entranceway to match existing ones on 10th and Charles Allen and Piedmont (indicated at Cresthill)
- Make pedestrian stone entrance to park from Monroe – match old one from Charles Allen (indicated at Cresthill)
- Landscape – see original Olmstead plan (references park edge at Park Dr)
- Need left turn lanes for Amsterdam
- Park space as connector
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Atlanta BeltLine Master Plan

SUBAREA 6

July 18, 2008 Public Meeting Feedback

EDAW
July 21, 2008

TABLE: 1

FACILITATOR: Jay Gillespie





NOTES FROM LEGO MODEL:

- More ingress/egress in Armour area is needed
- All crosswalks need to be raised or otherwise well-marked. Pedestrian islands needed for wide intersections.
- Ansley Mall retail should be neighborhood centered (and have 2 groceries for competition)
- Piedmont and Monroe:
    - o Small park like green spaces
    - o Dupont circle or something similar for intersection
- Align new street from Ansley Mall and Monroe so that hits further north on Piedmont than E. Morningside
- Crosswalk or some safety measure for mid-walk crossing from Ansley Mall to Piedmont Park expansion entrance
- Armour Walk: need to ensure accessibility more than 1 street, and walkability within, plus mixed use

TABLE: 2

FACILITATOR: Jonathan Lewis





NOTES FROM LEGO MODEL:

- High quality density up to 6 stories (along Ponce)
- (Extension of St. Charles Ave. east to new street in what is now Midtown Place shopping center)
- (Extension of Drewry Street west to connect with new street in what is now Midtown Place shopping center)
- (Extension of Plyant Street west to connect with new street in what is now Midtown Place shopping center)
- Have as much greenspace along the BeltLine ROW as possible
- Limit surface parking (Ozone, runoff). Buried, stacked decks. Get rid of surface parking – green space!
- Cresthill path (connects Cresthill Avenue to BeltLine)
- Maintain as openspace – Adequate ROW for…(Piedmont Park just north of intersection of Monroe, 10th Street, and Virginia)
- Station stop (at development area just south of Piedmont Park deck)
- Carless, transit oriented! (at development area just south of Piedmont Park deck)
- No free parking! (at development area just south of Piedmont Park deck)
- 2-4 stories (at development area just south of Piedmont Park deck)
- MARTA connections for carless community (in Piedmont Park master plan area)
- No Street into park – connecting to deck driveway – compromises master plan and pedestrian. 2 – 4 stories (Park guidelines). Aggressive Park orientated, transit oriented. Radical showcase community. Live w/o cars!
- Fronts and embraces the park (Master Plan). Bury the Parking. No free parking. No surface parking.
- Throughout NE – BeltLine ROW wide enough to accommodate BeltLine vision transit, trails, arboretum.
- CONFLICT. ABI Deck Driveway and Lots of new pedestrians to Monroe (at entrance to Piedmont Park deck)
- New parking, 53 acres – Lots more pedestrians, traffic (on Monroe north of Dutch Valley Road)
- High energy Piedmont Commons skate park, etc. Many pedestrians to deal with (on Piedmont Road just south of intersection with Monroe)
- Dupont Circle Yes! (at Monroe and Piedmont intersection.) Need pro-pedestrian solution
- 4-6 Strories (some disagreement up or down). Must be park oriented. No free parking for residents or visitors.
- PHCA Blueprints Plan (at Ansley Mall). 6-8 stories. No tower?
- Awful logger jam PH, Sherwood Forest, Ansley, get trapped (at intersection of Monroe and Montgomery Ferry Drive.
- PH, SW Ansley want, first and foremost, Traffic solution—pedestrian improvements, MARTA connections.
- Consistent with PHCA Blueprints (at northern development area just south of interstate)

TABLE: 3

FACILITATOR: Robin Cailloux





NOTES FROM LEGO MODEL:

- Retail on ground with a 2-3 stories maximum building
- Add a linear green space along the western edge of the Home Depot site (from Ponce de Leon Ave to 8th street)
- Change alignment of the proposed Greenwood Ave.
- Add a transit stop near school
- Create a green boulevard along the new street connecting Virginia Circle to 8th Street
- Wider sidewalks
- View to the park (on the northern west side of the Home Depot site)
- No buildings in Piedmont Park
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- Areas within red dashed line should not be developed
- Access to Amsterdam through they really don't like with 1 exception
- Possible Monroe as 1-way south, and Piedmont 1-way north to monroe
- Like connectivity at Greenwood and new through Midtown Promenade; as long as there is minimal impact to Old Midtown, and keep hgiher density in southern end
- Agree no development at 10th and Monroe or along parcel from 10th to Park Drive
- Amsterdam east side of park reflect west side 4-5 story max; seperate pedestrian access to the park; approve of transit stop, but maybe too many too close together
- No access to Park Road when park closed, 10 mph limit
- Monroe like 3 lanes; also need pedestrian acitivated stop lights from Dutch Valley to Piedmont
- Ansley Mall Monroe and Piedmont to have imporved/widened sidewalks and seperation from the street
- Historic Preservation:
    - o Smith's Olde Bar
    - o Park Drive Bridge
    - o Ponce Trestle
- Buildings along beltline open in U-shape to BeltLine
- No big box
- Brick instead of stucco

TABLE: 7

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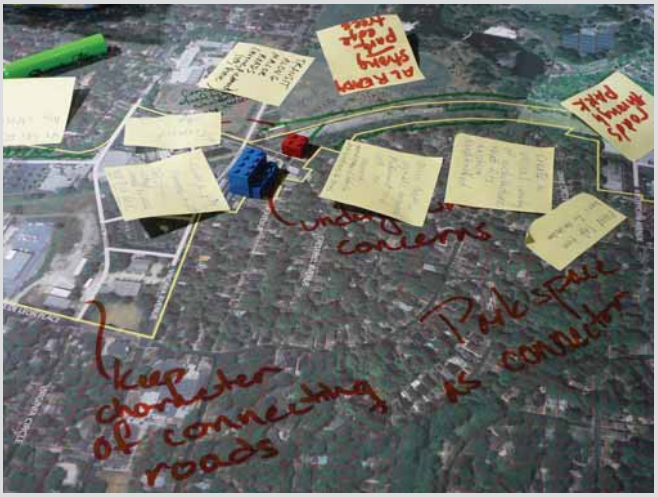
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MEETING Summary
Subarea 6 Master Plan Meeting
February 12, 2009
Hillside

Agenda Items Covered

1. Welcome & Introductions
2. SA 6 Draft Master Plan Open House (30 mins)
3. BeltLine Update (10 mins)
4. SA 6 Master Planning Process Overview & Recap (10 mins)
5. Presentation of SA 6 Draft Master Plan (30 mins)
6. Q & A (15 mins)
7. Next Steps & Wrap Up

Public Comment

- Gotham Park is not a City park.
- Likes what's being proposed however please note that the AASHTO requirement is 13 feet between curb and bike lane not 12.5. Would like to keep industrial uses in some areas
- Density shown along Monroe is more than desired. North Morningside and Cumberland traffic would be a big problem. Cut thru's would also be a problem.
- Density too high at Grady High School and in the Ansley area.
- With this increased density shown along Monroe traffic could be routed onto Morningside which could handle some additional traffic better than Cumberland.
- Traffic will be a problem with this increase in density, please consider 4 story structures not 10 story structures.
- What's the function of the Master Plan and how does it work or integrate with the City?

- Considering the public input is there the potential for change in SAP process with the BeltLine?
- Armour Ottley is the appropriate site for the transit stop and the increased density. Leaving that site without density and transit would be criminal.
- Disappointed that we are showing development at 10th and Monroe. We supported the TAD for the BeltLine because we were promised no development at 10th and Monroe.
- What other cities have development on their parks?
- What is the real feasibility of this type of development at 10th and Monroe?
- Is a longer turn land realistic at Piedmont and Monroe? People can't get out of the Clear Creek shopping center now.
- Eight story buildings were not shown until slide 39, yet they are proposed for a majority of the area. Objection to 8 story buildings towering over historic structure.
- Feeling of betrayal by showing development at 10th and Monroe. I can't believe you're proposing taking out park space to allow for development.
- Slide 17 – the depiction of the road grid with building between the park is unacceptable.
- Midtown Promenade slide – How many trip per day are projected there? Need a guess on new trips per day generated by this increased density.
- Does the City own the property at the park?
- Disappointed that the transportation numbers are not available. They would be needed in order to shape the discussion.
- As a trained European planner, this City lacks so much. This plan is just a vision. That vision is to make the City more urban and to address environmental issues. The proposed densities are appropriate in an urban area.
- I second the previous statement. If you separate connectivity from density it's a great plan. The road along the park is a great idea.
- The plan seems to be lacking a lot of detail.
- Is Clear Creek being taken over by the BeltLine?
- Feels like you're not listening to the community. Selig doesn't seem to envision the type of density that we are showing on their site.
- Selig supports the density shown in this plan and it reflects our plans for redevelopment.

<u>Written Comments</u>

- Development at Piedmont and Monroe is extremely large/tall.
- Open space at 10th and Monroe not 8 story and 4 story in the park. Not 8 stories at Piedmont and Monroe across from the single family residences at Cumberland. Four story at Amsterdam. More actual historic protection, the identified properties are good
- Please respect homeowners by building something appropriate for the space. Highland Park Lane residents will be greatly affected by the

BeltLine. Please keep new buildings at 4 stories to minimize traffic issues on Amsterdam west of Monroe to maintain our current pleasant neighborhood.

- Park Pride whole heartedly supports the inclusion of the linear parks and additional greenspace.
- Only a Glenwood Park or Inman Park would be acceptable for Amsterdam Walk. It would be welcomed.
- We are in favor of wider sidewalks on Monroe with a three-lane road rather than bike lanes on each side. People are used to going fast on Monroe, I don't think that would change with bike lanes on both sides, and this could be dangerous for bikes.
- Suggest connecting the proposed roads behind Evelyn Street and Amsterdam Walk and the access road from Monroe to the new parking garage. This would allow another outlet for all the new residents and traffic that will be created by building in Amsterdam Walk.
- Your photos look great! They seem to conflict with the building heights that are shown. I love the urban vision. Density diagram probably too ambitious. Buildings on the map do not appear to encroach on BeltLine ROW – that's good. However at 10th and Monroe the buildings seem to encroach into the BeltLine ROW. That is not good. Neighbors will not accept that. Please give this up.
- It appears that the area where the current Kroger on Monroe is will become Residential (1-4). From a daily life perspective, I'm concerned this will leave the area with no room for 2 grocery stores resulting is no competition for the most fundamental shopping. Any comment from JoAnne Chitty of Selig about Ansley Mall I would endorse. I like the "street system" in the mall property. I need to study Monroe Crescent a bit more. A continuous concern is the coordination of transportation improvements before or along with the increased residential/commercial density.
- Can Monroe realistically handle the extra traffic? It's already overcrowded. Amsterdam Walk – all 1-4 story mixed use. Otherwise too much traffic. 10th and Monroe should be green space according to the Redevelopment Plan.
- Land along the BeltLine at 10th and Monroe should be open, green space which is consistent with the original ADA Redevelopment Plan. Building along this edge will forever change the park. Current roads/streets cannot support proposed development at Amsterdam Walk. Change the current 8 story building to (1-4) Residential or Mixed Use. Although there are still problems with this plan it is an improvement from the last one. The 8 story building at Amsterdam Walk is too big – in no other situation along or even in the park do you have an 8 story building. This is inconsistent with the other development along the edge of the park.
- Transit first – Density second. Why can't you make the increased density contingent on increased transit? Fifteen stories at Ansley Mall will choke the area with traffic. Eight stories at Monroe and Cooledge? On the park?

This area is already choked with traffic. I and my neighbors strongly oppose any density directly on the park.

- I am a resident and I'm actually very pleased with the connectivity and density – moving toward a better urban framework. I do have concerns that speculative building will put our roads over capacity before transit is in place. We need other transit connectivity to the BeltLine and I'm not talking buses, then we are losing the battle.
- I think the BeltLine is a great step, but we will have problems with connecting trains. I support the affordable housing element and can't overstate importance of working with developers to ensure implementation. What about a form based code?
- I would like to suggest nothing above 4 stories in the Amsterdam Walk area behind Evelyn Street. This request is to prevent excessive traffic on Amsterdam as well as avoiding obstructed views for homes at Highland Park Lane.
- Amsterdam Walk is only property on park with proposed heights over 4 stories. Skyline of park should be consistent. Amsterdam Walk – 1-4 stories only!!!
- Take out the roads in Piedmont Park.
- I generally support this plan, its' density and the road grid connections. It is unfortunate that Virginia and 10th do not make a better connection. Why should we miss this opportunity to correct this horrible intersection with a simple, straight forward intersection.
- More connectivity at Amsterdam Walk. Connect internal streets at Amsterdam Walk. Street at west side of Amsterdam should front the park. The drive along the park at Ansley Mall should more closely follow the flood plain. The streets at Ansley Lane aren't laid out correctly – the dimensions don't work with future buildings.
- While the plan has come a long way there needs to be more density in the commercial nodes in order to support the retail, services and transportation. The area needs more households.
- Include as much connectivity as possible: in Ansley Mall area; Between Ponce and Virginia across BeltLine; Piedmont and Monroe intersection- can right turn lanes be added?
- Medium to high density is needed throughout corridor as it will increase ridership on BeltLine.
- Spot zoning of tall developments seems out of place. Will stand out and create too much density.
- Westside of Piedmont Park has 4 stories max and it is an integrated part of Midtown. How can you then justify 8-15 stories on the other side of the park where it is single family residential.
- How do you mitigate the traffic that will come with the development until the transit comes in 20 years if at all.
- This plan is not ready. Details are not sufficient. This plan does not serve the BeltLine vision. This plan is all about car oriented density to sell.

There isn't a whiff of a plan for pedestrian transit connectivity, let alone overall approaches to this problem.

- We need connectivity for people to transit not for cars. Plan is too auto oriented – antithetical to BeltLine.
- Because the taxpayers currently own the land at 10th and Monroe where the 8 story building is indicated, there is no need to put a high or mid rise directly on the park. We don't have to fight off a developer exploiting the park and the neighborhood unless ABI and ADA sell the land against the public interest.
- Boulevard contemplated for 8th Street extension will dump into 8th Street next to Grady High School which cannot be widened and is used during the morning rush hour by Grady HS buses. Student safety is imperative and would be negatively impacted by diverted traffic onto 8th Street as cut thru to Piedmont Park and Midtown. Grady HS has faculty parking across 8th Street. By slight off setting you are dumping traffic right in front of Grady Stadium – football games start at 5:00 on Fridays – this would be a problem. A student was hit by a car on a Friday afternoon 2 weeks ago in front of stadium.
- 6000 jobs. Thank you for listening to the community. It would be better to connect 10th Street straight to Virginia and now the new road from Ponce through to Virginia and not allow an exit onto Monroe and 8th Street.
- On the posters please include pictures of 9 story building in your 5-9 categories because we all know that is what will be developed. Monroe Drive will become a tunnel between Piedmont and Montgomery Ferry.
- Can you require lower heights along street and setbacks? Are there step up requirements from street or can the put 9 stories right on Monroe? You should put 1-4 stories along street because 9 stories wouldn't be much different that 10-15 stories.
- Density is better but still too heavy for road capacity along Monroe Drive, especially at Ansley Mall. Even if the transit becomes a reality (15-20 years) it will not relieve this congestion because of limited usage and connectivity.
- Diverting traffic onto Cumberland Road from dense development is not feasible due to narrowness of the road. Park located in street with only on-street parking so during most of year only one car at a time can get through in afternoon and road cannot be widened due to lack of land.
- This plan is not an example of protecting neighborhoods but of exploiting them for greedy developers.
- Density at Monroe and Piedmont is too high. Density at Cumberland and Monroe is too high. Extending North Morningside into Ansley Mall Boulevard along with the increased density will drown Morningside neighborhood. The Cumberland Road extension would increase Morningside's burden of east/west traffic.
- What is the impact to traffic if Monroe is reduced to one lane in each direction with a center turn lane?

