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TECHNICAL MEMORANDUM

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From:	Pradeep Thummala	
	Jim Watson, PTP	
	Erwin N. Andres, P.E.	
Date:	June 12, 2015	
Subject:	1300 H Street NE Comprehensive Transportation Review	

INTRODUCTION

This memorandum outlines a Comprehensive Transportation Review (CTR) of the 1300 H Street NE development located in the northeast quadrant of Washington, DC in Ward 6. This CTR reviews the parking and loading aspects of the site as presented in a scoping document submitted to the District Department of Transportation (DDOT) on May 13, 2015. Figure 1 identifies the regional site location within the District. The site is currently occupied by a vacant library and a vacant lot and will be redeveloped into a mixed-use development comprising of 36 residential units above 6,614 square feet (sf) of ground floor retail space. Eight (8) surface parking spaces are proposed at the rear of the site. No below-grade parking is proposed due to practical difficulties resulting from environmental contamination of the property and the size and shape of the site.

This Comprehensive Transportation Review has been developed to address the needs of the site. This includes an analysis of comparable development in addition to an on-street parking analysis to determine the existing parking utilization in the neighborhood. This was augmented by an aggressive Transportation Demand Management (TDM) plan to promote the use of non-vehicular travel modes to and from the site.

The following conclusions were made regarding the 1300 H Street NE development:

- The development will yield a low parking and vehicular trip generation demand due to the tenants to which the residential units will be marketed as well as the neighborhood-serving orientation of the retail space.
- The site is located near excellent transit services (including Metrobus, Streetcar, and connections to Metrorail) and includes the implementation of an aggressive TDM plan which will mitigate any vehicular parking needs of the site.
- The site is surrounded by an existing network of transit, bicycle, and pedestrian facilities as well as numerous neighborhood amenities that result in an excellent environment for safe and effective non-auto transportation.
- An aggressive TDM plan for the development will include the implementation of RPP and VPP restrictions, transportation incentives, bicycle amenities, a marketing program, and ride-matching/ridesharing programs.
- In the event that there is parking demand beyond the proposed eight (8) on-site parking spaces, there is parking available in nearby public garages and in nearby on-street parking.

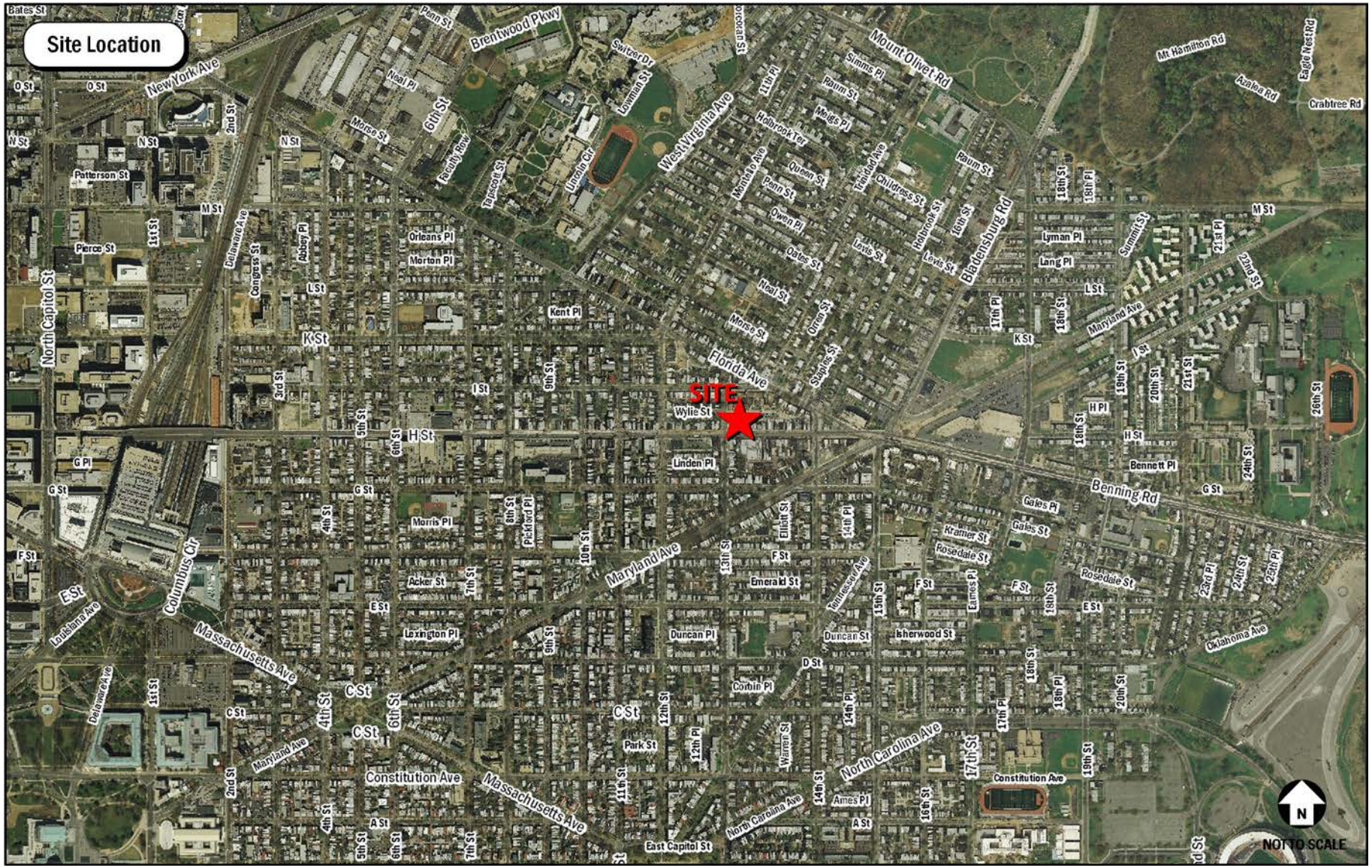

Figure 1: Site Location

EXISTING CONDITIONS

This section provides a review of the existing transit, bicycle, and pedestrian facilities in the vicinity of the site. The site is served by public transportation, primarily consisting of Metrobus and future H Street DC Street car. The project site is also served by a pedestrian network consisting of sidewalks and crosswalks along the streets surrounding the project site. Additionally, the site is served by a Capital Bikeshare station located directly in front of the site and an on-street bicycle network, consisting of bike lanes, cycle tracks, and signed bicycle routes.

Transit

Local transit services that provide access to and from the 1300 H Street NE development site primarily include Metrobus and MetroExpress routes. Metrobus service is operated by the Washington Metropolitan Area Transit Authority (WMATA) and is currently the fifth largest bus network in the nation. Figure 2 illustrates the existing Metrobus and MetroExpress routes.

Numerous Metrobus and MetroExpress routes operate along Florida Avenue, H Street, Maryland Avenue, 14th Street, K Street, Benning Road, and Trinidad Avenue NE within walking distance of the site. Table 1 shows a summary of the bus route information for the lines that serve the study area, including service hours and the headways. There are many Metrobus stops located within walking distance of the proposed development. The stops within 1,000 feet of the site for every bus route are listed below.

Table 1: Bus Route Information

Route Number	Route Name	Service Hours	Headway
B2	Bladensburg Road-Anacostia Line	Weekdays: 4:25 am – 3:15 am Saturdays: 4:30 am – 2:35 am Sundays: 5:15 am – 1:30 am	Peak Hours: 10-12 minutes Off-Peak Hours: 15-30 minutes Weekends: 20-30 minutes
D3	Ivy City-Dupont Circle Line	Weekdays: WB 6:05 am – 9:15 am EB 3:00 pm – 5:50 pm Saturdays: WB 6:25 am – 8:30 am EB 4:00 pm – 5:50 pm	20-30 minutes
D4	Ivy City-Franklin Square Line	Weekdays: 4:15 am – 1:05 am Saturdays: 4:45 am – 1:05 am Sundays: 5:15 am – 1:05 am	Peak Hours: 15-20 minutes Off-Peak Hours: 30 minutes Weekends: 30 minutes
D8	Hospital Center Line	Weekdays: 5:15 am – 1:00 am Weekends: 6:15 am – 1:05 am	Peak Hours: 10-15 minutes Off-Peak Hours: 15-30 minutes Weekends: 15-30 minuets
X1, X3	Benning Road Line	Weekdays: WB 6:00 am – 8:40 am EB 3:40 pm – 6:10 pm	AM Peak Hour: 7-15 minutes PM Peak Hour: 20-30 minutes
X2	Benning Road-H Street Line	Monday - Saturday: 4:05 am – 3:00 am Sundays: 4:10 am – 2:00 am	Peak Hours: 6-10 minutes Off-Peak Hours: 10-20 minutes Weekends: 10-20 minutes
X8	Maryland Ave Line	Weekdays: 6:00 am – 10:30 pm Weekends: 6:40 am – 9:45 pm	Weekdays: 15-20 minutes Weekends: 20-40 minutes
X9	Benning Road-H Street Limited	Weekdays: 6:15 am – 9:00 am 3:30 pm – 6:30 pm	15 minutes

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 transportation infrastructure is planned to be augmented by the reestablishment of streetcar service in the District and the implementation of limited-stop bus service along major corridors in the vicinity of the proposed development, including the H Street corridor as is outlined in the *DC's Transit Future System Plan* report

published by DDOT in April 2010. The streetcar system element of the plan includes one route that travels directly in front of the project site. This route has finished construction and is currently in the testing phase, awaiting an opening date to start service to the public.

