

Government of the District of Columbia


Department of Transportation



d. Planning and Sustainability Division

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Anna Chamberlin, AICP
Associate Director 

DATE: September 18, 2020

SUBJECT: ZC Case No. 20-14 – 5 M Street SW

PROJECT SUMMARY

VNO South Capitol LLC and Three Lots in Square 649 LLC (jointly the “Applicant”) has requested approval of a Design Review to construct a mixed-use development with flexibility for two (2) different development programs. The project is located on a 75,656 SF site in Square 649 (Lots 43, 44, 45, and 48) and bounded by M Street SW, Half Street, L Street, and South Capitol Street. With this application, the Applicant proposes the following development programs:

Development Program 1 Mixed Use Scheme	Development Program 2 Residential Scheme
349 Residential Units	615 Residential Units
225,356 SF Office	0 SF Office
25,406 SF Retail/Grocery	23,948 SF Retail/Grocery
403 Parking Spaces	311 Parking Spaces
Four (4) 30-foot Berths Two (2) 20-foot Delivery Spaces	Four (4) 30-foot Berths Two (2) 20-foot Delivery Spaces
170 Long-Term Bike Spaces 32 Short-Term Bike Spaces	142 Long-Term Bike Spaces 42 Short-Term Bike Spaces
6 Showers and 42 Lockers	0 Showers and 0 Lockers

Source: Applicant's 9/11/20 Plan Set

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

- All vehicle parking and truck access will be via two (2) private driveways, one (1) to Half Street SW and one (1) to L Street SW, with an internal connection for circulation. The Applicant will close seven (7) existing curb cuts around the site. DDOT concurs with the proposed access and circulation scheme;
- The private driveway to L Street would preclude access to a future redeveloped Lot 47 (northeast corner of the block) since DDOT will not permit a new curb cut to South Capitol Street for that property and any new curb cut to L Street would not be able to comply with DDOT’s intersection and driveway spacing standards;
- The Applicant should allow for shared access with Lot 47 via the proposed driveway to L Street. To formalize this, DDOT requests the Applicant record a non-restrictive easement with the Office of the Surveyor for a portion of the driveway and easement agreement with DDOT;
- Both development programs meet the ZR16 minimum requirements for loading berths, delivery spaces, and loading platforms;
- All loading operations and maneuvers will occur on private property with head-in and head-out movements through public space, consistent with DDOT standards;
- UFD identified one (1) Heritage Tree in public space near Half Street and L Street that must be preserved, and several Special Trees on private property that will require a permit for removal;
- No off-street vehicle parking is required because the site is in the D-5 zone. For a site so close to two (2) Metrorail stations, DDOT would expect to see a lower parking supply than is proposed by the Applicant (200-250 space range for both development programs);
- The presence of additional parking has the potential to induce more demand for driving on the roadway network. As such, the Applicant proposed an “Enhanced Tier” TDM Plan as mitigation;
- Both development programs meet or exceed the ZR16 minimum requirements for long- and short-term bicycle parking, showers, and lockers. Showers and lockers are not shown on the mixed-use scheme planset, but should be located near the long-term bicycle parking room; and
- Nine (9) electric vehicle charging stations are proposed in Development Program 1 (mixed use scheme) and seven (7) stations in Development Program 2 (residential scheme). These are consistent with DDOT’s recommendation of at least 1 per 50 parking spaces.

Travel Assumptions

- The CTR assumed a mode split of 35% for residential, 55% for office, 5% for neighborhood serving first floor retail, and 30% for grocery. DDOT concurs with these assumptions;

- Both development programs are projected to generate a moderate amount of vehicular traffic and significant amount of walking and transit trips;
- Development Program 1 (mixed use scheme) is projected to generate a similar amount of person trips as Development Program 2 (residential scheme), but is expected to generate more vehicle trips due to the higher assumed auto modeshare for the office use; and
- The transportation network can handle the additional site-generated traffic with mitigation implemented (e.g., signal timing adjustments and additional TDM measures).

