

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: October 23, 2015

SUBJECT: **Zoning Commission Case No. 15-14** – District of Columbia Water and Sewer Authority

PROJECT SUMMARY

The District of Columbia Water and Sewer Authority (the “Applicant” or “DC Water”) seeks approval of a Planned Unit Development (“PUD”) and related map amendment to allow construction of a 152,076 square foot office building with 20 onsite vehicular parking spaces and 7 long-term bicycle parking spaces at a location bounded by N Place SE and Canal Street SE to the north, the Anacostia River to the south, and private property to the east and west in the existing CG/W-2 District (Square 744S, Lots 801 and 805) (the “Site”).

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

- The proposed building is situated around an existing pump station, which will remain, while the entirety of the parcel will be fully fenced and have restricted access for all modes of travel.
- Loading access is proposed via the existing adjacent DC Water yard and curb cut on First Street prior to the construction of the DC Water Occupied Sites PUD (“ZC 13-05”). In the final

condition, loading access will be via a curb cut on the new 1½ Street with all loading activity on DC Water property;

- Vehicular access to the Site is proposed via a driveway from N Place SE, which leads to 20 vehicular parking spaces;
- A minimum of 50 additional offsite off-street vehicular parking places will be provided at nearby parking facilities or on the adjacent property owned or controlled by DC Water; and
- Seven long-term bicycle parking racks are proposed in a covered facility attached to the front guard booth along with an additional 23 short-term bicycle parking racks located onsite.

Travel Assumptions

- The proposed building is located adjacent to the approved ZC 13-05 location, which has not yet begun construction. Therefore, DDOT requested the Applicant consider both the condition prior to the ZC 13-05 project and the future condition following completion of both PUDs;
- The prior traffic analysis from ZC 13-05 utilized generally sound analysis methodology and assumptions, which the Applicant relied on in large part for this study;
- The background growth, mode split, and trip generation assumptions proposed by the Applicant are reasonable if supported by an appropriate transportation network and TDM measures;
- However, DDOT is concerned about the trip distribution and assignment at the intersections closest to the DC Water PUD ("ZC 15-14") as it is not fully understood where vehicular parking and access will occur;
- The development phasing in this area is unclear; and
- If construction of the ZC 15-14 project precedes ZC 13-05 construction, network improvements could be required (mitigations identified in ZC 13-05 include a signal at 1st Street SE and N Place SE and sidewalk improvements).

Analysis

- The action is projected to increase travel delay in the area, exacerbating failing levels of service at multiple intersections within the study area, and likely necessitating a new signal at 1st Street SE and N Place SE, which was considered in ZC 13-05;
- Future office workers are likely to utilize transit, walking, and bicycling as well as autos, in a manner similar to projections, requiring a transportation network supportive of these modes, some of which is inadequate;
- Specifically, safe pedestrian and bicycle circulation to the Site is necessary to achieve the mode splits assumed in this transportation analysis;
- Existing transit service can accommodate additional project demand;
- Vehicular parking supply is likely adequate for the anticipated usage, however, DDOT does not have information on the proposed location, layout, and management. This information is necessary to fully determine potential Site access conditions from the surrounding roadway network; and
- The Applicant proposes a Transportation Demand Management (TDM) plan intended to promote non-auto trips, but the TDM plan is not adequate as it will not sufficiently encourage travel behavior change.

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

Mitigations and Conditions

TDM Plan

- Provide a more robust TDM plan, with the following elements:
 - Provide an on-Site bicycle repair facility;
 - Provide two showers and 15 lockers for use by employees who bike to work;
 - Provide a TransitScreen or similar device displaying real-time transportation schedules;
 - Provide an initial \$50 SmarTrip card to all employees; and
 - Provide an initial one-year Capital Bikeshare annual membership to all employees.

Non-auto Infrastructure Improvements

- Provide pedestrian improvements to and from the primary transit locations, including the Navy Yard Metro and M Street bus lines, and along the south side of N Place SE;
- Add an ADA compliant connection for employees along the desire line between the ZC 15-14 location and The Yards Park destination area and to the vehicular parking location;

Vehicular Infrastructure Improvements

- Provide detailed information on the vehicular parking component, including its location, layout, and management for each phase of development; and
- Ensure the signal at 1st Street SE and N Place SE identified in ZC 13-05 is installed prior to the ZC 15-14 completion if this PUD progresses first, or perform signal warrant analyses to be approved by DDOT showing this will not be warranted.