- Density plan is too dense. Nothing greater than 1-4 stories would be acceptable to this community.
- Where is the transportation study? What are the numbers of trips generated by this increased density. Need this information for each intersection along Monroe and along Piedmont.
- I have lived in Europe and I totally agree with the connectivity.
- Strongly oppose 4-8 stories at 10th and Monroe but Ansley, Amsterdam Walk have improved. Like 3 lanes on Monroe – Piedmont to Ponce but with wider sidewalks separated from traffic lanes.
- Connectivity is much improved. Approve of Amsterdam isolation from Piedmont Park deck access. Approve of Sembler (Midtown Arts) rework.
- Atlanta needs to become more dense in order to get transit dollars. The densities proposed seem appropriate to me and the connectivity ideas will open up a lot of options for people in cars or on bikes.
- 10th and Monroe – go back to the drawing board. No mid –rise or high-rise developments northwest of 10th and Monroe nor south toward the new 8th Street/Virginia Ave Boulevard. We want park/green space, this has been stated and restated.

Subarea 6 Study Area Master Plan
Draft Recommendations Presentation

February 12, 2009

Study Purpose

The Master Plan builds on previous BeltLine planning efforts to establish framework for implementation.

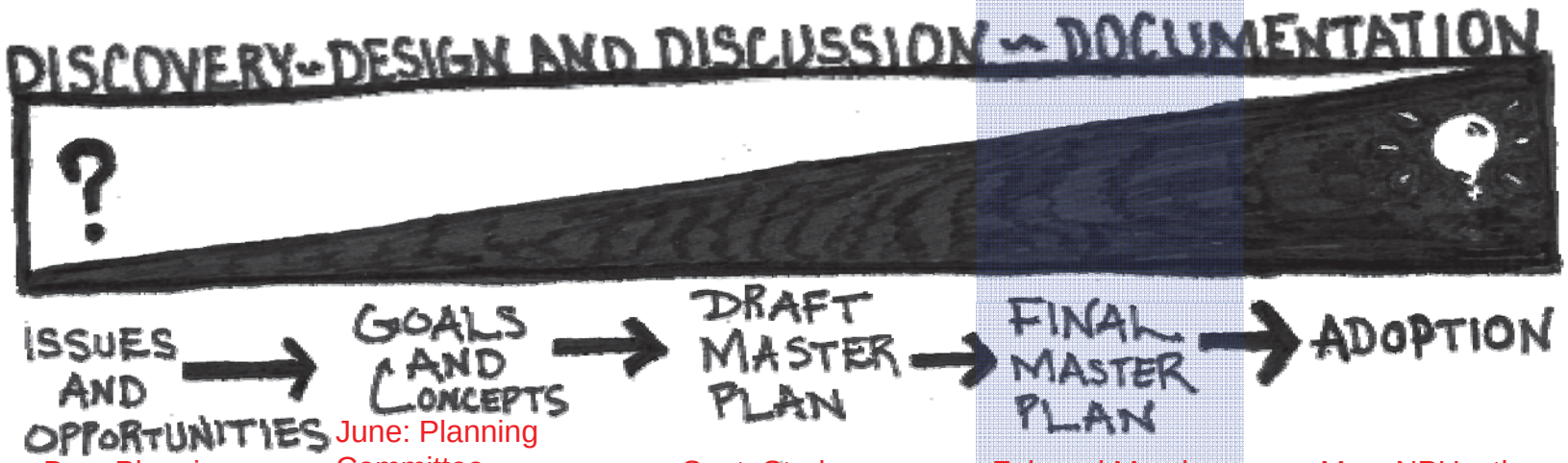
Creates neighborhood-based vehicle for ongoing input on transit and trail planning.

Strategic recommendations for:

- Land Use
- Open space opportunities
- Mobility, circulation
- Historic preservation
- Urban design
- Public art



Planning Process



Dec: Planning Committee

April: Study Group

June: Planning Committee

July: Study Group

August: Planning Committee

Sept: Study Group

Nov: Planning Com.

Feb and March: Study Group

April: Office Hours (tentative)

May: NPUs, then City Council

- Review vision statement and goals
- Analyze existing conditions
- Review previous studies

- Prepare concept plans
- Draft plan recommendations
- Refine master plan

- Take Master Plans to NPUs and City Council for adoption



Subarea 6 Study Area

BeltLine
Atlanta Connected

- ½ mile buffer on either side of the BeltLine
- Northern limit: I-85
- Southern limit: Ponce de Leon Avenue

TAD Boundaries
Study Area Boundary
BeltLine Alignments

Goals

Land Use Goals:

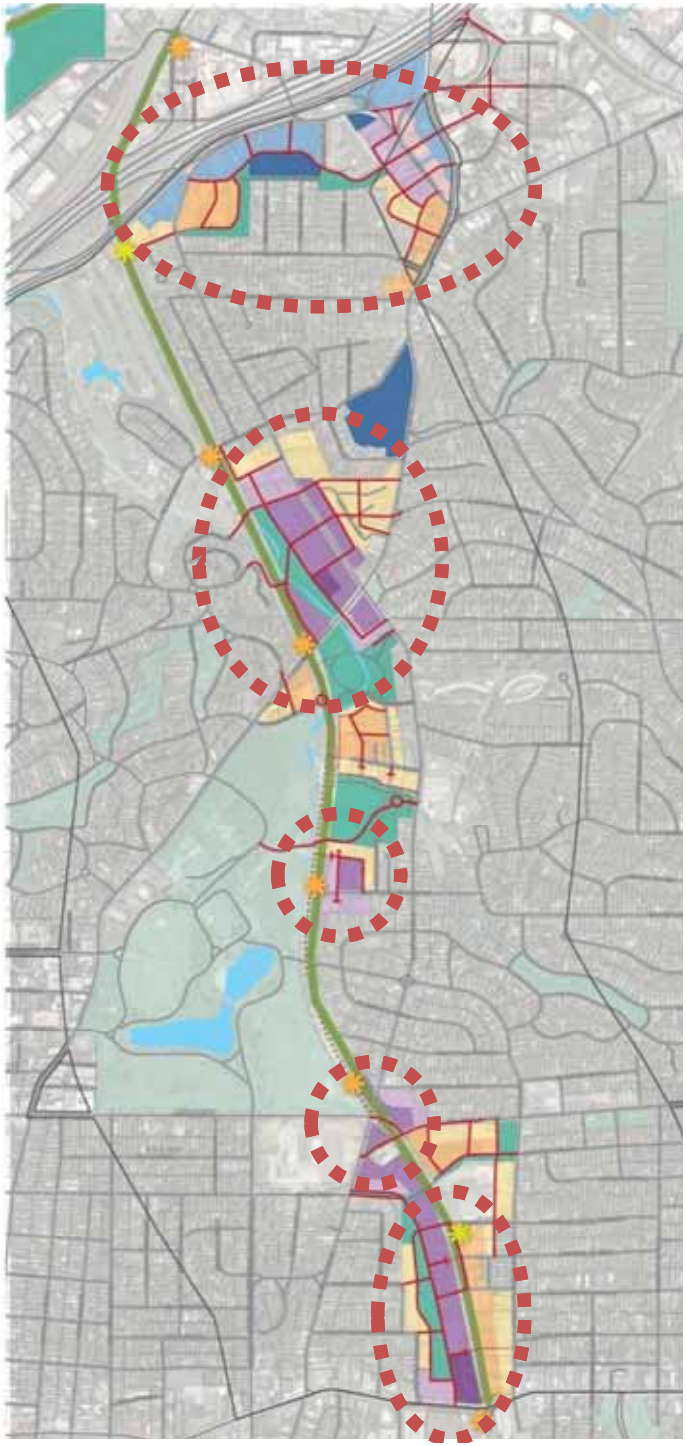
- Put highest density development close to transit stops
- Respect existing neighborhoods
- Connect existing parks and greenspace together wherever possible
- Emphasize quality design and promote historic preservation wherever possible
- Create framework for public art











Five Focus Areas

- Redevelopment most likely to occur
- Additional connectivity is needed
- Mobility improvements needed