Multi-Modal Evaluation

- The site is located approximately 1/8 mile (2 blocks) from the Navy Yard-Ball Park Metrorail Station and 4/10 mile (5 blocks) from the Waterfront Metrorail Station;
- The Applicant is proposing to shift the existing mid-block bus stop on M Street westward to nearside at Half Street. DDDOT concurs and requests the Applicant install a new concrete bus pad and appropriate signage in the new stop location;
- The pedestrian network is mostly complete between the site and nearby transit stations and neighborhood amenities, however there are many substandard or missing sidewalks in the vicinity of the site. The Applicant is upgrading the sidewalks on all four sides of the site;
- DDOT requests the Applicant implement curb extensions at the three Half and L Street SW intersections surrounding the site. Curb extensions improve pedestrian safety by shortening crossing distance and make stop signs more easily visible. DDOT also requests the Applicant construct the short missing segment of sidewalk on the north side of L Street SW;
- There are no bicycle facilities in the vicinity of the site. However, there are several DDOT projects at varying levels of design and implementation to include more protected bike lanes in the area.
- There is one (1) Capital Bikeshare station near the site, approximately two (2) blocks to the east at M and 1st Street SW. Given the projected bike and pedestrian trip generation, DDOT requests the Applicant include two (2) four-plate expansions to the proposed TDM plan.

Traffic Impact Analysis

- The CTR indicated that five (5) of the study intersections would unacceptably degrade in level of service (LOS) due to the addition of site-generated vehicle trips in the “mixed use scheme” and three (3) would degrade in the “residential scheme”;
- Since the “mixed use scheme” is more intense from a vehicle trip generation and traffic impacts standpoint than the “residential scheme,” DDOT’s analysis and mitigation requests are based off the more conservative and worst-case “mixed use scheme”;
- The CTR proposes implementation of signal timing adjustments to improve roadway LOS at impacted intersections; and
- In lieu of signal adjustments that would have upstream and downstream signal implications, DDOT requests the Applicant strengthen the TDM plan with additional pedestrian and bicycle network improvements and other TDM strategies that would encourage non-auto travel and reduce the demand for driving. See later in this report for details.

Mitigations

- The Applicant’s proposed TDM plan in the August 17, 2020 CTR is not sufficiently robust to offset the site’s high parking ratio or to reduce auto travel through intersections identified to have LOS impacts; and
- DDOT has requested specific additional measures to improve its effectiveness and encourage non-automobile access to the surrounding transportation network such as expansion to a nearby bikeshare station, installation of curb extensions around the perimeter of the site, and construction of a missing sidewalk.

RECOMMENDATION

DDOT has no objection to approval of either development scheme considered in this Design Review application with the following conditions:

- Record a non-restrictive easement with the Office of the Surveyor and accompanying easement agreement with DDOT for a portion of the north-south driveway adjacent to Lot 47 to ensure vehicular access is available to that property when it redevelops; and
- Implement the Transportation Demand Management (TDM) Plan proposed in the Applicant’s August 17, 2020 CTR, for the life of the project unless otherwise noted, with the requested additions noted in the TDM section at the end of this report, subject to DDOT approval;
 - Including curb extensions at the three (3) Half Street SW and L Street intersections surrounding the site.
 - Including the short missing segment of sidewalk on the north side of L Street SW;
 - Including two (2) four-dock expansion plates to the existing Capital Bikeshare station at M Street SW & 1st Street SW; and
 - Including five (5) years of annual Capital Bikeshare passes to all residents (1 per unit).

