COMPREHENSIVE TRANSPORTATION REVIEW

810 O STREET NW PUD

WASHINGTON, DC

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GOROVE / SLADE
Transportation Planners and Engineers

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

Contents

Figures

Tables

EXECUTIVE SUMMARY

The following report is a Comprehensive Transportation Review (CTR) for the 810 O Street NW Planned Unit Development (PUD). This report reviews the transportation aspects of the project's Consolidated PUD application. The Zoning Commission Case Number is 16-07.

The purpose of this study is to review the design of the project and evaluate whether the project will generate a detrimental impact to the surrounding transportation network. This evaluation is based on the existing multi-modal functions of the site. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements are implemented.

Proposed Project

The 810 O Street NW site is currently occupied by Scripture Cathedral, located approximately two blocks from the Mount Vernon Square Metrorail Station. The site is generally bound by O Street to the north, 9th Street to the west, adjacent properties to the south, and a public alley to the east.

The application plans to develop the site into a mixed-use development including residential and retail uses. The project will be an 8-story building with a penthouse containing approximately 66 dwelling units and approximately 6,879 square feet of retail with up to 66 below-grade parking spaces.

Parking will be accessed through an existing alley that links O Street and N Street east of the site via single entrance. Loading will be within the building also accessible via the existing alley.

Pedestrian facilities along the perimeter of the site will be improved to include sidewalk and buffer widths that meet or exceed DDOT requirements. The parking garage will supply 22 secure bicycle parking spaces which meets the current zoning requirements.

The parking and loading provided by the development will adequately serve the demands set forth by the development program.

Multi-Modal Impacts and Recommendations

Transit

The site is served by regional and local transit services such as Metrorail, Circulator, and Metrobus. The site is 0.3 miles from the Mount Vernon Square Metrorail Station portal at 7th Street NW and M Street NW, and many Metrobus stops are located within a block of the site along 7th Street NW.

Although the development will be generating new transit trips, existing facilities have enough capacity to handle the new trips.

Pedestrian

The site is surrounded by a well-connected pedestrian network. Most roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along the primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity due to the Interstate to the south.

Bicycle

Capital Bikeshare stations can be found within a couple blocks of the site, for example there is a station adjacent to the site. The site is also just blocks away from routes and bike lanes on 10th Street and 13th Street to the west as well as 7th Street and 5th Street to the east and Q Street and R Street to the north.

On site, the development will meet short-term bicycle parking along the perimeter of the site and exceed on-site secure long-term bicycle parking for residents and retail employees.

Vehicular

The site is well-connected to regional roadways such as I-395 and I-695, primary and minor arterials such as Rhode Island Avenue and 7th Street, and an existing network of collector and local roadways.

Based on the vehicular trips not meeting the Comprehensive Transportation Review thresholds, the planned development is not expected to have adverse vehicular impacts on the surrounding transportation network.

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 are implemented.

INTRODUCTION

PURPOSE OF STUDY

This report reviews the transportation elements of the project, supplementing material provided in the Site Plan Package that accompanied the Zoning Commission Application for the 810 O Street NW development.

The 810 O Street NW mixed-use development will contain a residential building with retail. The site, shown in Figure 1 and Figure 2, is located in the Logan Circle - Shaw neighborhood in northwest 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 polices 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.

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.
- *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.
- *Summary and Conclusions*
  This section presents a summary of the recommended mitigation measures by mode and presents overall report findings and conclusions.

