

**COMPREHENSIVE TRANSPORTATION REVIEW**

# **NEW CITY LARGE TRACT REVIEW**

**WASHINGTON, DC**

**September 12, 2016**

Prepared by:



1140 Connecticut Avenue NW  
Suite 600  
Washington, DC 20036  
Tel: 202.296.8625  
Fax: 202.785.1276

3914 Centreville Road  
Suite 330  
Chantilly, VA 20151  
Tel: 703.787.9595  
Fax: 703.787.9905

15125 Washington Street  
Suite 136  
Haymarket, VA 20169  
Tel: 703.787.9595  
Fax: 703.787.9905

[www.goroveslade.com](http://www.goroveslade.com)

*This document, together with the concepts and designs presented herein, as an instrument of services, is intended for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization by Gorove/Slade Associates, Inc., shall be without liability to Gorove/Slade Associates, Inc.*

## ***Contents***

Executive Summary.....	i
Introduction .....	1
Contents of Study .....	1
Study Area Overview .....	3
Major Transportation Features.....	3
Future Regional Projects .....	4
Project Design .....	10
Site Access.....	10
Loading.....	11
Parking .....	12
Pedestrian and Bicycle Facilities .....	13
Transportation Demand Management (TDM) .....	13
Trip Generation.....	25
Traffic Operations .....	27
Study Area, Scope, & Methodology.....	27
Vehicular Analysis Results.....	30
Transit .....	59
Existing Transit Service .....	59
Proposed Transit Service .....	59
Site-Generated Transit Impacts .....	61
Pedestrian Facilities .....	66
Pedestrian Study Area.....	66
Pedestrian Infrastructure.....	66
Site Impacts.....	67
Bicycle Facilities .....	70
Existing Bicycle Facilities .....	70
Proposed Bicycle Facilities .....	70
Site Impacts.....	71
Crash Data Analysis.....	73
Summary of Available Crash Data.....	73
Potential Impacts .....	73
Summary and Conclusions .....	78

## **Figures**

Figure 1: Site Location.....	2
Figure 2: Summary of Walkscore and Bikescore.....	4
Figure 3: Major Regional Transportation Facilities .....	7
Figure 4: Major Local Transportation Facilities .....	8
Figure 5: Planned Development Map .....	9
Figure 6: Site Plan – Lower Level.....	15
Figure 7: Site Plan – Plaza Level .....	16
Figure 8: Pedestrian Facilities and Circulation .....	17
Figure 9: Bicycle Facilities and Circulation .....	18
Figure 10: Vehicular Access.....	19
Figure 11: Vehicular Facilities and Circulation .....	20
Figure 12: Existing Curbside Management Adjacent to Site .....	23
Figure 13: Weekend Hourly Parking Demand.....	24
Figure 14: Study Area Intersections .....	35
Figure 15: Inbound Trip Distribution and Routing .....	36
Figure 16: Outbound Trip Distribution and Routing .....	37
Figure 17-19: Current Lane Configuration and Traffic Control .....	38-39
Figure 20-22: Planned Lane Configuration and Traffic Control .....	41-42
Figure 23-25: Morning Peak Hour Capacity Analysis Results.....	49-50
Figure 26-28: Afternoon Peak Hour Capacity Analysis Results .....	52-53
Figure 29-31: Saturday Peak Hour Capacity Analysis Results .....	55-56
Figure 32: Existing Transit Service.....	62
Figure 33: Bus Headways and Frequency (weekdays) .....	63
Figure 34: Proposed E2 Re-route .....	64
Figure 35: Proposed D4/E2 Combined Route with Re-route .....	65
Figure 36: Pedestrian Pathways.....	68
Figure 37: Existing Pedestrian Infrastructure.....	69
Figure 38: Existing Bicycle Facilities .....	72

## **Tables**

Table 1: Shared Parking Demand.....	13
Table 2: Review of Loading Facilities by Building.....	21
Table 3: Review of Parking Facilities by Building .....	22
Table 4: Summary of Mode Split Assumptions .....	25
Table 5: Multi-Modal Trip Generation Summary.....	26
Table 6: Summary of Background Development Trip Generation.....	28
Table 7: Applied Annual and Total Growth Rates.....	30
Table 8: LOS Results .....	44
Table 9: Queuing Results .....	46
Table 10: Mitigated LOS Results .....	58
Table 11: Metrobus Route Information .....	59
Table 12: Transit Stops Requirements .....	60
Table 13: Sidewalk Requirements.....	66
Table 14: Intersection Crash Rates (2013-2015).....	76
Table 15: Crash Type Breakdown.....	77



## EXECUTIVE SUMMARY

The following report is a Comprehensive Transportation Review (CTR) for the New City development. This report reviews the transportation aspects of the project's Large Tract Review (LTR) application.

The purpose of this study is to evaluate whether the project will generate a detrimental impact to the surrounding transportation network. This evaluation is based on a technical comparison of the existing conditions, background conditions, and total future conditions. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements and mitigations are implemented.

### Proposed Project

The site, which is an undeveloped parcel of land, is located in the Langdon neighborhood, in the Northeast quadrant of Washington, DC. The site is triangularly shaped and is generally bound by New York Avenue to the north, Bladensburg Road to the east, and Montana Avenue to the west.

The application plans to develop the site into a mixed-use (residential, retail, grocery, hotel, drive-in bank, and movie theatre) development containing nine development sites on one Record Lot. The residential component of the development includes a total of 670 multi-family units in five of the nine buildings. The retail component includes a total of 334,889 square feet of retail space in all nine buildings. The grocery component includes 70,000 square feet in one of the nine buildings. The hotel component includes 160 rooms, and is in one of the nine buildings. The drive-in bank will be 4,100 square feet and is in one of the nine buildings. The movie theatre component includes a 2,500 seat movie theatre and is in one of the nine buildings.

The project is expected to be constructed in two phases with Lots 1, 3, 5, and 9 being constructed in Phase 1 and Lots 2, 4, and 6-8 being constructed in Phase 2. As such, the development program is as follows:

- **Building 1** of the development will be located in the northwest portion of the site with frontage on New York Avenue and Montana Avenue. Building 1 will include up to 70,000 square feet of grocery, 147,097 square feet of retail, and 220 residential units. A total of 1,798 parking spaces that will be shared by the entire development in an above-ground parking facility are located in the upper levels of Building 1.
- **Building 2** of the development will be located to the east of Building 1, with frontage on New York Avenue and on a new north-south internal roadway. Building 2 will include up to 4,100 square feet of drive-in bank and a 160 room hotel. The various components of Building 2 will share the 1,798 parking spaces located above Building 1. An additional nine (9) surface parking spaces will service the drive-in bank.
- **Building 3** will have frontage on Bladensburg Road and on the new east-west internal roadway. Building 3 will include up to 12,916 square feet of retail and 60 residential units. Building 3 will share the 1,798 parking spaces located above Building 1.
- **Building 4** will have frontage on Montana Avenue and on the new internal east-west roadway. Building 4 will include up to 33,894 square feet of retail and 135 residential units. Building 4 will share the 1,798 parking spaces located above Building 1.
- **Building 5** will be located in the center of the site with frontage on the new internal east-west roadway. Building 5 will include up to 8,035 square feet of retail. Building 5 will share the 1,798 parking spaces located above Building 1.
- **Building 6** will be located directly to the east of Building 5 and will have frontage on the new internal east-west roadway. Building 6 will include up to 43,030 square feet of retail. Building 6 will share the 1,798 parking spaces located above Building 1.
- **Building 7** will be located directly to the east of Building 6 and will also have frontage on the new internal east-west roadway. Building 7 will include up to 46,394 square feet of retail. Building 7 will share the 1,798 parking spaces located above Building 1.
- **Building 8** will be located to the east of Building 7 with frontage on Bladensburg Road to the east and the internal east-west roadway to the north. Building 8 will include up to 31,813 square feet of retail and 153 residential units. Building 8 will share the 1,798 parking spaces located above Building 1. An additional eight (8) parking spaces will be located each of the eight townhomes that front Bladensburg Road.
- **Building 9** will be located at the southern-most portion of the site with frontage on Bladensburg Road and Montana Avenue. Building 9 will include up to 88 residential units,



11,710 square feet of retail and a movie theatre with 2,500 seats. Building 9 will include a 200 space parking garage.

As part of the development, a new internal roadway network will add porosity and connectivity. The main internal east-west spine, which will connect Montana Avenue and Bladensburg Road will have an 87-foot cross-section, which will include 12-foot sidewalks, 4.5-foot planting/tree boxes, 1.5-foot step-outs, a ten-foot cycletrack, a three-foot buffer, eight-foot parking lanes, and 11-foot travel lanes. The new internal north-south street, which connects New York Avenue and the internal east-west street will have an 46-foot cross-section, which will include eight-foot sidewalks, four-foot planting/tree boxes, and 11-foot travel lanes. The design of the new internal private streets will be consistent with DDOT standards.

Sections of the roadway network surrounding the site will be improved. Pedestrian facilities along the perimeter of the project on New York Avenue, Bladensburg Road, and Montana Avenue will be improved so that they meet or exceed DDOT and ADA standards. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, and curb ramps with detectable warnings. The Project will also provide other pedestrian facilities such as a large public plaza at the center of the site.

Vehicular access to the site will be off of New York Avenue, Bladensburg Road, and Montana Avenue. Along New York Avenue, vehicular access will be provided through two curb cuts and one existing public alley. The two curb cuts are planned as unsignalized right-in/right-out access points, and the alley will remain as right-in/right-out. Along Bladensburg Road, vehicular access will be provided through three curb cuts. The most southern and northern curb cuts are planned as unsignalized right-in/right-out, and the middle curb cut is planned as a signalized intersection that will line up with T Street. Along Montana Avenue, vehicular access will be provide through two curb cuts. The southern curb cut is planned as an unsignalized access points, and the curb cut at Montana Avenue and 17<sup>th</sup> Street is planned as a signalized intersection.

A total of 35 loading berths and nine (9) service/delivery spaces will be provided on site. Based on an analysis of anticipated loading activity, the development provides sufficient loading facilities to accommodate practical loading needs.

A total of 2,046, parking spaces will be provided, with 2,015 off-street parking spaces and 31 on-street spaces.

### **Multi-Modal Impacts and Recommendations**

#### *Transit*

The site is adequately served by regional and local transit services such as Metrorail and Metrobus. The site is less than 1.3 miles from the Rhode Island Metrorail station portal located on Washington Place. Four Metrobus routes service the site, with 32 buses scheduled to arrive during the peak morning commute time and 25 buses during the peak afternoon commute time, providing a good connection to Metrorail and other destinations. Metrobus stops are located within a block of the site along Bladensburg Road and West Virginia Avenue.

Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips. The Rhode Island Metrorail station does not have existing capacity concerns and is not expected to as a result of the planned development.

An existing proposed reroute of existing bus lines to service the perimeter of the site combined with the Applicant's proposed bus stop locations would greatly improve transit access.

#### *Pedestrian*

The site is surrounded by a pedestrian network with limited connections. Some roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity to the north due to rail tracks, and to the south due to the Mount Olivet Cemetery and the National Arboretum. The area in the vicinity of the site is considered to be below the District average in terms of quality of pedestrian facilities.

As a result of the development pedestrian facilities along the perimeter of the site will be improved, for example by removing 34 curb cuts, of which 14 are on New York Avenue, ten are along Bladensburg Road, and ten are on Montana Avenue. The development will improve sidewalks adjacent to the site such that they meet or exceed DDOT requirements and provide an improved pedestrian environment. In order to help improve sidewalk conditions, as part of the development, the Applicant plans to improve conditions along the site. This requires dedicating property within the site to public use.



### *Bicycle*

The site has adequate access to existing bicycle facilities. A signed route along West Virginia Avenue offers east-west connectivity, and bike lanes along 18<sup>th</sup> Street offer north-south connectivity. On site, bicycle facilities are proposed along the internal east-west roadway. Additionally, as a result of the development and in coordination with DDOT, a cycletrack will be added along the boundary of the site on Montana Avenue and New York Avenue. The planned development will meet zoning requirements for bicycle parking.

### *Vehicular*

The site is well-connected to regional roadways such as New York Avenue (US-50) and Interstate 295, primary and minor arterials such as Bladensburg Road and West Virginia Avenue, as well as an existing network of collector and local roadways.

In order to determine if the proposed development will have a negative impact on this transportation network, this report projects future conditions with and without the development of the site and performs analyses of intersection delays and queues. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. Eight intersections were found to operate under unacceptable delay/Level-of-service (LOS) in future conditions and were reviewed for potential improvements. Mitigation measures proposed are as follows:

- *West Virginia Avenue & 16<sup>th</sup> Street*  
There isn't enough width curb-to-curb to create additional lanes, and any additional lanes would not be recommended given the southbound approach is stop controlled. All-way stop and signal warrants were performed, but not met. Therefore, this report would not recommend any mitigations to this intersection.
- *West Virginia Avenue & 17<sup>th</sup> Street*  
This report recommends the conversion of this intersection from two-way stop controlled to all-way stop controlled. It was found that an all-way stop was warranted based on peak hour vehicle and pedestrian volumes, even under existing conditions.
- *Montana Avenue & W Street & 18<sup>th</sup> Street*  
This report recommends adjusting signal timings and restriping. Signal timings can be adjusted such that the split phasing for the northbound and southbound approaches is removed, and the eastbound and

westbound approaches receive more green time. Restriping the westbound approach to be one thru/left lane and one right only lane will further improve operations at this intersection.

- *New York Avenue & Montana Avenue & West Virginia Avenue Intersection Complex*  
While the capacity analysis developed for this study noted significant delays at the intersection complex under future conditions, observations note that delays extend along most approaches to these intersections under existing conditions. These delays are a result of the limited throughput that the intersections can accommodate, and metering that is caused by these intersections along with other intersections up- and down-stream from the intersection complex. With the addition of the development, delays and queuing are increased to unacceptable levels for certain approaches. However, given the delay and queuing present throughout the New York Avenue corridor, solutions for the delays and queuing present at these intersections should be examined through regional transportation planning efforts.
- *Bladensburg Road & Mount Olivet Road*  
The intersection can be improved by adjusting signal timings. Signal timings can be adjusted such that the southbound approach receives more green time versus a hold phase.
- *Bladensburg Road & 17<sup>th</sup> Street*  
The intersection can be improved by adjusting signal timings such that the movements associated with Bladensburg receive more green time versus those on 17<sup>th</sup> Street.
- *Bladensburg Road & Montana Avenue & S Street*  
This report recommends adjusting signal timings such that the southbound phase receives more green time.
- *Bladensburg Road & New York Avenue*  
Similarly to the intersection of New York Avenue, Montana Avenue, and West Virginia Avenue, solutions for the delays and queuing present at these intersections should be examined through regional transportation planning efforts. Furthermore, this intersection was identified in the New York Avenue Corridor Study for improvement. The New York Avenue Corridor Study proposed that the intersection be reconstructed so New York Avenue passed below the



existing intersection; the existing intersection would be reconstructed to provide an appearance more in keeping with traditional grade separated traffic circles found elsewhere in the District.

This report did explore short term operational mitigations that could be implemented prior to proposed reconstruction of the intersection as other improvements such as widening the roadways or adding supplemental turn lanes are infeasible. However, due to the heavy traffic along New York Avenue and Bladensburg Road, shifting time from one movement to the next will create capacity concerns along New York Avenue or Bladensburg Avenue. As such, this report does not recommend shifting the full amount of time needed to improve delay for the each approach to LOS D or better, but instead defers to DDOT to consider that LOS E and F are sometimes accepted within an urban context.

During the morning and afternoon periods, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the eastbound and westbound approaches on New York Avenue to the northbound and southbound approaches on Bladensburg Road. Changing the signage for the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

During the Saturday period, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the northbound and southbound approaches on Bladensburg Road to the eastbound and westbound approaches on New York Avenue. Changing the signage on the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

### **Summary and Recommendations**

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation network assuming that all planned site design elements and operational recommendations at study intersections are implemented.

The development has numerous positive elements contained within its design that minimize potential transportation impacts and improve multi-modal travel, including:

- The inclusion of secure long-term bicycle parking spaces within all buildings of the development that meet or exceed zoning requirements.
- The installation of short-term bicycle parking spaces around the perimeter of each parcel that meet or exceed zoning and DDOT requirements.
- The creation of wide pedestrian paths which will meet or exceed DDOT and ADA requirements, and dedicated bicycle facilities along the perimeter of the site and within the site itself.
- The inclusion of carshare spaces within the garage of Building 1
- The inclusion of electric vehicle (EV) parking spaces within the garages located in Building 1 and Building 9.
- The installation of a Capital Bikeshare station within or near the site.
- A robust Transportation Demand Management (TDM) plan that reduces the demand of single-occupancy, private vehicles during peak period travel times or shifts single-occupancy vehicular demand to off-peak periods.

This report analyzed the potential impacts of the development, and concluded that the development will not have a detrimental impact to the surrounding transportation network, as long as the project implements the recommendations as follows:

- The conversion of the intersection of West Virginia Avenue and 17<sup>th</sup> Street from an all-way stop.
- Signal timing and roadway configuration improvements to the intersection of Montana Avenue and W Street and 18<sup>th</sup> Street.
- Signal timing improvements to the intersection of Bladensburg Road and Mount Olivet Road.
- Signal timing improvements to the intersection of Bladensburg Road and 17<sup>th</sup> Street.
- Signal timing improvements to the intersection of Bladensburg Road and Mount Olivet Road.
- Signal timing improvements to the intersection of Bladensburg Road and Montana Avenue and S Street.
- Signal timing improvements to the intersection of Bladensburg Road and New York Avenue.
- A new traffic signal at the intersection of Montana Avenue and 17<sup>th</sup> Street.
- A new traffic signal at the intersection of Bladensburg Road and 17<sup>th</sup> Street.



- Installing/upgrading curb ramps and crosswalks as necessary around the site.
- Implementing the Transportation Demand Management (TDM) plan detailed within the body of this report.



## INTRODUCTION

This report reviews the transportation elements of the New City development project. The site, shown in Figure 1, is located in the Langdon neighborhood in northeast DC.

The purpose of this report is to:

1. Review the transportation elements of the development site plan and demonstrate that the site conforms to DDOT's general policies of promoting non-automobile modes of travel and sustainability.
2. Provide information to the District Department of Transportation (DDOT) and other agencies on how the development of the site will influence the local transportation network. This report accomplishes this by identifying the potential trips generated by the site on all major modes of travel and where these trips will be distributed on the network.
3. Determine if development of the site will lead to adverse impacts on the local transportation network. This report accomplishes this by projecting future conditions with and without development of the site and performing analyses of vehicular delays. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. The report discusses what improvements to the transportation network are needed to mitigate adverse impacts.

## CONTENTS OF STUDY

This report contains nine sections as follows:

- *Study Area Overview*  
This section reviews the area near and adjacent to the proposed project and includes an overview of the site location.
- *Project Design*  
This section reviews the transportation components of the project, including the site plan and access. This chapter also contains the proposed Transportation Demand Management (TDM) plan for the site.
- *Trip Generation*  
This section outlines the travel demand of the proposed project. It summarizes the proposed trip generation of the project.

- *Traffic Operations*  
This section provides a summary of the existing roadway facilities and an analysis of the existing and future roadway capacity in the study area. This section highlights the vehicular impacts of the project, including presenting mitigation measures.
- *Transit*  
This section summarizes the existing and future transit service adjacent to the site, reviews how the project's transit demand will be accommodated, outlines impacts, and presents recommendations as needed.
- *Pedestrian Facilities*  
This section summarizes existing and future pedestrian access to the site, reviews walking routes to and from the project site, outlines impacts, and presents recommendations as needed.
- *Bicycle Facilities*  
This section summarizes existing and future bicycle access to the site, reviews the quality of cycling routes to and from the project site, outlines impacts, and presents recommendations as needed.
- *Safety/Crash Analysis*  
This section reviews the potential safety impacts of the project. This includes a review of crash data at intersections in the study area and a qualitative discussion on how the development will influence safety.
- *Summary and Conclusions*  
This section presents a summary of the recommended mitigation measures by mode and presents overall report findings and conclusions.



Figure 1: Site Location



## STUDY AREA OVERVIEW

This section reviews the study area and includes an overview of the site location, including a summary of the major transportation characteristics of the area and of future regional projects.

The following conclusions are reached within this chapter:

- The site is surrounded by an extensive regional and local transportation system that will accommodate the residents, employees, and patrons of the proposed development to the District and surrounding areas.
- The site has access to public transportation with service to the Red Line and several local and regional Metrobus lines.
- There is some existing bicycle infrastructure including bike lanes along 18<sup>th</sup> Street and signed routes in the vicinity of the site.
- Pedestrian conditions are generally below the District standard, particularly along anticipated major walking routes.

### MAJOR TRANSPORTATION FEATURES

#### Overview of Regional Access

The New City site has ample access to regional vehicular- and transit-based transportation options, as shown in Figure 3, that connect the site to destinations within the District, Virginia, and Maryland.

The site is accessible from several US interstates such as I-295 and I-695. The interstates create connectivity to the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs as well as regional access to I-95. All of these roadways bring vehicular traffic within a half-mile of the site, at which point arterials and local roads can be used to access the site directly.

The site has access to the Red Line which provides connections to areas in the District and Maryland. The Red Line connects stations in Prince George's County and Montgomery County, Maryland while providing access to the District core. In addition, the Red Line provides connections to all additional Metrorail lines allowing for access to much of the DC Metropolitan area.

Overall, the site has access to several regional roadways and transit options, making it convenient to travel between the site and destinations in the District, Virginia, and Maryland.

#### Overview of Local Access

There are several local transportation options near the site that serve vehicular, transit, walking, and cycling trips, as shown on Figure 4.

The site is served by a local vehicular network that includes several primary and minor arterials such as New York Avenue and Bladensburg Road. In addition, there is an existing network of connector and local roadways that provide access to the site.

The Metrobus system provides local transit service in the vicinity of the site, including a connection to Union Station which acts as a primary hub for Amtrak, VRE, and MARC rail services. As shown in Figure 4, there are three bus routes that service the site. In the vicinity of the site the majority of routes travel along Bladensburg Road and West Virginia Avenue. These bus routes connect the site to many areas of the District and Maryland, including several Metrorail stations.

There are existing bicycle facilities that connect the site to areas within the District, most notably the signed route on West Virginia Avenue provides connection to other bicycle facilities leading Downtown. Other facilities include bicycle lanes along 18<sup>th</sup> Street, which lie to the north of the site.

In the vicinity of the site, not all roadways provide sidewalks with crosswalks present at most intersections. Anticipated pedestrian routes, such as those to public transportation stops, retail zones, and community amenities, provide below-standard pedestrian facilities due to lack of buffers and narrow sidewalks. Furthermore, there are some pedestrian barriers in the area that limit the overall connectivity to and from the site. A detailed review of existing and proposed pedestrian access and infrastructure is provided in a later section of this report.

Overall, the site is surrounded by an extensive local transportation network that allows for efficient transportation options via transit, bicycle, walking, or vehicular modes.

#### Car-sharing

Four car-sharing companies provide service in the District: Zipcar, Enterprise Carshare, Maven, and Car2Go. All four services are private companies that provide registered users



access to a variety of automobiles. Of these, Zipcar and Enterprise Carshare have designated spaces for their vehicles. There are no car-share locations located within a quarter-mile of the site.

Carsharing is also provided by Car2Go, which provides point-to-point car sharing. Unlike Enterprise Carshare and Maven, which require two-way trips, Car2Go and to a lesser extent Zipcar can be used for one-way rentals. Car2Go currently has a fleet of vehicles located throughout the District and Arlington. Car2Go vehicles may park in any non-restricted metered curbside parking space or Residential Parking Permit (RPP) location in any zone throughout the defined “Home Area”. Members do not have to pay meters or pay stations. Car2Go does not have permanent designated spaces for their vehicles; however availability is tracked through their website and mobile phone application, which provides an additional option for car-sharing patrons.

**Walkscore**

Walkscore.com is a website that provides scores and rankings for the walking, biking, and transit conditions within neighborhoods of the District. Based on this website the planned development is located in the Trinidad-Langston neighborhood. This project location itself has a walk score of 60 (or “Somewhat Walkable”), transit score of 51 (or “Good Transit”), and a bike score of 45 (or “Somewhat Bikeable”). Figure 2 shows the neighborhood borders in relation to the site location and displays a heat map for walkability and bikeability.

As shown in Figure 2, the site is situated in a neighborhood that encompasses some good and some average walk scores. The site is situated in an area with average bike scores its proximity to bike facilities. Overall, the Trinidad-Langston neighborhood

has average walk, transit, and bike scores. Additionally, other planned developments and roadway improvements will help increase the walk and bike scores in the Trinidad-Langston neighborhood.

**FUTURE REGIONAL PROJECTS**

There are several District initiatives and background developments located in the vicinity of the site. These planned and proposed projects are summarized below.

**Local Initiatives**

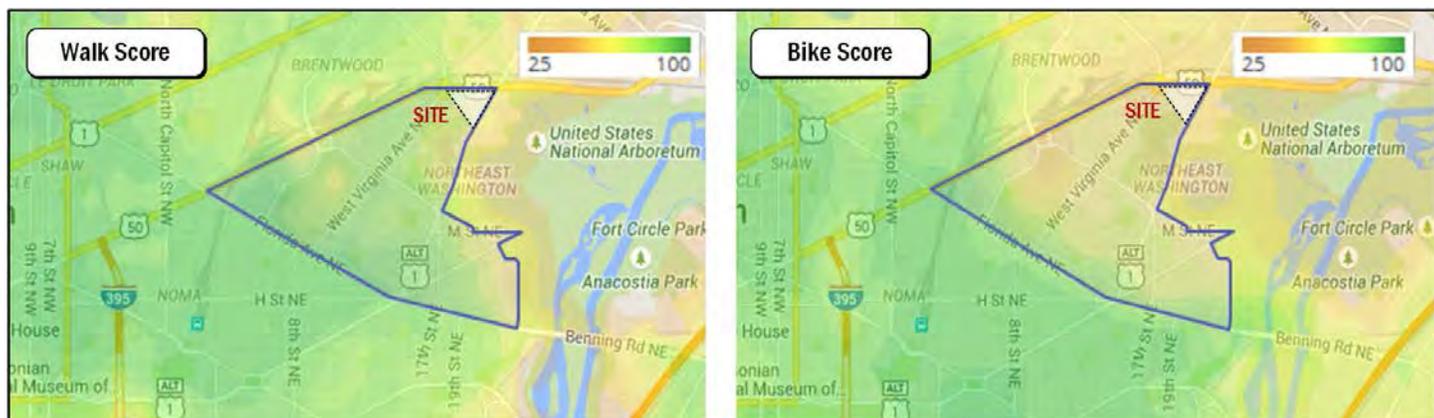
*MoveDC: Multimodal Long-Range Transportation Plan*

MoveDC is an implementation-based plan that provides a vision for the future of DC’s transportation system. As the District grows, so must the transportation system, specifically in a way that expands transportation choices while improving the reliability of all transportation modes.

The MoveDC report outlines recommendations by mode with the goal of having them complete by 2040. The plan hopes to achieve a transportation system for the District that includes:

- 70 miles of high-capacity transit (streetcar or bus)
- 200 miles of on-street bicycle facilities or trails
- Sidewalks on at least one side of every street
- New street connections
- Road management/pricing in key corridors and the Central Employment Area
- A new downtown Metrorail loop
- Expanded commuter rail
- Water taxis

In direct relation to the proposed development, the MoveDC plan outlines recommended pedestrian, bicycle, transit and



**Figure 2: Summary of Walkscore and Bikescore**



vehicular improvements such as a trail along New York Avenue, new bicycle facilities on Bladensburg Road and West Virginia Avenue, a High Frequency Bus Corridor on Bladensburg Road, and new roads connecting 16<sup>th</sup> Street to 14<sup>th</sup> Street across New York Avenue. These recommendations would create additional multi-modal capacity and connectivity to the proposed development.

#### *SustainableDC: Sustainable DC Plan*

SustainableDC is planning effort initiated by the Department of Energy & Environment and the Office of Planning that provides the District with a framework of leading Washington DC to become the most sustainable city in the nation. The 2012 report proposes a 20-year timeframe to answer challenges in areas of: (1) Jobs & the economy; (2) Health & Wellness; (3) Equity & Diversity; (4) Climate & Environment; (5) Built Environment; (5) Energy; (6) Food; (7) Nature; (8) Transportation; (9) Waste; and (10) Water. With respect to transportation, the sustainability goals targeted in 20 years include:

- Improving connectivity and accessibility through efficient, integrated, and affordable transit systems
- Expanding provision of safe, secure infrastructure for cyclists and pedestrians
- Reducing traffic congestion to improve mobility
- Improving air quality along major transportation routes

A combination of increasing public transit and decreasing vehicular mode shares has been suggested to meet the transportation targets.

#### *New York Avenue Corridor Study*

The purpose of the New York Avenue Corridor Study was to transform New York Avenue into a multimodal and intermodal corridor that could: (1) Facilitate smooth traffic flow; (2) Ensure an ability to accommodate local and regional vehicular transportation and transit needs foreseeable over the next thirty to fifty years; (3) Create capacity for major commercial and residential development; and (4) Avoid displacement of existing residents or exclusion of income diversity. Between Florida Avenue and Montana Avenue the Study recommended New York Avenue transition to a boulevard, with a linear park containing separate bicycle and pedestrian paths on the north side of the roadway. Some of the existing traffic signals would be removed, and a median with separate left turn lanes for westbound traffic would be constructed. The bikeway would

connect to the Metropolitan Branch Trail near Florida Avenue. At Montana Avenue, urban design improvements would be made; traffic utilization would remain much as it currently is. At Bladensburg Road, New York Avenue would be reconstructed to pass below the existing intersection; the existing intersection would be reconstructed to provide an appearance more in keeping with traditional grade separated traffic circles found elsewhere in the District.

#### *New York Avenue Rail-to-Trails Plan*

The concept of developing a trail along the New York Avenue corridor dates back at least a decade, when it was included in the District's 2005 Bicycle Master Plan. The purpose of this project is to create a new multi-use trail (shared-use path) in Northeast Washington, D.C., that will improve pedestrian and bicycle access and conditions along New York Avenue, seamlessly connecting the Ivy City neighborhood with downtown, stretching from L Street and 2nd Street to the U.S. National Arboretum. The proposed trail corridor is segmented into five sections based on characteristics of surrounding location and land use. At approximately 2.5 miles, the preferred alignment assumes that the trail will serve as a direct, largely traffic-free facility for bicyclists and pedestrians traveling through Northeast Washington, D.C. Segment 5 of the proposed trail will cross New York Avenue at Hecht Warehouse development, extend the trail as on-road bicycle facilities and improved crossings at Fenwick Street and 16th Street to the entrance of the U.S. National Arboretum at R Street.

#### *Ward 5 Works*

This report discusses the repositioning of industrial land in Washington, D.C.'s Ward 5, home to the majority of such land in the city. The report also stresses the importance of accommodating both industrial and residential uses in close proximity and specifically focuses on establishing New York Avenue as a true gateway to the city. One of eight primary goals in the report is to "create great places, improve physical appearance and enhance connectivity" in Ward 5. The report highlights the lack of bicycle and pedestrian facilities in Ward 5 and refers to the New York Avenue Green Infrastructure Assessment's recommendation for a linear park between New York Avenue, NE, and the rail yard. The report recommends promoting non-motorized forms of transportation, and specifically advocates rebuilding New York Avenue to be pedestrian-friendly. The report recommends either a linear park in the railroad corridor on the northern side of New York



Avenue or “a multipurpose trail and linear park on the southern side of New York Avenue, closer to businesses and activity.”

development plan includes 250,000 sf of retail, 340 residential units, and 1,250 space parking garage.

#### *New York Avenue Green Infrastructure Assessment*

This assessment examines opportunities to improve green infrastructure and multimodal transportation along New York Avenue NE. A substantial portion of the report focuses on the potential for a multi-use trail along New York Avenue, NE. The assessment recommends construction of a trail on the south side of the road primarily via the widening of existing sidewalks. The location would allow for more connections to residences and businesses compared to an alignment on the north side of the road. At its far western end, the assessment recommends that the trail connect to the existing Metropolitan Branch Trail near Florida Avenue NE. It also recommends exploration of a connection to the Anacostia Riverwalk Trail at the trail’s eastern end. However, the report recognizes the potential for reduced travel time with a trail on the north side of the road—because of fewer road and driveway crossings—and suggests that future studies should explore this possibility. The report also recommends the replacement of parking lots on the north side of New York Avenue NE, with a linear park, perhaps featuring a train-oriented theme.

#### **Planned Developments**

There are several potential development projects in the vicinity of the New City. For the purpose of this analysis, only approved developments expected to be complete prior to planned development with an origin/destination within the study area were included. A detailed list of all background developments considered and a description of their applicability for incorporation in the study is included in the Technical Attachments. Of the background developments considered, one was ultimately included and is described below. Figure 5 shows the location of these developments in relations to the proposed development.

