

GOVERNMENT OF THE DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION



d. Policy, Planning and Sustainability Administration

MEMORANDUM

TO: Sara Bardin
Director, Office of Zoning

FROM: Samuel Zimbabwe *JSW*
Associate Director

DATE: February 16, 2016

SUBJECT: ZC Case No. 08-30B – West Half Street

PROJECT SUMMARY

West Half Residential II, LLC and West Half Residential III, LLC (the “Applicant”) requests to modify previously approved plans for the construction of a mixed-use building in the Capitol Gateway (CG) Overlay and CR Zone District (11 DCMR §§1604, 1605, and 1610). The previously approved plans included the entirety of the eastern portion of Square 700, bounded by M Street, Half Street, N Street, and Van Street, SE. The modification applies only to the southern portion of the development (Square 700, Lots 33, 802, 840, 841, 850, 864, 865, 868, and 871-875), and the Applicant seeks a special exception from §411.9 and §639.1 to provide separate heights for penthouse enclosing walls and relief from requirements for lot occupancy (§634.1), closed court (§638.2), setback along Half Street, SE (§634.1), percentage of compact parking spaces (§2115.2), grouping of compact spaces (§2115.4), and loading (§2201.1). This project consists of:

- 424 dwelling units;
- 65,175 square feet of retail;
- 315 vehicular parking spaces (232 residential, 83 retail); and
- 145 long-term bicycle parking spaces.

SUMMARY OF DDOT REVIEW

DDOT is committed to achieve an exceptional quality of life in the nation’s capital by encouraging sustainable travel practices, safer streets, and 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. DDOT finds:

Site Design

- Loading and parking access is proposed to occur from two new curb cuts on Van Street; and
- Truck access will utilize backing movements in public space.

Travel Assumptions

- The site is well served by both Metrorail and Metrobus;
- The amount of vehicle parking is higher than zoning; and
- The action is expected to generate a high number of new vehicle and transit trips.

Analysis

- The Applicant utilized sound methodology to perform the analysis;
- Existing transit service should have capacity to accommodate future demand;
- The action is projected to impact three intersections (Van Street Street/M Street, South Capitol Street/M Street, and South Capitol Street/N Street);
- The proposed loading management plan addresses potential conflicts with pedestrians and vehicles from back-in maneuvers, particularly during ballpark events; and
- The Transportation Demand Management (TDM) measures are not sufficiently robust to reduce the expected impacts to the transportation network, particularly the intersection of Van Street and M Street.

Mitigations

DDOT has no objection to the requested approval with the following conditions:

- Amend the TDM plan to include the following:
 - The TDM Leader (for planning, construction, and operations) will work with goDCgo staff to create free customized marketing materials and a TDM outreach plan for residents and retail employees, including developing a site-specific transportation guide for residents and visitors;
 - The building management agrees to provide updated contact information for the TDM Leader and report of TDM efforts and amenities to goDCgo staff once per year;
 - Provide a SmarTrip card preloaded with \$100 to all new residents (owners and lessees) each year for a total of five years;
 - Provide a free annual Capital Bikeshare membership to all residents (owners and lessees) each year for a total of five years;
 - The Applicant will stock Metrorail, Metrobus, DC Circulator, Capital Bikeshare, Guaranteed Ride Home, DC Commuter Benefits Law, and other brochures; and
 - The public transit information screen shall be located in each of the two residential lobbies.

Continued Coordination

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

- Public space, including curb and gutter, street trees and landscaping, street lights, sidewalks, and other features within the public rights of way, are expected to be designed and built to DDOT standards. Careful attention should be paid to pedestrian and bicycle connections along the site's perimeter and adjacent infrastructure;
- A unified streetscape design for the entirety of Half Street between M and N Streets as design details are coordinated between DDOT, Office of Planning, and all property owners who front Half Street. A design must be finalized by the time the site is ready for occupancy as a temporary streetscape is not acceptable;
- Reduction in special paving along N Street, which is currently shown at 6 feet;
- Required short-term bicycle parking spaces to be located at main building entrances; and
- Recommended provision of one 240-volt electric car charging stations on the first level of the parking garage.

