

**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 
Associate Director

DATE: May 11, 2015

SUBJECT: ZC Case No. 14-21 – 907 Barry Place NW – Barry Place PUD

PROJECT SUMMARY

Barry Place Partners, LLC (the Applicant) proposes a consolidated Planned Unit Development (PUD) and related map amendments to construct a mixed-use development at premises 907 Barry Place (Square 2882, Lots 742-769, 1034, 1038 & 1039). The site is bounded by Sherman Avenue on the west, Barry Place on the south, and 9th Street and the east. The development proposal includes:

- 319 residential units
- 11,500 square feet of retail
- 144 off-street vehicle parking spaces
- 140 long-term bicycle parking spaces

SUMMARY OF DDOT REVIEW

DDOT's review responds to the Comprehensive Transportation Review (CTR), dated April 2015, and the CTR Comment Responses, dated May 7, 2015.

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, multi-administration review of the case materials submitted by the Applicant, DDOT finds:

Site Design

- Vehicle and loading access is proposed via a curb cut on 9th Street, and meets DDOT's approach to site access;
- The Loading Management Plan should be augmented to require flaggers internal to the site;
- Narrow streets and sidewalks and long block lengths constrains travel to and from the site; and
- The primary pedestrian access points for the residential and retail uses are from Sherman Avenue, which has the most generous sidewalk widths of all the streets adjacent to the property.

Travel Assumptions

- Appropriate travel assumptions were made; and
- The action is expected to generate a significant number of new vehicle, transit, and pedestrian trips and a moderate number of bicycle trips.

Analysis

- The Applicant utilized sound methodology to perform the analysis;
- The action is projected to increase travel delay at the Sherman Avenue/Barry Place intersection and cause queuing at three additional intersections – Sherman Avenue/Barry Place, Georgia Avenue/Barry Place, and Florida Avenue/Sherman Avenue; Capacity improvements, such as a turn pocket at the Sherman Avenue/Barry Place intersection, are necessary to improve operations;
- A robust Transportation Demand Management (TDM) plan is proposed, which will support the expected high non-auto mode split;
- Pedestrian infrastructure within the study area has a missing sidewalk link and sub-standard sidewalk widths, curb ramps, and crosswalks; and
- The site is well-served by rail and bus services, as well as a robust network of bicycle facilities.

Mitigations

DDOT has no objection to the requested action with the conditions described below:

- Capacity Improvements – Implement capacity improvements to the operation of the Sherman Avenue/Barry Place intersection. The Applicant should install a turn pocket at the westbound approach to the Sherman Avenue/Barry Place intersection, which would require restriping, relocation of the parking to the north side of the street, and the potential elimination of several curbside parking spaces, or pursue other options to be approved by DDOT through the permitting process;
- Repair sidewalk gap – Pursue a solution to fill the sidewalk gap located on the north side of Barry Place between 8th Street and Georgia Avenue;
- Upgrade Crosswalks – Improve four substandard crosswalks within the immediate vicinity of the site - northwestbound approach at the Florida Avenue/Barry Place/10th Street intersection, eastbound approach at the Barry Place/9th Street intersection, and the northbound and southbound approaches at the Barry Place/Georgia avenue intersection.

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;
- Utility vaults locations and treatment;
- Curbside signage plan for the perimeter of the site;
- Capacity improvements to improve the Sherman Avenue/Barry Place intersection. The Applicant must coordinate with DDOT on the identification of a preferred option for increasing capacity and implement needed improvements. The final design of the capacity improvements would be determined during permitting;
- Sidewalk gap fix to the north side of Barry Place between 8th Street and Georgia Avenue. While stormwater intake drains and an existing light pole pose obstacles for filling this gap, DDOT believes the gap can be filled without substantial adjustments to these obstacles. The final design of the sidewalk improvements would be determined during permitting;
- Crosswalk improvements for the four sub-standard crosswalks. The final design of the crosswalk improvements would be determined during permitting; and
- Installation of two 240-volt electric car charging stations in 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

This Site is bounded by Sherman Avenue on the west, Barry Place on the south, and 9th Street and the east. Under a separate process, the Applicant pursued and received permission to close an existing alley that ran through the site. Vehicle, loading, and trash access is proposed via a single curb cut on 9th Street and trucks are able to access the site without backing maneuvers in public space, and is in keeping with DDOT's approach to site access.

