

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 *JMS*
Associate Director

DATE: March 5, 2018

SUBJECT: ZC Case No. 17-19 – 5110 Nannie Helen Burroughs Avenue NE (Deanwood Town Center)

PROJECT SUMMARY

The Warrenton Group (the “Applicant”) proposes a Consolidated Planned Unit Development (PUD) and Map Amendment to rezone Lots 1, 64, 65, and 73 in Square 5197 from MU-3 to MU-4.

The proposal to redevelop the site of an existing church, pizza shop, children’s learning center, and parking lot at 5110-5140 Nannie Helen Burroughs Avenue NE, includes the following development program:

- 183 residential units;
- 16,200 SF retail;
- 146 on-site vehicle parking spaces;
- 62 long-term and 18 short-term bicycle parking spaces; and
- Three (3) 30-foot loading berths and one (1) 20-foot delivery 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 and loading is proposed via the existing 12-foot public alley that will be widened by 8 feet onto private property for a total of 20 feet;
- The existing public alley narrows to 12 feet north of the site on the Deanwood Hills property and then widens again to 20 feet north of that site's driveway;
- Pedestrian access for the retail portion is via entrances on Nannie Helen Burroughs Avenue NE. Residents may access the residential portions via entrances on 51st Street, Nannie Helen Burroughs Avenue, and Division Avenue NE;
- The retail entrance at the western building on Nannie Helen Burroughs Avenue NE is shown as having steps and an ADA ramp. All building entrances should be at grade so as to maximize green space and minimize paving in public space;
- The Applicant is proposing to close two (2) curb cuts on Nannie Helen Burroughs Avenue and one (1) on Division Avenue NE;
- The Applicant is proposing to meet or exceed ZR16 requirements for long-term and short-term bicycle parking spaces and loading facilities;
- There are also another 48 bicycle parking spaces (24 inverted U-racks) proposed on the northern edge of the site on private property with access provided from 51st Street NE and the rear doors of the residential building;
- The Applicant is proposing to meet the ZR16 requirements for providing loading berths, loading platforms, and a delivery space;
- Trash trucks will utilize a loading berth and dumpsters will be rolled via an internal hallway in each building to the loading area; and
- The Applicant is not proposing any electric vehicle charging stations. DDOT recommends at least three (3) vehicle parking spaces be served by electric charging stations (1 per 50 spaces).

Travel Assumptions

- The Applicant utilized sound methodology and assumptions to perform the analysis in the CTR;
- The proposed mode split and subsequent trip generation are consistent with the level of on-site vehicle parking provided;
- 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 well served by local bus routes, but is more than a mile from the nearest Metrorail station; and
- The site is in close proximity to the Marvin Gaye Trail with an entrance one block to the west at 50th Street NE and another entrance one block to the south at Foot Street NE.

Analysis

- The Applicant should provide a public access easement for the widened portion of the alley on private property to ensure residents of the Deanwood Hills property have access through the Deanwood Town Center site;
- The existing western median break and eastbound left-turn lane on Nannie Helen Burroughs Avenue NE should be removed in conjunction with the closure of the two (2) curb cuts;
- Due to the narrow roadway width on Nannie Helen Burroughs Avenue NE, “No U-turn” signs should be installed on the eastbound and westbound Division Avenue NE approaches to prevent vehicles from making U-turns in order to access the public alley and parking garage;
- The additional 48 bicycle parking spaces proposed in private space along the northern edge of the site do not meet the design and location requirements of ZR16 for long-term and short-term spaces;
- The locations of the 18 required short-term bicycle parking spaces (9 inverted U-racks) are not currently shown on the December 22, 2017 plan set. These racks should be placed in the ‘furniture zone’ on public space with most placed near the retail entrances;
- Truck turning diagrams provided in the appendix of the January 28, 2018 CTR demonstrated that 30-foot trucks can maneuver in and out of the loading berths, as well as access the alley from Nannie Helen Burroughs Avenue without impacting the surrounding public street network;
- Given the sizes and types of land uses proposed, DDOT does not anticipate larger trucks to serve the site;
- The proposed Loading Management Plan in the January 28, 2018 CTR is sufficient for the proposed development;
- The amount of vehicle parking provided (146 spaces) is higher than DDOT would expect (approximately 105 to 120 spaces) for a project with the mix and sizes of land uses proposed, parking ratios observed in the neighborhood, and proximity to transit routes;
- Availability of extra vehicle parking encourages driving and automobile ownership and discourages transit usage, walking, and bicycling;
- The Applicant should provide additional measures in the TDM Plan to offset the extra vehicle parking provided (see Mitigations section below);
- The pedestrian network in the immediate vicinity of site is currently up to DDOT standards. The broader network and walk ways to nearby schools and attractions is generally complete. The Applicant is proposing pedestrian realm upgrades along the frontages on Nannie Helen Burroughs Avenue, Division Avenue, and 51st Street NE;
- The intersection of Nannie Helen Burroughs Avenue and Division Avenue NE is projected to be impacted by site generated traffic. The Applicant has proposed a signal timing adjustment as mitigation to improve level of service. In lieu of making this adjustment, which would require DDOT to re-evaluate signal timings in the corridor, the Applicant should focus on improving the proposed TDM plan (see Mitigations section below);
- The 50th Street NE approach to Nannie Helen Burroughs Avenue is projected to be impacted by site traffic. DDOT concurs with the Applicant that signage should be installed to more clearly

prohibit left-turning vehicles from 50th Street to Nannie Helen Burroughs Avenue to improve delay, level of service, and safety;

- The TDM plan proposed in the January 29, 2018 CTR is not sufficiently robust to encourage non-auto travel, offset the parking provision, and mitigate vehicular impacts to the transportation network. DDOT recommends the inclusion of additional measures, as noted in the Mitigations section below; and
- The existing Capital Bikeshare station one block south of the site at Division Avenue and Foote Street NE only has 15 docks. The Strand Residences PUD has committed to expand it to 19 docks. The Applicant should further expand it by four (4) docks to 23 docks as part of the TDM Plan.