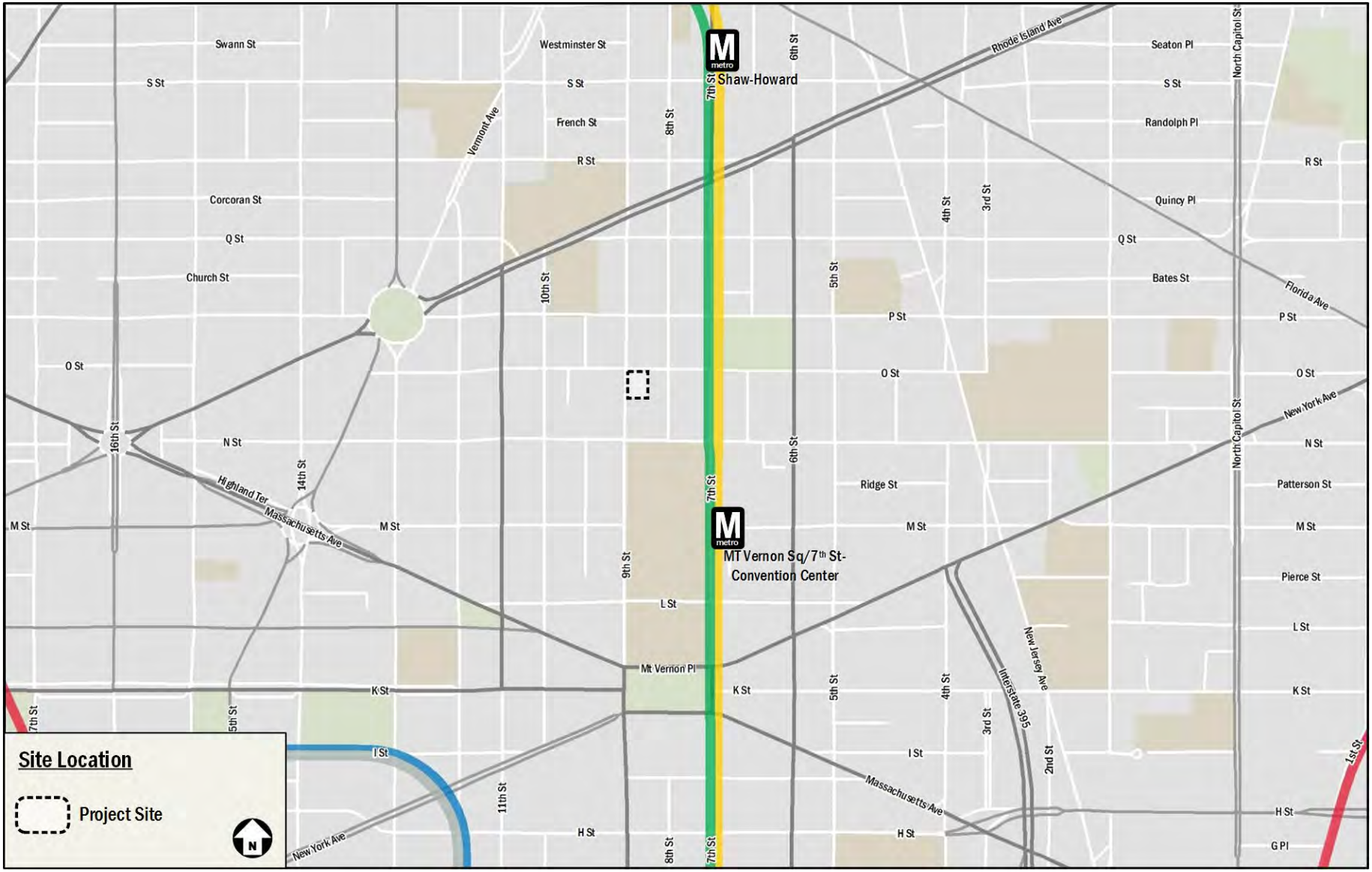

Figure 1: Site Location

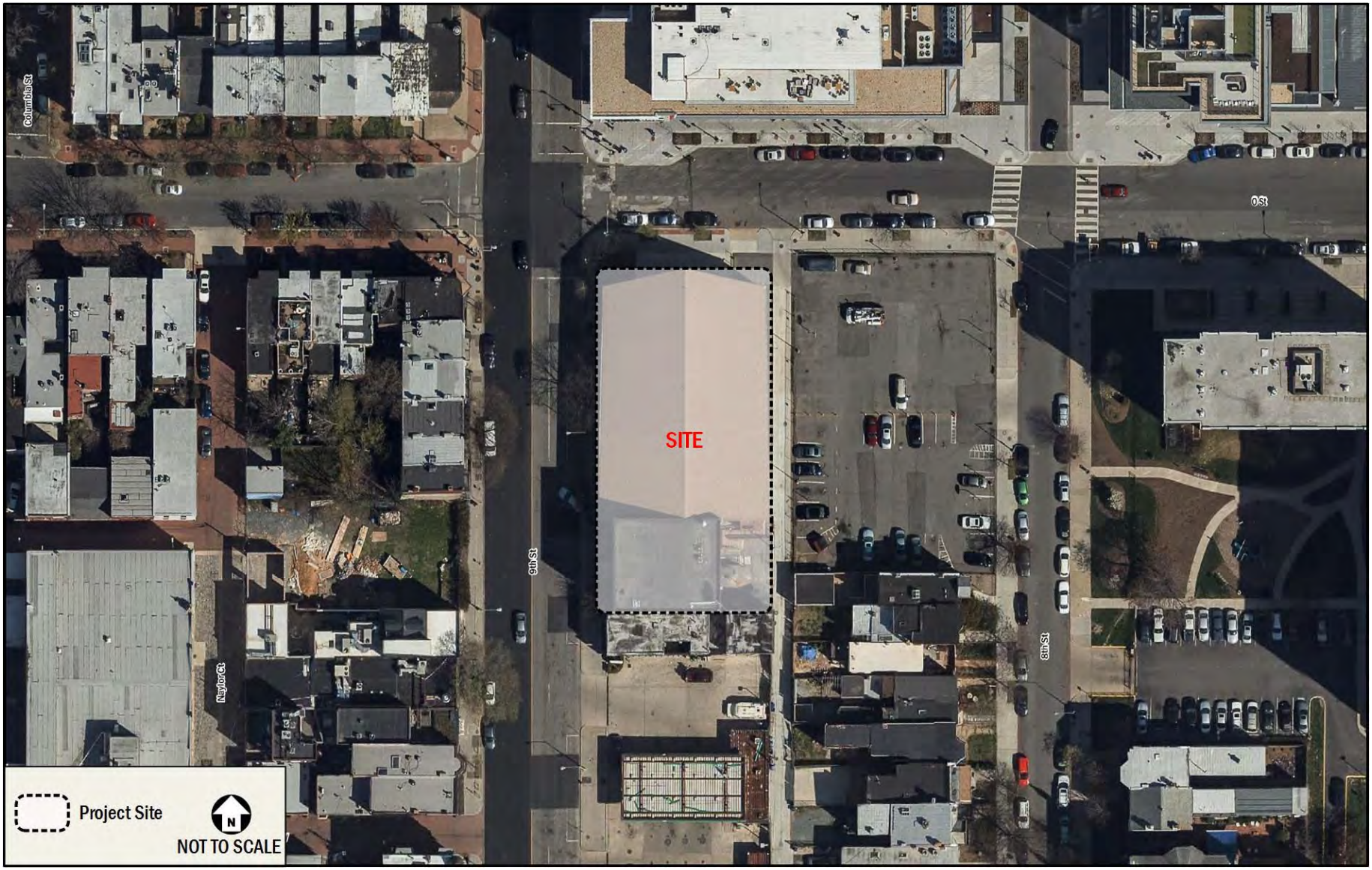

Figure 2: Site Aerial

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 connect the residents, employees, and patrons to the proposed development.
- The site is well-served by public transportation with access to Metrorail, and several local and regional Metro bus lines.
- There is existing bicycle infrastructure including several bike lanes and shared lanes in the vicinity of the site.
- Pedestrian conditions are generally good, particularly along anticipated major walking routes.

MAJOR TRANSPORTATION FEATURES

Overview of Regional Access

The 810 O Street NW site has ample access to regional vehicular- and transit-based transportation options, as shown in Figure 4, that connect the site to destinations within the District, Virginia, and Maryland.

The site is accessible from several US highways such as US-50 (New York Avenue) and US-1, as well as Interstate 395. The highways and interstates create connectivity to the Capital Beltway (I-495) that surrounds Washington, DC and its inner suburbs. All of these roadways bring vehicular traffic within half-mile of the site, at which point arterials and local roads can be used to access the site directly.

Along this site there are several local and regional bus stops that connect the city limits with the innermost roads of Washington, DC. The multiple bus route options allow for more frequent bus pickups, and specified travel destination options, as shown in Figure 5.

The 810 O Street NW site is located extremely close to the Mount Vernon Square Metorail station which serves the Green and Yellow lines which provide connections to areas in the District, Virginia, and Maryland. The Green Line connects Greenbelt with Branch Avenue while providing access to the District core. The Yellow Line connects Greenbelt to Huntington as well as Franconia-Springfield while providing access to the District core. In addition, the Green and Yellow Lines provide 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 5.

The site is served by a local vehicular network that includes several primary and minor arterials such as 7th Street and 9th Street. 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 services. As shown in Figure 5, there are 4 bus routes that service the site. In the vicinity of the site the majority of bus routes travel along 7th Street. These bus routes connect the site to many areas of the District.

There are existing bicycle facilities that connect the site to areas within the District, most notably the 7th Street and 10th Street bike lanes, as shown in Figure 10. North of the site bike lanes are found on Q Street and R Street. West of the site the 11th Street shared bike lanes provide further connections in addition to the 13th Street bike lanes, which require users to travel along signed routes throughout the roadway network.

In the vicinity of the site, most 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 acceptable pedestrian facilities; however 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 810 O Street NW site is surrounded by an expansive local transportation network that allows for efficient transportation options via transit, bicycle, walking, or vehicular modes.

