

## TECHNICAL MEMORANDUM

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CC: Howard Bongam H Street DC LLC  
Zach Williams Venable  
From: Daniel Solomon, AICP  
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Date: August 18, 2025  
Subject: 471 – 473 H Street NW BZA (Case No. 21328) Transportation Statement

## Project Overview

The purpose of this memorandum is to provide a brief summary of the existing and proposed site design and trip generation of the proposed redevelopment at 471 – 473 H Street NW as part of the application for special exception and variance (BZA Case No. 21328).

The project is located in the Chinatown neighborhood of northwest DC and is bounded by H Street NW to the south, the public Hook and Ladder Alley to the north, apartment buildings to the east, and a commercial building to the west. Figure 1 shows the regional location of the site. The site is currently improved with two (2) historic rowhomes, currently used as offices. The Applicant is proposing to convert the existing rowhomes back to their original residential use and to construct an 11-story multifamily apartment building with 48 affordable residential units in the rear of the Property, plus a penthouse tower. The Applicant seeks an area variance to allow relief from the minimum required rear yard pursuant to 11 DCMR Subtitle I § 205.5 and a special exception to allow relief from the minimum penthouse setbacks pursuant to 11 DCMR Subtitle C § 1506.

## Project Design

This section discusses the transportation components of the proposed redevelopment, including the proposed site plan and access points. It includes descriptions of the site's vehicular access, parking, and pedestrian and bicycle accommodations. A first-floor and sub-cellars floor site plan is shown in Figure 2 and Figure 3, respectively.

### ***Site Access and Circulation***

A proposed circulation plan including expected pedestrian, bicycle, vehicle and loading routes to the site is shown in Figure 4.

#### ***Pedestrian Access***

Pedestrian access to the site is proposed at the southeast corner of the building, maintaining the existing entrance of the 471 H Street NW building at H Street NW.

#### ***Bicycle Access***

Bicycle access to the site is proposed at the southeast corner of the building at the existing entrance of the 471 H Street NW building at H Street NW and via the Hook and Ladder Alley. Secure long-term bicycle storage is to be located in the sub-cellars floor of the proposed redevelopment, accessed internally as shown in Figure 3.

### ***Vehicular and Loading Access***

Vehicular access to the site, including loading, deliveries, and trash collection, is proposed to be maintained at the Hook and Ladder Alley north of the site, accessed via 5<sup>th</sup> street NW to the west of the site and Massachusetts Avenue NW to the north of the site. Although not required by zoning, a single loading berth is proposed on the north side of the building which will adequately support the loading/delivery and trash collection needs of the redevelopment. No new curb cuts are proposed as part of the redevelopment, and no onsite parking is proposed.

### ***Vehicular Parking***

The existing development provides two (2) vehicular parking spaces at the Hook and Ladder Alley for the two (2) existing single-family attached housing units. Per 2016 Zoning Regulations, multifamily residential units are required to provide one (1) vehicular parking space for every three (3) dwelling units in excess of 4 units which would be 15 spaces total, as shown in Table 1. However, the site is zoned D-4-R (Downtown High-Density Residential and Mixed-Use Neighborhoods) and per Subtitle C § 702.4 (b), vehicular parking shall not be required within D zones. Therefore, the Applicant is proposing to provide zero (0) vehicular parking spaces.

**Table 1: Vehicular Parking Requirements**

Land Use	Proposed Size	Unit	Required (ZR-16)		Proposed Parking
			ZR16 Ratio	ZR16 Supply	
Residential, multiple dwelling unit, general	48	du	1 per 3 dwelling units in excess of 4 units	15 spaces <sup>1</sup>	<b>0 spaces</b>

<sup>1</sup>Per Subtitle C § 702.4 (b), vehicular parking shall not be required within D zones.