#### *Hecht Warehouse District*

This property was originally built in 1937 and expanded in 1948 as the central warehouse for the Hecht Company Department Stores. The six story building was constructed in a Streamline Modern style featuring glass block extensively, culminating in a twelve-point star shaped cupola at the corner that is illuminated at night. Douglas Development purchased the building in 2011 and is currently redeveloping the property into a mixed-use retail and residential complex. The

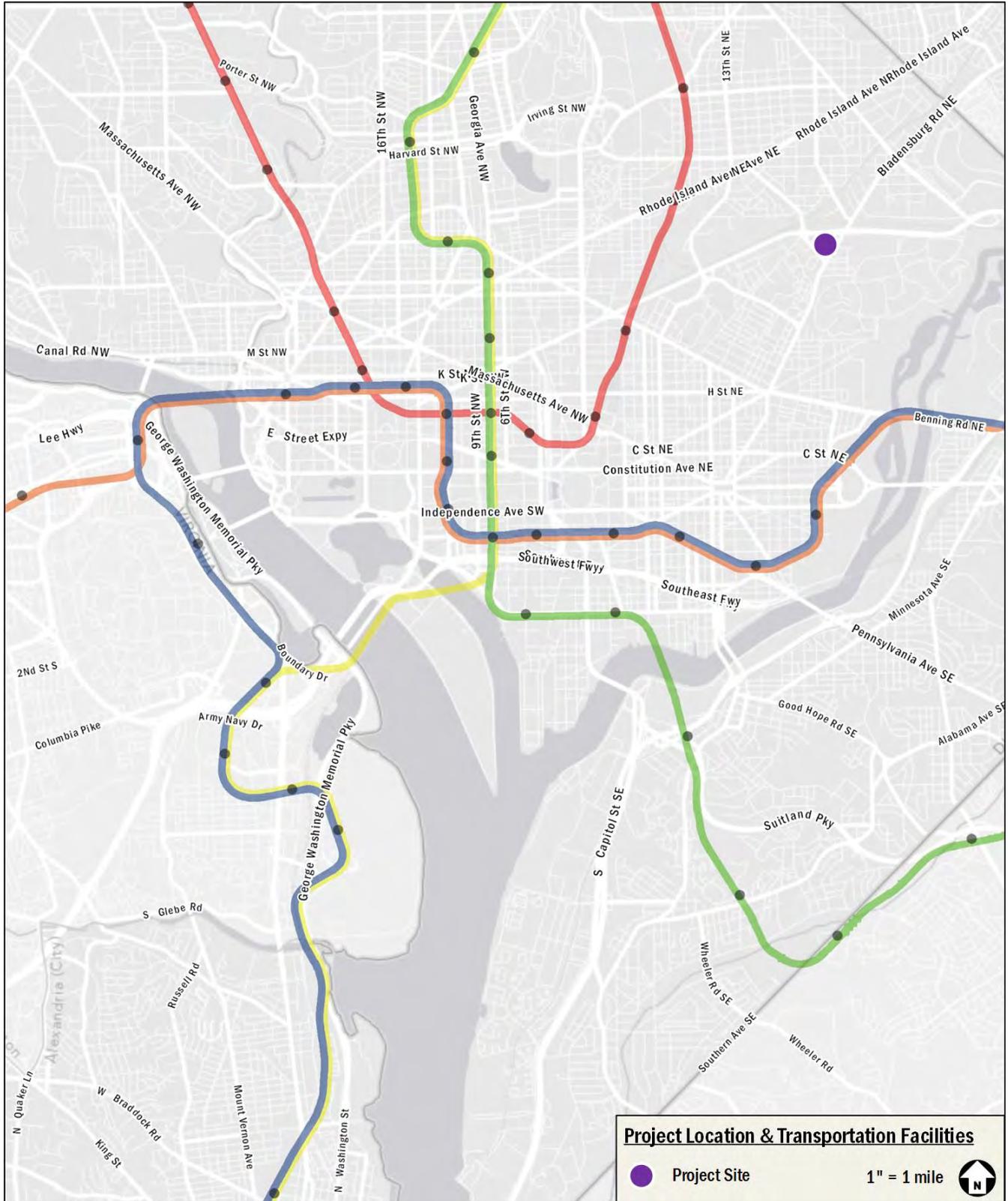


Figure 3: Major Regional Transportation Facilities



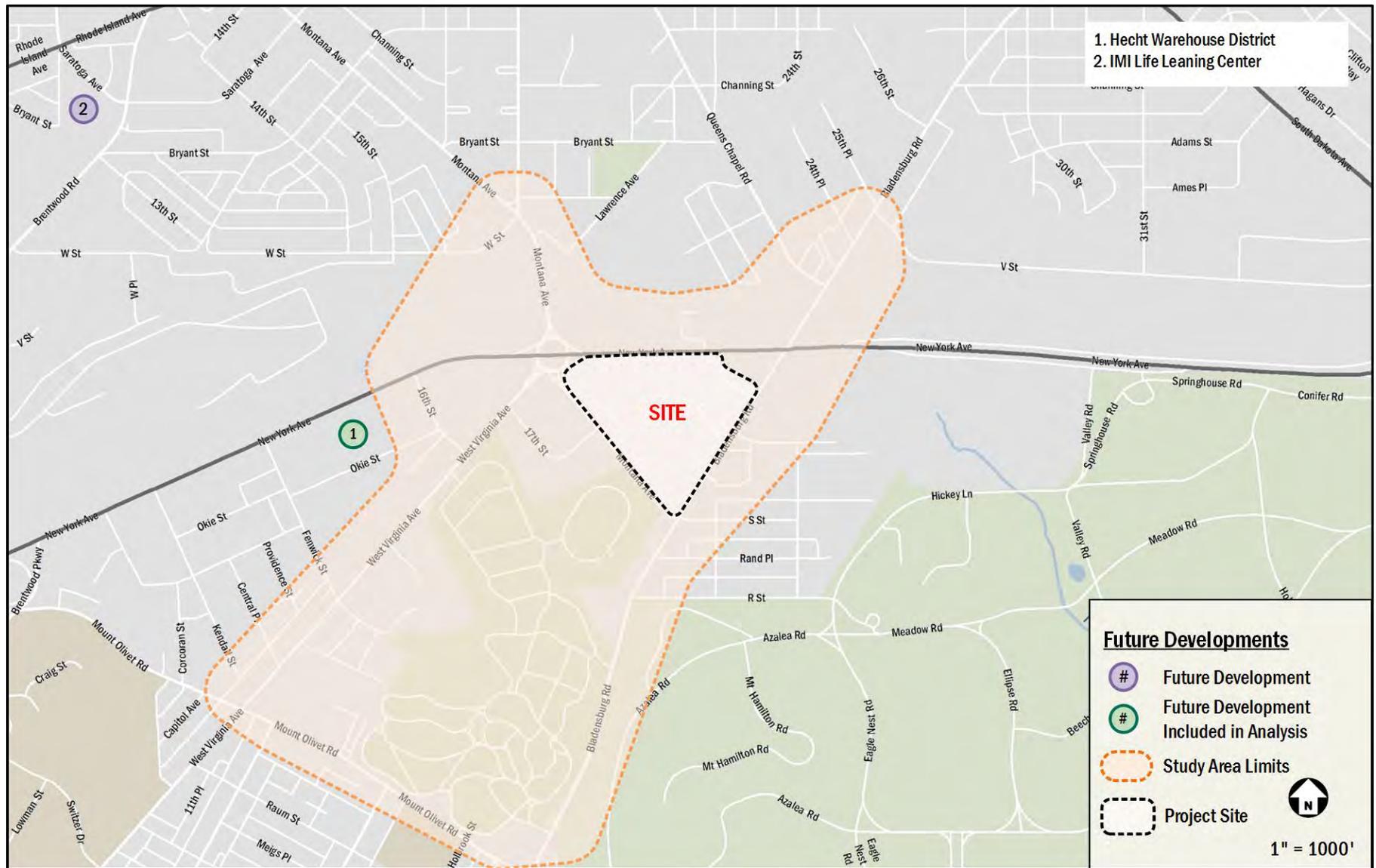


Figure 5: Planned Development Map



## PROJECT DESIGN

This section reviews the transportation components of New City, including the proposed site plan and access points. It includes descriptions of the site's vehicular access, loading, parking, and Transportation Demand Management (TDM) plan. It supplements the information provided in the site plans package that accompanied the Zoning Application, which includes several illustrations of site circulation and layout.

The project will develop a currently undeveloped parcel of land into a mixed-use development. Overall the development will contain approximately 670 residential units, 334,889 square feet of retail, 70,000 square feet of grocery, 160 hotel rooms, 4,100 square feet of drive-in bank, and a 2,500 seat movie theatre.

The project is expected to be constructed in two phases with Buildings 1, 3, 5, and 9 being constructed in Phase 1 and Buildings 2, 4, and 6-8 being constructed in Phase 2. As such, the development program is as follows:

- **Building 1** of the development will be located in the northwest portion of the site with frontage on New York Avenue and Montana Avenue. Building 1 will include up to 70,000 square feet of grocery, 147,097 square feet of retail, and 220 residential units. A total of 1,798 parking spaces that will be shared by the entire development in an above-ground parking facility are located in the upper levels of Building 1.
- **Building 2** of the development will be located to the east of Building 1, with frontage on New York Avenue and on a new north-south internal roadway. Building 2 will include up to 4,100 square feet of drive-in bank and a 160 room hotel. The various components of Building 2 will share the 1,798 parking spaces located above Building 1. An additional nine (9) surface parking spaces will service the drive-in bank.
- **Building 3** will have frontage on Bladensburg Road and on the new east-west internal roadway. Building 3 will include up to 12,916 square feet of retail and 60 residential units. Building 3 will share the 1,798 parking spaces located above Building 1.
- **Building 4** will have frontage on Montana Avenue and on the new internal east-west roadway. Building 4 will include up to 33,894 square feet of retail and 135

residential units. Building 4 will share the 1,798 parking spaces located above Building 1.

- **Building 5** will be located in the center of the site with frontage on the new internal east-west roadway. Building 5 will include up to 8,035 square feet of retail. Building 5 will share the 1,798 parking spaces located above Building 1.
- **Building 6** will be located directly to the east of Building 5 and will have frontage on the new internal east-west roadway. Building 6 will include up to 43,030 square feet of retail. Building 6 will share the 1,798 parking spaces located above Building 1.
- **Building 7** will be located directly to the east of Building 6 and will also have frontage on the new internal east-west roadway. Building 7 will include up to 46,394 square feet of retail. Building 7 will share the 1,798 parking spaces located above Building 1.
- **Building 8** will be located to the east of Building 7 with frontage on Bladensburg Road to the east and the internal east-west roadway to the north. Building 8 will include up to 31,813 square feet of retail and 153 residential units. Building 8 will share the 1,798 parking spaces located above Building 1. An additional eight (8) parking spaces will be located each of the eight townhomes that front Bladensburg Road.
- **Building 9** will be located at the southern-most portion of the site with frontage on Bladensburg Road and Montana Avenue. Building 9 will include up to 88 residential units, 11,710 square feet of retail and a movie theatre with 2,500 seats. Building 9 will include a 200 space parking garage.

Figure 6 shows an overview of the development program and site plan elements of the lower level. Figure 7 shows an overview of the development program and site plan elements of the plaza level.

### SITE ACCESS

#### Pedestrian Access

Pedestrian access to the development is expected to occur via New York Avenue, Montana Avenue, and Bladensburg Avenue. Primary pedestrian access for each building is as follows:

- **Building 1** will have pedestrian access primarily along the internal east-west roadway.
- **Building 2** will have pedestrian access primarily along the internal north-south roadway.



- Building 3 will have pedestrian access primarily along the internal east-west roadway.
- Building 4 will have pedestrian access primarily along the internal plaza and east-west roadway. Ten (10) residential units line the site on Montana Avenue, and will have pedestrian access on Montana Avenue.
- Building 5 will have pedestrian access primarily along the internal east-west roadway and plaza.
- Building 6 will have pedestrian access primarily along the internal east-west roadway and plaza.
- Building 7 will have pedestrian access primarily along the internal east-west roadway and plaza.
- Building 8 will have pedestrian access primarily along the internal plaza and east-west roadway. Eight (8) residential units line the site on Bladensburg Road, and will have pedestrian access on Bladensburg Road.
- Building 9 will have pedestrian access primarily along the internal plaza.

Pedestrian access and circulation is shown on Figure 8.

#### **Bicycle Access**

Bicycle access to the development is expected to occur via New York Avenue, Montana Avenue, and Bladensburg Road.

Abutting the site along the northern section of Montana Avenue and the western section of New York Avenue, the Applicant plans to install bicycle facilities in public space.

Planned protected bicycle facilities within the development will run along the internal-east west roadway, and connect to the proposed bicycle facilities on 17<sup>th</sup> Street to the west of the site as part of the New York Avenue Rails-to-Trails plans. The planned bicycle facilities in public space and on the internal roadway network will provide acceptable bicycle access to each building of the development.

Bicycle access and circulation is shown on Figure 9.

#### **Vehicular Access**

Vehicular access to the development is expected to occur via New York Avenue, Montana Avenue, and Bladensburg Road. Along New York Avenue, vehicular access will be provided through two curb cuts and one existing public alley. The two curb cuts are planned as unsignalized right-in/right-out access points, and the alley will remain as right-in/right-out. Along Bladensburg Road, vehicular access will be provided through three curb cuts. The southern and northern curb cuts are planned as unsignalized right-in/right-out, and the middle curb

cut is planned as a signalized intersection that will line up with T Street. Along Montana Avenue, vehicular access will be provided through two curb cuts. The southern curb cut is planned as an unsignalized access point, and the curb cut at Montana Avenue and 17<sup>th</sup> Street is planned as a signalized intersection.

Vehicular access is shown on Figure 10 and vehicular circulation is shown on Figure 11.

#### **LOADING**

Table 2 shows the required and planned loading facilities for each building in the development. While some buildings will not have dedicated loading facilities, overall the development exceeds the required amount of loading spaces required by zoning.

Truck routing to and from the site will be focused on designated primary truck routes, such as New York Avenue, Bladensburg Road, and West Virginia Avenue. There are a few truck restricted routes to the south of the site along Rand Place and R Street. Turning maneuvers into and out of the site for each loading area are included in the Technical Attachments.

The amount of loading expected at the site is estimated as follows:

- As a baseline, it is assumed that there will be three (3) daily truck deliveries at each loading area (covering trash, general shared delivery, and mail)
- Residential loading activity is estimated assuming an expected rental turnover of 18 months, with two (2) trucks per move – one move in and one move out.
- Although the exact nature of individual retail spaces is unknown at this time, it is expected that retail stores will generate an additional two (2) deliveries per day in addition to the baseline shared deliveries.
- Grocery loading activity is estimated at 14 truck deliveries per day.
- Hotel loading activity is estimated at 4 truck deliveries per day.
- Drive-in Bank loading activity is estimated at 1 truck deliveries per day.
- Movie Theatre loading activity is estimated at 2 truck deliveries per day.



Using these estimates, the anticipated loading activity for each building is as follows:

- Building 1 of the development is expected to generate a loading demand of 37 trucks per day.
- Building 2 of the development is expected to generate a loading demand of 6 trucks per day.
- Building 3 of the development is expected to generate a loading demand of 7 trucks per day.
- Building 4 of the development is expected to generate a loading demand of 11 trucks per day.
- Building 5 of the development is expected to generate a loading demand of 2 trucks per day.
- Building 6 of the development is expected to generate a loading demand of 10 trucks per day.
- Building 7 of the development is expected to generate a loading demand of 12 trucks per day.
- Building 8 of the development is expected to generate a loading demand of 13 trucks per day.
- Building 9 of the development is expected to generate a loading demand of 7 trucks per day.

The development provides sufficient loading facilities to accommodate practical loading needs.

## PARKING

### Off-Street Parking

Based on the 2016 Zoning Regulations, the following outlines the parking requirements for all land uses of the development:

- Residential (Townhomes)  
1 space per dwelling unit
- Residential (Multi-family Units)  
1 space per 3 dwelling units in excess of 4 dwelling units
- Retail (General, Grocery, Restaurant, and Bank)  
1.33 spaces per 1,000 sf in excess of 3,000 sf
- Hotel  
0.5 spaces per 1,000 sf in excess of 3,000 sf
- Movie Theatre  
2 spaces per 1,000 sf

Table 3 outlines the required and planned parking for the development by building. The parking garage in Building 1 will

supply the majority of shared parking spaces for the development with 1,798 spaces. Building 2 will have nine (9) parking spaces on a surface parking lot for patrons of the Drive-in Bank. Building 8 has eight (8) parking spaces within the individual parking garages of each of the eight (8) townhomes that line Bladensburg Road. Building 9 will supply an additional 200 shared parking spaces in a parking garage for all uses within the development.

Overall, the development will exceed the amount of parking required by zoning.

### On-Street Parking

In addition to the 1,998 parking spaces provided in the Building 1 and Building 9 parking garages, approximately 31 on-street parking spaces will line the internal east-west roadway.

Generally, on-street parking is currently allowed at all times on Montana Avenue, during non-peak times on Bladensburg Road, and not allowed on New York Avenue. Curbside management under existing conditions is shown on Figure 12. This report recommends that DDOT explore placing parking meters along Montana Avenue and Bladensburg Road near the site to increase turnover, reduce auto-dependency, and promote residents, patrons, and employees of the development to use the abundant amount of on-site parking.

### Practical Demand

Since the majority of uses in the development will be sharing the off-street parking spaces located in Building 1 and Building 9, the parking demands of the site were reviewed using the 2016 DC Zoning Requirements, ITE Parking Generation, and ULI Shared Parking principles. In addition, base parking demands were factored for proximity to transit and the overall multimodal nature of the surrounding area. The demands of each use were examined on a weekday/weekend, hourly, and seasonal basis. Shared parking principals take into account the natural peaks of various usages to share parking among complementary users. For instance, residential parking is expected to see its peak demand overnight (between 9:00PM and 6:00AM), retail demand is expected to see its peak demand during the afternoon (between 1:00PM and 7:00PM), theatre parking is expected to see its peak demand during the evening (between 8:00PM and 9:00PM), and grocery demand is expected to see its peak demand during the evening hours (between 4:00PM and 7:00PM).



As shown below in Table 1, the peak overall demand of the development is anticipated to be 1,775 parking spaces between 7:00PM and 9:00PM on a weekend when the residential parking is expected to be most utilized and the potential for evening retail/restaurant volumes are high, as well as expected theatre demand during a weekend evening. As noted above and depicted below on Figure 13, the demand varies for each use during the day.

**Table 1: Shared Parking Demand**

Land Use	Parking Demand
Residential	814 spaces
Retail	365 spaces
Grocery	50 spaces
Drive-in Bank	0 spaces
Hotel	117 spaces
Theatre	429 spaces
<b>Total Peak Shared Parking Demand</b>	<b>1775 spaces</b>
Parking Provided	2046 spaces
Remainder	271 spaces

The amount of parking being provided within and around the development is projected to adequately serve the demands of the site.

## PEDESTRIAN AND BICYCLE FACILITIES

### Bicycle Facilities

The development will meet or exceed the amount of long-term and short-term bicycle parking, as well as the amount of showers and changing facilities that are required by the 2016 Zoning Regulations.

As discussed previously, the site will be improved by bicycle facilities along the internal east-west roadway. Additionally, as a result of the development and in coordination with DDOT, a cycletrack will be added along the boundary of the site on Montana Avenue and New York Avenue.

### Pedestrian Facilities

As discussed previously, pedestrian facilities will be improved throughout the site.

As a result of the development pedestrian facilities along the perimeter of the site will be improved, for example by removing 34 curb cuts, of which 14 are on New York Avenue, ten are along Bladensburg Road, and ten are on Montana

Avenue. The development will improve sidewalks adjacent to the site such that they meet or exceed DDOT requirements and provide an improved pedestrian environment. In order to help improve sidewalk conditions, as part of the development, the Applicant plans to improve conditions along the site. This requires dedicating property within the site to public use.

Pedestrian facilities along all internal roadways are expected to meet or exceed DDOT requirements with an emphasis on pedestrian safety and comfort. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, curb ramps with detectable warnings, and additional design elements such as curb extensions and room for outdoor seating. The inclusion of plazas, improved streetscape, and improved porosity and circulation for pedestrians through throughout the site will be a great improvement over existing conditions.

## TRANSPORTATION DEMAND MANAGEMENT (TDM)

TDM is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM typically focuses on reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods.

The Transportation Demand Management (TDM) plan for the planned development is based on the DDOT expectations for TDM programs. The Applicant proposes the following TDM measures:

- The Applicant will work closely with DDOT to identify the locations and fund the installation of at least one Capital Bikeshare station.
- The Applicant will unbundle the cost of residential parking from the cost of lease or purchase.
- The Applicant will identify TDM Leaders (for planning, construction, and operations). The TDM Leaders will work with residents and employees in each building to distribute and market various transportation alternatives and options.
- The Applicant will provide TDM materials to new residents in the Residential Welcome Package materials.
- The Applicant will install Transportation Information Center Displays (electronic screens) within residential lobbies, containing real-time information related to local transportation alternatives.



- For the first year following the Certificate of Occupancy for each building, each unit's incoming resident will receive either a one-year membership to Capital Bikeshare or a one-year membership to a carsharing service.
- The Applicant will provide bicycle repair stations within the bicycle rooms in the development.
- The Applicant will include carshare spaces within the garage of Building 1.
- The Applicant will install electric vehicle (EV) parking spaces within the garages located in Building 1 and Building 9.

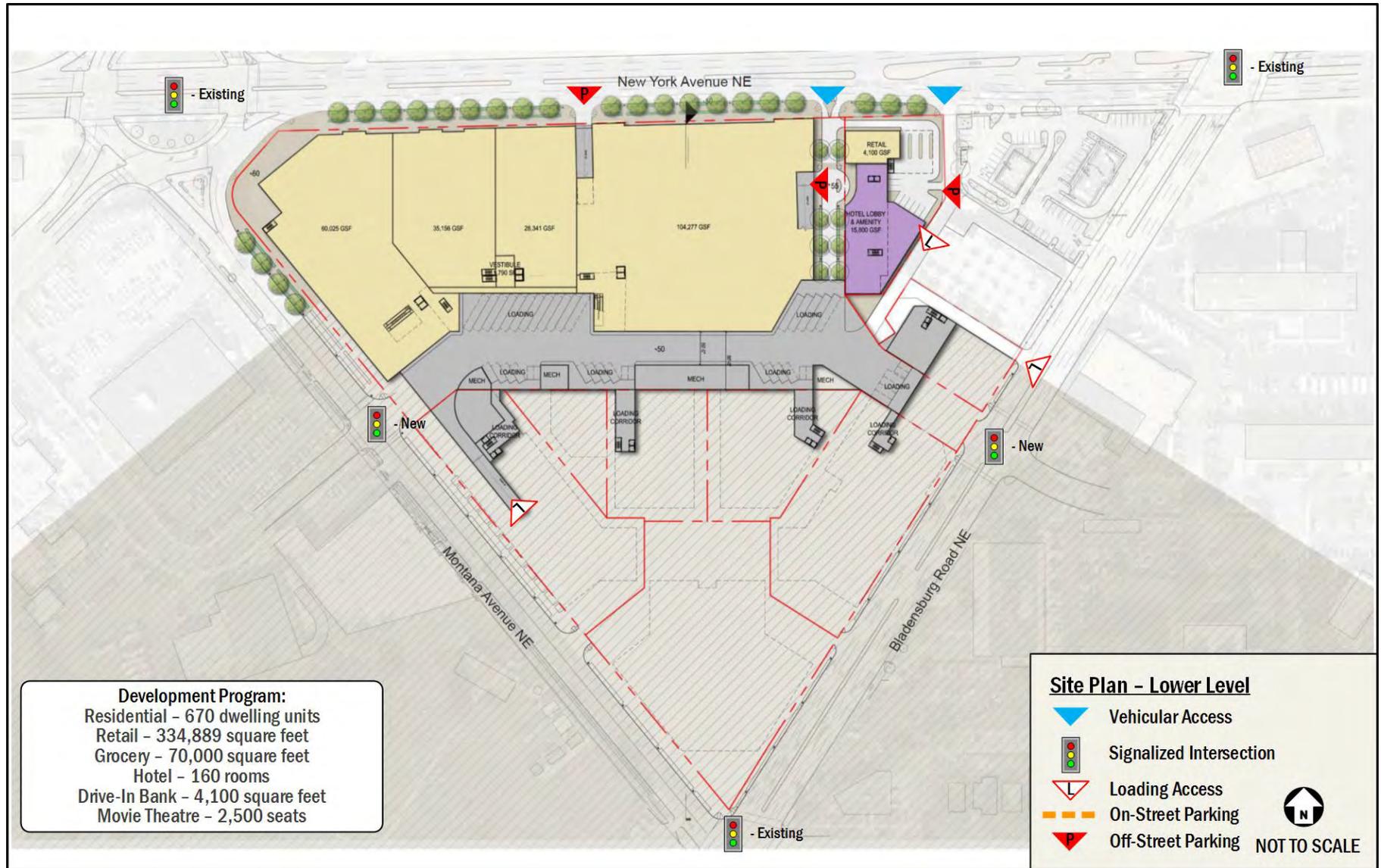


Figure 6: Site Plan – Lower Level



Figure 7: Site Plan – Plaza Level





Figure 9: Bicycle Facilities and Circulation



Figure 10: Vehicular Access



Figure 11: Vehicular Facilities and Circulation



**Table 2: Review of Loading Facilities by Building**

Building	Use Requirement*	Loading Berths	Service/Delivery spaces
Building 1	Residential	1	1
	Retail	3	1
	Grocery	2	1
	Total Required	3	1
	Total Provided	33 (shared with development site)	8 (shared with development site)
Building 2	Retail	0	0
	Hotel	2	0
	Total Required	2	0
	Total Provided	(shared with development site)	(shared with development site)
Building 3	Residential	1	1
	Retail	1	0
	Total Required	1	1
	Total Provided	(shared with development site)	(shared with development site)
Building 4	Residential	1	1
	Retail	2	1
	Restaurant	1	0
	Total Required	2	1
	Total Provided	(shared with development site)	(shared with development site)
Building 5	Restaurant	1	0
	Total Required	1	0
	Total Provided	(shared with development site)	(shared with development site)
Building 6	Retail	2	1
	Restaurant	1	0
	Total Required	2	1
	Total Provided	(shared with development site)	(shared with development site)
Building 7	Retail	2	1
	Restaurant	1	0
	Total Required	2	1
	Total Provided	(shared with development site)	(shared with development site)
Building 8	Residential	1	1
	Retail	2	1
	Restaurant	1	0
	Total Required	2	1
	Total Provided	(shared with development site)	(shared with development site)
Building 9	Residential	1	1
	Retail	1	0
	Theatre	0	0
	Total Required	1	1
	Total Provided	2	1
Total	Required	16	7
	Provided	35	8

\*based on 2016 Zoning Regulations



**Table 3: Review of Parking Facilities by Building**

Building	Use Requirement	Zoning Requirement*	Planned Supply
Building 1	Residential	64 spaces	176 spaces
	Retail	285 spaces	1622 spaces
	Grocery	(shared with retail)	(shared with retail)
	Total	349 spaces	1798 spaces (shared with development site)
Building 2	Retail	5 spaces	9 spaces
	Hotel	47 spaces	(shared with development site)
	Total	52 spaces	9 spaces (shared with development site)
Building 3	Residential	19 spaces	(shared with development site)
	Retail	13 spaces	(shared with development site)
	Total	32 spaces	(shared with development site)
Building 4	Residential	50 spaces	(shared with development site)
	Retail	41 spaces	(shared with development site)
	Restaurant	(shared with retail)	(shared with development site)
	Total	91 spaces	(shared with development site)
Building 5	Restaurant	7 spaces	(shared with development site)
	Total	7 spaces	(shared with development site)
Building 6	Retail	53 spaces	(shared with development site)
	Restaurant	(shared with retail)	(shared with development site)
	Total Provided	53 spaces	(shared with development site)
Building 7	Retail	58 spaces	(shared with development site)
	Restaurant	(shared with retail)	(shared with development site)
	Total Provided	58 spaces	(shared with development site)
Building 8	Residential - Townhomes	8 spaces	8 spaces (in townhome garages)
	Residential - Apartments	47 spaces	(shared with development site)
	Retail	38 spaces	(shared with development site)
	Restaurant	(shared with retail)	(shared with development site)
	Total Provided	93 spaces	8 spaces (shared with development site)
Building 9	Residential	33 spaces	200 spaces
	Restaurant	15 spaces	(shared with residential)
	Theatre	96 spaces	(shared with residential)
	Total Provided	144 spaces	200 spaces (shared with development site)
On-Street Parking (along 17th/T Place)			approx. 31 spaces
Overall Development		879 spaces	2046 spaces

\*based on 2016 Zoning Regulations

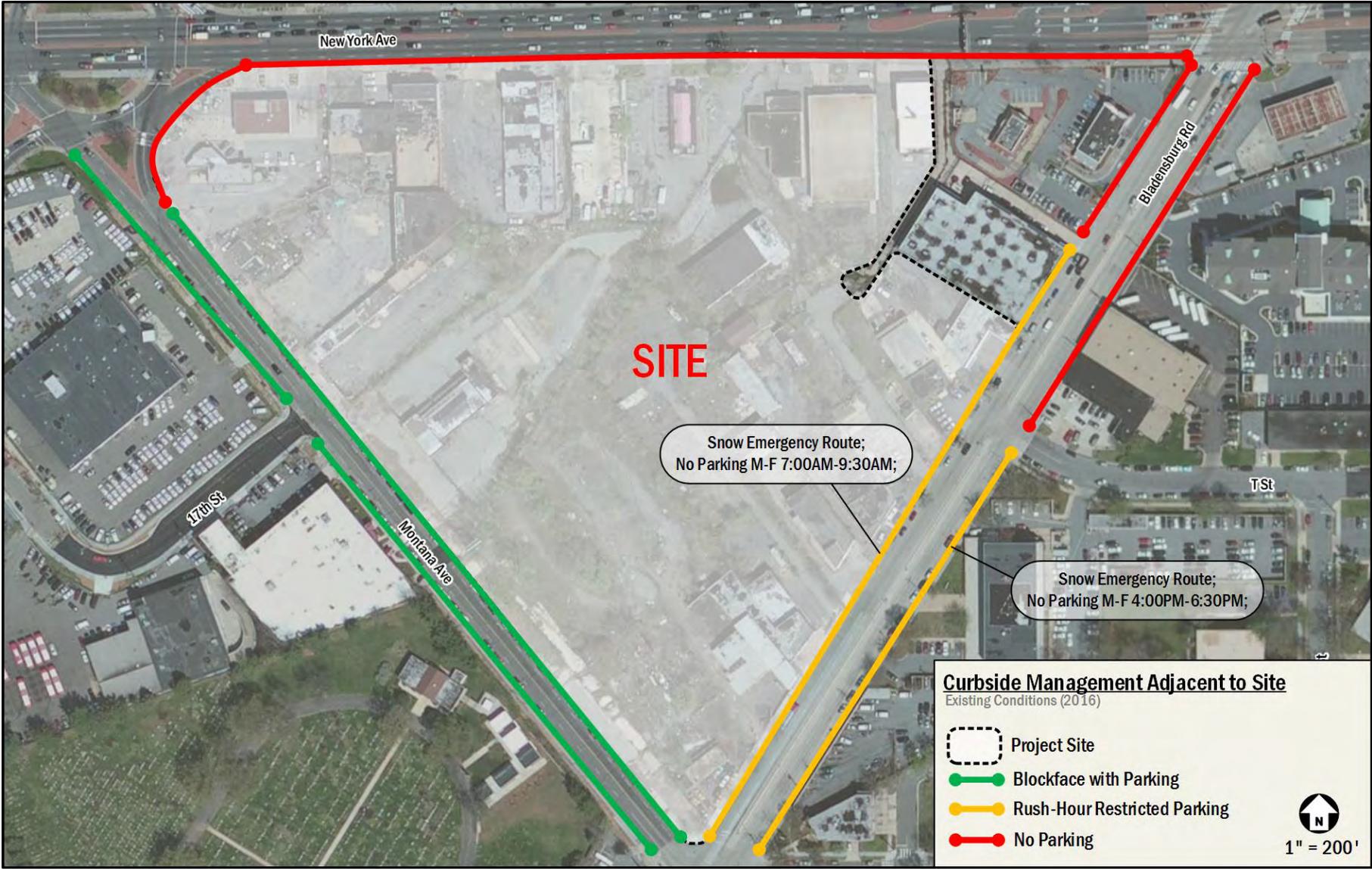
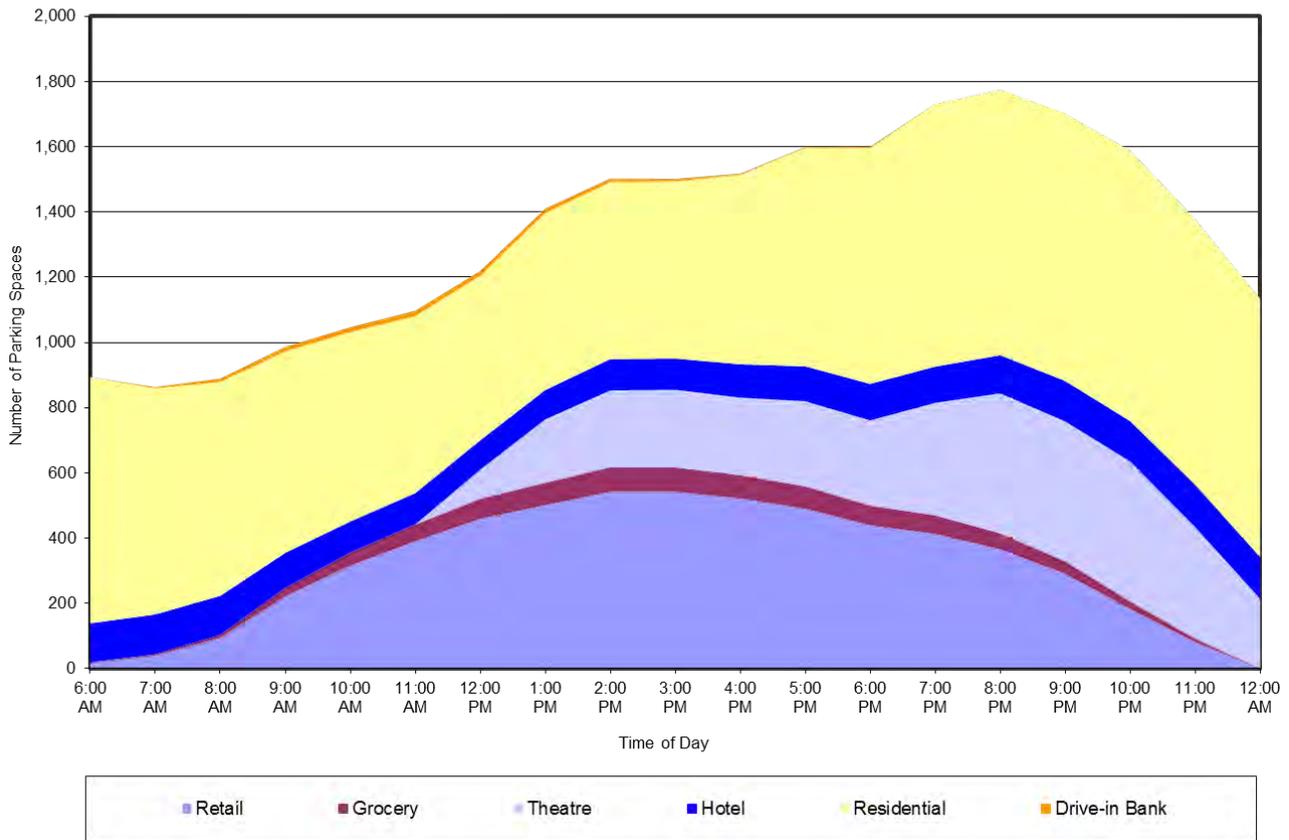


Figure 12: Existing Curbside Management Adjacent to Site



**Figure 13: Weekend Hourly Parking Demand**



## TRIP GENERATION

This section outlines the transportation demand of the proposed New City project. It summarizes the projected trip generation of the site by land use and by mode, which forms the basis for the chapters that follow.

Traditional weekday peak hour trip generation, based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation*, 9<sup>th</sup> Edition. This methodology was supplemented to account for the urban nature of the site (the *Trip Generation Manual* provides data for non-urban, low transit use sites) and to generate trips for multiple modes.

Residential trip generation was calculated based on ITE land use 220, Apartments, splitting trips into different modes using assumptions derived from census data for the residents that currently live near the site. This data was supplemented by the parking supply for the residential component of the project to develop an appropriate mode split.