Continued Coordination

The Applicant is also expected to continue to work with DDOT on the following matters:

- Design of the public realm specifically at N Place, which is the only abutting public street, and for which full improvement will be expected adjacent to this property; and
- A loading management plan, which should be provided as part of the public space permitting process.

TRANSPORTATION ANALYSIS

DDOT requires applicants who request PUD approval from the Zoning Commission perform a Comprehensive Transportation Review (CTR) in order to determine the PUD'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 design considerations are complicated in this case with the need to address both the existing surrounding condition and the proposed future one. The proposed Site plan in ultimate conditions is shown in *Figure 1*.

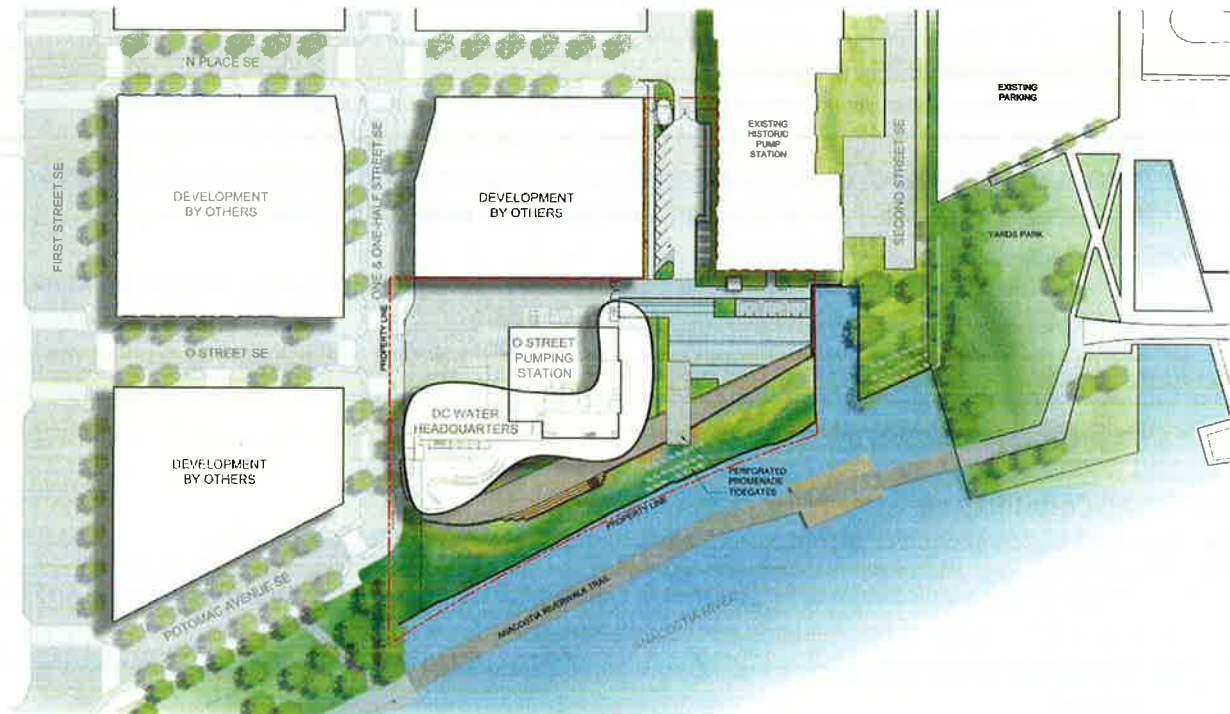


Figure 1. Site Plan (Source: Applicant)

Site Access

This Site is located between N Place SE and Canal Street SE to the north, the Anacostia River to the south, and private property to the east and west, with no alley network present. Loading vehicles access the Site from the west at a gate on what will be 1½ Street SE. Currently, this area is a DC Water facility, and thus in the interim condition any trucks will need permission to pass through this active yard. Personal vehicles access the Site from the north through a gate off N Place SE, which leads to the provided 20 vehicular parking spaces. The proposed vehicle site access is consistent with DDOT's approach to site access. It is unclear, however, specifically where vehicles parking offsite will access those facilities.

The public bicyclist and pedestrian access point is located at the same north entry point, where all visitors will pass through a secure gate and guard booth. Employees will also be able to access a gate on the east side of the parcel between the existing historic pump station and coal slip. In the future, employees will also be able to access a west entrance. The entire Site will be securely fenced, and once within the perimeter people will be able to move throughout most of the area, except the active loading area and existing small pump station.