### ***Loading and Trash Facilities***

Per 2016 Zoning Regulations, multifamily residential developments that provide less than or equal to 50 dwelling units are not required to provide loading berths or service/delivery spaces, as shown in Table 2. However, the Applicant will provide a loading dock that will be accessed via the Hook and Ladder Alley to meet the needs of the site. Trash collection operations will also occur via the Hook and Ladder Alley. It should be noted that the loading berth does not meet the size and layout requirements in the zoning standards however, this berth will adequately support the loading/delivery and trash collection needs of the redevelopment.

**Table 2: Loading Requirements**

Land Use	Proposed Size	Unit	ZR16 Requirements		Proposed Loading Berths	Proposed Service/Delivery Spaces
			Minimum Loading Berths Required	Minimum Service/Delivery Spaces Required		
Residential, multiple dwelling unit, general	48	du	0 berths	0 spaces	<b>1 berth<sup>1</sup></b>	<b>0 spaces</b>

<sup>1</sup>The provided loading berth does not meet ZR16 size and layout requirements.

### ***Bicycle Facilities***

Per 2016 Zoning Regulations, the development is required to provide the following bicycle facilities:

- Long-Term Bicycle Parking Spaces (16 required)
  - One (1) per every three (3) dwelling units
- Short-Term Bicycle Parking Spaces (2 required)
  - One (1) per every 20 dwelling units

No showers or lockers are required to be provided by residential uses. The site will provide 16 long-term bicycle parking spaces in a secure bicycle storage room located on the sub-cellar floor of the development, as shown in Figure 3. One (1) U-rack currently exists on the site's southern frontage, which meets the required number of short-term bicycle parking spaces.

### **Pedestrian Facilities**

The existing sidewalk width along the site's frontage is consistent with DDOT's Design and Engineering Manual (DEM) standard for streets located in Central DC and Commercial Areas. Overall, the pedestrian facilities along the site's frontage and in its vicinity provide connectivity to the surrounding neighborhood. The Applicant will ensure pedestrian facilities on H Street NW along the frontage of the site meet DDOT and ADA standards.

### **Site Trip Generation**

As previously mentioned, the Applicant is proposing to replace the two (2) existing rowhomes that are currently being used as offices with the proposed 48 units of multifamily housing. Weekday peak hour trip generation was calculated based on the methodology outlined in *ITE Trip Generation*, 11<sup>th</sup> Edition. Trip generation for the proposed use was calculated in a General Urban/Suburban setting based on the ITE land use 222 (Multifamily Attached Housing (High-Rise)). Trip generation for the existing use was calculated in a General Urban/Suburban setting based on the ITE land use 712 (Small Office Building).

Table 3 shows mode split assumptions based on Census Tract data for people who live and work near the site and DDOT's *TripsDC* tool, as well as survey data from the MWCOG's 2022 *State of the Commute Survey Report* and the WMATA Ridership Survey. Detailed mode split and trip generation information is provided in the Technical Attachments. Table 4 shows the proposed, existing, and net new multimodal trips generated by the proposed project. As can be seen in the tables, the proposed project will generate fewer than 25 net new peak hour vehicular trips in the peak direction in any study period. Based on this, per DDOT's CTR Guidelines, a vehicular capacity analysis is not required.

**Table 3: Mode Split Assumptions**

Land Use	Mode				
	Auto	Transit	Bike	Walk	Telecommute
Residential Mode Split	10%	30%	10%	30%	20%
Office Mode Split	20%	45%	5%	5%	25%