Retail trip generation was calculated based on ITE land use 820, Shopping Center. Mode splits for the retail portion of the site were based on information contained in WMATA's 2005 *Development-Related Ridership Survey* and mode splits used for retail uses of nearby developments that have recently been studied.

Grocery trip generation was calculated based on ITE land use 850, Supermarket. Mode splits for the grocery component of the site were based on similar assumption to that of the retail use, with a higher auto share due to grocery stores attracting trips from further away than neighborhood-serving retail.

Drive-in Bank Trip generation was calculated based on ITE land use 912, Drive-in Bank. Mode splits for the Drive-in Bank component of the site were based on auto-centric nature of such a facility.

Hotel trip generation was calculated based on ITE land use 310, Hotel. Mode splits for the retail portion of the site were based on information contained in WMATA's 2005 *Development-Related Ridership Survey* and mode splits used for hotel uses of nearby developments that have recently been studied.

Theatre trip generation was calculated based on ITE land use code 445, Multiplex Movie Theatre, splitting trips into different modes using assumptions derived from WMATA's 2005 *Development-Related Ridership Survey* and mode splits for

theatre uses of similar developments that have recently been studied.

The mode split assumptions for all land uses within the development is summarized in Table 4. A summary of the multimodal trip generation for the overall development is provided in Table 5 for the morning, afternoon, and Saturday peak hours. Detailed calculations are included in the Technical Appendix.

**Table 4: Summary of Mode Split Assumptions**

Land Use	Mode			
	Auto	Transit	Bike	Walk
Residential	80%	10%	4%	6%
Retail	40%	15%	10%	35%
Destination Retail	50%	25%	10%	15%
Grocery	60%	15%	5%	20%
Drive-in Bank	95%	0%	0%	5%
Hotel	70%	15%	0%	15%
Theatre	70%	10%	5%	15%

Please note, the analysis was performed assuming a 157-room hotel and a total of 628 residential units.



**Table 5: Multi-Modal Trip Generation Summary**

Mode	Land Use	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
Auto	Residential	54 veh/hr	214 veh/hr	268 veh/hr	230 veh/hr	125 veh/hr	355 veh/hr	146 veh/hr	144 veh/hr	290 veh/hr
	Retail	84 veh/hr	51 veh/hr	135 veh/hr	285 veh/hr	311 veh/hr	596 veh/hr	442 veh/hr	406 veh/hr	848 veh/hr
	Grocery	89 veh/hr	54 veh/hr	143 veh/hr	183 veh/hr	176 veh/hr	359 veh/hr	225 veh/hr	217 veh/hr	442 veh/hr
	Drive-in Bank	28 veh/hr	20 veh/hr	48 veh/hr	48 veh/hr	48 veh/hr	96 veh/hr	52 veh/hr	50 veh/hr	102 veh/hr
	Hotel	34 veh/hr	24 veh/hr	58 veh/hr	34 veh/hr	32 veh/hr	66 veh/hr	44 veh/hr	35 veh/hr	79 veh/hr
	Theatre	0 veh/hr	0 veh/hr	0 veh/hr	90 veh/hr	50 veh/hr	140 veh/hr	113 veh/hr	44 veh/hr	157 veh/hr
	<b>Total</b>	<b>289 veh/hr</b>	<b>363 veh/hr</b>	<b>652 veh/hr</b>	<b>870 veh/hr</b>	<b>742 veh/hr</b>	<b>1612 veh/hr</b>	<b>1022 veh/hr</b>	<b>896 veh/hr</b>	<b>1918 veh/hr</b>
Transit	Residential	8 ppl/hr	30 ppl/hr	38 ppl/hr	33 ppl/hr	18 ppl/hr	51 ppl/hr	21 ppl/hr	20 ppl/hr	41 ppl/hr
	Retail	84 ppl/hr	52 ppl/hr	136 ppl/hr	255 ppl/hr	276 ppl/hr	531 ppl/hr	385 ppl/hr	356 ppl/hr	741 ppl/hr
	Grocery	41 ppl/hr	25 ppl/hr	66 ppl/hr	84 ppl/hr	81 ppl/hr	165 ppl/hr	104 ppl/hr	100 ppl/hr	204 ppl/hr
	Drive-in Bank	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr					
	Hotel	16 ppl/hr	11 ppl/hr	27 ppl/hr	16 ppl/hr	15 ppl/hr	31 ppl/hr	21 ppl/hr	17 ppl/hr	38 ppl/hr
	Theatre	0 ppl/hr	0 ppl/hr	0 ppl/hr	28 ppl/hr	16 ppl/hr	44 ppl/hr	36 ppl/hr	14 ppl/hr	50 ppl/hr
	<b>Total</b>	<b>149 ppl/hr</b>	<b>118 ppl/hr</b>	<b>267 ppl/hr</b>	<b>416 ppl/hr</b>	<b>406 ppl/hr</b>	<b>822 ppl/hr</b>	<b>567 ppl/hr</b>	<b>507 ppl/hr</b>	<b>1074 ppl/hr</b>
Bike	Residential	3 ppl/hr	12 ppl/hr	15 ppl/hr	13 ppl/hr	7 ppl/hr	20 ppl/hr	8 ppl/hr	8 ppl/hr	16 ppl/hr
	Retail	41 ppl/hr	26 ppl/hr	67 ppl/hr	126 ppl/hr	136 ppl/hr	262 ppl/hr	187 ppl/hr	174 ppl/hr	361 ppl/hr
	Grocery	14 ppl/hr	8 ppl/hr	22 ppl/hr	28 ppl/hr	27 ppl/hr	55 ppl/hr	35 ppl/hr	33 ppl/hr	68 ppl/hr
	Drive-in Bank	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr					
	Hotel	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr					
	Theatre	0 ppl/hr	0 ppl/hr	0 ppl/hr	14 ppl/hr	8 ppl/hr	22 ppl/hr	18 ppl/hr	7 ppl/hr	25 ppl/hr
	<b>Total</b>	<b>58 ppl/hr</b>	<b>46 ppl/hr</b>	<b>104 ppl/hr</b>	<b>181 ppl/hr</b>	<b>178 ppl/hr</b>	<b>359 ppl/hr</b>	<b>248 ppl/hr</b>	<b>222 ppl/hr</b>	<b>470 ppl/hr</b>
Walk	Residential	5 ppl/hr	18 ppl/hr	23 ppl/hr	20 ppl/hr	11 ppl/hr	31 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr
	Retail	104 ppl/hr	65 ppl/hr	169 ppl/hr	311 ppl/hr	336 ppl/hr	647 ppl/hr	452 ppl/hr	417 ppl/hr	869 ppl/hr
	Grocery	54 ppl/hr	33 ppl/hr	87 ppl/hr	112 ppl/hr	108 ppl/hr	220 ppl/hr	138 ppl/hr	133 ppl/hr	271 ppl/hr
	Drive-in Bank	2 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr
	Hotel	16 ppl/hr	11 ppl/hr	27 ppl/hr	16 ppl/hr	15 ppl/hr	31 ppl/hr	21 ppl/hr	17 ppl/hr	38 ppl/hr
	Theatre	0 ppl/hr	0 ppl/hr	0 ppl/hr	42 ppl/hr	24 ppl/hr	66 ppl/hr	53 ppl/hr	21 ppl/hr	74 ppl/hr
	<b>Total</b>	<b>181 ppl/hr</b>	<b>128 ppl/hr</b>	<b>309 ppl/hr</b>	<b>504 ppl/hr</b>	<b>497 ppl/hr</b>	<b>1001 ppl/hr</b>	<b>679 ppl/hr</b>	<b>603 ppl/hr</b>	<b>1282 ppl/hr</b>



## TRAFFIC OPERATIONS

This section provides a summary of an analysis of the existing and future roadway capacity in the study area. Included is an analysis of potential vehicular impacts of the New City project and a discussion of potential improvements.

The purpose of the capacity analysis is to:

- Determine the existing capacity of the study area roadways;
- Determine the overall impact of the project on the study area roadways; and
- Discuss potential improvements and mitigation measures to accommodate the additional vehicular trips

This analysis was accomplished by determining the traffic volumes and roadway capacity for the following scenarios:

1. 2015 Existing Conditions
2. 2022 Background Conditions without the development (2022 Background)
3. 2022 Future Conditions with the development (2022 Total Future)

The capacity analysis focuses on the morning and afternoon commuter peak hours, as well as the Saturday midday peak hour as determined by the existing traffic volumes in the study area.

The following conclusions are reached within this chapter:

- The existing study area intersections generally operate at an acceptable level of service during all analysis scenarios for the morning, afternoon, and Saturday peak hours.
- Existing areas of concern for roadway capacity are primarily focused along the heavily trafficked commuter routes: New York Avenue and Bladensburg Road.
- The addition of trip generated by background developments and inherent growth on the study area causes a number of intersections to experience unacceptable levels of delay and queuing.
- As is expected of infill developments of this size, there are eight (8) intersections that operate at an unacceptable level of service as a result of the proposed development
- Mitigation measures were analyzed and discussed for these intersections, which greatly improve the overall operations at these intersections.

- Overall, this report concludes that the project will not have a detrimental impact to the surrounding transportation network

### STUDY AREA, SCOPE, & METHODOLOGY

This section outlines the vehicular trips generated in the study area along the vehicular access routes and defines the analysis assumptions.

The scope of the analysis contained within this report was discussed with and agreed to with DDOT. The general methodology of the analysis follows national and DDOT guidelines on the preparation of transportation impact evaluations of site development, unless stated otherwise.

#### Capacity Analysis Scenarios

The vehicular analyses are performed to determine if the proposed development of the New City project will lead to adverse impacts on traffic operations. (A review of impacts to each of the other modes is outlined later in this report.) This is accomplished by comparing future scenarios: (1) without the proposed development (referred to as the Background condition) and (2) with the development approved and constructed (referred to as the Future condition).

Specifically, the roadway capacity analysis examined the following scenarios:

1. 2015 Existing Conditions
2. 2022 Background Conditions without the development (2022 Background)
3. 2022 Future Conditions with the development (2022 Total Future)

#### Study Area

The study area of the analysis is a set of intersections where detailed capacity analyses are performed for the scenarios listed above. The set of intersections decided upon during the study scoping process with DDOT are those intersections most likely to have potential impacts or require changes to traffic operations to accommodate the proposed development. Although it is possible that impacts will occur outside of the study area, those impacts are not significant enough to be considered a detrimental impact nor worthy of mitigation measures.



Based on the projected future trip generation and the location of the site access points, the following intersections were chosen for analysis:

1. Mount Olivet Road & West Virginia Avenue NE
2. New York Avenue & 16<sup>th</sup> Street NE
3. West Virginia Avenue & 16<sup>th</sup> Street NE
4. West Virginia Avenue & 17<sup>th</sup> Street NE
5. Montana Avenue & W Street NE
6. New York Avenue & Montana Avenue & West Virginia Avenue NE
7. Mount Olivet Road & Bladensburg Road NE
8. Bladensburg Road & 17<sup>th</sup> Street NE
9. Montana Avenue & 17<sup>th</sup> Street NE
10. New York Avenue NE & Garage Site Access
11. Montana Avenue NE & Southwest Driveway
12. New York Avenue NE & Hotel Site Access
13. Bladensburg Road & Montana Avenue NE
14. Bladensburg Road NE & Southeast Driveway
15. New York Avenue NE & Alley Access
16. Bladensburg Road & T Street NE
17. Bladensburg Road NE & South Alley Access
18. Bladensburg Road NE & North Alley Access
19. New York Avenue & Bladensburg Road NE
20. Bladensburg Road & Queens Chapel Road NE
21. Bladensburg Road & 25<sup>th</sup> Place & V Street NE

Figure 14 shows a map of the study area intersections.

### Traffic Volume Assumptions

The following section reviews the traffic volume assumptions and methodologies used in the roadway capacity analyses.

#### Existing Traffic Volumes

The existing traffic volumes are comprised of turning

movement count data, which was collected on Tuesday, May 19, 2015, Tuesday, November 17, 2015, Thursday, November 19, 2016, Saturday, November 21, 2016, Saturday, December 12, 2016, Wednesday, June 1, 2016, Thursday, June 2, 2016, and Saturday, June 4, 2016. The results of the traffic counts are included in the Technical Attachments. For all intersections the individual morning, afternoon, and Saturday peak hours were used.

#### 2022 Background Traffic Volumes (without the project)

Traffic projections for the background conditions typically consist of the existing volumes with two additions:

- Traffic generated by developments expected to be completed prior to the project (known as background developments); and
- Inherent growth on the roadway (representing regional traffic growth).

Following industry, national, and DDOT methodologies, a background development must meet the following criteria to be incorporated into the analysis:

- Be located in the study area, defined as having an origin or destination point within the cluster of study area intersections;
- Have entitlements; and
- Have a construction completion date prior or close to the proposed development.

Based on this criteria, and as discussed previously, one development was included in the 2022 Background scenario.

**Table 6: Summary of Background Development Trip Generation**

Hecht Warehouse	ITE Land Use Code		Quantity	AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
	Trip Generation, 9th Ed.			In	Out	Total	In	Out	Total	In	Out	Total
<b>Residential Component</b>												
Residences	220	Apartment	338 du	34	138	172	137	73	210	88	88	176
<i>Non-Auto Reduction</i>			-40%	-14	-55	-69	-55	-29	-84	-35	-35	-70
<b>Auto Trips to Site</b>				<b>20</b>	<b>83</b>	<b>103</b>	<b>82</b>	<b>44</b>	<b>126</b>	<b>53</b>	<b>53</b>	<b>106</b>
<b>Currently Occupied</b>			<b>-5.4%</b>	<b>-1</b>	<b>-4</b>	<b>-6</b>	<b>-4</b>	<b>-2</b>	<b>-7</b>	<b>-3</b>	<b>-3</b>	<b>-6</b>
<b>Retail Component</b>												
Retail Space	820	Shopping Center	224,414 sf	133	82	215	400	433	833	563	519	1,082
<i>Non-Auto Reduction</i>			-8%	-11	-6	-17	-32	-35	-67	-45	-42	-87
<b>Auto Trips to Site</b>				<b>122</b>	<b>76</b>	<b>198</b>	<b>368</b>	<b>398</b>	<b>766</b>	<b>518</b>	<b>477</b>	<b>995</b>
<i>Pass-By Reduction</i>			<i>PM Only: -25%</i>	0	0	0	-92	-100	-192	0	0	0
<b>New Auto Trips to Site</b>				<b>122</b>	<b>76</b>	<b>198</b>	<b>276</b>	<b>298</b>	<b>574</b>	<b>518</b>	<b>477</b>	<b>995</b>
<b>Currently Occupied</b>			<b>-21.9%</b>	<b>-27</b>	<b>-17</b>	<b>-43</b>	<b>-60</b>	<b>-65</b>	<b>-126</b>	<b>-113</b>	<b>-104</b>	<b>-218</b>
<b>Net New Site Trips</b>				<b>95</b>	<b>59</b>	<b>155</b>	<b>216</b>	<b>233</b>	<b>448</b>	<b>405</b>	<b>373</b>	<b>777</b>
<b>Net New Site Trips</b>				<b>114</b>	<b>138</b>	<b>252</b>	<b>293</b>	<b>274</b>	<b>567</b>	<b>455</b>	<b>423</b>	<b>877</b>



This development is:

### 1. Hecht Warehouse District

An existing transportation study was available for the Hecht Warehouse Development. Trip distribution assumptions for the background development was based its respective study, and altered where necessary based on anticipated travel patterns. Mode split and trip generation assumptions for the background development are shown on Table 6.

While background developments represent local traffic changes, regional traffic growth is typically accounted for using growth rates. The growth rates used in this analysis are derived from the MWCOC model, comparing the difference between the year 2015 and 2025 model scenarios. The growth rates observed in this model served as a basis for analysis assumptions, and where zero or negative growth was observed, a conservative 0.5 percent annual growth rate was applied to the roadway. The applied growth rates are shown in Table 7.

The traffic volumes generated by the background developments and inherent growth along the network were added to the existing traffic volumes in order to establish the 2022 Background traffic volumes. The traffic volumes for the 2022 Background conditions are included in the Technical Appendix.

#### *2022 Total Future Traffic Volumes (with the project)*

The 2022 Total Future traffic volumes consist of the 2022 Background volumes with the addition of the traffic volumes generated by the proposed development (site-generated trips). Thus, the 2022 Total Future traffic volumes include traffic generated by: the existing volumes, background developments, the inherent growth on the study area roadways, and the proposed project.

Trip distribution for the site was determined based on: (1) CTPP TAZ data, (2) existing travel patterns in the study area, and (3) the allotted parking locations of various users of the development.

The residential trip distribution was significantly influenced by the CTPP TAZ flow data for drivers commuting from the site's TAZ, and adjusted based on traffic volumes and patterns. The origin of outbound and destination of inbound vehicular trips was primarily the garages of Building 1 and 9, with some trips

routed to and from the new residential alley along Bladensburg Road.

The retail, grocery, and Drive-in Bank distribution was mostly based on locations and proximity of other retail centers, with some influence on the CTPP TAZ flow data for drivers commuting to the site's TAZ (representing employees that drive). Thus, the retail trip distribution is weighted more towards nearby residential areas and less on regional origins. The origin of outbound and destination of inbound retail vehicular trips was the garages of Building 1 and Building 9. The origin of outbound and destination of inbound grocery vehicular trips was the garage of Building 1. The origin of outbound and destination of inbound Drive-in Bank vehicular trips was the surface parking lot of Building 2.

The hotel distribution was mostly based on the locations of major routes used by visitors to the District, the locations of major airports in the area such as BWI, DCA, and IAD, major through routes such as I-95/I-495, and the locations of popular tourist attractions, mostly located to the southwest of the site. The origins of outbound and destinations of inbound retail vehicular trips was the porte-cochere of Building 2.

The movie theatre trip distribution assumptions were mostly based on the location of other movie theatres, with some influence on the CTPP TAZ flow data for drivers commuting to the site's TAZ (representing employees that drive). Thus, the movie theatre trip distribution is weighted more towards nearby residential areas and less on regional origins. The origins of outbound and destinations of inbound retail vehicular trips was the garage of Building 9.

Based on traffic patterns and a comprehensive review of the site access locations, the site-generated trips were distributed through the study area intersections. A summary of trip distribution assumptions and routing for each element of the development is provided on Figure 15 for inbound trips and Figure 16 for outbound trips.

The site-generated traffic volumes for the 2022 Future traffic conditions are included in the Technical Appendix.

### **Geometry and Operations Assumptions**

The following section reviews the roadway geometry and operations assumptions made and the methodologies used in the roadway capacity analyses.



**Table 7: Applied Annual and Total Growth Rates**

Road & Direction	Applied Annual Growth Rate			Total Growth between 2015 and 2022		
	AM Peak	PM Peak	Sat Peak	AM Peak	PM Peak	Sat Peak
New York Avenue NE – Eastbound	0.75%	0.50%	0.50%	5.4%	3.6%	3.6%
New York Avenue NE – Westbound	0.50%	0.50%	0.50%	3.6%	3.6%	3.6%
Bladensburg Road NE – Northbound	0.50%	0.50%	0.50%	3.6%	3.6%	3.6%
Bladensburg Road NE – Southbound	0.50%	0.50%	0.50%	3.6%	3.6%	3.6%
Montana Avenue NE – Northbound	1.00%	0.50%	1.50%	7.2%	3.6%	11.0%
Montana Avenue NE – Southbound	0.50%	1.00%	1.50%	3.6%	7.2%	11.0%
Mt Olivet Road NE – Eastbound	1.00%	1.25%	1.00%	7.2%	9.1%	7.2%
Mt Olivet Road NE – Westbound	0.75%	2.00%	1.25%	5.4%	14.9%	9.1%
West Virginia Avenue NE – Northeastbound	1.25%	0.50%	0.50%	9.1%	3.6%	3.6%
West Virginia Avenue NE – Southwestbound	0.50%	0.50%	0.50%	3.6%	3.6%	3.6%

*Existing Geometry and Operations Assumptions*

The geometry and operations assumed in the existing conditions scenario are those present when the main data collection occurred. Gorove/Slade made observations and confirmed the existing lane configurations and traffic controls at the intersections within the study area. Existing signal timings and offsets were obtained from DDOT and confirmed during field reconnaissance.

The lane configurations and traffic controls for the Existing conditions are shown on Figure 17, Figure 18, and Figure 19. Of note, the intersection of New York Avenue and Bladensburg Road was analyzed as four separate intersections in order to capture the left turns and U-turns pockets to the east and west of the intersection. The traffic circle at the intersection of New York Avenue, West Virginia Avenue, and Montana Avenue was analyzed as six separate intersections.

*Background Geometry and Operations Assumptions*

Following national and DDOT methodologies, a background improvement must meet the following criteria to be incorporated into the analysis:

- Be funded; and
- Have a construction completion date prior or close to the proposed development.

Based on these criteria, no background assumptions were included in the analysis.

*Total Future Geometry and Operations Assumptions*

The geometry and operations assumed in the total future conditions scenario are based on the existing conditions with the following improvements:

- The extension of 17<sup>th</sup> Street through the site as an internal roadway, from the intersection of 17<sup>th</sup> Street and Montana Avenue to the intersection of 17<sup>th</sup> Street and Bladensburg Road.
- The signalization of the intersection of 17<sup>th</sup> Street and Montana Avenue and the signalization of 17<sup>th</sup> Street and T Street.
- A site access point along Montana Avenue.
- Two (2) site access points along New York Avenue.
- Two (2) site access point along Bladensburg Road.

The lane configurations and traffic controls for the Future conditions are shown on Figure 20, Figure 21, and Figure 22.

**VEHICULAR ANALYSIS RESULTS**

**Intersection Capacity Analysis**

Intersection capacity analyses were performed for the three scenarios outlined previously at the intersections contained within the study area during the morning, afternoon, and Saturday peak hours. *Synchro*, version 9.0 was used to analyze the study intersections based on the *Highway Capacity Manual* (HCM) 2000 methodology.

Of note, the nodes to the east and west of the intersection of New York Avenue and Bladensburg Road were analyzed using *VISTRO* software, version 4.0 which is based on the HCM 2000 methodologies. The lane configuration of the nodes is not allowed in *Synchro*; therefore, the results were obtained using *VISTRO*.

The results of the capacity analyses are expressed in level of service (LOS) and delay (seconds per vehicle) for each approach. A LOS grade is a letter grade based on the average delay (in seconds) experienced by motorists traveling through



an intersection. LOS results range from “A” being the best to “F” being the worst. LOS D is typically used as the acceptable LOS threshold in the District; although LOS E or F is sometimes accepted in urbanized areas if vehicular improvements would be a detriment to safety or non-auto modes of transportation.

The LOS capacity analyses were based on: (1) the peak hour traffic volumes; (2) the lane use and traffic controls; and (3) the Highway Capacity Manual (HCM) methodologies (using the *Synchro* and *VISTRO* software). The average delay of each approach and LOS is shown for the signalized intersections in addition to the overall average delay and intersection LOS grade. The HCM does not give guidelines for calculating the average delay for a two-way stop-controlled intersection, as the approaches without stop signs would technically have no delay. Detailed LOS descriptions and the analysis worksheets are contained in the Technical Attachments.

Table 8 shows the results of the capacity analyses, including LOS and average delay per vehicle (in seconds) for the Existing, 2022 Background, and 2022 Total Future scenarios. The capacity analysis results are shown on Figure 23, Figure 24, and, Figure 25 for the morning peak hour, on Figure 26, Figure 27, and Figure 28 for the afternoon peak hour, and Figure 29, Figure 30, and Figure 31 for the Saturday peak hour. The majority of the study intersections operate at acceptable conditions during the morning, afternoon, and Saturday peak hours for the Existing, 2022 Background, and 2022 Future scenarios; however, 11 intersections operate under unacceptable conditions during one or more peak hour:

- Mount Olivet Road & West Virginia Avenue NE
- West Virginia Avenue & 16<sup>th</sup> Street NE
- West Virginia Avenue & 17<sup>th</sup> Street NE
- Montana Avenue & W Street & 18<sup>th</sup> Street
- New York Avenue & Montana Avenue & West Virginia Avenue NE
- Mount Olivet Road & Bladensburg Road NE
- Bladensburg Road & 17<sup>th</sup> Street NE
- Bladensburg Road & Montana Avenue & S Street NE
- New York Avenue & Bladensburg Road NE
- Bladensburg Road & Queens Chapel Road NE
- Bladensburg Road & 25<sup>th</sup> Place & V Street NE

### Queueing Analysis

In addition to the capacity analyses presented above, a queueing analysis was performed at the study intersections. The queueing analysis was performed using the *Synchro* and *VISTRO* software. The 50<sup>th</sup> percentile and 95<sup>th</sup> percentile maximum queue lengths are shown for each lane group at the study area signalized intersections. The 50<sup>th</sup> percentile maximum queue is the maximum back of queue on a typical cycle. The 95<sup>th</sup> percentile queue is the maximum back of queue with 95<sup>th</sup> percentile traffic volumes. For unsignalized intersection, the 95<sup>th</sup> percentile queue is reported for each lane group (including free-flowing left turns and stop-controlled movements) based on the HCM 2000 calculations. HCM does not report queueing for all-way stop.

Table 9 shows the queueing results for the study area intersections. Several of the study intersections have a lane group that exceeds its storage length during at least one peak hour in all of the study scenarios. These intersections are as follows:

- Mount Olivet Road & West Virginia Avenue NE
- Montana Avenue & W Street & 18<sup>th</sup> Street NE
- New York Avenue & Montana Avenue & West Virginia Avenue NE
- Bladensburg Road & 17<sup>th</sup> Street NE
- Bladensburg Road & Montana Avenue & S Street NE
- Bladensburg Road NE & Southeast Driveway
- New York Avenue NE & Alley Access
- Bladensburg Road & T Street NE
- New York Avenue & Bladensburg Road NE
- Bladensburg Road & 25<sup>th</sup> Place & V Street NE

With the addition of the site-generated traffic, queues are slightly increased at all of the study intersections, but no major impacts are seen as a result of the development. Three intersections experience an increase in 95<sup>th</sup> percentile queues large enough to trigger mitigations, and are discussed in the recommendations section.

### Simulation Results

During the scoping process, DDOT requested a traffic simulation of the study area be performed in order to review in detail the signal timing progression and impacts of the development. As such, this study assembled simulations for the AM, PM, and Saturday peak hours of the Existing, Background, and Future scenarios. The simulations were performed using



the *SimTraffic* software. Results of the simulations are summarized below, with detailed simulation results included in the Technical Appendix.

In general, the simulation analysis showed:

- Conditions along the major commuting corridors of the study area, specifically New York Avenue, Montana Avenue, and Bladensburg Road, are near or at capacity under existing conditions. Forecasted growth and the addition of the development related traffic exacerbate these failing or near-failing conditions, as is generally reflected in the HCM results.
- Inbound commuter traffic on New York Avenue in the AM had significant delay and queuing issues in the simulation. Outbound commuter traffic on New York Avenue in the PM had significant delay and queuing issues in the simulation.
- Montana Avenue, northbound south of the traffic circle and southbound north of the traffic circle, showed significant queuing and delay during the PM and Saturday simulations for all study scenarios.
- The southbound approach of Bladensburg Road at New York Avenue experiences significant queuing and delay during the AM and PM simulations for all study scenarios.

**Mitigations**

Generally speaking, the proposed development is considered to have an impact at an intersection within the study area if the capacity analyses show an LOS E or LOS F, or where the 95<sup>th</sup> percentile queues increase by more than 150 feet at an intersection or along an approach in the future conditions with the proposed development where one does not exist in the existing or background conditions. The development is also considered to have an impact if there is an increase in delay at any approach or the overall intersection operating under LOS E or F of greater than 5%, when compared to the background condition. Following these guidelines there are impacts to eight (8) intersections as a result of the development. Mitigation measures were tested at these intersections, with results shown on Table 10, with detailed *Synchro* reports included in the Appendix. The following conclusions were made:

- West Virginia Avenue & 16<sup>th</sup> Street  
Under the 2022 Future conditions, the delay for the southbound approach increases by more than the 5

second threshold over the unacceptable 2022 Background conditions during the afternoon study periods.

The increase in thru volumes along West Virginia Avenue means that the effective gap that southbound left turning vehicles have is reduced, increasing delay. There isn't enough width curb-to-curb to create additional lanes, and any additional lanes would not be recommended given the southbound approach is stop controlled. All-way stop and signal warrants were performed, but it was found that neither were warranted based on peak hour vehicle and pedestrian volumes. Therefore, no improvements to the intersection are recommended.

- West Virginia Avenue & 17<sup>th</sup> Street  
Under the 2022 Future conditions, the delay for the northbound approach increases to a LOS F during the morning and afternoon study periods.

The increase in thru volumes along West Virginia Avenue means that the effective gap that northbound left turning vehicles have is reduced, increasing delay. All-way stop and signal warrants were performed, and it was found that an all-way stop was warranted based on peak hour vehicle and pedestrian volumes, even under existing conditions. Converting the intersection from a two-way stop controlled to all-way stop controlled would alleviate delay on 17th Street Road, and improve delay to acceptable levels.

- Montana Avenue & W Street & 18<sup>th</sup> Street  
Under the 2022 Future conditions, delay for the overall intersection is projected to increase by more than 5 seconds over the unacceptable 2022 Background conditions during the morning and afternoon periods. During the Saturday study period, delay for the overall intersection is projected to increase to LOS F. 95<sup>th</sup> percentile queuing for the westbound thru/right lane increases by more than 150 feet during the Saturday study period.

The intersection can be improved by adjusting signal timings and restriping. Signal timings can be adjusted such that the split phasing for the northbound and southbound approaches is removed, and the eastbound and westbound approaches receive more green time. Restriping the westbound approach to be one thru/left lane and one right only lane will further improve



operations at this intersection. Synchro files were provided to DDOT and detailed analysis worksheets are included in the Technical Attachments.

The recommended mitigations would slightly reduce pedestrian comfort by remove the split-phase that provide pedestrians crossing on the east and west legs of the intersection separate crossing phases than left turning vehicles. The recommended mitigations have no negative impact on the amount of time pedestrians receive to cross the intersection.

- *New York Avenue & Montana Avenue & West Virginia Avenue Intersection Complex*

While the capacity analysis developed for this study noted significant delays at the intersection complex under future conditions, observations note that delays extend along most approaches to these intersections under existing conditions. These delays are a result of the limited throughput that the intersections can accommodate, and metering that is caused by these intersections along with other intersections up- and down-stream from the intersection complex. With the addition of the development, delays and queuing are increased to unacceptable levels for certain approaches. However, given the delay and queuing present throughout the New York Avenue corridor, solutions for the delays and queuing issues present at these intersections should be examined through regional transportation planning efforts.

- *Bladensburg Road & Mount Olivet Road*

Under the 2022 Future conditions, delay for the overall intersection and southbound approach is projected to increase by more than 5 seconds over the unacceptable 2022 Background conditions during the morning period. During the afternoon period, delay for the southbound approach is projected to increase to LOS F. During the Saturday period, delay for the overall intersection increases to LOS F and delay for the southbound approach increases by more than 5 seconds over the unacceptable 2022 Background conditions.

The intersection can be improved by adjusting signal timings. Signal timings can be adjusted such that the southbound approach receives more green time versus a hold phase. Synchro files were provided to DDOT and

detailed analysis worksheets are included in the Technical Attachments.

The recommended mitigations were simulated to account for the proximity and coordination with the signal at the intersection of Bladensburg Road and 17<sup>th</sup> Street.

The recommended mitigations have no negative impact on the amount of time pedestrians receive to cross the intersection.

- *Bladensburg Road & 17<sup>th</sup> Street*

Under the 2022 Future conditions, delay for the westbound approach is projected to increase to LOS E in the morning and Saturday periods. The eastbound approach is projected to increase to LOS F in the afternoon study period.

The intersection can be improved by adjusting signal timings such that the movements associated with Bladensburg receive more green time versus those on 17<sup>th</sup> Street. Synchro files were provided to DDOT and detailed analysis worksheets are included in the Technical Attachments.

The recommended mitigations were simulated to account for the proximity and coordination with the signal at the intersection of Bladensburg Road and Mount Olivet Road.

Generally, the recommended mitigations have no negative impact on the amount of time pedestrians receive to cross the intersection. The exception to this is during the afternoon period, when pedestrians crossing the southern leg of the intersection lost 5 seconds of Flash Don't Walk time in order to improve all approaches to at least an LOS D or better.

- *Bladensburg Road & Montana Avenue & S Street*

Under the 2022 Future conditions, delay during the morning peak is projected to increase for the southbound approach to LOS E. During the Saturday peak, the overall intersection delay is projected to increase to LOS E and delay for the southbound approach increases by more than 5 seconds over the unacceptable 2022 Background conditions to LOS F. 95<sup>th</sup> percentile queuing for the southbound approach by more than 150 feet during the morning period.



Delay and queuing at this intersection can be improved by adjusting signal timings such that the southbound phase receives more green time. Synchro files were provided to DDOT and detailed analysis worksheets are included in the Technical Attachments.

The recommended mitigations have no negative impact on the amount of time pedestrians receive to cross the intersection.

▪ **Bladensburg Road & New York Avenue**

Under the 2022 Future conditions, delay during the afternoon peak is projected to increase by more than 5 seconds for over the unacceptable 2022 Background conditions for the overall intersection, the eastbound approach, and the northbound approach. Delay for the southbound approach is projected to increase to LOS E. During the Saturday peak, delay is projected to increase by more than 5 seconds over the unacceptable 2022 Background conditions for the overall intersection and the eastbound approach. Delay for the westbound approach is projected to increase to LOS E.

Similarly to the intersection of New York Avenue, Montana Avenue, and West Virginia Avenue, solutions for the delays and queuing present at these intersections should be examined through regional transportation planning efforts. Furthermore, this intersection was identified in the New York Avenue Corridor Study for improvement. The New York Avenue Corridor Study proposed that the intersection be reconstructed so New York Avenue passed below the existing intersection; the existing intersection would be reconstructed to provide an appearance more in keeping with traditional grade separated traffic circles found elsewhere in the District.

This report did explore short term operational mitigations that could be implemented prior to proposed reconstruction of the intersection as other improvements such as widening the roadways or adding supplemental turn lanes are infeasible. However, due to the heavy traffic along New York Avenue and Bladensburg Road, shifting time from one movement to the next will create capacity concerns along New York Avenue or Bladensburg Avenue. As such, this report does not recommend shifting the full amount of time needed to improve delay for the each approach to LOS D or better, but instead defers to DDOT to

consider that LOS E and F are sometimes accepted within an urban context.

During the morning and afternoon periods, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the eastbound and westbound approaches on New York Avenue to the northbound and southbound approaches on Bladensburg Road. Changing the signage for the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

During the Saturday period, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the northbound and southbound approaches on Bladensburg Road to the eastbound and westbound approaches on New York Avenue. Changing the signage on the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

The recommended mitigations have no negative impact on the amount of time pedestrians need to cross the intersection.