Car-sharing

Three car-sharing companies provide service in the District: Zipcar, Enterprise Carshare, and Car2Go. All three services are private companies that provide registered users access to a variety of automobiles. Of these, Zipcar has designated spaces for their vehicles close to the site. There are four Zipcar car-share locations within a quarter-mile of the site. Table 1 breaks down the different locations that are made available to the public.

Car-sharing is also provided by Car2Go, which provides point-to-point car sharing. Car2Go can be used for one-way rentals and 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 the 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 Logan Circle-Shaw neighborhood. The project location itself has a walk score of 95 (or "Walker's Paradise"), a transit score of 91 (or "Rider's Paradise"), and a bike score of 93 (or "Biker's Paradise"). Figure 3 shows the neighborhood borders in relation to the site location and displays a heat map for walkability and bikeability.

The site is situated in an area with good walk scores because of the abundance of neighborhood serving retail locations, where most errands can be completed by walking.

The site is situated in an area with good bike scores due to its proximity to bike facilities and flat topography. The high transit score was based on the proximity to the Mount Vernon Square Metrorail station, car share, and multiple bus lines.

Overall, the Logan Circle - Shaw neighborhood has a high walk, high transit, and high bike scores. Additionally, other planned developments and roadway improvements will help increase the walk and bike scores in the Logan Circle - Shaw neighborhood.

Table 1: Car-share within 0.25 miles of the Site

Carshare Location	Number of Vehicles
Zipcar	
City Market at O (Colonial Parking Garage)	4 vehicle
Behind 1544 Marion St NW	2 vehicles
13th/N St NW	1 vehicles
Shaw/Howard Univ. Metro @ 7th & R St NW	1 vehicles
Total	**8 vehicles**