**Table 4: Multimodal Trip Generation**

Mode	AM Peak Hour			PM Peak Hour			Weekday Total
	In	Out	Total	In	Out	Total	
<b>Existing Office Use (6,180 SF)</b>							
<b>Auto</b>	2 veh/hr	0 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	18 veh
<b>Transit</b>	4 ppl/hr	1 ppl/hr	5 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr	47 ppl
<b>Bike</b>	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
<b>Walk</b>	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	6 ppl
<b>Telecommute</b>	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	26 ppl
<b>Proposed Multifamily Housing Use (48 du)</b>							
<b>Auto</b>	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	0 veh/hr	3 veh/hr	56 veh
<b>Transit</b>	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr	197 ppl
<b>Bike</b>	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	66 ppl
<b>Walk</b>	2 ppl/hr	9 ppl/hr	11 ppl/hr	7 ppl/hr	6 ppl/hr	13 ppl/hr	199 ppl
<b>Telecommute</b>	2 ppl/hr	5 ppl/hr	7 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr	130 ppl
<b>Net New Trips</b>							
<b>Auto</b>	-1 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	-2 veh/hr	0 veh/hr	38 veh
<b>Transit</b>	-1 ppl/hr	6 ppl/hr	5 ppl/hr	5 ppl/hr	1 ppl/hr	6 ppl/hr	150 ppl
<b>Bike</b>	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	0 ppl/hr	3 ppl/hr	61 ppl
<b>Walk</b>	1 ppl/hr	9 ppl/hr	10 ppl/hr	7 ppl/hr	6 ppl/hr	13 ppl/hr	193 ppl
<b>Telecommute</b>	0 ppl/hr	4 ppl/hr	4 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	104 ppl

## Conclusion

This memorandum provides a brief summary of the existing and proposed site design and trip generation of the proposed redevelopment at 471 – 473 H Street NW as part of the application for special exception and variance (BZA Case No. 21328). The memorandum finds that the proposed redevelopment meets all vehicle, bicycle, and loading zoning requirements. Additionally, the proposed project will generate fewer than 25 net new peak hour vehicular trips in the peak direction in any study period. Based on this, per DDOT's CTR Guidelines, a vehicular traffic analysis is not required.

