

Government of the District of Columbia


Department of Transportation



d. Planning and Sustainability Division

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Jim Sebastian
Associate Director 

DATE: April 15, 2019

SUBJECT: ZC Case No. 18-21 – 3135 and 3201 8th Street NE

PROJECT SUMMARY

Hanover R.S. Limited Partnership (the “Applicant”) proposes a Consolidated Planned Unit Development (PUD) and Related Map Amendment to construct a seven-story residential building on the site of an existing one-story industrial building that covers two (2) parcels. The site is bounded by a dance school to the north, existing retail businesses to the south, 8th Street NE to the west, and WMATA Metrorail tracks to the east. The development program consists of following:

- 377 residential units;
- 186 off-street vehicle parking spaces;
- 20 short-term and 125 long-term bicycle parking spaces; and
- Two (2) 30-foot loading berths and one (1) 20-foot service space.

SUMMARY OF DDOT REVIEW

The District Department of Transportation (DDOT) is committed to achieving an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, constructing safer streets, and providing outstanding access to goods and services. As one means to achieve this vision, DDOT works through the zoning process to ensure that impacts from new developments are manageable within, and take advantage of, the District’s multimodal transportation network.

The purpose of DDOT’s review is to assess the potential safety and capacity impacts of the proposed action on the District’s transportation network and, as necessary, propose mitigations that are commensurate with the action. After an extensive review of the case materials submitted by the Applicant, DDOT finds:

Site Design

- Vehicular access to the parking garage and loading facilities are proposed via a new 24-foot curb cut and two-way driveway proposed along 8th Street NE. This has received approval from the Public Space Committee (PSC);
- Pedestrian access to north and south residential buildings will be accessed off the outdoor plaza which bisects both buildings via 8th Street NE. In addition, there will be residential entries to individual units that face 8th Street NE;
- Bicycle access to the site will primarily be along 8th Street NE, which provides access to long-term parking to the on-site garage and short-term curbside parking along 8th Street NE;
- The proposed loading scheme includes two (2) 30-foot loading berths with platforms and one delivery space. These facilities meet the practical needs of the proposed residential use;
- All truck turning maneuvers and backing into the berths occur on the private property. Trucks travel head-in and head-out between the private driveway and the public roadway network;
- The Applicant has proposed a Loading Management Plan (LMP) in the March 8, 2019 CTR. DDOT concurs with the LMP;
- The Applicant has proposed 125 long-term and 20 short-term bicycle parking spaces which exceeds ZR16 requirements of 88 long-term and 19 short-term bicycle parking spaces;
- Short-term bicycle parking spaces, 10 inverted U-racks, are proposed along 8th Street NE and are placed in easily accessible locations near building entrances;
- Long-term bicycle parking spaces are provided in a bicycle storage room in the underground garage; and
- No electric vehicle charging stations are proposed. DDOT recommends three (3) charging stations be provided (1 per 50 vehicle parking spaces) and conduit be included in the garage for any additional EV stations installed in the future.

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis in the Comprehensive Transportation Review (CTR) study;
- The proposed project is expected to generate a moderate number of vehicle, transit, bicycle and walking trips during the weekday commuter peak hours;
- The site is located approximately three (3) blocks south of the Brookland-CUA Metrorail station and the surrounding neighborhood is pedestrian-oriented; and
- The site is in close proximity to the Metropolitan Branch Trail (MBT) with an entrance three blocks north of the site at Monroe Street NE and another entrance on 8th Street NE, three (3) blocks south of the site at Franklin Street.

Analysis

- The proposed 186 vehicle parking spaces is more than the 62 spaces required by ZR16;
- The proposed on-site parking is also higher than the range of 110 to 130 spaces DDOT would expect for a project of this size, land use mix, and proximity to a Metrorail station;
- The additional vehicle parking spaces increase construction costs for the Applicant, encourages driving to the site, and discourages walking, bicycling, and riding transit;

- To offset the additional vehicle trips that may be induced from additional available vehicle parking, DDOT recommends the Applicant reduce the parking provision or make the TDM plan more robust;
- The CTR identified traffic impacts at one (1) intersection due to the addition of site-generated traffic: Monroe Street NE and Michigan Avenue NE; and
- In lieu of the Applicant's recommended signal timing adjustment, the Applicant should focus on reducing the amount of on-site vehicle parking and implementing additional TDM strategies.

Mitigations

- DDOT finds the proposed TDM plan insufficiently robust for a development program of this size, land use mix, and number of vehicle parking spaces given its proximity to Metrorail. A reduction in the number of vehicle parking spaces or an increase in strength of the TDM plan is necessary to offset the identified impacts to the roadway network in the capacity analysis.
- Revise the proposed TDM Plan to include the following elements to offset the parking provision and mitigate the identified impacts to transportation network:
 - Add to TDM Plan: Applicant will not lease unused residential parking spaces to anyone aside from tenants of the building (e.g., will not lease to other nearby buildings, single-family home residents, office employees, or sporting events);
 - Add to TDM Plan: Applicant should install two (2) expansion plates of four (4) docks each to the CaBi station at 10th and Monroe, to bring it up to DDOT minimum size (19 spaces);
 - Clarify in TDM Plan: Applicant will distribute welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, Capital Bikeshare coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map;
 - Clarify in TDM Plan: Transportation Coordinators will receive TDM training from goDCgo to learn about TDM conditions for this project and available options for implementing the TDM Plan;
 - Add to TDM Plan: Applicant will provide a Transportation Information Center Display that, at a minimum, should include information about nearby Metrorail stations and schedules, Metrobus stops and schedules, car-sharing locations, and nearby Capital Bikeshare locations indicating the availability of bicycles;
 - Clarify in TDM Plan: Transportation Information Center Display screens will be installed in the lobbies of each of the two residential buildings;
 - Add to TDM Plan: Provide residents who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by Metropolitan Washington Council of Governments (MWCOG) or other comparable service it MWCOG does not offer this in the future;
 - Clarify in TDM Plan: Transportation coordinator will subscribe to goDCgo's residential newsletter;
 - Clarify in TDM Plan: Long-term bicycle storage rooms will accommodate non-traditional sized bikes including cargo, tandem, and kids bikes;
 - Add in TDM Plan: Provide bicycle repair stations to be located within the bicycle storage room;

- Revise in TDM Plan: Provide one (1) shopping cart (utility cart) for every 50 residential units to encourage residents to walk to the grocery shopping and run errands. The Applicant is recommended to provide seven (7) carts for the development; and
- Add in TDM Plan: Dedicate two (2) parking spaces in the vehicle parking garage for car-sharing services to use with right of first refusal. If an agreement has not been reached with a car-sharing service to occupy all of the dedicated spaces, the Applicant will provide a one (1) year Capital Bikeshare membership to each resident after the building has opened.

