


**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: January 5, 2014

SUBJECT: ZC Case No. 14-12 – 1309-1329 5th Street (Edens Angelika)

PROJECT SUMMARY

EAJ 1309 5th Street LLC (the “Applicant”) proposes a mixed-use development within the Florida Avenue Market (the “Market”) at the premises 1309-1329 5th Street NE (Sq. 3591, Lot 800). The development is proposed to contain two phases:

- Phase 1, “South Building”: A Consolidated Planned Unit Development (PUD) and Zoning Map Amendment consisting of:
 - 1250-seat, 8-screen Angelika movie theater
 - 112,000 SF of office or residential uses (approximately 144 dwelling units)
 - 0 permanent on-site vehicle parking spaces; 112 temporary vehicle parking spaces plus additional satellite parking lots within the Market
- Phase 2, “North Building”: A First Stage PUD consisting of:
 - 35,000 ground floor retail
 - 290,000 SF of office or residential uses (approximately 368 dwelling units)
 - 300-475 vehicle parking spaces

Phase 1 would be constructed atop the Union Market building. The development proposes to keep the 63,000 SF Union Market operational throughout construction. An interior plaza is proposed between the South and North buildings and would be used for loading and active pedestrian uses such as café seating and building entrances.

SUMMARY OF PROCESS

The District Department of Transportation (DDOT) has actively worked with the Applicant on the potential impacts and mitigations necessary to the transportation network from the zoning action. DDOT has met with the Applicant weekly over the last two months and has recently made good progress

on defining the conceptual design of public space including street cross sections. However, this zoning action is requesting a fundamental change of DDOT infrastructure by pursuing a curb-less approach to District streets. While this is a novel idea and may well be appropriate to the context, it is a very complex proposition which goes well beyond the normal public space concerns such as sidewalk width, tree spacing, vault location, etc. and warrants additional solutions for issues such as delineation of pedestrian spaces and drainage design on top of other concerns specific to the geography of the Market such as interim conditions and connections to properties related to the Site, but not a part of this action. These are issues that can be resolved, but they are complicated concerns which take additional time and extensive coordination. While the weekly meetings over the past two months have been productive, it has not allowed sufficient time to resolve all issues fully. Many issues remain to be appropriately resolved at this point including:

- Streetscape design
- Curb management plan
- Phased parking plan
- Mitigation for pedestrian connections to interim parking locations

DDOT requests that CTRs be submitted a minimum of 45 days prior to a hearing to allow for sufficient review time. The final CTR was submitted to DDOT on December 5, 2014, leaving only 31 days for review. The abbreviated review period for this complex proposed action and mitigations has delayed our submission of this report. DDOT acknowledges the tardiness in the submission of this report. It is our commitment to the residents of the District to provide a thorough review of all actions. The timing of our report was necessary in order to complete our analysis and review. We look forward to working with the Applicant and the Zoning Commission to define a path forward for this action.

SUMMARY OF DDOT REVIEW

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

- For the North Building, a combined parking garage and loading curb cut are proposed on 6th Street in compliance with DDOT standards;
- For the South Building, the proposed loading locations within the proposed plaza area and access points comply with DDOT standards;
- The Applicant proposes to convert 4th Street and 5th Street from one-way couplets to two-way operations as part of the subject PUD and the 1270 4th Street PUD (ZC 14-07);
- A 50' wide easement is recorded along the path of Neal Place in front of the Union Market building; and

- The Applicant proposes a non-standard curb-less streetscape and has committed to contribute \$100,000 to develop streetscape guidelines for the Market in cooperation with District agencies.

Travel Assumptions

- Trip generation was based on an office development, which is the higher-intensity trip generator;
- The action is expected to generate a disproportionately high number of new vehicle trips, largely as the result of the supply of 300-475 vehicle parking spaces proposed for the North Building, along with a large number of transit and pedestrian trips and a moderate number of bicycle trips;
- Zero long term on-site vehicle parking spaces are proposed for the South Building. However, the Applicant proposes to provide 112 temporary parking spaces on the site of the future North Building along with several other satellite parking locations within the Market; and
- Significant pedestrian activity is expected between the site and the satellite parking locations.

Analysis

- The Applicant utilized sound methodology to perform the analysis;
- Three intersections are negatively impacted by the proposed development;
- The site is well-served by rail and bus services as well as a robust network of bicycle trails and paths;
- The existing pedestrian network does not support the expected pedestrian increase generated by this action; and
- The Applicant is seeking full relief from the on-site bicycle parking required for the South Building, but proposes to provide the combined total required bicycle parking in the North Building. This creates an interim unmet need for bicycle parking for the South Building, and DDOT does not support the requested relief.

Mitigations

- The proposed Loading Management Plan is acceptable;
- Proposed pedestrian facilities on Neal Place do not meet DDOT standards;
- The proposed Transportation Demand Management (TDM) plan is not sufficiently robust to justify the proposed non-auto mode split; and
- Additional mitigations measures might be necessary as part of the North Building Stage 2 PUD. In particular, the Applicant will be expected to provide showers and changing facilities to encourage bicycle use. An appropriate number of showers and lockers will be determined during the North Building review.