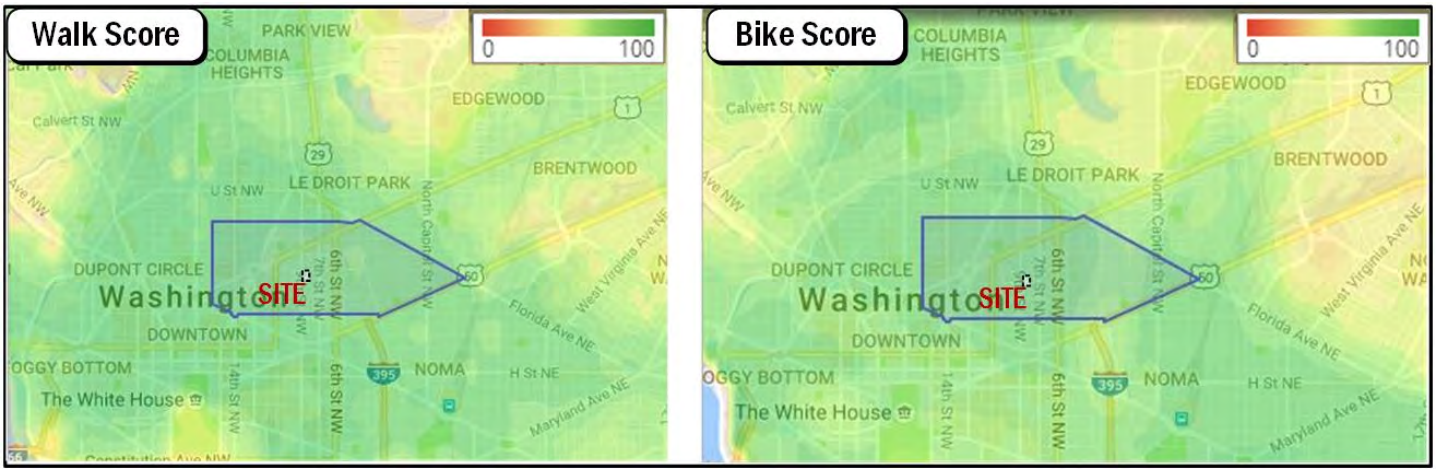

Figure 3: Summary of Walkscore and Bikescore

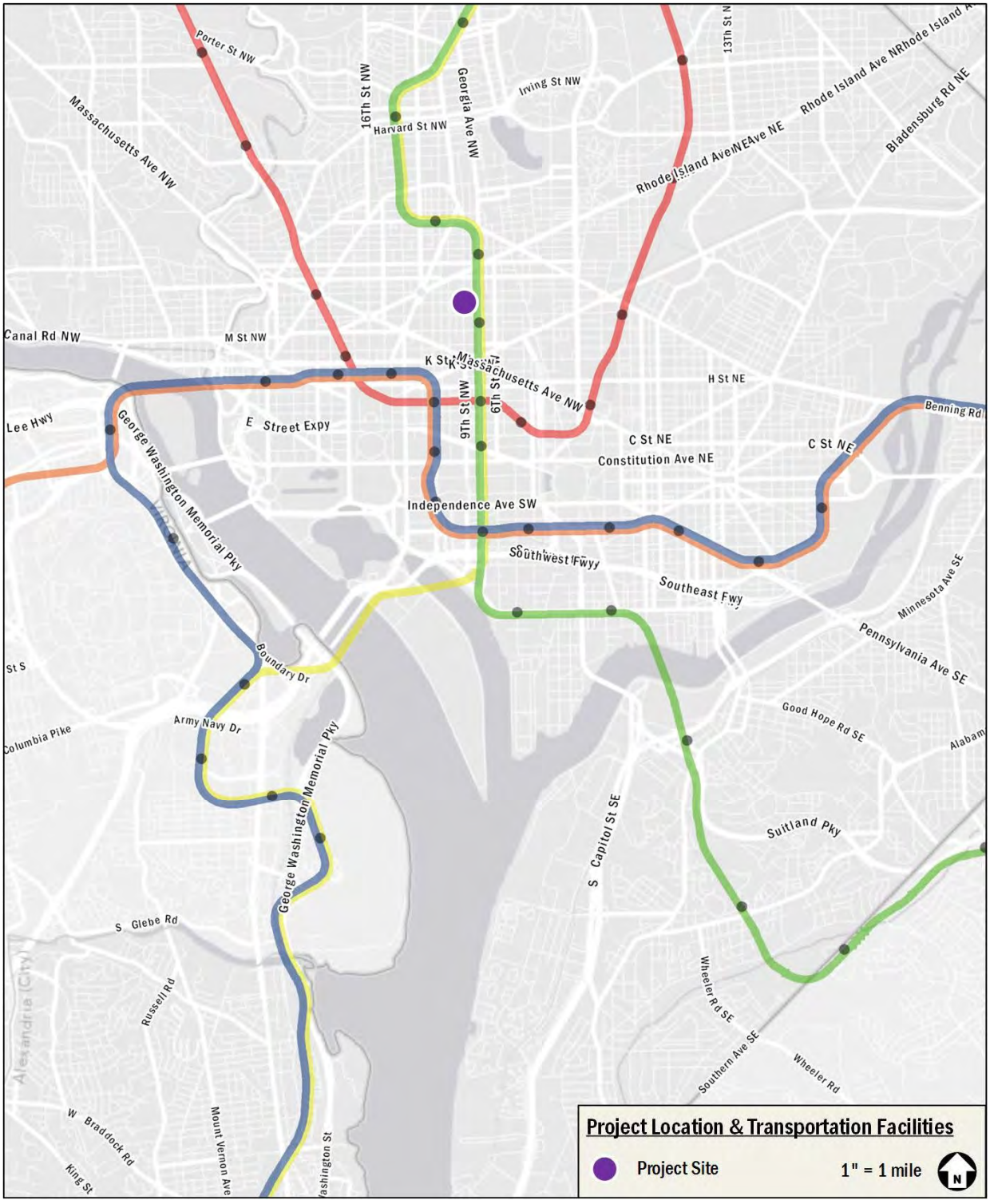

Figure 4: Major Regional Transportation Facilities

Figure 5: Major Local Transportation Facilities

PROJECT DESIGN

This section reviews the transportation components of 810 O Street NW, 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.

The planned development will replace the Scripture Cathedral with a mixed-use building. There are currently no curb cuts that access the existing site and there will be no proposed curb cuts due to the planned parking and loading access from the east alley. The site is primarily surrounded by O Street to the north, 9th Street to the west, adjacent properties to the south, and a public alley to the east.

The 810 O Street NW project will include 6,879 square feet of retail, 66 residential dwelling units, and an underground parking facility containing 57 spaces. Figure 6 shows an overview of the development program and site plan elements.

ACCESS AND LOADING

Pedestrian Access

Pedestrian access to the residential component of the development will occur predominately via the O Street entrance. For the retail component, pedestrian access will be on 9th Street. Pedestrian access points are outlined on the site plan in Figure 6.

Vehicular Access

Vehicular access to the site will be off O Street, which is a local roadway. The east side of the building will be set back in order to provide better access to the underground garage, the secure bicycle storage, and the loading docks via the existing ten-foot alley.

Bicycle Access

Bicycle access to the site will be off the existing alley that links to the long-term secure bicycle parking and amenities.

Loading Facilities

According to DC zoning requirements, the site use is required to provide one 30-foot loading berth, one 55-foot berth, one 200 square foot platform, and one 20-foot service and delivery space. The proposed development will contain one 30-foot loading berth, one 20-foot service and delivery space, and one 400 square foot platform for the residential component and one 20-foot service and delivery space for the retail component. The Applicant is seeking relief for the requirements set forth by District zoning laws for loading and service space.

The proposed development is expected to generate up to 10 truck trips per day. This includes daily trash removal services, mail and parcel delivery, retail pickup and delivery, and residential move-in and move-out trips. One (1) trash removal truck, two (2) mail and parcel delivery trucks, up to six (6) retail pickup and delivery trucks, and up to one (1) residential move-in or out trucks (conservatively calculated using an average of 18 months average turnover per unit), will service the development on a daily basis. The loading facilities provided by the development will be sufficient to accommodate this demand.

Truck routing to and from the site will be focused on 9th Street and 7th Street, DDOT designated primary truck routes, which are no more than a block away from the site. The effective set back of the site building will serve as an adequate amount of space for trucks to maneuver in and out of the site in a safe manner. The truck turning diagrams illustrating the accessible inbound and outbound paths for 810 O Street NW can be found in the Technical Appendix.

PARKING

On-Site Parking

Based on the current zoning of the property, the following outlines the parking requirements for all land uses of the development:

- *Residential*
  1 space per 3 dwelling units, amounting to a minimum requirement of 22 parking spaces

- *Retail*
  1 space per 750 square feet of retail space in excess of 3,000 square feet, amounting to a minimum requirement of 5 parking spaces

Up to 66 parking spaces will be supplied in a below-grade parking garage. According to DC zoning requirements, the proposed development exceeds the requirements.

BICYCLE AND PEDESTRIAN FACILITIES

The project will include secure long-term bicycle parking. The plans identify 22 spaces in the proposed development.

According to the DC zoning requirements, all residential developments must provide at least one secure bicycle parking space for each three residential units and one space for each 10,000 square feet of retail space. Based on these regulations the development should provide a total of 22 long-term bicycle parking spaces. 22 bicycle parking spaces are planned for the residential component while there will be no bicycle parking spaces are planned for the retail component. The development meets these requirements.

Having access to the existing alley from the below-grade bicycle storage room as well as the quantity and quality of the on-site bicycle amenities, makes cycling an extremely attractive mode of travel to and from the site.

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 810 O Street NW development is based on the DDOT expectations for TDM programs. The Applicant proposes the following TDM measures:

- The Applicant will provide bicycle parking/storage facilities at the proposed development. This includes secure parking located on-site, short-term bicycle parking around the perimeter of the site.
- The Applicant will identify TDM Leaders (for planning, construction, and operations). The TDM Leaders will work with residents and employees in the 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.