Synchro files were provided to DDOT and detailed analysis worksheets are included in the Technical Attachments.

Of note, the left/U-turn nodes to the east and west of the intersection experience an increase in delay greater than 5 seconds over the unacceptable 2022 Background conditions. Improvements to these minor movements is expected to be addressed alongside the reconfiguration of the New York Avenue and Bladensburg intersection.

**Site Driveways**

The capacity analyses shows that the new site driveways all operate at acceptable conditions. Two site access points trigger the need for a traffic signal. Signal warrants are included in the Technical Appendix.

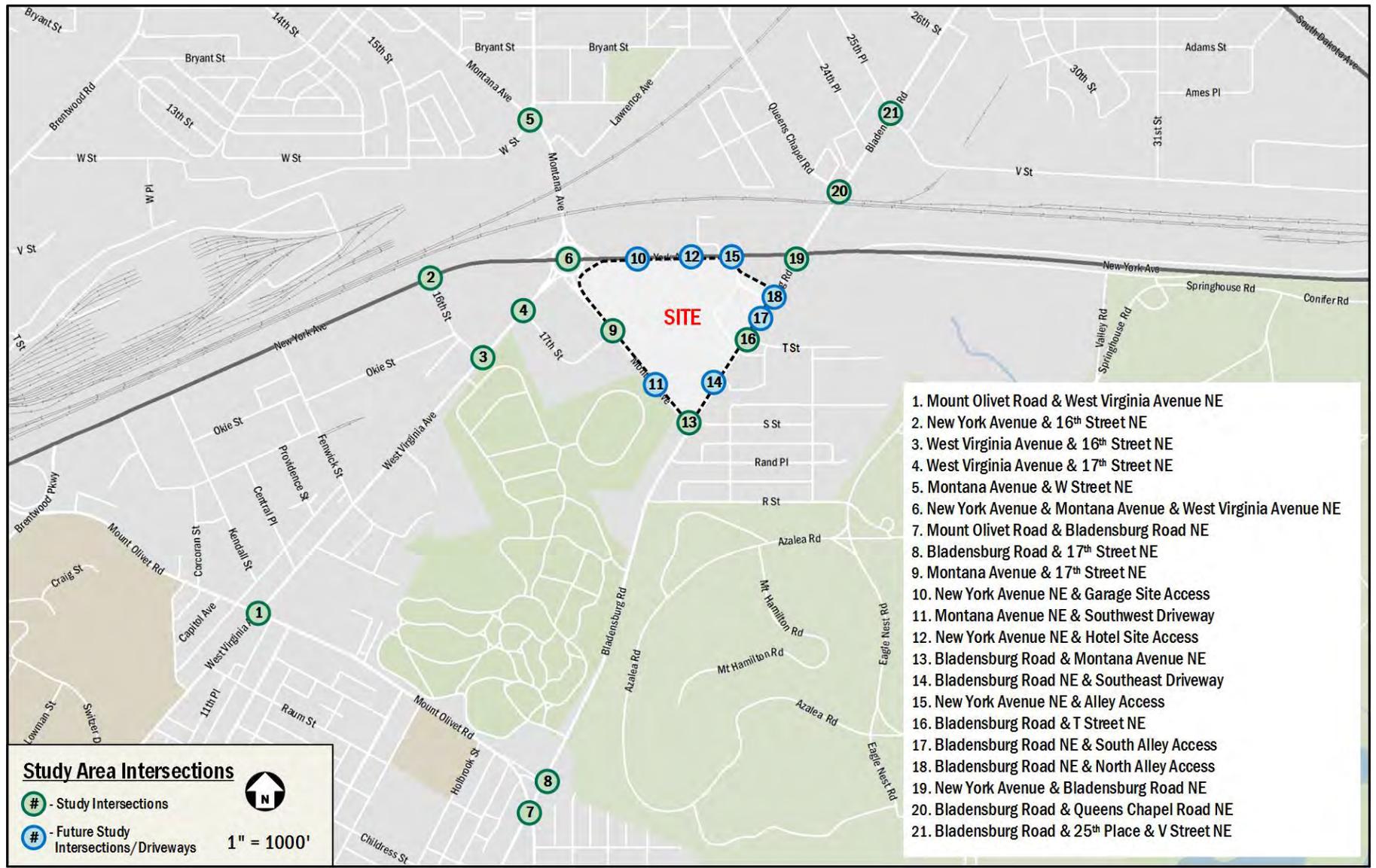


Figure 14: Study Area Intersections

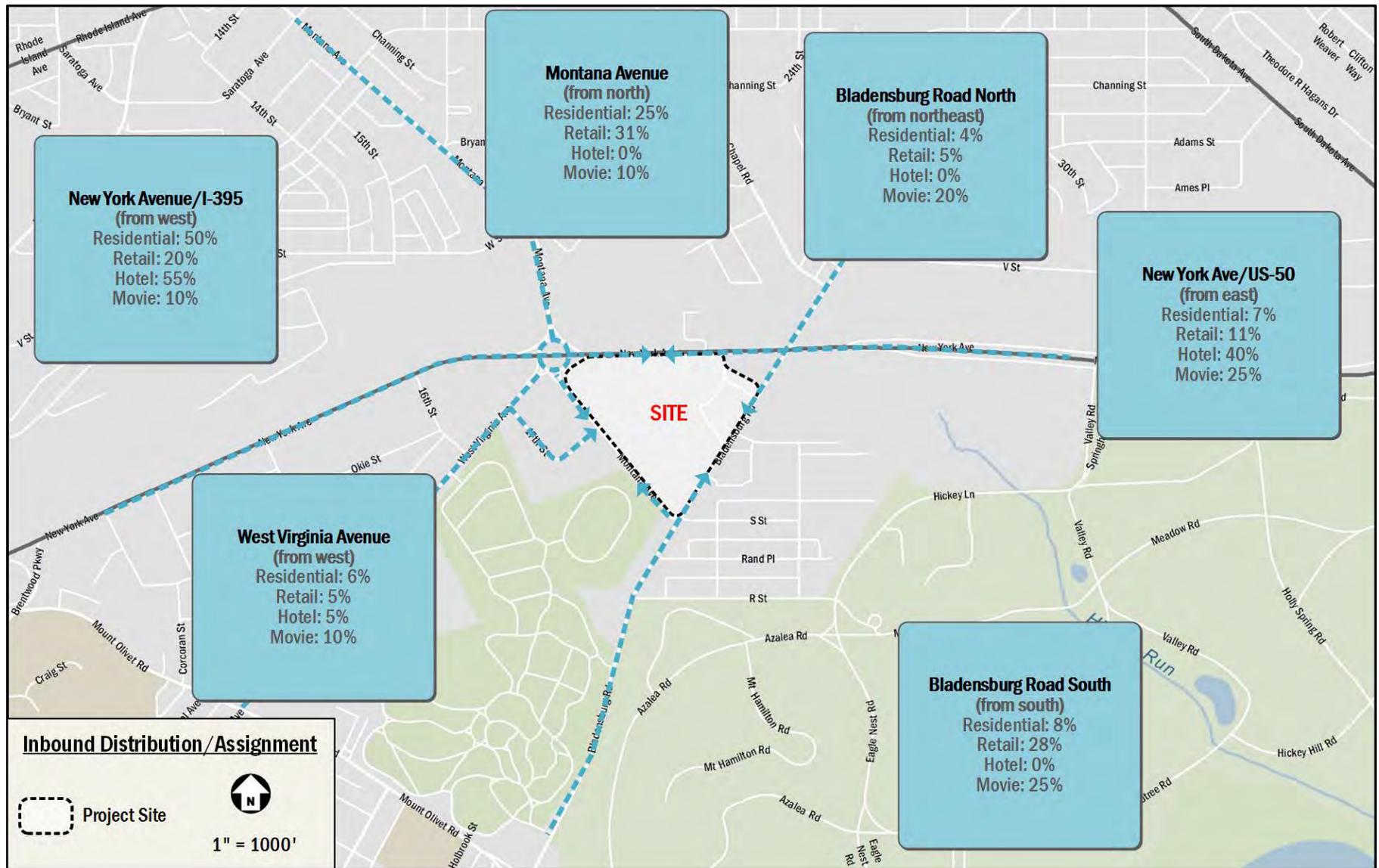


Figure 15: Inbound Trip Distribution and Routing

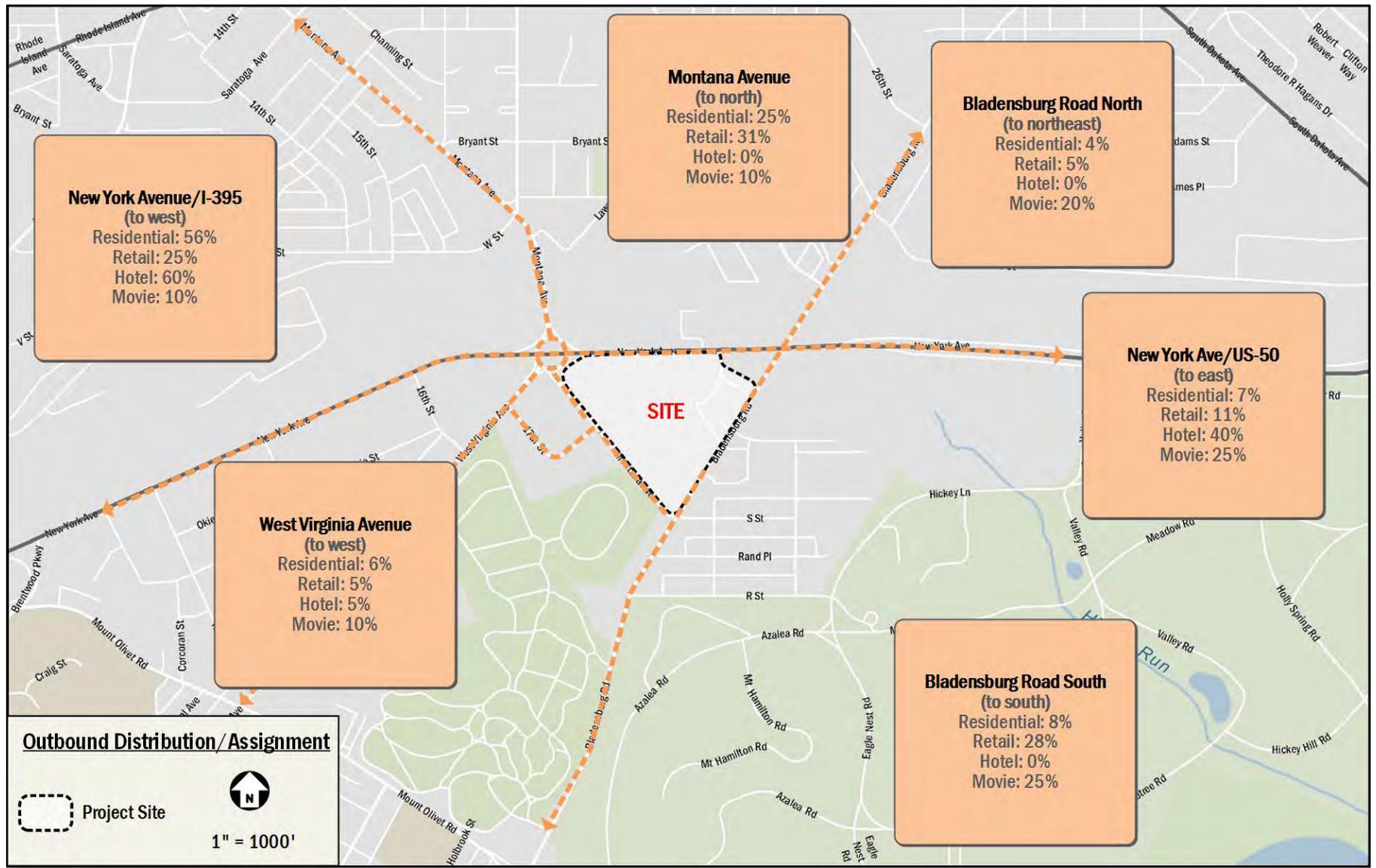


Figure 16: Outbound Trip Distribution and Routing

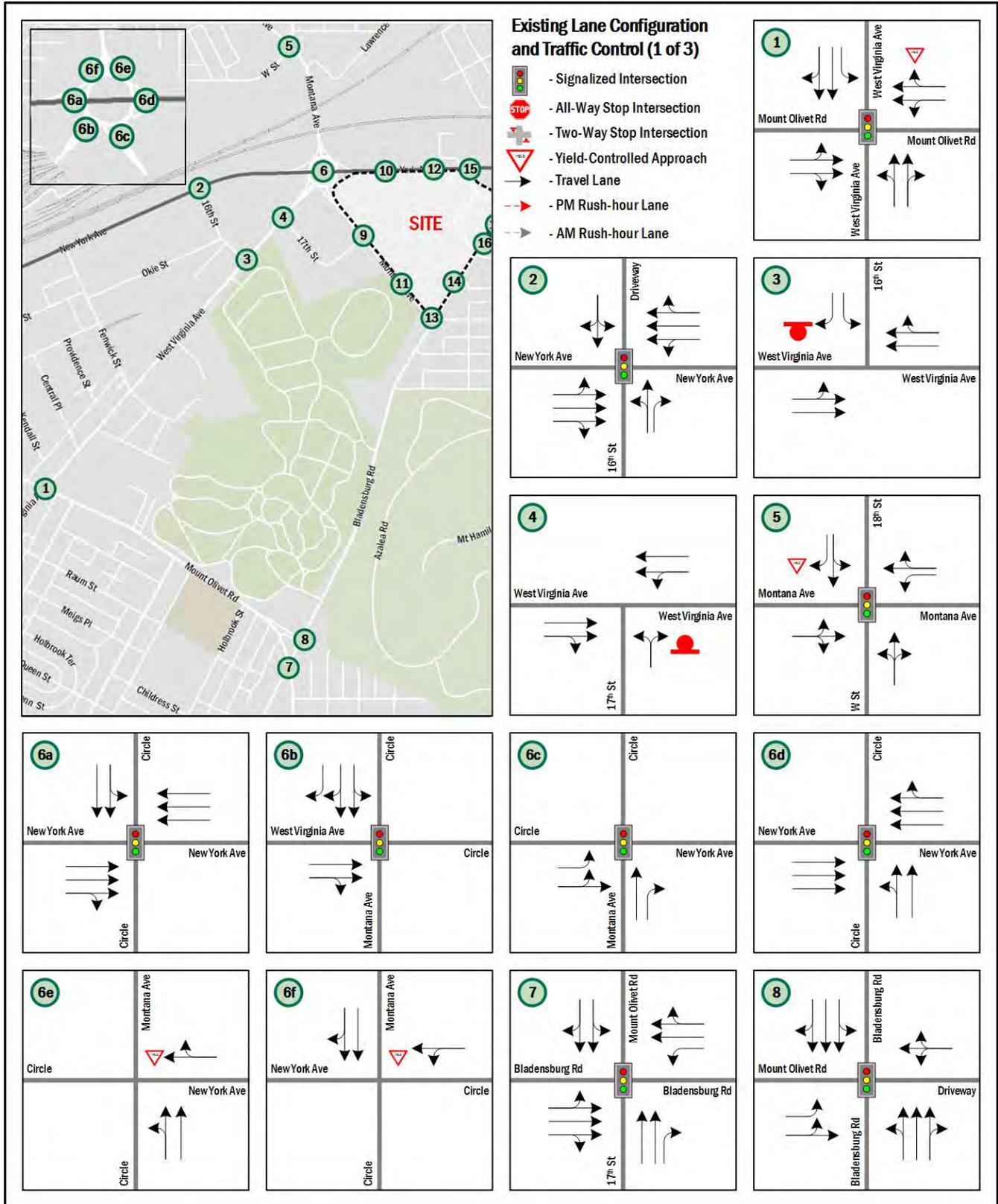


Figure 17: Current Lane Configuration and Traffic Control (1 of 3)

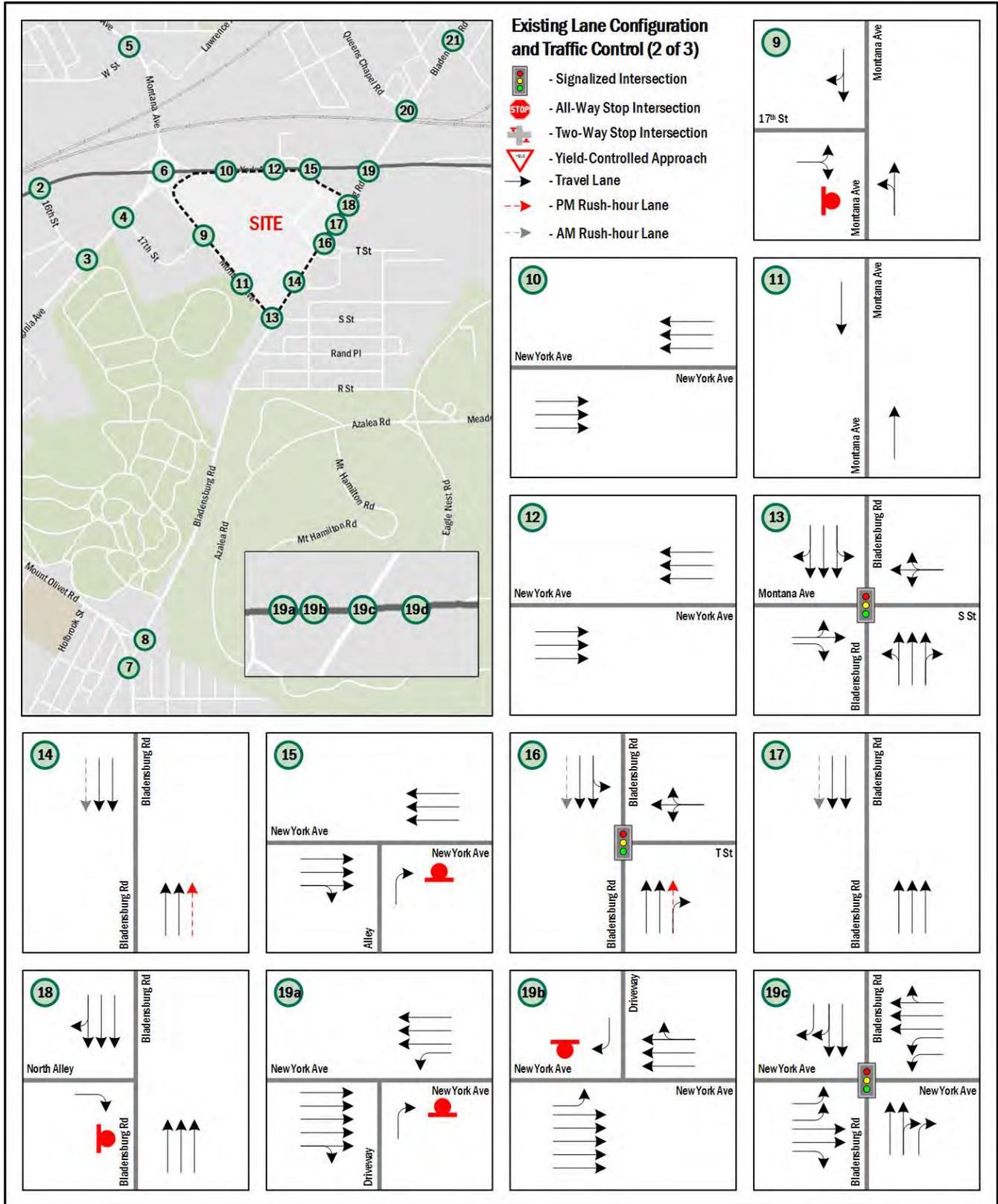


Figure 18: Current Lane Configuration and Traffic Control (2 of 3)



Figure 19: Current Lane Configuration and Traffic Control (3 of 3)

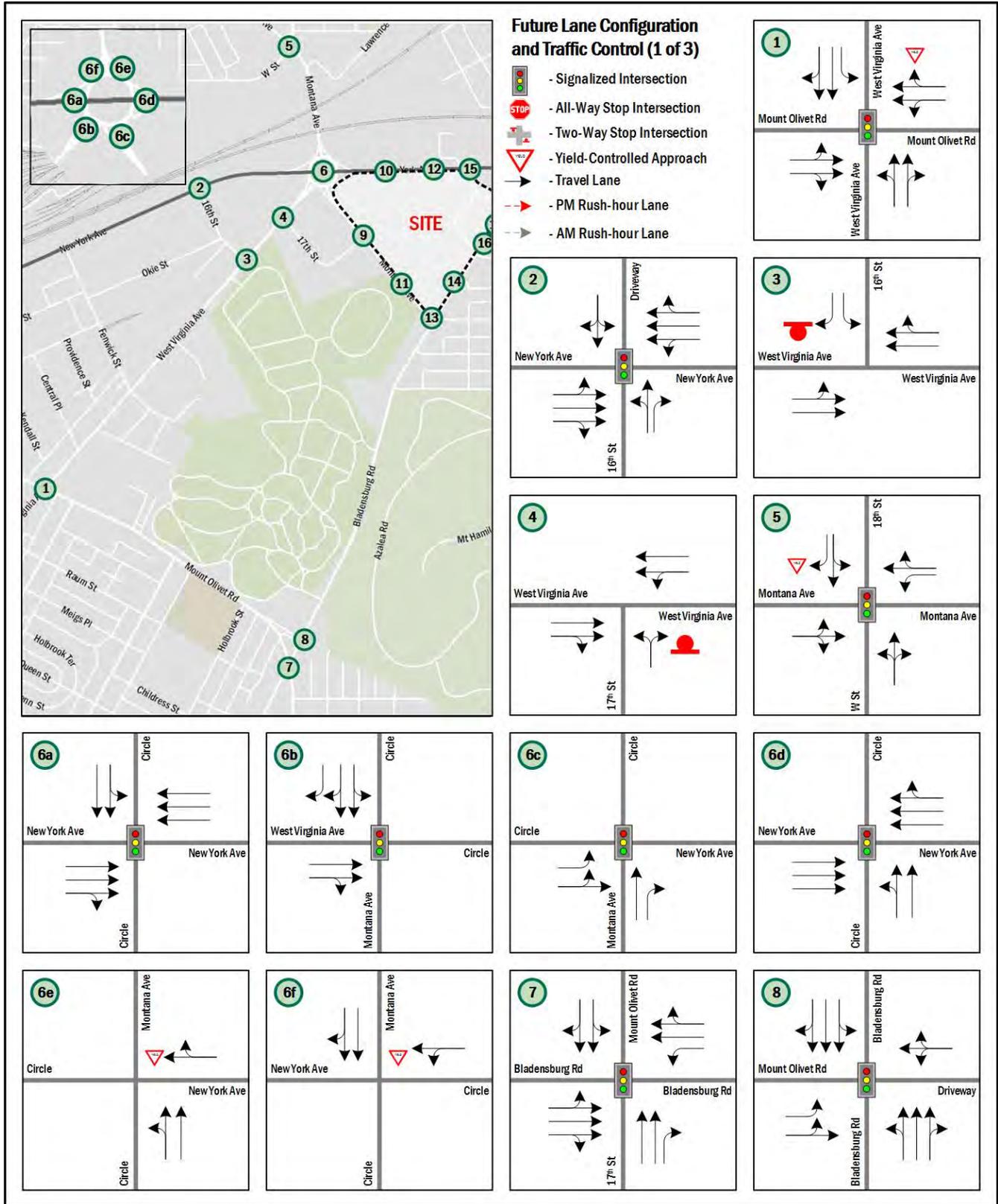


Figure 20: Planned Lane Configuration and Traffic Control (1 of 3)

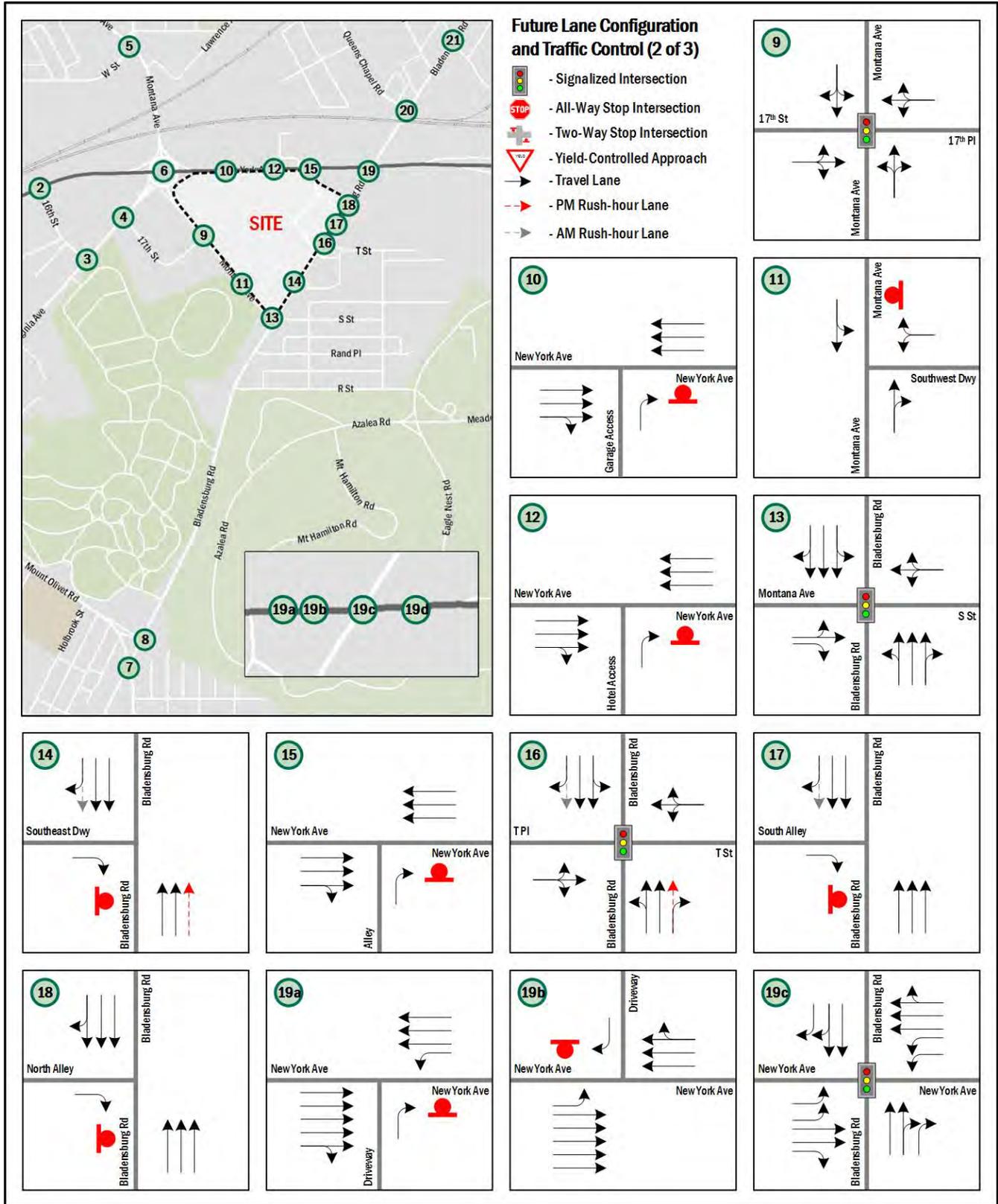


Figure 21: Planned Lane Configuration and Traffic Control (2 of 3)



Figure 22: Planned Lane Configuration and Traffic Control (3 of 3)



Table 8: LOS Results

Intersection	Approach	Existing Conditions (2015)						Background Conditions (2022)						Future Conditions (2022)					
		AM Peak Hour		PM Peak Hour		Sat Peak Hour		AM Peak Hour		PM Peak Hour		Sat Peak Hour		AM Peak Hour		PM Peak Hour		Sat Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Mt Olivet Road & West Virginia Ave	Overall	27.1	C	56.4	E	22.5	C	29.4	C	85.4	F	23.7	C	28.9	C	83.5	F	24.0	C
	Eastbound	31.6	C	113.6	F	20.7	C	35.0	D	194.8	F	22.0	C	34.1	C	194.8	F	22.0	C
	Westbound	37.1	D	25.7	C	21.3	C	40.7	D	28.2	C	22.1	C	40.0	D	28.0	C	22.0	C
	Northbound	25.9	C	27.9	C	31.6	C	26.4	C	29.2	C	33.6	C	26.5	C	30.5	C	35.7	D
	Southbound	8.6	A	16.0	B	18.2	B	9.2	A	17.6	B	18.8	B	9.5	A	18.3	B	17.6	B
16th Street & New York Ave	Overall	5.5	A	12.2	A	7.2	A	9.8	A	21.0	C	21.4	C	6.0	A	22.4	C	22.7	C
	Eastbound	2.5	A	5.9	A	3.0	A	3.0	A	9.5	A	6.5	A	2.8	A	10.6	B	7.3	A
	Westbound	6.4	A	14.3	A	10.7	B	12.1	B	28.4	C	32.6	C	7.0	A	31.8	C	35.7	D
	Northbound	53.2	D	54.6	D	28.4	C	46.9	D	53.6	D	42.9	D	47.8	D	52.5	D	41.9	D
	Southbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A
West Virginia Ave & 16th Street	Eastbound Left	0.9	A	2.3	A	0.4	A	0.8	A	2.3	A	0.4	A	0.8	A	2.5	A	0.4	A
	Southbound	15.2	C	29.0	D	11.5	B	19.4	C	53.7	F	14.7	B	16.7	C	81.0	F	17.7	C
West Virginia Ave & 17th Street	Westbound Left	0.9	A	1.0	A	0.9	A	0.9	A	0.9	A	0.8	A	0.9	A	0.9	A	0.8	A
	Northbound	28.1	D	21.7	C	12.9	B	34.0	D	24.4	C	14.1	B	46.9	E	53.5	F	18.9	C
Montana Avenue & W Street/18th Street	Overall	47.4	D	39.2	D	37.3	D	56.1	E	41.9	D	49.7	D	74.1	E	72.9	E	108.5	F
	Eastbound	24.8	C	21.3	C	23.4	C	25.3	C	21.7	C	25.5	C	27.1	C	26.2	C	37.8	D
	Westbound	63.0	E	47.1	D	44.9	D	81.2	F	52.6	D	70.4	E	119.7	F	123.0	F	198.7	F
	Northbound	58.7	E	55.1	E	36.2	D	58.7	E	55.1	E	36.2	D	58.7	E	55.1	E	36.2	D
	Southbound	38.5	D	43.1	D	42.8	D	39.0	D	44.7	D	47.1	D	38.5	D	44.7	D	47.1	D
New York Ave & Montana Ave & West Virginia Ave - Western Node	Overall	16.5	B	22.9	C	15.4	B	17.8	B	23.8	C	15.3	B	25.1	C	28.6	C	33.1	C
	Eastbound	12.6	B	36.5	D	21.7	C	13.0	B	39.0	D	23.0	C	13.1	B	44.2	D	25.6	C
	Westbound	0.9	A	2.1	A	1.3	A	0.9	A	1.9	A	1.2	A	1.6	A	3.3	A	2.0	A
	Southbound	70.0	E	30.4	C	30.6	C	77.5	E	30.3	C	28.7	C	111.9	F	37.1	D	96.4	F
New York Ave & Montana Ave & West Virginia Ave - Southwestern Node	Overall	17.2	B	40.7	D	16.9	B	19.5	B	44.1	D	19.9	B	18.0	B	44.7	D	19.5	B
	Eastbound	50.6	D	52.7	D	41.0	D	53.2	D	59.7	E	45.5	D	52.9	D	67.7	E	50.4	D
	Southbound	0.1	A	20.7	C	2.8	A	0.1	A	17.4	B	2.9	A	0.0	A	15.6	B	2.9	A
New York Ave & Montana Ave & West Virginia Ave - Southeastern Node	Overall	32.3	C	18.7	B	11.9	B	32.1	C	18.8	B	12.0	B	78.1	E	110.8	F	62.8	E
	Eastbound	1.1	A	1.0	A	1.9	B	1.1	A	1.3	A	1.6	A	1.2	A	1.5	A	2.2	A
	Northbound	67.0	E	61.1	E	32.8	C	69.1	E	62.6	E	34.9	C	138.1	F	255.5	F	114.3	F
New York Ave & Montana Ave & West Virginia Ave - Eastern Node	Overall	11.0	B	16.8	B	14.0	B	11.8	B	19.0	B	15.0	B	14.2	B	49.1	D	21.1	C
	Eastbound	3.6	A	18.1	B	6.2	A	3.5	A	21.6	C	6.0	A	4.1	A	52.1	D	8.5	A
	Westbound	15.9	B	15.8	B	22.7	C	17.4	B	16.3	B	24.7	C	20.1	C	19.5	B	26.4	C
	Northbound	6.6	A	15.5	B	7.1	A	7.6	A	17.5	B	9.0	A	15.1	B	87.2	F	38.9	D
New York Ave & Montana Ave & West Virginia Ave - Northeastern Node	Northbound Left	1.7	A	1.7	A	2.3	A	1.6	A	1.6	A	2.1	A	1.5	A	1.5	A	1.9	A
New York Ave & Montana Ave & West Virginia Ave - Northwestern Node	Westbound	11.6	B	12.3	B	12.4	B	11.8	B	12.9	B	13.1	B	12.2	B	14.9	B	15.9	C
Bladensburg Road & 17th Street	Overall	22.3	C	23.6	C	19.2	B	25.7	C	24.6	C	18.1	B	36.1	D	41.0	D	46.6	D
	Eastbound	34.7	D	44.9	D	34.7	C	35.0	D	48.5	D	35.3	D	35.9	D	86.7	F	40.4	D
	Westbound	12.6	B	10.3	B	8.9	A	22.9	C	9.4	A	4.7	A	56.3	E	27.6	C	77.7	E
	Northbound	26.6	C	22.9	C	21.3	C	27.3	C	23.7	C	21.6	C	27.3	C	23.7	C	21.6	C
	Southbound	19.0	B	14.2	B	19.0	B	19.5	B	14.4	B	19.3	B	19.2	B	14.5	B	19.1	B
Bladensburg Road & Mt Olivet Road	Overall	68.2	E	21.4	C	35.2	D	78.6	E	22.3	C	39.8	D	98.2	F	45.0	D	88.2	F
	Eastbound	30.5	C	24.0	C	31.1	C	29.2	C	23.5	C	30.4	C	29.3	C	23.4	C	30.2	C
	Westbound	32.1	C	32.5	C	32.4	C	32.1	C	32.5	C	32.4	C	32.1	C	32.5	C	32.4	C
	Northbound	3.0	A	2.6	A	2.3	A	3.0	A	2.9	A	2.2	A	3.5	A	4.6	A	3.3	A
	Southbound	117.8	F	45.1	D	59.3	E	136.7	F	47.2	D	67.7	E	171.8	F	98.6	F	158.0	F
Montana Ave & 17th Street	Overall	--	--	--	--	--	--	--	--	--	--	--	--	16.7	B	22.0	C	24.9	C
	Eastbound	10.1	B	11.5	B	9.4	A	10.2	B	11.7	B	9.5	A	22.0	C	27.9	C	7.0	A
	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	46.5	D	39.0	D	39.9	D