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, streetlights, sidewalks, curb ramps, and other features within the public right-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 proposed in public space. DDOT has several comments on the Applicant’s initial public space design which are noted later in the Streetscape and Public Realm section and can be resolved during the public space permitting process;
- Coordinate with WMATA and DDOT’s Transit Delivery Division (TDD) on the relocation of the existing bus stop on the north side of M Street SW;
- The Applicant should participate in a Preliminary Design Review Meeting (PDRM) to discuss the public space design with DDOT and OP;
- Submit a detailed curbside management and signage plan to DDOT, consistent with current

DDOT policies. If meter installation is required, they will be at the Applicant's expense. Note that the curbside designations ultimately approved may be different depending on which program is chosen for development; and

- Coordinate with DDOT's Urban Forestry Division (UFD) and the Ward 6 arborist regarding preservation of the Heritage Tree, removal of Special Trees on-site, 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 five categories: site design, travel assumptions, multi-modal evaluation, traffic impact 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, vehicle parking, 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

Vehicular access to the underground parking garage and truck access to the loading areas are via one (1) curb cut to Half Street SW and one (1) to L Street. The driveways are connected internally to allow for porosity and circulation. Seven (7) existing curb cuts are proposed to be closed. DDOT concurs with this access and circulation schemed. Figure 1 below shows the site layout of the proposed residential scheme (Development Program 2). The mixed-use scheme (Development Program 1) has a similar layout but the building in the northwest corner of the block is primarily office instead of residential.

It is noted that if the north-south private driveway is constructed in the location shown on the plans, it would effectively cut off vehicle access to neighboring Lot 47 (existing surface parking lot in northeast corner of block, not part of this application) since DDOT will not permit a curb cut to a future developed

property from South Capitol Street and they will be unable to meet the driveway spacing standards. As such, DDOT requests the Applicant allow shared use of the north-south driveway with Lot 47. To formalize this, the Applicant should record a non-restrictive easement with the Office of the Surveyor and accompanying easement agreement with DDOT.



Figure 1 – Site Plan (Source: Gorove/Slade CTR, 8/17/2020)

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.

The site is proposed to have four (4) 30-foot loading berths, four (4) platforms, and two (2) 20-foot delivery spaces, consistent with Subtitle C § 901.1 and § 901.4 of the 2016 Zoning Regulations (ZR16). Access to the loading and trash areas are via the two (2) private driveway connections. All trash and delivery trucks are proposed to enter head-in and exit head-out to the public right-of-way with all turning maneuvers taking place on private property. Since no zoning or design relief is being sought for the loading facilities and there are no negative impacts to DDOT public space, a Loading Management Plan (LMP) is not required by DDOT. The AutoTurn diagrams in the CTR appendix showed that WB-67

trucks may encroach on the Half Street SW curb. As such, the curb cut may need to be altered or mountable curbs installed to provide more room for large trucks to turn into the site.

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.

There is no minimum off-street parking requirement because the site is located in the D-5 zone. The Applicant is proposing to provide 403 spaces in Development Program 1 (349 residential units, 225k SF office, 25k SF retail) and 311 spaces in Development Program 2 (615 residential units, 24k SF retail). Since the site is located within 1/8 mile of a Metrorail Station (Navy Yard-Ball Park), DDOT prefers minimal amount of parking be provided. According to the off-street parking guidelines in DDOT's June 2019 *Guidance for Comprehensive Transportation Review*, approximately 200-250 spaces would be more appropriate for this site. Research has shown that the presence of additional parking has the potential to induce more driving on the roadway network. As such, the Applicant has proposed an "Enhanced Tier" Transportation Demand Management (TDM) plan, discussed later in this report, to mitigate this impact.

Regarding on-street parking, according to the Residential Permit Parking (RPP) database, all four streets surrounding the site are not currently assigned RPP restrictions. Therefore, any future residents would not be eligible to obtain RPP passes at the Department of Motor Vehicles (DMV), regardless of the address selected for the site. The Applicant should assume that Half Street and L Street will be metered in the future, given the proposed building uses and first floor retail, subject to further signage refinement and approval by DDOT's Parking and Ground Transportation Division (PGTD). If multi-space meters are required by PGTD, they will be at the expense of the Applicant.