Mitigations

DDOT has no objection to approval of the Consolidated PUD and Map Amendment with the following revisions and conditions:

- To enhance safety for motorists and pedestrians in the vicinity of the site, the Applicant should fund and construct the following roadway network improvements, all subject to DDOT approval:
 - Remove the westernmost median break and eastbound left-turn lane on Nannie Helen Burroughs Avenue NE in the location of the existing curb cuts to be closed;
 - Install signage on the eastbound and westbound Nannie Helen Burroughs Avenue approaches at Division Avenue restricting U-turns; and
 - Install signage on the northbound 50th Street approach at Nannie Helen Burroughs Avenue NE restricting left-turns.
- Implement the proposed Loading Management Plan, for the life of the project, as proposed by the Applicant in the January 28, 2018 CTR (see later in this report);
- Implement the Transportation Demand Management (TDM) Plan, for the life of the project unless otherwise noted, as proposed by the Applicant in the January 28, 2018 CTR (see later in this report); and
- Revise the proposed TDM Plan to include the following elements to offset the parking provision and mitigate the identified impacts to transportation network:
 - 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 a total of at least eight (8) shopping carts in the two residential buildings for residents to use for running errands and grocery shopping;
 - Add to TDM Plan: Place at least one (1) carshare vehicle on-site, preferably in one of the three on-site parking spaces at the eastern building. If carshare providers do not locate a vehicle on-site then the Applicant will provide annual Capital Bikeshare or carshare membership to each residential unit for one (1) year after initial occupancy; and
 - Add to TDM Plan: Fund and install an expansion of at least four (4) docks to the existing Capital Bikeshare station at the intersection of Division Avenue and Foote Street NE.

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:

- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, curb ramps, 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. The following issues with the current public space design should be coordinated with DDOT as the Applicant pursues public space permits:
 - Move the bioretention planters on the northern side of Nannie Helen Burroughs Avenue NE to edge of curb to allow for a wider and straighter pedestrian clear path;
 - There are three (3) total curb cuts proposed to be closed on Nannie Helen Burroughs Avenue and Division Avenue NE;
 - The existing alley curb cut is proposed to be widened from 12 to 20 feet;
 - All building entrances on Nannie Helen Burroughs Avenue NE should be at-grade so as to maximize green space and minimize pavement proposed in public space;
 - The proposed sidewalk on 51st Street NE is currently shown as tapering at the northern end of the site. This should be widened to a minimum of 6-foot plus tree boxes and street trees installed; and
 - Determine final locations for the short-term bicycle spaces (inverted U-racks) in the ‘furniture zone’ within public space.
- The Applicant should participate in a Preliminary Design Review Meeting (PDRM) to address design related issues raised by DDOT and OP;
- Provide a curbside management and signage plan, assumed to include multi-space meter installation at the Applicant’s expense, consistent with current DDOT policies;
- Coordinate with DDOT’s Traffic Operations and Safety Division (TOSD) regarding the installation of new signage at intersections and removal of the median break and left-turn lane on Nannie Helen Burroughs Avenue NE;
- Coordinate with DDOT’s Green Infrastructure Team regarding the moving the locations of bioretention facilities and how best to mitigate stormwater runoff in this area; and
- Coordinate with DDOT’s Urban Forestry Division (UFD) and the Ward 7 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.

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 CTR 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

Primary vehicular access to the underground parking garage and surface spaces is proposed to occur via the existing 12-to-20-foot public alley that bisects the Deanwood Hills and Deanwood Town Center sites and links Nannie Helen Burroughs Avenue with Hayes Street NE. The Applicant is proposing to widen the portion of the alley through the Deanwood Town Center site onto private property by 8 feet for a total of 20 feet to make it two-way operation, allow for trucks to maneuver, and to provide sidewalks. The portion of the alley through Deanwood Hills will remain as 12 feet wide south of and 20 feet north of that site's driveway connection to the alley. The Applicant should provide a public access easement for the widened portion of the alley to ensure access through the site for residents of the Deanwood Hills site.

There are two (2) existing curb cuts on the northern side of Nannie Helen Burroughs Avenue NE, west of the public alley, that are proposed to be closed with this development. The Applicant should remove the median break and eastbound left-turn lane that will no longer be needed, in conjunction with this development. Additionally, due to the narrow roadway width along this section of Nannie Helen Burroughs Avenue NE, "No U-Turn" signs should be installed on the eastbound and westbound Division Avenue NE approaches to prevent vehicles seeking to access the public alley and parking garage from making U-turns.

Pedestrian access for the retail portion of the project will be via entrances on Nannie Helen Burroughs Avenue NE. Residents of the property may either access the buildings via entrances on 51st Street, Nannie Helen Burroughs Avenue, and Division Avenue NE. Figure 1 below shows the site layout of the Deanwood Town Center project. It is noted that the retail entrance at the western building on Nannie Helen Burroughs Avenue NE is shown as having steps and an ADA ramp. All building entrances should be at grade so as to maximize green space and minimize paving in public space.