Recommendation

DDOT has no objection to approval of the Second Stage PUD with the following revisions and conditions to be included in the Zoning Order:

- Implement the Loading Management Plan, as proposed by the Applicant in the March 8, 2019 CTR, for the life of the project, unless otherwise noted,
- Implement the TDM Plan, as proposed by the Applicant in the March 8, 2019 CTR, for the life of the project, unless otherwise noted, with revisions requested by DDOT (see Mitigation section above).

Continued Coordination

Given the complexity and size of the action, the Applicant is expected to continue to work with DDOT on the following matters outside of the zoning process:

- Provide a detailed curbside management and signage plan, assumed to include multi-space meter installation at the Applicant's expense, consistent with current DDOT policies;
- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, curb ramps, crosswalks, and other features within the public rights of way, are expected to be designed and built to DDOT standards;
- The Applicant will be required to obtain public space permits for all elements of the project shown in public space. As the Applicant pursues public space permits, the design of the project should be coordinated with DDOT to resolve the issues identified in the Streetscape and Public Realm section later in this report;
- DDOT encourages the Applicant to participate in a Preliminary Design Review Meeting (PDRM) to address design related issues raised by DDOT and OP;
- Coordinate with DDOT's Urban Forestry Division (UFD) and the Ward 5 arborist regarding the preservation and protection of existing small street trees, as well as the planting of new street trees, in bioretention facilities or a typical expanded tree planting space;
- The Applicant has engaged with DDOT on the design of the proposed 10-foot sidewalk on the eastern edge of the site. The Applicant has agreed to provide a two (2) foot clearance, on both sides of the site's proposed sidewalk, for future design of the MBT shared use path; and
- Of note, the Applicant has received approval from the Public Space Committee (PSC) for the proposed 24-foot curb cut for the site driveway (TOPS Permit Tracking Number 321729).

TRANSPORTATION ANALYSIS

DDOT requires applicants requesting an action from the Zoning Commission complete a Comprehensive Transportation Review (CTR) in order to determine the action's impact on the overall transportation network. Accordingly, an applicant is expected to show the existing conditions for each transportation mode affected, the proposed impact on the respective network, and any proposed mitigations, along with the effects of the mitigations on other travel modes. A CTR should be performed according to DDOT direction. The Applicant and DDOT coordinated on an agreed-upon scope for the CTR that is consistent with the scale of the action.

The review of the analysis is divided into four categories: site design, travel assumptions, analysis, and mitigations. The following review provided by DDOT evaluates the Applicant's March 8, 2019 CTR, prepared by Gorove/Slade Associates, to determine its accuracy and assess the action's consistency with the District's vision for a cohesive, sustainable transportation system that delivers safe and convenient ways to move people and goods, while protecting and enhancing the natural, environmental, and cultural resources of the District.

Site Design

Site design, which includes site access, loading, and public realm design, plays a critical role in determining a proposed action's impact on the District's infrastructure. While transportation impacts can change over time, the site design will remain constant throughout the lifespan of the proposed development, making site design a critical aspect of DDOT's development review process. Accordingly, new developments must provide a safe and welcoming pedestrian experience, enhance the public realm, and serve as positive additions to the community.

Site Access

The proposed underground parking garage and above ground loading facilities will be accessed via a new 24-foot curb cut and two-way driveway at northwest edge of the site. Garage access is limited to the north building, however the one-level underground garage spans the footprint of both buildings and both buildings will have access to the garage. The driveway continues along the eastern frontage of the site to provide access to above ground loading facilities for each building and a shared delivery space on the eastern edge of the site.

The development is proposed to have multiple pedestrian entrances off of 8th Street NE. A majority of residents will access the site from two separate entrances off of the outdoor plaza, which bisects the north and south buildings. There will also be additional entrances off of 8th Street NE that provide access to individual units that face 8th Street NE. Bicycle access to the site will primarily be along 8th Street, which provides access to long-term parking in the garage, through the driveway entrance via 8th Street NE, and short-term parking curbside parking along 8th Street. Figure 1 below shows the proposed site layout.

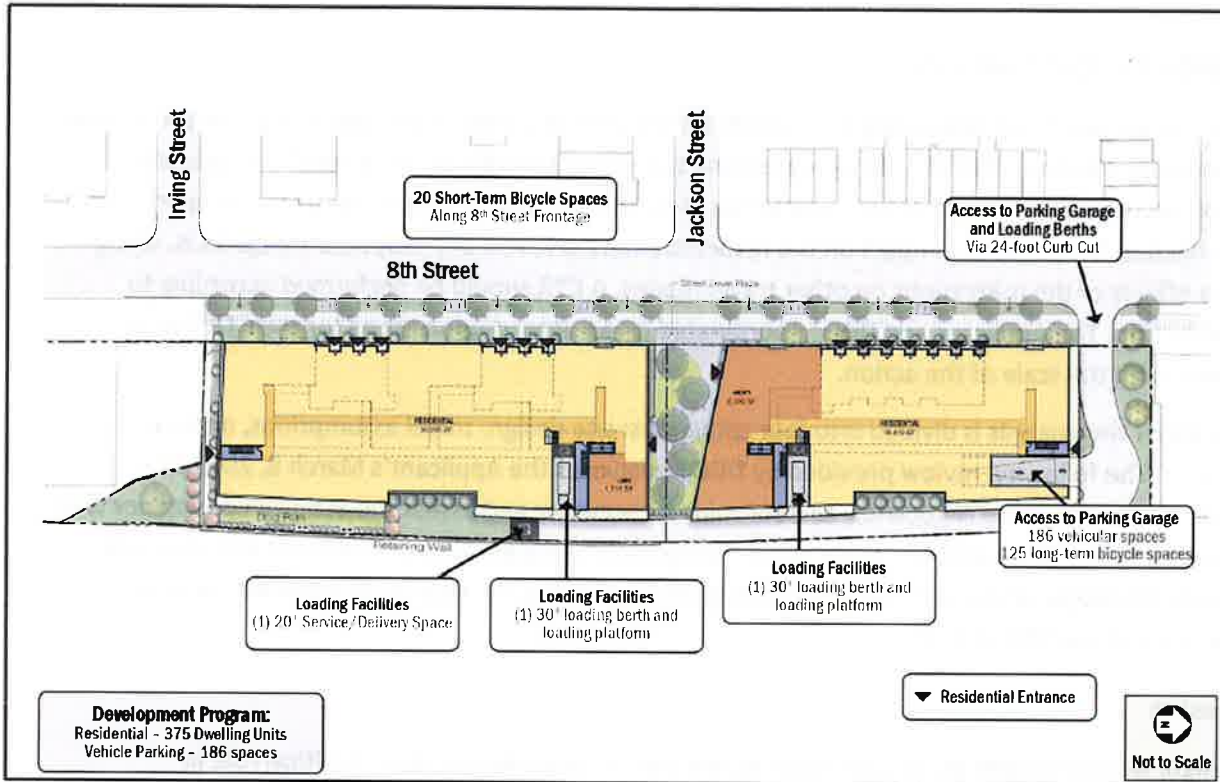


Figure 1 – Site Plan (Source: CTR, Gorove/Slade, Figure 7, 3/8/19)

Loading

DDOT’s practice is to accommodate vehicle loading in a safe and efficient manner, while at the same time preserving safety across non-vehicle modes and limiting any hindrance to traffic operations. For new developments, DDOT requires that loading take place in private space and that no back-up maneuvers occur in the public realm.