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 desires 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 is providing the Zoning Regulation required loading facilities in the form of two 30-foot loading docks, two 100 sf loading platforms, and one 20-foot service/delivery space. The Applicant's submittal includes AutoTurn analysis showing that truck maneuvers can be accommodated onsite with front-in/front-out movements, in keeping with DDOT standards. Trash will also be picked up at the rear of the building, entering through the same gate as other trucks. Ultimately, this access will be via 1½ Street SE, but in the interim, all trucks must traverse from 1st Street SE, through the active DC Water yard, to the gate on the proposed Site. It is expected that the Applicant will prepare a loading management plan to address this interim condition for trucks and trash hauling providing details on loading and trash operations during this period.

With the onsite loading accommodation and the loading management plan, and given the proposed land use, the proposed loading is appropriate and unlikely to significantly negatively impact the District's transportation network.

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's preference is for electrical vaults to be located on private space. DDOT staff will be available to provide additional guidance during the public space permitting process.

The only public roadway abutting this Site is N Place SE. As such, public space improvements will be anticipated at this location to bring it to full DDOT standards, including provision of a sidewalk across the entrance driveway. Additional offsite improvements to provide pedestrian access to the transit network are anticipated as well, which are detailed within the pedestrian analysis section below. These elements will be finalized during the public space permitting process. Other further improvements will occur in private space, and are also outlined within the appropriate modal analysis following.

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. The background projects considered in this study are shown in *Figure 2*.

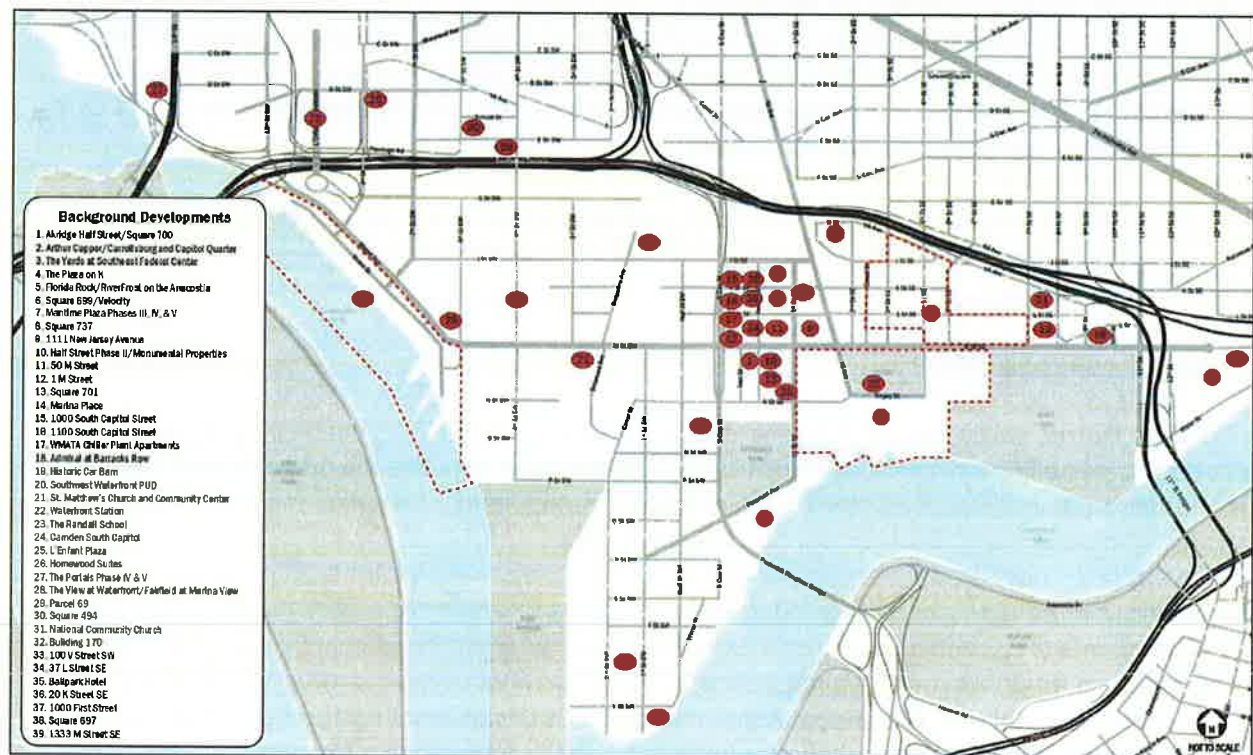


Figure 2. Background Developments (Source: Applicant)

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 coordinated with DDOT on use of an appropriate growth rate to accurately account for background growth.