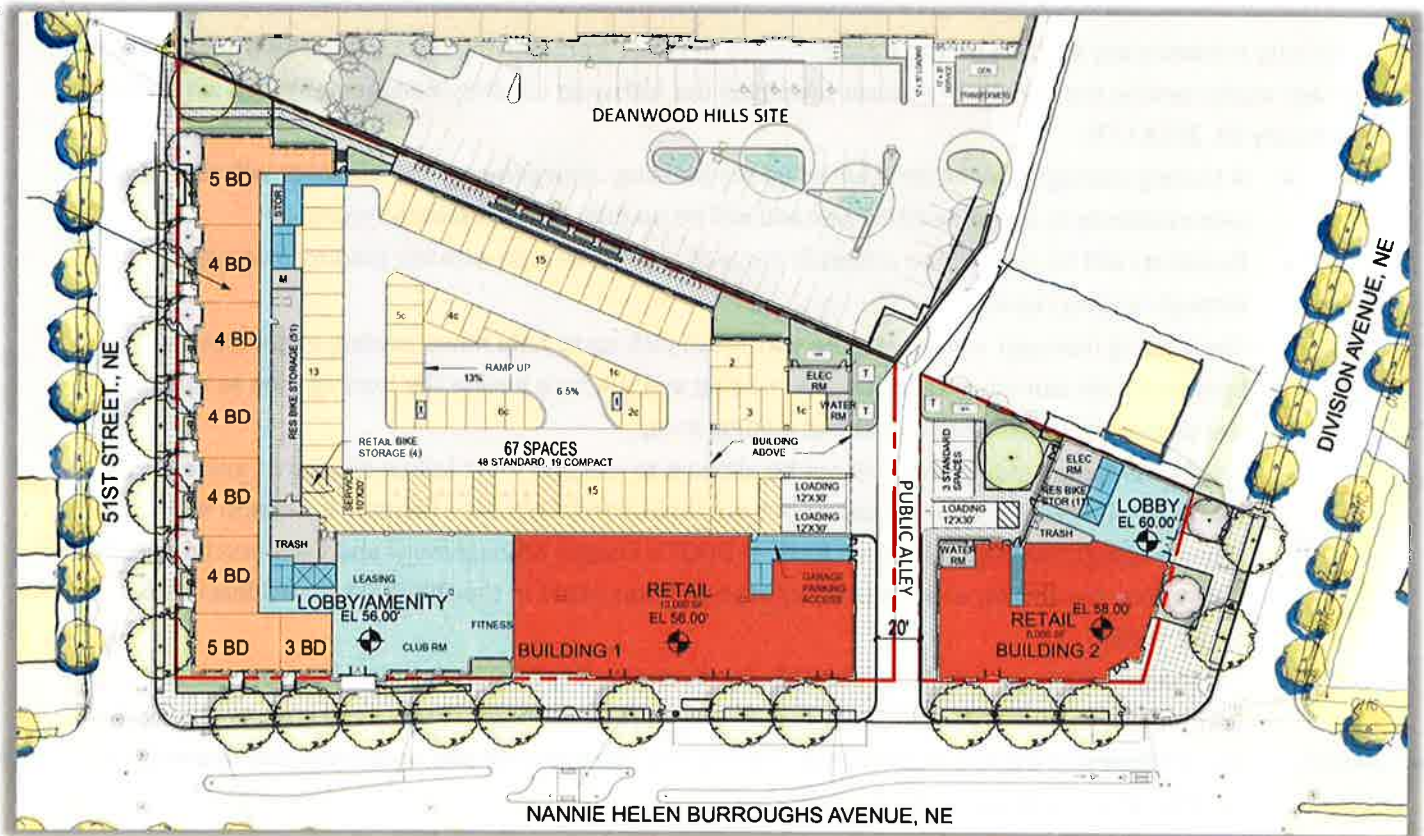


Figure 1 – Ground Floor Plan (Source: Applicant Plan Set, Sheet A-01, 12/22/17)

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, § 901.4, and § 902.2 of the 2016 Zoning Regulations (ZR16) the site is required to provide three (3) loading berths, three (3) loading platforms, and one (1) 20-foot delivery space. The Applicant is proposing to meet these requirements by providing two (2) berths and platforms at the western building and one (1) berth with platforms at the eastern building. The 20-foot delivery space will be located within the parking garage on the ground floor level. Trash collection will occur in one of the loading berths, at each of the two buildings, as building staff will roll dumpsters via internal hallways from the trash rooms to the loading areas.

The Applicant provided truck turning diagrams in the appendix of the January 29, 2018 CTR. The diagrams demonstrated that 30-foot trucks can enter and exit the loading berths, as well as the public alley from Nannie Helen Burroughs Avenue NE without conflicts or impacting the surrounding public

street network. Given the number of residential units and square footage of retail proposed, DDOT does not anticipate larger trucks to serve the site.

To help minimize any impacts on the transportation network from moving trucks, delivery trucks, and trash trucks serving the site, the Applicant proposed the following Loading Management Plan within the January 29, 2018 CTR:

- A loading manager will be designated by the building management. The manager will coordinate with residents to schedule deliveries and will be on duty during delivery hours;
- Residents will be required to schedule move-in and move-outs with the loading manager through leasing regulations;
- The loading manager will coordinate with trash pick-up to help move loading expeditiously between their storage area inside the building and the curb beside the loading area to minimize the time trash trucks need to use the loading area;
- Trucks using the loading area will not be allowed to idle and must follow all District guidelines for heavy vehicle operation including but not limited to DCMR 20 – Chapter 9, Section 900 (Engine Idling), the regulations set forth in DDOT’s Freight Management and Commercial Vehicle Operations document, and the primary access routes listed in the DDOT Truck and Bus Route System; and
- The loading manager will be responsible for disseminating DDOT’s Freight Management and Commercial Vehicle Operations document to drivers as needed to encourage compliance with District laws and DDOT’s truck routes. The loading manager will also post these documents in a prominent location within the service area.

DDOT finds the proposed Loading Management Plan sufficient for the proposed development.