Bicycle Parking

Per ZR16 Subtitle C § 802.1, the Applicant is required to provide a minimum of 156 long-term and 30 short-term bicycle parking spaces for Development Program 1 (mixed use scheme) and 130 long- and 38 short-term bicycle parking spaces for Development Program 2 (residential scheme). The Applicant is proposing to exceed these requirements by providing 170 long/32 short and 144 long/42 short spaces, respectively. Long-term bicycle parking spaces are shown on the first parking garage level. The short-term bicycle parking spaces are shown in public space around the perimeter of the site, but final locations will be determined during permitting. ZR16 requires six (6) showers and 42 lockers for Development Program 1 (mixed use scheme) and zero (0) of each for Development Program 2 (residential scheme). Showers and lockers are not currently shown on the latest mixed-use scheme planset but should be located near the long-term bicycle parking room. Both the CTR and zoning tabulation page of the planset state showers and lockers will be provided consistent with the zoning requirement.

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, streetlights, 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 2019 version of the *Design and Engineering Manual (DEM)* and the *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 and encourages the Applicant to participate in a Preliminary Design Review Meeting (PDRM) to address design related comments provided by DDOT and OP.

While the preliminary public space plans, shown above in Figure 1, are generally consistent with DDOT standards, there are several considerations that need to be reviewed in greater detail during the public space permitting process:

- DDOT concurs with closing seven (7) curb cuts around the block and replacing them with only two (2) to serve the private driveways;
- The driveway and curb cut to L Street should be of an alley design, while the curb cut to Half Street should meet commercial curb cut standards. The truck turning diagrams showed some encroachment of the Half Street curb from WB-67 trucks and may necessitate widening the curb cut or installing mountable curbs;
- Refine the design of the curb extensions requested by DDOT be added to the TDM plan;
- Given the proposed land uses and first floor retail use, assume metered parking along the site frontages on Half Street or L Street, subject to final approval by Parking and Ground Transportation Division (PGTD). Multi-space meters will be installed at the Applicant’s expense;
- Ensure all building entrances are at-grade with the adjacent sidewalk to avoid unnecessary ramps and stairs in public space. Staircases to residential units along Half Street must meet projection standards;
- All vaults must be accommodated on private space;
- DDOT concurs with shifting of the bus stop west on M Street to be nearside at Half Street. A concrete bus pad should be provided and shown on public space plans;
- Ensure the new sidewalk along South Capitol Street ties into the sidewalk adjacent to Lot 47 (existing parking lot in northeast corner of block);
- Ensure corners on all four (4) sides surrounding the site have two (2) ADA ramps and high visibility crosswalks;
- Building projections on South Capitol Street may be blocking views of the Capitol Building;
- Submit a Tree Preservation Plan for the existing Heritage Tree in public space near Half Street and L Street so that it is not damaged or removed during construction;

- Determine final locations for the short-term bicycle spaces (inverted U-racks) in adjacent public space near building entrances. They should be spread out within the furniture zone so that two (2) additional street trees can be added along M Street SW.

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's CTR states that nine (9) electric vehicle (EV) charging stations will be provided in the parking garage for Development Program 1 (mixed use scheme) and seven (7) for Development Program 2 (residential scheme). These are consistent with DDOT's recommendation for 1 EV station for every 50 parking spaces.

Heritage, Special, and Street 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 identified one (1) Heritage Tree in the public parking zone near the intersection of Half Street and L Street that must remain. The Applicant should submit a Tree Preservation Plan to ensure it is not damaged or removed during construction. There were also several Special Trees (44+ inches) located on private property that will require a permit from UFD in order to remove. The Applicant should work with the Ward 6 Arborist regarding these trees.

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.

Mode Split and 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 study assumed the mode splits for each proposed land use in both the residential and mixed-use schemes as shown in Figure 2 below. The mode split assumptions were based on a variety of sources,

including WMATA ridership data and census data. The parking ratio and proximity to Metrorail stations were also factored into the assumed mode splits.