	Northbound Left	6.4	A	2.0	A	2.8	A	6.4	A	1.9	A	2.6	A	11.4	B	7.3	A	9.1	A
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	2.5	A	19.5	B	24.6	C
<b>New York Avenue &amp; Garage Site Access</b>	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	9.4	A	14.1	B	12.3	B
<b>Montana Ave &amp; Southwestern Alley</b>	Westbound	--	--	--	--	--	--	--	--	--	--	--	--	16.5	C	17.3	C	17.8	C
	Southbound Left	--	--	--	--	--	--	--	--	--	--	--	--	0.6	A	2.2	A	2.1	A
<b>New York Avenue &amp; Hotel Site Access</b>	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	9.1	A	12.6	B	10.9	B
<b>Bladensburg Road &amp; Montana Ave/S Street</b>	<b>Overall</b>	<b>23.4</b>	<b>C</b>	<b>32.5</b>	<b>C</b>	<b>43.9</b>	<b>D</b>	<b>29.7</b>	<b>C</b>	<b>33.7</b>	<b>C</b>	<b>49.8</b>	<b>D</b>	<b>41.0</b>	<b>D</b>	<b>34.2</b>	<b>C</b>	<b>65.9</b>	<b>E</b>
	Eastbound	10.4	B	24.0	C	9.6	A	10.4	B	24.0	C	8.7	A	15.2	B	23.1	C	14.4	B
	Westbound	31.6	C	34.5	C	24.5	C	31.7	C	34.5	C	24.6	C	31.7	C	34.6	C	24.6	C
	Northbound	16.2	B	37.5	D	32.2	C	17.1	B	38.8	D	33.2	C	20.6	C	41.3	D	36.5	D
	Southbound	28.8	C	28.1	C	62.2	E	39.3	D	29.5	C	74.6	E	58.5	E	28.5	C	114.2	F
<b>Bladensburg Road &amp; Southeastern Alley</b>	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	8.9	A	10.6	B	9.5	A
<b>New York Avenue &amp; Alley Access</b>	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	0.0	A	0.0	A	0.0	A
<b>Bladensburg Road &amp; T Street</b>	<b>Overall</b>	--	--	--	--	--	--	--	--	--	--	--	--	<b>3.6</b>	<b>A</b>	<b>6.9</b>	<b>A</b>	<b>15.7</b>	<b>B</b>
	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	35.6	D	38.8	D	42.9	D
	Westbound	14.1	B	11.9	B	11.4	B	14.4	B	11.8	B	11.4	B	35.5	D	35.1	D	35.5	D
	Northbound	--	--	--	--	--	--	--	--	--	--	--	--	6.0	A	2.0	A	23.6	C
	Southbound (Left)	1.9	A	2.0	A	2.1	A	1.9	A	2.0	A	2.1	A	0.6	A	8.4	A	7.4	A
<b>Bladensburg Road &amp; Southern Alley</b>	Eastbound	--	--	--	--	--	--	--	--	--	--	--	--	0.0	A	0.0	A	0.0	A
<b>Bladensburg Road &amp; Northern Alley</b>	Eastbound	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A	0.0	A
<b>Bladensburg Road &amp; New York Ave</b>	<b>Overall</b>	<b>64.2</b>	<b>E</b>	<b>210.8</b>	<b>F</b>	<b>63.6</b>	<b>E</b>	<b>74.9</b>	<b>E</b>	<b>236.5</b>	<b>F</b>	<b>73.8</b>	<b>E</b>	<b>74.5</b>	<b>E</b>	<b>243.5</b>	<b>F</b>	<b>97.9</b>	<b>F</b>
	Eastbound	81.0	F	394.2	F	117.8	F	114.9	F	451.1	F	142.3	F	109.5	F	459.4	F	173.1	F
	Westbound	28.1	C	24.3	C	35.1	D	29.1	C	25.2	C	37.0	D	30.4	C	26.2	C	69.0	E
	Northbound	35.6	D	186.6	F	39.2	D	36.5	D	192.8	F	39.4	D	33.7	C	217.9	F	51.8	D
	Southbound	142.5	F	45.3	D	16.9	B	153.3	F	46.9	D	17.4	B	156.2	F	55.3	E	20.2	C
<b>Bladensburg Road &amp; New York Ave - Western Node</b>	Westbound U-Turn	12.3	B	73.5	F	31.7	D	13.1	B	56.3	F	26.9	D	13.8	B	71.8	F	32.2	D
<b>Bladensburg Road &amp; New York Ave - Western Node</b>	Eastbound U-Turn	25.4	D	19.3	C	29.7	D	28.3	D	16.4	C	21.3	C	35.9	E	19.3	C	29.9	D
<b>Bladensburg Road &amp; New York Ave - Eastern Node</b>	Westbound U-Turn	13.4	B	69.7	F	25.5	D	14.3	B	62.1	F	23.1	C	14.9	B	72.6	F	24.9	C
<b>Bladensburg Road &amp; Queens Chapel Road</b>	<b>Overall</b>	<b>20.1</b>	<b>B</b>	<b>39.3</b>	<b>D</b>	<b>13.4</b>	<b>B</b>	<b>20.0</b>	<b>C</b>	<b>38.6</b>	<b>D</b>	<b>13.4</b>	<b>B</b>	<b>19.8</b>	<b>B</b>	<b>37.6</b>	<b>D</b>	<b>13.4</b>	<b>B</b>
	Eastbound	74.7	E	163.5	F	35.7	D	74.7	E	163.5	F	35.7	D	74.7	E	163.5	F	35.7	D
	Northbound	3.9	A	7.1	A	1.3	A	4.1	A	7.3	A	1.5	A	4.0	A	9.1	A	2.2	A
	Southbound	16.3	B	12.9	B	19.5	B	16.4	B	13.0	B	19.5	B	16.5	B	12.9	B	19.3	B
<b>Bladensburg Road &amp; V Street/25th Place</b>	<b>Overall</b>	<b>28.9</b>	<b>C</b>	<b>21.5</b>	<b>C</b>	<b>23.6</b>	<b>C</b>	<b>28.8</b>	<b>C</b>	<b>21.7</b>	<b>C</b>	<b>23.7</b>	<b>C</b>	<b>29.0</b>	<b>C</b>	<b>21.9</b>	<b>C</b>	<b>23.3</b>	<b>C</b>
	Eastbound	24.7	C	19.8	B	26.5	C	25.2	C	20.6	C	26.9	C	26.2	C	21.8	C	26.4	C
	Westbound	15.0	B	7.9	A	11.1	B	15.2	B	7.9	A	11.2	B	15.3	B	8.1	A	11.5	B
	Northbound	66.4	E	54.7	D	43.1	D	66.4	E	54.7	D	43.1	D	66.4	E	54.7	D	43.1	D
	Southbound	20.5	C	35.9	D	23.8	C	20.5	C	35.9	D	23.8	C	20.5	C	35.9	D	23.8	C



**Table 9: Queuing Results**

Intersection	Lane Group	Storage Length (ft)	Existing Conditions (2015)						Future Background Conditions (2022)						Total Future Conditions (2022)					
			AM Peak		PM Peak		Sat Peak		AM Peak		PM Peak		Sat Peak		AM Peak		PM Peak		Sat Peak	
			50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %	50th %	95th %
<b>Mt Olivet Road &amp; West Virginia Ave</b>	Eastbound LTR	90	177	248	~416	#547	135	184	196	275	~502	#635	151	206	194	271	~502	#635	151	206
	Westbound LTR	155	306	m345	189	m246	154	m193	328	m366	225	m288	173	m214	324	m360	225	m280	173	m207
	Northbound LTR	430	66	104	186	247	100	137	76	116	208	275	127	170	76	116	229	300	152	198
	Southbound Left	105	42	53	60	98	45	63	46	58	64	114	51	75	45	58	65	119	44	74
	Southbound TR	345	56	54	29	43	42	54	66	64	40	55	66	76	71	70	51	68	80	98
<b>16th Street &amp; New York Ave</b>	Eastbound LTR	665	50	142	161	245	82	228	53	151	228	343	159	242	63	166	287	427	202	304
	Westbound LTR	760	276	342	386	454	414	478	342	#684	463	516	493	#587	305	357	501	555	518	#628
	Northbound LT	360	8	26	12	29	7	17	9	24	11	25	7	19	20	43	25	46	21	42
	Northbound Right	360	1	14	120	174	4	21	5	34	193	248	107	147	1	13	192	247	106	149
<b>West Virginia Ave &amp; 16th Street</b>	Eastbound LT	780	--	2	--	2	--	1	--	2	--	8	--	1	--	2	--	8	--	1
	Westbound Thru	735	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Westbound TR	735	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound LR	150	--	6	--	29	--	8	--	15	--	84	--	24	--	7	--	113	--	33
<b>West Virginia Ave &amp; 17th Street</b>	Eastbound Thru	1205	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Eastbound TR	1205	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Westbound LT	285	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1	--	1
	Westbound Thru	285	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Northbound LR	400	--	155	--	29	--	14	--	181	--	34	--	45	--	252	--	132	--	50
<b>Montana Avenue &amp; W Street/18th Street</b>	Eastbound LTR	570	116	147	125	166	124	170	125	157	140	183	150	204	156	192	240	306	275	#394
	Westbound Left	120	35	72	24	m31	23	m37	36	73	24	m29	22	m32	35	73	25	m27	21	m25
	Westbound TR	120	500	#746	517	m#667	375	m#598	~605	#828	553	m#715	~501	m#688	~738	#966	~850	m#859	~837	m#902
	Northbound LTR	915	39	96	43	104	14	54	39	96	43	104	14	54	39	96	43	104	14	54
	Southbound LT	410	224	329	212	303	196	280	231	338	230	326	219	#331	224	329	230	326	219	#331
	Southbound Right	385	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>New York Ave &amp; Montana Ave &amp; West Virginia Ave</b>	Western Node																			
	Eastbound TR	785	167	50	456	552	345	406	186	61	526	584	371	457	196	54	635	683	465	564
	Westbound Thru	150	9	9	24	25	16	16	9	m9	23	24	15	16	29	m31	53	m56	41	m45
	Southbound LT	65	~233	#357	294	336	273	326	~257	#374	298	343	293	m298	~310	#428	461	#581	~476	m#610
Southbound Right	70	2	43	12	m25	24	m33	5	48	17	m31	33	m37	2	43	13	m27	42	m53	
Southwestern Node	Eastbound TR	290	93	136	267	332	110	150	107	153	298	#394	133	176	104	150	317	#428	147	#202
	Southbound LTR	35	0	m0	69	83	0	m0	0	m0	75	m89	0	m0	0	m0	91	m96	0	m0
	Southbound Right	35	0	m0	43	m61	0	m0	0	m0	47	m59	0	m0	0	m0	39	m40	0	m0
Southeastern Node	Eastbound Left	70	5	8	4	m13	0	0	7	10	5	m14	0	0	9	13	18	m17	20	m25
	Northbound Thru	415	101	m213	111	160	46	m60	108	m130	116	#167	50	m67	~186	m#253	~308	#424	~216	m#298
Eastern Node	Eastbound Thru	1365	67	m75	678	765	94	103	68	m74	771	#827	94	103	78	m83	~942	#1002	128	m133
	Westbound TR	160	589	m657	425	m492	464	519	646	m695	488	566	539	600	642	m682	517	595	568	634
	Northbound LTR	70	0	0	286	#358	7	15	7	12	18	#394	13	22	13	m17	~580	m#518	~214	m#214
Northeastern Node	Northbound LT	85	--	3	--	3	--	4	--	3	--	3	--	4	--	3	--	3	--	4
	Northbound Thru	85	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
Northwestern Node	Westbound Left	65	--	8	--	10	--	14	--	9	--	11	--	16	--	10	--	14	--	22
	Southbound Thru	110	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound Thru	110	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0



<b>Bladensburg Road &amp; 17th Street</b>	Eastbound LTR	280	121	160	226	287	127	165	127	166	241	321	138	178	141	183	~328	#420	201	251
	Westbound Left	85	3	m2	14	m16	3	m3	3	m2	12	m13	3	m2	2	m2	~18	m12	~340	m1
	Westbound LTR	85	~8	m3	15	m17	4	m4	~19	m3	12	m13	2	m2	~343	m2	~29	m12	~360	m2
	Northbound Thru	295	241	311	~186	#268	83	118	258	332	~235	#321	91	128	258	332	140	180	91	128
	Northbound Right	295	0	57	0	42	0	50	0	57	0	42	0	50	0	57	0	42	0	50
	Southbound LTR	220	97	128	178	m173	126	162	101	155	218	m167	139	173	100	150	218	m167	139	173
<b>Bladensburg Road &amp; Mt Olivet Road</b>	Eastbound Left	90	48	m67	63	m68	37	76	45	m61	63	m58	37	m73	46	m62	63	m57	37	m73
	Eastbound LT	85	49	m67	63	m68	37	76	46	m62	63	m58	37	m73	46	3m62	63	m57	37	m73
	Westbound LTR	50	1	5	6	21	4	20	1	5	6	21	4	20	1	5	6	21	4	20
	Northbound LTR	100	31	28	27	m18	21	19	33	30	28	m18	22	19	33	30	28	m21	22	19
	Southbound LTR	2025	~376	m#386	244	#305	289	m289	~400	m#393	255	#326	~310	m291	~434	m#425	~347	m#425	~445	m#386
	<b>Montana Ave &amp; 17th Street</b>	Eastbound L(T)R	310	--	4	--	18	--	4	--	4	--	19	--	4	8	32	29	90	2
Northbound LT('R)		750	--	31	--	4	--	5	--	31	--	4	--	5	103	187	210	#367	268	#451
Southbound (L)T('R)		455	--	--	--	--	--	0	--	--	--	--	--	0	110	m295	51	m141	91	m112
Southbound (L)TR		455	--	0	--	0	--	0	--	0	--	0	--	0	14	22	155	249	97	m#248
<b>New York Avenue &amp; Garage Site Access</b>	Eastbound Thru	195	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound Thru	195	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound TR	195	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Northbound Right	105	--	--	--	--	--	--	--	--	--	--	--	--	5	--	21	--	21	
<b>Montana Ave &amp; Southwestern Alley</b>	Westbound LR	100	--	--	--	--	--	--	--	--	--	--	--	--	9	--	20	--	20	
	Northbound TR	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Southbound LT	180	--	--	--	--	--	--	--	--	--	--	--	--	1	--	6	--	6	
<b>New York Avenue &amp; Hotel Site Access</b>	Eastbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound TR	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Northbound Right	135	--	--	--	--	--	--	--	--	--	--	--	--	2	--	6	--	6	
<b>Bladensburg Road &amp; Montana Ave/S Street</b>	Eastbound LT	780	18	m38	45	89	19	m45	19	m38	45	90	19	m42	24	m46	61	m101	38	m49
	Eastbound Right	780	3	13	37	76	22	37	3	m13	41	81	17	m30	33	61	114	m170	118	m157
	Westbound LTR	160	40	77	28	64	24	52	42	79	28	64	26	55	42	79	28	65	26	55
	Northbound LTR	205	83	123	273	316	199	245	91	130	292	336	218	265	107	149	345	391	288	339
	Southbound LTR	560	~389	m130	313	402	~437	m#535	~414	m225	333	427	~469	m#569	~428	#527	382	#526	~565	#704
<b>Bladensburg Road &amp; Southeastern Alley</b>	Eastbound Right	100	--	--	--	--	--	--	--	--	--	--	--	--	0	--	1	--	0	
	Northbound Thru	120	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Northbound Thru	120	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Southbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Southbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Southbound TR	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
<b>New York Avenue &amp; Alley Access</b>	Eastbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Eastbound TR	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Westbound Thru	150	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
	Northbound Right	60	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0	
<b>Bladensburg Road &amp; T Street</b>	Eastbound LTR	105	--	--	--	--	--	--	--	--	--	--	--	9	41	30	86	48	116	



	Westbound L(T)R	360	--	9	--	6	--	3	--	9	--	6	--	3	7	39	4	34	0	17
	Northbound Thru	635	--	0	--	0	--	0	--	0	--	0	--	0	--	--	--	--	--	--
	Northbound (L)TR	635	--	0	--	0	--	0	--	0	--	0	--	0	44	54	27	33	223	296
	Southbound LT('R)	520	--	5	--	0	--	6	--	5	--	0	--	6	7	m7	158	210	369	m81
	Southbound Thru	520	--	0	--	5	--	0	--	0	--	5	--	0	--	--	--	--	--	--
	Southbound Thru	520	--	0	--	0	--	--	--	0	--	0	--	--	--	--	--	--	--	--
<b>Bladensburg Road &amp; Southern Alley</b>	Eastbound Right	150	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	1
	Northbound Thru	45	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0
	Northbound Thru	45	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0
	Northbound Thru	45	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0
	Southbound Thru	60	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0
	Southbound TR	60	--	--	--	--	--	--	--	--	--	--	--	--	--	0	--	0	--	0
<b>Bladensburg Road &amp; Northern Alley</b>	Eastbound Right	75	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Northbound Thru	60	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Northbound Thru	60	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Northbound Thru	60	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound Thru	120	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound Thru	120	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
	Southbound TR	120	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0	--	0
<b>Bladensburg Road &amp; New York Ave</b>	Eastbound Left	360	46	#97	67	m81	~258	#367	44	m#98	68	m75	~259	#367	49	m#111	84	m81	~295	m#378
	Eastbound Thru	235	~512	#650	~1694	#1816	~607	#735	~591	#730	~1862	#1979	~773	#882	~577	#717	~1890	m#1726	~785	m#923
	Eastbound Right	235	0	m3	0	m0	0	m0	0	m2	0	m0	0	m0	0	m1	0	m0	1	m3
	Westbound Left	725	240	#341	115	161	~111	#198	240	#341	115	161	~111	#198	256	#370	154	207	~200	#298
	Westbound TR	3000	378	445	322	372	343	405	418	490	370	426	415	486	406	478	371	426	415	487
	Northbound TR	560	190	248	~497	#582	246	#341	195	#255	~509	#593	253	#356	201	#272	~552	#636	237	#391
	Northbound Right	560	90	154	220	300	195	295	94	159	226	307	202	305	80	138	245	331	169	m259
	Southbound TR	400	~394	#521	227	m275	60	75	~411	#540	236	m#295	60	#84	~419	m#535	263	m#340	67	#304
	Southbound Right	400	~212	#400	145	m207	30	46	253	#414	143	209	30	46	~224	m#398	146	m208	35	50
<b>Bladensburg Road &amp; New York Ave - Western Node</b>	Westbound U-Turn	100	--	1	--	46	--	12	--	1	--	61	--	10	--	1	--	76	--	12
<b>Bladensburg Road &amp; New York Ave - Western Node</b>	Eastbound U-Turn	65	--	5	--	3	--	49	--	6	--	4	--	8	--	29	--	22	--	47
<b>Bladensburg Road &amp; New York Ave - Eastern Node</b>	Westbound U-Turn	165	--	3	--	23	--	15	--	4	--	29	--	13	--	4	--	34	--	14
<b>Bladensburg Road &amp; Queens Chapel Road</b>	Eastbound LR	640	179	#307	~345	#536	111	178	179	#307	~345	#536	111	178	179	#307	~345	#536	111	178
	Northbound LT	380	55	72	65	m62	10	m7	63	m80	65	m60	9	m7	61	m80	83	m73	19	m6
	Southbound TR	300	137	m156	100	113	179	96	141	m158	103	116	186	98	142	m160	106	119	201	123
<b>Bladensburg Road &amp; V Street/25th Place</b>	Eastbound LTR	175	103	151	172	m314	256	320	109	143	187	m339	266	302	121	m173	195	m239	265	353
	Westbound LTR	550	135	169	56	93	82	134	142	177	58	97	85	139	145	180	66	107	95	154
	Northbound LTR	615	262	#465	179	248	199	245	262	#465	179	248	199	245	262	#465	179	248	199	245
	Southbound LTR	100	6	21	25	49	4	15	6	21	25	49	4	15	6	21	25	49	4	15

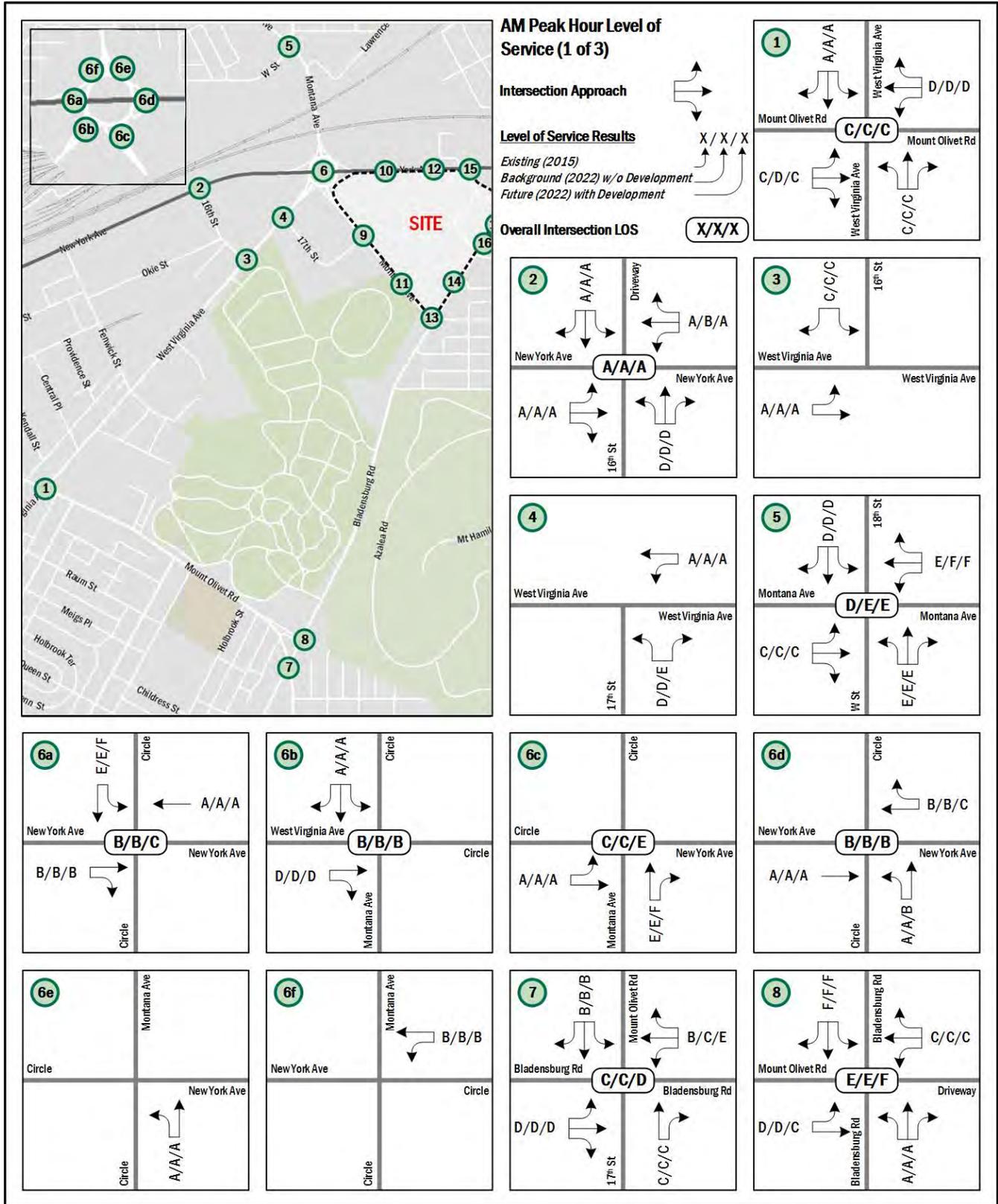


Figure 23: Morning Peak Hour Capacity Analysis Results (1 of 3)

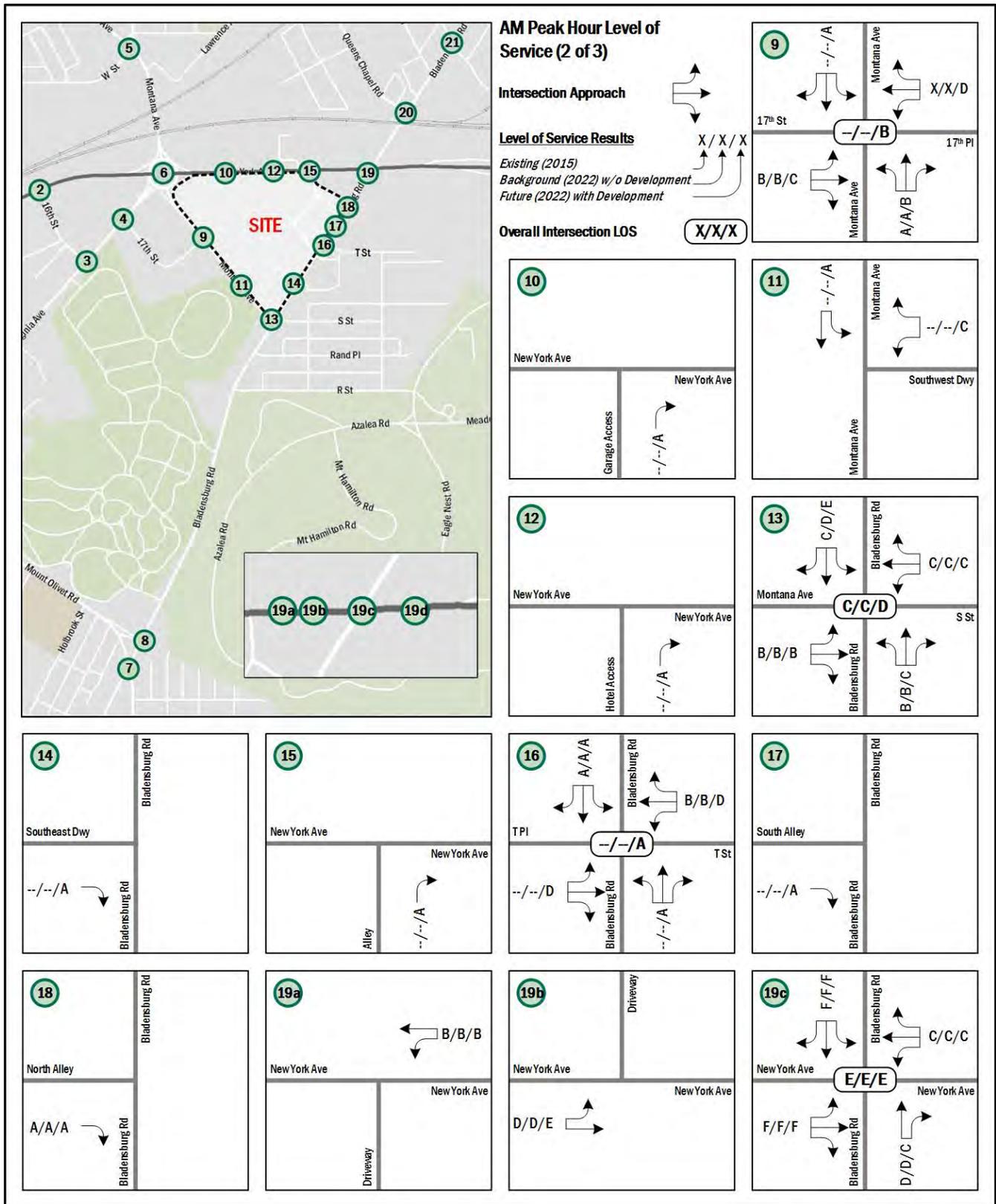


Figure 24: Morning Peak Hour Capacity Analysis Results (2 of 3)



Figure 25: Morning Peak Hour Capacity Analysis Results (3 of 3)

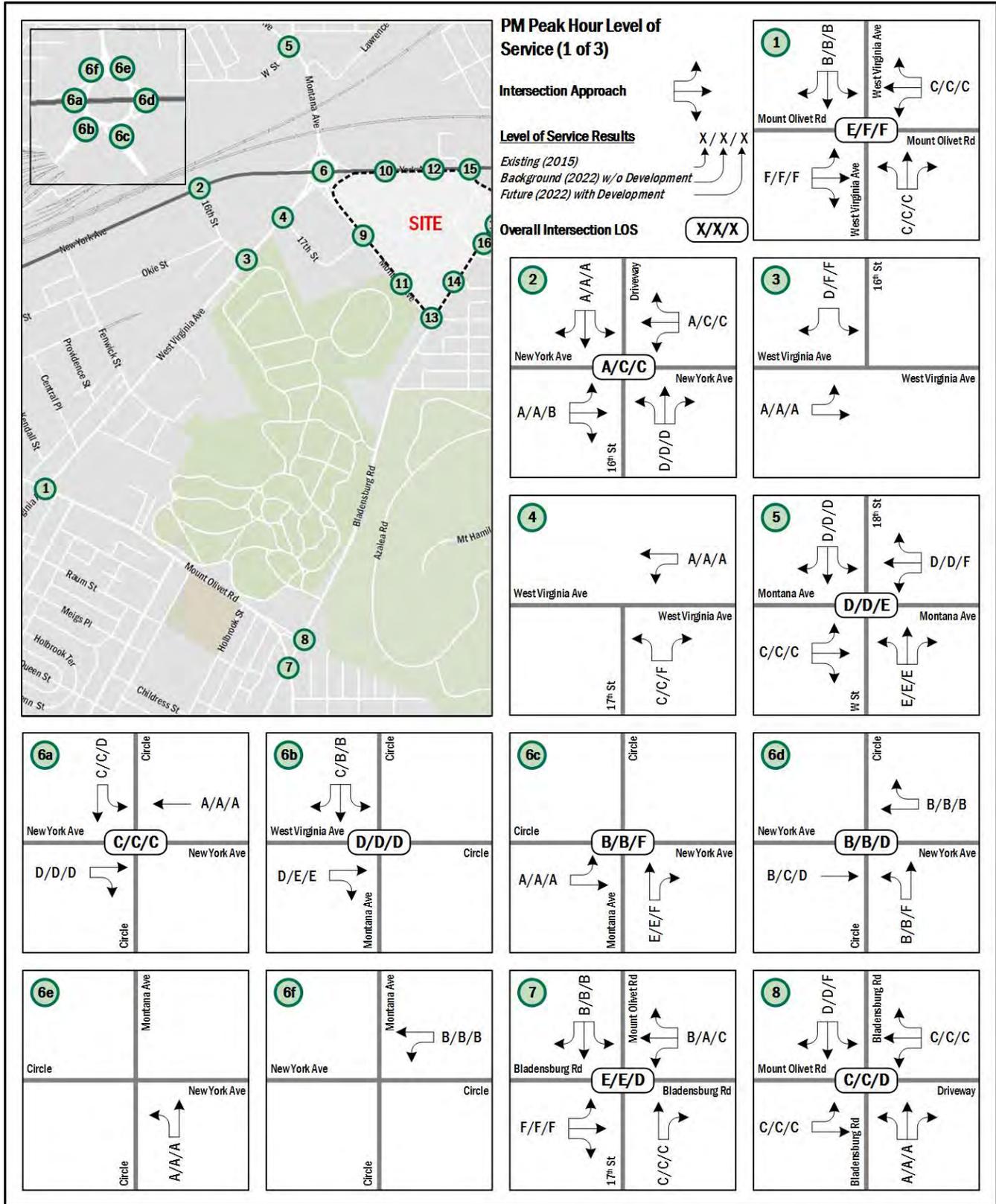


Figure 26: Afternoon Peak Hour Capacity Analysis Results (1 of 3)

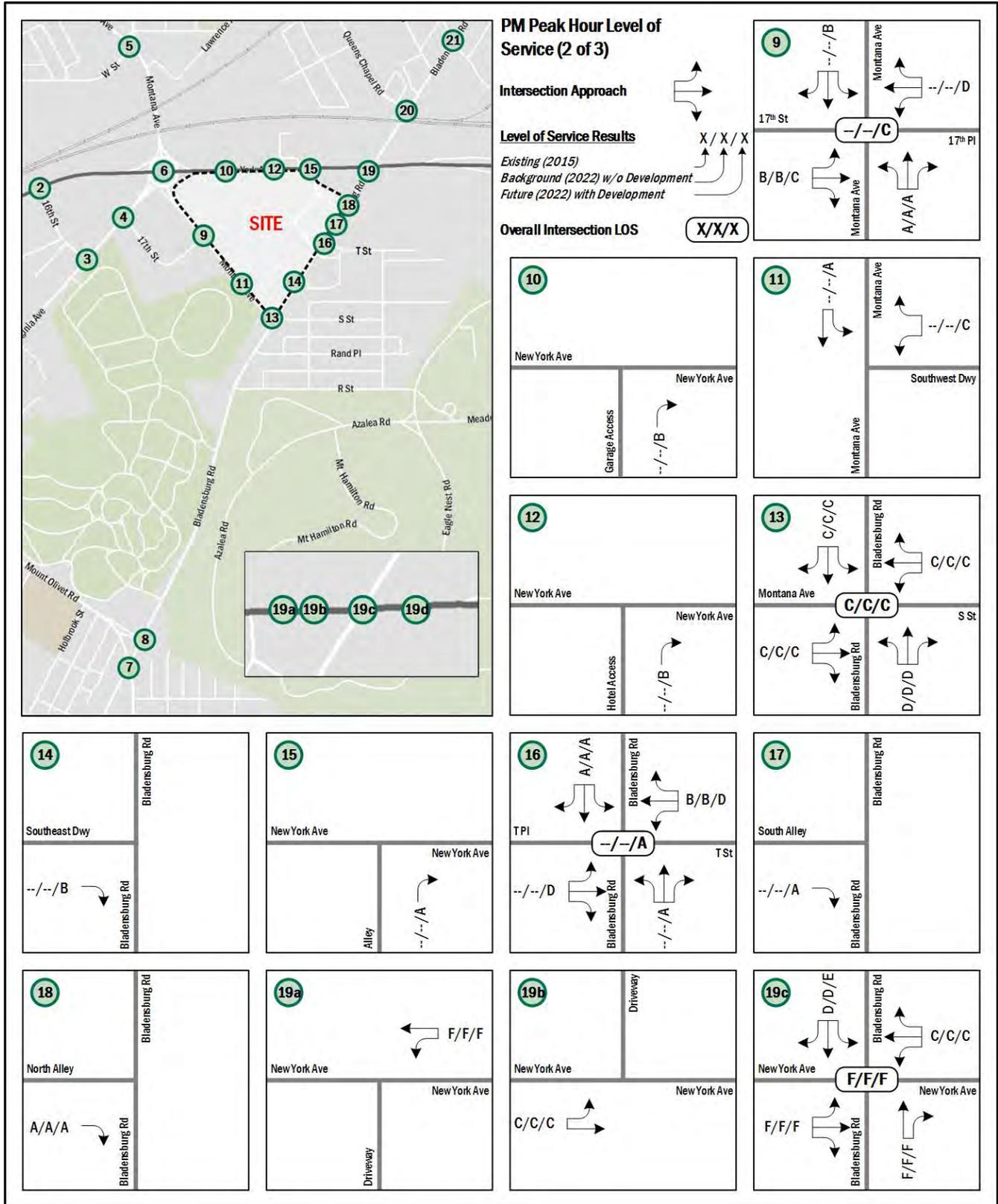


Figure 27: Afternoon Peak Hour Capacity Analysis Results (2 of 3)