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 recently released 2017 version of the *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, shown in Figure 1 above, 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:

- Move the bioretention planters on the northern side of Nannie Helen Burroughs Avenue NE to edge of curb to allow for a wider and straighter pedestrian clear path;
- There are three (3) total curb cuts proposed to be closed on Nannie Helen Burroughs Avenue and Division Avenue NE;
- The existing alley curb cut is proposed to be widened from 12 to 20 feet;
- All building entrances on Nannie Helen Burroughs Avenue NE should be at-grade so as to maximize green space and minimize pavement proposed in public space;
- The proposed sidewalk on 51st Street NE is currently shown as tapering at the northern end of the site. This should be widened to a minimum of 6-feet plus tree boxes and street trees installed; and
- Determine final locations for the short-term bicycle spaces (inverted U-racks) in the ‘furniture zone’ within public space.

DDOT encourages the Applicant to participate in a Preliminary Design Review Meeting (PDRM) to address design related issues raised by DDOT and OP.

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. With approval by the Mayor and DDOT’s Urban Forestry Division (UFD), Heritage Trees might be permitted to be relocated. As such, the Applicant may be required to redesign the site plan in order to preserve the Non-Hazardous Heritage Trees. UFD did not identify any Heritage Trees or Special Trees on-site and recommends that the Applicant coordinate with the Ward 7 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.

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 240-volt electric vehicle charging stations which are common with PUD applications. DDOT recommends that the Applicant provide charging stations to serve at least one (1) vehicle parking space for every 50 vehicle spaces provided for a total of three (3).

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 the three (3) following projects were taken into account as a background development anticipated to be constructed by 2020: 1) Deanwood Hills PUD (150 residential units), 2) Strand Residents (86 residential units and 1,400 SF retail), and 3) Progressive National Baptist Church (100 residential units).

DDOT requires applicants account for regional growth through the build-out year of 2020. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOG's regional travel demand model. The Applicant coordinated with DDOT on an appropriate measure to account for regional growth that accurately accounted for background growth on the network. Annually compounding background regional growth rates of between 0.10% and 2.0% 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. The Applicant determined in coordination with DDOT staff that no major changes to the surrounding roadway network are anticipated by 2020. However, the CTR did assume the new alley connection through Deanwood Hills and the removal of the eastbound left-turn lane and median break at the curb cuts to be closed on Nannie Helen Burroughs Avenue 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 and 702.1(c)(4) of the 2016 Zoning Regulations, the Applicant is required to provide a minimum of 41 vehicle parking spaces for the two proposed residential and buildings (including the 50% transit reduction for being located within ¼ mile of the Priority Corridor Network Metrobus Route X9). The Applicant is proposing to provide a total of approximately 146 vehicle parking spaces (143 spaces in the garage at the western building and 3 surface spaces at the eastern building). DDOT understands this amount of vehicle parking would not trigger the zoning-required TDM Mitigation measures of Subtitle C § 707.3 for being more than double parked because that calculation is based on the amount of spaces before taking the 50% reduction (82 spaces).

DDOT finds the amount of vehicle parking provided to be high for the site given the proposed mix and sizes of land uses, parking ratios in the neighborhood, and proximity to transit routes. Providing additional vehicle parking encourages driving and owning an automobile and discourages transit usage, walking, and bicycling. Based on the Park Right DC tool, DDOT anticipates approximately 105 to 120 spaces would be more appropriate for the proposed development program given the surrounding neighborhood context. The Applicant should provide additional measures in the TDM Plan to offset the additional vehicle trips that may be generated by the extra vehicle parking.

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 220 Apartment, Code 820 Shopping Center) and the assumed mode split to convert base vehicular trips to base person trips using average auto occupancy data and then back to vehicular, 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 Readership Survey, and mode splits used for nearby developments. Figure 2 below shows the mode splits that were assumed for this project.

Land Use	Mode			
	Drive	Transit	Bike	Walk
Residential	60%	35%	2%	3%
Retail	60%	25%	2%	13%

Figure 2 – Summary of Mode Split Assumptions (Source: CTR, Gorove/Slade, Table 2, 1/29/18)

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

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	10 veh/hr	27 veh/hr	37 veh/hr	28 veh/hr	19 veh/hr	47 veh/hr
	Retail	8 veh/hr	4 veh/hr	12 veh/hr	25 veh/hr	26 veh/hr	51 veh/hr
	Total	18 veh/hr	31 veh/hr	49 veh/hr	53 veh/hr	45 veh/hr	98 veh/hr
Transit	Apartments	6 ppl/hr	19 ppl/hr	25 ppl/hr	19 ppl/hr	12 ppl/hr	31 ppl/hr
	Retail	6 ppl/hr	3 ppl/hr	9 ppl/hr	18 ppl/hr	20 ppl/hr	38 ppl/hr
	Total	12 ppl/hr	22 ppl/hr	34 ppl/hr	37 ppl/hr	32 ppl/hr	69 ppl/hr
Bike	Apartments	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
	Retail	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr
	Total	0 ppl/hr	2 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr
Walk	Apartments	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
	Retail	3 ppl/hr	2 ppl/hr	5 ppl/hr	9 ppl/hr	11 ppl/hr	20 ppl/hr
	Total	4 ppl/hr	3 ppl/hr	7 ppl/hr	11 ppl/hr	12 ppl/hr	23 ppl/hr

Figure 3 – Multi-Modal Trip Generation Summary (Source: CTR, Gorove/Slade, Table 3, 1/29/18)

The proposed project is expected to generate a moderate amount of vehicle, transit, bicycle and walking trips during the peak hours. The proposed mode split and subsequent trip generation is consistent with the amount of vehicle parking provided.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 10 intersections (including the alley entrance at Nannie Helen Burroughs Avenue NE) 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 Wednesday, March 22, 2017 between 6:30 AM-9:30 AM and 3:00 PM-6:00 PM, Wednesday, June 7, 2017 between 6:30 AM-9:30AM and 4:00-7:00 PM, and Tuesday, December 5, 2017 between 6:30 AM-9:30 AM and 4:00-7:00 PM while District of Columbia Public Schools and Congress were in session. DDOT is in agreement with the Applicant on the data collection time frame 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 January 29, 2018 which includes an extensive multi-modal analysis of existing conditions (2017 Existing), future with no development (2020 Background), future conditions with development (2020 Future), and 2020 Future with Mitigations scenarios.