Land Use	Mode			
	Drive	Transit	Bike	Walk
Residential	35%	45%	10%	10%
Office	55%	30%	5%	10%
Retail	5%	5%	10%	80%
Grocer*	30%	20%	10%	40%

Figure 2 – Mode Split Assumptions (Source: CTR, Gorove/Slade, Table 4, 8/17/20)

Trip generation estimates were developed using the rates published in the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition* (Land Use Cod 710 General Office, Code 222 Multi-Family Mid-Rise, Code 850 Supermarket, and 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. The CTR also assumed a 25% pass-by rate for the grocery use to account for vehicles already on the roadway network that turn into the site and then resume their original journey after exiting the site. DDOT finds these methods appropriate. Figure 3 shows the predicted number of weekday peak hour trips generated by each development program.

Scenario	Weekday AM Peak Hour Person Trips	Weekday PM Peak Hour Person Trips	Weekday AM Peak Hour Vehicle Trips	Weekday PM Peak Hour Vehicle Trips
Development Program 1 Mixed Use Scheme	498 ppl	703 ppl	192 vehs	225 vehs
Development Program 2 Residential Scheme	373 ppl	602 ppl	103 vehs	146 vehs

Figure 3 – Multi-Modal Trip Generation Summary (Source: CTR, Gorove/Slade, Tables 7 & 8, 8/17/20)

As shown above, Development Program 1 (mixed use scheme) is projected to generate more vehicle and person trips than Development Program 2 (residential scheme). This is due to the higher assumed auto-modeshare for the office use. Both programs are projected to generate a moderate amount of vehicle trips and significant amounts of person trips, specifically by the transit mode. As discussed later in this report, the transportation network is able to handle either development program, assuming some updates to traffic signal timings and enhancements to the site’s TDM plan are implemented.

The site is currently occupied by a 7-11 store and adjacent parking lot. These uses generate 114 AM and 98 PM peak hour vehicle trips today. After those uses are razed and developed, the site would generate a similar amount of vehicle trips under the “residential scheme” (with a slight reduction in the AM peak hour) and a moderate amount more under the “mixed use scheme.”

Multi-Modal Network Evaluation

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 site is well connected to transit hubs and neighborhood amenities via the sidewalk network. The area surrounding the site currently includes many substandard sidewalks and missing curb ramps and crosswalks. As part of this project, the Applicant will upgrade the sidewalk on all four sides of the block to meet current DDOT standards. There is one short segment of missing sidewalk on the north side of L Street. To improve pedestrian safety in the vicinity of the site and to encourage more walking, DDOT requests the Applicant construct this missing segment of sidewalk and construct bulb-outs (design to be determined during permitting) at the three Half Street and L Street intersections surrounding the site. During permitting, DDOT will work with the Applicant to deploy additional high-visibility crosswalks where missing or faded.