The site is located in an area of the District – generally bounded by Sherman Avenue and Florida Avenue to the west, V Street to the South, Georgia Avenue to the east, and Euclid Street to the north – that has narrow rights of way, streets, and sidewalks and long block lengths. The transportation network presents several challenges to efficient travel to and from the site, as pedestrians experience narrow sidewalks and longer walking distances and motorists and cyclists experience limited circulation options and narrow roadways. As discussed in the mitigations section, the narrow rights of way also limit options for mitigating the project's impacts.

The primary pedestrian access points for the residential and retail uses are from Sherman Avenue, which has the most generous sidewalk widths of all the streets adjacent to the property

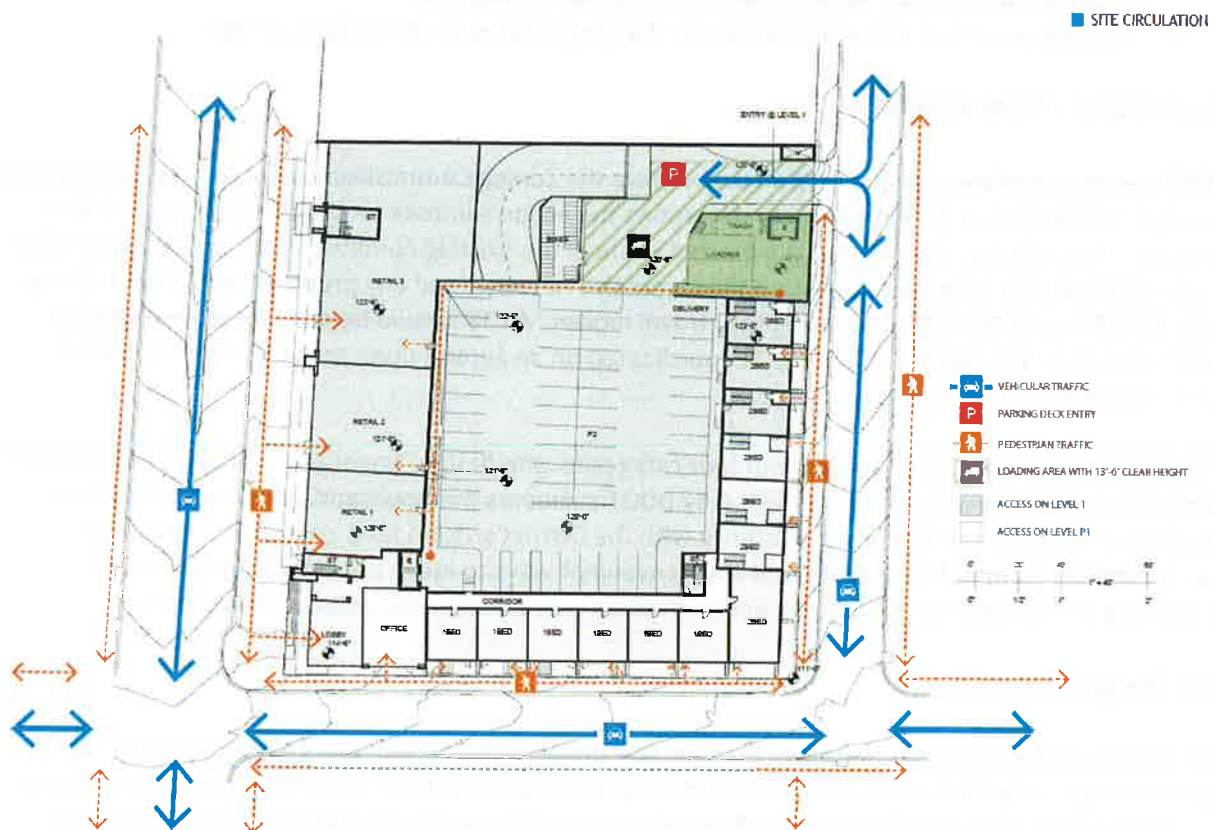


Figure 1 Site Design and Access (Source: Niles Bolton)

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.

Two 35-foot loading docks are located within the parking garage. The Applicant's proposed loading locations comply with DDOT's loading requirements. The Applicant's analysis includes AutoTurn analysis showing that truck maneuvers can be accommodated with front-in/front-out movements, in keeping with DDOT standards.