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) 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 (2017)				Background Conditions (2020)				Total Future Conditions (2020)				Total Future Conditions, Mitigations (2020)			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Division Avenue and Nannie Helen Burroughs Avenue, NE	Overall	30.1	C	21.5	C	36.9	D	22.5	C	38.8	D	23.9	C	32.3	C	--	--
	Eastbound	10.1	B	11.9	B	10.1	B	11.1	B	9.8	A	11.6	B	10.5	B	--	--
	Westbound	32.4	C	26.5	C	33.7	C	28.9	C	33.7	C	29.8	C	38.6	D	--	--
	Northbound	56.2	E	33.2	C	83.9	F	36.6	D	91.6	F	40.4	D	58.4	E	--	--
	Southbound	22.2	C	19.4	B	22.0	C	18.4	B	22.1	C	18.4	B	19.9	B	--	--
50th Street and Nannie Helen Burroughs Avenue, NE	Eastbound	0.5	A	0.5	A	0.5	A	0.5	A	0.8	A	0.9	A	0.8	A	0.9	A
	Westbound	0.1	A	0.2	A	0.1	A	0.2	A	0.1	A	0.2	A	0.1	A	0.2	A
	Northbound	28.3	D	27.0	D	24.5	C	28.4	D	27.1	D	37.1	E	13.7	B	14.6	B
	Southbound	14.6	B	15.2	C	14.5	B	15.8	C	15.0	C	17.9	C	14.9	B	17.9	C

Figure 4 – LOS Results (Source: CTR, Gorove/Slade, Table 6, 1/29/18)

As shown above, the analysis provided in the CTR shows that two (2) intersections within the study area have approaches during at least one peak hour that either operates at LOS E or LOS F conditions resulting from the addition of site traffic or is worsened by site traffic:

- Nannie Helen Burroughs Avenue and Division Avenue NE – the northbound approach during the morning commuter peak hour is projected to continue operating at LOS F but degrade delay from 83.9 seconds to 91.6 seconds (greater than 5 percent) in 2020 due to site generated traffic. A signal timing adjustment was recommended in the CTR as a way to improve delay back to an LOS E. DDOT finds that signal timing changes are not appropriate as an isolated traffic mitigation solution in conjunction with a development project because an entire corridor would need to be re-timed. The Applicant should instead focus on providing additional TDM measures to offset the impact to this intersection (see Mitigations section).

- Nannie Helen Burroughs Avenue and 50th Street NE – the northbound 50th Street NE approach during the evening commuter peak hour is projected to degrade from LOS D to LOS E in 2020 due to site-generated traffic. The CTR recommended installing more robust signage prohibiting northbound left-turns given the offset and unusual geometry of the intersection. Currently, there is a “one-way” eastbound sign in the median facing this approach; however vehicles regularly disregard this sign. DDOT concurs with this proposal and recommends the Applicant fund and install the additional signage clarifying that the northbound left maneuver is not permitted. Removing the delay associated with this left-turn movement will result in an improvement in level of service for the northbound approach back to LOS B.

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 1.1 miles, roughly a 25-minute walk, from the Benning Road Metrorail station which is served by the Blue and Silver Lines, and approximately 1.2 miles from the Deanwood Metrorail station which is served by the Orange Line.

There are several bus stops along both Nannie Helen Burroughs Avenue and Division Avenue in the vicinity of the site including two (2) located directly in front of the site. Nearby bus stops are served by Metrobus routes U5, U6, V2, V4, W4, and X9 with headways ranging between 3 and 40 minutes, depending on the route. Figure 5 below shows the locations of bus routes and bus stops serving the wider neighborhood.