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, availability and cost of parking, among many others.

The Applicant provided trip generation estimates utilizing the Institute of Traffic Engineers (ITE) Trip Generation Manual, the WMATA 2005 *Development Related Ridership Survey*, and the assumed mode split to convert base vehicular trips to base person trips using average auto occupancy data and then back to vehicular trips. DDOT generally finds this method appropriate. Mode split assumptions used in the subject analysis were informed by the above resources and the building location and program. The Applicant utilized the following ITE land use in their trip generation estimation:

- Office: Single Tenant Office Building (Code 715).

DDOT generally finds the use of ITE codes appropriate, but notes the lack of dependable information on trip generation in urban contexts. Thus, the methodology was supplemented to account for the urban nature of the Site and to split the trips into the appropriate mode.

The Applicant developed the following mode split assumptions:

Table 1. Mode Split Assumptions (Source: Applicant)

Pertinent Mode Split data from other sources:					
Information Source	Mode				
	SOV	Carpool	Transit	Bike	Walk
WMATA Ridership Survey (average for <i>Suburban-Inside the Beltway</i>)	66%		30%	6%	
WMATA Ridership Survey (average for <i>CBD</i>)	21%		75%	4%	
Square 701 (Ballpark Square) PUD	40%		50%	7%	3%
Riverfront on the Anacostia (Florida Rock) PUD	50%		40%	7%	3%
Other Studies (Background Development Assumptions)	50%		35%	10%	5%
Mode Split assumed in TIS:					
Information Source	Mode				
	Drive		Transit	Bike	Walk
Office Mode Split	45%		45%	5%	5%

These mode splits are reasonable, if not conservative based on the behavior of other office workers in the area, but must be supported by commensurate TDM and infrastructure facilities investment. Based on the trip generation and mode split assumptions discussed above, the Applicant predicted the following level of weekday peak hour trip generation:

Table 2. Multimodal Trip Generation Summary (Source: Applicant)

Trip Gen Summary for Office						
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	112 veh/hr	13 veh/hr	125 veh/hr	19 veh/hr	102 veh/hr	120 veh/hr
Transit	126 ppl/hr	15 ppl/hr	141 ppl/hr	21 ppl/hr	115 ppl/hr	136 ppl/hr
Bike	14 ppl/hr	2 ppl/hr	16 ppl/hr	3 ppl/hr	13 ppl/hr	16 ppl/hr
Walk	14 ppl/hr	2 ppl/hr	16 ppl/hr	3 ppl/hr	13 ppl/hr	16 ppl/hr

The proposed action is expected to generate a significant number of transit, vehicular, and walking trips during the morning and evening peak hours. The number of pedestrian trips routed to the nearest

transit locations is expected to be high. As a check, DDOT requested additional information on the total number of employees anticipated onsite at the new building. The Applicant states that they plan to accommodate 350 employees. Based on this number of employees, the above trip generation is reasonable.

Based on the anticipated level of trip generation, a full vehicle traffic analysis was conducted to assess impacts to the surrounding vehicle network.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 20 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 used weekday intersection data collected in 2013 and 2010. Typically, DDOT expects counts to occur within the most recent two years, and did seek a comparison of these older counts and current conditions to provide an appropriate timeframe for analysis, however this comparison was not completed.

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 expected for the land use. Therefore, the Applicant created trip distribution routes for the office users. The Applicant estimated trip distribution for the Site based on: (1) SW Waterfront development data obtained from MWCOG, and (2) existing traffic volumes and travel patterns in the study area. This flow information showed significant commuting patterns to I-395, South Capitol Street, and to the east via M Street and the Southeast Freeway.

DDOT is generally in agreement with the methodology used to determine the larger network trip distribution, however DDOT is concerned about the trip distribution and assignment at the intersections closest to the ZC 15-14 location as it is not fully understood where vehicular parking and access will occur.