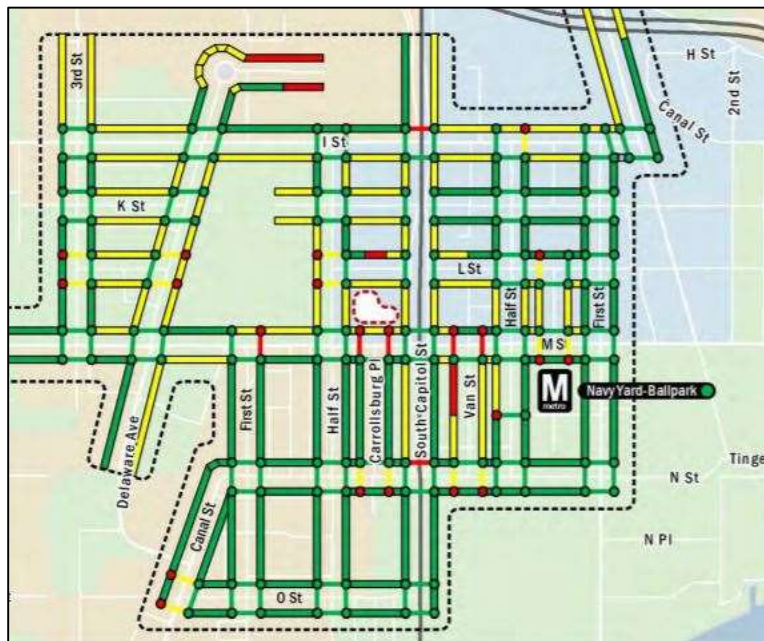


Figure 4 – Pedestrian Facilities (Source: CTR, Gorove/Slade, Figure 37, 8/17/20)

Bicycle Network

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.

As shown below in Figure 5, there are currently no bike lanes in the immediate area. North of the site, on I Street SW, are bike lanes connecting the Navy Yard neighborhood to the Southwest neighborhood

and the Wharf. East of the site, on M Street SE, DDOT is in the process of creating bus and bike only lanes. There is a Capital Bikeshare station approximately two (2) blocks west of the site. Given the projected amount of bicycle and pedestrian trips to the site, DDOT requests the Applicant expand the existing station at the M Street and 1 Street SW by eight (8) docks and four (4) bikes.



Figure 5 – Future Bicycle Facilities (Source: CTR, Gorove/Slade, Figure 39, 8/17/20)

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 1/8 mile west of the Navy Yard-Ball Park Metrorail Station and 4/10 mile east of the Waterfront Metrorail Station which are both served by the Green Line, as shown in Figure 6 below. There is currently a bus stop located on the north side of M Street SW mid-block between South Capitol Street and Half Street that is served by several WMATA bus routes. The nearest DC Circulator route is approximately one (1) block east of the site near South Capitol Street SE. The Applicant is proposing to move the bus stop westward to be nearside at the intersection with Half Street. DDOT supports this proposed move and notes that the Applicant should also install a new concrete bus pad and work with DDOT’s Parking and Ground Transportation Division (PGTD) to implement bus zone signage.



Figure 6 – Existing Transit Service (Source: CTR, Gorove/Slade, Figure 35, 8/17/20)

Traffic Impact Analysis (TIA)

To determine the proposed development’s impacts on the transportation network, the Applicant completed a Comprehensive Transportation Review (CTR) study, prepared by Gorove/Slade, dated August 17, 2020 which includes an extensive multi-modal analysis of existing conditions (2020 Existing), future with no development (2024 Background) and future conditions with development (2024 Future) scenarios. The CTR evaluated both Development Program 1 (mixed use scheme) and Development Program 2 (residential scheme). Since the “mixed use scheme” is more intense than the “residential scheme” from a vehicle trip generation and traffic impacts standpoint, the following DDOT analysis is only for the worse case “mixed use scheme.”

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 volumes from 19 other nearby projects were taken into account as anticipated to be constructed and open by 2024.

DDOT also requires Applicants account for regional growth through the build-out year of 2024. 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. A maximum annually compounding regional background growth rate of 0.5% was assumed in the study area, differing by roadway and adjusted downward due to the significant number of background projects account for.

DDOT also requires applicants to consider future changes to the roadway network. It was determined in coordination with DDOT staff that the only planned background transportation network improvements would be on M Street SE at 1st Street and Half Street by 2024. As part of the DDOT M Street priority bus and bike lane project, several lanes throughout the corridor would be restriped. Phase 2 of the South Capitol Street project, which will include a redesign of the M Street and S. Capitol Street interchange is not currently funded for construction and likely more than 10 years away. Therefore, it was not included in the analysis.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 20 existing intersections 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.