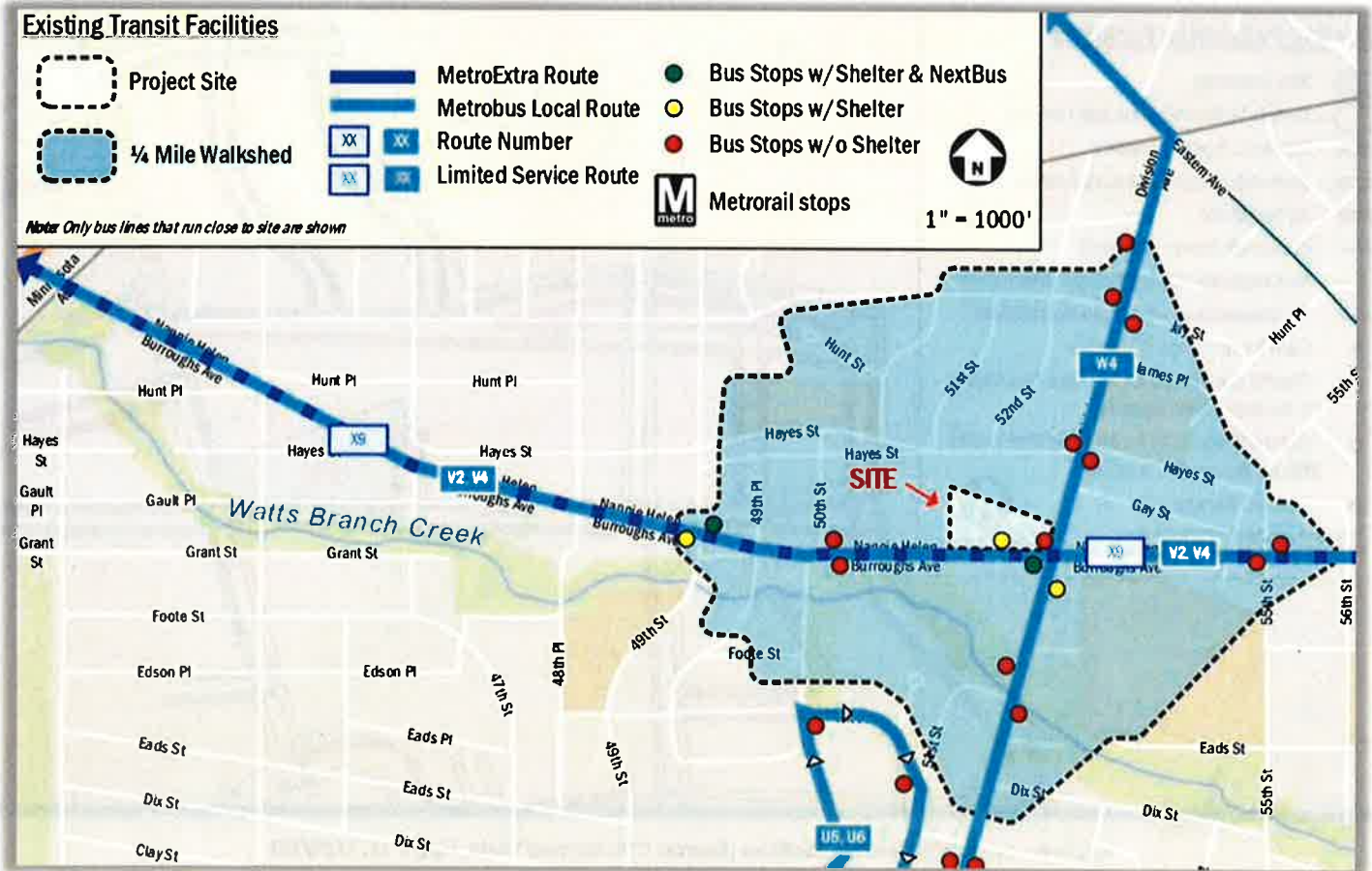


Figure 5 – Metrobus Route Information (Source: CTR, Gorove/Slade, Figure 19, 1/29/18)

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 documented an existing inventory of the pedestrian infrastructure in the vicinity of the site. As shown below in Figure 6, all sidewalks and curb ramps along site frontages on Nannie Helen Burroughs Avenue, Division Avenue, and 51st Street NE meet DDOT standards. While there are several missing or substandard segments of sidewalk and curb ramps in the broader area, the existing pedestrian network along major pathways to schools and attractions is generally adequate. Several segments of missing or substandard sidewalks in the study area will be upgraded by the Strand Residences, Deanwood Hills, and Progressive National Baptist Church PUDs. Additionally, the Applicant has proposed to construct sidewalks along the alley entrance to the site to provide greater pedestrian connectivity.