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

The Applicant proposes all vehicular access to the site on Van Street SE, which is a short local roadway between Half Street and South Capitol Street that connects M and N Streets. As shown in Figure 1, two curb cuts are proposed to provide vehicular access to the site. The northernmost curb cut will serve as the loading access for the residential and retail uses and the southernmost curb cut will serve for vehicular and bicycle parking access.



Figure 1 Site Design and Access (Source: Grove/Slade Associates)

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. This often results in loading being accessed through an alley network.

The Applicant proposes providing two 30-foot loading bays and two 20-foot service and delivery space. Zoning requires providing two 55-foot loading berths (one for residential use and one for retail use), one 30-foot loading berth (for retail use), and two 20-foot service and delivery spaces (one for residential use and one for retail use). However, due to size constraints of the site, the Applicant is not able to accommodate all truck turning maneuvers on-site.

Since loading cannot be accessed through an alley and back-up maneuvers will occur in the public realm, the Applicant has proposed the following loading management plan:

- All deliveries will be permitted between 7:00 AM and 4:00 PM, seven days per week, except when events occur at Nationals Park. Deliveries cannot be scheduled for the period between two hours when an event begins and one hour after an event is completed, including during the event itself.
- A representative of Building Management will supervise all trucks using the loading facilities (this does not apply to delivery vans). This person must also manage vehicular traffic entering and exiting the parking garage while trucks are maneuvering to ensure that trucks are able to complete maneuvering into the loading berth without delay.
- All move in/move out activity must be scheduled with Building Management to ensure that the dock capacity is not exceeded. Building management will not schedule deliveries during Nationals Park events as defined above when there could be heavier than typical pedestrian traffic on Van Street.
- A flagger will be present whenever a vehicle is entering or exiting the loading dock to ensure pedestrian, bicycle, and vehicle safety with truck back-in and exiting maneuvers.
- Building management will post a sign in a highly visible location within the loading area that states that all tenants are required to schedule move activities that utilize the loading dock using a truck 20' in length or larger.
- Trucks using the loading dock 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 Map (godcgo.com/truckandbusmap).

DDOT finds the proposed loading facilities and loading management plan appropriate for this site considering the location and constraints of the site.

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.

DDOT expects the Applicant to design and build the streetscape surrounding the property to current DDOT standards. As shown in the current plans, 6 feet of special paving is proposed on N Street. DDOT expects the Applicant to reduce the amount of special paving to comply with District standards and match the guidelines established along N Street.

Previous submissions to the Zoning Commission for this and other sites fronting Half Street from the Ballpark to M Street showed a curbless Half Street, which DDOT supported. DDOT is currently developing curbless street standards as part of the Florida Avenue Market, which could be implemented on Half Street. DDOT has discussed the design and construction of a curbless street section with the Applicant and other stakeholders on the block. If agreement on the design cannot be achieved between DDOT and all stakeholders, DDOT expects the Applicant to design and build the streetscape surrounding the property to current DDOT standards. A design must be finalized by the time the site is ready for occupancy as a temporary streetscape is not acceptable.

The Applicant must work closely with DDOT and 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 the District of Columbia Municipal Regulations, DDOT's *Design and Engineering Manual* will serve as the main public realm references for the Applicant. DDOT staff will be available to provide additional guidance during the public space permitting process.

Final design of the public space will be determined during DDOT's public space permitting process. DDOT notes the importance of maximizing the width of sidewalks along the perimeter of the site to accommodate pedestrian and bicycle activity.

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.

Based on the size of the proposed development and the number of vehicular parking spaces, DDOT recommends that the Applicant provide one 240-volt electric car charging stations on the first level of the parking garage.

Travel Assumptions

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

Changes in Land Use Context

DDOT has undertaken two distinct efforts to evaluate and modify the transportation infrastructure along South Capitol Street and M Street SE/SW. The analysis produced for these studies evaluated the potential impacts of future land uses along with proposed changes to the transportation infrastructure. The studies concluded that the transportation network can accommodate anticipated growth, but will be at capacity.

The transportation improvement projects recommended from these studies provide a framework to help mitigate some levels of congestion and enhance mobility along these two major corridors. Below are brief descriptions of these corridor-wide studies and recommended projects.