The Applicant is seeking relief from the 55-foot loading dock. Given the proposed land uses, this relief is appropriate and unlikely to negatively impact the District's transportation network. Trucks that are too large to utilize the on-site loading facility may occasionally need to serve the project. Large trucks are expected to use Sherman Avenue for loading, and emergency no parking signs are available from DDOT if needed.

In order to ensure that the requested loading relief does not adversely impact the surrounding roadway network, a loading management plan is proposed with the following elements:

- Assign a loading dock manager to coordinate loading;
- Require all tenants to schedule deliveries that utilize the loading dock (any loading operation conducted using a truck 20' in length or larger) and all loading activities are required to occur at the loading dock except in the case when a truck larger than 30-feet is required. In that case, the dock manager will provide instructions to the tenant so proper permits can be obtained from DDOT and Emergency No Parking signs issued;
- The dock manager will schedule deliveries such that the dock's capacity is not exceeded;
- The dock manager will schedule residential loading activities so as not to conflict with retail deliveries;
- The dock manager will monitor inbound and outbound truck maneuvers and will ensure that trucks accessing the loading dock do not block vehicular, bike, or pedestrian traffic along 9th Street except during those times when a truck is actively entering or exiting a loading berth;
- Service vehicle/truck traffic interfacing with 9th Street traffic will be monitored during peak periods and management measures will be taken if necessary to reduce conflicts between truck and vehicular movements.
- Trucks using the loading dock will not be allowed to idle and must follow all District guidelines for heavy vehicle operation
- The dock manager will monitor the timing of the retail and/or residential deliveries to see if any adjustments need to be made to ensure any conflicts with the retail loading and residential loading activities are minimized.
- The dock manager will be responsible for disseminating suggested truck routing maps to the building's tenants and to drivers from delivery services that frequently utilize the development's loading dock as well as notifying all drivers of any access or egress restrictions.

DDOT finds that the Loading Management Plan is generally strong and will help ensure smooth loading operations, but recommends that the following minor additional element be added:

- Since trucks backing into the loading facility will block access to/from the parking garage, flaggers positioned within the garage must be utilized when loading to ensure that vehicles entering and exiting the garage can do so safely and without queuing onto 9th Street.

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 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. DDOT suggests that the Applicant participate in a Preliminary Design Review Meeting (PDRM) to address design related issues prior to the submission of public space permit applications.

Preliminary public space plans show utility vaults in the public space along Sherman Avenue. DDOT's approach to utility vaults is to allow vaults in public space only when they cannot be located on private property. If in public space, vaults must be surrounded by landscaping to prevent people from walking on them and to shield the vaults from view. As currently proposed, the vaults are surrounded by landscaping on three of four sides. The Applicant will need to coordinate with DDOT on the vault location and treatment during the public space permitting process.

The preliminary public space plans show significant paving in the "public parking" zone on Sherman Avenue, which is an area meant to be a vegetated extension of the District's park system. The Applicant will be expected to include additional landscaping in this area.

Curbside Management

Curbside space is a limited commodity with multiple competing demands placed upon it. This area is commonly utilized for vehicle parking in the District. However, in more densely populated areas, this space tends to serve a diverse set of uses such as commercial loading zones, motor coach passenger loading areas, bicycle parking corrals, bikeshare stations, and building entrance zones.

The existing curbside in the vicinity of the site is primarily parking with various types of restrictions ranging from metered to unrestricted to rush-hour restricted. A single parking lane exists on the south side of Barry Place between Florida Avenue and Georgia Avenue. During public space permitting, the Applicant will be required to develop a curbside management plan for the vicinity to support the capacity improvements discussed in the Mitigation section.

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 at least two 240-volt electric car charging stations in the parking garage.

Travel Assumptions

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

Background Developments and Regional Growth

As part of the analysis of future conditions, DDOT requires applicants to account for future growth in traffic on the network or what is referred to as background growth. The Applicant coordinated with DDOT on the appropriate background developments to include in the analysis. Projects that were reasonably expected to be approved and constructed were included in the analysis. Three background developments – Atlantic Plumbing A (2112 8th Street NW), Atlantic Plumbing B (2008 8th Street NW), and The Logic (2105 10th Street) – were included.