The streetcar system will consist of modern low-floor vehicles that operate on surface tracks embedded in the roadways, which will mostly operate in travel lanes that are shared with automobiles. Stops will generally be located every ¼- to ½-mile along the routes, including a stop immediately in front of the site, at the intersection of 13th and H Streets NE. The route serving the study area will initially connect the site with Union Station prior to the completion of the development, and eventually travel between the Benning Road Metro Station and Georgetown.

Car Sharing

Three car-sharing companies serve the District: Zipcar, Enterprise CarShare, and Car2Go. All three services are private companies that provide registered users access to a variety of automobiles. Both Zipcar and Enterprise CarShare have locations near the project site. Table 2 lists the car-sharing locations near the project and shows that seven carsharing vehicles are available within a short walk of the site with many others within an additional reasonable walking distance. Carshare locations are also shown on Figure 2.

Table 2: Car Share Locations and Vehicles

Carshare Location	Number of Vehicles
Zipcar	
817 11th Street	2 Vehicles
1600 Maryland Avenue	2 Vehicles
Enterprise CarShare	
822 12th Street	3 Vehicles
Total Number of Car Share Vehicles in Study Area	**7 Vehicles**

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

Bicycle Facilities

DDOT's April 2012 Bicycle Map classifies the bicycling conditions around the proposed development as good, fair, or poor. An inventory of the bicycle facilities found throughout the study area is provided in Figure 3. There are several existing bike facilities, planned bike facilities, and local streets with safe conditions surrounding the site. Safe north-south connectivity is provided by the one-way bike lanes along 14th Street and 15th Street NE. Further from the site, there is also the one-way pair of bike lanes along 4th and 5th Street NE and the Metropolitan Branch Trail that travels adjacent to the Red Line tracks. East-west connectivity is best served along I Street and G Street. These roadways are low-speed, low-volume, one-way roadways that currently provide safe cycling conditions. Additionally, future plans call for contraflow bike lanes to allow for two-way bicycle traffic along both roadways.

In addition, the Capital Bikeshare program has placed over 200 bike share stations across Washington, DC, Arlington and Alexandria, VA, and most recently Montgomery County, MD with more than 1,800 bicycles provided. Capitol Bikeshare has plans to expand the system and potential new station locations have been identified throughout the study area. Figure 3 identifies existing station locations in the study area. Capitol Bikeshare currently has five existing bike share locations containing 94 bicycles within a quarter-mile walk of the site. The nearest station is located adjacent to the site at 13th Street and H Street NE, containing 26 bicycles. Four other stations are located at 11th Street and H Street NE (containing 19 bicycles), Bladensburg Road and Benning Road NE (containing 15 bicycles), 15th Street and F Street NE (containing 19 bicycles), and along Neal Street NE between Trinidad Avenue and Montello Avenue (containing 15 bicycles).

Pedestrian Facilities

The roadways in the immediate vicinity of the proposed development provide satisfactory pedestrian facilities and connectivity throughout the area. Wide, continuous sidewalks line all of the study area's roadways with crosswalks linking segments at intersections within the study area. Adequate crosswalks with textured pavements, ladder striping and pedestrian countdown signals are present at the study area's signalized intersections for all crossing movements.

Neighborhood Amenities

Numerous neighborhood amenities exist within a short walk of the site, which lessens the reliance on personal vehicle trips. H Street corridor offers many nearby restaurant and nightlife options for visitors and tenants of the site, other neighborhood amenities are a short walk away as shown on Figure 4. These include a Safeway grocery store and other major retailers in the Hechinger Mall shopping center located approximately 2,100 feet east of the site along Maryland Avenue and Benning Road, a Rite Aid pharmacy located approximately 1,700 feet west of the site at 8th Street and H Street intersection, Family Dollar (groceries and other products) located approximately one block west of the site on H Street near its intersection with 12th Street, and other smaller neighborhood retailers along the H Street corridor. In addition, recently approved developments nearby along H Street will introduce a Whole Foods as well as many other retailers in additional developments slated to be constructed in the neighborhood.