Figure 28: Afternoon Peak Hour Capacity Analysis Results (3 of 3)

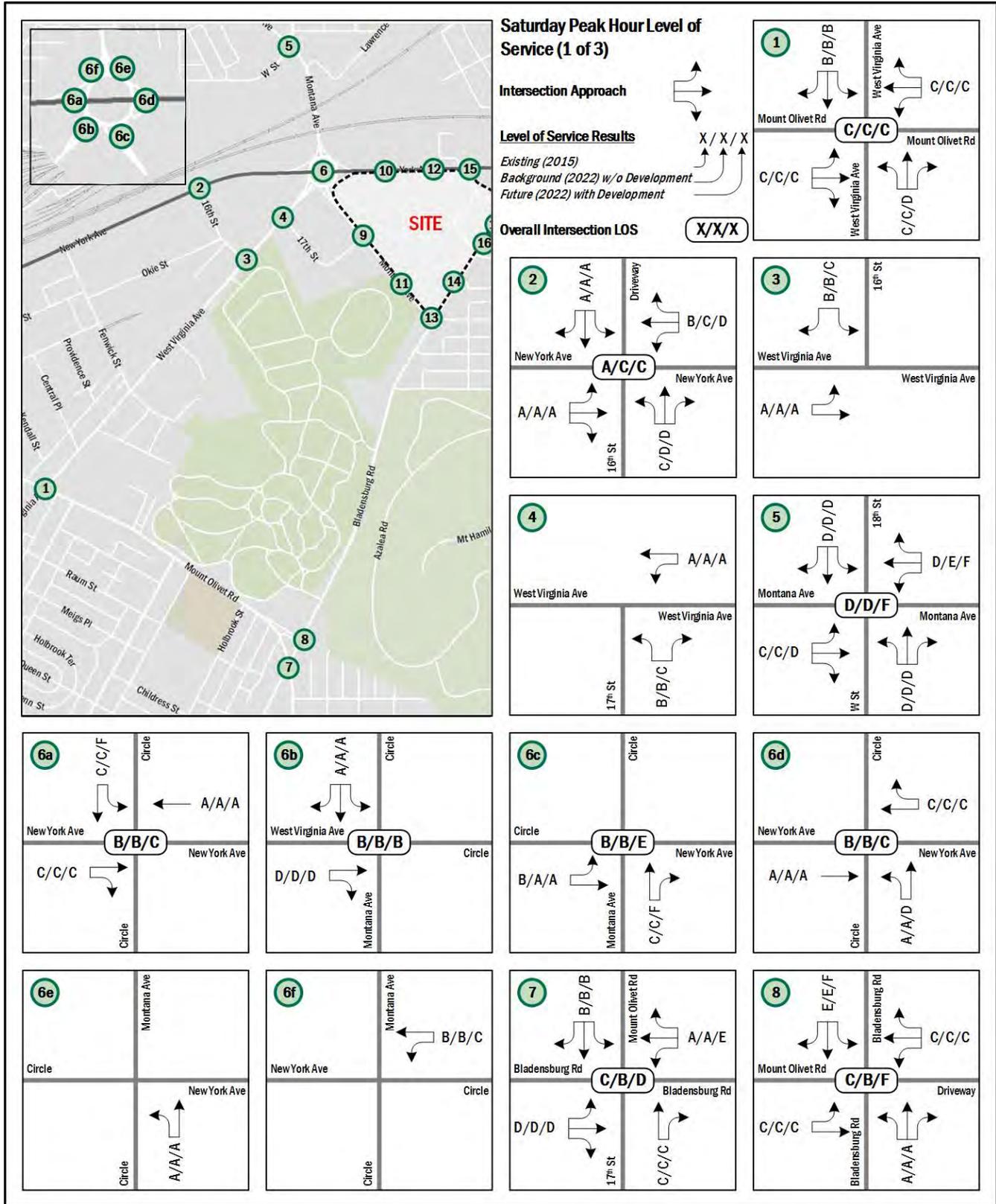


Figure 29: Saturday Peak Hour Capacity Analysis Results (1 of 3)

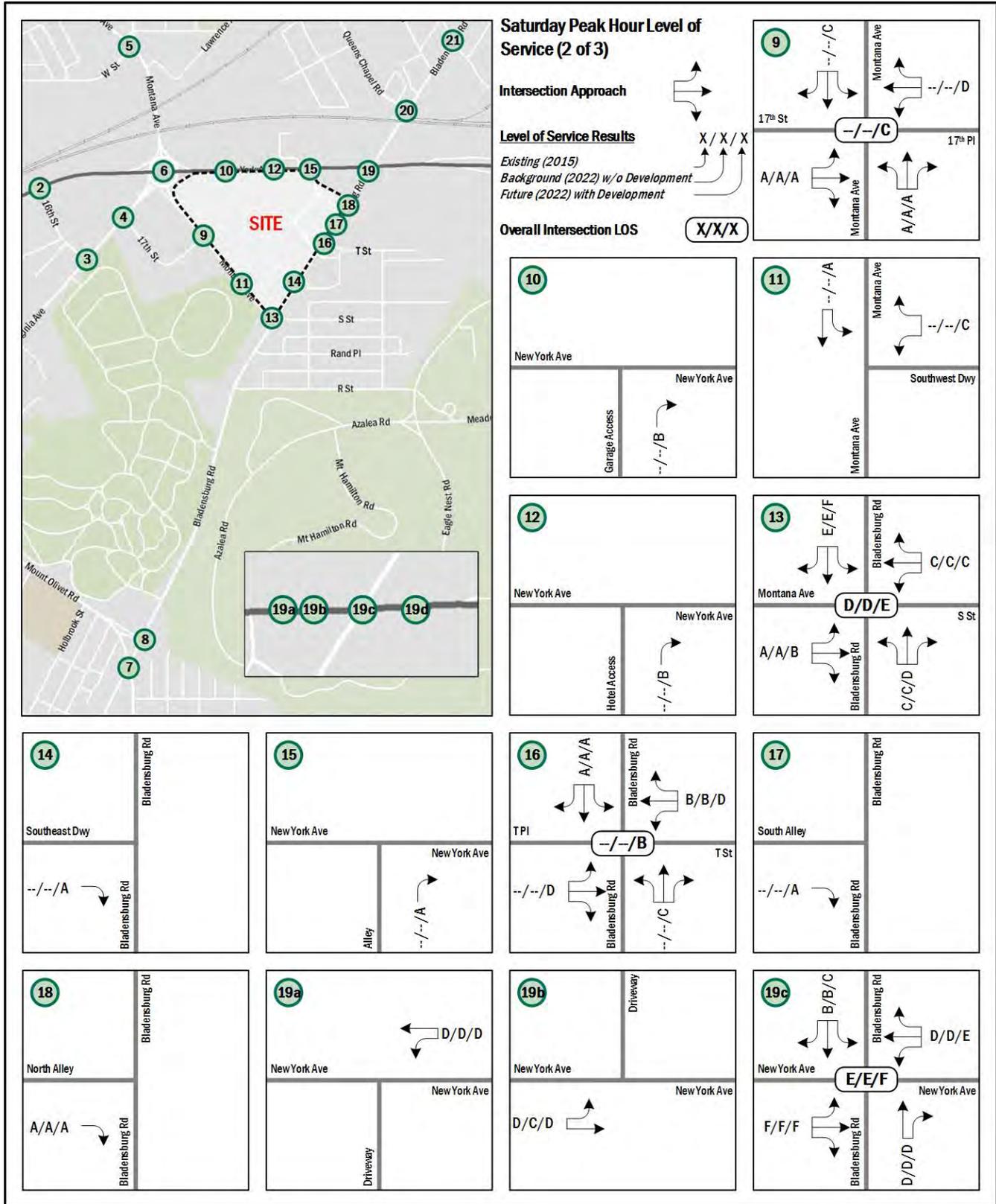


Figure 30: Saturday Peak Hour Capacity Analysis Results (2 of 3)



Figure 31: Saturday Peak Hour Capacity Analysis Results (3 of 3)



**Table 10: Mitigated LOS Results**

Intersection	Approach	Total Future Conditions (2022)						Total Future Conditions (2022) with Mitigations						
		AM Peak Hour		PM Peak Hour		Sat Peak Hour		AM Peak Hour		PM Peak Hour		Sat Peak Hour		
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	
<b>Montana Avenue &amp; W Street/18th Street</b>	<b>Overall</b>	<b>74.1</b>	<b>E</b>	<b>72.9</b>	<b>E</b>	<b>108.5</b>	<b>F</b>	<b>28.5</b>	<b>C</b>	<b>25.7</b>	<b>C</b>	<b>21.4</b>	<b>C</b>	
	Eastbound	27.1	C	26.2	C	37.8	D	15.5	B	16.8	B	15.7	B	
	Westbound	119.7	F	123.0	F	198.7	F	27.2	C	25.0	C	16.2	B	
	Northbound	58.7	E	55.1	E	36.2	D	26.9	C	26.8	C	22.7	C	
	Southbound	38.5	D	44.7	D	47.1	D	51.7	D	47.9	D	48.9	D	
<b>Bladensburg Road &amp; 17th Street</b>	<b>Overall</b>	<b>36.1</b>	<b>D</b>	<b>41.0</b>	<b>D</b>	<b>46.6</b>	<b>D</b>	<b>31.7</b>	<b>C</b>	<b>36.9</b>	<b>D</b>	<b>37.6</b>	<b>D</b>	
	Eastbound	35.9	D	86.7	F	40.4	D	35.9	D	46.5	D	39.1	D	
	Westbound	56.3	E	27.6	C	77.7	E	35.9	D	46.7	D	37.9	D	
	Northbound	27.3	C	23.7	C	21.6	C	30.5	C	27.4	C	26.7	C	
	Southbound	19.2	B	14.5	B	19.1	B	22.8	C	21.4	C	46.7	D	
<b>Bladensburg Road &amp; Mt Olivet Road</b>	<b>Overall</b>	<b>98.2</b>	<b>F</b>	<b>45.0</b>	<b>D</b>	<b>88.2</b>	<b>F</b>	<b>8.0</b>	<b>A</b>	<b>11.6</b>	<b>D</b>	<b>16.6</b>	<b>B</b>	
	Eastbound	29.3	C	23.4	C	30.2	C	30.2	C	25.4	C	38.3	D	
	Westbound	32.1	C	32.5	C	32.4	C	32.9	C	34.1	C	37.6	D	
	Northbound	3.5	A	4.6	A	3.3	A	3.4	A	3.5	A	4.0	A	
	Southbound	171.8	F	98.6	F	158.0	F	8.5	A	19.1	B	24.1	C	
<b>Bladensburg Road &amp; Montana Ave/S Street</b>	<b>Overall</b>	<b>41.0</b>	<b>D</b>	<b>34.2</b>	<b>C</b>	<b>65.9</b>	<b>E</b>	<b>27.5</b>	<b>C</b>	<b>No Mitigations</b>			<b>27.7</b>	<b>C</b>
	Eastbound	15.2	B	23.1	C	14.4	B	15.9	B	<b>No Mitigations</b>			21.5	C
	Westbound	31.7	C	34.6	C	24.6	C	34.7	C	<b>No Mitigations</b>			32.9	C
	Northbound	20.6	C	41.3	D	36.5	D	14.8	B	<b>No Mitigations</b>			19.3	C
	Southbound	58.5	E	28.5	C	114.2	F	37.0	D	<b>No Mitigations</b>			37.6	D
<b>Bladensburg Road &amp; New York Ave</b>	<b>Overall</b>	<b>74.5</b>	<b>E</b>	<b>243.5</b>	<b>F</b>	<b>97.9</b>	<b>F</b>	<b>54.4</b>	<b>D</b>	<b>176.0</b>	<b>F</b>	<b>56.4</b>	<b>E</b>	
	Eastbound	109.5	F	459.4	F	173.1	F	27.1	C	340.4	F	72.9	E	
	Westbound	30.4	C	26.2	C	69.0	E	30.4	C	44.6	D	53.7	D	
	Northbound	33.7	C	217.9	F	51.8	D	30.4	C	98.3	F	53.2	D	
	Southbound	156.2	F	55.3	E	20.2	C	156.2	F	33.9	C	22.1	C	



## TRANSIT

This section discusses the existing and proposed transit facilities in the vicinity of the site, accessibility to transit, and evaluates the overall transit impacts due to the Stanton Square and Commons project.

The following conclusions are reached within this chapter:

- The development site is 1.3 miles from the Rhode Island Metrorail station and is surrounded by several Metrobus routes that travel along multiple primary corridors
- The site is expected to generate a relatively large amount of transit trips, and the Applicant will coordinate with WMATA and DDOT if supplementing existing transit service is deemed necessary

### EXISTING TRANSIT SERVICE

The study area is well served by Metrobus and has access to Metrorail. Combined, these transit services provide local, city wide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region. Figure 32 identifies the major transit routes, stations, and stops in the study area.

The Rhode Island Metrorail station is located less than 1.3 miles from the development site. The Rhode Island Metrorail station is served by the Red Line, which travels south from Glenmont, through downtown DC, and then continues north through the District core to Shady Grove. Trains run approximately every three to six minutes during the morning and afternoon peak hours. They run about every 12 minutes during weekday non-peak hours, every six to ten minutes on weekday evenings, every 15 to 18 minutes after 9:30 pm, and every 12 to 15 minutes on the weekends.

The site is also serviced by three Metrobus lines along multiple primary corridors. These bus lines connect the site to many

areas of the District and Maryland, including several Metrorail stations serving four of the six lines. Table 11 shows a summary of the bus route information for the routes that serve the site, including service hours, headway, and distance to the nearest bus stop. Figure 33 shows the weekday frequency of bus service servicing the site. As can be seen in, 30 buses service the site during the AM peak hour and 22 buses during the PM peak hour, providing a good connection to Metrorail and other destinations.

Figure 32 shows a detailed inventory of the existing Metrobus stops within a quarter-mile walkshed of the site. Each stop is evaluated based on the guidelines set forth by WMATA’s *Guidelines for the Design and Placement of Transit Stops*, as detailed in Table 12. A detailed list of Metrobus stops within a quarter-mile walkshed of the site, detailing individual bus stop amenities and conditions is included in the Technical Appendix.

### PROPOSED TRANSIT SERVICE

Due to growth of population, jobs, and retail in several neighborhoods in the District and the potential for growth in other neighborhoods, the District’s infrastructure is challenged with the need for transportation investments to support the recent growth and to further strengthen neighborhoods. In order to meet these challenges and capitalize on future opportunities, DDOT has developed a plan to identify transit challenges and opportunities and to recommend investments. *MoveDC* is a long-range plan that provides a vision for the future of DC’s transportation system, specifically in a way that expands transportation choices while improving the reliability of all transportation modes.

The *MoveDC* report outlines recommendations by mode with the goal of having them complete by 2040. The plan hopes to achieve a transportation system for the District that includes:

- 70 miles of high-capacity transit (streetcar or bus)

**Table 11: Metrobus Route Information**

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
B2	Bladensburg Road-Anacostia Line	Weekdays: 4:25AM – 2:32 AM Weekends: 4:27AM – 1:50 AM	10-30 min	<0.1 miles, 1 minute
D4	Ivy City-Franklin Square Line	Weekdays: 4:11AM – 1:06 AM Weekends: 4:44AM – 1:05 AM	15-30 min	<0.2 miles, 5 minute
E2	Ivy City-Fort Totten Line	Weekdays: 5:55AM – 5:35 AM Weekends: 5:40AM – 12:52 AM	10-30 min	<0.1 miles, 2 minute



**Table 12: Transit Stops Requirements**

Feature	Basic Stop	Enhanced Service Bus Stop	Transit Center
Bus Stop Sign	Yes	Yes	Yes
ADA 5'x8' Landing Pad - at a minimum, a clear, unobstructed, paved boarding area that is 8 feet deep (perpendicular to the curb) by 5 feet wide (parallel to the curb) and compliant with the ADA Accessibility Guidelines (ADAAG)	Yes	Yes	Yes
Sidewalk - connected by a paved sidewalk that is at least 4 feet wide	Yes	Yes	Yes
Lighting - adequate lighting either from street lights, lights from an adjacent business, or shelter lighting (particularly stops that are served in the evenings)	Evening Service	Yes	Yes
Seating	Trip Generator Based	Yes	Yes
Information Case - detailed schedule information on services	Yes	Yes	Yes
Trash Receptacle - trash receptacle (particularly at locations that are close to fast food establishments and convenient stores)	Site Specific	Yes	Yes
Shelter(s) - shelter with interior seating if there are 50 or more boardings per day (including transfers)	1 (50+ boardings/day)	1	2+
System Map	Contingent on Shelter	Yes	Yes
Real-time Display (LED + Audio)	Optional	Yes	Yes
Interactive Phone System On-Site - real time bus arrival information through an interactive phone and push button audio system	No	No	Yes
Expanded Boarding & Alighting Area (Rear-door Access)	No	Site Specific	Yes
Bus Bay (Pull Off)	No	Site Specific	Yes

- 200 miles of on-street bicycle facilities or trails
- Sidewalks on at least one side of every street
- New street connections
- Road management/pricing in key corridors and the Central Employment Area
- A new downtown Metrorail loop
- Expanded commuter rail
- Water taxis

In direct relation to the proposed development, the MoveDC plan outlines recommended a High Frequency Bus Corridor on Bladensburg Road. These recommendations would create additional multi-modal capacity and connectivity to the proposed development.

**WMATA Metrobus Studies**

WMATA and local transportation agencies in the District, Maryland, and Virginia have been reviewing Metrobus lines and system wide facilities for service improvements since 2007. In direct relation to this development, the B2 and E2 lines were studied.

WMATA and DDOT published the 2010 *Metrobus Evaluation Studies* in July 2011, which discusses recommendations for the

B2 Metrobus line. The report cites the need for improved service and reliability as well as the need for improved bus stop amenities. As a possible solution, the report proposes segmenting the B2 line into three shorter variants of the existing line, with Stadium Armory acting as a transfer point. Since the length of the B2 line is causing delay and reliability issues, the segmenting of the line would improve reliability while maintaining exiting frequency of service, but may necessitate more transfers. As of this report, the recommendations outlined in the WMATA Metrobus study for the B2 line have not been enacted.

The *Metrobus Service Evaluation Study (2011)*, published October 2011, discusses recommendations for the E2 Metrobus line. The report cites the need for improved reliability, passenger convenience, and reduced operating costs. The first recommendation is to split the E2/3/4 lines into two segments. The new E2 line would operate between Fort Totten and Ivy City, and the new E4 line would operate between Fort Totten and Friendship Heights. The splitting of the lines would result in improved load distribution, tailor the levels of service to the unique ridership demand of both new segments, and increase reliability by shortening the line. The second recommendation is to combine the E2 and D4 lines to create a direct bus



connection from the E2 service area to Downtown DC. The third recommendation is to re-route the E2 (or E2/D4) to serve the proposed Walmart site at Bladensburg Road, New York Avenue, and Montana Avenue. At the time of the WMATA study, there was a plan to construct a Walmart at the same site as New City. Since Walmart was anticipated to be a major destination for District residents, a minor re-route of the E2 line was proposed. Figure 34 shows the proposed re-route of the E2 line so that it would better serve the site. Figure 35 shows the proposed re-route of the E2 line to better serve the line, if it were also combined with the D4 line. The final recommendation includes consolidating stops that are too close together as well as improving bus stop amenities. This would reduce travel times and improve the passenger experience. As of this report, the E2/3/4 lines have been split, but no other recommendations outlined in the WMATA *Metrobus Service Evaluation Study (2011)* for the E2 line have been enacted.

#### **Transit Related Improvements**

As a result of the development, possible bus stops abutting the boundary of site have been identified to facilitate better and more comfortable access to transit.

The Applicant will coordinate with DDOT and WMATA on matters regarding the possible addition or re-routing of Metrobus lines to better service the site, especially along Montana Avenue. As such, potential bus stop locations have been identified along Bladensburg Road and along Montana Avenue to facilitate the new demand for transit generated by the site. Along Bladensburg Road, a southbound bus stop located near the intersection with Montana Avenue would service the existing B2 line. Along Montana Avenue, two northbound bus stop locations, one near the intersection of Bladensburg Road and one near the intersection of T Street, would service the possible re-route of the E2 line or the S41 school bus route.

#### **SITE-GENERATED TRANSIT IMPACTS**

The proposed development is projected to generate 267 transit trips (149 inbound, 118 outbound) during the morning peak hour, 822 transit trips (416 inbound, 406 outbound) during the afternoon peak hour, and 1074 transit trips (567 inbound, 507 outbound) during the Saturday peak hour.

US Census data was used to determine the distribution of those taking Metrorail and those taking Metrobus. The site lies in TAZ

10264 and is bordered by TAZs 20216, 20218, 20260, 20263, and 20271, which when aggregated, show that approximately 41 percent of transit riders used Metrorail and the remainder use Metrobus. Given the size of the development, approximately 109 people will use Metrorail and 158 will use Metrobus during the morning peak hour; approximately 337 people will use Metrorail and 485 will use Metrobus during the afternoon peak hour; and approximately 440 people will use Metrorail and 634 will use Metrobus during the Saturday peak hour.

WMATA studied capacity of Metrorail stations in its *Station Access & Capacity Study*. The study analyzed the capacity of Metrorail stations for their vertical transportation, for example the capacity of the station at elevators, stairs, and escalators to shuttle patrons between the street, mezzanine, and platforms. The study also analyzed stations capacity to process riders at fare card gates. For both analyses, vertical transportation and fare card gates, volume-to-capacity ratios were calculated for existing data (from 2005) and projections for the year 2030. According to the study, the Rhode Island station can currently accommodate future growth at all access points.

WMATA also studied capacity along Metrobus routes. DC's *Transit Future System Plan (2010)* lists the bus routes with the highest load factor (a ratio of passenger volume to bus capacity). A load factor is considered unacceptable if it is over 1.2 during peak periods or over 1.0 during off-peak or weekend periods. According to this study the Metrobus routes that travel near the site do not exceed the acceptable load factor during all periods of the day.

Based on this information and the adequate Metrobus service surrounding the site, it is not expected that site-generated transit trips will cause detrimental impacts to Metrobus service. However, as the site is expected to generate a relatively large amount of transit trips the Applicant will coordinate with WMATA and DDOT if supplementing existing transit service is deemed necessary.

The location of Metrobus stops in the vicinity of the proposed development will adequately serve the needs of all users. Pedestrian facilities to and from the Metrobus stops should be improved as to allow as comfortable of an environment for pedestrians and transit-users alike.



Figure 32: Existing Transit Service



**Bus Service Frequencies**  
*Note: The stops listed are the closest stops to the site listed on each bus schedule. Dots represent arrival times at the noted stop throughout the day. Each end indicate the time each route begins and ends service.*

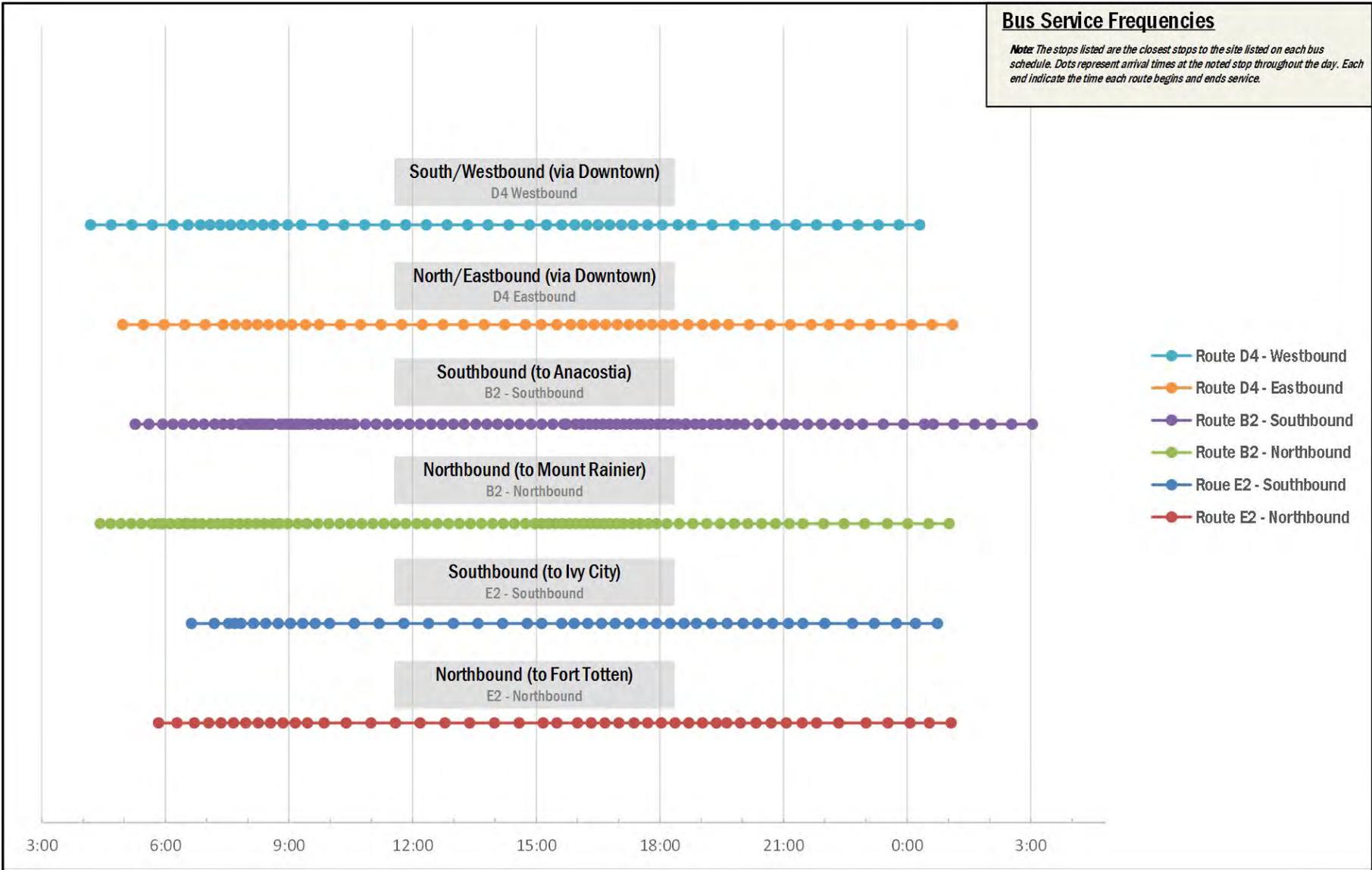


Figure 33: Bus Headways and Frequency (weekdays)

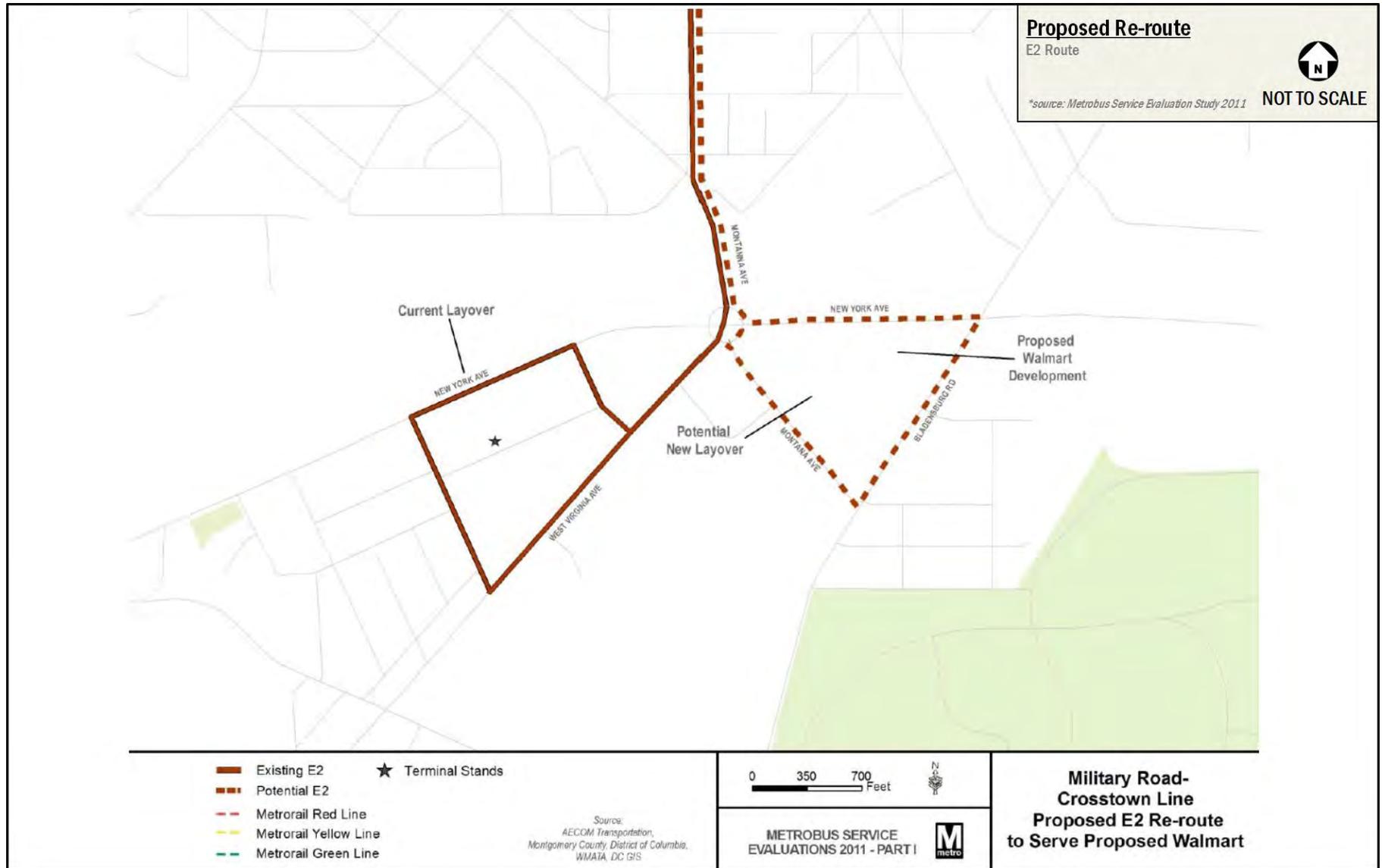


Figure 34: Proposed E2 Re-route

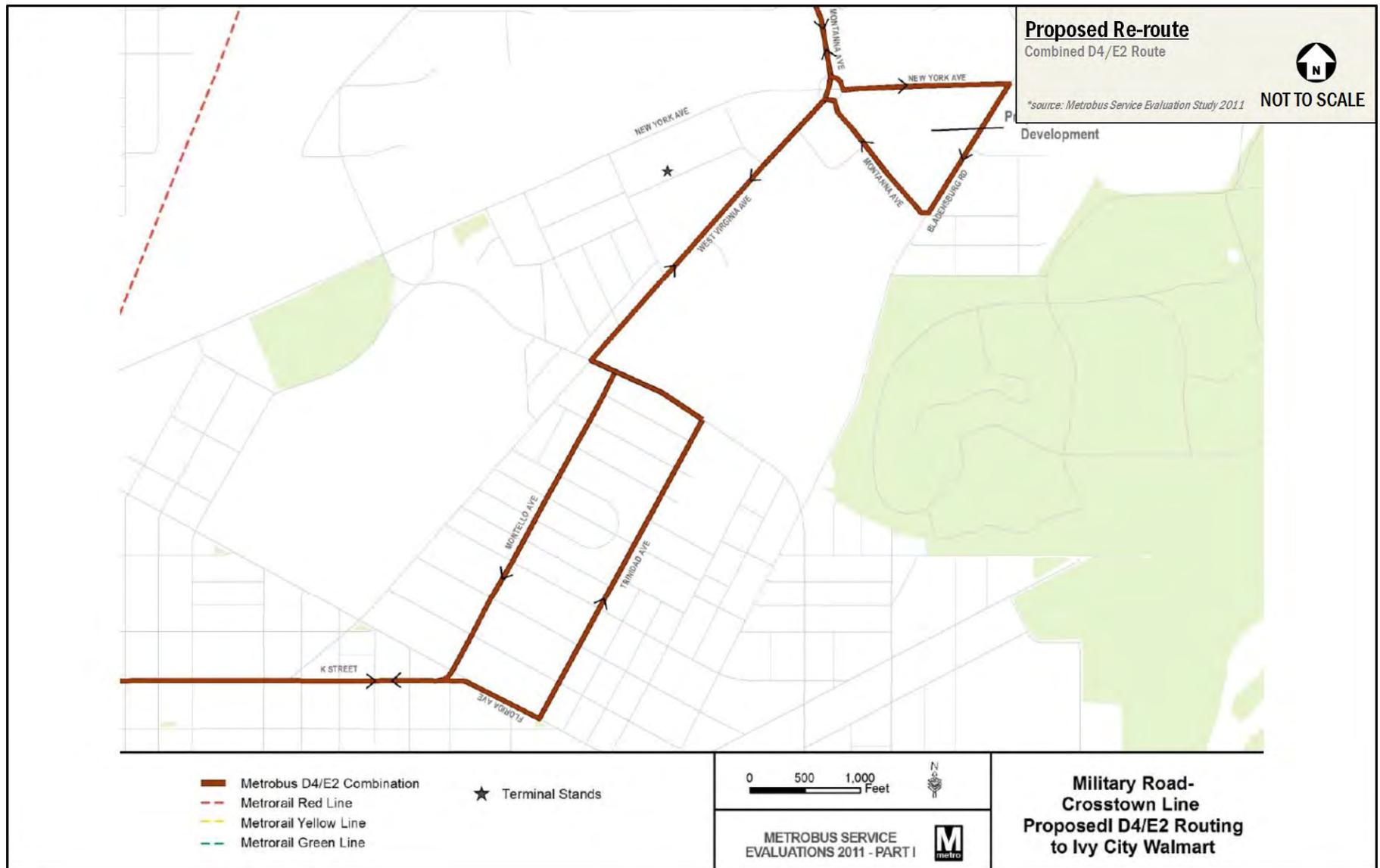


Figure 35: Proposed D4/E2 Combined Route with Re-route



## PEDESTRIAN FACILITIES

This section summarizes existing and future pedestrian access to the site and reviews walking routes to and from the site.