Per Subtitle C § 901.1 of the 2016 Zoning Regulations (ZR16), residential properties with more than 50 units are required to provide one (1) loading berth and one (1) 20-foot delivery space. The Applicant is proposing to provide two (2) 30-foot loading berths and platforms and one (1) delivery space. Access to the loading and trash storage area will be via the two-way driveway off 8th Street NE. Trash collection will occur in one of the loading berths, at each of the two buildings, where trash compactors will be stored.

The Applicant provided truck turning diagrams in the March 8, 2019 CTR. The diagrams demonstrated that 30-foot trucks can enter and exit the loading berths without conflicts or impacting the surrounding public street network. All truck turning maneuvers will occur on private property including the backing of trucks into the loading berths. All movements to and from the public roadway network will occur head-in and head-out, consistent with DDOT standards.

DDOT is in concurrence with the Loading Management Plan (LMP) as proposed in the March 8, 2019 CTR.

Streetscape and Public Realm

In line with District policy and practice, any substantial new building development or renovation is expected to rehabilitate streetscape infrastructure between the curb and the property lines. This includes curb and gutters, street trees and landscaping, street lights, sidewalks, and other appropriate features within the public rights of way bordering the site.

The Applicant must work closely with DDOT and the Office of Planning (OP) to ensure that the design of the public realm meets current standards and will substantially upgrade the appearance and functionality of the streetscape for public users needing to access the property or circulate around it. In conjunction with Titles 11, 12A, and 24 of the DCMR, DDOT's *Design and Engineering Manual (DEM)* and DDOT's *Public Realm Design Manual* will serve as the main public realm references for the Applicant. Public space designs will be reviewed in further detail during the public space permitting process. DDOT staff will be available to provide additional guidance during these processes.

While the preliminary public space plans are generally consistent with DDOT standards, there are several considerations that need to be incorporated and items to be reviewed in greater detail during the public space permitting process:

- There are two (2) curb cuts proposed to be closed on 8th Street NE;
- The walkway crossing the site's driveway should be raised and flush with existing sidewalk 8th Street NE;
- Determine final locations for the 20 short-term bicycle spaces (10 inverted U-racks) in easily accessible locations, near building entrances, and preferably within the 'furniture zone' near the curb;
- All other public space elements such as crosswalks, curb ramps, step projections, lead walks, roof overhangs, special paving, street trees, and benches will be subject to public space approval.

Of note, the Applicant has received Public Space Committee (PSC) approval for the 24 foot curb cut and driveway for the site (TOPS Permit Tracking Number 321729). Final design of additional public space elements will be determined during public space permitting.

Heritage Trees

Heritage Trees are defined as a tree with a circumference of 100 inches or more and are protected by the Tree Canopy Protection Amendment Act of 2016. Non-Hazardous Heritage Trees may not be damaged or removed. A preliminary assessment by DDOT's Urban Forestry Division (UFD), however based on the quality of images, it was difficult to determine if Heritage Trees were on-site. Therefore, Applicant should submit a Special/ Heritage tree application in DDOT's TOPS system and work with the Ward 5 arborist to confirm the lack of Heritage Trees to ensure there are no conflicts between these protected trees, including on adjacent lots, and the proposed project. In the event that conflicts exist, the Applicant may be required to redesign the site plan in order to preserve any Non-Hazardous Heritage Trees. With approval by the Mayor and the UFD, Heritage Trees might be permitted to be relocated.

Sustainable Transportation Elements

Sustainable transportation measures target to promote environmentally responsible types of transportation in addition to the transportation mode shift efforts of TDM programs. These measures can range anywhere from practical implementations that would promote use of vehicles powered by alternative fuels to more comprehensive concepts such as improving pedestrian access to transit in order to increase potential use of alternative modes of transportation. Within the context of DDOT's development review process, the objective to encourage incorporation of sustainable transportation elements into the development proposals is to introduce opportunities for improved environmental quality (air, noise, health, etc.) by targeting emission-based impacts.

The Applicant is not proposing to provide any electric vehicle charging stations which are common with PUD applications. DDOT recommends that the Applicant provide at least one (1) electric vehicle charging station on-site for every 50 vehicle parking spaces provided for a total of three (3) in the parking garage.

Travel Assumptions

The purpose of the CTR is to inform DDOT's review of a proposed action's impacts on the District's transportation network. To that end, selecting reasonable and defensible travel assumptions is critical to developing a realistic analysis.

Background Developments and Regional Growth

As part of the analysis of future conditions, DDOT requires applicants to account for future growth in traffic on the network or what is referred to as background growth. The Applicant coordinated with DDOT on the appropriate background developments to include in the analysis. Traffic from four (4) specific nearby projects was taken into account as background developments anticipated to be: Portrait Square at Brookland, Monroe Street Market (Block E), Brookland Place, and 680 Rhode Island Avenue (Phase 1 and 2). All combined, the background developments are projected to add 266 vehicles per hour in the weekday morning peak hour and 414 vehicles per hour in the weekday evening peak hour to the roadway network.

DDOT requires applicants account for regional growth through the build-out year of 2021. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOC's regional travel demand model. The Applicant coordinated with DDOT on an appropriate measure to account for regional growth that accurately accounted for traffic volume growth on the network. Annually compounding background regional growth rates of between 0.25 percent and 2 percent were assumed in the study area, differing based on roadway and peak hour.

DDOT also requires applicants to consider future changes to the roadway network. It was determined in coordination with DDOT staff that two (2) notable changes to the local transportation network are anticipated before 2021 as a result of the Monroe Street Bridge reconstruction: 1) restoration a left turn storage lane and a thru lane at the westbound approach the intersection of 8th Street NE and Monroe Street NE 2) installation of a new traffic signal, which will replace the existing two-way stop-control at 8th Street NE and Monroe Street NE.