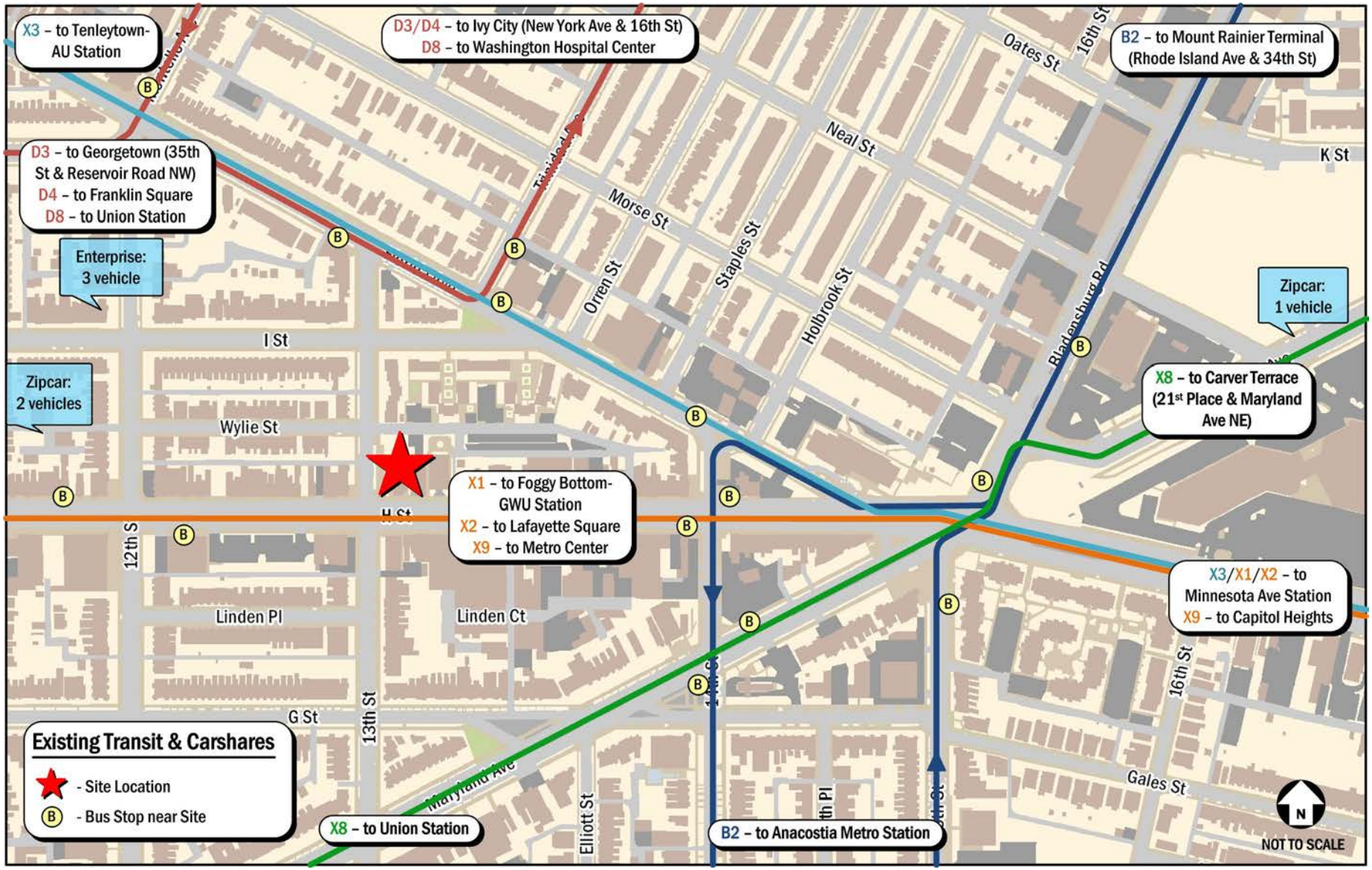

Figure 2: Existing Transit Service

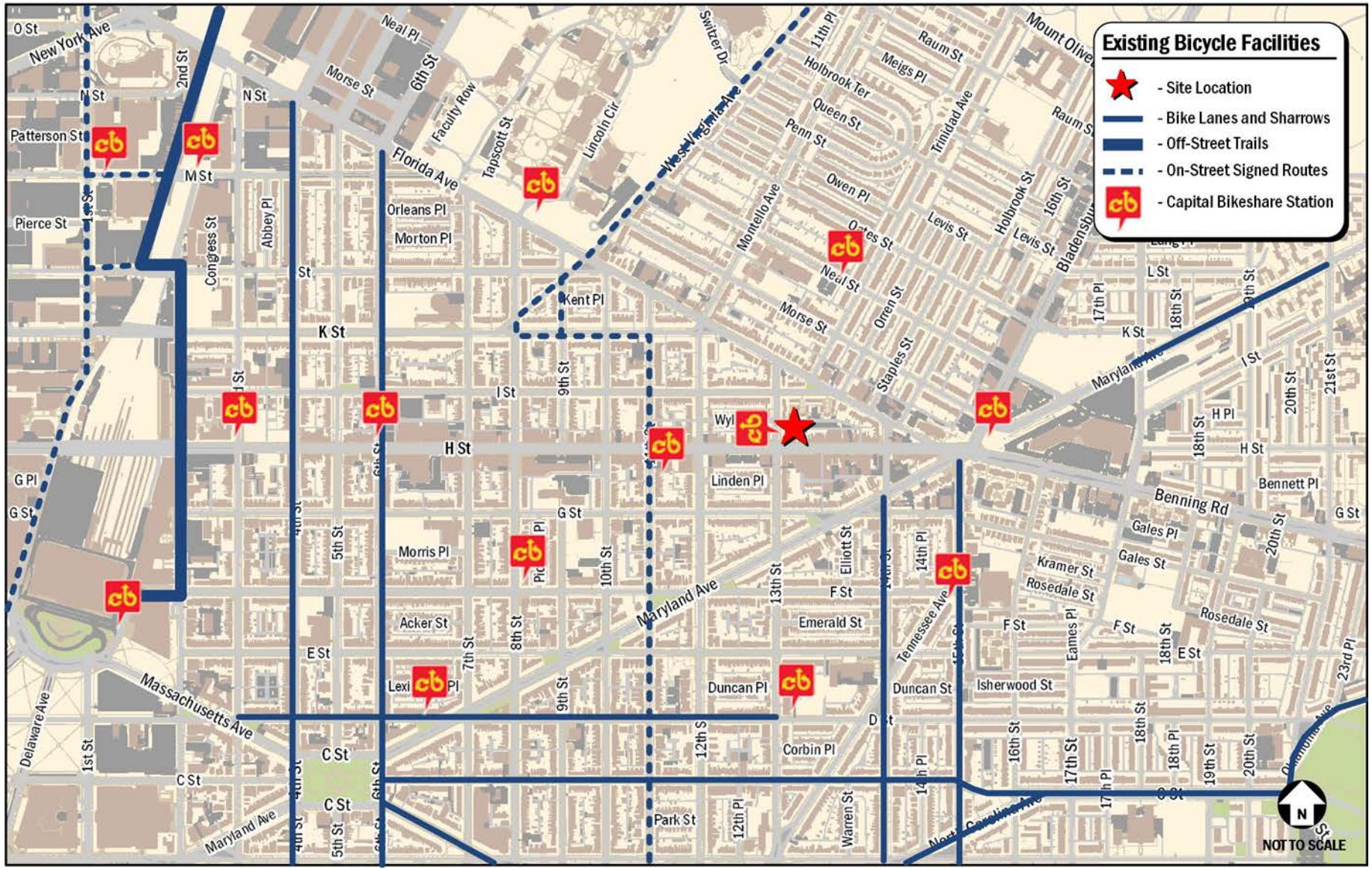

Figure 3: Existing Bicycle Facilities

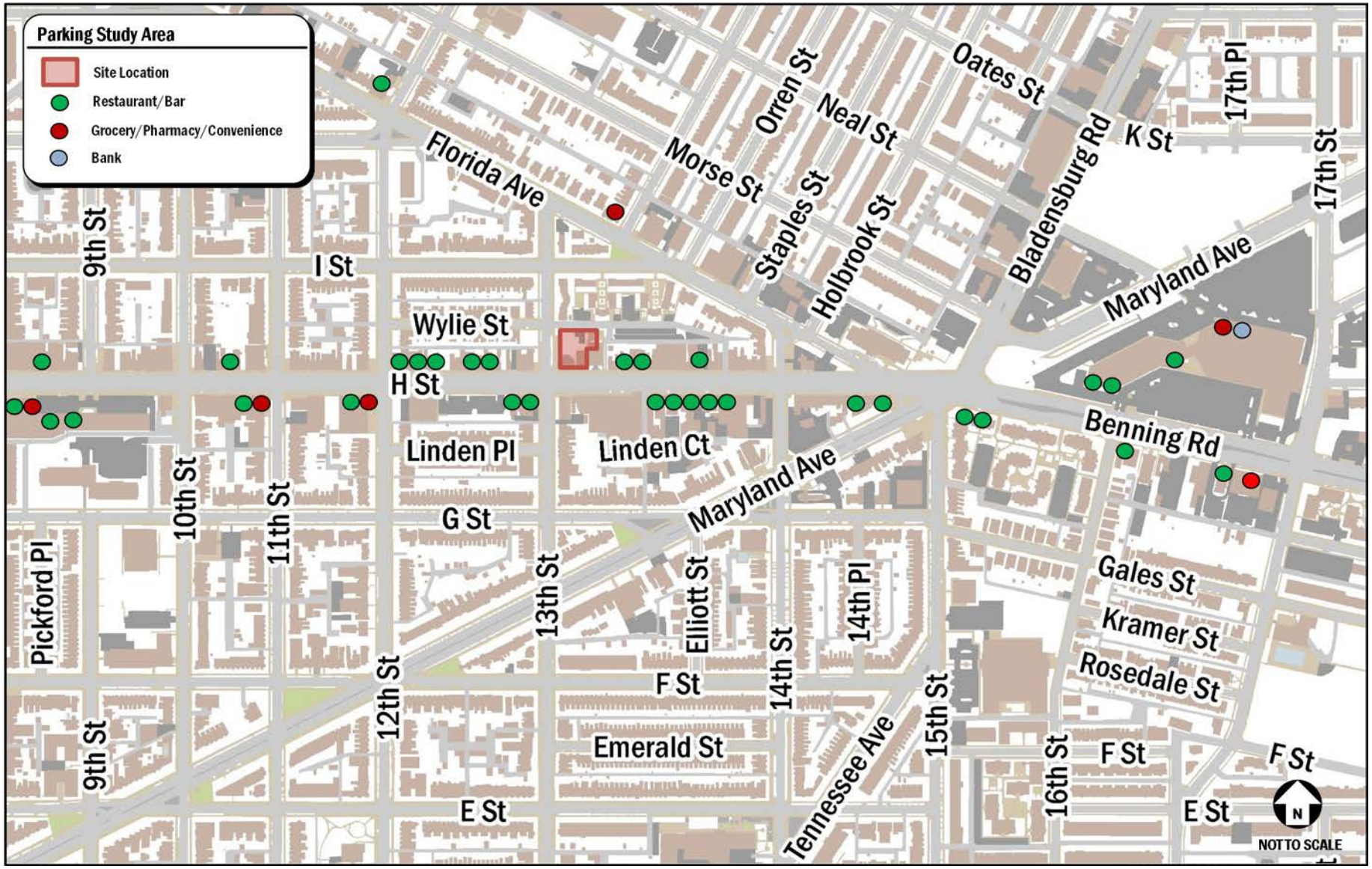

Figure 4: Nearby Amenities

DESIGN REVIEW

This section provides an overview of the transportation features of the proposed 1300 H Street NE development. The development program consists of a mixed-use development including 36 residential units above 6,614 sf of ground floor retail space. Eight (8) surface parking spaces are proposed for this development. Figure 5 displays the site plan.

Trip Generation

Vehicle trips were calculated for the site to determine whether the site would generate enough trips to warrant a full review of the traffic impacts of the development based on DDOT's CTR guidelines. As shown in Table 4 below, the site is anticipated to generate very few vehicular trips. Trips were calculated based on ITE Trip Generation rates for Apartment (LU 220) and Retail (LU 820). It should be noted that the trip generation described in this section should be considered to be a conservative estimate of trips developed in order to address DDOT's CTR guidelines in an effort to provide the most conservative comparison to determine the need for additional vehicular study based on CTR guidelines.

A review of census data suggests that 52 percent of residents in the surrounding neighborhoods use non-auto modes for commuting. Based on this data and given that minimal parking is planned on-site, a conservative 52 percent non-auto modal split (or 48 percent auto) was applied for this site, at the request of DDOT. For retail trips, the neighborhood-serving retail planned for this site was deemed to be most similar to the retail examined along the U Street corridor in the WMATA Development Related Ridership Survey (DRRS). The WMATA DRRS noted a 19 percent auto mode share for retail along the U Street corridor. For purposes of this study, the mode split conservatively assumed to be 25 percent auto (or 75 percent non-auto reduction), based on the WMATA DRRS. A summary of the modal split assumptions is shown below on Table 3.