The following conclusions are reached within this chapter:

- The existing pedestrian infrastructure surrounding the site provides an adequate walking environment. There are some gaps in the system, but there are sidewalks along all primary routes to pedestrian destinations.
- The site is expected to generate a manageable amount of pedestrian trips; however, the pedestrian trips generated by walking to and from transit will be more substantial, particularly along the perimeter of the site.
- Improvements to pedestrian infrastructure surrounding the site will improve pedestrian comfort and connectivity.

### PEDESTRIAN STUDY AREA

Facilities within a quarter-mile of the site were evaluated as well as routes to nearby transit facilities. The site is easily accessible to transit options such as bus stops along Bladensburg Road and West Virginia Avenue. There are some barriers and areas of concern within the study area that negatively impact the quality of and attractiveness of the walking environment. This includes roadway conditions that reduce the quality of walking conditions, narrow or nonexistent sidewalks, incomplete or insufficient crossings at busy intersections, and the rail tracks running parallel to New York Avenue that limit connectivity to the north. Figure 36 shows suggested pedestrian pathways, walking time and distances, and barriers or areas of concern.

### PEDESTRIAN INFRASTRUCTURE

This section outlines the existing and proposed pedestrian infrastructure within the pedestrian study area.

#### Existing Conditions

A review of pedestrian facilities surrounding the planned

development shows that most facilities meet DDOT standards and provide an acceptable walking environment. Figure 37 shows a detailed inventory of the existing pedestrian infrastructure surrounding the site. Sidewalks, crosswalks, and curb ramps are evaluated based on the guidelines set forth by DDOT's *Public Realm Design Manual* in addition to ADA standards. Sidewalk widths and requirements for the District are shown below in Table 13.

Within the area shown, most roadways are considered industrial with a low to moderate density. Most of the sidewalks surrounding the site do not comply with DDOT standards, particularly due to the lack of buffer space; however there are some areas which have adequate sidewalks.

ADA standards require that all curb ramps be provided wherever an accessible route crosses a curb and must have a detectable warning. Additionally, curb ramps shared between two crosswalks is not desired. As shown in Figure 37, under existing conditions there are some issues with crosswalks and curb ramps near the site.

#### Pedestrian Infrastructure Improvements

As a result of the development, pedestrian facilities along the perimeter of the site will be improved, for example by removing a total of 34 curb cuts, 14 along New York Avenue, ten (10) along Bladensburg Road, and ten (10) along Montana Avenue. The development will improve sidewalks adjacent to the site such that they meet or exceed DDOT requirements and provide an improved pedestrian environment. Due to the limited public right-of-way this requires dedicating property within the site boundary to public use.

Within the site, the development will provide pedestrian facilities that meet or exceed DDOT and ADA standards, with an emphasis on pedestrian safety and comfort. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, curb ramps with detectable warnings, and additional design elements such as curb extensions and room for outdoor seating. In addition, the southern half of the development is planned with a pedestrian

**Table 13: Sidewalk Requirements**

Street Type	Minimum Sidewalk Width	Minimum Buffer Width
Residential (Low to Moderate Density)	6 ft	4 ft (6 ft preferred for tree space)
Residential (High Density)	8 ft	4 ft (6 ft preferred for tree space)
Commercial (Non-downtown)	10 ft	4 ft
Downtown	16 ft	6 ft



plaza that will link all the various functions of the development.

## SITE IMPACTS

This section summarizes the impacts of the development on the overall pedestrian operations in the vicinity of the site.

### **Pedestrian Trip Generation**

The planned development is expected to generate 309 walking trips (181 inbound, 128 outbound) during the morning peak hour, 1001 walking trips (504 inbound, 497 outbound) during the afternoon peak hour, and 1282 walking trips (679 inbound, 603 outbound) during the Saturday peak hour. The origins and destinations of these trips are likely to be:

- Employment opportunities where residents can walk to work;
- Retail locations outside of the site;
- Employees and patrons of the development; and
- Neighborhood destinations such as schools, libraries, and parks in the vicinity of the site.

In addition to these trips, the transit trips generated by the site will also generate pedestrian demand between the site and nearby transit stops.



Figure 36: Pedestrian Pathways

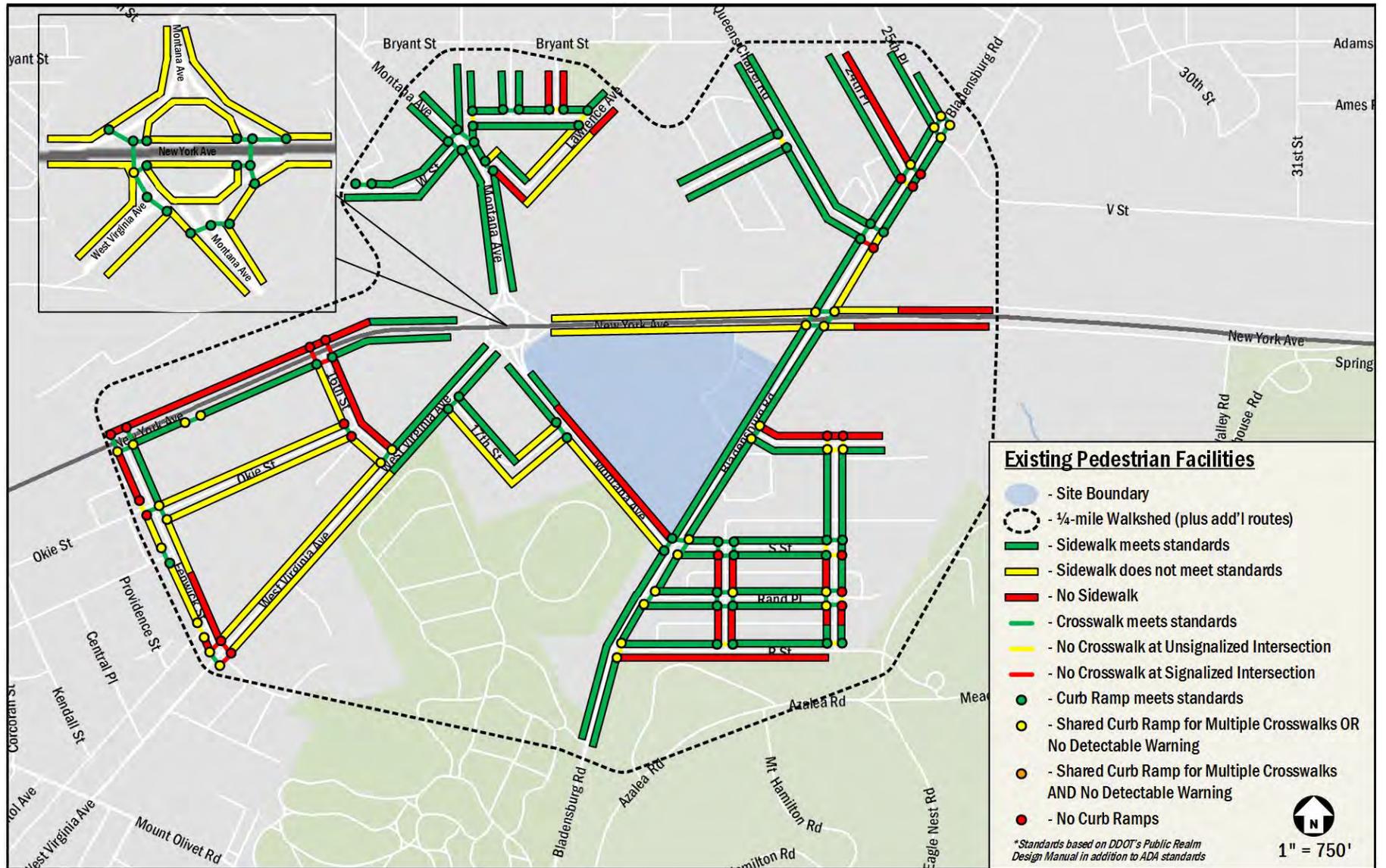


Figure 37: Existing Pedestrian Infrastructure



## BICYCLE FACILITIES

This section summarizes existing and future bicycle access, reviews the quality of cycling routes to and from the site, and presents recommendations.

The following conclusions are reached within this chapter:

- The site has access to one bicycle signed route on West Virginia Avenue and one bike lane on 18<sup>th</sup> Street.
- The site is expected to generate a relatively large amount of bicycle trips, which can be accommodated by proposed and planned bicycle facilities.
- The development will include long-term bicycle parking within each building.
- The development will include short-term bicycle racks throughout the site.
- The development will include showers and changing facilities that meet or exceed the number required by zoning.

### EXISTING BICYCLE FACILITIES

The site has access to existing on- and off-street bicycle facilities. East-west connectivity is provided along a signed bike route on West Virginia Avenue. North-south connectivity is provided along bike lanes on 18<sup>th</sup> Street. Figure 38 illustrates the existing bicycle facilities in the area.

No bike parking is provided along the perimeter of the site under existing conditions.

### PROPOSED BICYCLE FACILITIES

#### MoveDC

The MoveDC plan outlines several bicycle improvements in the vicinity of the site. These improvements are broken up into four tiers that rank the priority for implementation. The four tiers are broken down as follows:

- Tier 1  
Investments should be considered as part of DDOT's 6-year TIP and annual work program development, if they are not already included. Some projects may be able to move directly into construction, while others become high priorities for advancement through the Project Development Process.

A bicycle trail from Kirby Street NW to the Maryland/District border along New York Avenue will be in the tier 1 additions.

- Tier 2  
Investments within this tier are not high priorities in the early years of MoveDC implementation. They could begin moving through the Project Development Process if there are compelling reasons for their advancement.

A bicycle lane from New York Avenue to the existing bicycle lanes on 18<sup>th</sup> Street along Montana Avenue will be in the tier 2 additions.

- Tier 3  
Investments within this tier are not priorities for DDOT-led advancement in the early years of MoveDC's implementation. They could move forward earlier under circumstances such as real estate development initiatives and non-DDOT partnerships providing the opportunity for non-District-led completion of specific funding.

- Tier 4  
Generally, investments within this tier are not priorities for DDOT-led advancement and are lower priority for project development in the early years of implementation.

Due to the timeline of the Stanton Square/Commons development, this report focuses on the Tier 1 and Tier 2 recommendations within the vicinity of the site.

Although these projects are discussed in the MoveDC plan, they are not currently funded or included in DDOT's Transportation Implementation Plan thus they will not be assumed as complete for this analysis.

#### New York Rails-to-Trails

The concept of developing a trail along the New York Avenue corridor dates back at least a decade, when it was included in the District's 2005 Bicycle Master Plan. The purpose of this project is to create a new multi-use trail (shared-use path) in Northeast Washington, D.C., that will improve pedestrian and bicycle access and conditions along New York Avenue, seamlessly connecting the Ivy City neighborhood with downtown, stretching from L Street and 2nd Street to the U.S. National Arboretum. The proposed trail corridor is segmented into five sections based on characteristics of surrounding location and land use. At approximately 2.5 miles, the preferred alignment assumes that the trail will serve as a direct, largely traffic-free facility for bicyclists and pedestrians



traveling through Northeast Washington, D.C., from L Street NE, to the entrance of the U.S. National Arboretum on R Street NE. Segment 5 of the proposed trail will cross New York Avenue at Hecht Warehouse development, extend the trail as on-road bicycle facilities and improved crossings at Fenwick Street and 16th Street to the entrance of the U.S. National Arboretum at R Street.

### **Bicycle Related Improvements**

As a result of the development and in coordination with DDOT, a cycletrack will be added along the boundary of the site on Montana Avenue and New York Avenue, stretching from the intersection of Montana Avenue and 17<sup>th</sup> Street to junction of New York Avenue and the public alley at the northeastern edge of the site.

### **On-Site Bicycle Elements**

The project will provide amenities that cater to cyclists including long-term bicycle spaces and short-term bicycle racks. Exact numbers and locations of bicycle racks have not yet been determined; however, it is expected that secure long-term bicycle spaces will be located in each building and bicycle racks will be located along the perimeter of the site. The Applicant will work with DDOT to determine the locations of bicycle racks within public space.

Planned protected bicycle facilities within the development will run along the internal-east west roadway, and connect to the proposed bicycle facilities on 17<sup>th</sup> Street to the west of the site as part of the New York Avenue Rails-to-Trails plans.

Additionally, the Applicant has agreed to fund the installation of a Capital Bikeshare station within the perimeter or near the site. The exact location of the station has not yet been determined; however, it will be located in an area that is convenient to both residents and patrons of the development and the surrounding neighborhood.

## **SITE IMPACTS**

This section summarizes the impacts of the development on the overall bicycle operations surrounding the site and develops recommendations for connectivity improvements.

### **Bicycle Trip Generation**

The planned development is expected to generate 104 bicycle trips (58 inbound, 46 outbound) during the morning peak hour, 359 bicycle trips (181 inbound, 178 outbound) during the

afternoon peak hour, and 470 bicycle trips (248 inbound, 222 outbound) during the Saturday peak hour. Although bicycling will be an important mode for getting to and from the site, with facilities located on site and routes to and from the site, the impacts from bicycling will be relatively less than impacts to other modes.

The addition of planned and proposed bicycle facilities leading to and from the site will make using a bicycle a convenient and comfortable option for residents, employees, and patrons of the development.

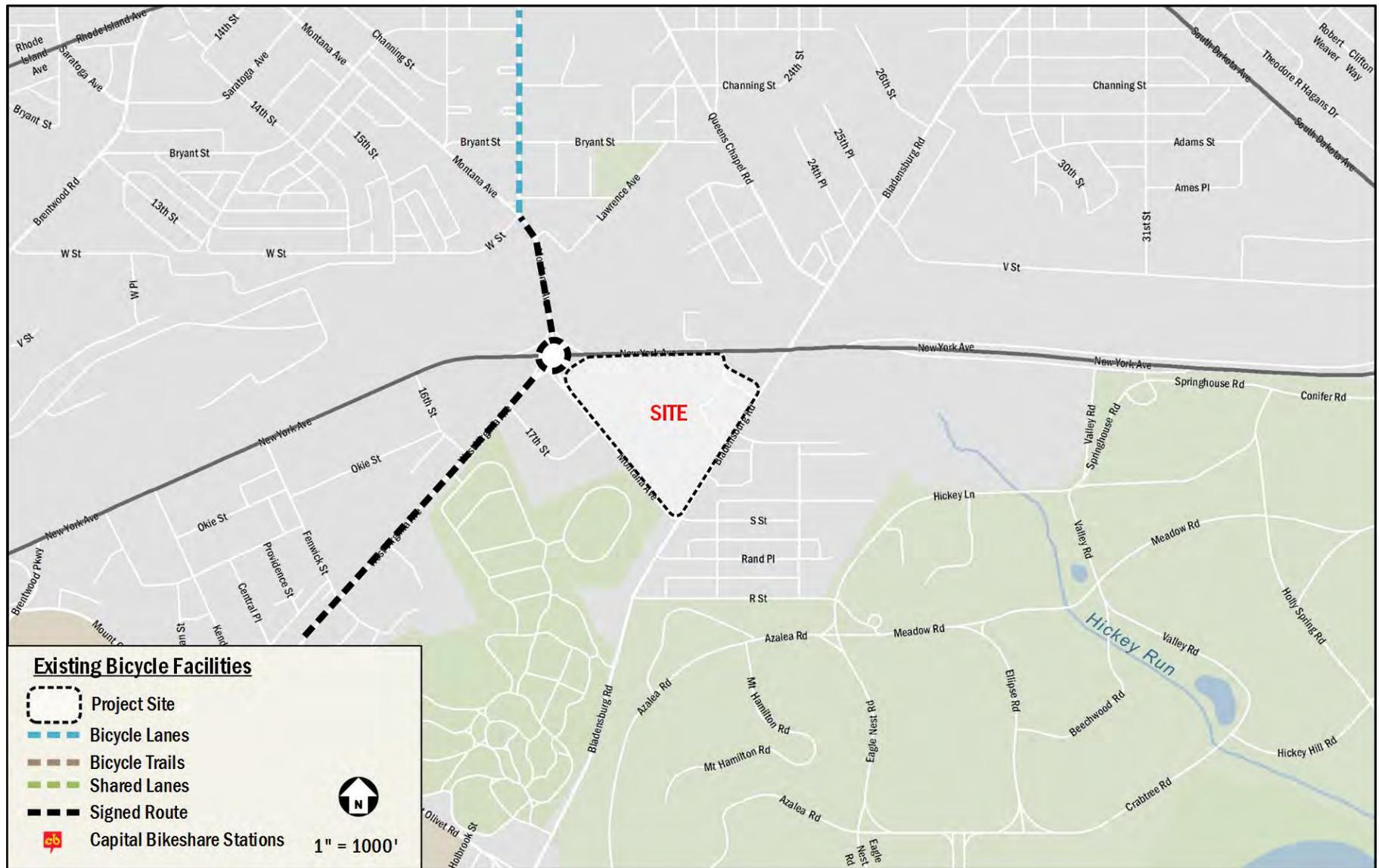


Figure 38: Existing Bicycle Facilities



## CRASH DATA ANALYSIS

This section of the report reviews available crash data within the study area, reviews potential impacts of the proposed development on crash rates, and makes recommendations for mitigation measures where needed.

### SUMMARY OF AVAILABLE CRASH DATA

A crash analysis was performed to determine if there was an abnormally high crash rate at study area intersections. DDOT provided the last three years of intersection crash data, from 2013 to 2015 for the study area. This data was reviewed and analyzed to determine the crash rate at each location. For intersections, the crash rate is measure in crash per million-entering vehicles (MEV). The crash rates per intersections are shown in Table 14 .

According to the Institute of Transportation Engineer’s *Comprehensive Transportation Review for Site Development*, a crash rate of 1.0 or higher is an indication that further study is required. Twelve (12) intersections in this study area meet this criterion (as shown in red in Table 14 and detailed in Table 15). The New City development should be developed in a manner to help alleviate, or at minimum not add to, the conflicts at these intersections.

A rate over 1.0 does not necessarily mean there is a significant problem at an intersection, but rather it is a threshold used to identify which intersections may have higher crash rates due to operational, geometric, or other issues. In some cases, the crashes were located near the intersection and not necessarily within the intersection.

For these three intersections, the crash type information from the DDOT crash data was reviewed to see if there is a high percentage of certain crash types. Generally, the reasons for why an intersection has a high crash rate cannot be derived from crash data, as the exact details of each crash are not represented. However, some summaries of crash data can be used to develop general trends or eliminate possible causes. Table 15 contains a breakdown of crash types reported for the seven intersections with a crash rate over 1.0 per MEV.

### POTENTIAL IMPACTS

This section reviews the 12 locations with existing crash rates over 1.0 MEV and reviews potential impacts of the proposed development.

#### ▪ Mount Olivet Road & West Virginia Avenue

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.21 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were rear-end crashes. High numbers of rear-end crashes are more typical at signalized intersections.

The safety concerns at this intersections are primarily due to existing lane configurations and operations. The site-generated traffic at this intersection is minimal and not expected to degrade safety. Of note, DDOT’s crash report showed an elevated number of pedestrian crashes at this intersection, with the majority occurring while the pedestrian was no in the crosswalk and with the signal. Restriping deficient crosswalks could help alleviate this.

#### ▪ 16<sup>th</sup> Street & New York Avenue

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.73 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were rear-end crashes and side-swiped vehicles. High numbers of rear-end crashes are more typical at signalized intersections. The elevated number of side-swiped vehicles could be a result of the heavy volumes on New York Avenue and the large number of lanes in each direction, meaning a lot of lane switching.

The safety concerns at this intersections are primarily due to existing lane configurations and operations. The site-generated traffic at this intersection is minimal and not expected to degrade safety; thus no improvements are recommended as part of the development.

#### ▪ Montana Avenue & W Street/18<sup>th</sup> Street

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of 1.48 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were side-swiped vehicles. The high number of side-swiped crashes could be a result of the atypical geometry of the intersection. Furthermore, the



striping of the westbound approach, combined with poor signage, leads vehicles to merge at the last moment from the underutilized left-only lane into the highly utilized thru/right lane; this was observed during field visits.

Given the curved nature of Montana Avenue leading up to the intersection, it may be beneficial to have a sign denoting the lane configuration to better prepare drivers for the turn lane. This, combined with the potential improvements to the intersection discussed previously would potentially reduce the number of conflicts due to lane switching.

- *New York Avenue & Montana Avenue & West Virginia Avenue*

This intersection complex is over the threshold of 1.0 crashes per MEV, with a rate of 1.99 crashes per MEV over the course of the three year study period. The majority of the crashes at this intersection were rear-end crashes, side-swiped vehicles, right-angle crashes, and left-turn crashes, all of which are consistent with crashes that could occur at intersections such as this one with the high number of turning vehicles continuing through on New York Avenue. It should be noted that crash data provided by DDOT does not contain the level of detail needed to extrapolate a more detailed analysis of crashes at the intersection. As with capacity concerns at this intersection, regional planning solutions outside the scope of this study are necessary to address the overall safety of this intersection.

- *Bladensburg Road & 17<sup>th</sup> Street & Mt Olivet Road*

Crash data provided by DDOT combines the intersections of Bladensburg Road and 17<sup>th</sup> Street, and Bladensburg Road and Mt Olivet Road into one analysis zone.

These intersections are over the threshold of 1.0 crashes per MEV, with a rate of 1.45 crashes per MEV over the course of the three year study period. The majority of crashes at these intersections were rear-end crashes and side-swiped vehicles. High numbers of rear-end crashes are more typical at signalized intersections, especially with signals spaces so closely together. The elevated number of side-swiped vehicles could be a result of the dual left turn lanes present at this intersection. Similarly to Montana Avenue and W Street/18<sup>th</sup> Street, the offset geometry of

this intersection may result in an elevated crash rate and poor sightlines.

This report does not recommend mitigation measures at this intersection as the development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- *Montana Avenue & 17<sup>th</sup> Street*

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of 1.12 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were rear-end crashes. A likely cause for the high number of rear-end crashes at a stop controlled intersections are the large volume of northbound left turn vehicles.

The signalization of this intersection as part of the development will hopefully reduce the number of conflicts by phasing each turn.

- *Bladensburg Road & Montana Avenue/S Street*

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of 1.25 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were side-swiped vehicles, followed by rear-end crashes and backing crashes. High numbers of rear-end crashes are more typical at signalized intersections, especially at intersections with atypical geometry. The high number of side-swiped vehicles and backing crashes are more than likely a result of the parking lots to the northeast and southwest of the intersection, which are included in DDOT's crash report format. This was confirmed by examining the vehicle crash data shapefile available through the DC Office of the Chief Technology Officer.

This report does not recommend mitigation measures at this intersection as the development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- *Bladensburg Road & T Street*

This intersection is barely over the threshold of 1.0 crashes per MEV, with a rate of 1.03 crashes per MEV over the course of the three year study period. The majority of



crashes at this intersection were side-swiped vehicles. This is most likely caused by vehicles unsuccessfully passing southbound left turning vehicles.

This intersection will be improved alongside the development. The installation of a signal, crosswalks, ADA compliant, and ADA compliant curb ramps will improve the safety operations for all modes.

- *Bladensburg Road & New York Avenue*

This intersection is significantly over the threshold of 1.0 crashes per MEV, with a rate of approximately 3.73 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were rear-end crashes and side-swiped vehicles. Elevated rear-end crashes are typically observed at signalized intersections, and may be more prevalent at this intersection due to the short left/U-turn pockets to the east and west of the intersection. The high number of side-swiped vehicles are more than likely a result of the parking lots to the surrounding the intersection, which as a result of DDOT's crash report format are included as part of the intersection. This was confirmed by examining the vehicle crash data shapefile available through the DC Office of the Chief Technology Officer.

This report defers to the findings contained in DDOT's *New York Avenue Corridor Study*, which examined safety along the New York Avenue corridor. It is expected that the more in depth crash analyses along the corridor associated with DDOT's study will result in improved safety at this intersection, and thus decrease the number of crashes.

- *Bladensburg Road & Queens Chapel Road*

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 2.01 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were side-swiped vehicles, followed by rear-end crashes and right-angle crashes. The high instance of side-swiped vehicles is most likely caused by vehicles unsuccessfully passing northbound left turning vehicles. Elevated rear-end crashes are typically observed at signalized intersections. The elevated number of right-angle crashes could be in part to the limited sight distances of driveways that are within 100 feet of the intersection, or eastbound vehicles that want to turn right on red. Given the nature of this

intersection, it may be beneficial to have a sign denoting no right on red for eastbound vehicles; however, this report does not recommend added signage as part of the development as the project is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.

- *Bladensburg Road & V Street/25<sup>th</sup> Street*

This intersection is over the threshold of 1.0 crashes per MEV, with a rate of approximately 1.39 crashes per MEV over the course of the three year study period. The majority of crashes at this intersection were side-swiped vehicles and rear-end crashes. The high number of side-swiped vehicles could be a result of the offset geometry of the intersection, as well as caused by vehicles unsuccessfully passing left turning vehicles. Elevated rates of rear-end crashes are typically observed at signalized intersections.

This report does not recommend mitigation measures at this intersection as the development is not projected to make changes to the commuting patterns, operations, or geometry of this intersection that could negatively influence safety.



**Table 14: Intersection Crash Rates (2013-2015)**

Intersection	Total Crashes	Ped Crashes	Bike Crashes	Rate per MEV*
Mt Olivet Road & West Virginia Avenue NE	43	5	0	<b>1.21</b>
16th Street & New York Avenue NE	81	2	1	<b>1.73</b>
West Virginia Avenue & 16th Street NE	10	0	0	0.69
West Virginia Avenue & 17th Street NE	6	0	1	0.45
Montana Avenue & W Street/18th Street NE	32	1	0	<b>1.48</b>
New York Avenue & Montana Avenue & West Virginia Avenue NE	140	1	1	<b>1.99</b>
Bladensburg Road & 17th Street NE	78	4	2	<b>1.95</b>
Bladensburg Road & Mt Olivet Road NE	78	4	2	<b>2.42</b>
Montana Avenue & 17th Street NE	11	0	1	<b>1.12</b>
New York Avenue NE & Garage Access^				
Montana Avenue NE & Southwestern Alley^				
New York Avenue NE & Hotel Site Access^				
Bladensburg Road & Montana Avenue/ S Street NE	48	2	1	<b>1.25</b>
Bladensburg Road NE & Southeastern Alley^				
New York Avenue NE & Alley Access^				
Bladensburg Road & T Street NE	32	0	0	<b>1.03</b>
Bladensburg Road NE & Southern Alley^				
Bladensburg Road NE & Northern Alley^				
Bladensburg Road & New York Avenue NE	331	12	5	<b>3.73</b>
Bladensburg Road & Queens Chapel Road NE	54	2	0	<b>2.01</b>
Bladensburg Road & V Street/25th Street NE	33	0	0	<b>1.39</b>

\* - Million Entering Vehicles; Volumes estimated based on turning movement count data

^ - Crash Data unavailable



**Table 15: Crash Type Breakdown**

Intersection	Rate per MEV	Right Angle	Left Turn	Right Turn	Rear End	Side Swiped	Head On	Parked	Fixed Object	Ran Off Road	Ped. Involved	Backing	Non-Collision	Under/Over Ride	Unspecified	Total
Mt Olivet Rd & West Virginia Ave	<b>1.21</b>	4 9%	4 9%	2 5%	10 23%	4 9%	2 5%	2 5%	0 0%	0 0%	4 9%	3 7%	0 0%	0 0%	8 19%	<b>43</b>
16th St & New York Ave	<b>1.73</b>	3 4%	4 5%	6 7%	31 38%	20 25%	0 0%	2 2%	3 4%	1 1%	1 1%	1 1%	1 1%	0 0%	8 10%	<b>81</b>
Montana Ave & W St/18th St	<b>1.48</b>	2 6%	2 6%	1 3%	6 19%	12 38%	1 3%	0 0%	2 6%	0 0%	1 3%	1 3%	0 0%	0 0%	4 13%	<b>32</b>
New York Ave & Montana Ave & West Virginia Ave	<b>1.99</b>	17 12%	15 11%	4 3%	41 29%	34 24%	2 1%	0 0%	4 3%	0 0%	0 0%	2 1%	2 1%	0 0%	19 14%	<b>140</b>
Bladensburg Rd & 17th St / Mt Olivet Rd	<b>1.48</b>	6 8%	9 12%	0 0%	19 24%	20 26%	1 1%	1 1%	5 6%	1 1%	1 1%	1 1%	0 0%	0 0%	14 18%	<b>78</b>
Montana Ave & 17th St	<b>1.12</b>	1 9%	1 9%	0 0%	4 36%	0 0%	0 0%	1 9%	1 9%	0 0%	0 0%	1 9%	0 0%	0 0%	2 18%	<b>11</b>
Bladensburg Rd & Montana Ave/ S St	<b>1.25</b>	1 2%	4 8%	1 2%	8 17%	16 33%	0 0%	0 0%	3 6%	0 0%	0 0%	7 15%	3 6%	0 0%	5 10%	<b>48</b>
Bladensburg Rd & T St	<b>1.03</b>	2 6%	2 6%	0 0%	8 25%	9 28%	0 0%	1 3%	2 6%	0 0%	0 0%	3 9%	0 0%	0 0%	5 16%	<b>32</b>
Bladensburg Rd & New York Ave	<b>3.73</b>	16 5%	21 6%	18 5%	94 28%	74 22%	7 2%	6 2%	11 3%	4 1%	6 2%	14 4%	5 2%	0 0%	55 17%	<b>331</b>
Bladensburg Rd & Queens Chapel Rd	<b>2.01</b>	7 13%	5 9%	2 4%	8 15%	14 26%	1 2%	3 6%	1 2%	0 0%	1 2%	3 6%	1 2%	0 0%	8 15%	<b>54</b>
Bladensburg Rd & V St/25th St	<b>1.39</b>	3 9%	1 3%	4 12%	7 21%	9 27%	1 3%	0 0%	0 0%	0 0%	0 0%	1 3%	1 3%	0 0%	6 18%	<b>33</b>



## SUMMARY AND CONCLUSIONS

Based on a technical comparison of the existing conditions, background conditions, and total future conditions, this report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements and mitigations are implemented.

### Proposed Project

The site, which is an undeveloped parcel of land, is located in the Langdon neighborhood, in the Northeast quadrant of Washington, DC. The site is triangularly shaped and is generally bound by New York Avenue to the north, Bladensburg Road to the east, and Montana Avenue to the west.

The application plans to develop the site into a mixed-use (residential, retail, grocery, hotel, drive-in bank, and movie theatre) development containing nine development sites on one Record Lot. The residential component of the development includes a total of 670 multi-family units in five of the nine buildings. The retail component includes a total of 334,889 square feet of retail space in all nine buildings. The grocery component includes 70,000 square feet in one of the nine buildings. The hotel component includes 160 rooms, and is in one of the nine buildings. The drive-in bank will be 4,100 square feet and is in one of the nine buildings. The movie theatre component includes a 2,500 seat movie theatre and is in one of the nine buildings.

The project is expected to be constructed in two phases with Lots 1, 3, 5, and 9 being constructed in Phase 1 and Lots 2, 4, and 6-8 being constructed in Phase 2. As such, the development program is as follows:

- **Building 1** of the development will be located in the northwest portion of the site with frontage on New York Avenue and Montana Avenue. Building 1 will include up to 70,000 square feet of grocery, 147,097 square feet of retail, and 220 residential units. A total of 1,798 parking spaces that will be shared by the entire development in an above-ground parking facility are located in the upper levels of Building 1.
- **Building 2** of the development will be located to the east of Building 1, with frontage on New York Avenue and on a new north-south internal roadway. Building 2 will include up to 4,100 square feet of drive-in bank and a 160 room hotel. The various components of Building 2 will share the

- 1,798 parking spaces located above Building 1. An additional nine (9) surface parking spaces will service the drive-in bank.
- **Building 3** will have frontage on Bladensburg Road and on the new east-west internal roadway. Building 3 will include up to 12,916 square feet of retail and 60 residential units. Building 3 will share the 1,798 parking spaces located above Building 1.
- **Building 4** will be have frontage on Montana Avenue and on the new internal east-west roadway. Building 4 will include up to 33,894 square feet of retail and 135 residential units. Building 4 will share the 1,798 parking spaces located above Building 1.
- **Building 5** will be located in the center of the site with frontage on the new internal east-west roadway. Building 5 will include up to 8,035 square feet of retail. Building 5 will share the 1,798 parking spaces located above Building 1.
- **Building 6** will be located directly to the east of Building 5 and will have frontage on the new internal east-west roadway. Building 6 will include up to 43,030 square feet of retail. Building 6 will share the 1,798 parking spaces located above Building 1.
- **Building 7** will be located directly to the east of Building 6 and will also have frontage on the new internal east-west roadway. Building 7 will include up to 46,394 square feet of retail. Building 7 will share the 1,798 parking spaces located above Building 1.
- **Building 8** will be located to the east of Building 7 with frontage on Bladensburg Road to the east and the internal east-west roadway to the north. Building 8 will include up to 31,813 square feet of retail and 153 residential units. Building 8 will share the 1,798 parking spaces located above Building 1. An additional eight (8) parking spaces will be located each of the eight townhomes that front Bladensburg Road.
- **Building 9** will be located at the southern-most portion of the site with frontage on Bladensburg Road and Montana Avenue. Building 9 will include up to 88 residential units, 11,710 square feet of retail and a movie theatre with 2,500 seats. Building 9 will include a 200 space parking garage.

As part of the development, a new internal roadway network will add porosity and connectivity. The main internal east-west spine, which will connect Montana Avenue and Bladensburg Road will have an 87-foot cross-section, which will include 12-



foot sidewalks, 4.5-foot planting/tree boxes, 1.5-foot step-outs, a ten-foot cycletrack, a three-foot buffer, eight-foot parking lanes, and 11-foot travel lanes. The new internal north-south street, which connects New York Avenue and the internal east-west street will have an 46-foot cross-section, which will include eight-foot sidewalks, four-foot planting/tree boxes, and 11-foot travel lanes. The design of the new internal private streets will be consistent with DDOT standards.

Sections of the roadway network surrounding the site will be improved. Pedestrian facilities along the perimeter of the project on New York Avenue, Bladensburg Road, and Montana Avenue will be improved so that they meet or exceed DDOT and ADA standards. This includes sidewalks that meet or exceed the width requirements, crosswalks at all necessary locations, and curb ramps with detectable warnings. The Project will also provide other pedestrian facilities such as a large public plaza at the center of the site.