Monroe Crescent

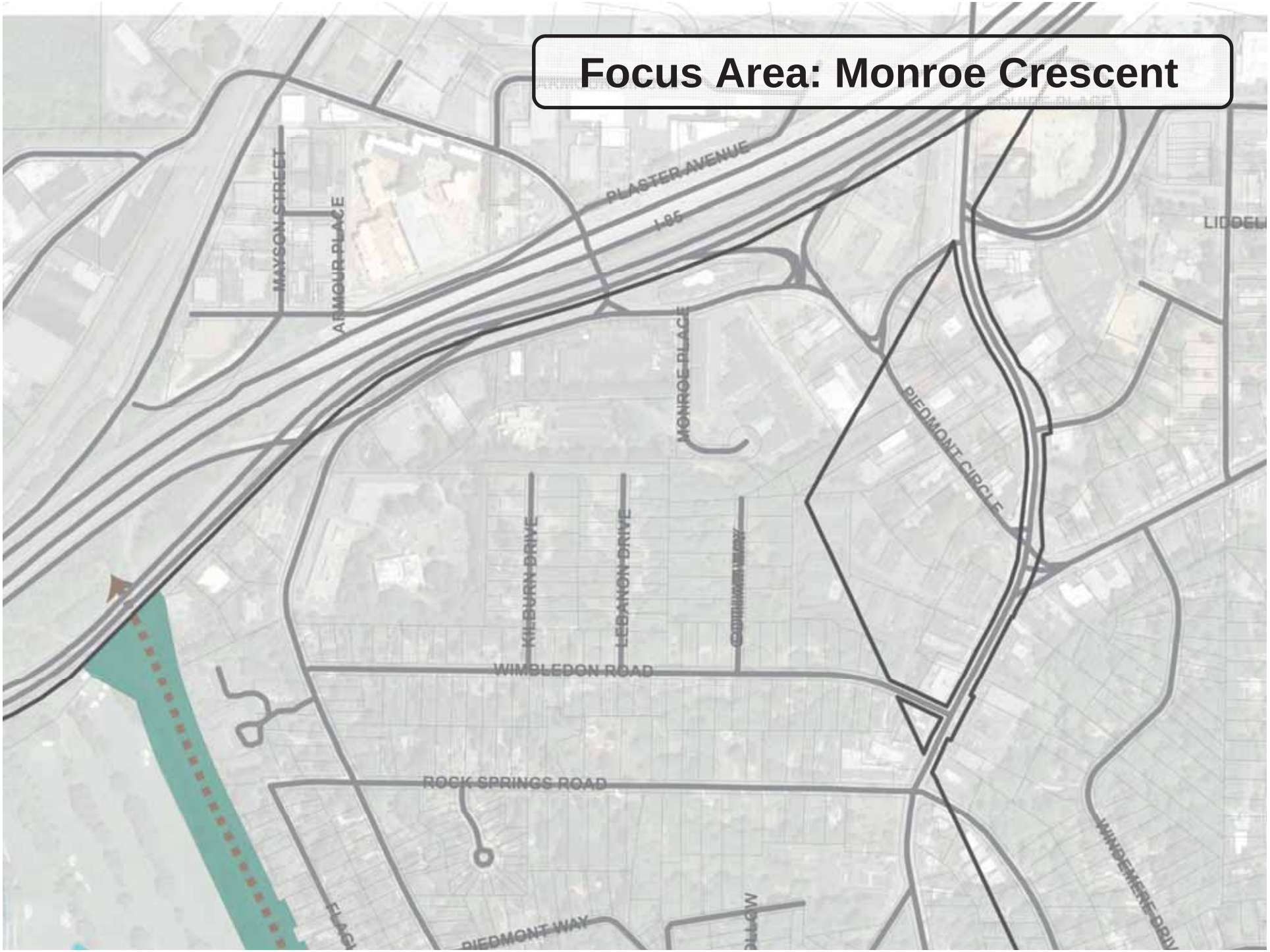
Ansley Mall

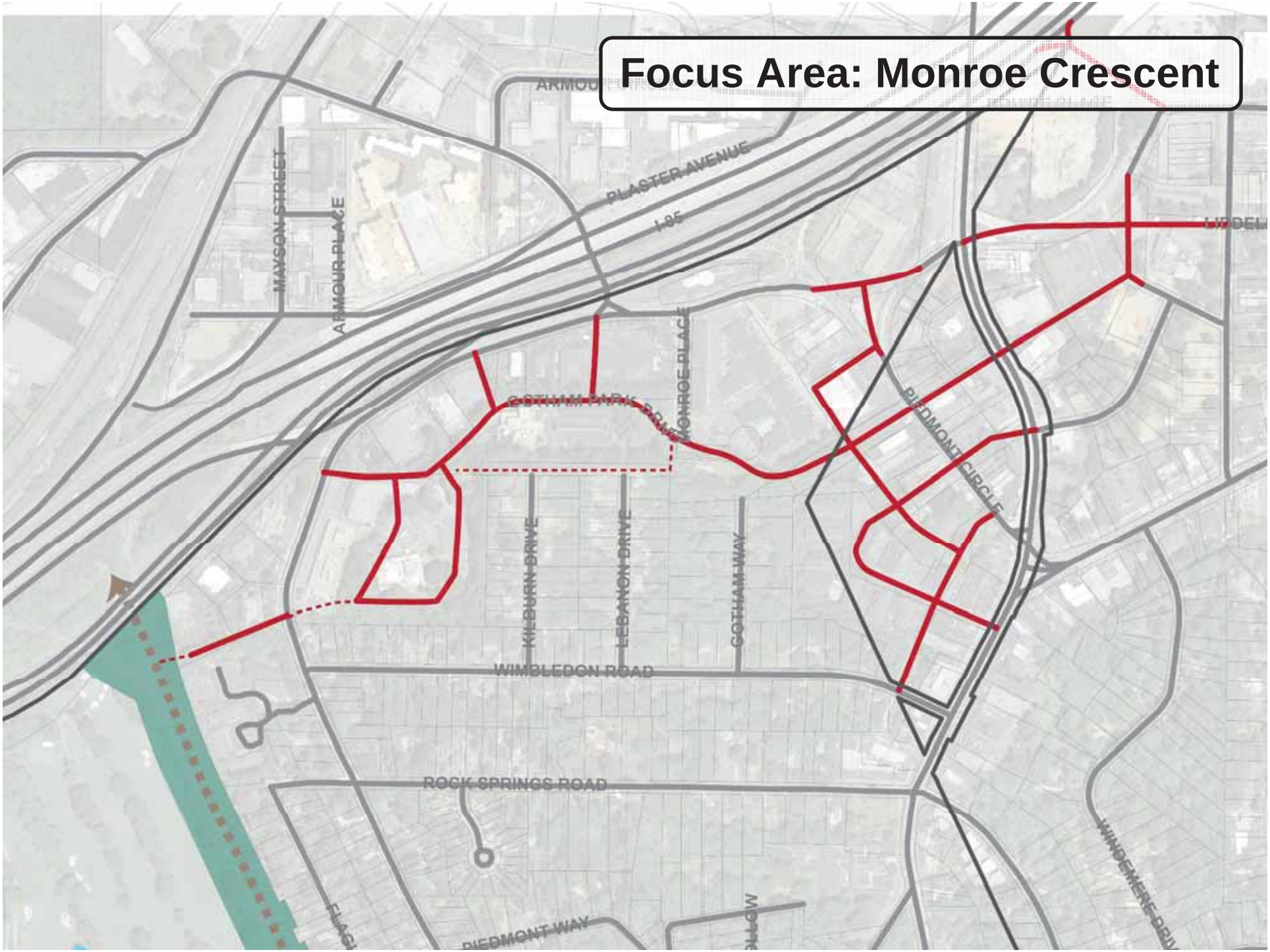
Amsterdam Walk

10th and Monroe/ Piedmont Park

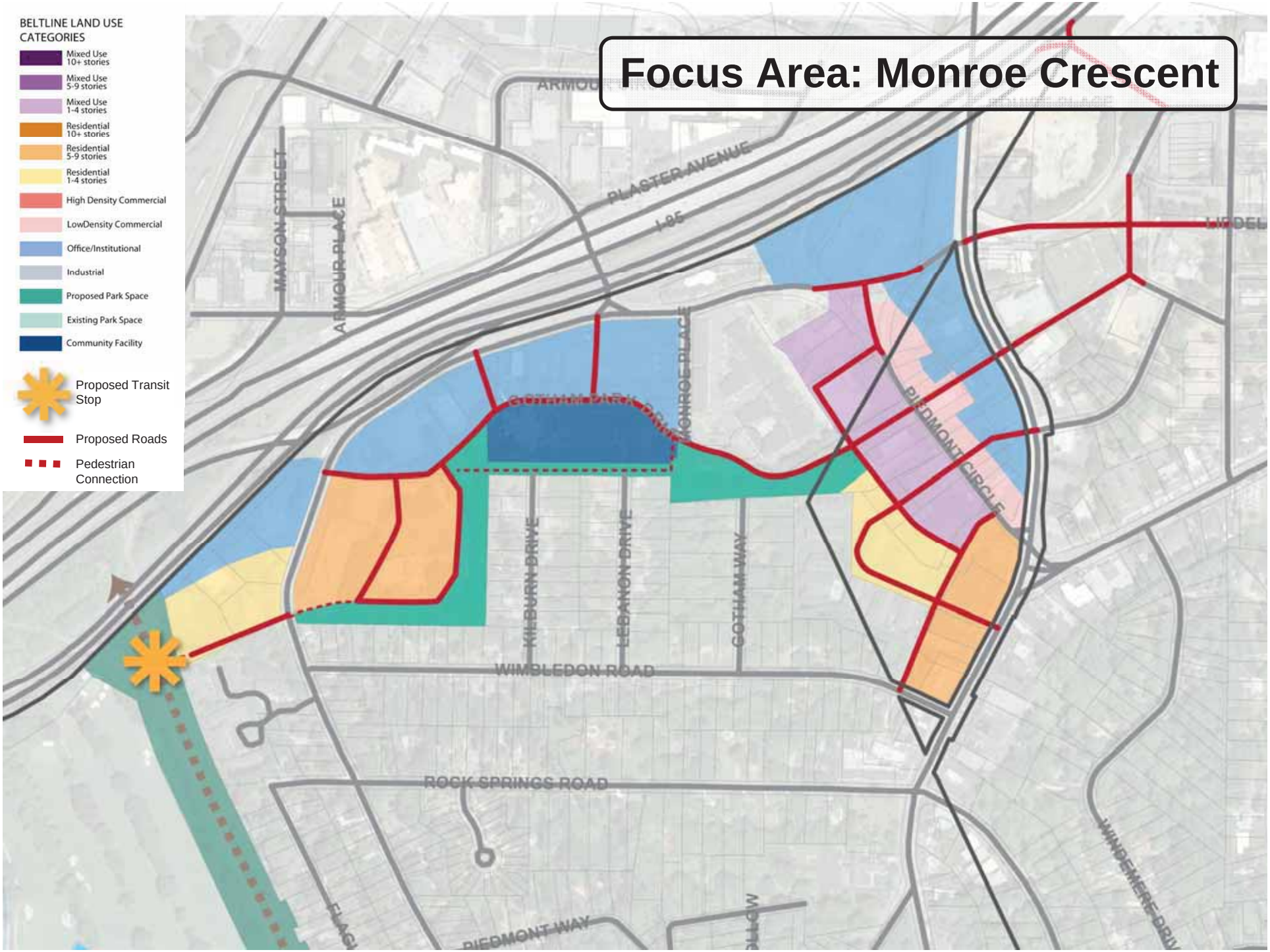
Midtown Arts/ Home Depot

Focus Area: Monroe Crescent




Focus Area: Monroe Crescent
PLASTER AVENUE
I-85
MAYSON STREET
ARMOUR PLACE
MONROE PLACE
PIEDMONT CIRCLE
KILBURN DRIVE
LEBANON DRIVE
GOTHAM WAY
WIMBLEDON ROAD
ROCK SPRINGS ROAD
PIEDMONT WAY

Focus Area: Monroe Crescent

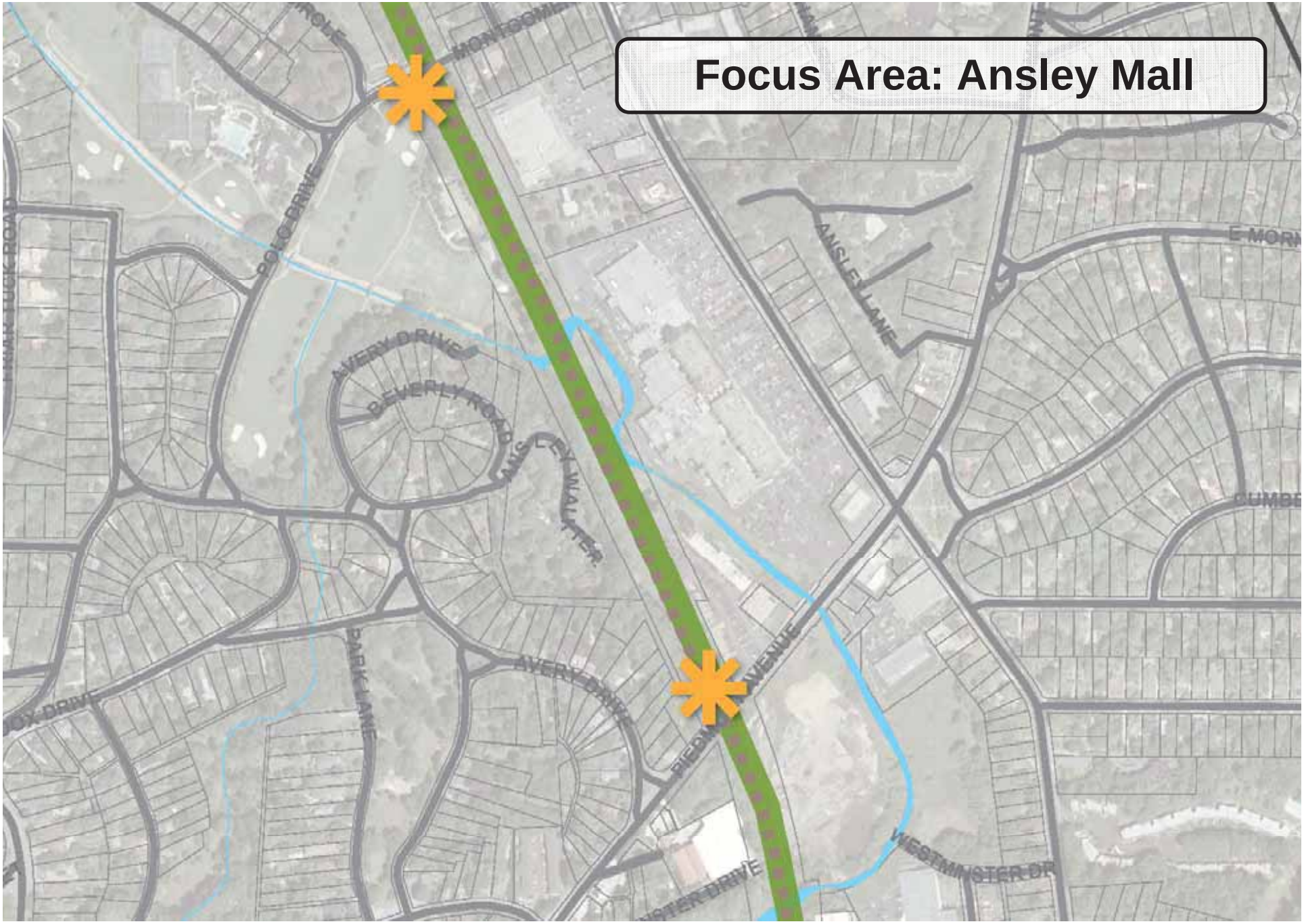


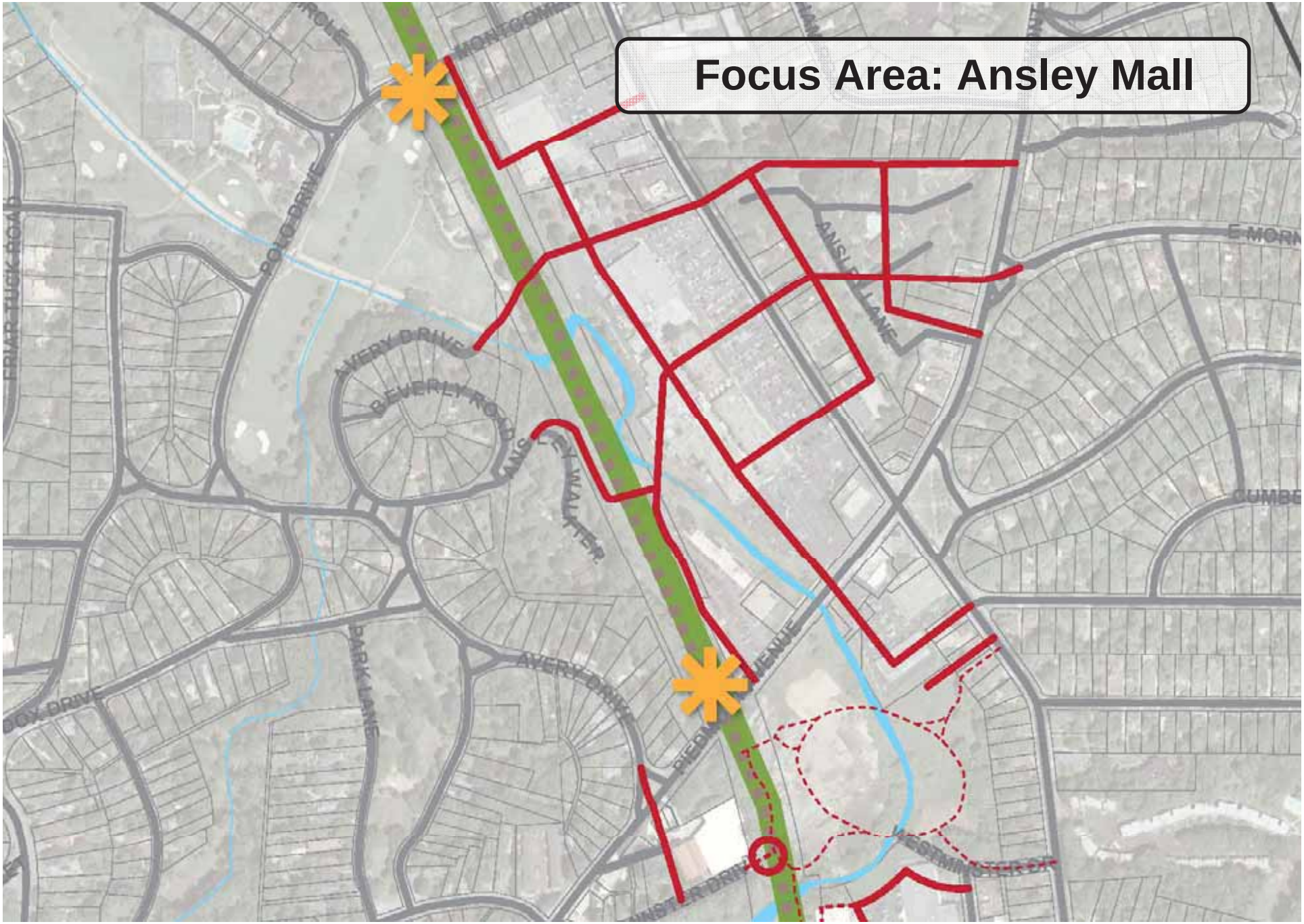


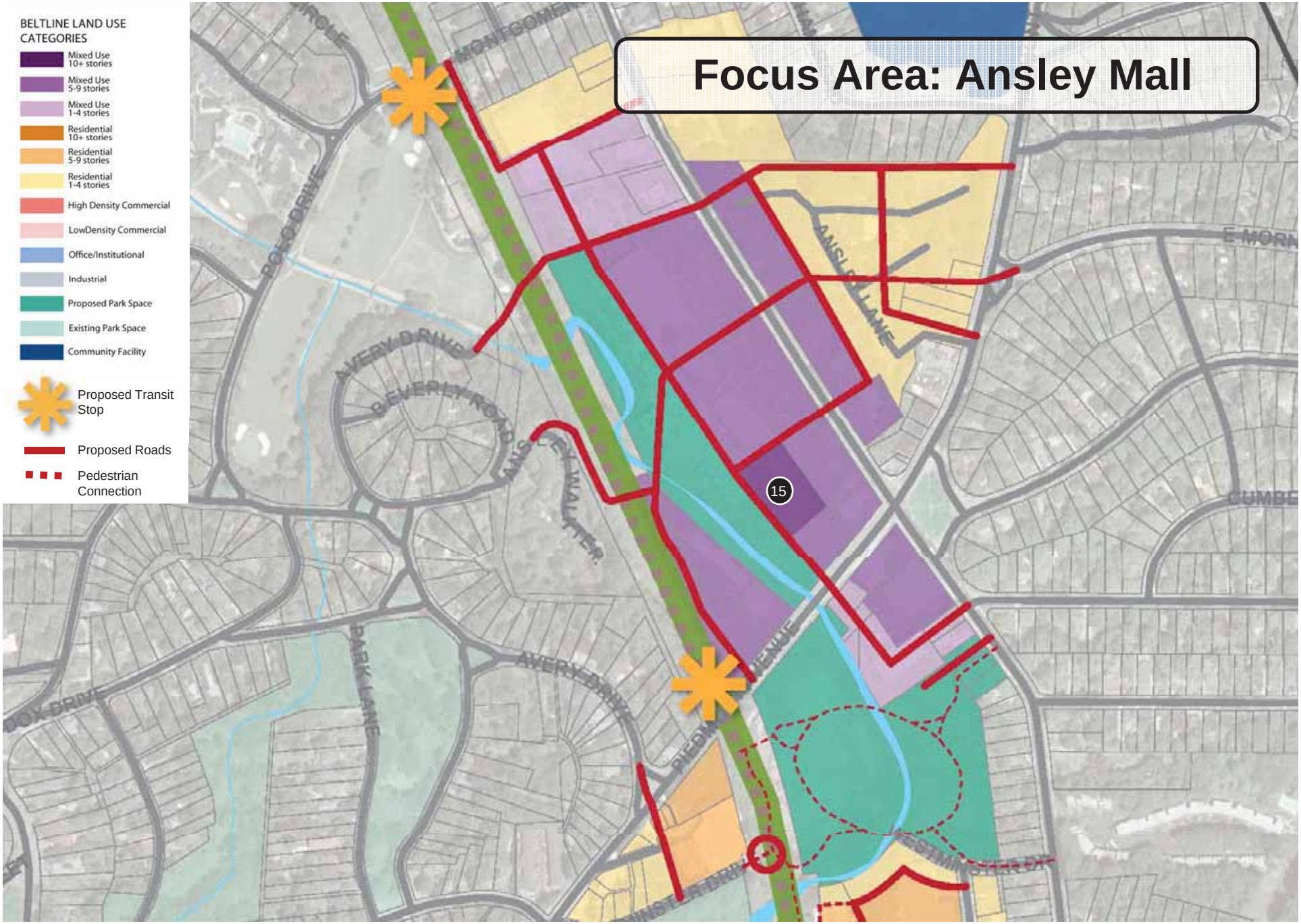







Focus Area: Ansley Mall
POLO DRIVE
MONTGOMERY
AVERY DRIVE
BEVERLY ROAD
ANSLEY LANE
E MORN
AVERY DRIVE
PIEDMONT AVENUE
WESTMINSTER DR


Focus Area: Ansley Mall
POLO DRIVE
AVERY DRIVE
BEVERLY ROAD
ANSLEY WALK
PARK LANE
AVERY DRIVE
ANSLEY LANE


Focus Area: Ansley Mall
BELTLINE LAND USE CATEGORIES
Mixed Use 10+ stories
Mixed Use 5-9 stories
Mixed Use 1-4 stories
Residential 10+ stories
Residential 5-9 stories
Residential 1-4 stories
High Density Commercial
LowDensity Commercial
Office/Institutional
Industrial
Proposed Park Space
Existing Park Space
Community Facility
Proposed Transit Stop
Proposed Roads
Pedestrian Connection
15
AVERY DRIVE
PARK LANE



BeltLine
Atlanta Connected








Focus Area: Amsterdam Walk
WESTMINSTER DRIVE
DUTCH VALLEY ROAD
EVELYN STREET
AMSTERDAM AVENUE
MONROE DRIVE
ELMWOOD DRIVE


Focus Area: Amsterdam Walk
AMSTERDAM AVENUE
EVELYN STREET
MONROE DRIVE
ELMWOOD DRIVE