Given the unique circumstances of the COVID-19 pandemic, fresh new commuter peak hour traffic counts were not able to be collected at study area intersections. Any counts that would have been collected during this time period would not have been reflective of typical commuting patterns. Instead, DDOT worked with the Applicant to develop an alternate methodology. The Applicant was able to obtain vehicular traffic counts for nearby intersections from various other studies conducted in the area. Gaps in traffic count data were filled using Streetlight© cell phone data to create anticipated 2020 conditions had the disruptions from the pandemic not occurred. Projected site-generated traffic volumes from the trip generation analysis were then assigned to the roadway network and added to Background 2024 volumes to create Total Future 2024 conditions. Volumes from each of these scenarios were then evaluated in the roadway capacity and operations analysis, as discussed below.

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 roadway capacity analysis provided in the CTR for the “mixed use scheme” demonstrated that five (5) study intersections would have at least one approach that degrades in Level of Service (LOS) during a commuter peak hour due to the addition of site generated traffic. Since only three (3) of the intersections were impacted in the “residential scheme”, DDOT’s analysis and mitigation requests are based on the traffic worst-case “mixed use scheme”. The impacted intersections identified in the analysis included: 1) M Street and Half Street SW, 2) I Street and Half Street SW, 3) M and First Street SE, 4) South Capitol Street and Eye Street SE/SW, and 5) South Capitol Street and N Street SE/SW.

As mitigation to improve future LOS, the study recommends signal timing adjustments at each of these intersections. It is noted that DDOT does not make signal timing adjustments at individual intersections

in conjunction with a specific land development project because most signals are in coordinated networks that would have implications to upstream and downstream signals. Instead, DDOT recommends implementing additional TDM strategies and improving the bike and pedestrian network around the site to encourage more usage of non-auto modes and reducing driving through the impacted intersections (see specific TDM strategies in Mitigations section below).

Mitigations

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's 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, a reduction in parking and implementation of 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 Zoning Order:

Transportation Demand Management

As part of all major development review cases, DDOT requires the Applicant to develop a comprehensive 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 proposed the following TDM Plan for each of the in the August 17, 2020 CTR:

Site-Wide TDM Strategies

- Unbundle the cost of vehicle parking from the lease or purchase or lease agreement for each residential, retail, and office unit and charge a minimum rate based on the average market rate within a quarter mile. Free parking or discounted rates will not be provided.

- Identify Transportation Coordinators for the planning, construction, and operations phases of the office units within the development. There will be a Transportation Coordinator for each retail and office tenant and the entire residential component/building. The Transportation Coordinators will act as points of contact with DDOT, goDCgo, and Zoning Enforcement.
- Will provide Transportation Coordinators' contact information to goDCgo, conduct an annual commuter survey of employees on-site, and report TDM activities and data collection efforts to goDCgo once per year. All employer tenants must survey their employees and report back to the Transportation Coordinator.
- Transportation Coordinators will develop, distribute, and market various transportation alternatives and options to the employees, including promoting transportation events (i.e., Bike to Work Day, National Walking Day, Car Free Day) on property website and in any internal building newsletters or communications.
- Transportation Coordinators will receive TDM training from goDCgo to learn about the TDM conditions for this project and available options for implementing the TDM Plan.
- Transportation Coordinator will subscribe to the applicable goDCgo's newsletters.
- Transportation Coordinator will notify goDCgo each time a new office and retail tenant moves in and provide TDM information to each tenant as they move in.
- Transportation Coordinator will provide links to CommuterConnections.com and goDCgo.com on property websites.
- Transportation Coordinators will implement a carpooling system such that individuals working in the building who wish to carpool can easily locate other employees who live nearby.
- Distribute information on the Commuter Connections Guaranteed Ride Home (GRH) program, which provides commuters who regularly carpool, vanpool, bike, walk, or take transit to work with a free and reliable ride home in an emergency.
- Provide residents and employees who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOCG) or other comparable service if MWCOCG does not offer this in the future.
- Will not lease unused parking spaces to anyone aside from tenants of the building (e.g., will not lease to other nearby office employees, single-family home residents, or sporting events).
- Following the issuance of a certificate of occupancy for the project, the Transportation Coordinator will coordinate with DDOT and goDCgo every five (5) years (as measured from the final certificate of occupancy for the project) summarizing continued compliance with the transportation and TDM conditions in the Order.
- Install a Transportation Information Center Display (electronic screen) within the residential and office lobbies (two total in either scheme), containing information related to local transportation alternatives. At a minimum the display 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.