- 1) **South Capitol Street Corridor Improvements** - The purpose of the South Capitol Street Corridor project is to improve safety, multimodal mobility, accessibility, and support economic development. This project will transform the existing corridor by rationalizing capacity, upgrading bridge structures, and modifying traffic patterns to operate more efficiently. When complete, the South Capitol Street Corridor will serve as a major urban gateway to the US Capitol and District of Columbia's Monumental Core.
- 2) **M Street, SE/SW Transportation Study** - The study identified current and future transportation challenges and needed mitigation measures within an approximately 1.7-square-mile area along M Street SE/SW, and the Southwest waterfront from 12th Street, SE to 14th Street, SW and from the Southeast/Southwest Freeway south to the Anacostia River/Washington Channel. The study analyzed the integration of transit, bicycling and walking with motor vehicle traffic in order to best serve the neighborhoods in this burgeoning section of the City. Safety and access needs were balanced to address the travel needs of residents with those of visitors and workers who will be drawn to new retail and mixed use development planned for the area.

The analysis from both studies revealed that future land development projects need to achieve a reasonable vehicle trip generation in order to maintain functionality of the system. This can be equated to the level of trip generation that could be expected from providing a level of parking equivalent to the zoning minimums. As such, DDOT will be working to limit vehicle trip generation on this and future projects to ensure network functionality into the future. In order to limit vehicle trip generation for this proposed project, DDOT recommends a series of TDM measures described further in this report.

Background Developments and Regional Growth

As part of the analysis of future conditions, DDOT requires applicants account for future growth in traffic on the network or what is referred to as background growth. Eight entitled projects with an origin or destination within the study area were included in the analysis.

DDOT also requires applicants account for regional growth. This can be done by assuming a general growth rate or by evaluating growth patterns forecast in MWCOC's regional travel demand model. The Applicant's analysis used MWCOC's model and general growth rate for certain roads due to the intensity of development in the area not accounted for by the background growth. Figure 2 summarizes the background growth rates used by the Applicant. DDOT agrees with the proposed growth rate.

Road & Direction	Proposed Annual Growth Rate		Total Growth between 2015 and 2018	
	AM Peak	PM Peak	AM Peak	PM Peak
S Capitol St NB	0.25%	0.32%	0.8%	1.0%
S Capitol St SB	0.77%	0.56%	2.3%	1.7%
M Street	1.00%	1.00%	3.0%	3.0%
1st Street	1.00%	1.00%	3.0%	3.0%
New Jersey Ave	1.00%	1.00%	3.0%	3.0%

Figure 2 Background Growth Rates (Source: Grove/Slade Associates)

Off-Street Vehicle Parking

The overall parking demand created by the development is primarily a function of land use, development square footage, and 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, and proximity to transit.

Zoning requires a total of 222 off-street vehicle parking spaces for all uses (139 for residential use and 83 for retail use). The Applicant proposed 315 parking spaces for the site – 232 spaces for residential and 83 spaces for retail use accessed from Van Street. While the number of parking spaces has been reduced from 369 parking spaces (for the southern portion of the site only) since the original proposal (for the southern portion of the site only) as a part of ZC 08-30, the amount of vehicle parking remains well above the zoning requirement. In total, this represents 42% above the zoning parking requirements. This amount of parking is higher than what DDOT expects to see in this area, particularly considering its adjacency to a Metro station. DDOT compared the site's parking ratios to several recent development proposals in the area and found that other similar land uses have proposed lower parking ratios. DDOT believes that the level of parking will encourage excessive vehicle trips and exacerbate impacts to intersections. In order to limit vehicle trip generation and mitigate impacts to nearby intersections, DDOT recommends a series of TDM measures described further in this report.

Trip Generation

The Applicant provided trip generation estimates utilizing the Institute of Traffic Engineers (ITE) Trip Generation Manual. The Applicant utilized the following ITE land uses in their trip generation estimation:

- Residential: Apartment (Code 220)
- Retail: Shopping center (Code 820)

Each trip a person makes is made by a certain means of travel, such as vehicle, bicycle, walking, etc. 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, availability and cost of parking, among many others.