Vehicle Parking

The overall parking demand created by the development is primarily a function of land use, development square footage, price, and supply of parking spaces. However in urban areas, other factors contribute to the demand for parking, such as the availability of high quality transit, frequency of transit service, proximity to transit, connectivity of bicycle and pedestrian facilities within the vicinity of the development, and the demographic composition and other characteristics of the potential residents.

Per Subtitle C § 701.5 of ZR16, DDOT estimates the Applicant is required to provide 124 vehicle parking spaces for 377 residential units (1 per 3 units in excess of 4 units). With a 50% transit reduction, as allowed by Subtitle C §702.1 due to close proximity to the Brookland-CUA Metrorail Station, the Applicant may go down to 62 vehicle spaces without seeking parking relief.

The Applicant is requesting flexibility in the amount of vehicle parking in the garage by proposing 186 spaces, which is significantly more than the 62 spaces required by ZR16 and the 110 to 130 range DDOT would expect given the mix of uses and location less than a quarter mile from the Brookland-CUA Metrorail station. Providing more vehicle parking than practically needed increases construction costs and encourages driving an automobile while simultaneously discourages walking, bicycling, and riding transit. To offset the additional trips on the road that may occur in the future, DDOT recommends the Applicant commit to reducing the amount of on-site parking or provide additional elements in the TDM plan.

Trip Generation

Each trip a person makes is made by a certain means of travel, such as vehicle, bicycle, walking, and transit. The means of travel is referred to as a ‘mode’ of transportation. A variety of elements impact the mode of travel, including density of development, diversity of land use, design of the public realm, proximity to transit options, availability and cost of vehicle parking, among many others.

The Applicant provided trip generation estimates by utilizing the rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (Land Use Code 221 Residential, Mid-Rise) and the assumed mode split to convert base suburban vehicle trips to base person trips using average auto occupancy data and then back to urban vehicle, transit, bicycle, and pedestrian trips. DDOT finds these methods appropriate.

Mode split assumptions used in the subject analysis were informed by the Census, WMATA’s 2005 Development-Related Ridership Survey, and mode splits used for nearby developments. Figure 2 below shows the mode splits that were assumed for this proposal.

Land Use	Mode			
	Auto	Transit	Bike	Walk
Residential	55%	40%	2%	3%

Figure 2 – Mode Split Assumptions (Source: CTR, Gorove/Slade, Table 4, 3/8/19)

Based on the trip generation and mode split assumptions, Figure 3 shows the predicted number of weekday peak hour trips generated by mode:

Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	19 veh/hr	53 veh/hr	72 veh/hr	55 veh/hr	35 veh/hr	90 veh/hr
Transit	15 ppl/hr	44 ppl/hr	59 ppl/hr	45 ppl/hr	29 ppl/hr	74 ppl/hr
Bike	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	2 ppl/hr	4 ppl/hr
Walk	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr

Figure 3 – Trip Generation Summary (Source: CTR, Gorove/Slade, Table 5, 3/8/19)

The proposed project is expected to generate a moderate number of vehicle and transit trips during the peak hours due to the site’s proximity to the Brookland-CUA Metrorail Station.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified eight (8) intersections (including the future site driveway) where detailed vehicle counts would be collected and a level of service analysis would be performed. These intersections are immediately adjacent to the site and include intersections radially outward from the site with the greatest potential to see impacts in vehicle delay. DDOT acknowledges that not all affected intersections are included in the study area and there will be intersections outside of the study area which would realize new trips. However, DDOT expects minimal to no increase in delay outside the study area as a result of the proposed action.

The Applicant collected weekday intersection traffic count data on Wednesday, October 10, 2018 and Thursday November 29, 2018, between 6:30 AM-9:30 AM and 4:00 PM-7:00 PM while District of Columbia Public Schools and Congress were in session. DDOT is in agreement with the data collection time frames and dates.

Analysis

To determine the PUD’s impacts on the transportation network, the Applicant completed a Comprehensive Transportation Review (CTR), prepared by Gorove/Slade, dated March 8, 2019 which includes an extensive multi-modal analysis of:

- Existing conditions (2019 Existing);
- Future with no development (2021 Background);
- Future conditions with development (2021 Future); and
- Future conditions with development and mitigation (2021 Future with Mitigation).

Roadway Capacity and Operations

DDOT aims to provide a safe and efficient roadway network that provides for the timely movement of people, goods and services. As part of the evaluation of travel demand generated by the site, DDOT requests analysis of traffic conditions for the agreed upon study intersections for the current year and after the facility opens both with and without the site development or any transportation changes.

The following table (Figure 4 and Figure 5) summarizes the results of the Applicant’s capacity analysis and demonstrates the impacts on delay and level of service of the proposed mitigation measures.

Intersection	Approach	Existing Conditions (2018)		Future Without Development Conditions (2021)		Future With Development Conditions (2021)		Future With Development Conditions (2021), with Mitigations	
		AM Peak Hour							
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Monroe Street & Michigan Avenue	Overall	19.9	B	20.9	C	21.7	C	21.8	C
	Eastbound	17.0	B	17.2	B	17.2	B	18.4	B
	Westbound	12.7	B	13.0	C	13.0	B	14.7	B
	Northbound	51.9	D	56.3	E	60.3	E	52.5	D
7th Street/Driveway & Michigan Avenue	Overall	22.3	C	23.0	C	23.6	C	No Mitigations Needed	
	Eastbound	1.2	A	0.9	A	0.9	A		
	Westbound	26.4	C	28.4	C	29.0	C		
	Northbound	56.9	E	54.0	D	54.9	D		
	Southbound	35.6	D	35.5	D	35.5	D		
7th Street & Monroe Street	Overall	20.0	B	24.3	C	25.5	C	No Mitigations Needed	
	Eastbound	8.2	A	13.2	B	13.9	B		
	Westbound	9.6	A	3.3	A	7.1	A		
	Northbound	52.8	D	59.1	E	58.9	E		
	Southbound	31.4	C	28.1	C	27.4	C		
8th Street & Monroe Street	Overall	—	—	18.4	B	19.1	B	No Mitigations Needed	
	Eastbound	0.0	A	12.7	B	14.1	B		
	Westbound	2.6	A	20.4	C	20.4	C		
	Northbound	17.2	C	28.8	C	29.3	C		
8th Street & Kearny Street	Overall	8.1	A	8.0	A	8.2	A	No Mitigations Needed	
	Eastbound	7.4	A	7.4	A	7.5	A		
	Northbound	8.2	A	8.1	A	8.3	A		
	Southbound	8.0	A	8.0	A	8.1	A		
Edgewood Street/8th Street & Hamlin Street/Driveway	Eastbound	16.0	C	15.9	C	16.5	C	No Mitigations Needed	
	Westbound	12.5	B	12.3	B	12.6	B		
	Northbound	4.2	A	4.2	A	4.1	A		
	Southbound	0.1	A	0.1	A	0.1	A		
7th Street & Franklin Street	Overall	28.5	C	28.2	C	29.7	C	No Mitigations Needed	
	Eastbound	34.0	C	34.2	C	37.6	D		
	Westbound	21.1	C	20.0	C	20.2	C		
	Northbound	37.1	D	38.3	D	38.7	D		
	Southbound	55.3	E	55.4	E	57.6	E		
8th Street & Future Site Driveway	Westbound					10.8	B	No Mitigations Needed	
	Northbound	For Future Use Only				0.0	A		
	Southbound					0.5	A		