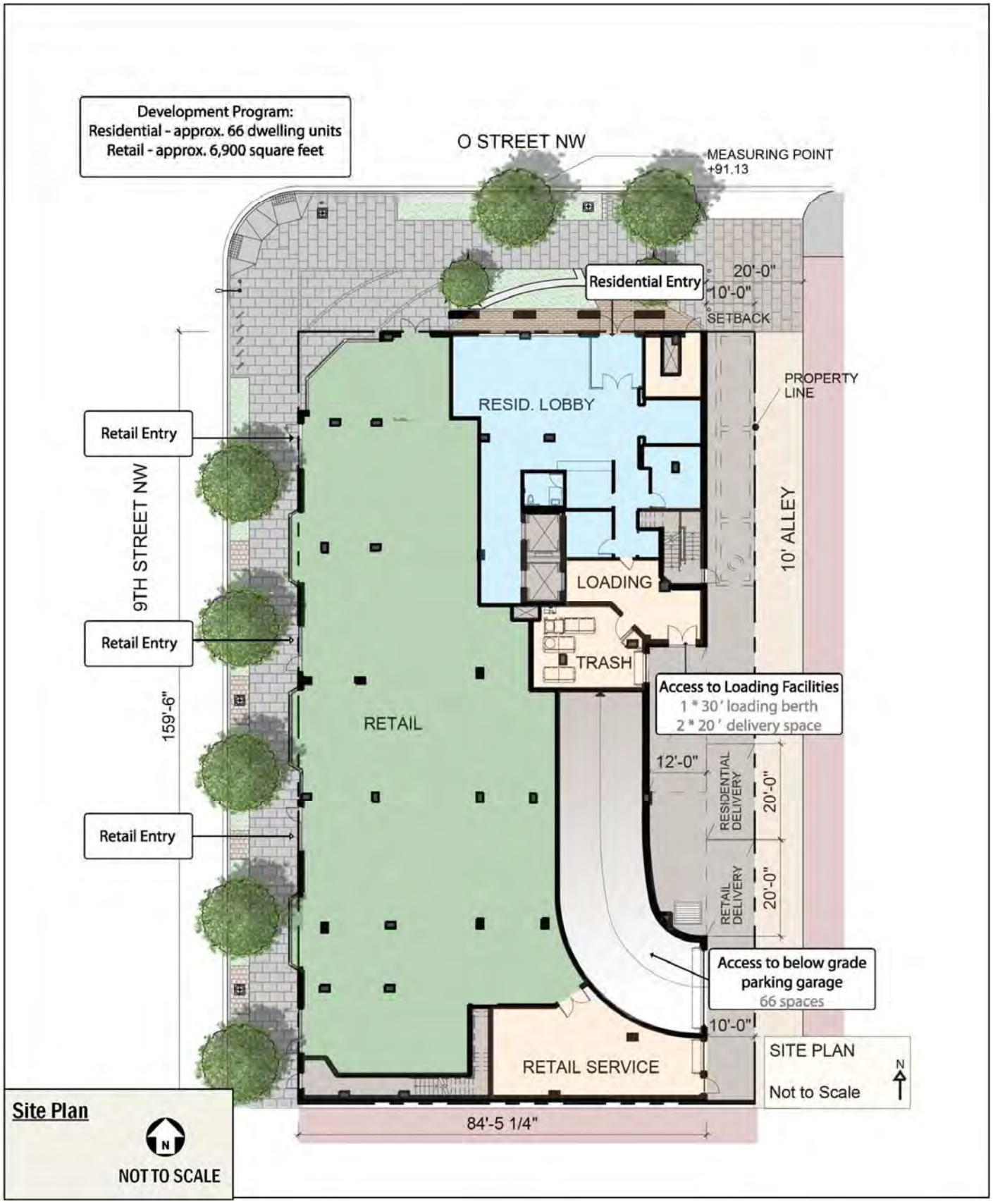

Figure 6: Site Plan

TRIP GENERATION

This section outlines the transportation demand of the proposed 810 O Street NW project. It summarizes the projected trip generation of the site by mode, which forms the basis for the chapters that follow.

Traditionally, weekday peak hour trip generation is calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 9th 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, Apartment, splitting trips into different modes using assumptions derived from census data for the residents that currently live near the site. The vehicular mode split was then adjusted to reflect the parking supply and other developments with similar proximity to Metrorail.

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.

A summary of the multimodal trip generation for the development is provided in Table 2 for the morning and afternoon peak hours. The mode split assumptions for all land uses within the development is summarized in Table 3. Detailed calculations are included in the Technical Appendix.

Of note, a capacity analysis was not performed due to the Comprehensive Transportation Review thresholds not being met, as scoped with and agreed to by DDOT.

Table 2: Multi-Modal Trip Generation Summary

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Residential	4 veh/hr	14 veh/hr	18 veh/hr	14 veh/hr	7 veh/hr	21 veh/hr
	Retail	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	6 veh/hr
	Total	**5 veh/hr**	**15 veh/hr**	**19 veh/hr**	**17 veh/hr**	**10 veh/hr**	**27 veh/hr**
Transit	Residential	3 ppl/hr	9 ppl/hr	12 ppl/hr	10 ppl/hr	4 ppl/hr	14 ppl/hr
	Retail	4 ppl/hr	3 ppl/hr	7 ppl/hr	12 ppl/hr	14 ppl/hr	26 ppl/hr
	Total	**7 ppl/hr**	**12 ppl/hr**	**19 ppl/hr**	**22 ppl/hr**	**18 ppl/hr**	**40 ppl/hr**
Bike	Residential	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
	Retail	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
	Total	**2 ppl/hr**	**1 ppl/hr**	**3 ppl/hr**	**4 ppl/hr**	**2 ppl/hr**	**6 ppl/hr**
Walk	Residential	2 ppl/hr	4 ppl/hr	6 ppl/hr	5 ppl/hr	2 ppl/hr	7 ppl/hr
	Retail	2 ppl/hr	1 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
	Total	**4 ppl/hr**	**5 ppl/hr**	**9 ppl/hr**	**10 ppl/hr**	**7 ppl/hr**	**17 ppl/hr**

Table 3: Summary of Mode Split Assumptions

Land Use	Mode			
	Auto	Transit	Bike	Walk
Residential	50%	30%	5%	15%
Retail	20%	55%	5%	20%

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 810 O Street NW project.

The following conclusions are reached within this chapter:

- The development has excellent access to transit
- The development site is surrounded by several Metrobus routes that travel along multiple primary corridors
- The site is expected to generate a manageable amount of transit trips, and the existing service is capable of handling these new trips

EXISTING TRANSIT SERVICE

The study area is well served by Metrobus, Circulator, and 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 7 identifies the major transit routes, stations, and stops in the study area.

The Mount Vernon Square Metrorail station is located 0.3 miles from the development site and is served by the Green and Yellow lines which provide connections to areas in the District and Maryland. The Green Line connects Greenbelt with Branch Avenue while providing access to the District core. The Yellow Line connects Greenbelt with Huntington and Franconia-Springfield while providing access to the District core. 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 20 minutes on weekday evenings after 9:30PM and 12 to 20 minutes on the weekends. The site is also serviced by Metrobus along multiple primary corridors. These bus lines connect the site to many areas of the District, Maryland and Virginia, including several Metrorail stations. Table 4 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.

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. This is outlined in DC's *Transit Future System Plan* report published by DDOT in April 2010, which includes the reestablishment of streetcar service in the District.

K Street, 0.5 miles from the site, was identified as a corridor that will occupy the planned Streetcar by the *Transit Future System Plan* report. The suggested route will connect Georgetown to the Benning Road area, serving as an additional means of transportation to the District Core and the development.

Additionally, WMATA and local transportation agencies in the District, Maryland, and Virginia have been reviewing Metrobus lines and system wide facilities for service improvements since 2009. In direct relation to this development, routes 64 and 70 were studied.

WMATA and DDOT published the *Fort Totten-Petworth/Takoma-Petworth Lines Study* in March 2016. With approximately 9,500 passengers and 359 one-way trips during the average weekday, the Fort Totten-Petworth and Takoma-Petworth Lines provide an important link between the Georgia Avenue-Petworth Metrorail station and either Takoma or Fort Totten Metrorail station. These lines also provide an important link between the Petworth neighborhood and Downtown Washington. The main purpose of this study was to conduct a comprehensive review of methods for improving the performance of transit for the Fort Totten-Petworth Line and the Takoma-Petworth Line, and to develop an improvement strategy that would include service operations, and customer enhancements. Complaints of riders included long wait times, crowded buses, low frequency of service, and inconvenient hours of service. In an effort to solve this issue, rider surveys, open houses, and review sessions of the existing line services were conducted. It was found that most of the riders utilize Route 64, which passes near the site, more than any other 60s Line. Recommended improvements included bus stop consolidation and higher peak period frequency.