Focus Area: Amsterdam Walk



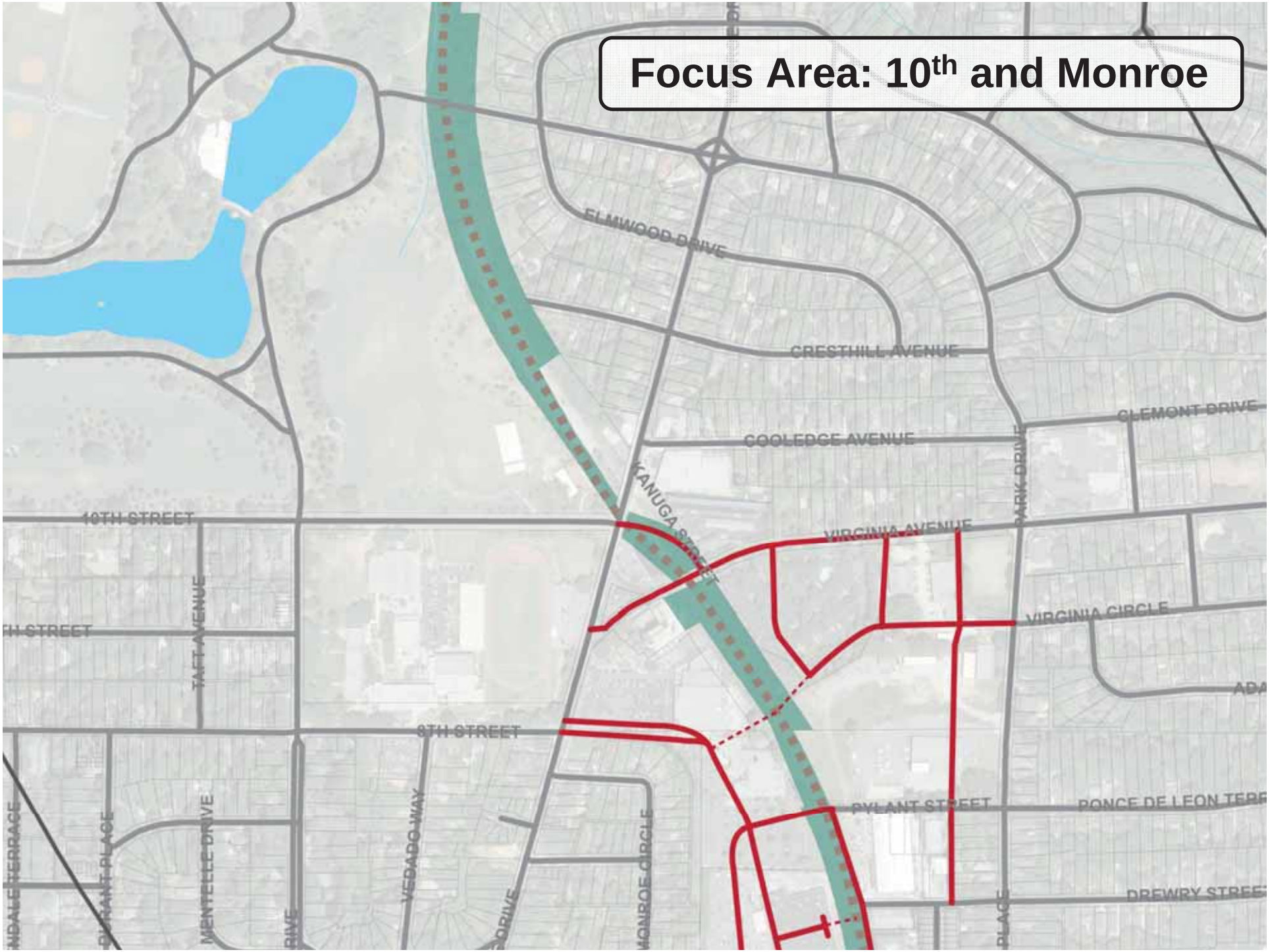


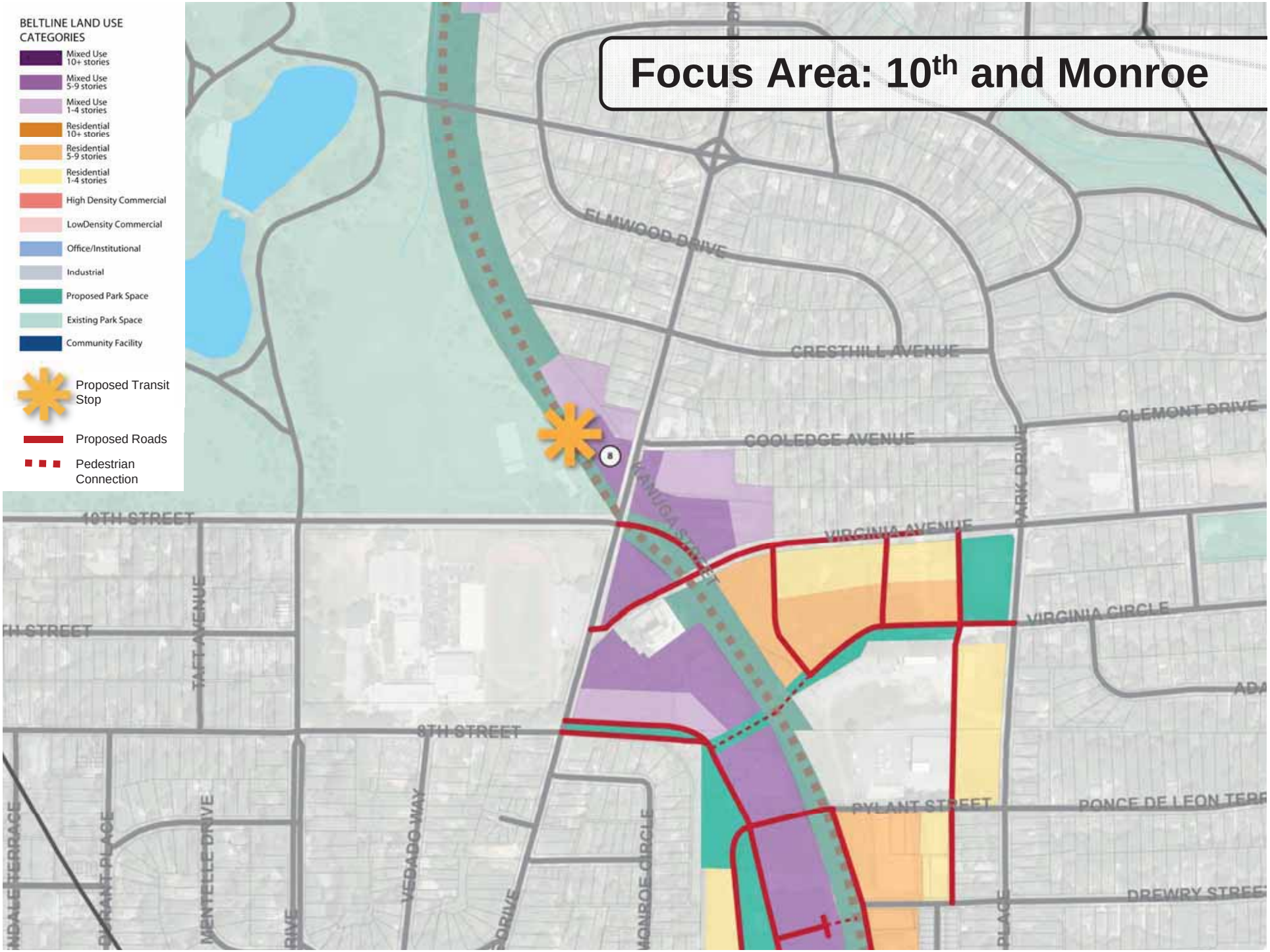







Focus Area: 10th and Monroe
ELMWOOD DRIVE
CRESTHILL AVENUE
CLEMONT DRIVE
COOLEDGE AVENUE
PARK DRIVE
10TH STREET
VIRGINIA AVENUE
KANUGA STREET
9TH STREET
TAFT AVENUE
VIRGINIA CIRCLE
8TH STREET
PYLANT STREET
PONCE DE LEON TERR
VERADO WAY
MONROE CIRCLE
DREWRY STREET


Focus Area: 10th and Monroe
ELMWOOD DRIVE
CRESTHILL AVENUE
CLEMONT DRIVE
COOLEDGE AVENUE
PARK DRIVE
KANUGA STREET
10TH STREET
VIRGINIA AVENUE
VIRGINIA CIRCLE
TAFT AVENUE
9TH STREET
VEDADO WAY
MONROE CIRCLE
PYLANT STREET
PONCE DE LEON TERR
DREWRY STREET


Focus Area: 10th and Monroe
BELTLINE LAND USE CATEGORIES
Mixed Use 10+ stories
Mixed Use 5-9 stories
Mixed Use 1-4 stories
Residential 10+ stories
Residential 5-9 stories
Residential 1-4 stories
High Density Commercial
LowDensity Commercial
Office/Institutional
Industrial
Proposed Park Space
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Proposed Roads
Pedestrian Connection
ELMWOOD DRIVE
CRESTHILL AVENUE
COOLEDGE AVENUE
CLEMONT DRIVE
PARK DRIVE
VIRGINIA AVENUE
VIRGINIA CIRCLE
10TH STREET
TAFT AVENUE
8TH STREET
PYLANT STREET
DREWRY STREET
VEDADO WAY
MONROE CIRCLE



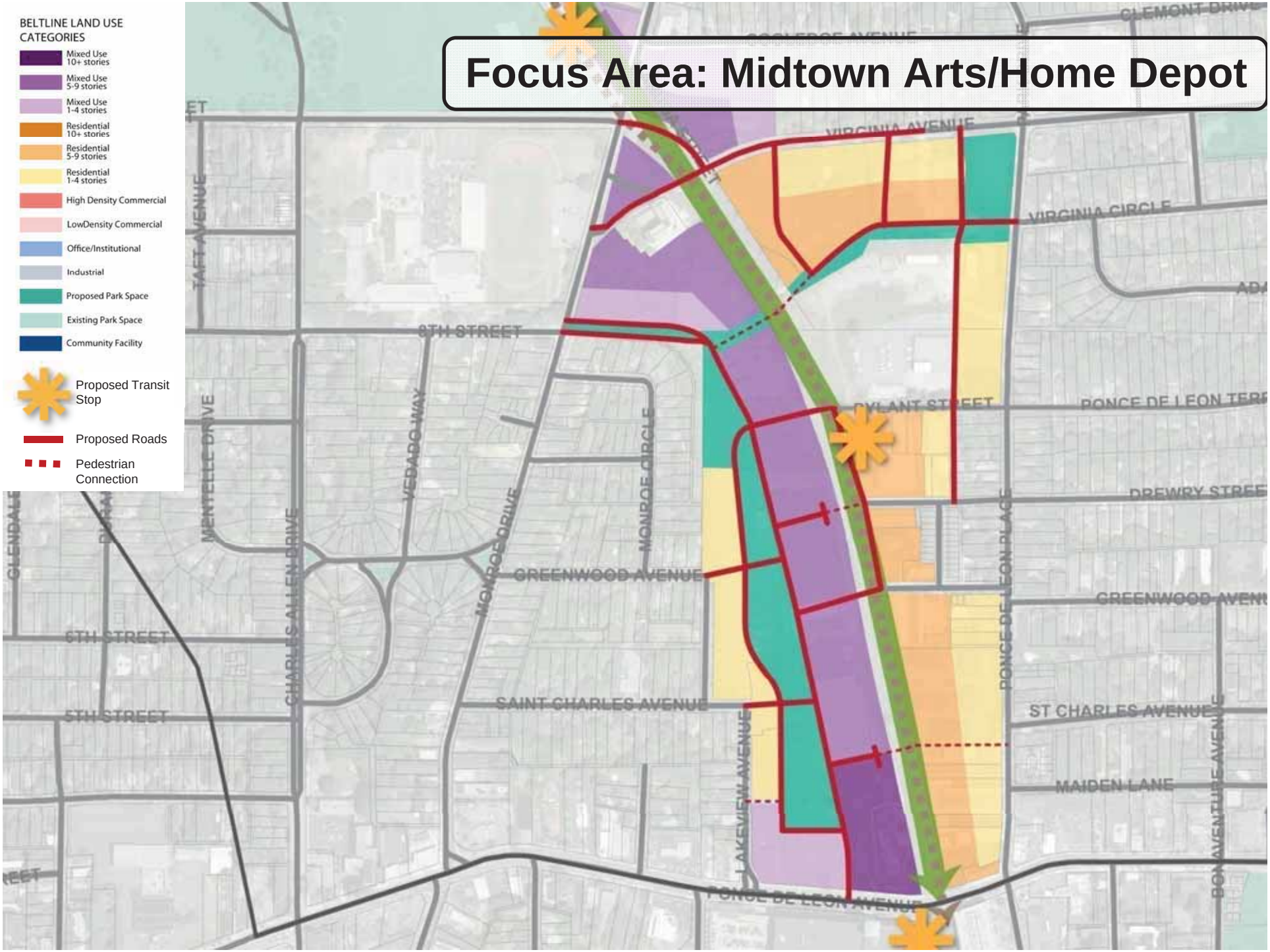

Gresham






Focus Area: Midtown Arts/Home Depot
10TH STREET
9TH STREET
8TH STREET
7TH STREET
6TH STREET
5TH STREET
VIRGINIA AVENUE
VIRGINIA CIRCLE
PYLANT STREET
DREWRY STREET
GREENWOOD AVENUE
SAINT CHARLES AVENUE
ST CHARLES AVENUE
MAIDEN LANE
PONCE DE LEON AVENUE
TAFT AVENUE
GLENDALE TERRACE
BURNHAM PLACE
MENTELLE DRIVE
CHARLES ALLEN DRIVE
VERADO WAY
MONROE DRIVE
MONROE CIRCLE
LAKEVIEW AVENUE
PONCE DE LEON PLACE


Focus Area: Midtown Arts/Home Depot
10TH STREET
9TH STREET
8TH STREET
6TH STREET
5TH STREET
TAFT AVENUE
GLENDALE TERRACE
DURANT PLACE
MENTELLE DRIVE
CHARLES ALLEN DRIVE
VEDADO WAY
MONROE DRIVE
MONROE CIRCLE
GREENWOOD AVENUE
SAINT CHARLES AVENUE
LAKEVIEW AVENUE
VIRGINIA AVENUE
VIRGINIA CIRCLE
CLEMONT DRIVE
PONCE DE LEON TERR
DREWRY STREET
PONCE DE LEON PLACE
GREENWOOD AVENU
ST CHARLES AVENUE
MAIDEN LANE
PONCE DE LEON AVENUE


Focus Area: Midtown Arts/Home Depot
BELTLINE LAND USE CATEGORIES
Mixed Use 10+ stories
Mixed Use 5-9 stories
Mixed Use 1-4 stories
Residential 10+ stories
Residential 5-9 stories
Residential 1-4 stories
High Density Commercial
LowDensity Commercial
Office/Institutional
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Proposed Park Space
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Community Facility
Proposed Transit Stop
Proposed Roads
Pedestrian Connection
VIRGINIA AVENUE
VIRGINIA CIRCLE
8TH STREET
TAFT AVENUE
MENTELLE DRIVE
VEDADO WAY
MONROE DRIVE
MONROE CIRCLE
CHARLES ALLEN DRIVE
GREENWOOD AVENUE
6TH STREET
5TH STREET
SAINT CHARLES AVENUE
LAKEVIEW AVENUE
PONCE DE LEON PLACE
DREWRY STREET
ST CHARLES AVENUE
MAIDEN LANE
PONCE DE LEON AVENUE













Additional Greenspace Opportunities

- Monroe Crescent
  - Enhance Gotham Park and connect with linear park/ streetscape to BeltLine
- Ansley Mall/ Amsterdam Walk
  - New park to improve and protect Clear Creek
  - Piedmont Park expansion
- 10th and Monroe
  - Connect existing parks with pedestrian-friendly streetscape
- Midtown Arts/ Home Depot
  - New linear park to improve stormwater collection, and buffer existing neighborhood

Goals for Sub-area 6

Mobility and Transit:

- Maximize accessibility to BeltLine
- Utilize ‘complete streets’ and promote pedestrian / bicycle circulation and safety
- Provide appropriate connectivity across BeltLine and other constraints
- Mitigate traffic impacts of development









Complete Street









Proposed BeltLine Transit Stop Locations

BeltLine
Atlanta Connected

- (Armour Yard)
- Piedmont Heights- potential
- Ansley Mall
- Amsterdam Walk
- Monroe at Virginia Avenue
- Plyant Street- potential
- (City Hall East)