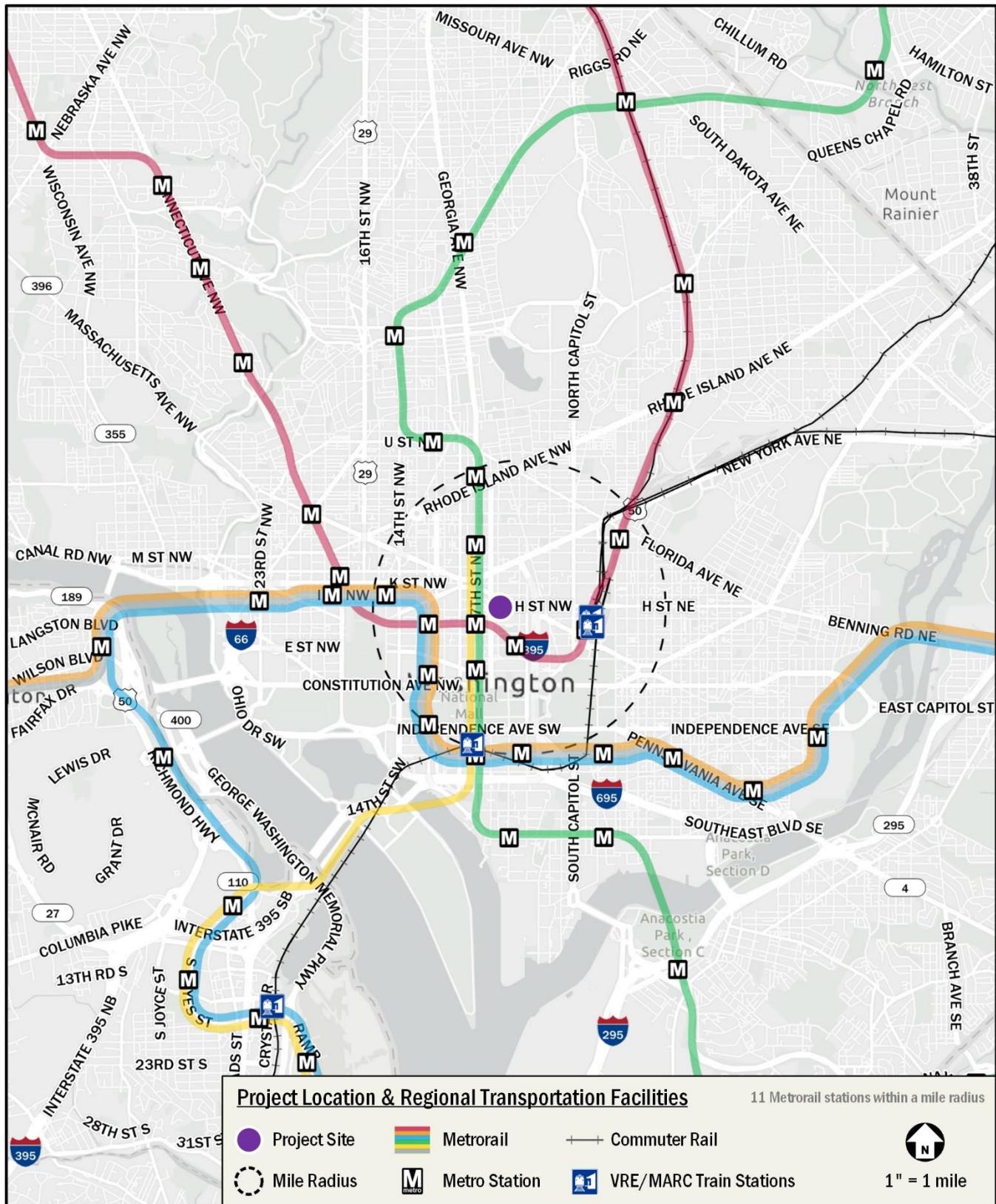