The Applicant developed the following mode split assumptions informed by WMATA's 2005 *Development-Related Ridership Survey*, the U.S. Census data, and based on the retail mode split used for similar sites in the vicinity.

	Residential	Retail
Automobile	45%	40%
Transit	43%	40%
Bike	4%	5%
Walk	8%	15%

Figure 3 Mode Split (Source: Grove/Slade Associates)

Based on the trip generation and mode split assumptions discussed above, the Applicant predicted the following level of weekday peak hour trip generation as shown in Figure 4:

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	19 veh/hr	76 veh/hr	95 veh/hr	73 veh/hr	40 veh/hr	113 veh/hr
	Retail	16 veh/hr	9 veh/hr	25 veh/hr	46 veh/hr	51 veh/hr	97 veh/hr
	Total	35 veh/hr	85 veh/hr	120 veh/hr	119 veh/hr	91 veh/hr	210 veh/hr
Transit	Apartments	20 ppl/hr	82 ppl/hr	102 ppl/hr	79 ppl/hr	43 ppl/hr	122 ppl/hr
	Retail	28 ppl/hr	17 ppl/hr	45 ppl/hr	82 ppl/hr	90 ppl/hr	172 ppl/hr
	Total	48 ppl/hr	99 ppl/hr	147 ppl/hr	161 ppl/hr	133 ppl/hr	294 ppl/hr
Bike	Apartments	2 ppl/hr	8 ppl/hr	10 ppl/hr	7 ppl/hr	4 ppl/hr	11 ppl/hr
	Retail	3 ppl/hr	3 ppl/hr	6 ppl/hr	10 ppl/hr	12 ppl/hr	22 ppl/hr
	Total	5 ppl/hr	11 ppl/hr	16 ppl/hr	17 ppl/hr	16 ppl/hr	33 ppl/hr
Walk	Apartments	4 ppl/hr	15 ppl/hr	19 ppl/hr	15 ppl/hr	8 ppl/hr	23 ppl/hr
	Retail	10 ppl/hr	7 ppl/hr	17 ppl/hr	31 ppl/hr	34 ppl/hr	65 ppl/hr
	Total	14 ppl/hr	22 ppl/hr	36 ppl/hr	46 ppl/hr	42 ppl/hr	88 ppl/hr

Figure 4 Weekday Peak Hour Trip Generation for Proposed Development (Source: Grove/Slade Associates)

The proposed residential and retail uses are expected to generate a combined 120 AM and 210 PM peak hour vehicle trips, 147 AM and 294 PM peak hour transit trips, 36 AM and 88 PM peak hour pedestrian only trips (i.e., this does not include individuals walking to transit or off-site parking and bicycle facilities), and 16 AM and 33 PM peak hour bicycle trips. Vehicular trip generation has been reduced from the original proposal for this site as a part of ZC Case No. 08-30 (see Figures 5 and 6). While the total number of vehicle trips is reduced from the previous approval, the vehicular trip generation of this project is still higher than expected for a project near a Metro station; some delay and congestion are expected as a result of this site. Therefore, mitigations are necessary.

Mode	Land Use	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
Auto	Apartments	11 veh/hr	45 veh/hr	56 veh/hr	45 veh/hr	24 veh/hr	69 veh/hr
	Office	95 veh/hr	13 veh/hr	108 veh/hr	18 veh/hr	88 veh/hr	106 veh/hr
	Retail	16 veh/hr	10 veh/hr	26 veh/hr	37 veh/hr	41 veh/hr	78 veh/hr
	Total	122 veh/hr	68 veh/hr	190 veh/hr	100 veh/hr	153 veh/hr	253 veh/hr
Non-Auto	Apartments	17 ppl/hr	68 ppl/hr	85 ppl/hr	67 ppl/hr	36 ppl/hr	103 ppl/hr
	Office	95 ppl/hr	13 ppl/hr	108 ppl/hr	18 ppl/hr	88 ppl/hr	106 ppl/hr
	Retail	37 ppl/hr	24 ppl/hr	61 ppl/hr	119 ppl/hr	129 ppl/hr	248 ppl/hr
	Total	149 ppl/hr	105 ppl/hr	254 ppl/hr	204 ppl/hr	253 ppl/hr	457 ppl/hr