DDOT also requires applicants account for regional growth. This can be done by assuming a general growth rate, evaluating growth forecasts in MWCOG's regional travel demand model, or analyzing DDOT's historical average daily traffic (ADT) rates. The Applicant coordinated with DDOT on an appropriate growth rates based on ADT rates.

Off-Street 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, and proximity to transit.

A total of 144 off-street parking spaces are proposed for the site compared to 117 spaces required by zoning. A summary of the site's parking is included below:

Land Use	Required	Proposed	# of Spaces in Excess of Zoning
Residential	106	106	0
Retail	11	38	27
TOTAL	117	144	27

The residential parking provision of one space per three units is likely appropriate and consistent with other recent projects in similar walkable, transit-friendly neighborhoods. The retail parking is higher than what is typical for similar projects with small, neighborhood-serving retail. The higher retail parking provision may lead to a slight increase in the number of vehicle trips generated by the retail component of the project.

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 (Land Use Code 220)
- Retail: Shopping Center (Land Use Code 820)

No pass-by reduction was utilized. DDOT finds the use of these ITE codes appropriate.

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 mode split assumptions informed by Census data and MWCOG’s Geographically Focused Household Travel Survey data for the Logan Circle Neighborhood. A non-auto mode split for 63% and 65 % for the residential and retail components, respectively, were selected. DDOT believes that these mode splits are achievable in light of the parking provision and the proposed TDM plan.

Based on the trip generation and mode split assumptions discussed above, the action is expected to generate a significant number of new vehicle, transit, and pedestrian trips and a moderate number of bicycle trips.

Land Use		AM Peak Hour			PM Peak Hour			ADT
		In	Out	Total	In	Out	Total	
Proposed Development								
319 DU Apartment (LUC 220)	Total Trips	32	128	160	125	68	193	2,057
	Non-auto Trips	20	81	101	79	43	112	1,296
	Transit	15	60	75	59	32	91	967
	Bicycle	2	7	9	6	3	9	103
	Pedestrian	3	14	17	14	8	22	226
	Vehicle Trips	12	47	59	46	25	71	761
11,027 SF† Retail (LUC 820)	Total Trips	25	16	41	66	71	137	1,621
	Non-auto Trips	16	10	26	43	46	89	1,054
	Transit	9	6	15	24	26	50	600
	Bicycle	2	1	3	6	6	12	146
	Pedestrian	5	3	8	13	14	27	308
	Vehicle Trips	9	6	15	23	25	48	567
Total Proposed Development	Total Trips	57	144	201	191	139	330	3,678
	Non-auto Trips	36	91	127	122	89	211	2,350
	Transit	24	66	90	83	58	141	1,567
	Bicycle	4	8	12	12	9	21	249
	Pedestrian	8	17	25	27	22	49	534
	Vehicle Trips	21	53	74	69	50	119	1,328
† At the time the analysis was conducted, plans showed 11,027 SF of retail space. As plans were refined, the retail component increased slightly to 11,517SF. The increased square footage would have a de minimis impact on the trip generation, resulting in no increase in trips for the AM peak hour and an increase of just two trips for the PM peak hour.								

Figure 2 Peak Hour Vehicle Trip Generation (Source: Wells + Associates)

Study Area and Data Collection

The Applicant in conjunction with DDOT identified nine 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 which 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 intersection data on Thursday, April 10, 2015. DDOT agrees with the time frame and collection dates. None of the collection dates occurred outside of the DC Public School calendar.

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.

Analysis provided by the Applicant shows that the intersection of Sherman Avenue/Barry Place is negatively impacts by the action as measured by Level of Service (LOS). The intersection is projected to operate at LOS F under background conditions, but delay is significantly exacerbated in the PM peak period and marginally worsened in the AM peak period. The eastbound approach of Barry Place and the northern approach of Georgia Avenue are particularly affected as a result of the action.

In addition, the Applicant identified three intersections – Florida Avenue/Sherman Avenue, Sherman Avenue/Barry Place, and Georgia Avenue/Barry Place – with queuing issues. Site-generated volumes add approximately 10-15% additional traffic at the intersections of Sherman Avenue/Barry Place and Georgia Avenue/Barry Place.

Transit Service

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

The site is located approximately 0.3 miles, roughly a 7 minute walk, from the U Street Metro Station. The station is served by the Green and Yellow lines.