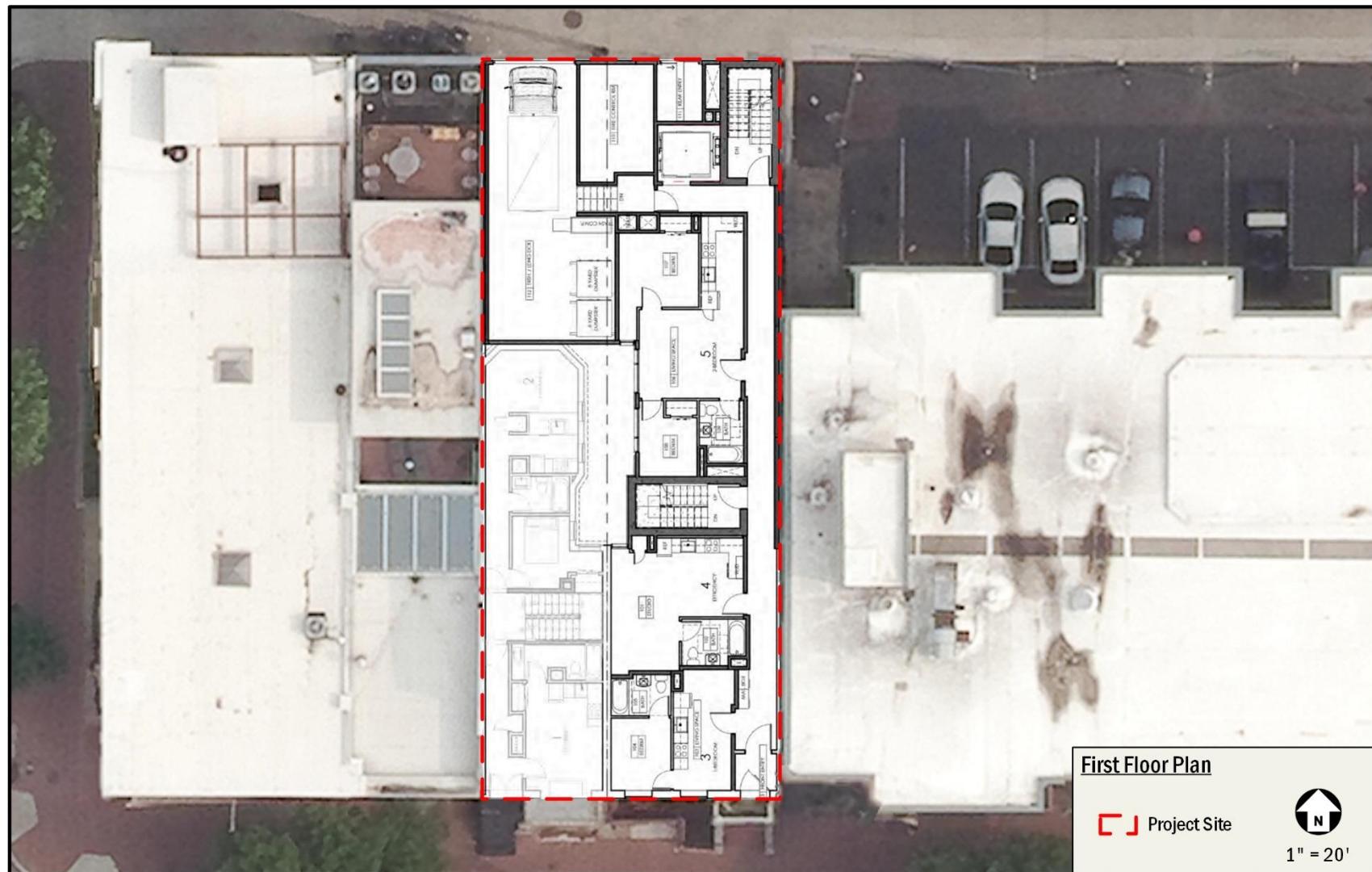