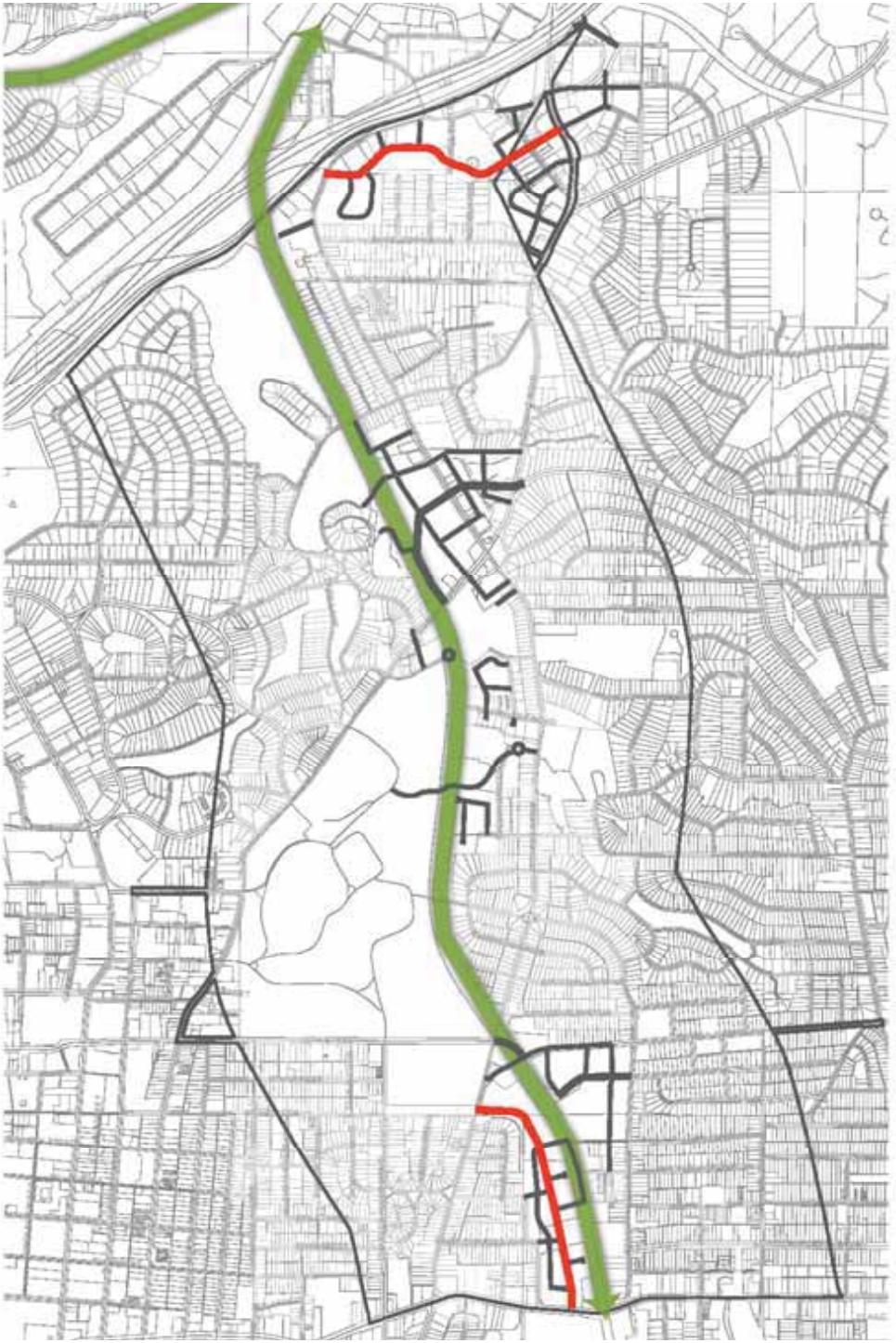




BeltLine Trail and On-Street Bike Connectivity

- Core Bicycle Routes:
  - Piedmont Avenue
  - 10th Street to Monroe
  - Charles Allen Drive
- Secondary Bicycle Routes:
  - Montgomery Ferry from Piedmont to Beverly Road
  - East Morningside/ East Rock Springs Road (connects to Emory)
  - Monroe from Piedmont to 10th Street
  - Peachtree Circle/ 15th Street (Existing)
  - Virginia Avenue from North Highland to 10th Street
  - North Highland Avenue
  - Ponce de Leon Avenue
- Major Bike/ BeltLine Trail connections at Ansley Mall and Piedmont Park
- Secondary Route on Monroe Drive duplicates BeltLine Trail

Source: Connect Atlanta Plan



Street Types

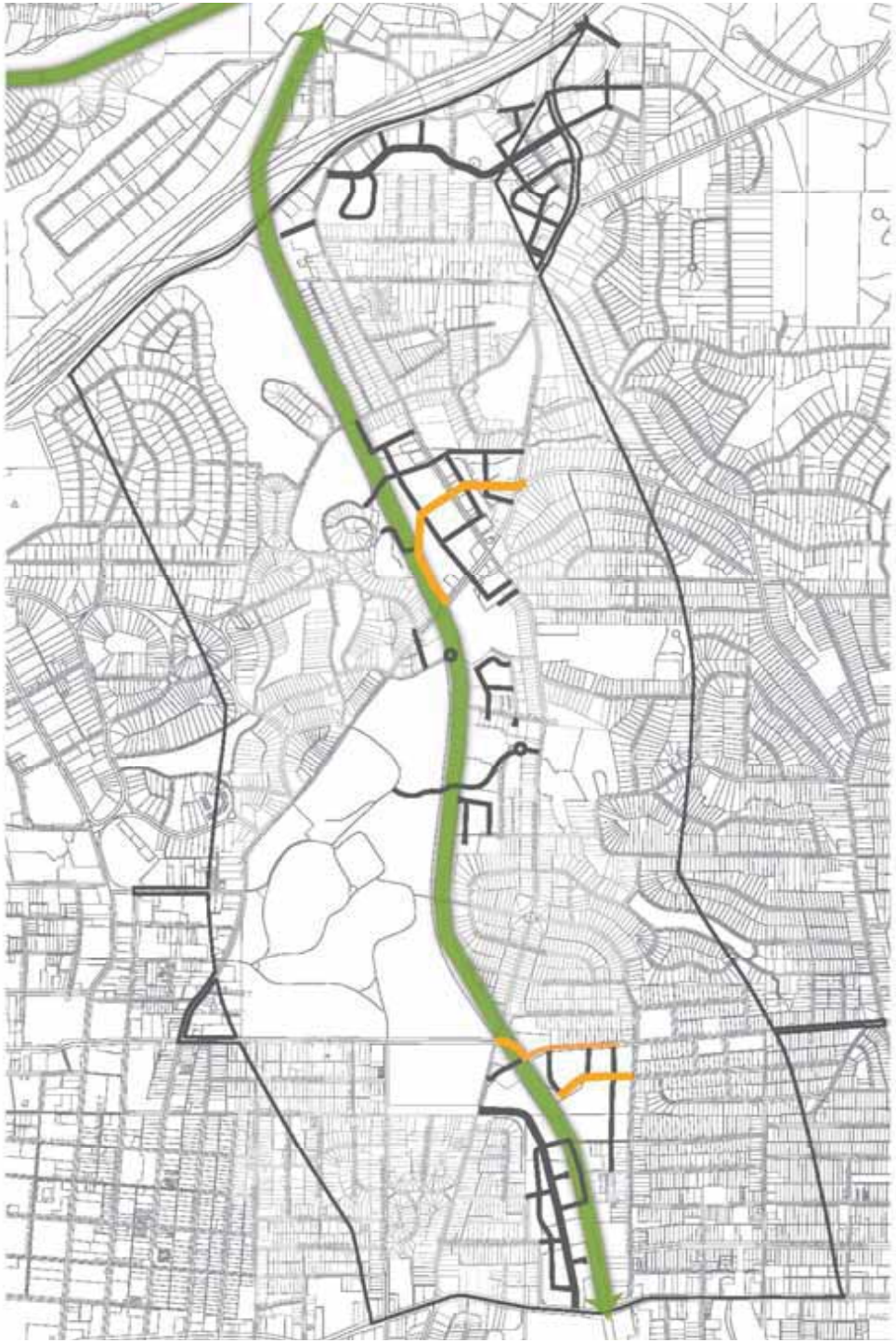
Boulevard

- Gotham Park Drive (new road)
- 8th Street Extension (new road)

Boulevard/ Mixed Use Street Type



Three street types for new and redeveloped streets appropriate in Subarea 6:



Street Types

Avenue

- Ansley Mall new street
- Kanuga Street realignment
- Virginia Circle Extension: Grady H.S./ Inman M.S. connection

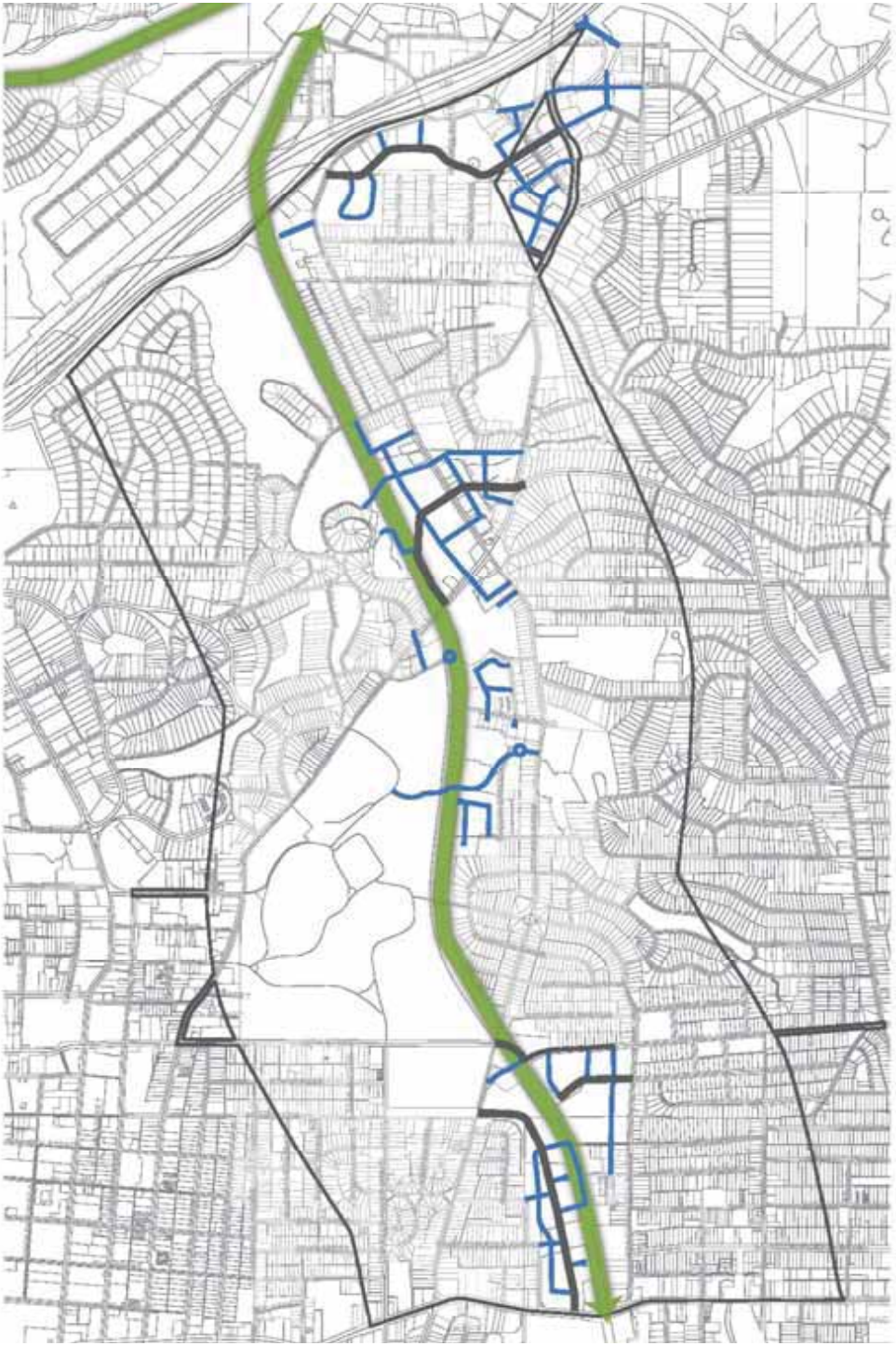
On-street bicycle lanes

- Connect city-wide bicycle routes to BeltLine Trail
- Connects major bicycle routes together
- Provides safe bicycle connection between Grady H.S. and Inman M.S.

Avenue/ Residential Street Type



Three street types for new and redeveloped streets appropriate in Subarea 6:



Street Types

Street

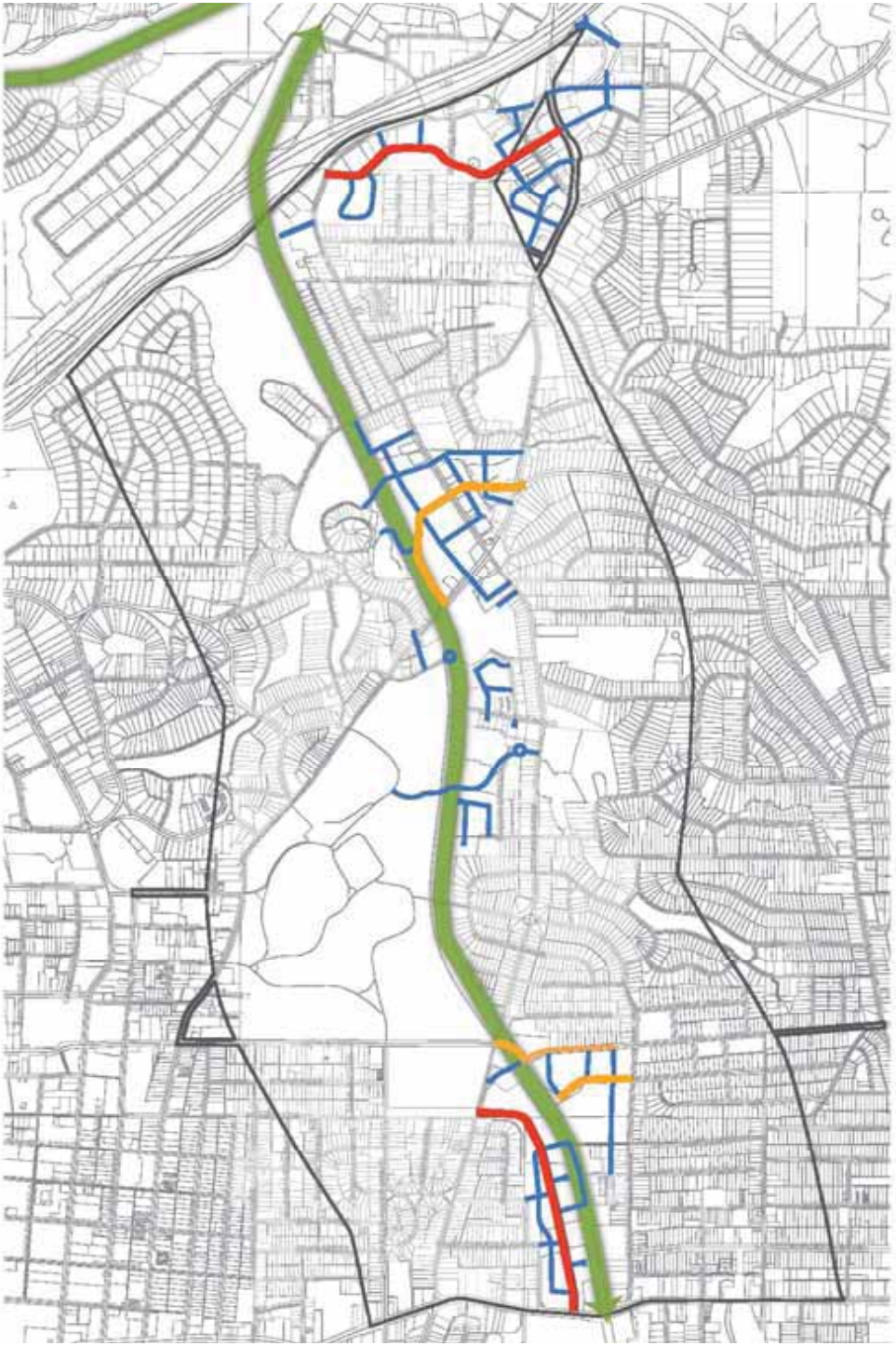
- All other new and upgraded streets in the study area