The resulting trip generation projections are summarized below in Table 4 with detailed trip generation noted in Table 5 for the residential and Table 6 for the retail. The development is expected to generate a conservative total of 11 AM peak hour vehicular trips (4 inbound and 7 outbound) and 17 PM peak hour trips (10 inbound and 7 outbound). Since the DDOT CTR guidelines do not require additional vehicular study for developments that generate less than 25 peak hour in the peak directions, the 7 AM peak hour peak direction trips and 10 PM peak hour peak direction trips conservatively generated by this development can be considered to be below this threshold and contribute negligible additional impact to the surrounding roadways. Note that the trip generation calculations below are considered to be conservative given that the development is planned to be adjacent to the H Street streetcar, will incorporate RPP restrictions and other TDM elements, and will provide minimal on-site parking. Accordingly, parking and traffic conditions associated with the proposed project will not adversely affect adjacent or nearby residences.

Site Access and Internal Circulation

Site Access

The primary pedestrian access for residents will be located along 13th Street near its intersection with Wylie Court NE. Retail entrances are proposed along H Street and along 13th Street. Loading will be provided to the north of proposed development off of the alley (Wylie Court NE).

Table 3: Mode Split Assumptions

Residential Mode Split Assumptions

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
Census Data (Tracts 84.10/84.02)	39%	9%	34%	N/A	8%	3%	7%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (average for *Suburban-Inside the Beltway*)	39%		49%	14%		---	

Mode Split assumed in TIS:

Information Source	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Residential Mode Split	48%	37%	5%	10%	---

Notes: -Census data (CTPP) used as basis for assumptions

Retail Mode Split Assumptions

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (U St Main Street)	19%		56%	25%		---	

Mode Split assumed in TIS:

Information Source	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Retail Mode Split	25%	60%	5%	10%	---

Table 4: Trip Generation Summary

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	3 veh/hr	6 veh/hr	9 veh/hr	7 veh/hr	4 veh/hr	11 veh/hr
Transit	2 ppl/hr	6 ppl/hr	8 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	7 veh/hr
Transit	5 ppl/hr	2 ppl/hr	7 ppl/hr	13 ppl/hr	14 ppl/hr	27 ppl/hr
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr

Total Trip Gen Summary

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	4 veh/hr	7 veh/hr	11 veh/hr	10 veh/hr	7 veh/hr	17 veh/hr
Transit	7 ppl/hr	8 ppl/hr	15 ppl/hr	19 ppl/hr	18 ppl/hr	37 ppl/hr
Bike	2 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Walk	2 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr

Table 5: Residential Trip Generation

Trip Generation - Residential

36 Apartments

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	220	36 du	4 veh/hr	14 veh/hr	18 veh/hr	14 veh/hr	8 veh/hr	22 veh/hr

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh	5 ppl/hr	16 ppl/hr	20 ppl/hr	16 ppl/hr	9 ppl/hr	25 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	Auto	48%	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	4 ppl/hr	12 ppl/hr
Apartments	Transit	37%	2 ppl/hr	6 ppl/hr	8 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
Apartments	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Apartments	Walk	10%	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh	3 veh/hr	6 veh/hr	9 veh/hr	7 veh/hr	4 veh/hr	11 veh/hr

Trip Gen Summary for Residential

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	3 veh/hr	6 veh/hr	9 veh/hr	7 veh/hr	4 veh/hr	11 veh/hr
Transit	2 ppl/hr	6 ppl/hr	8 ppl/hr	6 ppl/hr	4 ppl/hr	10 ppl/hr
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Walk	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr

Table 6: Retail Trip Generation

Trip Generation - Retail

6,614 square feet

Step 1: Base trip generation using ITEs' *Trip Generation*

Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	820	6,614 sf	4 veh/hr	2 veh/hr	6 veh/hr	12 veh/hr	13 veh/hr	25 veh/hr

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh	7 ppl/hr	4 ppl/hr	11 ppl/hr	21 ppl/hr	23 ppl/hr	45 ppl/hr

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	Auto	25%	2 ppl/hr	1 ppl/hr	3 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr
Retail	Transit	60%	5 ppl/hr	2 ppl/hr	7 ppl/hr	13 ppl/hr	14 ppl/hr	27 ppl/hr
Retail	Bike	5%	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Retail	Walk	15%	2 ppl/hr	0 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2009 NHTS, Table 16)	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	7 veh/hr

Trip Gen Summary for Retail

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	7 veh/hr
Transit	5 ppl/hr	2 ppl/hr	7 ppl/hr	13 ppl/hr	14 ppl/hr	27 ppl/hr
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Walk	2 ppl/hr	0 ppl/hr	2 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr

On-Site Parking

As mentioned previously, the project will provide a total of eight (8) parking spaces. Providing below-grade parking is practically difficult due to environmental contamination, the size and shape of the site, and the associated remediation requirements that make below-grade parking cost-prohibitive. According to the current zoning regulations and based upon the existing zoning of the site location, the development is required to provide one parking space for each two dwelling units and one parking space for each 300 sf of gross and cellar floor area devoted to retail use, above 3,000 sf. Based on these requirements, the site would be required to provide 30 total parking spaces, 18 parking spaces for residents and 12 parking spaces for retail uses.

The 1300 H Street development is planned to offer smaller residential units that will be marketed toward urban-minded tenants that generally do not own personal vehicles. In addition, the retail use is intended to be neighborhood serving, such that patrons are not expected to drive to access the retail at the site. Supporting data has been obtained through a review of parking supply and demand at four other comparable properties, which contain a significant mix of studios and small one-bedrooms. Data collected from these properties demonstrate that on-site parking is utilized at a ratio of 0.16 spaces per unit for the 322 studio units in the study and 0.19 spaces per unit for the 141 one bedroom units in the study. The 1300 H Street NE property will be comprised of similar size and type units, thus a ratio similar to these would be realized. Applying these ratios to the 1300 H Street project, the parking demand can be estimated to be approximately seven (7) parking spaces. Based on that anticipated demand, the Applicant's proposed off-street parking of eight (8) residential parking spaces (0.22 spaces per unit) for the 36-unit development will adequately support the demands of the site.

Table 7: Comparable Site Parking Supply

	STUDIO UNITS			SMALL 1 BEDROOM UNITS		
Property	**Units**	**Rented Spaces**	**Spaces per Unit Ratio**	**Units**	**Rented Spaces**	**Spaces per Unit Ratio**
Hamilton House, 1255 New Hampshire Ave, NW	210.00	30.00	0.14	N/A	N/A	N/A
M Street. 1112 M Street, NW	84.00	17.00	0.20	N/A	N/A	N/A
Preston, 1743 P Street, NW	9.00	0.00	0.00	4.00	0.00	0.00
Sutton Plaza, 1230 13th Street, NW	19.00	3.00	0.16	137.00	27.00	0.20
Total	**322.00**	**50.00**		**141.00**	**27.00**	
Average Spaces per Unit Ratio		**0.16**			**0.19**	
1300 H Street		**Total Units:**	**36**			
		Spaces:	**8**			
		Spaces per Unit Ratio:	**0.22**			

As noted above, minimal parking demand is anticipated with the residential portion of the development. In addition, the retail space planned for the development is intended to be neighborhood-serving and will not be a destination retailer that will generate vehicular trips to the site and thus, additional parking demand. Although the development does not meet current zoning requirements, the parking impacts of the site will be minimal due to these additional considerations:

- Orientation of the residential and retail planned for the site toward patrons and tenants that do not drive personal vehicles.
- Nine (9) bus lines serve stops within a quarter-mile walking distance of the site.

- The H Street/Benning Road Streetcar line will serve the development allowing quick and efficient transportation between the site and Union Station.
- Capital Bikeshare currently has five existing bike share locations containing 94 bicycles within a quarter-mile walk of the site. The nearest station is located adjacent to the site at 13th Street and H Street NE, containing 26 bicycles. Four other stations are located at 11th Street and H Street NE (containing 19 bicycles), Bladensburg Road and Benning Road NE (containing 15 bicycles), 15th Street and F Street NE (containing 19 bicycles), and along Neal Street NE between Trinidad Avenue and Montello Avenue (containing 15 bicycles).
- Seven (7) carshares are within a short walk from the site.
- The applicant will incorporate at least 27 bicycle parking spaces in the design of the project, which will be accommodated in a designated bicycle parking area on the ground floor of the building.
- The site area has a walkability score of 88 as calculated by WalkScore.com. This categorizes the site and the surrounding areas as a "Very Walkable".
- Numerous neighborhood amenities exist and are planned within a short walk of the site. This includes grocers, banks, restaurants, and other retailers, thereby reducing the need for vehicular travel for day-to-day trips.
- Significant Transportation Demand Management (TDM) measures as well as on-site bicycle facilities are discussed in the following sections that will further alleviate parking demand on-site.