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. Additionally, the adjacent PUD's completion must also be considered. 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. For this development, seven traffic scenarios were assumed for capacity analyses. These scenarios include:

1. Existing Conditions
2. Future Conditions with Canal Street (without the project)
3. Future Conditions without Canal Street (without the project)
4. Future Conditions with Canal Street (with the project)
5. Future Conditions without Canal Street (with the project)
6. Future Conditions with Tingey Square (without the project)
7. Future Conditions with Tingey Square (with the project)

Analysis provided by the Applicant shows that vehicle traffic impacts do exist at the intersections in the study area as measured by Level of Service (LOS). Several of these impacts were identified in the analysis completed for the prior PUD. Overall, several intersections will see their already poor LOS exacerbated by the presence of site-generated trips. Of note, several intersections along the South Capitol Street corridor are projected to operate with LOS below D. However, DDOT will be completing a major improvement to this street, which will address these issues.

For locations closer to the Site, the major concern appears to be the intersection of 1st Street SE and N Place SE. Prior analysis showed that this intersection would see increased delays compared to existing conditions. As a result, DDOT recommended the following in their prior report: “Commitment to design and install a traffic signal at the intersection of 1st Street SE and N Place SE prior to the opening of the Phase I theater and parking garage. The traffic signal shall be designed under current DDOT/TOA specifications and installed with DDOT oversight, inspection, and approval.” And this condition was included in the zoning order. Much of the added delay is caused by added southbound vehicles in the AM, which are now proposed as part of this current PUD. The prior analysis considered 113 AM inbound trips while the current PUD proposes 112 AM inbound trips. Since the ZC 15-14 project may occur prior to the adjacent ZC 13-05, operations of this intersection may be degraded prior to the other PUD’s development. As the source for these exacerbating trips, the DC Water site will be contributing to this intersection’s future poor performance.

DDOT continues to anticipate that signalization of this intersection may be appropriate. As such, the signalization should be implemented prior to completion of this current PUD if it occurs prior to the previously approved PUD. Therefore, DDOT expects DC Water to provide, or to arrange for provision, the requisite traffic signal at the intersection of 1st Street SE and N Place SE. Or further dialogue and analysis would be necessary, including a signal warrant analysis, showing this signal would not be warranted at this time.

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 Site has inadequacies in its pedestrian access to nearby destinations and transit, and the Applicant will be expected to provide mitigation to gaps or deficiencies in the network to facilitate pedestrians traversing to and from the development. Since a significant portion of the trips generated by this project

will be via transit, safe passage to the transit locations must be provided. The Applicant's analysis revealed substandard pedestrian facilities in the vicinity of the site, such as missing sidewalks or sidewalk widths too narrow along the route to the Navy Yard Metro station. Specifically they note that the "ped[estrian] experience will be sub-par until redevelopments are complete".

DDOT seeks appropriate pedestrian facilities along the future Canal Street SE, on N Place SE, and on 1st Street SE, as necessary. These improvements will be agreed to and implemented as part of public space permitting. Additionally, the natural desire line between the DC Water headquarters and The Yards Park for employees traveling to lunch or for other activities will occur via the parcel's east gate, and as such, an ADA-compliant path will need to be provided for this route as well. As well, pedestrian access between the offsite vehicular parking places and the headquarters building will also be expected.

As with all developments, DDOT expects that the Applicant will commit to provision of safe pedestrian facilities for all routes to and from major destinations to support the transportation assumptions made in the transportation analysis provided by the Applicant.

Bicycle Facilities

The District is committed to enhancing 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 currently moderately well-served by bicycle infrastructure. Bicycle lanes exist on 1st Street SE and I Street providing both north-south and east-west bicycle connections. Additionally, there is access to the Anacostia Riverfront Trail a couple blocks from the Site, although no direct connection is planned as part of this current project. Four Capital Bikeshare stations are also located in vicinity of the Site. However, areas lacking sidewalks or nearby major streets contribute to the perception of some manmade barriers to biking in parts of the area.

To serve bicycling needs, zoning code requires the Applicant to provide at least seven long-term bicycle parking spaces onsite. Typically, these spaces are provided within the building, but the Applicant proposes to provide these within a covered and secure location at the guard booth entry, which meets the requirement. Additionally, the Applicant is providing 23 short-term bicycle parking spaces onsite.