Figure 5 Weekday Peak Hour Trip Generation for Approved Development (Source: Grove/Slade Associates)

	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Net change in auto trips	-87 veh/hr	17 veh/hr	-70 veh/hr	19 veh/hr	-62 veh/hr	-43 veh/hr
Net change in non-auto trips	-82 ppl/hr	27 ppl/hr	-55 ppl/hr	20 ppl/hr	-62 ppl/hr	-42 ppl/hr

Figure 6 Net Change in Proposed versus Approved Weekday Peak Hour Vehicle Trip Generation (Source: Grove/Slade Associates)

Trip Distribution and Assignment

The Applicant assumed that trips related to each of the land uses would travel to and from different parts of the region in a manner specific to the land use. Therefore, the Applicant created unique trip distribution rates for retail and residential trips. The Applicant distributed the vehicle trips throughout the study area intersections. DDOT is in agreement with the methodology used to determine trip distribution.

Study Area and Data Collection

The Applicant identified 11 intersections where detailed vehicle, bicycle, and pedestrian counts would be conducted 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 that have the greatest potential to see moderate to significant increases 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 that realize new trips. However, DDOT expects minimal to no increase in delay outside the study area as a result of the proposed action.

Counts were conducted on Thursday, May 15, 2014 and Tuesday, April 28, 2015 from 6:30 AM to 9:30 AM and from 4:00 PM to 7:00 PM, while Congress and DC Public School were in session. DDOT agrees with the time frame and collection dates.

Analysis

To determine the action's impacts on the transportation network, a CTR includes an extensive multi-modal analysis of the existing baseline conditions, future conditions without the proposed action, and

future conditions with the proposed development. The Applicant completed their analysis based on the assumptions described above.

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.

One background improvement was included in the future scenarios. As part of the One M Street development, which was included as a background development, the northbound approach of Van Street at M Street will be restricted to right-in/right-out vehicular movements (RIRO) only, which was shown to improve the LOS without having a significant impact on adjacent intersections and improve vehicular and pedestrian safety at this location by reducing the number of conflicting movements.

Analysis provided by the Applicant indicate that vehicle traffic impacts from the action will significantly impact the intersection of Van Street and M Street, resulting in an LOS E for the northbound approach during the afternoon peak hour; the approach would operate at an LOS D without the development. DDOT agrees with the Applicant that an installation of a traffic signal at the intersection of Van Street and M Street will interfere with operations due to the intersections proximity to adjacent signals along M Street. However, no mitigation measures are proposed for this impacted intersection. In order to mitigate this impact, DDOT finds that additional TDM measures beyond those proposed by the Applicant are necessary.

Additionally, the development the impacts two other intersections: M Street/South Capitol Street and N Street/South Capitol Street. These intersections currently operate under unacceptable conditions, and the development increases the failing conditions. DDOT finds that operation problems South Capitol Street will be addressed by DDOT's proposed improvements for the corridor.

Transit Service

The District and the 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. Transit is expected to be an important mode of transportation for this development.

The proposed project is approximately 250 feet from the Navy Yard Metro Station entrance and is well-served by 13 different bus lines (i.e., 74, A9, A42, A46, A48, P6, P17, P19, V7, V8, V9, W9, and W13) and the Union Station-Navy Yard Circulator route. The Circulator bus service operates with 10-minute frequency, whereas the other bus lines operate with headways in the range of approximately 5 to 30 minutes. In addition, transit accessibility to the site is excellent. A mixed-use building located in such a transit rich area of the District should achieve high transit ridership. The Applicant's review of WMATA studies shows that sufficient capacity exist to absorb the expected increase of transit trips by this development.

Pedestrian Facilities

The District is committed to enhance 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.

The Applicant performed an inventory of the pedestrian infrastructure surrounding the site. While sidewalks exist adjacent to their site, the sidewalks for Half Street, Van Street, and M Street do not meet DDOT standards. The Applicant proposes to improve the pedestrian infrastructure and streetscape in front of their site, along Half Street, N Street, and Van Street. The Applicant will be required to install a streetscape plan per DDOT standards. As noted earlier, an exception to the streetscape standards may be made for Half Street under certain circumstances (see Streetscape and Public Realm section).