Street/ Multi-Family Street Type



Three street types for new and redeveloped streets appropriate in Subarea 6:

Boulevard/ Mixed Use **Avenue/ Residential** **Street/ Multi-family**



Street Framework Plan- Overall

Boulevard

Avenue

Street







Mobility Analysis

5 scenarios were modeled

- 2009 Existing Conditions
- 2020
  - Best Case – BeltLine transit is in place, 50% of BeltLine redevelopment has occurred
  - Build, No Transit - BeltLine transit has not been built, but 50% of BeltLine redevelopment has occurred
- 2030
  - Best Case - BeltLine redevelopment is completely built out
  - Build, No Transit - BeltLine redevelopment is completely built out





Big Move- Monroe Crescent

1. New road connecting Monroe Drive to Piedmont Road
   - Complete Street with bike lanes and wide sidewalks
   - Improve pedestrian circulation and safety
2. Alignment of Monroe Drive with Liddell Drive extension on east side of Piedmont Road
3. Realignment of existing streets
   - Clean up piecemeal alignment of Piedmont Circle and Monroe Drive.
4. Intersection project at Piedmont Circle and Piedmont
   - Add short right-turn lane
5. Supports Connect Atlanta recommendation for new ramp configuration outside study area



Big Move-
Piedmont Avenue at Monroe



1. Complete streets improves bicycle and pedestrian circulation and safety
2. New Ansley Mall Avenue aligns with E. Morningside Drive
   - Distributes congestion at Monroe/Piedmont
   - Connects city bike route to BeltLine trail
3. Piedmont/ Monroe intersection
   - Looked at dual southbound lefts from Piedmont onto Monroe
   - Recommend lengthening existing left turn lane instead

- Support Connect Atlanta recommendation to convert Piedmont Avenue to two-way south of 14th Street.
  - Insignificant impact in study area

Ongoing Analysis - Monroe Drive



Alternate 1



Alternate 2

- 3-lane cross-section Monroe Drive from Piedmont Avenue to 10th Street
  - Center turn lane
  - Bike lanes OR Wider Sidewalks
- Bikes can be served by BeltLine trail, which is parallel to Monroe Drive at this point
  - Utilize right-of-way for wider sidewalk improvements
- Safety improvements result
  - Slower speeds along corridor
  - Improved pedestrian experience and safety
  - Central turn lane frees up lanes for through-traffic

Ongoing Analysis - 10th / Monroe/ Virginia Ave



Alternates Considered N



Alternates Considered (Connect Atlanta Plan)

- Consider pedestrian and transit improvements at intersection
- Connect Atlanta Recommendation:
  - Align 10th with Virginia Avenue
  - Trail crosses at Kanuga St.
- OR Realign Kanuga to 10th Street
  - Move transit and trail to cross intersection at diagonal
  - Add 'scramble' phase
  - Fewer pedestrian conflicts
  - Add northbound left turn lane from Monroe to 10th Street
  - Reduces encroachment to Grady
- Coordinating with EIS effort

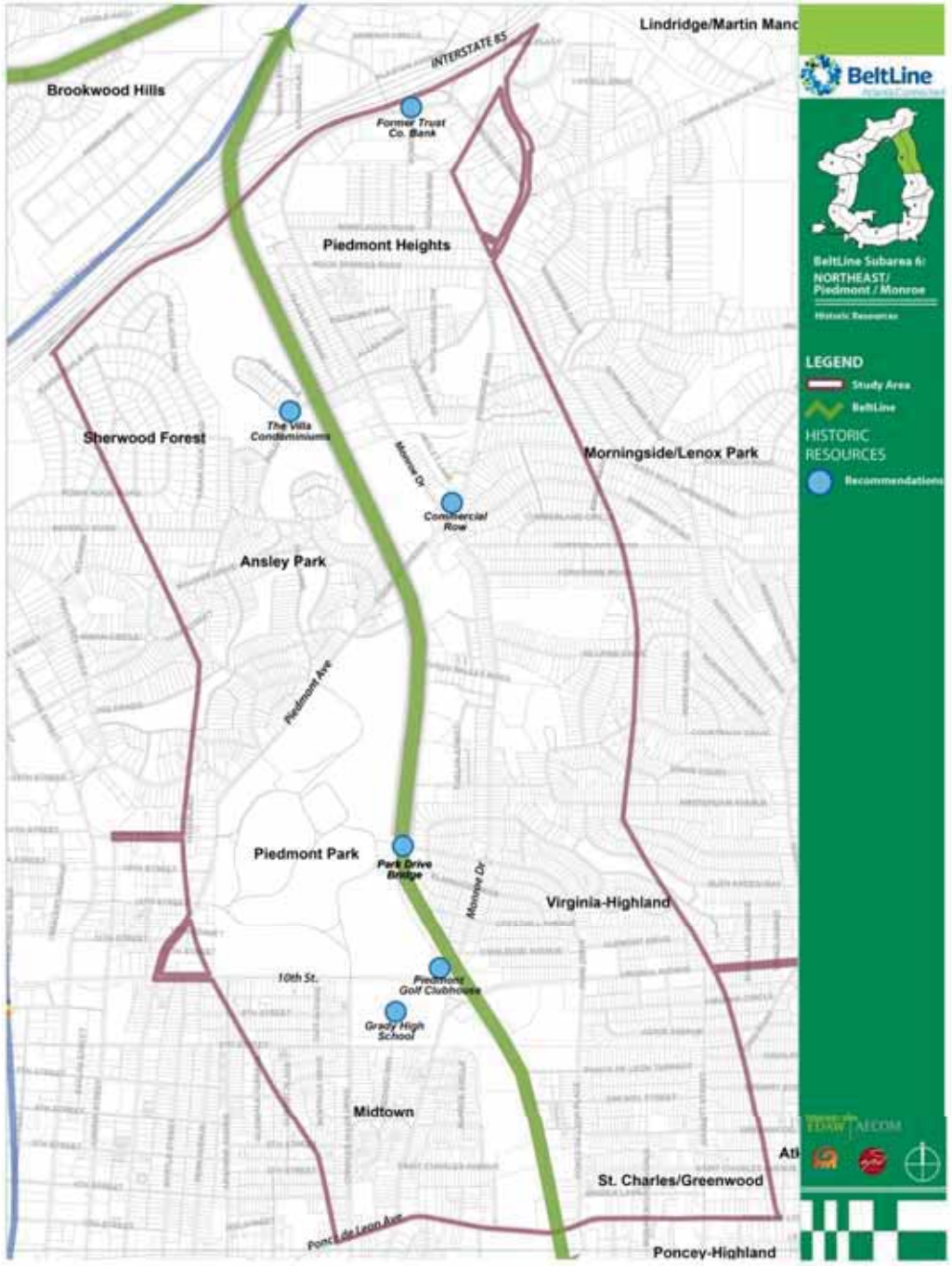




Big Move- 8th Street Extension

BeltLine
Atlanta Connected

1. Direct pedestrian route between Grady HS and Inman MS
2. New boulevard extending 8th Street to Ponce de Leon Avenue
   - Complete street improves pedestrian and bicycle circulation and safety
   - Relieves some congestion at Monroe/ Ponce de Leon
3. Indirect street connection across BeltLine
4. Intersection project at Ponce and Monroe
   - Add southbound right turn lane (SA5)



Historic Resources

BeltLine
Atlanta Connected

- National Register Districts
  - Ansley Park
  - Piedmont Park
  - Midtown
  - Virginia Highland
- National Register Structures
  - Rock Springs Presbyterian
  - Habersham Memorial Hall
  - Wilburn House
- Potential UDC Designation
  - Former Trust Co. Bank
  - The Villa Condominium
  - Commercial Row-Monroe/Piedmont
  - Park Drive Bridge
  - Piedmont Golf Clubhouse
  - Grady High School



BeltLine
Atlanta Connected

Existing Public Art



Noguchi Children's Park



Free Mandela

Public Art Opportunities

Public art opportunities:

System wide

creates a sense of continuity throughout corridor

Temporary/Portable Art

artwork for current or special events

Site-Specific, Permanent Installations

sculptures, murals

neighborhood specific

Infrastructure-based

overpasses, sidewalks, streetscapes, bridges

Functional objects

drinking fountains, bike racks, benches, lighting, transit shelters, signs







Public Art Opportunities













Public Art Opportunities

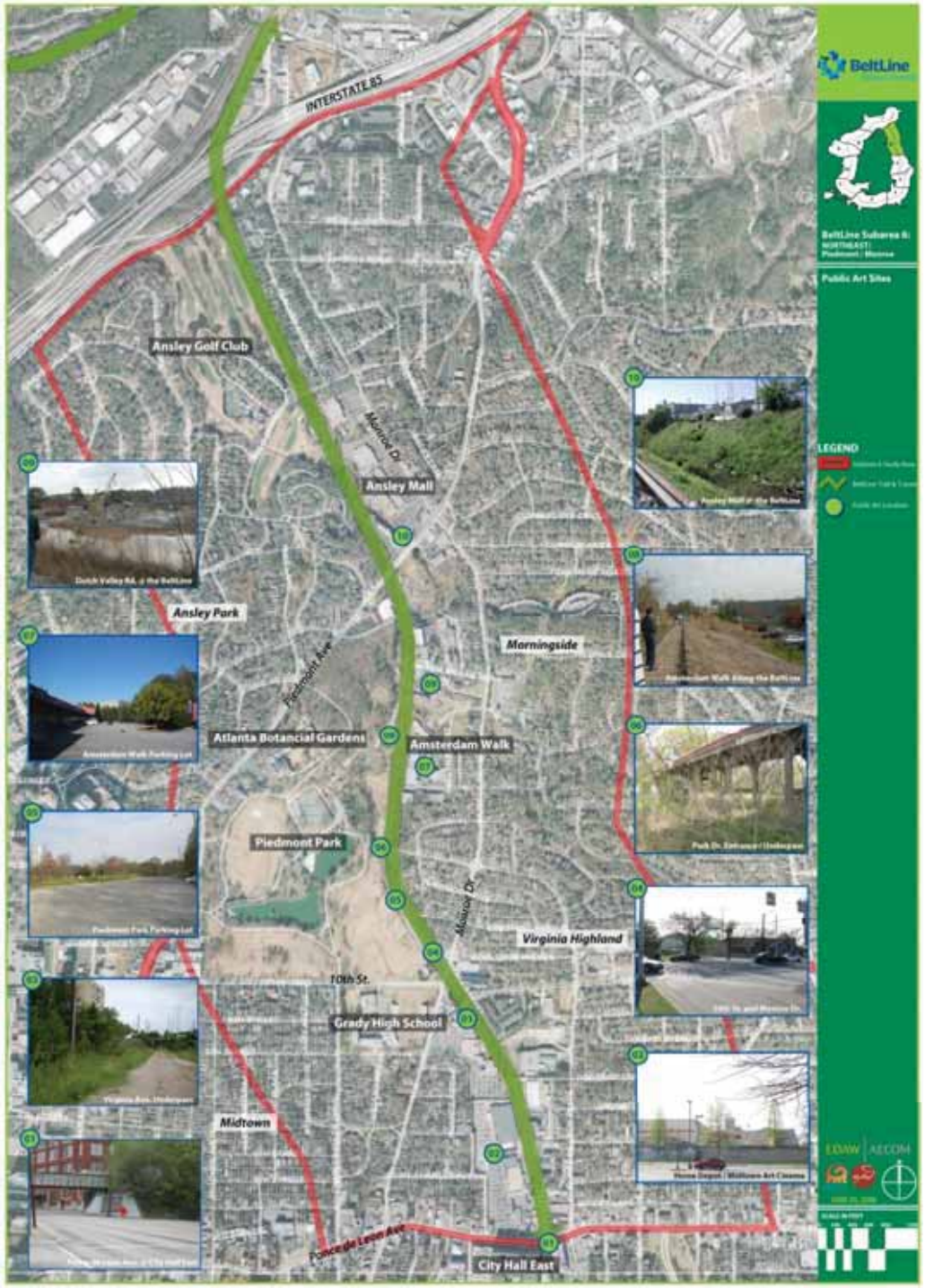












Public Art Opportunities

BeltLine
Atlanta Connected

Consideration factors:

- Highly trafficked area (major road or trail)
- Easily visible/ accessible to public
- Anchor and activate site
- Enhance public realm
- Creates a place of congregation or activity
- Landmarks and gateways
- Wayfinding