Figure 4 – Vehicular Capacity Analysis AM Peak Hour (Source: CTR, Gorove/Slade, Table 8, 3/8/19)

Intersection	Approach	Existing Conditions (2018)		Future Without Development Conditions (2021)		Future With Development Conditions (2021)	
		PM Peak Hour					
		Delay	LOS	Delay	LOS	Delay	LOS
Monroe Street & Michigan Avenue	Overall	25.8	C	26.7	C	27.2	C
	Eastbound	28.6	C	30.0	C	30.5	C
	Westbound	9.7	A	9.8	A	10.1	B
	Northbound	44.1	D	43.7	D	44.1	D
7th Street/Driveway & Michigan Avenue	Overall	14.7	B	14.6	B	15.0	B
	Eastbound	10.7	B	10.3	B	10.4	B
	Westbound	12.7	B	13.9	B	14.5	B
	Northbound	44.6	D	43.0	D	44.5	D
	Southbound	48.9	D	47.9	D	48.1	D
7th Street & Monroe Street	Overall	21.5	C	30.1	C	30.8	C
	Eastbound	10.2	B	12.5	B	13.4	B
	Westbound	9.4	A	11.7	B	12.4	B
	Northbound	63.3	E	76.3	E	75.4	E
	Southbound	36.8	D	46.5	D	48.2	D
8th Street & Monroe Street	Overall	—	—	25.1	C	25.8	C
	Eastbound	0.0	A	28.2	C	29.3	C
	Westbound	2.5	A	16.9	B	17.0	B
	Northbound	31.2	D	29.0	C	29.2	C
8th Street & Kearny Street	Overall	7.8	A	7.9	A	8.0	A
	Eastbound	7.5	A	7.5	A	7.5	A
	Northbound	7.9	A	8.1	A	8.3	A
	Southbound	7.5	A	7.7	A	7.8	A
Edgewood Street/8th Street & Hamlin Street/Driveway	Eastbound	10.4	B	11.2	B	11.6	B
	Westbound	0.0	A	0.0	A	0.0	B
	Northbound	1.4	A	1.4	A	1.2	A
	Southbound	0.0	A	0.0	A	0.0	A
7th Street & Franklin Street	Overall	20.6	C	23.1	C	26.5	C
	Eastbound	24.9	C	28.8	C	36.2	D
	Westbound	7.3	A	7.7	A	7.7	A
	Northbound	38.6	D	41.5	D	43.2	D
	Southbound	42.2	D	44.9	D	46.9	D
8th Street & Future Site Driveway	Westbound					10.3	B
	Northbound			For Future Use Only		0.0	A
	Southbound					1.6	A

Figure 5 – Vehicular Capacity Analysis PM Peak Hour (Source: CTR, Gorove/Slade, Table 9, 3/8/19)

As shown above, the roadway capacity analysis provided in the CTR shows that one (1) intersection within the study area has one approach during at least one peak hour that either degrades to LOS E or LOS F conditions as a result of site traffic or is already operating at LOS E or LOS F and delay is worsened by site traffic by five (5) percent or more:

- Monroe Street NE and Michigan Avenue NE– the northbound approach of Monroe Street NE is projected to operate at a LOS E during the Background and Total Future Conditions. The delay

observed under the Total Future Conditions increases by more than five (5) percent when compared to the Background Conditions. The CTR recommends adjusting the signal timing to provide more green time to the northbound phase of Monroe Street NE.

DDOT finds the signal timing adjustment, noted above, is not appropriate as an isolated traffic mitigation solution in conjunction with a land development project because an entire corridor would need to be re-timed. In lieu of traffic signal adjustment, the Applicant should instead focus on reducing the amount of on-site vehicle parking and implementing TDM strategies that reduce auto-mode share and encourage non-auto travel in order to offset the impacts to the roadway network (see Mitigations section).

Transit Service

The District and Washington Metropolitan Area Transit Authority (WMATA) have partnered to provide extensive public transit service in the District of Columbia. DDOT's vision is to leverage this investment to increase the share of non-automotive travel modes so that economic development opportunities increase with minimal infrastructure investment.

The site is located approximately 0.3 miles from the Brookland-CUA Metrorail Station, which is served by the Metrorail Red Line and provides direct connections to areas in the District and Montgomery County, Maryland. Trains serve the Metrorail station approximately every four (4) to eight (8) minutes during weekday peak hours, 12 minutes during the weekday non-peak times, and 12-20 minutes on the weekends.

There are a number of bus stops within walking distance of the site along Monroe Street NE and 7th Street NE, which are served by Metrobus routes H2, H3, H4, G8, and 80. Additional buses servicing the site are available at Brookland-CUA Metrorail Station, including Metrobus routes G8, H2, H3, H4, H6, H8, R4, 80, and limited service routes H1 and H9. Overall, Metrobus headways generally range between 5 and 72 minute depending on route.