Given the urban nature of the site and its proximity to many non-auto modes of transportation and other nearby neighborhood amenities, the eight (8) proposed on-site parking spaces will adequately serve the parking demand of the development.

Finally, the Zoning Regulations are in the process of being rewritten, and the proposed rulemaking is currently within a comment period. Under section 701.5 of the proposed zoning regulations, the parking requirement would be 16 total parking spaces, including 11 residential spaces based on the proposed new rate of one space for three dwelling units in excess of four units and five 5 retail spaces based on the proposed new rate of 1.33 spaces per 1,000 sf above 3,000 sf. However, under the new section 702.1, this parking requirement would be further reduced to nine (9) spaces. Under 1902.1, the parking requirement of 16 spaces is reduced by 50% for any site located within ¼ mile (1312.5 feet) of a streetcar line that is in operation or for which a construction contract has been awarded. Given that the site is next to an H Streetcar stop and as a result, the parking requirement would be eight (8) spaces, which the development meets.

Transportation Demand Management

In addition to the overall low demand expected for the development, a Transportation Demand Management (TDM) plan has been developed to further alleviate any vehicular demand that may be generated by the site. 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. TDM's importance within the District is highlighted within section T-3.1 of the DC Comprehensive Plan, where it has its own dedicated section including TDM policies and actions.

Proposed TDM Plan

Based on the DDOT expectations for TDM programs, and analyzing the specific attributes of the development site, the following outlines the proposed TDM plan for the 1300 H Street NE development.

- *Resident Permit Parking (RPP) Restrictions*
  Unit owners and/or tenants of the development will be prohibited from obtaining RPP or Visitor Parking Pass (VPP) permits from the District Department of Motor Vehicles (DMV). If the units are offered for-sale, a provision in the condominium declaration and bylaws will include consent and authorization to the Condominium Board to police and enforce this prohibition for the life of the project. Similarly, if the units are offered for lease, a provision in the lease of each residential unit will be included. The restriction will be recorded as a covenant against the Property among the Land Records of the District of Columbia prohibiting any lessee or owner of the Property from obtaining an RPP or VPP at the building for the life of the project.

- *Transportation Incentives*
  To help encourage non-auto transportation uses, for the first five years of the project, the Applicant will offer the occupants of each residential unit a $100 SmartTrip card, an annual Capital Bikeshare membership, or an annual car sharing membership. These incentives will be included in a move-in transportation package that includes brochures for transit facilities as well as bicycle and car sharing services for the first lessee or owner of each residential unit.

- *Bicycle Amenities*
  The Applicant will encourage all alternative transportation modes including bicycling to residents and retail employees. Bicycling will be promoted with the provision of on-site bicycle parking spaces as described above which provides more than the required number of bicycle parking spaces in a secure space in the ground floor of the building as well as short-term spaces along the H Street and/or 13th Street frontage of the building. A bicycle repair facility will also be included in the secure bicycle room.

- *Marketing Program*
  A TDM marketing program will be established that provides detailed transportation information and promotes walking, cycling, and transit. An effective marketing strategy should consist of a multi-modal access guide that provides comprehensive transportation information. This information can be compiled in a brochure for distribution. The marketing program should also utilize and provide website links to CommuterConnections.com and goDCgo.com, which provide transportation information and options for getting around the District.

- *Ride-matching/Ridesharing Program*
  Residents who wish to carpool will be provided detailed carpooling information as part of the marketing effort, and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments.

Off-Site Off-Street Parking

While the development is expected to generate little parking demand beyond that accommodated by the site's on-site parking, an evaluation of the off-street parking availability was also included in the survey of parking near the site. Given

the site's excellent access to numerous modes of transportation, minimal vehicular parking is anticipated to be necessary, as noted above. However, in the event that additional parking should be needed for residents, visitors, or employees of the retail space, parking will be available in nearby off-street parking facilities for daily use. This will particularly be available in developments currently approved or under construction at 600 H Street, 625 H Street, 901 H Street,

In addition, while it is anticipated that most residents will not own a vehicle at this development, additional parking will be available for vehicle storage for residents further away, closer to Union Station and NoMa that can be reached via Metrobus or streetcar in under ten minutes. Nearby off-site parking facilities are noted below on Figure 6.

On-Street Parking

On-street parking is also available in the neighborhood. It should be noted that since the development will restrict tenants from obtaining RPP and the retail portion of the development is anticipated to be neighborhood serving, the overall development is not anticipated to generate many parkers seeking on-street spaces. This section presents the findings of an on-street parking study, including full inventory of available parking spaces and a parking occupancy count within walking distance of the proposed development. The purpose of these counts was to determine the amount of parking supply and demand on streets within a walking distance of the site and to identify trends or patterns associated with this parking demand.

Parking Inventory and Occupancy Counts

The on-street parking study was conducted across an area considered to be within walking distance of 1300 H Street NE. A map showing the study area block faces is shown in Figure 7. An inventory of available on-street parking facilities was conducted that included tabulating the number of parking spaces by block face and identifying any relevant parking restrictions. A total of 774 parking spaces were inventoried within the study area. Of these, 130 are unrestricted spaces, 134 are metered spaces, and 510 are Residential Permit Parking (RPP) spaces. While the unrestricted and RPP spaces were located both north and south of the H Street corridor, the metered spaces in the study area were limited to H Street itself on both sides between 11th and 14th Streets. These spaces are regulated by multi-space meters which are in effect from 7:00 AM to 10:00 PM.

Parking occupancy data was collected on Thursday, May 28, 2015 from 4:00 PM to 10:00 PM and on Friday, May 29, 2015 from 4:00 PM to 10:00 PM to gather information on the parking occupancies of weekday and weekend evening conditions. Table 8 gives a summary of the hourly utilization percentages for the weekday study period and Table 9 gives a summary of the hourly utilization percentages for the weekend PM study period. It was determined that the weekday PM parking peak occurs from 9:00 to 10:00 PM with an overall parking utilization of 87 percent and the weekend PM parking peak occurs from 10:00 to 11:00 PM with a parking utilization of 94 percent. Table 6 gives a summary of the inventory and occupancy results for the peak hour.

Table 8: Weekday (Thursday) PM Hourly Utilization Percentages

	4PM	5PM	6PM	7PM	8PM	9PM	10PM
Occupancy	462	496	560	638	677	677	634
Total Space	764	764	764	774	774	774	774
Utilization	60%	65%	73%	82%	87%	87%	82%

Table 9: Weekend (Friday) PM Hourly Utilization Percentages

	4PM	5PM	6PM	7PM	8PM	9PM	10PM
Occupancy	500	575	647	660	715	723	731
Total Space	764	764	764	774	774	774	774
Utilization	65%	75%	85%	85%	92%	93%	94%

Table 10: Peak Hour Inventory and Occupancy Summary

Space Type	Spaces	Weekday Peak Period (9-10 PM)			Weekend Peak Period (10-11 PM)		
		Occupancy	Utilization	Available	Occupancy	Utilization	Available
RPP	510	481	94%	29	510	100%	0
Metered	133	94	71%	39	111	84%	22
Unrestricted	131	102	79%	29	110	85%	21
All On-Street Spaces	**774**	**677**	**87%**	**97**	**731**	**94%**	**43**

Generally, parking utilization is relatively high during the evenings due to the nearby nightlife along H Street. However, the parking occupancy of these spaces declines on the weekday as the evening progresses beyond 9:00 PM. Both the weekday and weekend peak period shows very high utilization of all spaces and in particularly the RPP spaces, which see 94 percent and 100 percent occupancies, respectively. Similarly, the metered spaces and unrestricted spaces see high utilization during the peak hours at 71 percent and 79 percent on the weeknight, respectively, and 84 percent and 85 percent on the weekend night, respectively. As a result, there are about 97 total spaces available during weekday peak period and 43 total spaces available during weekend peak period.

Loading

The site plan indicates that there will be loading facilities provided on-the site in accordance with the Zoning Regulations. The Developer plans to provide one 30 foot loading berth in the building along the alley north of the site. The number of truck trips generated by a project of this scale is relatively low. Based on previous studies, apartments conservatively have an average turnover of 18 months, with two trucks expected per turnover (one move-out and one move-in). Based on this assumption for a 36-unit apartment building, there will conservatively be approximately one moving truck deliveries every 10 to 14 days. Again, it should be considered that a small development like this is expected to have a very negligible rate per day. Delivery activity for the retail space would be based on the retail mix planned for the development, which is still undetermined. If it were estimated that one retailer and one restaurant occupied the retail space in the development, then it could be expected that one van sized delivery and one 30 foot truck delivery could be expected per day. In addition, three van sized deliveries per day for UPS/FedEx/USPS services can be expected as well to serve the residential and retail uses of the property. In total, the project would see occasional move-in/move-out deliveries, up to four daily van sized deliveries, and one 30 foot truck delivery per day. In addition, up to two trash pick-ups could be expected per day for retail and residential users.