The site is well-served by high-frequency bus routes. Bus routes include:

- 70 – Georgia Avenue – 7th Street Line
- 79 – Georgia Avenue Limited Line
- 63 – Takoma – Petworth Line
- 64 – Fort Totten – Petworth Line
- 52, 53, and 54 – 14th Street Line
- 90, 92, 93 – U Street – Garfield Line
- X3 – Benning Road Line
- 96 – East Capitol Street – Cardozo Line

In addition, the site is within .5 miles of the Woodley Park – Adams Morgan – McPherson Square Circulator line. The site is also in close proximity to a future Dupont Circle – Georgetown – Rosslyn Extension to U Street/Howard University line.

These bus routes provide frequent service with peak hour headways less than 10 minutes with several bus routes providing more frequent service. The closest bus stop is adjacent to the site at the corner of Sherman Avenue and Barry Place which services the 63 Line. Transit users for Metrorail and other bus services must walk to and from the site, and the rail station or bus stop. Ensuring adequate pedestrian facilities to connect site visitors with transit options is critical for making transit accessible and realizing the anticipated mode splits.

Pedestrian Facilities

The District is committed to enhance the 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 Applicant performed an inventory of the pedestrian infrastructure in the vicinity and noted any substandard conditions. A gap in the existing sidewalk exists on the north side of Barry Place between 8th Street and Georgia Avenue, which is a key pedestrian path to Howard University. The gap is due to several obstacles within the path of the sidewalk including two stormwater intake drains, a light pole, and a staircase leading to Banneker High School's playing fields. Additionally, the Applicant's analysis identified four substandard crosswalks adjacent or in close proximity to the site – northwestbound approach at the Florida Avenue/Barry Place/ 10th Street intersection, eastbound approach at the Barry Place/9th Street intersection, and the northbound and southbound approaches at the Barry Place/Georgia Avenue intersection. The Applicant will be required to upgrade these crosswalks during public space permitting.

Narrow sidewalks along Florida Avenue NW between U Street and Sherman Avenue will be widened as part of DDOT's Reconstruction of Florida Avenue, NW project.

The Applicant's preliminary public space plans show wide sidewalks along Sherman Avenue and minimum sidewalk widths along 9th Street of at least 6 feet. The clear pedestrian walkway along Barry Place, however, is under four feet, due to the narrow right of way and the presence of street lights. Such narrow sidewalks do not meet DDOT standards for sidewalk widths. In addition, there is insufficient room for street trees on Barry Place. These factors create a poor pedestrian environment along Barry

Place. The Applicant will be required to pursue options for increasing the pedestrian clear path on Barry Place, such as alternative streetlight locations, as part of the public space permitting process.

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. The site is in close proximity to several bicycle lanes. Bicycle lanes on 11th Street and 14th Street provide northbound and southbound bicycle connections while W Street and V Street bicycle lanes provide east-west connectivity.

The closest Bikeshare station is located one block to the west of the site at 10th Street/Florida Avenue with 19 docks. There is also a 15-dock station located .25 miles from the site on the northeast corner of the 10th Street/U Street intersection.

A substantial amount of bicycle parking is proposed as part of the project. 140 long-term bicycle parking spaces will be provided on-site, which exceeds the 106 spaces required under current District code. 19 inverted-U bicycle racks are proposed in the public space, which provides parking for 38 bicycles. The final quantity and location of the short-term bicycle parking spaces will be determined through the public space permitting process.

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 six intersections within the study area that 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.

Intersection	Number of Crashes (3 Years)	ADT (veh/day)	Crash Rate (MEV)
Florida Avenue/Sherman Avenue (Signalized)	4	14,200	0.26
Sherman Avenue/Barry Place (Signalized)	15	14,680	0.93
Florida Avenue/10 th Street/Barry Place (Unsignalized)	6	7,710	0.71
9 th Street/Barry Place (Unsignalized)	12	5,160	2.12
Georgia Avenue/Barry Place (Signalized)	60	24,200	2.26
Sherman Avenue/Euclid Street (Signalized)	20	19,500	0.94
Georgia Avenue/Euclid Street (Signalized)	26	20,900	1.14
Barry Place/8 th Street (Unsignalized)	8	5,050	1.45

Figure 5 Intersection Safety (Source: Wells + Associates)

Four intersections within the study area are classified as high crash rate intersection – 9th Street/Barry Place, Georgia Avenue/Barry Place, Georgia Avenue/Euclid Street, and 8th Street/Barry Place. DDOT's

Reconstruction of Florida Avenue NW and Georgia Avenue Dedicated Bus Lane projects will improve safety at the intersections of Sherman Avenue/Barry Place and Georgia Avenue/Barry Place, respectively, by implementing geometric improvements and traffic calming measures. Additionally, relocating parking from the south side to the north side of Barry Place as part of the capacity improvements to the Sherman Avenue/Barry Place intersection provide an opportunity to refresh roadway striping and ensure adequate sight distance is provided to improve safety at the 8th Street/Barry Place and 9th Street/Barry Place intersections.