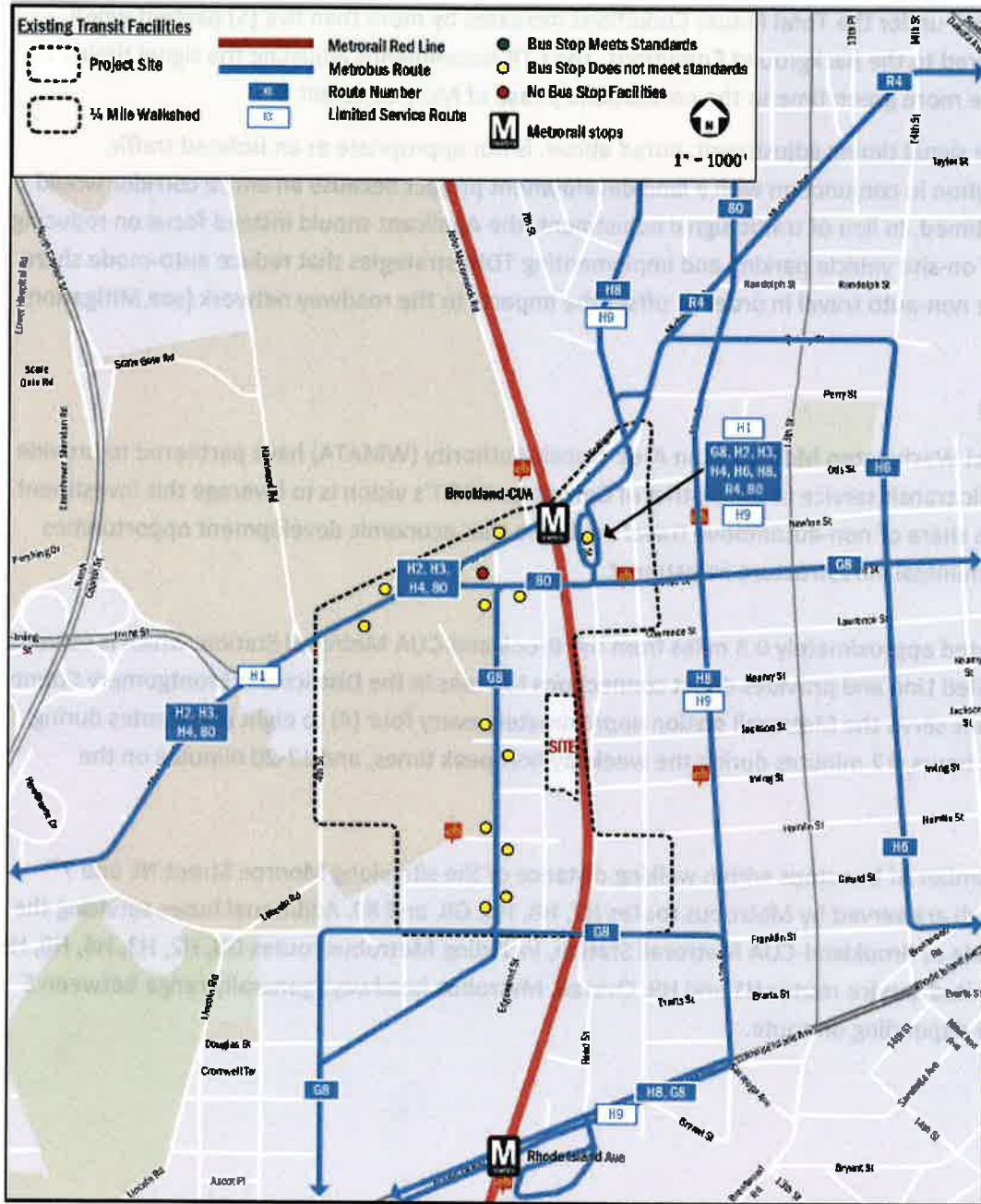


Figure 6 – Existing Transit Facilities (Source: CTR, Gorove/Slade, Figure 35, 3/8/19)

Pedestrian Facilities

The District is committed to enhancing pedestrian accessibility by ensuring consistent investment in pedestrian infrastructure on the part of both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including pedestrian trips. Walking is expected to be an important mode of transportation for this development.

The CTR's inventory of existing pedestrian infrastructure, as shown in Figure 6 below, demonstrates that a majority of sidewalks and curb ramps in the vicinity of the site are currently consistent with DDOT standards. While there are a few missing sidewalks and curb ramps on-site and in the wider area, the existing pedestrian network along major pathways to schools, attractions, and the Metrorail station is generally adequate.

It is noted that the Applicant is proposing to construct a new sidewalk on the eastern edge of 8th Street NE, along the western frontage of the property. The sidewalk will be 10 feet wide and include tree boxes. The Applicant is continuing to coordinate with DDOT on the proposed MBT shared-use path along 8th Street NE and has agreed to provide two (2) feet clearance on both sides of the 10-foot sidewalk for future design. Additionally, sidewalks and curb ramps along Monroe Street NE will be upgraded as part of the Monroe Street NE Bridge project, which is anticipated to be completed in March 2019.