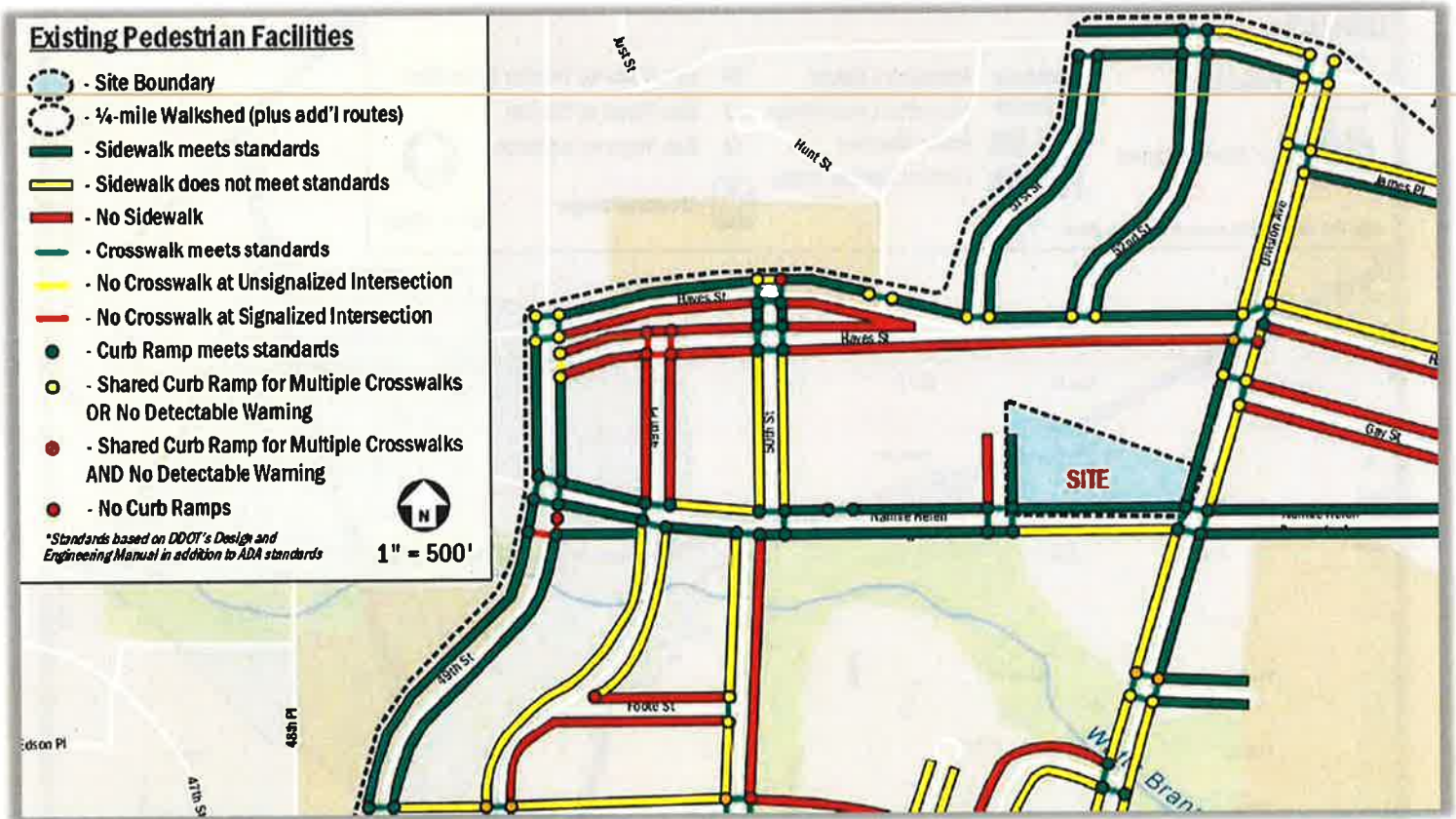


Figure 6 – Existing Pedestrian Facilities (Source: CTR, Gorove/Slade, Figure 21, 1/29/18)

DDOT expects that the Applicant will reconstruct the public space on both Nannie Helen Burroughs Avenue NE (between 51st Street and Division Avenue), Division Avenue (between Nannie Helen Burroughs Avenue and the northern property line), and 51st Street (between Nannie Helen Burroughs Avenue and the northern property line) and upgrade any pedestrian facilities to current DDOT standards.

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, the Applicant is required to provide 62 long-term and 18 short-term bicycle parking spaces. The Applicant is proposing to meet the long-term bicycle parking requirement by providing two (2) storage rooms (one in each building). The short-term spaces are proposed as nine (9) inverted U-racks. DDOT notes that the short-term bicycle racks are not shown in the plan set and should be provided in the ‘furniture zone’ in public space with most installed near the retail entrances.

The Applicant is also proposing 24 additional inverted U-racks (48 spaces) above and beyond the zoning requirement along the northern edge of the site on private property. Access will only be provided from 51st Street NE and the rear doors of the western residential building. These spaces do not meet ZR16 requirements for design and location and should not be counted toward the site’s calculation for required bicycle parking.

As shown in Figure 7 below, the site is currently in close proximity to bicycle facilities including the Marvin Gaye Trail (one block south and one block west of the site) and shared lanes (“sharrows”) along Nannie Helen Burroughs Avenue NE. Division Avenue NE is proposed to have on-street bicycle lanes striped between East Capitol Street and Eastern Avenue NE. Approximately one (1) block south of the site, at the intersection of Division Avenue and Foote Street NE, is also a 15-dock Capital Bikeshare station. This station is planned to be expanded by four (4) docks to a total of 19 docks, as a mitigation for the recently approved Strand Residences PUD (ZC 17-10).