Figure 1: Project Location & Transportation Facilities



**Figure 2: First Floor Plan**

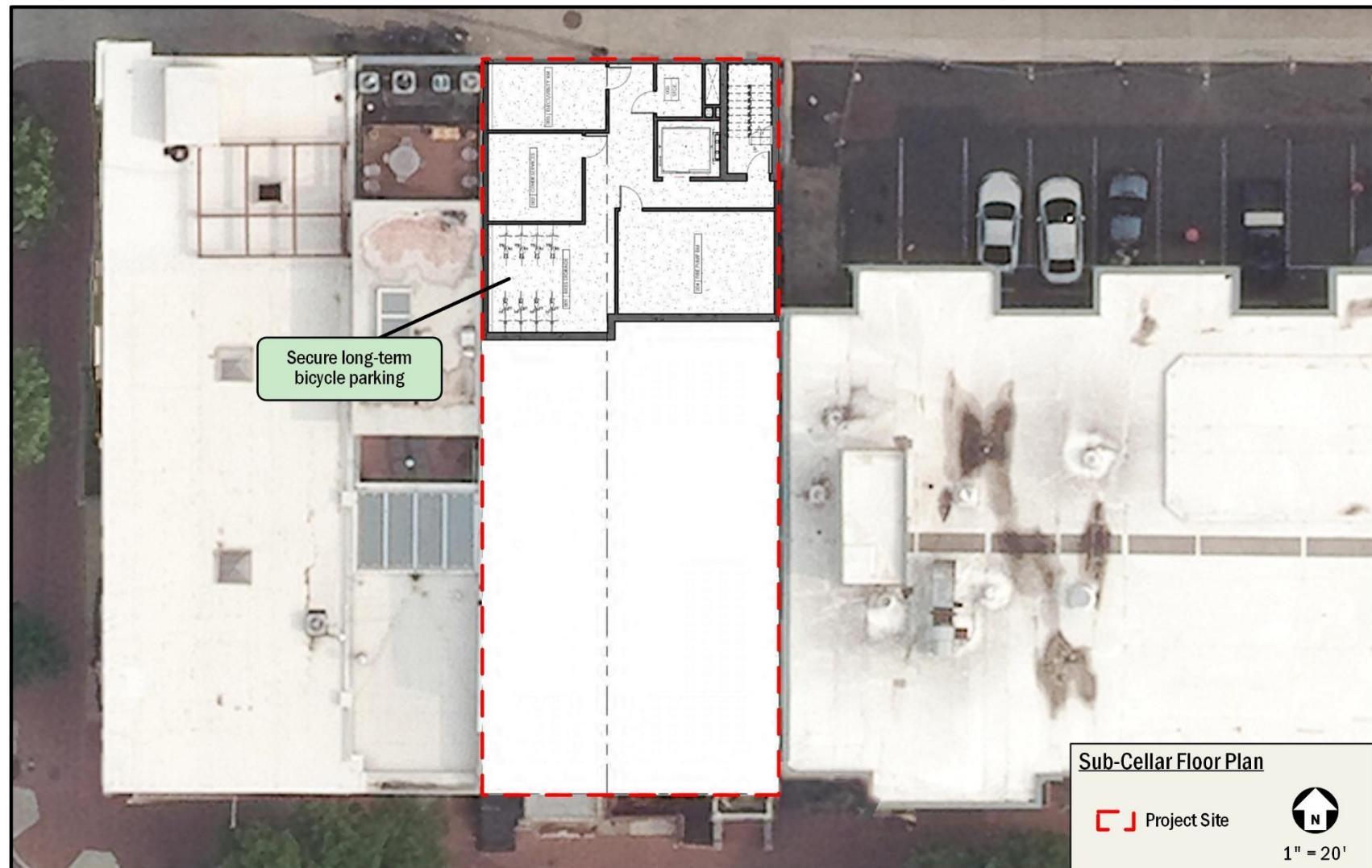


Figure 3: Sub-Cellar Floor Plan

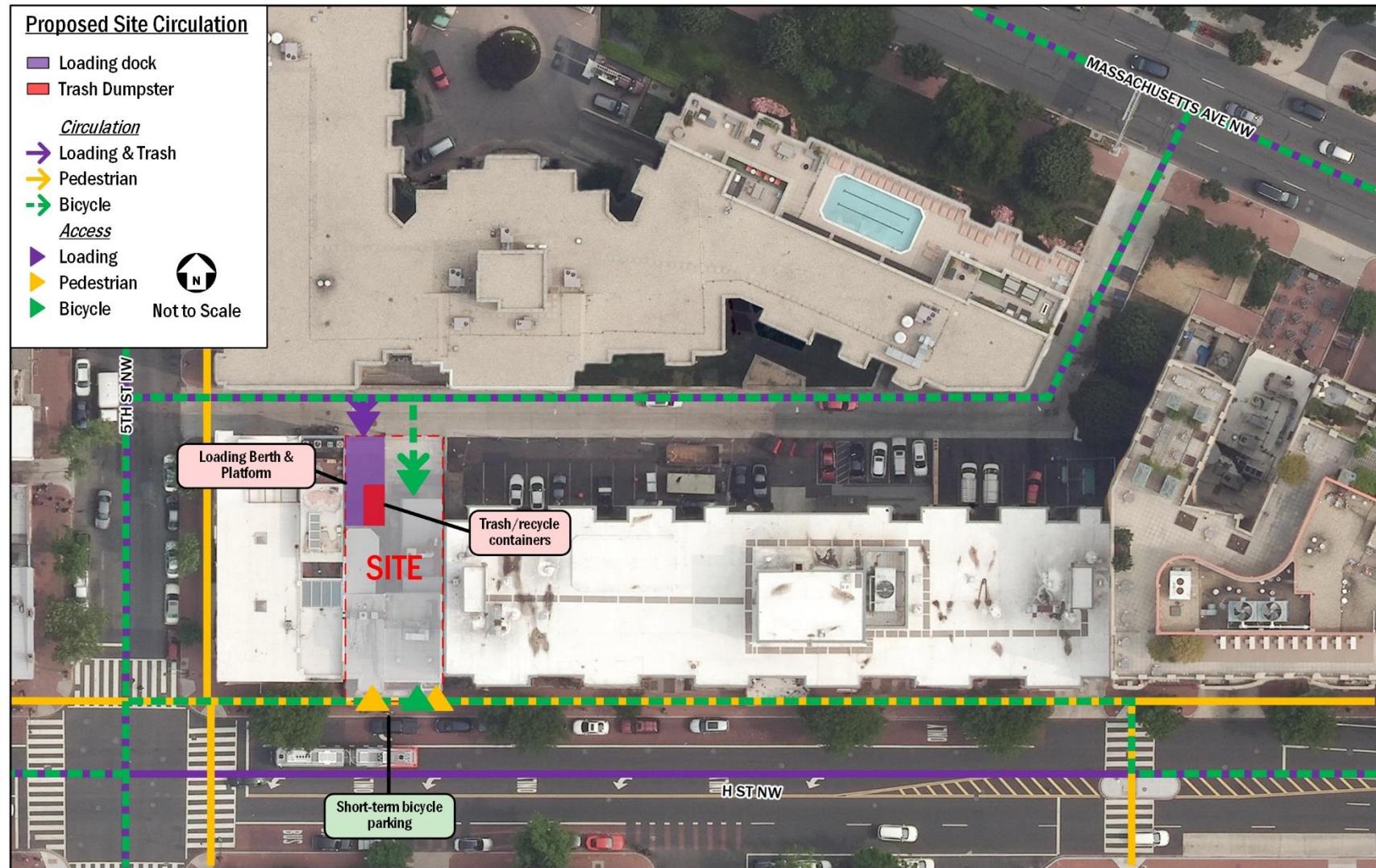


Figure 4: Site Access and Circulation

# TECHNICAL ATTACHMENTS

## Appendix A – Detailed Mode Split and Trip Generation Calculations

### Mode Split Assumptions

#### Residential Component

##### Description of residential component of project:

The development will contain approximately 48 dwelling units and 0 parking spaces.

##### Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents (Tract 59)	10%	2%	16%	8%	29%	33%	2%
Census Tract - Residents (CT 35)	8%	1%	12%	10%	25%	44%	0%
State of the Commute 2022 (of District residents)	19%	1%	18%	7%		55%	
WMATA Ridership Survey (average for <i>Gallery Place-Chinatown Station Area</i> )	15%		67%	18%			
DDOT Tool <i>TripsDC</i>	17%		14%	5%	64%	---	

##### Mode Split assumed in TIS:

Land Use	Mode				
	Auto	Transit	Bike	Walk	Telecommute
Residential Mode Split	10%	30%	10%	30%	20%

Notes: Census data (CTPP), Census Tract, State of the Commute, WMATA Ridership Survey, and *TripsDC* are used as the basis for mode split assumptions and then adjusted based on the site's proximity to transit and parking supply.

#### Office Component

The development contains approximately 6,180 sf of Office and 2 parking spaces

##### Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Employees (TRACT 59)	42%	8%	39%	2%	5%	3%	1.0%
WMATA Ridership Survey (average for <i>CBD</i> )	21%		75%	4%			
State of the Commute 2022 (of District workers)	25%	2%	15%	3%		55%	

##### Mode Split assumed in TIS:

Use	Mode				
	Auto	Transit	Bike	Walk	Telecommute
Office Mode Split	20%	45%	5%	5%	25%

Notes: Census data (CTPP), Census Tract, and WMATA Ridership Survey are used as the basis for mode split assumptions and then adjusted based on the site's proximity to transit and parking supply.