Vehicular access to the site will be off of New York Avenue, Bladensburg Road, and Montana Avenue. Along New York Avenue, vehicular access will be provided through two curb cuts and one existing public alley. The two curb cuts are planned as unsignalized right-in/right-out access points, and the alley will remain as right-in/right-out. Along Bladensburg Road, vehicular access will be provided through three curb cuts. The most southern and northern curb cuts are planned as unsignalized right-in/right-out, and the middle curb cut is planned as a signalized intersection that will line up with T Street. Along Montana Avenue, vehicular access will be provide through two curb cuts. The southern curb cut is planned as an unsignalized access points, and the curb cut at Montana Avenue and 17<sup>th</sup> Street is planned as a signalized intersection.

A total of 35 loading berths and nine (9) service/delivery spaces will be provided on site. Based on an analysis of anticipated loading activity, the development provides sufficient loading facilities to accommodate practical loading needs.

A total of 2,046, parking spaces will be provided, with 2,015 off-street parking spaces and 31 on-street spaces.

## **Multi-Modal Impacts and Recommendations**

### *Transit*

The site is adequately served by regional and local transit services such as Metrorail and Metrobus. The site is less than 1.3 miles from the Rhode Island Metrorail station portal

located on Washington Place. Four Metrobus routes service the site, with 32 buses scheduled to arrive during the peak morning commute time and 25 buses during the peak afternoon commute time, providing a good connection to Metrorail and other destinations. Metrobus stops are located within a block of the site along Bladensburg Road and West Virginia Avenue.

Although the development will be generating new transit trips on the network, the existing facilities have enough capacity to handle the new trips. The Rhode Island Metrorail station does not have existing capacity concerns and is not expected to as a result of the planned development.

An existing proposed reroute of existing bus lines to service the perimeter of the site combined with the Applicant's proposed bus stop locations would greatly improve transit access.

### *Pedestrian*

The site is surrounded by a pedestrian network with limited connections. Some roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity to the north due to rail tracks, and to the south due to the Mount Olivet Cemetery and the National Arboretum. The area in the vicinity of the site is considered to be below the District average in terms of quality of pedestrian facilities.

As a result of the development pedestrian facilities along the perimeter of the site will be improved, for example by removing 34 curb cuts, of which 14 are on New York Avenue, ten are along Bladensburg Road, and ten are on Montana Avenue. The development will improve sidewalks adjacent to the site such that they meet or exceed DDOT requirements and provide an improved pedestrian environment. In order to help improve sidewalk conditions, as part of the development, the Applicant plans to improve conditions along the site. This requires dedicating property within the site to public use.

### *Bicycle*

The site has adequate access to existing bicycle facilities. A signed route along West Virginia Avenue offers east-west connectivity, and bike lanes along 18<sup>th</sup> Street offer north-south connectivity. On site, bicycle facilities are proposed along the internal east-west roadway. Additionally, as a result of the development and in coordination with DDOT, a cycletrack will be added along the boundary of the site on Montana Avenue



and New York Avenue. The planned development will meet zoning requirements for bicycle parking.

#### *Vehicular*

The site is well-connected to regional roadways such as New York Avenue (US-50) and Interstate 295, primary and minor arterials such as Bladensburg Road and West Virginia Avenue, as well as an existing network of collector and local roadways.

In order to determine if the proposed development will have a negative impact on this transportation network, this report projects future conditions with and without the development of the site and performs analyses of intersection delays and queues. These delays are compared to the acceptable levels of delay set by DDOT standards to determine if the site will negatively impact the study area. Eight intersections were found to operate under unacceptable delay/Level-of-service (LOS) in future conditions and were reviewed for potential improvements. Mitigation measures proposed are as follows:

- *West Virginia Avenue & 16<sup>th</sup> Street*  
There isn't enough width curb-to-curb to create additional lanes, and any additional lanes would not be recommended given the southbound approach is stop controlled. All-way stop and signal warrants were performed, but not met. Therefore, this report would not recommend any mitigations to this intersection.
- *West Virginia Avenue & 17<sup>th</sup> Street*  
This report recommends the conversion of this intersection from two-way stop controlled to all-way stop controlled. It was found that an all-way stop was warranted based on peak hour vehicle and pedestrian volumes, even under existing conditions.
- *Montana Avenue & W Street & 18<sup>th</sup> Street*  
This report recommends adjusting signal timings and restriping. Signal timings can be adjusted such that the split phasing for the northbound and southbound approaches is removed, and the eastbound and westbound approaches receive more green time. Restriping the westbound approach to be one thru/left lane and one right only lane will further improve operations at this intersection.
- *New York Avenue & Montana Avenue & West Virginia Avenue Intersection Complex*

While the capacity analysis developed for this study noted significant delays at the intersection complex under future conditions, observations note that delays extend along most approaches to these intersections under existing conditions. These delays are a result of the limited throughput that the intersections can accommodate, and metering that is caused by these intersections along with other intersections up- and down-stream from the intersection complex. With the addition of the development, delays and queuing are increased to unacceptable levels for certain approaches. However, given the delay and queuing present throughout the New York Avenue corridor, solutions for the delays and queuing present at these intersections should be examined through regional transportation planning efforts.

- *Bladensburg Road & Mount Olivet Road*  
The intersection can be improved by adjusting signal timings. Signal timings can be adjusted such that the southbound approach receives more green time versus a hold phase.
- *Bladensburg Road & 17<sup>th</sup> Street*  
The intersection can be improved by adjusting signal timings such that the movements associated with Bladensburg receive more green time versus those on 17<sup>th</sup> Street.
- *Bladensburg Road & Montana Avenue & S Street*  
This report recommends adjusting signal timings such that the southbound phase receives more green time.
- *Bladensburg Road & New York Avenue*  
Similarly to the intersection of New York Avenue, Montana Avenue, and West Virginia Avenue, solutions for the delays and queuing present at these intersections should be examined through regional transportation planning efforts. Furthermore, this intersection was identified in the New York Avenue Corridor Study for improvement. The New York Avenue Corridor Study proposed that the intersection be reconstructed so New York Avenue passed below the existing intersection; the existing intersection would be reconstructed to provide an appearance more in keeping with traditional grade separated traffic circles found elsewhere in the District.

This report did explore short term operational mitigations that could be implemented prior to proposed



reconstruction of the intersection as other improvements such as widening the roadways or adding supplemental turn lanes are infeasible. However, due to the heavy traffic along New York Avenue and Bladensburg Road, shifting time from one movement to the next will create capacity concerns along New York Avenue or Bladensburg Avenue. As such, this report does not recommend shifting the full amount of time needed to improve delay for the each approach to LOS D or better, but instead defers to DDOT to consider that LOS E and F are sometimes accepted within an urban context.

During the morning and afternoon periods, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the eastbound and westbound approaches on New York Avenue to the northbound and southbound approaches on Bladensburg Road. Changing the signage for the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

During the Saturday period, the intersection can be improved by adjusting signal timings and changing signage. Signal timings can be adjusted to shift more green time from the northbound and southbound approaches on Bladensburg Road to the eastbound and westbound approaches on New York Avenue. Changing the signage on the eastbound right-only turn lane to a thru-right will further improve operations at this intersection.

### **Summary and Recommendations**

This report concludes that the proposed development will not have a detrimental impact to the surrounding transportation network assuming that all planned site design elements and operational recommendations at study intersections are implemented.

The development has numerous positive elements contained within its design that minimize potential transportation impacts and improve multi-modal travel, including:

- The inclusion of secure long-term bicycle parking spaces within all buildings of the development that meet or exceed zoning requirements.
- The installation of short-term bicycle parking spaces around the perimeter of each parcel that meet or exceed zoning and DDOT requirements.

- The creation of wide pedestrian paths which will meet or exceed DDOT and ADA requirements, and dedicated bicycle facilities along the perimeter of the site and within the site itself.
- The inclusion of carshare spaces within the garage of Building 1
- The inclusion of electric vehicle (EV) parking spaces within the garages located in Building 1 and Building 9.
- The installation of a Capital Bikeshare station within or near the site.
- A robust Transportation Demand Management (TDM) plan that reduces the demand of single-occupancy, private vehicles during peak period travel times or shifts single-occupancy vehicular demand to off-peak periods.

This report analyzed the potential impacts of the development, and concluded that the development will not have a detrimental impact to the surrounding transportation network, as long as the project implements the recommendations as follows:

- The conversion of the intersection of West Virginia Avenue and 17<sup>th</sup> Street from an all-way stop.
- Signal timing and roadway configuration improvements to the intersection of Montana Avenue and W Street and 18<sup>th</sup> Street.
- Signal timing improvements to the intersection of Bladensburg Road and Mount Olivet Road.
- Signal timing improvements to the intersection of Bladensburg Road and 17<sup>th</sup> Street.
- Signal timing improvements to the intersection of Bladensburg Road and Mount Olivet Road.
- Signal timing improvements to the intersection of Bladensburg Road and Montana Avenue and S Street.
- Signal timing improvements to the intersection of Bladensburg Road and New York Avenue.
- A new traffic signal at the intersection of Montana Avenue and 17<sup>th</sup> Street.
- A new traffic signal at the intersection of Bladensburg Road and 17<sup>th</sup> Street.
- Installing/upgrading curb ramps and crosswalks as necessary around the site.
- Implementing the Transportation Demand Management (TDM) plan detailed within the body of this report.

**EXHIBIT H**

RECEIVED  
D.C. OFFICE OF ZONING

2015 JAN 28 PM 12:40

Friday, January 23, 2015

Zoning Commission of the District of Columbia  
441 4th Street, NW  
Suite 200 South  
Washington, DC 20001

Re: Zoning Commission Case No. 14-16 Text and Map Amendment New York Avenue  
and Bladensburg Road, N.E.

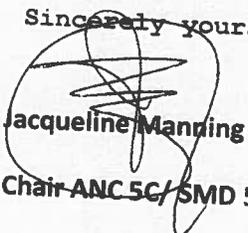
Dear Members of the Zoning Commission:

Please be advised that Advisory Neighborhood Commission 5C at its regularly  
scheduled January 21, 2015 public meeting at which a quorum was present voted  
7-0 in favor to support the above referenced application.

ANC 5C heard a presentation from a representative of the Office of Planning  
and is pleased to understand that the proposed text and map amendment will  
further the policies of the Comprehensive Plan which designates this site for  
mixed use and will encourage the development of this property which has been  
laying fallow for far too long. Since the property is approximately 26 acres  
in size and will have well over 50,000 of commercial the ANC also supports  
Large Tract Review approval.

I have also been made aware after ANC 5C meeting that the property was not  
posted until 21 days before the scheduled February 12th Zoning Commission  
hearing instead of 40 days prior to the hearing. We request that the hearing  
proceed forward as the ANC has had two presentations concerning this  
proposed text and map amendment since last May and November 2014.

Sincerely yours,

  
Jacqueline Manning

Chair ANC 5C/ SMD 5C04

BEFORE THE ZONING COMMISSION AND  
BOARD OF ZONING ADJUSTMENT OF THE DISTRICT OF COLUMBIA

**FORM 129 – ADVISORY NEIGHBORHOOD COMMISSION (ANC) REPORT**

Before completing this form, please review the instructions on the reverse side.

Pursuant to §§ 3012.5 and 3115.1 of Title 11 DCMR Zoning Regulations, the written report of the Advisory Neighborhood Commission (ANC) shall contain the following information:

IDENTIFICATION OF APPEAL, PETITION, OR APPLICATION:

Case No.:	14-16	Case Name:	Text and Map Amendment New York Ave and Bladens
Address or Square/Lot(s) of Property:	New York Avenue and Bladensburg Road NE		
Relief Requested:			

ANC MEETING INFORMATION

Date of ANC Public Meeting:	0	1	/	2	1	/	15	Y	Was proper notice given?:	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>
Description of how notice was given:	Advisory Neighborhood Commission 5C website , Flyers, Ward Five emails on yahoogroups												
Number of members that constitutes a quorum:	04				Number of members present at the meeting:	07							

MATERIAL SUBSTANCE

The issues and concerns of the ANC about the appeal, petition, or application as related to the standards of the Zoning Regulations against which the appeal, petition, or application must be judged (a separate sheet of paper may be used):

RECEIVED  
OFFICE OF ZONING  
2015 JAN 28 PM 12:30

The recommendation, if any, of the ANC as to the disposition of the appeal, petition, or application (a separate sheet of paper may be used):

Please read attachment

AUTHORIZATION

ANC	5C	Recorded vote on the motion to adopt the report (i.e. 4-1-1):	7-0
Name of the person authorized by the ANC to present the report:		Jacqueline Manning	
Name of the Chairperson or Vice-Chairperson authorized to sign the report:		Jacqueline Manning - Chair	
Signature of Chairperson/ Vice-Chairperson:			Date: 01/23/2015

ANY APPLICATION THAT IS FOUND TO BE INCOMPLETE MAY NOT BE ACCORDED "GREAT WEIGHT" PURSUANT TO  
11 DCMR §§ 3012 AND 3115.

**EXHIBIT I**



**Large Tract Review Certification Form  
Part A: Developer's Application**

1. Project Name

Developer

Address

City  State  Zip

Phone  Fax

E-mail

*If Developer does not own subject property, please provide the following information regarding the property owner:*

Owner(s)

Address

City  State  Zip

Phone  Fax

E-mail

2. Property Address

City  State  Zip

Ward  ANC(s)  Square(s)  Parcel/Lot No. (s)

3. Current Use(s): (place X where applicable)

Residential  Retail/Office  Industrial  Open Space/Undeveloped

Public/Institutional  Other

\*Maximum Height of Existing Improvement (ft.)

\* Total Gross Floor Area (GFA) of Existing Improvements (sq. ft.):

\* If Property is Undeveloped or Cleared, Enter "N/A".

4.

*Note: Refer to definition of GFA in Section 199 of the D.C. Zoning Regulations*

Office of Planning Large Tract Review Certification Form Part A: **Developer's Application (Contd.) 2**

Current Zoning:

	Zoning	Land Area (sq. ft.)	M.O.R. Far*	Permitted Height (ft.)
1.	MU-5-B	698,458 (Rec)	4.2 (IZ); 1.5 Non-res	75'
2.				
3.				
4.				
5.				

\*Matter-Of-Right Floor Area Ratio

5. Proposed Zoning:

	Zoning	Land Area (sq. ft.)	M.O.R. Far*	Permitted Height (ft.)
1.	Unchanged			
2.				
3.				
4.				
5.				

\*Matter-Of-Right Floor Area Ratio

6. Estimated Project Completion Date (mo./yr.)

Type of Development (place X where applicable)

New  Rehab/Historic Preservation  Addition

Existing Jobs Retained and/or New Jobs Created by Project:

Temporary/Construction  Permanent

7. Gross Floor Area (GFA) by Use:

	GFA (sq. ft.)
* Residential	543,956
Retail	408,989
Office	TBD
Hotel	96,832
Industrial	n/a
Other	467,254*
Total GFA	1,517,031

For Residential Space Only:

No. of Single-Family Units	18
No. of Multi-Family Units:	628
Estimated Development Cost:	\$118,000,000
Land Cost	\$71,000,000
Construction Cost	\$450,000,000
Other Cost	\$40,000,000
Total Project Cost	\$679,000,000

\*includes entertainment, parking and loading

8. Public Contribution:

UDAG	<input type="text"/>
EDA	<input type="text"/>
D.C. Revenue Bonds	<input type="text"/>
CDBG	<input type="text"/>
Urban Renewal	<input type="text"/>
HODAG	<input type="text"/>
Other	<input type="text"/>

9. Residential/Business Displacement Due to Project: *If not applicable or no displacement expected, enter "0"*

Number of Households Displaced	<input type="text" value="0"/>
Number of Businesses Displaced	<input type="text" value="0"/>

Authorized Signatures	<u>Norm M. [Signature]</u>	Date	<u>9/2/16</u>
	_____	Date	_____
	_____	Date	_____

FOR OP USE ONLY – DO NOT WRITE BELOW LINE

Project No.

Date Received by OP  /  /

OP Recommendation  
For (check one):

Approval  Disapproval

Date of Final Action  /  /

**EXHIBIT J**



702 H Street NW Suite 400  
Washington, DC 20001  
202.638.6300 | 202.638.0303 fax

September 16, 2016

Jennifer Steingasser  
District of Columbia Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650  
Washington, DC 20024

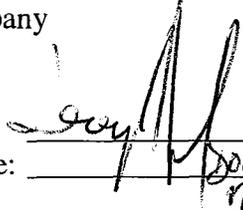
**Re: Authorization Letter from Owner  
Square 4268  
Lots 801 and 804  
Parcel 153/153**

To Whom it May Concern:

As owner of Lots 801 and 804, and Parcel 153/153 in Square 4268 (the "Property"), I hereby authorize Jemal's Schaeffer's, L.L.C., through its legal counsel Holland & Knight LLP, in all proceedings before the District of Columbia Office of Planning regarding its application for Large Tract Review.

Sincerely,

JEMAL'S BUMPER GEORGE, L.L.C.  
a District of Columbia limited liability  
company

By:   
Name: GUY M. DOUGLAS JEMAL  
Title: MANAGING MEMBER

Jennifer Steingasser  
District of Columbia Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650  
Washington, DC 20024

**Re: Authorization Letter from Owners  
Square 4268  
Lots 2, 5, 6, 8, 10, 11, 12, 800, 811, and 815  
Parcels 153/26, 153/83, 153/105, 153/113, 153/123, 153/150, and 153/152**

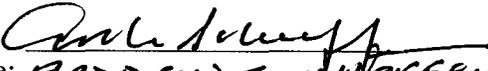
Ms. Steingasser:

As owner of the above-referenced Lots and Parcels in Square 4268 (the “Property”), I hereby authorize Jemal’s Schaeffer’s, L.L.C., through its legal counsel Holland & Knight LLP, in all proceedings before the District of Columbia Office of Planning regarding its application for Large Tract Review to facilitate redevelopment of the Property.

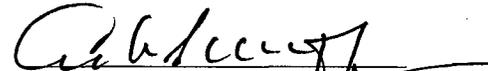
[Signatures pages follow this page]

IN WITNESS WHEREOF, the parties hereto have set their hands as of the date herein before written.

Lots 11 and 815, and Parcel 153/26:  
**1826 BLADENSBURG ROAD LLC**  
a District of Columbia limited liability company

By:   
Name: ANDREW SCHAEFFER  
Title: MG member

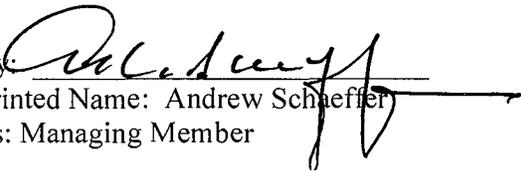
Lot 2 and Parcel 153/123:  
**1830 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By:   
Name: ANDREW SCHAEFFER  
Title: MG member

Lots 10 and 800, and Parcel 153/83:  
**1900 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By:   
Printed Name: Andrew Schaeffer  
Its: Managing Member

IN WITNESS WHEREOF, the parties hereto have set their hands as of the date herein before written.

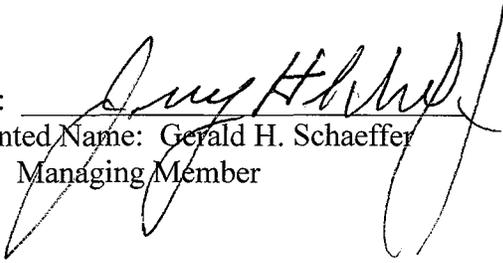
Lots 11 and 815, and Parcel 153/26:  
**1826 BLADENSBURG ROAD LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Lot 2 and Parcel 153/123:  
**1830 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Lots 10 and 800, and Parcel 153/83:  
**1900 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

By:   
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

IN WITNESS WHEREOF, the parties hereto have set their hands as of the date herein before written.

Lots 11 and 815, and Parcel 153/26:  
**1826 BLADENSBURG ROAD LLC**  
a District of Columbia limited liability company

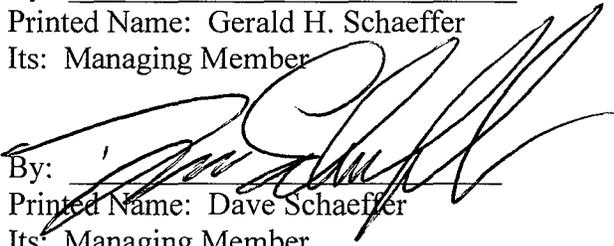
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Lot 2 and Parcel 153/123:  
**1830 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

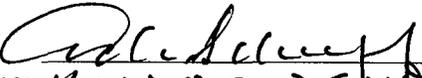
Lots 10 and 800, and Parcel 153/83:  
**1900 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By:  \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

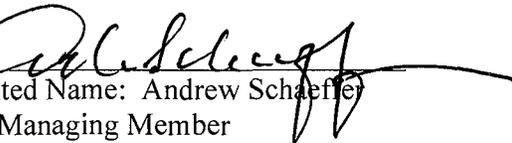
Lot 811:  
**1908 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By:   
Name: ~~ANDREW SCHAEFFER~~  
Title: ~~MGR. Member~~

Lot 5:  
**1910 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By:   
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 12:  
**1940 MONTANA AVENUE, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

Lot 811:  
**1908 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

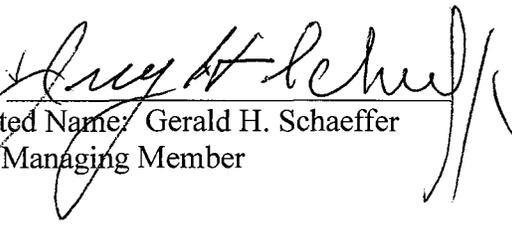
Lot 5:  
**1910 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

By:   
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 12:  
**1940 MONTANA AVENUE, LLC**  
a District of Columbia limited liability company

By:   
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

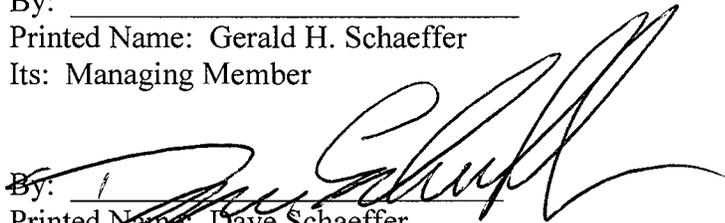
By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

Lot 811:  
**1908 BLADENSBURG ROAD LLC**  
a Maryland limited liability company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

Lot 5:  
**1910 BLADENSBURG ROAD, LLC**  
a District of Columbia limited liability company

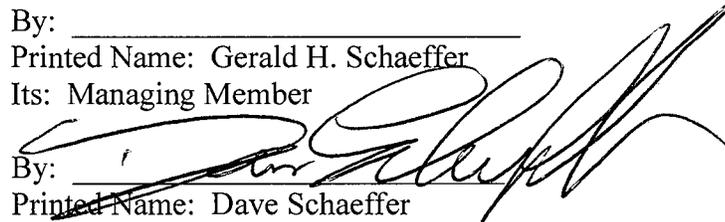
By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By:   
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 12:  
**1940 MONTANA AVENUE, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

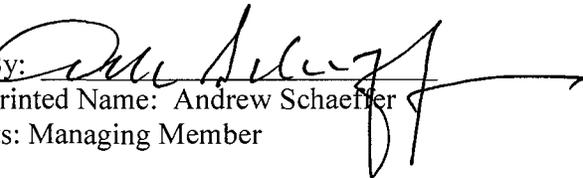
By:   
Printed Name: Dave Schaeffer  
Its: Managing Member

By:   
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 6:  
**LIBERTY CAB, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

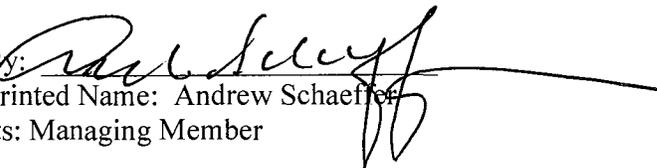
By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By:   
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 8 and Parcels 153/105, 153/113, 153/150, and 153/152:  
**1943 NEW YORK AVENUE, LLC**  
a District of Columbia limited liability company

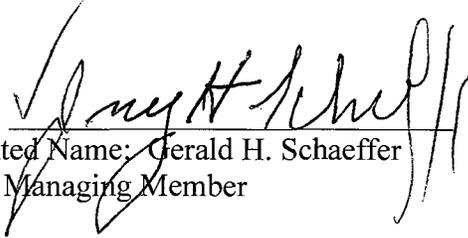
By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By:   
Printed Name: Andrew Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

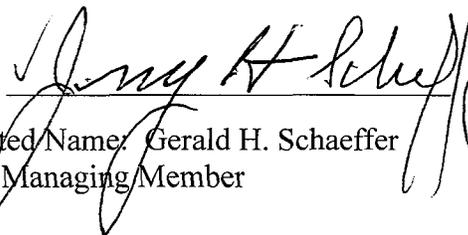
Lot 6:  
**LIBERTY CAB, LLC**  
a District of Columbia limited liability company

By:   
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 8 and Parcels 153/105, 153/113, 153/150, and 153/152:  
**1943 NEW YORK AVENUE, LLC**  
a District of Columbia limited liability company

By:   
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

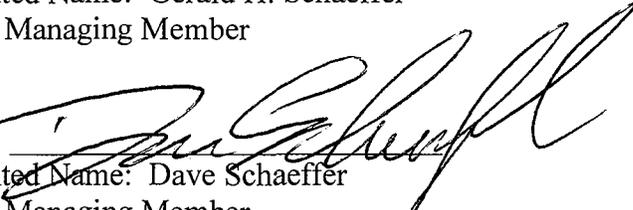
By: \_\_\_\_\_  
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 6:  
**LIBERTY CAB, LLC**  
a District of Columbia limited liability company

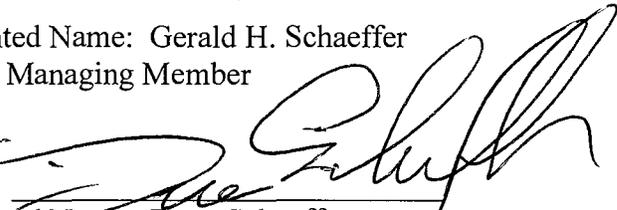
By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By:   
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Lot 8 and Parcels 153/105, 153/113, 153/150, and 153/152:  
**1943 NEW YORK AVENUE, LLC**  
a District of Columbia limited liability company

By: \_\_\_\_\_  
Printed Name: Gerald H. Schaeffer  
Its: Managing Member

By:   
Printed Name: Dave Schaeffer  
Its: Managing Member

By: \_\_\_\_\_  
Printed Name: Andrew Schaeffer  
Its: Managing Member

Jennifer Steingasser  
District of Columbia Office of Planning  
1100 4<sup>th</sup> Street, SW, Suite E650  
Washington, DC 20024

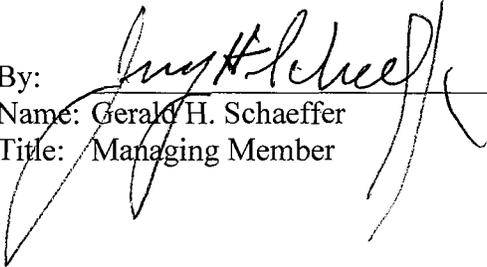
Re: Large Tract Review Application  
1923 New York Avenue, NE –  
Square 4268, Lot 14

Dear Ms. Steingasser:

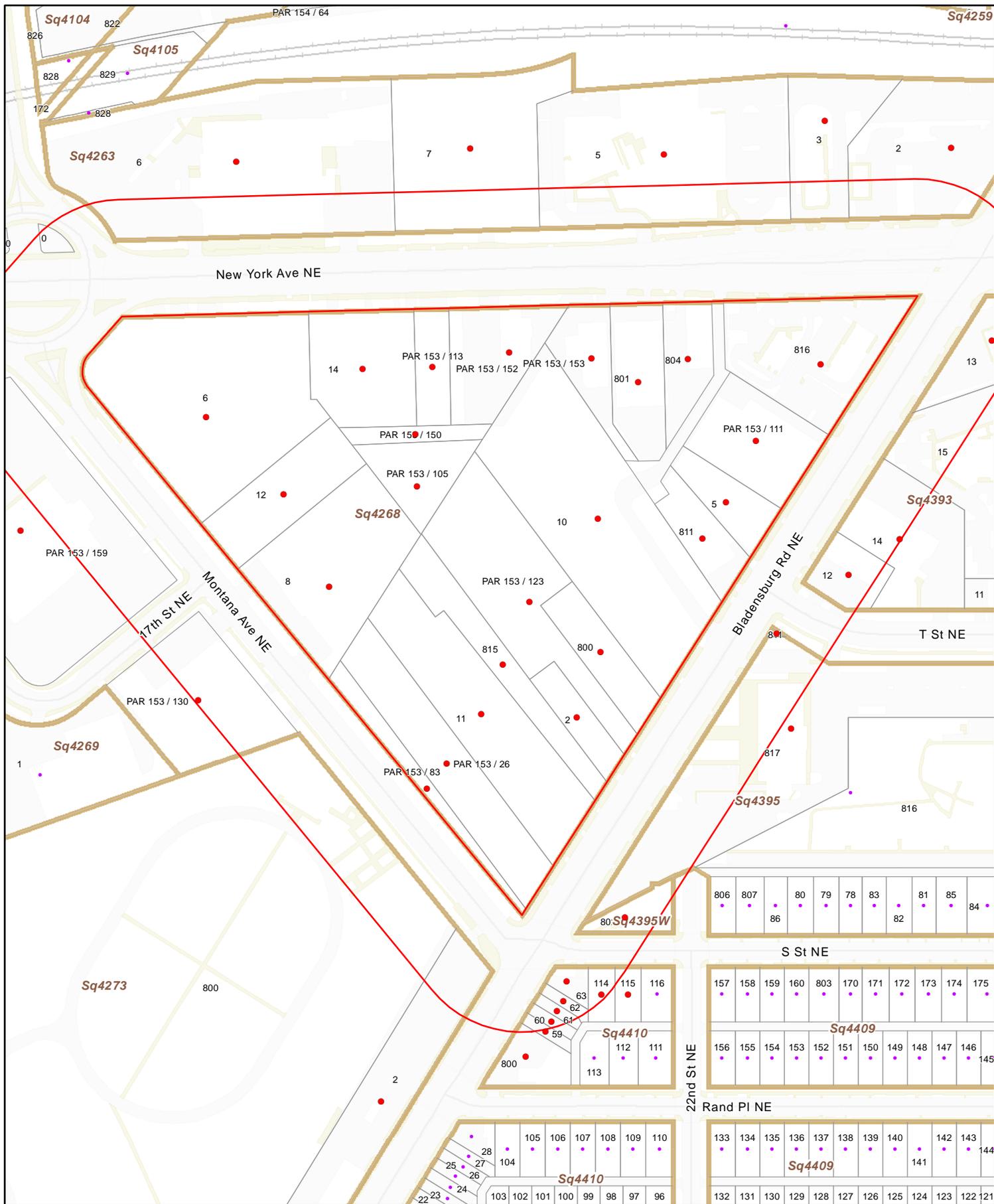
As owner of Lot 14 in Square 4268, I hereby authorize Jemal's Schaeffer's, L.L.C., contract purchaser of said property, through its legal counsel Holland & Knight, LLP to file an application for Large Tract Review with the District of Columbia Office of Planning and to act on my behalf for all actions necessary with respect to the application. The purpose of the application is to support the redevelopment of a portion of Square 4268 with a mixed-use project.

Sincerely,

33 NEW YORK AVENUE LLC  
a Maryland limited liability company

By:   
Name: Gerald H. Schaeffer  
Title: Managing Member

**EXHIBIT K**



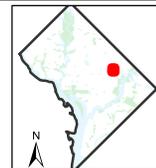
Property ID: Square 4268

-  Radius
-  Ownership Polygons
-  DC Squares

 DC Office of Tax and Revenue  
 Real Property Assessment Division  
 Geographic Information Systems

0 2550  
Feet

Date: 7/12/2016  
For general planning purposes



1826 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

DISTRICT OF COLUMBIA  
1350 PENNSYLVANIA AVE NW  
WASHINGTON, DC 20004-3003

1900 BLADENSBURG RD LIMITED PARTNERSHIP  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

1801 BLADENSBURG ROAD LTD  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

1830 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

DISTRICT OF COLUMBIA  
1350 PENNSYLVANIA AVE NW  
WASHINGTON, DC 20004-3003

WASHINGTON MATH SCIENCE TECHNOLOGY  
1920 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1812

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

PAUL LLC  
4416 EAST WEST HWY 300  
BETHESDA, MD 22151

JEMALS BUMPER GEORGE LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

GOLDEN ARCH REALTY CORPORATION  
8017 DORSEY RUN RD STE A4  
JESSUP, MD 20794-9372

1943 NEW YORK AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

JAMES A FENWICK JR  
2107 S ST NE  
WASHINGTON, DC 20002-1914

SALVATION ARMY  
2626 PENNSYLVANIA AVE NW  
WASHINGTON, DC 20037-1618

1943 NEW YORK AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

YVONNE E KINNEY  
15926 ALAMEDA DR  
BOWIE, MD 20716-1331

SANG KWONCHIO  
5999 STEVENSON AVE STE 310  
ALEXANDRIA, VA 22304-3302

1943 NEW YORK AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

JEMAL'S GARMAN LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

1850 NY AVE SELF STORAGE PARTNERS LLC  
5425 WISCONSIN AVE STE 202  
CHEVY CHASE, MD 20815-3583

PROGRESSIVE LIFE CENTER INC  
1704 17TH ST NE  
WASHINGTON, DC 20002-1810

1913 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

LIBERTY CAB LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

DISTRICT OF COLUMBIA  
1350 PENNSYLVANIA AVE NW  
WASHINGTON, DC 20004-3003

ANACOSTIA REALTY LLC  
6820B COMMERCIAL DR  
SPRINGFIELD, VA 22151-4201

1943 NEW YORK AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

1940 MONTANA AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

1826 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

1900 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

UHAUL COMPANY OF METROPOLITAN DC INC  
PO BOX 29046  
PHOENIX, AZ 85038-9046

1910 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

33 NEW YORK AVENUE LP  
3399 BENNING RD NE  
WASHINGTON, DC 20019-1502

1900 BLADENSBURG RD LIMITED PARTNERSHIP  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

MOUNT OLIVET CEMETERY  
13801 GEORGIA AVE  
SILVER SPRING, MD 20906-5271

JEMALS BUMPER GEORGE LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

2300 T STREET LLC  
2300 T ST NE  
WASHINGTON, DC 20002-1938

JEMALS BUMPER GEORGE LLC  
702 H ST NW STE 400  
WASHINGTON, DC 20001-3875

1943 NEW YORK AVENUE LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

1908 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

SUTON ONE LLC  
1960 GALLOWS RD STE 300  
VIENNA, VA 22182-3827

1826 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857

SECURITY TRUST COMPANY TRUSTEES  
PO BOX 987  
BALTIMORE, MD 21203-0987

1830 BLADENSBURG ROAD LLC  
1801 BLADENSBURG RD NE  
WASHINGTON, DC 20002-1857