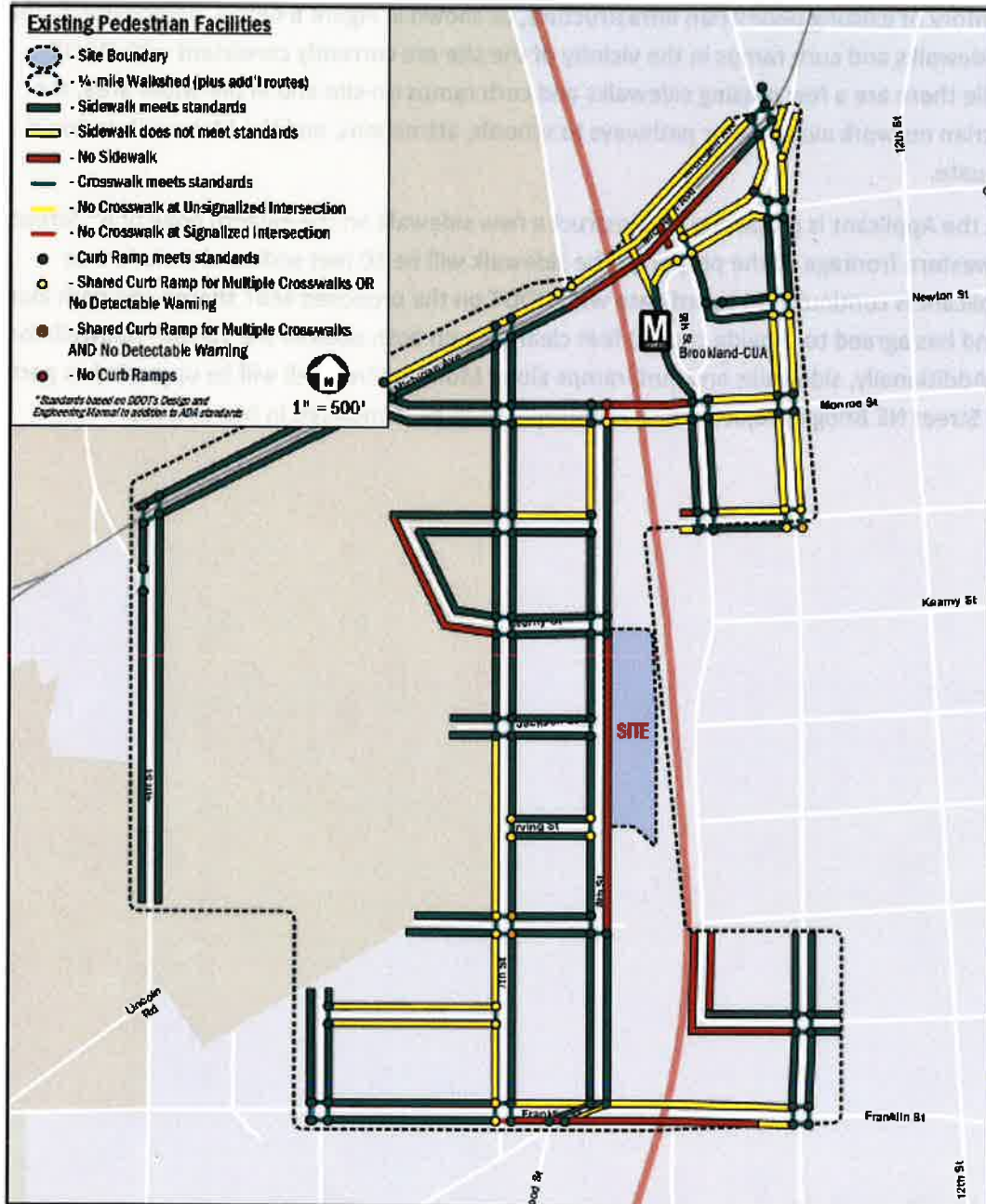


Figure 7 – Existing Pedestrian Infrastructure (Source: CTR, Gorove/Slade, Figure 37, 3/8/19)

Bicycle Facilities

The District is committed to enhancing bicycle access by ensuring consistent investment in bicycle infrastructure by both the public and private sectors. DDOT expects new developments to serve the needs of all trips they generate, including bicycling trips.

Per Subtitle C § 802.1 of the 2016 Zoning Regulations (ZR16), DDOT estimates that the Applicant is required to provide 88 long-term and 19 short-term bicycle parking spaces. The Applicant is proposing to exceed these requirements by providing 125 long-term and 20 short-term spaces. The short-term

spaces will be placed curbside along 8th Street NE adjacent to the site entrances. Final locations of the bicycle racks should be determined during public space permitting. The long-term spaces will be located in the bicycle storage room in the underground garage.

As shown in Figure 7 below, the site is currently in close proximity to bicycle facilities, including striped bicycle lanes on Monroe Street and 4th Street NE, and a cycle track on a portion of 4th Street NE. The site is situated along the on-road section of the MBT, on 8th Street NE between Franklin Street NE and Monroe Street NE. Entrances to the off-road portions of the trail are located north of Monroe Street NE and south of Franklin Street NE. Future plans for the MBT include repurposing the eastern sidewalk along 8th Street NE into a shared-use path that will connect to the existing the off-road MBT that runs alongside WMATA's Metrorail. The Applicant will continue to coordinate with DDOT on the design of the sidewalk to ensure that future MBT designs are accommodated on-site.

Currently there are two (2) Capital Bikeshare (CaBi) stations located within a quarter mile of the site. Within walking distance, the Hamlin Street NE and 7th Street station, just southwest of the site, provides 15 bicycle docks, and the 10th Street NE and Monroe Street station, just northeast of the site, provides 11 bicycle docks. It is noted that both stations are below the number of docks (19) that DDOT typically installs. As part of the TDM Plan, the Applicant should install two (2) expansion plates of four (4) docks each to the station at 10th and Monroe to bring it up to DDOT minimum size. It does not appear that there is any available space to expand the 7th and Hamlin station.

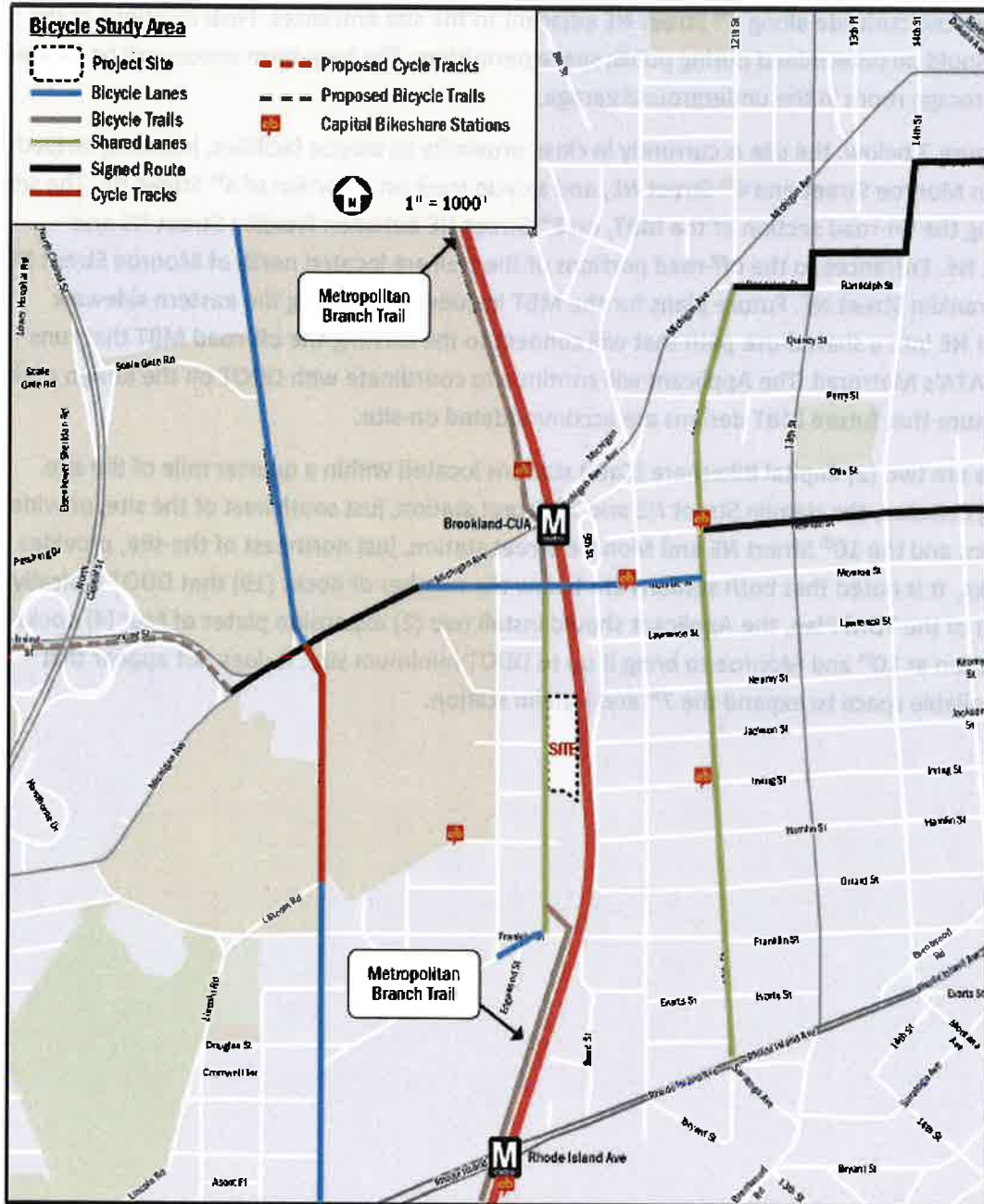


Figure 8 – Existing and Proposed Bicycle Facilities (Source: CTR, Gorove/Slade, Figure 39, 3/8/19)

Mitigations

As part of all major development review cases, DDOT requires the Applicant to mitigate the impacts of the development in order to positively contribute to the District’s transportation network. The mitigations must sufficiently diminish the action’s vehicle impact and promote non-auto travel modes. This can be done through TDM, physical improvements, operations, and performance monitoring.