## Existing Trip Generation

### Trip Generation - Existing Development - 471-473 H Street NW BZA

Contains approximately 6,180 sf of Office

Step 1: Base trip generation using ITEs' 11<sup>th</sup> Edition *Trip Generation* (Small Office Building)

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday	
			In	Out	Total	In	Out	Total		
Small Office Building	712	6,180 sf	8 veh/hr	2 veh/hr	10 veh/hr	5 veh/hr	8 veh/hr	13 veh/hr	89 veh	
			Calculation Details:	82%	18%	=1.67(X/1000)	34%	66%	=2.16(X/1000)	
Setting/Location:		General Urban / Suburban								

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

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Small Office Building	1.18 ppl/veh	9 ppl/hr	3 ppl/hr	12 ppl/hr	6 ppl/hr	9 ppl/hr	15 ppl/hr	105 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	
Small Office Building	Auto	20%	2 ppl/hr	0 ppl/hr	2 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	21 ppl
Small Office Building	Transit	45%	4 ppl/hr	1 ppl/hr	5 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr	47 ppl
Small Office Building	Bike	5%	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Small Office Building	Walk	5%	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	6 ppl
Small Office Building	Telecommute	25%	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	26 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	
Small Office Building	1.18 ppl/veh	2 veh/hr	0 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	18 veh

### Trip Gen Summary

Mode	AM Peak Hour			PM Peak Hour			Total
	In	Out	Total	In	Out	Total	
Auto	2 veh/hr	0 veh/hr	2 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	18 veh
Transit	4 ppl/hr	1 ppl/hr	5 ppl/hr	3 ppl/hr	4 ppl/hr	7 ppl/hr	47 ppl
Bike	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	5 ppl
Walk	1 ppl/hr	0 ppl/hr	1 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	6 ppl
Telecommute	2 ppl/hr	1 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr	26 ppl

## Proposed Trip Generation

### Trip Generation - Proposed Development - 471-473 H Street NW BZA

11-story multifamily residential apartment with 48 dwelling units

Step 1: Base trip generation using ITEs' 11<sup>th</sup> Edition *Trip Generation* (Multi-Family Housing)

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday Total
			In	Out	Total	In	Out	Total	
Multifamily Housing	222	48 du	8 veh/hr	21 veh/hr	29 veh/hr	22 veh/hr	14 veh/hr	36 veh/hr	558 veh
			Calculation Details:	26%	74%	=0.22X+18.85	62%	38%	=0.26X+ 23.12
Setting/Location:		General Urban/Suburban - Not Close to Rail Transit							

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

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday Total
		In	Out	Total	In	Out	Total	
Multifamily Housing	1.18 ppl/veh	9 ppl/hr	25 ppl/hr	34 ppl/hr	26 ppl/hr	16 ppl/hr	42 ppl/hr	658 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday Total
			In	Out	Total	In	Out	Total	
Multifamily Housing	Auto	10%	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	66 ppl
Multifamily Housing	Transit	30%	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr	197 ppl
Multifamily Housing	Bike	10%	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	66 ppl
Multifamily Housing	Walk	30%	2 ppl/hr	9 ppl/hr	11 ppl/hr	7 ppl/hr	6 ppl/hr	13 ppl/hr	199 ppl
Multifamily Housing	Telecommute	20%	2 ppl/hr	5 ppl/hr	7 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr	130 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday Total
		In	Out	Total	In	Out	Total	
Multifamily Housing	1.18 ppl/veh	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	0 veh/hr	3 veh/hr	56 veh

### Trip Gen Summary

Mode	AM Peak Hour			PM Peak Hour			Total
	In	Out	Total	In	Out	Total	
Auto	1 veh/hr	2 veh/hr	3 veh/hr	3 veh/hr	0 veh/hr	3 veh/hr	56 veh
Transit	3 ppl/hr	7 ppl/hr	10 ppl/hr	8 ppl/hr	5 ppl/hr	13 ppl/hr	197 ppl
Bike	1 ppl/hr	2 ppl/hr	3 ppl/hr	3 ppl/hr	1 ppl/hr	4 ppl/hr	66 ppl
Walk	2 ppl/hr	9 ppl/hr	11 ppl/hr	7 ppl/hr	6 ppl/hr	13 ppl/hr	199 ppl
Telecommute	2 ppl/hr	5 ppl/hr	7 ppl/hr	5 ppl/hr	3 ppl/hr	8 ppl/hr	130 ppl