Loading information for similar locations was compiled, as shown in Table 11. Properties with more total residential units than the 1300 H Street NE development operate sufficiently utilizing either off-street or on-street loading. Based on the compiled information, most move-in and move-outs utilize vehicles are 24 feet in length and smaller. Occasionally, vehicles up to 30 feet in length are used. Therefore, it can be concluded that the loading facilities proposed for this development will be adequate to serve all loading operations and as required by the Zoning Regulations.

Table 11: Comparable Site Loading Area Supply

Property	Total Units	Loading Location	Studio Apartment Average Size	Studio Apartment Max Size	Small 1 Bedroom Apartment Average Size	Small 1 Bedroom Apartment Max Size
Hamilton House, 1255 New Hampshire Ave, NW	304	Off-Street	SU-25 or Less	SU-40 [2]	N/A	N/A
M Street. 1112 M Street, NW [1]	124	Off-Street	SU-22 or Van	SU-30 [2]	N/A	N/A
Preston, 1743 P Street, NW	27	On-Street	SU-20	SU-30	SU-22	SU-30
Sutton Plaza, 1230 13th Street, NW	176	On-Street	Van	SU-20 [2]	SU-20	SU-22 [2]

1. Most studio renters move in with personal vehicle.

2. Vehicle size used rarely throughout calendar year (10 times or less per year).

Bicycle Facilities

The site plan specifies that a portion of the ground floor level will be utilized for dedicated long-term bike parking, which will include at least 27 bike storage spaces. According to the Bicycle Commuter and Parking Expansion Act of 2007, a residential building owner shall provide at least one secure bicycle parking space for each 3 residential units for all new residential buildings and one short term parking space per 3,500 square feet of retail space. Based on these regulations the development would require 14 bicycle parking spaces, which this development exceeds.