However, DDOT would typically expect projects of this size to offer a greater magnitude of bicycle accommodations to attempt encouragement of this non-auto mode. To give perspective, had this project occurred under the proposed new zoning regulations, 61 long-term bicycle parking spaces, with six showers and 37 lockers would have been required. DDOT seeks provision of at least two showers and ten lockers, along with a bicycle repair facility, to encourage bicycling as a mode for this new office building.

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 1/3 of a mile from the Navy Yard Metro station, less than a 10 minute walk. The Metro station is served by Metro's Green line. The site is also well-served by high-frequency bus routes. Bus routes include:

- 74 – Convention Center-Southwest Waterfront Line
- A9 – Martin Luther King Jr. Ave. Limited Line
- A42,46,48 – Anacostia-Congress Heights Line
- V7,8,9 – Minnesota Ave.-M Street Line
- P6 – Anacostia-Eckington Line
- P17,19 – Oxon Hill-Fort Washington Line
- W9 – South Capitol Street Limited Line
- W13 – Bock Road Line
- DC Circulator – Union Station-Navy Yard

Access to these transit options will be key to achieving the proposed mode split.

Vehicle Parking

The proposed building requires 70 parking spaces per code. The Applicant proposes 20 onsite vehicular parking spaces, and 50 additional spots on DC Water controlled property. While DDOT is comfortable with these additional spots to meet zoning requirements, several questions about this provision remain.

First, details on the 50 additional spaces are not provided. Where specifically within the DC Water controlled property will these spaces exist? DDOT would like to review the parking layout and proposed access. Additionally, access between these spaces and the building must be fully considered. Further, these spaces are for the interim condition prior to the adjacent PUD. Where will parking occur during construction on this project? Where will parking be when the adjacent project is complete? There was some discussion of vehicular parking ultimately occurring within the theater proposed next door, but DDOT is unaware of any agreement accordingly. While the travel assumptions indicate that greater than 70 parking vehicles are anticipated for this building, and the Applicant states that available parking in the area is expected to accommodate any additional parking needs, additional information on which parking locations are anticipated for utilization is needed.

Generally, DDOT has no objection to reduced parking provision if documentation as to where parking could occur is made and if the close proximity to transit, provided bicycle accommodations, and the overall available transportation network suggests an appropriate split between vehicular, transit, pedestrian, and bicycle trips. However, DDOT seeks to encourage non-auto trips and the CTR indicates 112 vehicular trips inbound each morning, suggesting additional clarity in regards to parking is warranted. Greater documentation and further details are necessary for DDOT to sufficiently understand the vehicular parking proposed.

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

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

The Applicant proposes the following TDM measures:

- "The Applicant will provide 30 bicycle racks. Of these, 7 racks will be covered.
- The Applicant will provide 20 off-street parking spaces on the subject property and will provide a minimum of 50 off-street parking spaced on property owned or controlled by DC Water.
- The Applicant will identify a project's TDM Leader.
- The Applicant will promote alternative transportation options including transit, bicycling, and carsharing and carpooling/vanpooling services.
- The Applicant's SmarTrip Transit Benefits Program will be expanded to cover employees working at the Headquarters building."

DDOT considers these measures insufficient, and some should not be considered TDM measures. Specifically, the bicycle racks required by zoning are not TDM measures nor is vehicular parking, which actually encourages auto trips. DDOT thus finds the TDM plan to be inadequate to encourage non-auto travel and support the non-auto mode split assumed in the analysis. DDOT seeks the following added TDM measures as a condition for the project proceeding:

- Provide an on-Site bicycle repair facility;
- Provide two showers and 15 lockers for use by employees who bike to work;
- Provide a TransitScreen or similar device displaying real-time transportation schedules;

- Provide an initial \$50 SmarTrip card to all employees; and
- Provide an initial one-year Capital Bikeshare annual membership to all employees.

Physical Improvements

In some cases, physical improvements can be used to mitigate the impacts of a proposed project or upgrade the transportation network surrounding a Site to support its development. These improvements allow an Applicant to ensure the surrounding infrastructure meets current DDOT standards, supports the proposed program, and exists in optimal condition for future residents and tenants as well as their neighbors who utilize this shared public transportation network and infrastructure.

The Applicant does not propose any additional physical improvements. However, as noted above, additional improvements to the pedestrian network are necessary for this project. As well, signalization at 1st Street and N Place SE, as outlined above, should be pursued. DDOT supports inclusion of these elements' completion as a condition for this development to be occupied, the details of which will be coordinated during the public space permitting process.

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