- Additional short- and long-term bicycle parking spaces above ZR16 requirements. 14 additional long-term spaces above the zoning requirements and will exceed the number of short-term spaces required by the zoning requirements.
- Provide a bicycle repair station in the bicycle parking storage rooms.
- Long-term bicycle storage rooms will accommodate nontraditional sized bikes including cargo, tandem, and kids bikes.

Residential TDM Strategies

- Provide welcome packets to all new residents that should, at a minimum, include the Metrorail pocket guide, brochures of local bus lines (Circulator and Metrobus), carpool and vanpool information, CaBi coupon or rack card, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map. Brochures can be ordered from DDOT's goDCgo program by emailing info@godcgo.com.
- Will meet ZR16 short- and long-term bicycle parking requirements. Long-term bicycle space will be provided free of charge to residents.
- Provide one (1) collapsible shopping cart (utility cart) for every 50 residential units, for a total of seven (7) under the Mixed-Use scheme and 14 under the Residential scheme to encourage residents to walk to the grocery shopping and run errands.

Retail TDM Strategies

- Will meet ZR16 short- and long-term bicycle parking requirements. Long-term bicycle parking will be provided free of charge to all employees.
- Provide a free parking space for all vehicles that employees use to vanpool to work; not to exceed one (1) space (shared with office).
- Coordinate with BID, WMATA, and local ANC on a way finding plan along walking routes to the property from the Navy Yard-Ballpark and Waterfront Metrorail stations.

Office TDM Strategies – (Mixed-Use Scheme Only)

- Designate a minimum of two (2) preferential carpooling spaces and one (1) preferential vanpooling space in a convenient location within the parking garage for employee use.
- Will meet ZR16 requirements for showers and lockers for use by employees. Six (6) showers and 42 lockers are required for the office component of the project under the Mixed-Use scheme.
- Will meet ZR16 short- and long-term bicycle parking requirements. Long-term bicycle parking will be provided free of charge to all employees.
- Provide a free parking space for all vehicles that employees use to vanpool to work;

DDOT finds the proposed TDM plan is not sufficiently robust to offset potential induced demand for driving from the high parking ratio or to mitigate LOS impacts at five (5) intersections. DDOT requests the following additional strategies be included in the TDM Plan to encourage additional walking and bicycling and reduced demand for driving:

- Fund and install two (2) four-dock Capital Bikeshare expansion plates at the existing station at M Street and 1st Street SW, subject to DDOT approval;

- Fund and construct curb extensions at the three Half Street and L Street intersections surrounding the site, subject to DDOT approval. Specific corners and design will be finalized during public space permitting;
- Fund and construct the missing 90-foot segment of sidewalk along the north side of L Street, subject to DDOT approval;
- Install a transit screen in the office lobby (mixed use scheme only); and
- Provide an annual Capital Bikeshare membership for free to each residential unit, for the first five (5) years after the building is occupied.

Additionally, the TDM Plan should include the following two (2) strategies that DDOT requires of all TDM plans:

- Following the issuance of a certificate of occupancy for the Project, the Transportation Coordinator shall submit documentation from DCRA summarizing compliance with the transportation and TDM conditions of the Order (including, if made available, any written confirmation from the Office of the Zoning Administrator) to the Office of Zoning for inclusion in the IZIS case record of the case; and
- Following the issuance of a certificate of occupancy for the Project, the Transportation Coordinator will submit a letter to the Zoning Administrator, DDOT, and goDCgo every five (5) years (as measured from the final certificate of occupancy for the Project) summarizing continued compliance with the transportation and TDM conditions in the Order.

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