WMATA and DDOT published the *Georgia Ave & 30s Line Evaluation* in December 2009. The 30s line and the 70s line are, respectively, the highest and second highest ridership lines

in the WMATA system. The study mentions restructuring the 30s line and 70s line in order to improve schedule adherence, reduce travel times and speeds, reduce overcrowding, enhance customer experience, and maintain productivity and efficiency. Recommendations included re-instating dedicated field supervisors, adding peak period capacity on the 79 Line, expedite running way improvements, implementing physical treatments along 70s Line, developing 70s Line Supervisor Playbook, and expanding driver training.

Site-Generated Transit Impacts

The proposed development is projected to generate 19 transit trips (7 inbound, 12 outbound) during the morning peak hour and 40 transit trips (22 inbound, 18 outbound) during the afternoon peak hour.

US Census data was used to determine the distribution of those taking Metrorail and those taking Metrobus. The site lies in TAZ 10194 which shows that approximately 80 percent of transit riders used Metrorail and the remainder use Metrobus. That said, approximately 15 people will use Metrorail and 4 will use Metrobus during the morning peak hour; approximately 32 people will use Metrorail and 8 will use Metrobus during the afternoon peak hour.

WMATA studied capacity of Metrorail stations in its *Station Access & Capacity Study (2008).* 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 Mount Vernon Square Station can currently accommodate future growth at all access points.

WMATA 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 Metrobus routes that travel near the site operate at an acceptable load factor during all periods of the day. Based on this information and the extensive Metrobus and Metorail service surrounding the site, site-generated transit trips will not cause detrimental impacts to Metrobus or Metrorail service.

Table 4: Metrobus Route Information

Route Number	Route Name	Service Hours	Headway	Walking Distance to Nearest Bus Stop
64	Fort Totten-Petworth Line	Weekdays: 5:35AM – 2:07AM Weekends: 4:15AM – 3:14AM	10-20 min	0.3 miles, 6 minutes
70	Georgia Avenue-7th Street Line	Weekdays: 4:04AM – 3:09AM Weekends: 4:27PM – 2:20AM	12-20 min	0.2 miles, 2 minutes
G2	P Street-LeDroit Park Line	Weekdays: 5:21AM – 12:37AM Weekends: 6:16AM – 1:11 AM	5-35 min	0.1 miles, 3 minutes
G8	Rhode Island Avenue Line	Weekdays: 5:40AM – 1:30AM Weekends: 5:44AM – 1:12 AM	20-30 min	0.1 miles, 2 minutes

Figure 7: Existing Transit Service

PEDESTRIAN FACILITIES

This section summarizes the 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 a good walking environment. There are some gaps in the system, but there are sidewalks along all primary routes to pedestrian destinations.
- The site is not expected to generate a significant amount of pedestrian trips; however, the pedestrian trips generated by walking to and from transit will be more substantial, particularly along O Street.

PEDESTRIAN STUDY AREA

Facilities within a quarter-mile of the site were evaluated as well as routes to nearby transit facilities and prominent retail and neighborhood destinations. The site is easily accessible to transit options such as bus stops along P Street and 7th Street as well as the Mount Vernon Square Metro Station. There are some 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, and incomplete or insufficient crossings at busy intersections that limits connectivity to the south. Figure 8 shows suggested pedestrian pathways, walking time and distances, and barriers and 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 proposed development shows that most facilities meet DDOT standards and provide a quality walking environment. Figure 9 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 5. Within the area shown, most roadways are considered residential with a low to moderate density. Meanwhile some areas along 7th Street and O Street are considered retail and commercial and thus require wider sidewalks. Most of the sidewalks surrounding the site comply with DDOT standards. All primary pedestrian destinations are accessible via routes with sidewalks, most of which met DDOT standards. 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 the figure, under existing conditions there are some issues with crosswalks and curb ramps near the site.

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 810 O Street NW development is expected to generate 9 walking trips (4 inbound, 5 outbound) during the morning peak hour and 17 walking trips (10 inbound, 7 outbound) during the afternoon 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; 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. Currently the existing pedestrian network has the capacity to absorb the newly generated trips from the site.