Bicycle Facilities

The District of Columbia is committed to enhance bicycle access by ensuring consistent investment in bicycle 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 bicycling trips.

Several dedicated bicycle lanes exist in the vicinity of the subject site along First Street SE, 4th Street SE and SW, and I Street SE and SW. In addition, the Anacostia Riverwalk Trail is located south of the subject site. As part of the South Capitol Street Corridor Improvements, South Capitol Street is envisioned as a boulevard to the US Capitol with a shared-use path.

The closest Capital Bikeshare station is located one block from the site at 1st Street and N Street and three additional Bikeshare stations are located within 1/2 mile from the site. One is located north of the site at 1st Street and K Street, the other two are east of the site, at M Street and New Jersey Avenue and on 3rd Street and Tingey Street.

The Applicant proposes 145 long-term bicycle parking spaces, which meets the District of Columbia Municipal Regulations requirement (141 for residential use and four (4) for retail employee use). The Applicant proposes short-term bicycle parking spaces, the number and location to be worked out at a later date.

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 sight 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 reveals three intersections within the study area have a crash rate of 1.0 Million Entering Vehicles (MEV) or higher. A significant portion of the crashes are designated as "rear end" or "side swipe" crashes, which is not uncommon at signalized intersections.

The Applicant's crash data analysis does not propose mitigation measures at the intersection of South Capitol Street and M Street. However, the proposed development impacts capacity at this intersection. The intersection configuration will be improved due to the South Capitol Street Corridor Improvements

project. While the increased traffic as a result of this and other development on the square could exacerbate the number of crashes at the intersection of Van Street and N Street, DDOT finds that these crashes are likely function of driver error and low volume of traffic on the street. The intersection of 1st Street and M Street has only a slightly elevated crash rate, and the proposed development does not significantly impact this intersection.

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
South Capitol Street & M Street	1.72	14 22%	16 25%	4 6%	14 22%	11 17%	1 2%	0 0%	2 3%	0 0%	1 2%	1 2%	0 0%	0 0%	1 2%	65
Van Street & N Street SE	1.43	0 0%	1 25%	0 0%	0 0%	0 0%	0 0%	0 0%	1 25%	0 0%	0 0%	2 50%	0 0%	0 0%	0 0%	4
1st Street & M Street SE	1.02	2 8%	4 16%	1 4%	7 28%	3 12%	0 0%	0 0%	3 12%	0 0%	1 4%	3 12%	0 0%	0 0%	1 4%	25

Figure 7 Crash Type Breakdown (Source: Grove/Slade Associates)

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.

Transportation Demand Management

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 strategies:

- Unbundle the cost of residential parking from the cost of lease or purchase;
- Appoint a TDM Leader (for planning, construction, and operations) who will work with residents in the building to distribute and market various transportation alternatives and options;
- Dedicate two spaces in the residential garage for car sharing services to use with right of first refusal. These spaces will be convenient to the garage entrance, available to members of the car sharing 24 hours a day, seven days a week, without restrictions (the garage may be gated – members of the service would have access to the spaces via a key pad combinations to a pass code system or other similar device); and
- Provide a public transit information screen, showing real-time information on nearby transit services in the building lobby.

DDOT does not find the above TDM measures sufficiently robust to address the impacts expected from the project. DDOT recommends the following additional TDM measures in order to support the project:

- The TDM Leader (for planning, construction, and operations) will work with goDCgo staff to create free customized marketing materials and a TDM outreach plan for residents and retail employees, including developing a site-specific transportation guide for residents and visitors;
- The building management agrees to provide updated contact information for the TDM Leader and report of TDM efforts and amenities to goDCgo staff once per year;
- Provide a SmarTrip card preloaded with \$100 to all new residents (owners and lessees) each year for a total of five years;
- Provide a free annual Capital Bikeshare membership to all residents (owners and lessees) each year for a total of five years;
- The Applicant will stock Metrorail, Metrobus, DC Circulator, Capital Bikeshare, Guaranteed Ride Home, DC Commuter Benefits Law, and other brochures; and
- The public transit information screen, proposed above, shall be located in each of the lobbies of the building.

SZ:ei