Public Art Opportunities



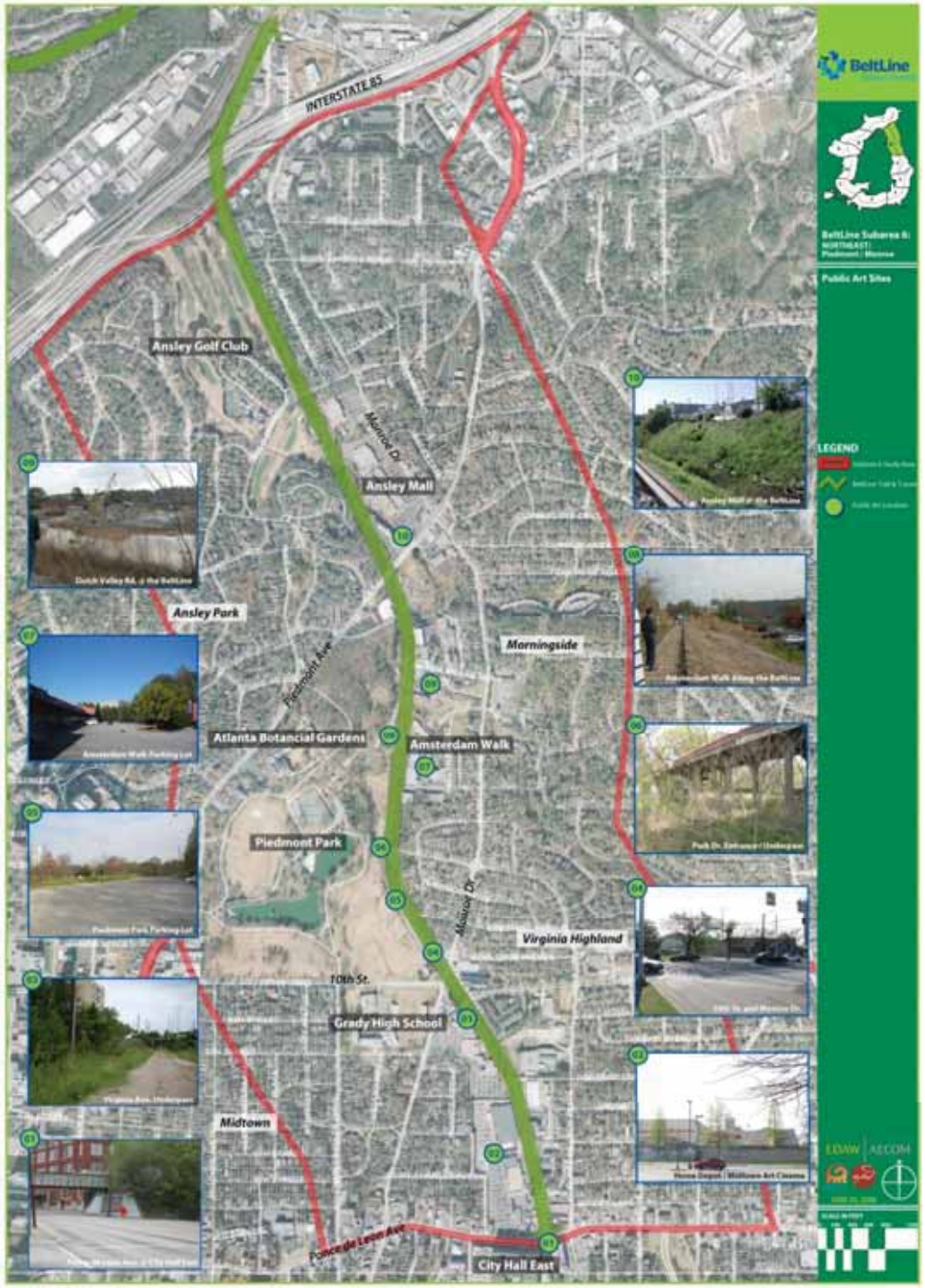








Public Art Opportunities





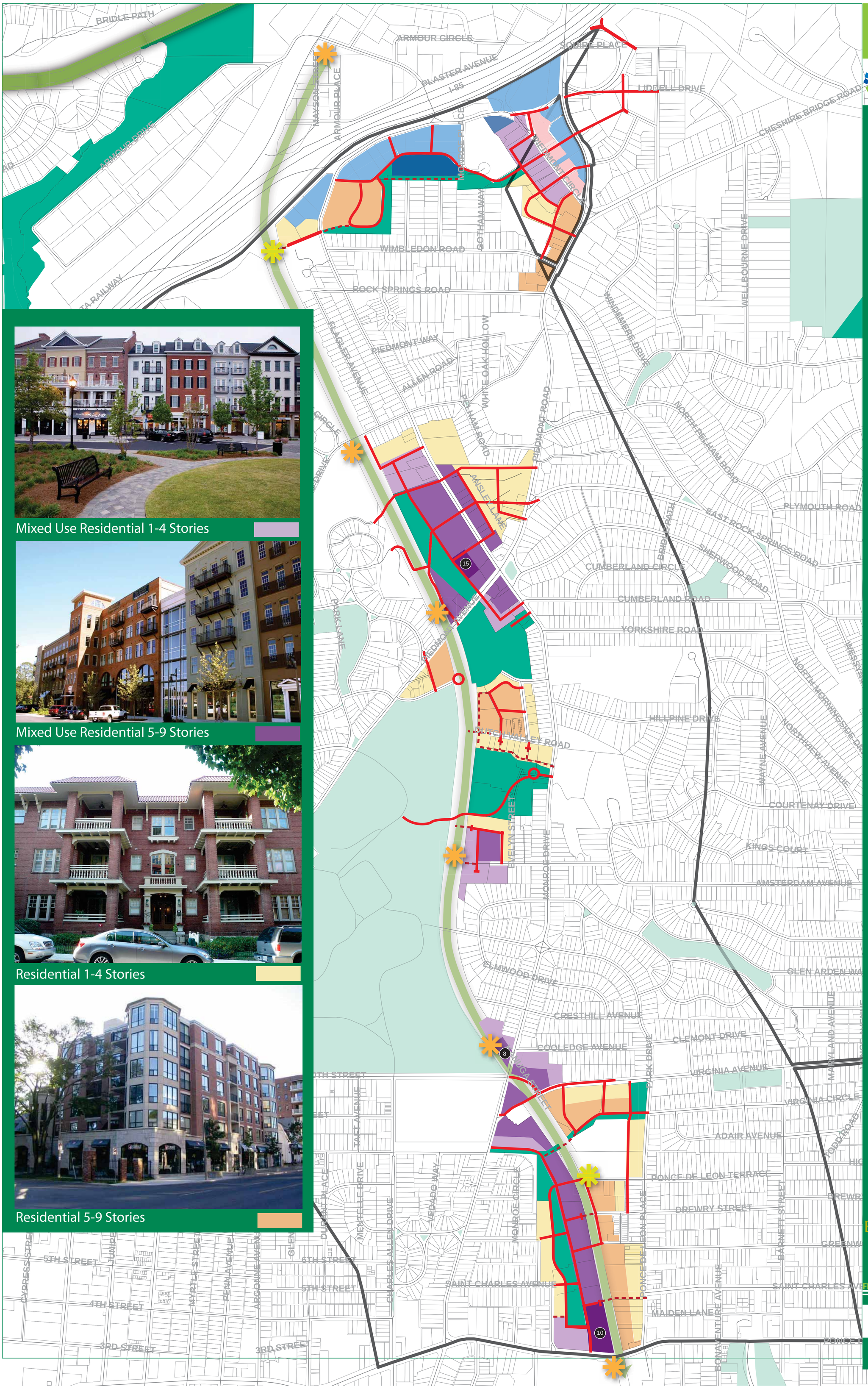
Creek/
Greenspace



Development
Sites



Trail/
Structures



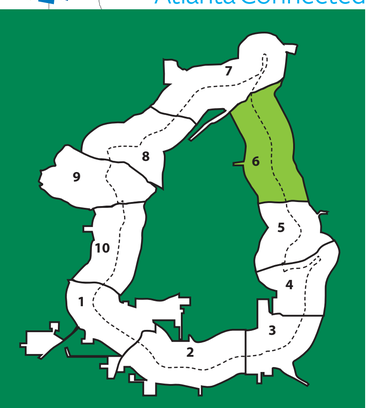
Mixed Use Residential 1-4 Stories

Mixed Use Residential 5-9 Stories

Residential 1-4 Stories

Residential 5-9 Stories

BeltLine
Atlanta Connected



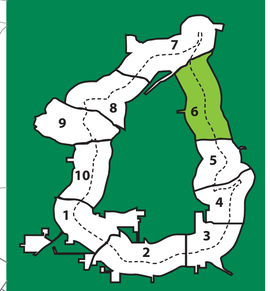
BeltLine Subarea 6: NORTHEAST/ Piedmont / Monroe

FUTURE LAND USE

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BeltLine Subarea 6:
NORTHEAST/ Piedmont / Monroe

Existing Zoning

Arts Center MARTA Station

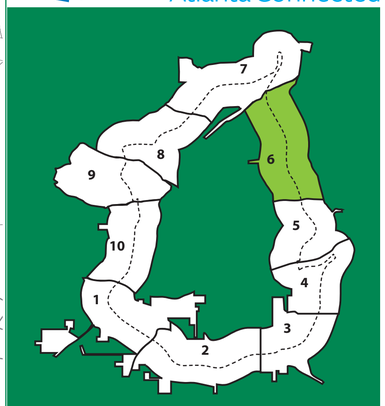
Midtown MARTA Station

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JUNE 09, 2008

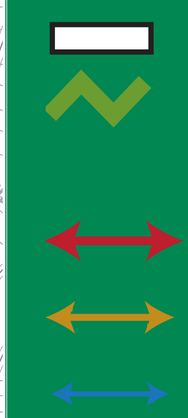
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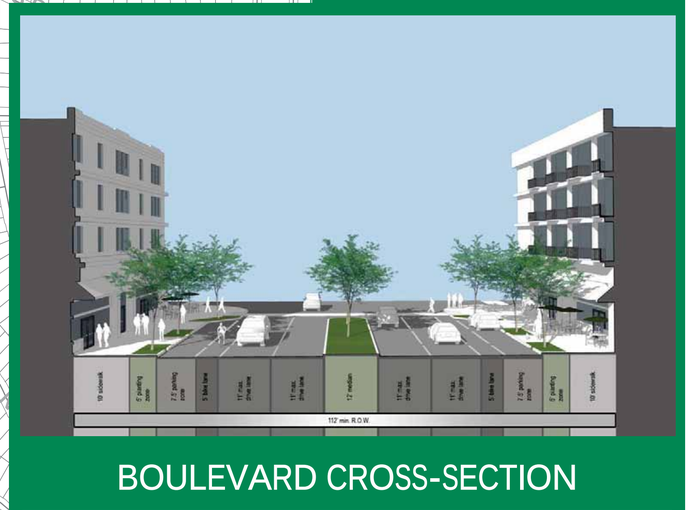
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STREET FRAMEWORK





BOULEVARD CROSS-SECTION



AVENUE CROSS-SECTION

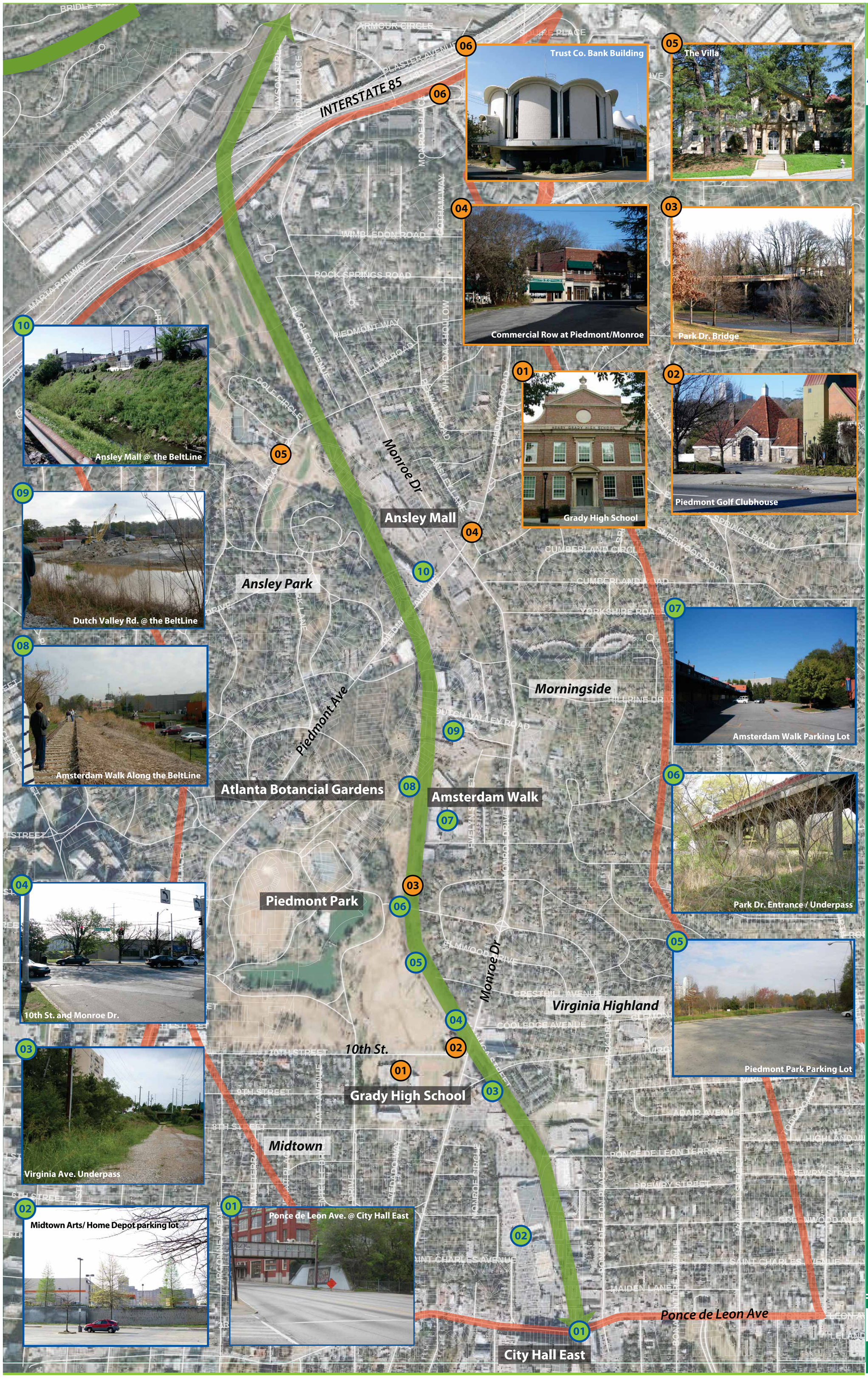


STREET CROSS-SECTION

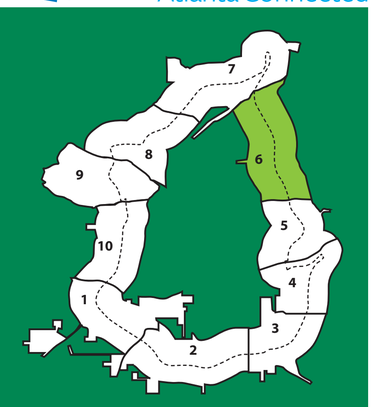
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BeltLine Subarea 6: NORTHEAST/ Piedmont / Monroe

CULTURAL RESOURCES RECOMMENDATIONS

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FEBRUARY 2009

Agenda
Northeast Study Group
September 11, 2008; 6:30pm
Hillside, 690 Courtenay Dr NE, Atlanta, Ga 30306

1. Introductions & BeltLine Update – 10 mins
2. Project Management Update – 10 mins
3. Presentation of Concept Plans – 20 mins
4. Participant Review and Comment on the Concept Plans – 60 mins
5. Wrap-Up and Next Steps – 10 mins

The next Study Group Meeting will be held on October 9th at Hillside starting at 6:30pm

For questions or additional information, please contact:

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NORTHEAST STUDY GROUP TEAM

Community Engagement Advocate

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Study Group Coordinators

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Gabriel Charvat	beltlinenortheast@gmail.com

Subarea 6 – Monroe-Piedmont Master Planning Team

Project Manager **Deputy Project Manager**	Jonathan Lewis jlewis@atlantaga.gov Shawn Kendrick skendrick@atlantaga.gov
Lead Consultant	EDAW, Inc.
Steering Committee Members *This committee serves as a **planning committee** with broad community representation by stakeholders that help guide the master planning process by ensuring plans reflect the values & aspirations of the Study Group at large. This committee will be disbanded upon completion of the master planning process.*	Cary Aiken, Morningside Community Saundra Altekruse, Virginia Hill Condos Jimmy Barry, Joint Venture (Barry Realty) Steve Brodie, Midtown Neighbors Association Jo Ann Chitty, Selig Enterprises Cary Halpern, Halpern Enterprises, Project Mgr. for Amsterdam Walk Ron Horgan, Ansley Golf Club Trisha Kendall, Grady High School Randal Lautsenheizer, Midtown Resident Yvette Bowden, Piedmont Park Conservancy Megan Missett, BeltLine Neighbors Coalition Elaine Murphy, Piedmont Heights Civic Association John Peak, Virginia Highland Civic Association Shannon Powell, Midtown Alliance Tom Puett, Clear Creek Commercial Development Walt Ray, Park Pride K.C. Boyce, Joint Venture (ABI) Jim Winer, Ansley Park Neighborhood Representative

Northeast Study Group Meeting
Sept. 11, 2008 - 6:30 p.m.

Agenda Items Covered:

1. 1 Introductions & BeltLine Update – 10 mins
2. Project Management Update – 10 mins
3. Presentation of Concept Plans – 20 mins
4. Participant Review and Comment on the Concept Plans – 60 mins
5. Wrap-Up and Next Steps – 10 mins

The meeting began with opening remarks by Rukiya Eaddy. Eaddy welcomed those in attendance and reviewed the agenda for the evening.

Eaddy then went through the different handouts distributed to those in attendance. The handouts included an agenda, EIS flyer, Planning Committee Team Flyer and a comment card for the concept plans that were to be presented. Lastly, Eaddy stated that Gabriel Charvant would be relinquishing his role as Northeast Study Group Coordinator, and that Atlanta BeltLine Inc. is actively looking for replacements. Those interested should contact Eaddy.

Rukiya Eaddy then introduced Jonathan Lewis who serves at the Project Manager for the Subarea 6 BeltLine Master Plan. Lewis introduced the BeltLine Master Planning process for Subarea 6. In this introduction, Lewis stated that the study started last December, and was on track to finish up in December of this year. Lewis stated that the BeltLine had been broken up into ten different subareas for the purposes of master planning. The master plan includes planning for land use, circulation, greenspaces, public art, historic preservation, and urban design. It was also clarified that the master plan is not slated to handle planning for the transit portion of the Atlanta BeltLine. The MARTA/BeltLine EIS (Environmental Impact Statement) would focus on the transit planning, due to the depth of work required for such a study.

After introducing the planning process, Lewis gave a process update regarding the Subarea 6 Master Plan. Lewis stated that the plan was currently at the concept plan phase, which is a step shy of the draft plan phase. The concept phase is designed for public input to shape the draft plan, and that was the purpose of the meeting this evening.

Q: So are we only looking to tell you where we do and do not want development?
A: No, we are here to focus on the streets which would provide better overall connectivity through the planning area, as well as land use intensities. None of these maps on the wall are final, we are here to gather input from you all on what you do and do not like about each of the concepts.

Q: If we do not want new development, then we don't need new street, right?
A: No, the BeltLine is also looking at investments into public infrastructure, which would make the communities more viable. The subarea has quite a few super blocks, and we are trying to mend the urban fabric of this area.

After Lewis fielded these two questions Barbara Faga of EDAW took over and walked the group through the two concept plans. Faga stated that the concept plans were following the set of guiding principles set forth by the community. These principles included building density near transit stations, respecting the existing neighborhoods and promoting transit, walkability and cycling throughout the subarea.