Table 5: 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

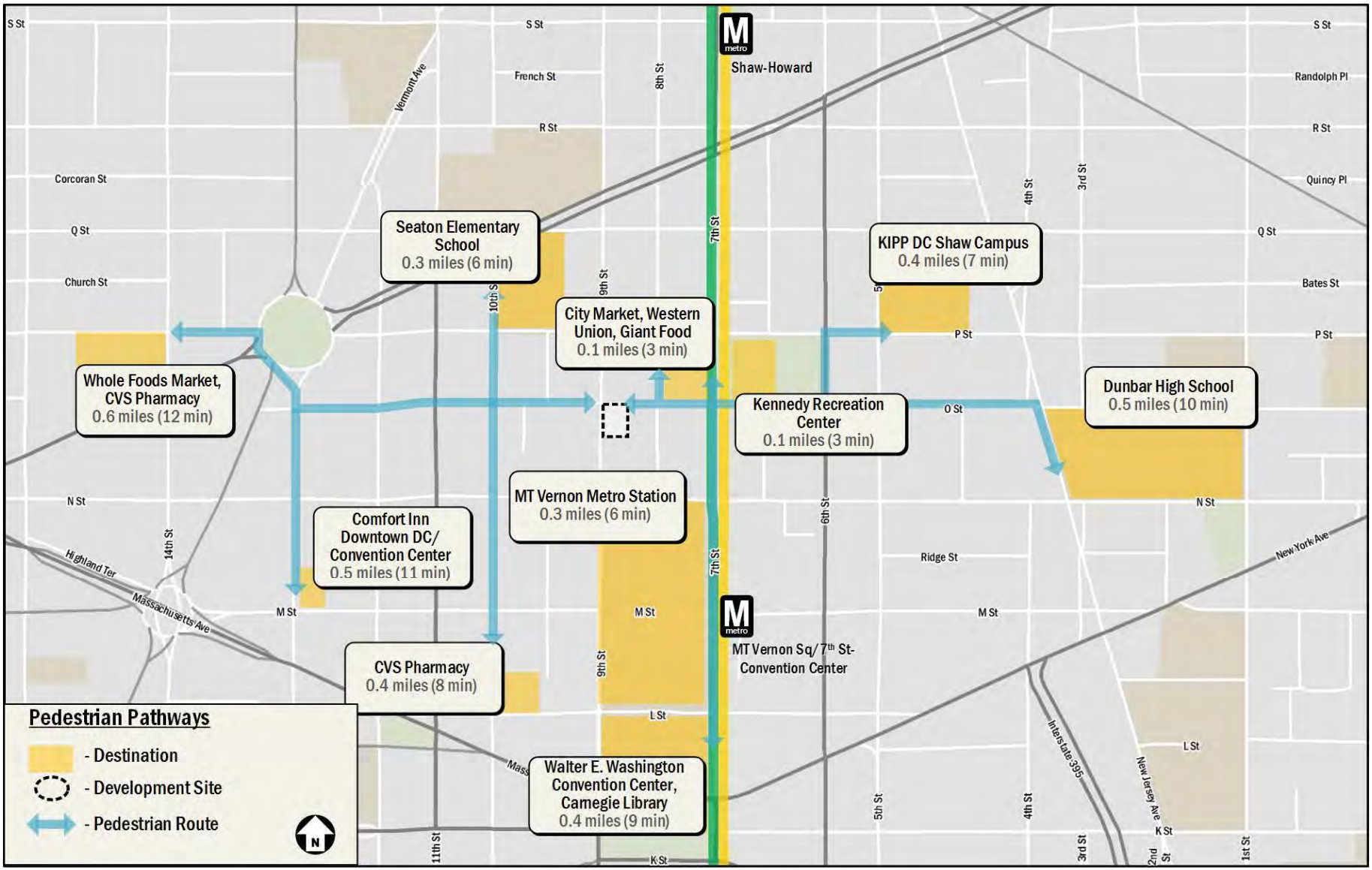

Figure 8: Pedestrian Pathways

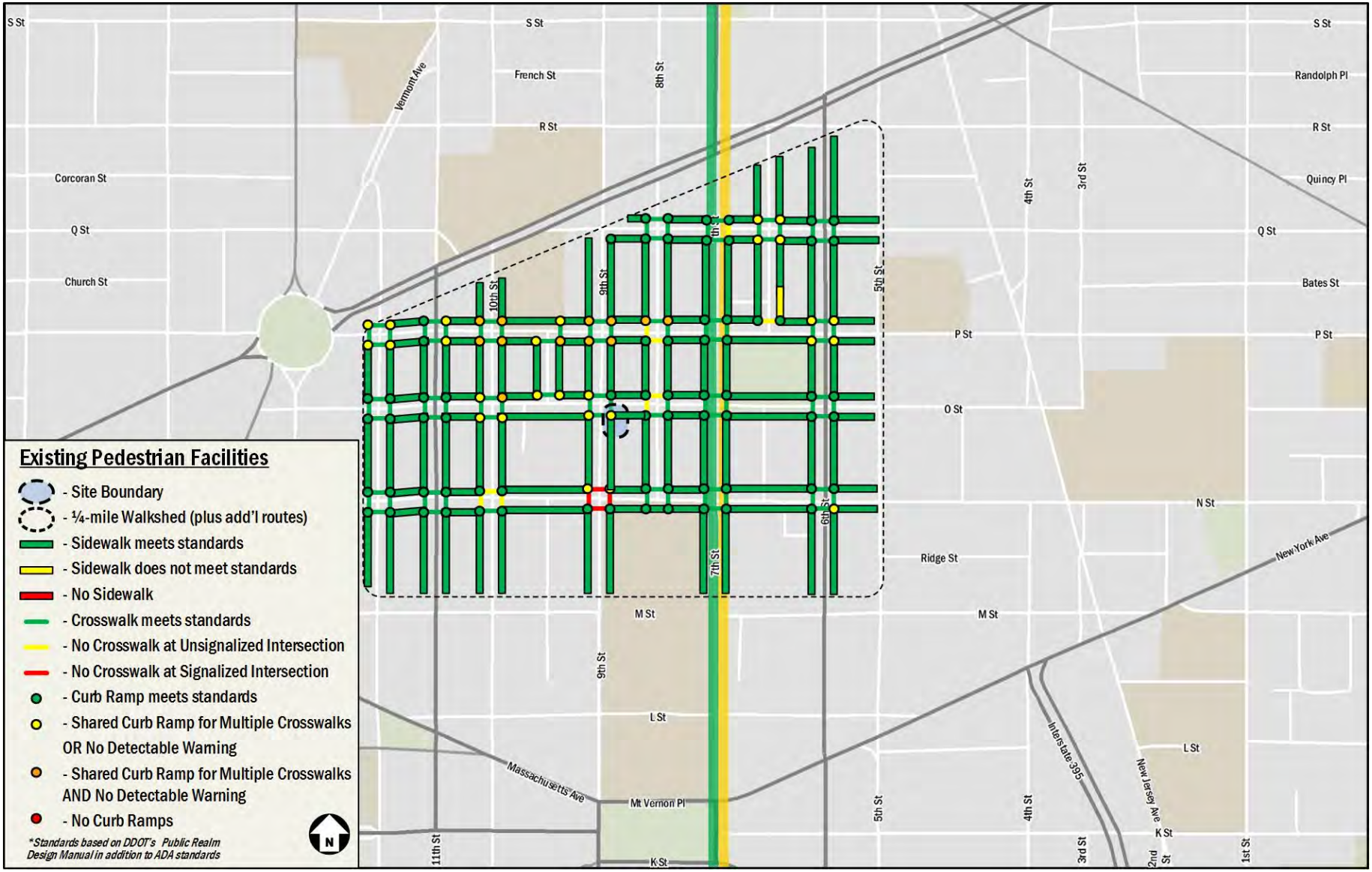

Figure 9: Existing Pedestrian Infrastructure

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 bike trail located to the southeast of the site, as well as bike lane to the east and west.
- The site is not expected to generate a significant amount of bicycle trips, therefore all site-generated bike trips can be accommodated on existing infrastructure.
- The development will include secure bicycle parking on site, and short-term bicycle racks along the perimeter of the site.

EXISTING BICYCLE FACILITIES

The site is adequately connected to existing on- and off-street bicycle facilities. There are bicycle lanes located to the east of the site along 7th Street and 5th Street and to the west of the site along 10th Street and 12th Street that provide connectivity to the north and south. Bicycle lanes are found on Q Street and R Street to provide connectivity to the east and west. Figure 10 illustrates the existing bicycle facilities in the area.

PROPOSED BICYCLE FACILITIES

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.

  There is a bike trail planned south of the development on M Street, which will improve bicycle connectivity and attract cyclists to the site.

- *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.

  There are bike trails planned east of the development on 5th Street and 6thStreet, which will improve bicycle connectivity and attract cyclists to the site.

- *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.

  There is a bike trail planned south of the development on L Street, which will improve bicycle connectivity and attract cyclists to the site.

- *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.

  There are no tier 4 improvements planned in the vicinity of the site.

Due to the timeline of the proposed development, this report will focus 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.

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 810 O Street NW development is expected to generate 3 bicycle trips (2 inbound, 1 outbound) during the morning peak hour and 6 bicycle trips (4 inbound, 2 outbound) during the afternoon peak hour. Although bicycling is an important mode for getting to and from the site, with significant facilities

located on site, and existing and planned routes to and from the site, the project is well positioned to take full advantage of any future expansion of bicycle infrastructure in the area. In the meantime, the surrounding low volume neighborhood streets provide suitable interim connectivity for bicycles.