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.

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 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 the following TDM strategies:

- Designate a Transportation Management Coordinator responsible for organizing and marketing the TDM plan;
- Provide links and information for transportation programs and services on the property management website;
- Install a transit information screen in the residential lobby;
- Provide a minimum of 140 long-term bicycle parking spaces on-site and an addition 38 short-term bicycle parking spaces in public space;
- Provide a minimum of 10 bicycle helmets for use by residents;
- Install a bicycle maintenance facility on the P-1 parking level;
- For the first five years the building is open, the Applicant will provide a onetime, one year Capital Bikeshare membership or one year carshare membership to all new residents of the project.
- Unbundle parking costs from the price of lease or purchase; and
- Reserve one parking spot in the garage for a carshare company.

The final design, including location, of short-term bicycle facilities will be determined during the public space permitting process.

DDOT finds the TDM plan to be sufficiently robust to encourage non-auto travel that and support the high non-auto mode split.

Physical Improvements to the Right-of-Way

Physical improvements to the right-of-way (i.e., striping changes, turn lanes, traffic signals, additional lanes) are occasionally needed in order to accommodate site-generated traffic.

The action is projected to increase travel delay at the Sherman Avenue/Barry Place intersection and cause queuing at three additional intersections – Sherman Avenue/Barry Place, Georgia Avenue/Barry Place, and Florida Avenue/Sherman Avenue. Site-generated volumes add approximately 10-15% additional traffic at these intersections.

Signal timing adjustments and capacity improvements such as turn pockets were studied as remedies to the vehicle impacts of the action. While effectively mitigating the action's impacts, signal timing adjustments are not feasible because signal timings work at a corridor level and cannot be changed in isolation.

The Applicant's analyzed several scenarios of turn pockets at the affected intersections. Of note, the Florida Avenue/Sherman Avenue is within the DDOT's Reconstruction of Florida Avenue, NW project and will be redesigned to improve operations and safety. No mitigations are therefore needed to this intersection as part of the action.

The Sherman Avenue/Barry Place intersection is the most affected by the action and requires mitigation. An effective option is to install a turn pocket at the westbound approach to the Sherman Avenue/Barry Place intersection, which would require restriping, relocation of the parking on Barry Place between Georgia Avenue and Florida Avenue to the north side of the street, and the potential elimination of

several curbside parking spaces. Curbside signage and meters, if appropriate, would require updating to reflect the new parking arrangement. Other options, including connecting 9th Street south of Barry Place, are possible. The Applicant should:

- Implement capacity improvements to the operation of the Sherman Avenue/Barry Place intersection. The Applicant should install a turn pocket at the westbound approach to the Sherman Avenue/Barry Place intersection, which would require restriping, relocation of the parking on Barry Street between Georgia Avenue and Florida Avenue to the north side of the street, and the potential elimination of several curbside parking spaces, or pursue other options to be approved by DDOT through the permitting process;

Several mitigations are required to improve the pedestrian facilities. The following pedestrian infrastructure mitigations are needed:

- Repair sidewalk gap – Pursue a solution to fill the sidewalk gap located on the north side of Barry Place between 8th Street and Georgia Avenue. While stormwater intake drains and an existing light pole pose obstacles for filling this gap, DDOT believes the gap can be filled without substantial adjustments to these obstacles. The final design of the sidewalk improvements would be determined during permitting;
- Upgrade Crosswalks – Improve four substandard crosswalks within the immediate vicinity of the site - northwestbound approach at the Florida Avenue/Barry Place/10th Street intersection, eastbound approach at the Barry Place/9th Street intersection, and the northbound and southbound approaches at the Barry Place/Georgia avenue intersection. The final design of the crosswalk improvements would be determined during permitting;

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