Faga then pointed out to community residents and stakeholders that there are multiple stations to provide input to the staff members of EDAW and Atlanta BeltLine Inc. She also requested that each member of the community in attendance fill out a comment card before they left in order to keep a record of what the community saw as pros and cons of each of the concept plans.

At this point Faga reviewed the Lego exercise that was held at the Study Group Meeting on July 18th. The results of this exercise can be found using the following link:

Lego Exercise Notes

Statement: We here a lot about density and we need to understand it better. For example, the new Gables project on Monroe is 80 units per acre.

A: Industry standard is for a gross density of 10-15 dwelling units per acre, within a half mile of the transit stops. We just want to fall within the industry standards for light rail transit.

Q: How much are we putting into the Lego exercise? Does it drive anything?
A: It drives the plan; we have already taken concepts from the Lego exercise and incorporated them into the concept plans.

Q: Is the roundabout shown on the concept plans a multi-lane roundabout, and if so, will it be signalized? If your round-a-bout is a multilane, that is going to be an issue for pedestrian safety. I do not know of any multilane round-a-bout that has adequate pedestrian safety.

A: The roundabout would likely need to be multi-lane. These are just concept plans, the details will come later, but improving pedestrian safety and mobility is one of the goals of this study.

Q: Does this map show that the current zoning would allow for the continuation of surrounding neighborhoods into the park?
A: Yes

Q: Does this plan compete against the planned park expansion?
A: No. We are working with the planned expansion of Piedmont Park.

Q: Why is the road that services the planned parking garage for Piedmont Park not shown on the map?
A: It is currently planned to be a driveway, and not a road.

Q: Does this map show development at 10th and Monroe?
A: Yes, one of the concept maps shows a development next to Park Tavern, fronting Monroe, where the doggy day care currently sits.

Following the group presentation, participants were invited to review the concept maps up close, and provide input. There were three stations: two with the concept maps, and a third with background information including the Redevelopment Plan, Existing Land Use map, aerial photo, and zoning map. Comments were gathered on the maps, large easels, and questionnaires.

The meeting was adjourned at 8:40 pm.

Comment Card Notes

Summary by Area/ Topic

Monroe Crescent

- Area NW of Monroe Villas (Armour Drive Area), put high rise and high density

Ansley Mall

- Connect Ansley Mall to Montgomery Ferry to enable neighborhood residents to avoid Montgomery Ferry at Monroe intersection.
- Remove the road shown behind Kroger off Montgomery Ferry or at least the entrance on Montgomery Ferry.
- Blocks in Ansley Mall area are shorter- I like the grid-like pattern
- (I want) more grid at Ansley Mall area
- (I like) streets thru Ansley Mall area, development along Monroe below 3 stories

- I perceive less new roads at Ansley Mall, which I like.
- Good that both (plans) show the relocation of the BeltLine stop to back of Ansley Mall/Piedmont Avenue where it will be visible and get more use than at the end of Rock Springs
- Concept A is also preferred at Ansley Mall area
- Concern that both show change of current Kroger property to solely residential. Cannot have two grocery stores at Ansley (if it's designated for residential). Neighborhoods benefit from competition
- Also, new street grid in Ansley Mall area is definitely a good thing. Concept Plan A is preferred, but both are positive.
- (I like Concept B because) the way Ansley is developed- roadway are better.
- Density at Piedmont/Monroe is ridiculous! 10+ stories are too high of density
- Like the traffic circle at Piedmont and Monroe
- I like the circle at Piedmont/ Monroe, but not surrounded by high rises.
- I like the traffic circles
- (I like) park space at Ansley Mall, traffic circle at Piedmont and Monroe
- Redevelopment at intersection of Monroe and Piedmont should be multi-family.
- Density north of Piedmont Ave before Monroe is too high for the park.

Amsterdam

- Don't like 10+ stories at Amsterdam Walk
- Reduce footprints of development at Amsterdam and Dutch Valley by at least 20% in concepts A and B
- Lower profile of Amsterdam Walk development to maximize continuity of park expansion
- Amsterdam Walk 2-3 stories nest to park and single-family homes. Ditto Dutch Valley
- The East-west road along North edge of Amsterdam Walk is not feasible due to rock and grade along 5-9 residential. (Concept plan B). Would prefer to connect the North-south roads to road in the park, to new deck.
- (I like) Concept B for Amsterdam Walk with connectivity comments (above)
- Keeping less-stories buildings in Amsterdam Walk.
- That intersection and traffic on Amsterdam (Avenue) are kind of a nightmare and I'm not seeing good solutions to alternate that (well except the transit, of course)
- Still need to determine what the appropriate density for Amsterdam Walk will be. Not sure if densities indicated on both Concept A and B will justify redevelopment.
- Need to show connection/access point to Worchester, allowing for 2 entrances into Amsterdam Walk. Allow for both vehicle and pedestrian access on new Worchester Drive (the parking deck road) into the park. Allow connection of this road to Amsterdam Walk.
- What about a transit stop at Dutch Valley?
- 35'-45' height plane along Monroe side of park between Piedmont and Amsterdam Ave.
- Amsterdam Ave should be transit oriented.
- Heights at Amsterdam Walk are too high for park and surrounding single family. No road trough park expansion along Monroe at sub-station
- Land use along Dutch Valley should be residential (1-4 stories)
- All of Amsterdam Walk should be residential 1-4 stories.
- Like the idea of transit stop at Amsterdam Walk.

Monroe at 10th

- I welcome the roundabout at 10th and Monroe.
- (I like) aligning Virginia and 10th Street

- I like the traffic circles
- No raised roadway at 10th and Monroe- prefer rail under intersection
- Love the underground transit option shown on Monroe/ 10th St. rotary option
- No rotary at 10th and Virginia Avenue
- I like B 10th intersection include more pedestrian space in front of Grady HS between 10th and 8th.
- Concept B is a good compromise if Cresthill Single family is highly buffered as related to Piedmont Park only.
- No road at edge of Piedmont Park
- Remove the road fro the R-4 houses along Piedmont Park- that's smelling like nothing more than a scare tactic.
- No road and development along Piedmont Park
- I have to look past the road along the park
- Road in Piedmont Park- very bad idea
- I favor the new street that runs along the beltline (to the east of it) from just south of 10th St to Piedmont. I favor this street for easier access/flow.
- No need for a road to run along BeltLine, regardless of Olmstead's vision.
- No road along BeltLine an East border of Park
- No road along Piedmont
- (I like) new roads on eastern edge of the park
- No road should go through the eastern edge of Piedmont Park
- Do not support road through park. Further, plan A proposed to put road, Beltline trails and single family housing in a 200 foot wide corridor. Seems like too much.
- No road through Piedmont Park
- Make a wide green buffer on east edge of Piedmont Park- Not a road. Add to green space.
- Hate residential 1-4 stories along Piedmont Park
- Open space at Piedmont Park
- Keep railroad RWO entirely for linear park/ transit/ PATH
- Very much approve greenspace from Cresthill to 10th Street
- Park space needs to be contiguous
- Open Space at 10th and Monroe and TCU
- Follow guidelines for development around Piedmont Park- uphold the linear park transit trails vision.
- Greenspace from Monroe/ 10th to Amsterdam
- Maintain existing greenspace on ROW without new residential and without new road on park.
- No houses should be built in the Park
- Concept A- 86 the single-family development option along the Beltline
- Townhomes at Canine Academy site similar to those on Piedmont at the PradoLower profile of doggy-groomer development to 4 stories
- Keep doggy day care in place
- Use TDRs to transfer density from Monroe/10th to Amsterdam, to Ponce, and to Ansley Mall sites.
- Reduce density at 10th and Monroe especially in Concept A
- Need plan view of proposed rotary along with sections for both alternatives.
- Concern over homeless in the tunnel where train would run under the intersection of Virginia/Monroe and 10th St. Prefer train going underground, but don't want vagrants.
- Do not want to look at ramp from residential streets and do not want to walk across it.
- Up and over idea at 10th and Monroe doesn't work: Concern re: ramp on residential street. Living at edge of ramp is a concern especially on Coolidge.
- Thinking train underground is a better idea
- Volume regarding roundabout. Is it consistent? Would the slope accommodate buses?

- Protect historic brick street (Coolidge)

Home Depot

- Connect Midtown Arts and Home Depot
- I like 8th and Greenwood extensions. At a minimum these should be for ped/cycle acess
- Suggest 1-way eastbound 8th Street from Argonne to Charles Allen. Narrow street with on-street parking
- (I like) 8th Street thru to Ponce Place
- Like 8th street continuation across BeltLine
- (I) like as many roads as possible- want grid to break up blocks
- Like Greenwood continuation
- Both plans connections between Ponce and 10th/ Virginia are good for local circulation.
- New added grid is good. Concern about new at-grade crossings on 8th Street and Greenwood.
- 8th Street, Greenwood, St. Charles, Drewry, Plyant are all good (street connection) options. However, traffic calming is needed along many of these roadways as well as Ponce de Leon Place and Virginia
- Very much like connectivity at south end of study area on concept plan B.
- I'd suggest small roundabouts on the newly connected roadways between 10th/Virginia and Ponce. (8th St., Greenwood, St. Charles). These would be internal to the redevelopment to slow cut-through traffic between midtown and Virginia Highlands.
- No streets from Monroe east to Ponce de Leon Place. It will lead to increased auto traffic through the... (blank). Perhaps pedestrian access through.
- No cut-through south of 10th, north of Ponce, east of Monroe.
- No connection through St. Charles
- Remove all roads in Old Midtown connecting Greenwood Avenue and St. Charles to Va-Hi. St. Charles is too narrow to handle the traffic it has now, much less hi-density cut-through traffic. Greenwood is too steep. Access to Monroe is Very dangerous as well. Convert connections from Greenwood/ St. Charles to pedestrian access only/ connectivity
- To mitigate the impact of extending 8th street to the interior of Midtown, so it is not a flyway alternative to 10th street, one-way 8th street from Charles Allen west to Argonne. Without calming measure to curb cut thru on 8th from Va-Hi, Midtown will oppose, as may Grady High School for student safety. 8th Street is the primary bus and student access for start and end of school this is 1,300 students plus staff.
- No new street on street between Adair and .... (blank)
- Concerned about connecting 8th Street, Greenwood, Drewry and St. Charles. Any 2 connections reduce walkability and increase traffic congestion
- Plan B- on Lake View have front doors of 1-4 story residential face neighborhood.
- Clear Creek at Ponce- prefer B than A
- I love the Home Dept creek daylighting ideas, and the options with townhouses seems reasonable
- Enjoy the idea of having the Park extension in the A & B concepts.
- Like linear park between residential and commercial
- Like linear park connecting 10th to Ponce (like option B for Clear Creek Linear Park). Do not encourage 8th St. to be a trough street. Preserve it as a Midtown neighborhood residential street please!
- Love the "Clear Creek Linear Park Options A and B, especially A. Love the linear Park through Home Depot site, especially the top option with low buildings on both side of linear park
- Do not like 8th, 9th or Greenwood connection between Midtown and VaHighland.
- (I like Concept B because) connectivity to new park to Piedmont Park

- Like Concept (Land use) plan A at Midtown Place
- Concept A Land Use plan between Ponce and Virginia (Home Depot) is preferred.
- Home Depot, etc. Relocate retail along Ponce corridor to restore old ball fields and Ponce de Leon springs and Clear Creek.
- By maintaining the psychological and functional connectivity of the linear park from 10th Monroe 8th to Ponce, you ensure the superiority of the experience and the exceptional value to residents/ neighbors/ visitors. To then determine a good bike and pedestrian bridge over Ponce to ensure the car-free experience and the Old Fourth Ward Park- you will create a new 'jewel'.
- Would the view if City Hall East be blocked if taller buildings we built in Home Depot site?
- Would there be stormwater issues if Clear Creek is daylit?
- Good to have park space in Ponce Home Depot site to separate commercial and residential.

Scale/ Land Use density:

- 6-story is the maximum for pedestrian-friendly scale. I recommend give people choices between 1-3 story, 4-6 story and 7-10 story. The Dakota is 6 story. The buildings at Lindberg MARTA area are 7-10 and are ugly, stout scale
- Limit all development to 9 stories with designated parking built into developments
- No 10+ stories development in SA6
- No dark purple- inappropriate
- Lower height adjacent to single family
- 35 foot 45 degree height plan along Piedmont Park.
- Would also not increase density as goal to support transit.
- I know its' an irreligious suggestions, but let's stay open to the possibility that some pockets of current single-family zoned housing will want to opt for expanding to multi-family housing.
- Make a new A and B plans that actually represent the consensus of only appropriate development and respecting the green vision and safety. Both Concepts A and B have too much inappropriate development.
- I like Concept B better
- Having some med-development at Midtown Promenade, Ansley Mall, and less at Amsterdam would be OK if there were wide green buffers at the eastern edge of Piedmont Park.
- Park and transit oriented development. Get rid of new roads to support auto-oriented density.
- (Plan B) density incompatible with park, neighborhood. Auto, not transit oriented. Incompatible with BeltLine vision.
- No increased development without answer to Monroe traffic.
- Don't like Plan A or B- needs complete rework
- Don't like Plan A
- Concept A very bad.
- A= Bad; B= Good Much prefer Option B, could embrace almost every aspect of it
- Piedmont Park = Central Park. Allow necessary density where appropriate (along west side of Monroe Dr. with moderate height restrictions. Less than 9 stories.
- Do not develop along park edge between Amsterdam Ave. and Monroe and 10th St. intersection. Use TDRs for additional density at Ansley Mall and Ponce sites.
- Higher density at Midtown Promenade site.

General Transportation

- Widen Monroe Drive from I-85 to Piedmont
- Need better transit to MARTA stations (trolleys, etc.)
- Plan for light transit before (illegible. Maybe some development want developers? Katrina Anding comment sheet)
- Designate bike paths on roads
- No street extensions should be completed simply as a justification to easing proposed new development. Remove the new roads across the BeltLine, replace with pedestrian only walkways.
- Connectivity is essentially. Want road along park.
- For pedestrian only, increase ability to go from Piedmont Park, to North Avenue Park, to Freedom Parkway
- The roundabouts at Piedmont and Monroe and Monroe/10th/ Virginia are good ideas but might be more expensive and therefore less feasible. I'd rather see cheaper, more feasible options at these intersections.
- Yes. I would like to see a circulator/bus in the area on Piedmont that connects Lindbergh MARTA to Art Station like the GA Tech Trolley.
- Also, I would like to see the BeltLine (transit) run along Monroe to Piedmont and then north on Piedmont as shown on the Northside Subarea 7 plan. Why run this through Armour and under 85? You have shown all the density in Monroe Crescent, put the Beltline there
- Carefully study any additional cut through and access roads. Do not want to create even more traffic issues on current single family residential streets.
- Rotaries safe for pedestrians does not seem possible
- I recommend that the transit and transportation plans be integrated and that connectivity for bikes and pedestrians are paramount. Parking spaces and car connectivity are not priorities.
- Only (street connections, etc.) consistent with Piedmont Heights.
- (I like) good sidewalks everywhere
- How is increased traffic handled on Monroe south of Piedmont?
- Divers from Atlanta will cause a million deaths a year. Seriously. Have you been to Cape Cod lately and followed out-of-staters around them?
- A very serious pedestrian safety study is critically needed fro the Monroe corridor from 10th to 8th street.
- Want as much connectivity as possible
- Want plan for light transit (even trolleys) before heavy development.
- Get rid of road along Beltline and park for auto-oriented density
- No road along eastern park edge.
- Consider one-way options on 8th street.
- No road through park expansion at Dutch Valley. This would go through Piedmont Gardens
- No to connection between 8th street and Ponce Place.

Other

- Rather than enhancements (referring to transportation enhancements), a preservation of historic bridges, etc.
- We need a specific meeting regarding historic preservation
- The plans do not really capture the many areas of consensus
- I have a fundamental issue with an uninformed group, in a quick group exercise, with a stacked bunch of legos, being construed as a community supported plan. I object to all

height and density propositions as they were done in a poorly exercised manner. What's the goal/need?

- Can we get developers to build garages under ground, under their buildings?
- I am disappointed that years of charettes, planning meetings, and public comments have resulted in 2 plans that sacrifice livability and the possibilities of replacing public transit. Put density in industrial sector of Armour Drive instead at the Morningside- VA Highland neighborhoods.
- What happened to the original plan of a "necklace of Emeralds Parks"? Are we now trying to justify the high price of the beltline property?
- No development inside historic piedmont park
- Enhance green park entry at Cresthill Path.