On-Site Bicycle Elements

The project will provide amenities that cater to cyclists including 22 secure long-term bicycle parking within its garage, which will increase the attractiveness of cycling to the site.

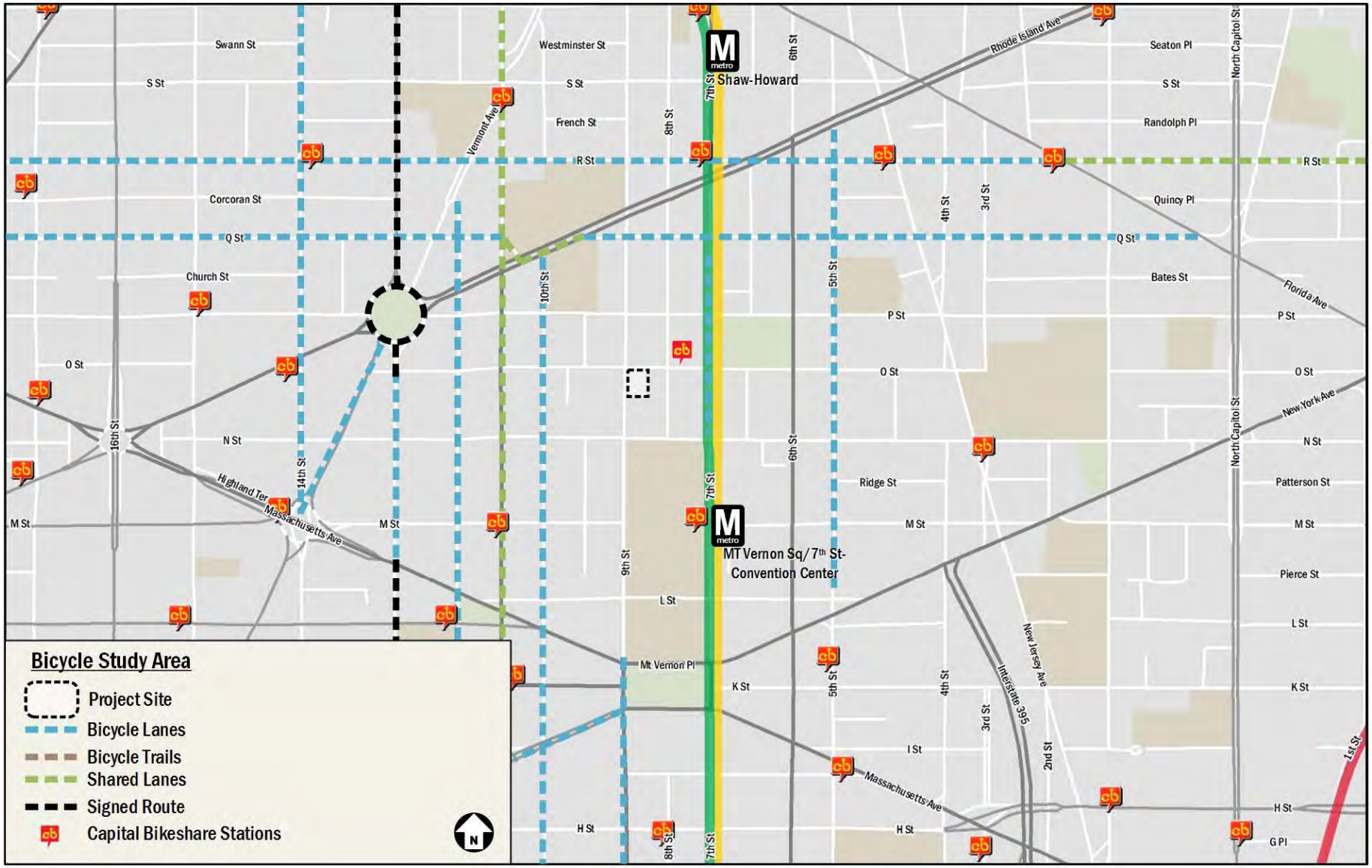

Figure 10: Existing Bicycle Facilities

SUMMARY AND CONCLUSIONS

This report presents the findings of a Comprehensive Transportation Review (CTR) for the 810 O Street NW development. 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 the existing multi-modal functions of the site. This report concludes that **the project will not have a detrimental impact** to the surrounding transportation network assuming that all planned site design elements are implemented.

Proposed Project

The 810 O Street NW site is currently occupied by Scripture Cathedral, located approximately two blocks from the Mount Vernon Square Metrorail Station. The site is generally bound by O Street to the north, 9th Street to the west, adjacent properties to the south, and a public alley to the east.

The application plans to develop the site into a mixed-use development including residential and retail uses. The project will be an 8-story building with a penthouse containing approximately 66 dwelling units and approximately 6,879 square feet of retail with up to 66 below-grade parking spaces.

Parking will be accessed through an existing alley that links O Street and N Street east of the site via single entrance. Loading will be within the building also accessible via the existing alley.

Pedestrian facilities along the perimeter of the site will be improved to include sidewalk and buffer widths that meet or exceed DDOT requirements. The parking garage will supply 22 secure bicycle parking spaces which meets the current zoning requirements.

The parking and loading provided by the development will adequately serve the demands set forth by the development program.

Multi-Modal Impacts and Recommendations

Transit

The site is served by regional and local transit services such as Metrorail, Circulator, and Metrobus. The site is 0.3 miles from the Mount Vernon Square Metrorail Station portal at 7th Street NW and M Street NW, and many Metrobus stops are located within a block of the site along 7th Street NW.

Although the development will be generating new transit trips, existing facilities have enough capacity to handle the new trips.

Pedestrian

The site is surrounded by a well-connected pedestrian network. Most roadways within a quarter-mile radius provide sidewalks and acceptable crosswalks and curb ramps, particularly along the primary walking routes. There are some pedestrian barriers surrounding the site such as limited connectivity due to the Interstate to the south.

Bicycle

Capital Bikeshare stations can be found within a couple blocks of the site, for example there is a station adjacent to the site. The site is also just blocks away from routes and bike lanes on 10th Street and 13th Street to the west as well as 7th Street and 5th Street to the east and Q Street and R Street to the north.

On site, the development will meet short-term bicycle parking along the perimeter of the site and exceed on-site secure long-term bicycle parking for residents and retail employees.

Vehicular

The site is well-connected to regional roadways such as I-395 and I-695, primary and minor arterials such as Rhode Island Avenue and 7th Street, and an existing network of collector and local roadways.

Based on the vehicular trips not meeting the Comprehensive Transportation Review thresholds, the planned development is not expected to have adverse vehicular impacts on the surrounding transportation network.

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 are implemented.