DDOT preference is to mitigate vehicle traffic impacts first through establishing an optimal site design and operations to support efficient site circulation. When these efforts alone cannot properly mitigate

an action's impact, TDM measures may be necessary to manage travel behavior to minimize impact. Only when these other options are exhausted will DDOT consider capacity-increasing changes to the transportation network because such changes often have detrimental impacts on non-auto travel and are often contrary to the District's multi-modal transportation goals.

The following analysis is a review of the Applicant's proposed mitigations and a description of DDOT's suggested conditions for inclusion in the PUD:

Roadway Capacity and Operations

The CTR capacity analysis demonstrated that adjusting signal timings and/or cycle lengths could improve intersection delay and level of service back to acceptable conditions at the one (1) intersection, Monroe Street NE and Michigan Avenue NE, which trigger DDOT's Significant Impact Policy. These improvements would necessitate the retiming of entire corridors of traffic signals which is why DDOT typically does not make these changes in conjunction with a land development project. In lieu of traffic signal adjustments, the Applicant should instead focus on reducing the amount of on-site vehicle parking and implementing TDM strategies that reduce auto-mode share and encourage non-auto travel in order to offset the impacts to the roadway network.

Transportation Demand Management

As part of all major development review cases, DDOT requires the Applicant to produce a comprehensive Transportation Demand Management (TDM) plan to help mitigate an action's transportation impacts. TDM is a set of strategies, programs, services, and physical elements that influence travel behavior by mode, frequency, time, route, or trip length in order to help achieve highly efficient and sustainable use of transportation facilities. In the District, this typically means implementing infrastructure or programs to maximize the use of mass transit, bicycle and pedestrian facilities, and reduce single occupancy vehicle trips during peak periods. The Applicant's proposed TDM measures play a role in achieving the desired and expected mode split.

The specific elements within the TDM plan vary depending on the land uses, site context, proximity to transit, scale of the development, and other factors. The TDM plan must help achieve the assumed trip generation rates to ensure that an action's impacts will be properly mitigated. Failure to provide a robust TDM plan could lead to unanticipated additional vehicle trips that could negatively impact the District's transportation network.

As part of the TMP proposed in the March 8, 2019 CTR, the Applicant proposes a TDM Plan component which includes the following elements:

- The Applicant will identify a TDM Leader (for planning, construction, and operations) at the building, who will act as a point of contact with DDOT/Zoning Enforcement with annual updates. The TDM Leader will work with residents to distribute and market various transportation alternatives and options.
- The Applicant will provide TDM materials to new residents in the Residential Welcome Package materials.

- The Applicant will work with DDOT and goDCgo (DDOT's TDM program) to implement TDM measures at the site.
- The applicant will share the full contact information of the TDM Leaders for the site with DDOT and goDCgo (info@godcgo.com).
- The Applicant will post all TDM commitments online for easy reference.
- The Applicant will exceed Zoning requirements by providing 125 long-term bicycle parking spaces in the development garage.
- The Applicant will provide 20 short-term bicycle parking spaces along 8th Street NE, meeting zoning requirements.
- All parking on site will be priced at market rates, at minimum, defined as the average cost for parking in a 0.25-mile radius from the Site.
- The Applicant will unbundle the cost of residential parking from the cost of lease or purchase of each unit.
- The Applicant will provide a \$100 SmartTrip Card for the first two years of occupancy to each incoming unit. A proactive marketing strategy will be provided to ensure residents are aware of this benefit.
- The Applicant will provide a bicycle repair station to be located in the secure long-term bicycle storage room.
- The Applicant will provide an on-site business center to residents with access to internet services.
- The Applicant will install a Transportation Information Center Display (electronic screen) within the residential lobbies containing information related to local transportation alternatives.
- The Applicant will provide a total of at least 4 shopping carts in the residential buildings for residents to use for running errands and grocery shopping.

DDOT finds the proposed TDM plan contains many strong elements but is insufficient for a development program of this size, land use mix, and proximity to a Metrorail station. A more robust TDM plan is necessary to offset the identified impacts to one (1) nearby intersections in the capacity analysis, as well as the high parking provision provided on-site. DDOT requests these additional elements and revisions be made to the TDM Plan:

- Add to TDM Plan: Applicant will not lease unused residential parking spaces to anyone aside from tenants of the building (e.g., will not lease to other nearby buildings, single-family home residents, office employees, or sporting events);
- Add to TDM Plan: Applicant should install two (2) expansion plates of four (4) docks each to the CaBi station at 10th and Monroe, to bring it up to DDOT minimum size (19 spaces);
- Clarify in TDM Plan: Applicant will distribute welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, Capital Bikeshare coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map;
- Clarify in TDM Plan: Transportation Coordinators will receive TDM training from goDCgo to learn about TDM conditions for this project and available options for implementing the TDM Plan;

- Add to TDM Plan: Applicant will provide a Transportation Information Center Display that, at a minimum, should include information about nearby Metrorail stations and schedules, Metrobus stops and schedules, car-sharing locations, and nearby Capital Bikeshare locations indicating the availability of bicycles;
- Clarify in TDM Plan: Transportation Information Center Display screens will be installed in the lobbies of each of the two residential buildings;
- Add to TDM Plan: Provide residents who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by Metropolitan Washington Council of Governments (MWCOC) or other comparable service if MWCOC does not offer this in the future;
- Clarify in TDM Plan: Transportation coordinator will subscribe to goDCgo's residential newsletter
- Clarify in TDM Plan: Long-term bicycle storage rooms will accommodate non-traditional sized bikes including cargo, tandem, and kids bikes;
- Add in TDM Plan: Provide bicycle repair stations to be located within the bicycle storage room;
- Revise in TDM Plan: Provide one (1) shopping cart (utility cart) for every 50 residential units to encourage residents to walk to the grocery shopping and run errands. The Applicant is recommended to provide seven (7) carts for the development; and
- Add in TDM Plan: Dedicate two (2) parking spaces in the vehicle parking garage for car-sharing services to use with right of first refusal. If an agreement has not been reached with a car-sharing service to occupy all of the dedicated spaces, the Applicant will provide a one (1) year Capital Bikeshare membership to each resident after the building has opened.

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