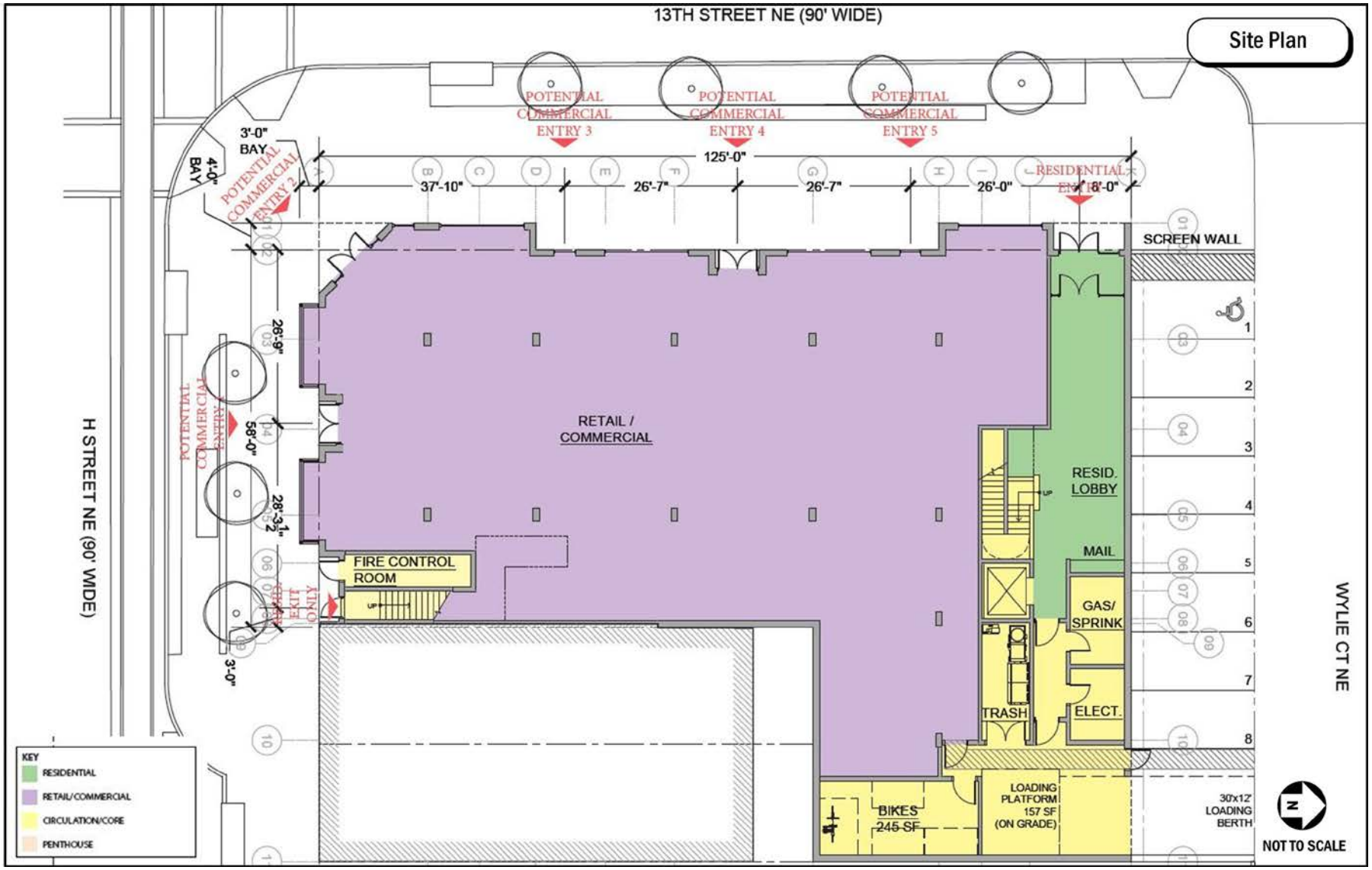

Figure 5: Site Plan

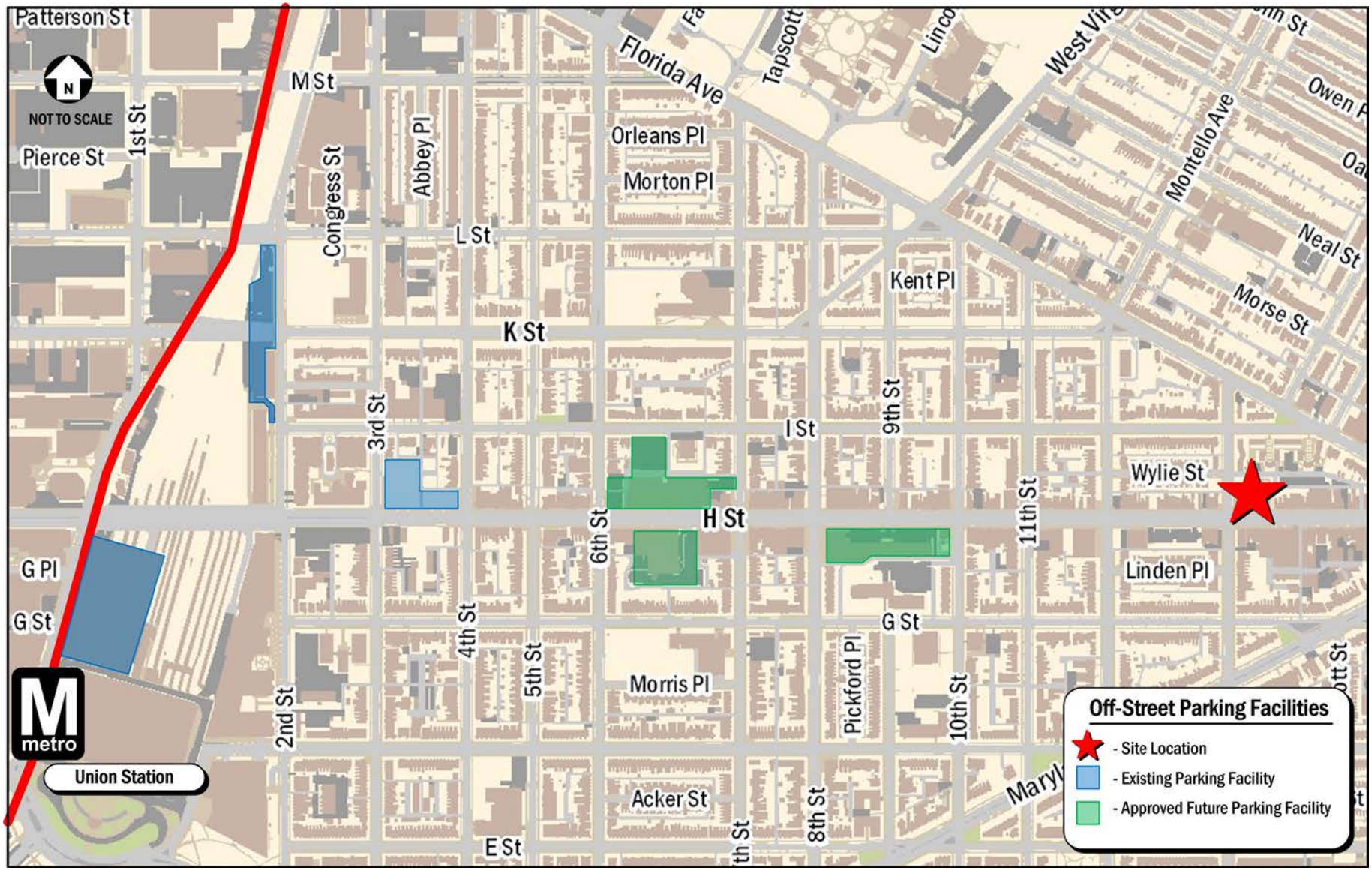

Figure 6: Off-Street Parking Facilities

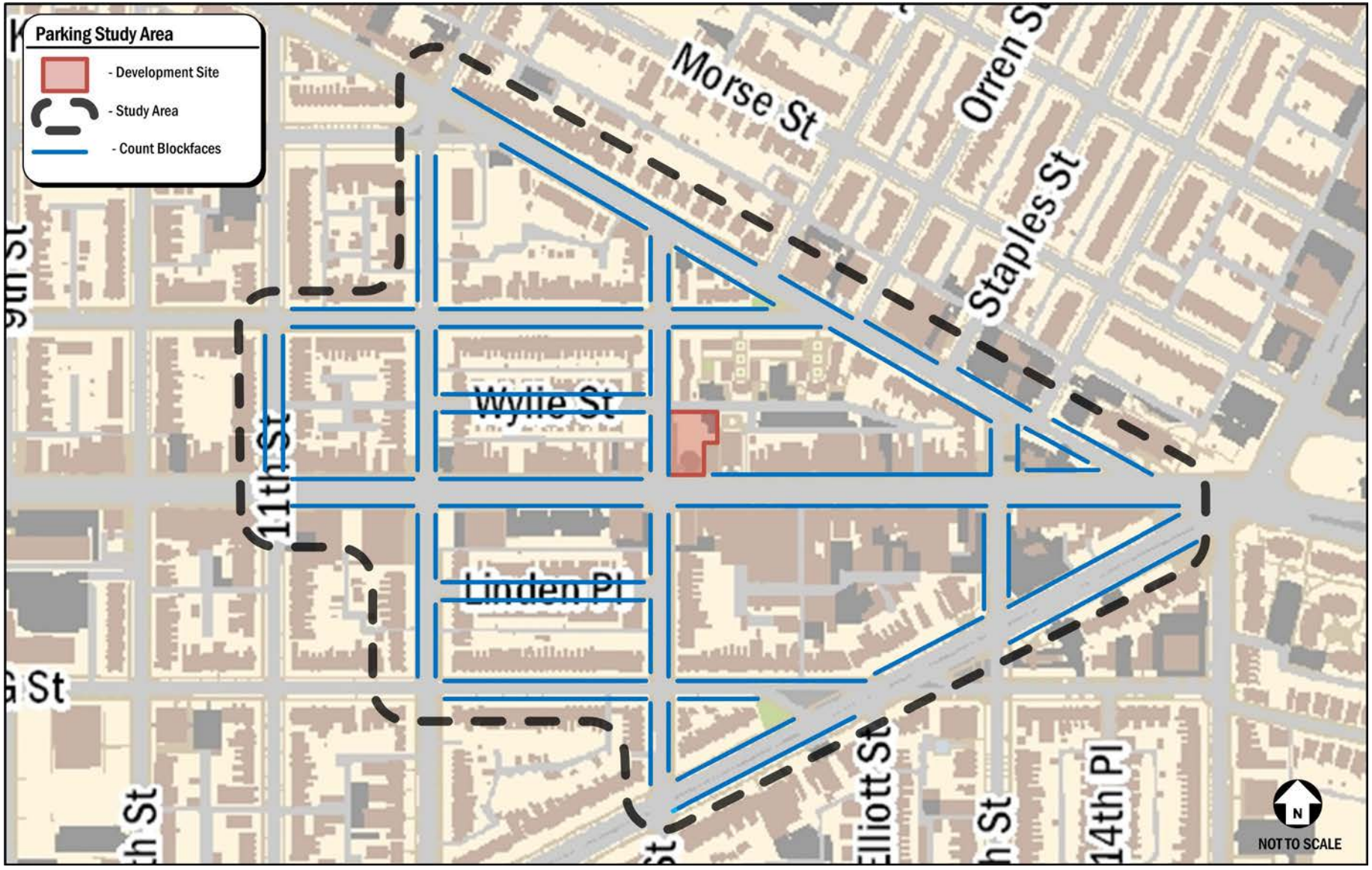

Figure 7: Parking Study Area

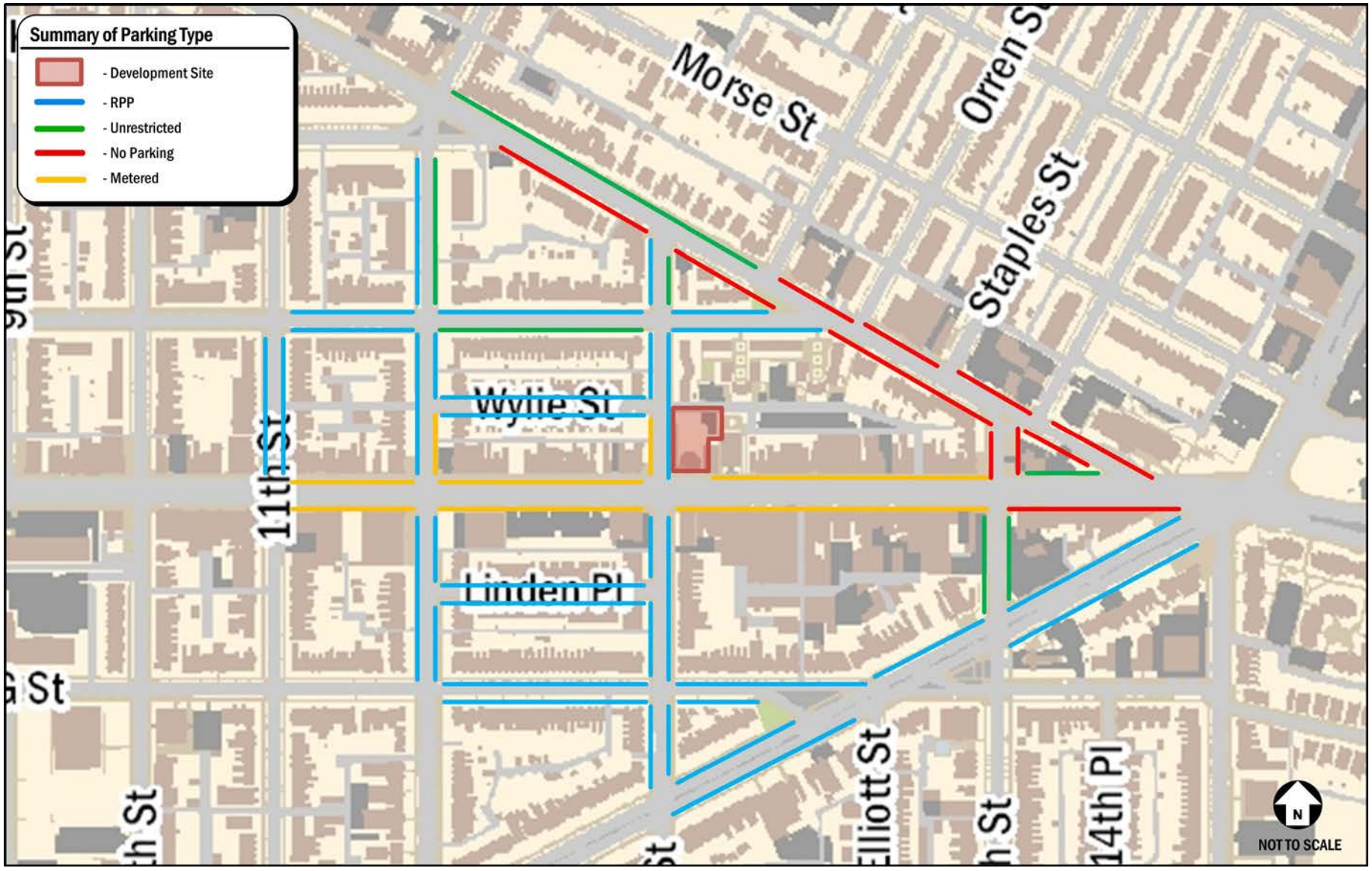

Figure 8: Parking Restrictions

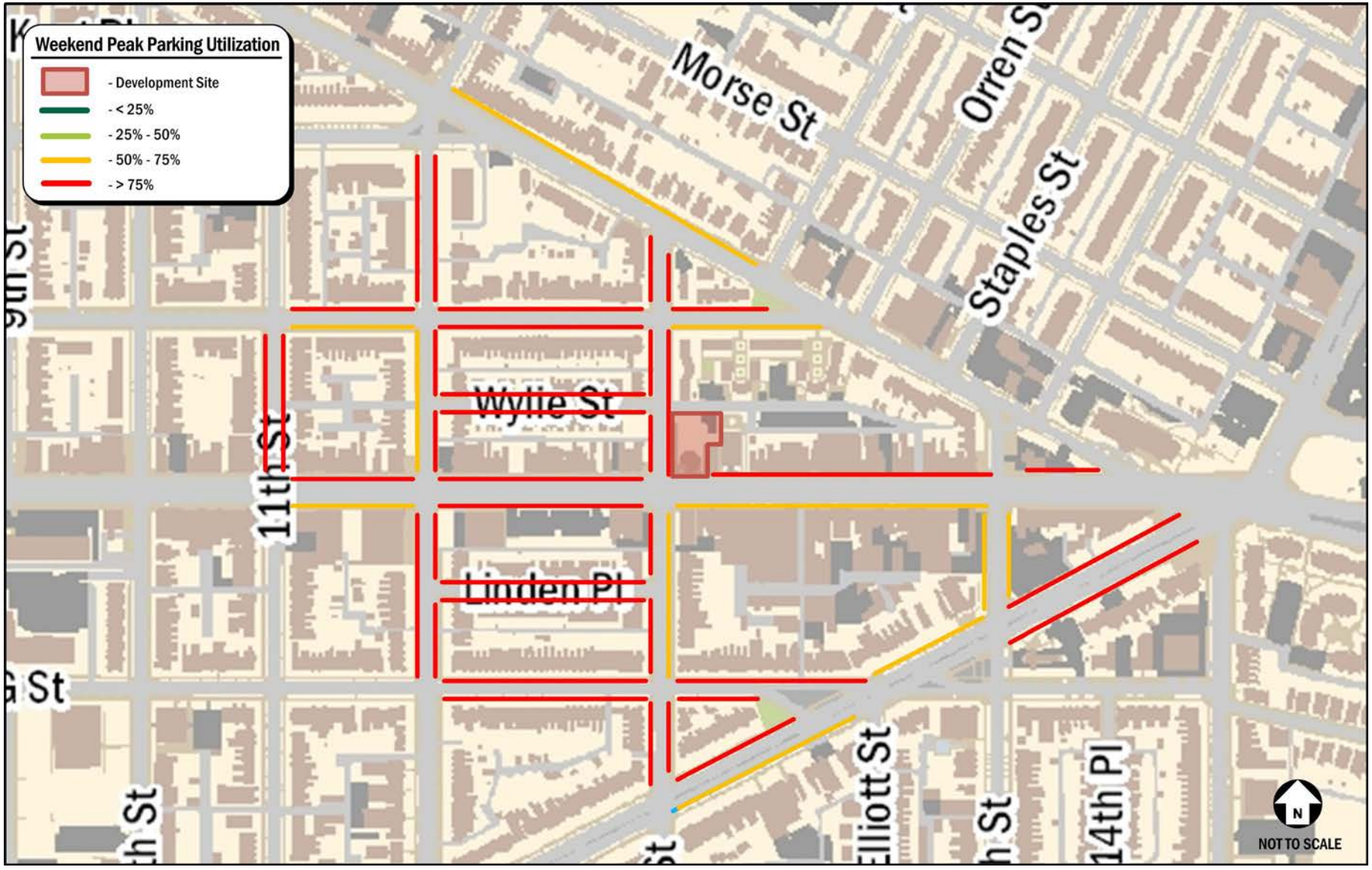

Figure 9: Weekday Parking Occupancy

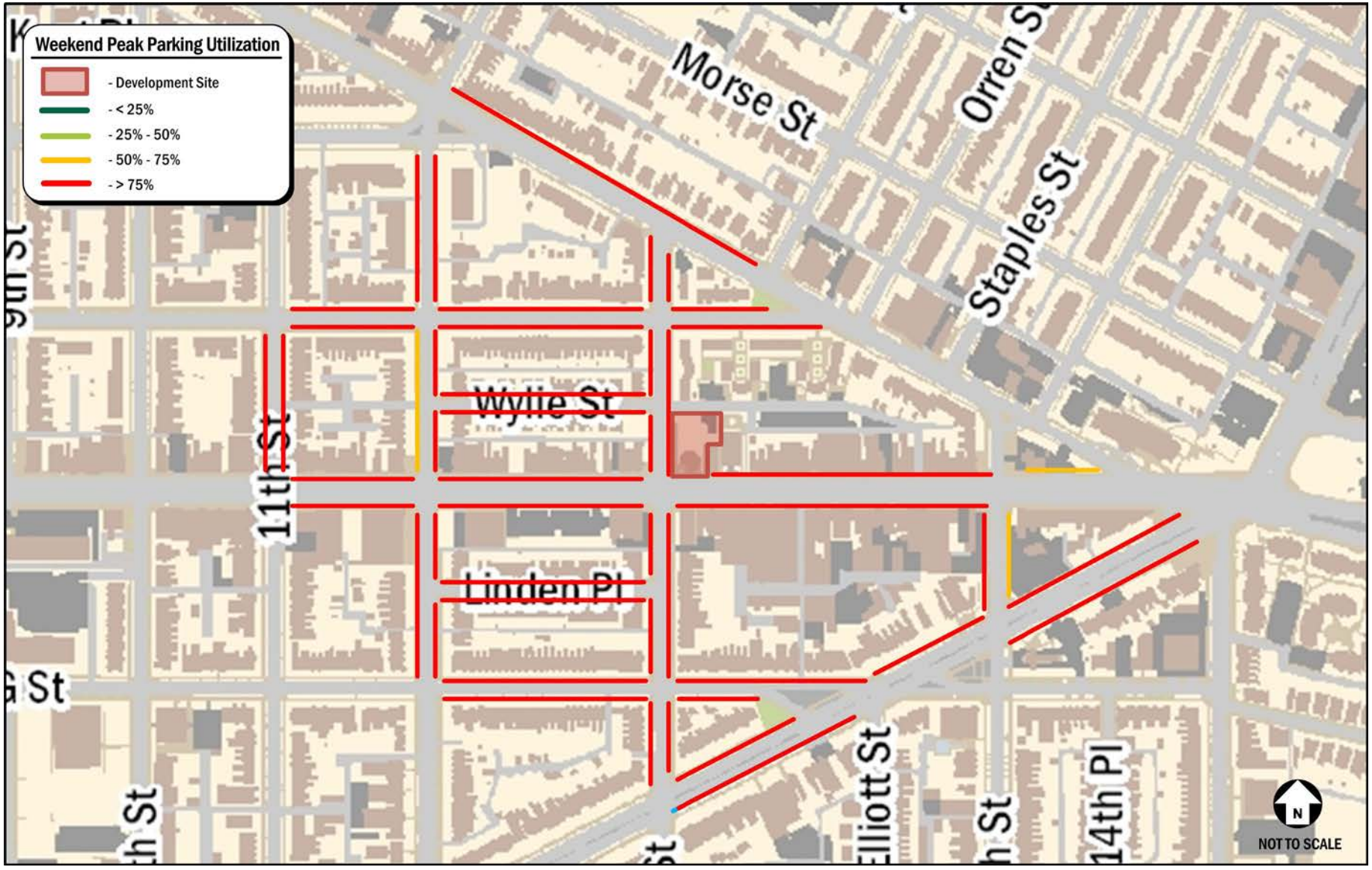

Figure 10: Weekend Parking Occupancy

Conclusions

This memorandum presents the findings of a parking and loading management plan for the 1300 H Street NE development. The building will contain approximately 36 residential units above 6,614 square feet (sf) of ground floor retail space. The following conclusions were made regarding the 1300 H Street NE development:

- The development will yield a low parking and vehicular trip generation demand due to the tenants to which the residential units will be marketed as well as the neighborhood-serving orientation of the retail space.
- The site is located near excellent transit services (including Metrobus, Streetcar, and connections to Metrorail) and includes the implementation of an aggressive TDM plan which will mitigate any vehicular parking needs of the site.
- The site is surrounded by an existing network of transit, bicycle, and pedestrian facilities as well as numerous neighborhood amenities that result in an excellent environment for safe and effective non-auto transportation.
- An aggressive TDM plan for the development will include the implementation of RPP and VPP restrictions, transportation incentives, bicycle amenities, a marketing program, and ride-matching/ridesharing programs.
- In the event that there is parking demand beyond the proposed eight (8) on-site parking spaces, there is parking available in nearby public garages and in nearby on-street parking.