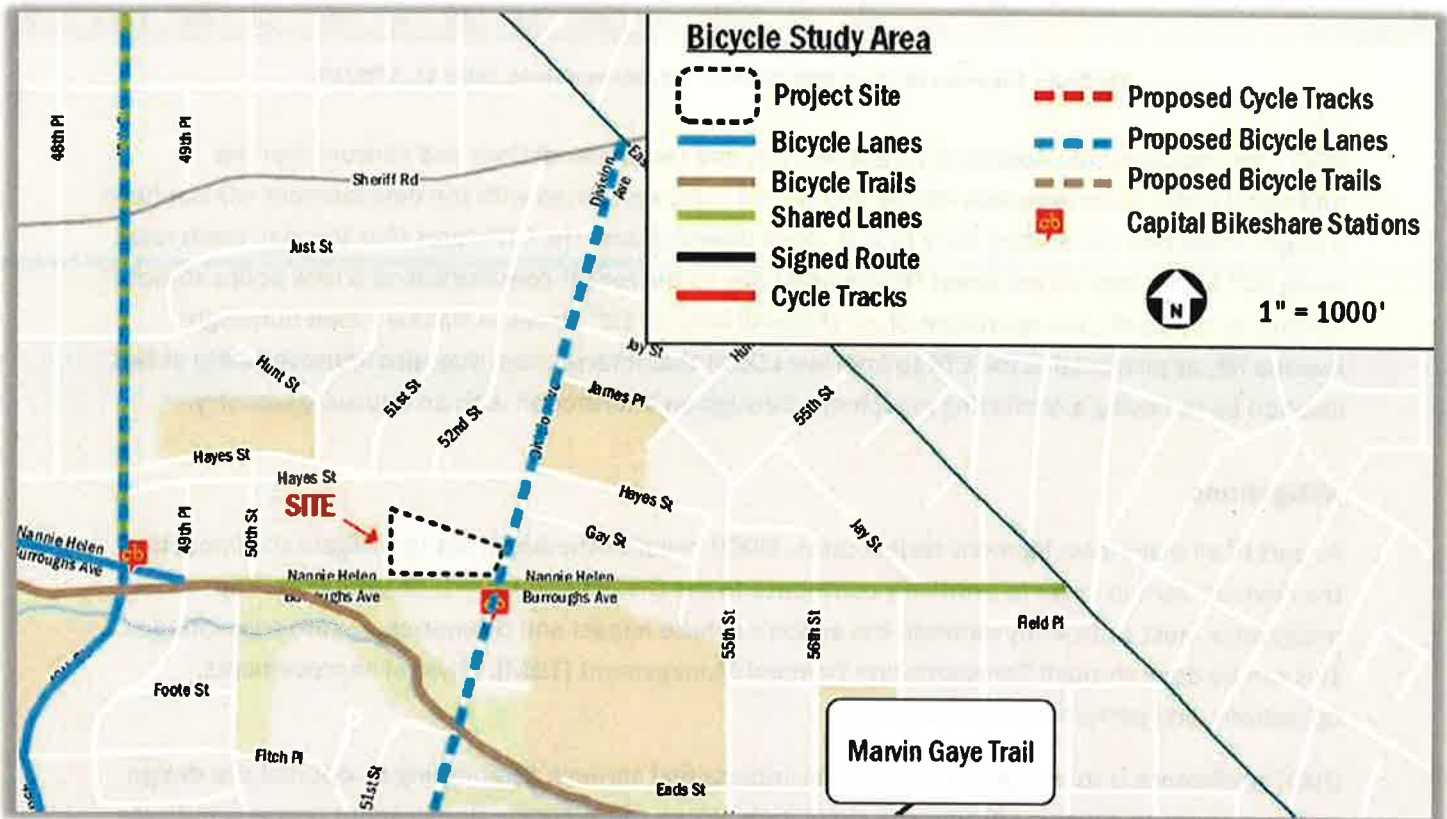


Figure 7 – Existing Bicycle Facilities (Source: CTR, Gorove/Slade, Figure 23, 1/29/18)

Safety

DDOT requires that the Applicant conduct a safety analysis to demonstrate that the site will not create new, or exacerbate existing safety issues for all travel modes. DDOT asks for an evaluation of crashes at study area intersections as well as a site distance analysis along the public space where there is expected to be conflicts between competing modes (e.g. crosswalks, driveway entrances, etc.).

The Applicant’s analysis of DDOT crash data over a three-year period reveals four (4) intersections within the study area with a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. The following table, Figure 8, provides a breakdown of crash types at the intersection identified with a MEV rate of 1.0 or higher.

Intersection	Rate per MEV	Right Angle	Left Turn	Right Turn	Rear End	Side Swiped	Head On	Parked	Fixed Object	Ran Off Road	Ped. Involved	Backing	Non-Collision	Under/Over Ride	Unspecified	Total
NHB Avenue and 50th Street, NE	1.14	2 12%	1 6%	0 0%	1 6%	2 12%	0 0%	2 12%	1 6%	0 0%	0 0%	0 0%	0 0%	0 0%	8 47%	17
50th Street and Hayes Street (South), NE	7.87	0 0%	0 0%	0 0%	0 0%	6 46%	1 8%	2 15%	0 0%	0 0%	0 0%	0 0%	1 8%	0 0%	3 23%	13
50th Street and Hayes Street (North), NE	3.67	0 0%	0 0%	0 0%	0 0%	1 33%	0 0%	1 33%	1 33%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	3
NHB Avenue and Division Avenue, NE	1.60	3 9%	3 9%	2 6%	2 6%	6 18%	1 3%	0 0%	1 3%	0 0%	2 6%	1 3%	1 3%	0 0%	11 33%	33

Figure 8 – Summary of Crash Data (Source: CTR, Gorove/Slade, Table 11, 1/29/18)

DDOT has evaluated the Applicant’s crash analysis and recommendations and concurs that the additional traffic (approximately 49 AM and 98 PM trips) associated with the development will not have a major impact on the existing MEV rate at these intersections. The CTR notes that the high crash rates along 50th Street near Hayes Street NE are likely due to the recent construction of a new police station. Further to the south, the restriction of northbound lefts on 50th Street at Nannie Helen Burroughs Avenue NE, as proposed in the CTR to improve LOS at that intersection, may also improve safety at this location by removing a conflicting movement through an intersection with an unusual geometry.

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 Transportation Demand Management (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 Applicant's CTR capacity analysis demonstrated that delay and level of service at the intersection of Nannie Helen Burroughs Avenue and Division Avenue NE can be improved by making a traffic signal timing adjustment. In lieu of this improvement, DDOT recommends the Applicant make minor improvements to the transit network and TDM Plan, as discussed below.

To mitigate observed traffic impacts at Nannie Helen Burroughs Avenue and 50th Street NE, as well as improve safety for motorists and pedestrians in the vicinity of the site, the Applicant should fund and construct the following improvements:

- Remove the westernmost median break and eastbound left-turn lane on Nannie Helen Burroughs Avenue NE in the location of the existing curb cuts to be closed;
- Install signage on the eastbound and westbound Nannie Helen Burroughs Avenue approaches at Division Avenue restricting U-turns; and
- Install signage on the northbound 50th Street approach at Nannie Helen Burroughs Avenue NE restricting left-turns.

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.

The Applicant proposes a TDM Plan in the January 29, 2018 CTR which includes the following elements:

- 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;
- Provide TDM materials to new residents in the Residential Welcome Package materials;
- Work with DDOT and goDCgo, DDOT's TDM program, to implement TDM measures at the site;
- Share the full contact information of the TDM coordinator for the site with DDOT and goDCgo;

- Meet or exceed zoning requirements to provide bicycle parking facilities at the proposed development. This includes secure parking located on-site and a minimum of 18 short-term bicycle parking spaces around the perimeter of the Site (in the form of 9 bicycle racks);
- Provide a bicycle repair station to be located in the secure long-term bicycle storage room; and
- Install a Transportation Information Center Display (electronic screen) within the residential lobby containing information related to local transportation alternatives.

DDOT finds the proposed TDM plan to be not sufficiently robust for a development program of this size and mix and amount of vehicle parking to offset impacts to the transportation network. DDOT recommends making the following revisions:

- 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 a total of at least eight (8) shopping carts in the two residential buildings for residents to use for running errands and grocery shopping;
- Add to TDM Plan: Place at least one (1) carshare vehicle on-site, preferably in one of the three on-site parking spaces at the eastern building. If carshare providers do not locate a vehicle on-site then the Applicant will provide annual Capital Bikeshare or carshare membership to each residential unit for one (1) year after initial occupancy; and
- Add to TDM Plan: Fund and install an expansion of at least four (4) docks to the existing Capital Bikeshare station at the intersection of Division Avenue and Foote Street NE.

JS:az