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

- *Pedestrian Improvements* - The Applicant has committed to upgrade the Neal Place sidewalks between 4th Street and 5th Street to ADA-compliant standards, which are federal minimum guidelines and do not meet DDOT standards, specifically regarding sidewalk widths. DDOT finds that safe and accessible connections between the subject site and other destinations within the Market and satellite parking locations are essential. As such, the Applicant should:
 - Rebuild the northern sidewalk on Neal Place between 4th Street and 5th Street in accordance to DDOT standards.
 - Rebuild at least one side of 5th Street between Neal Place and Penn Street to DDOT standards.

- *Transportation Demand Management* - As proposed, the TDM plan is not sufficiently robust to support the projected mode-split and the following should be added:
 - Provide at least two transit information screens in the South Building – one for the movie theater lobby and one for office/residential lobby;
 - Provide at least the minimum required number of long-term, secure bicycle parking spaces for the South Building within the South Building;
 - Provide information and website links to commuterconnections.com, goDCgo.com, and other transportation services on developer and property management websites;
 - Make available at least 2 vehicle parking spaces for a carshare service if there is interest from a carshare service. These carshare spaces should be provided in the closest satellite parking location available; and
 - Financial incentive:
 - Office option: Provide each office worker with a preloaded SmarTrip card with at least \$150.
 - Residential option: Provide an annual carshare or bikeshare membership to all new tenants for a period of 3 years.
- *Florida Market Streetscape Guidelines* –The scope of work for the guideline creation shall be developed in coordination with and approved by DDOT to include stakeholder outreach, determination of surface infrastructure needs, cross sections for each right-of-way within the Market, including 4th Street, 5th Street, Neal Place, Morse Street, and Penn Street, interim and final condition scenarios based on the build-out of the parcels in the Market, approximately 30% design drawings, standard materials, and maintenance requirements. DDOT would ultimately need to adopt the guidelines in order for them to take effect.
- *Routing to Market* - Optimal routing for vehicles to the Market is essential and the Applicant should install DDOT approved signage and striping as necessary, and provide routing information on their websites and promotional materials.
- *Easement* – A minimum 10' unobstructed direct path of travel is required of the Applicant's portion of the easement along the south side of the Site to ensure future transportation needs and connections are maintained.

Continued Coordination

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

- The development of streetscape guidelines for the Market. The scope of work for the guidelines shall be developed in coordination and approved by DDOT along with the final guidelines proposal for the area;
- Operational and geometric changes being pursued such as changing intersection control and roadway directionality along with implementing pedestrian facilities will be subject to public space permitting;
- 4th Street / Morse Street All-Way Stop – The Applicant proposes to convert the intersection from two-way stop controlled to all-way stop control. A warrant analysis during the public space permitting process will be required in order to assess the proposal.
- Morse Street / 4th Street Cross Section – The Applicant proposes to optimize signal timings at this intersection and to stripe the southbound approach of 4th Street as one right-turn only lane and one shared through/left turn lane. The restriping of this intersection is expected to be included in the public space plans for Gateway Market (ZC 06-40C) and, therefore, should not be

included as a proposed mitigation for the subject PUD. DDOT will review the proposed signal optimization and determine its appropriateness.

- 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 the streetscape guidelines, or in the absence of guidelines, to DDOT standards;
- The development of a curbside management plan for 5th Street between Morse Street and Penn Street. The plan, which must address needs identified in this Report, will be determined as part of the public space permitting process;
- The installation of electric car charging stations as part of the North Building Stage 2 PUD. DDOT recommends that at least 2 electric vehicle charging stations be provided;
- The location of utility vaults are expected to be accommodated on private property;
- Compatibility between and sequencing with other developments in the Market. The substantial amount of anticipated development in the Market will require close coordination on various aspects of the projects, including implementation of mitigations, construction staging, and traffic control plans;
- For the subsequent Stage 2 PUD submission for the North Building, DDOT expects consistency with the Stage 1 analysis and an updated CTR might be necessary;
- Additional mitigations measures might be necessary as part of the North Building Stage 2 PUD. In particular, the Applicant will be expected to provide showers and changing facilities to encourage bicycle use. An appropriate number of showers and lockers will be determined during the North Building review; and
- Bicycle parking locations for the North Building are not specified and will need to be determined during the Stage 2 PUD.

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 Access

The site is located in the Market, which is home to many wholesale, production, and warehousing business that generate significant numbers of truck trips and loading activities.

No parking is proposed for the South Building, thus no passenger vehicle site access is required. Loading will be accommodated within the interior plaza with proposed access via curb cuts on 5th Street and 6th Street. A previous proposal to include a curb cut on 6th Street for trash pick-up, which would have been too close to the adjacent curb cut for the interior plaza and would have required back-in truck maneuvers, has since been removed in favor of a design that moves the trash room interior to the plaza. The revised site plan is in compliance with DDOT standards. For the North Building, a combined parking garage and loading curb cut are proposed on 6th Street. The loading facility is designed such that loading is accommodated with front-in/front-out movements in compliance with DDOT standards. See Figure 1 below for details:

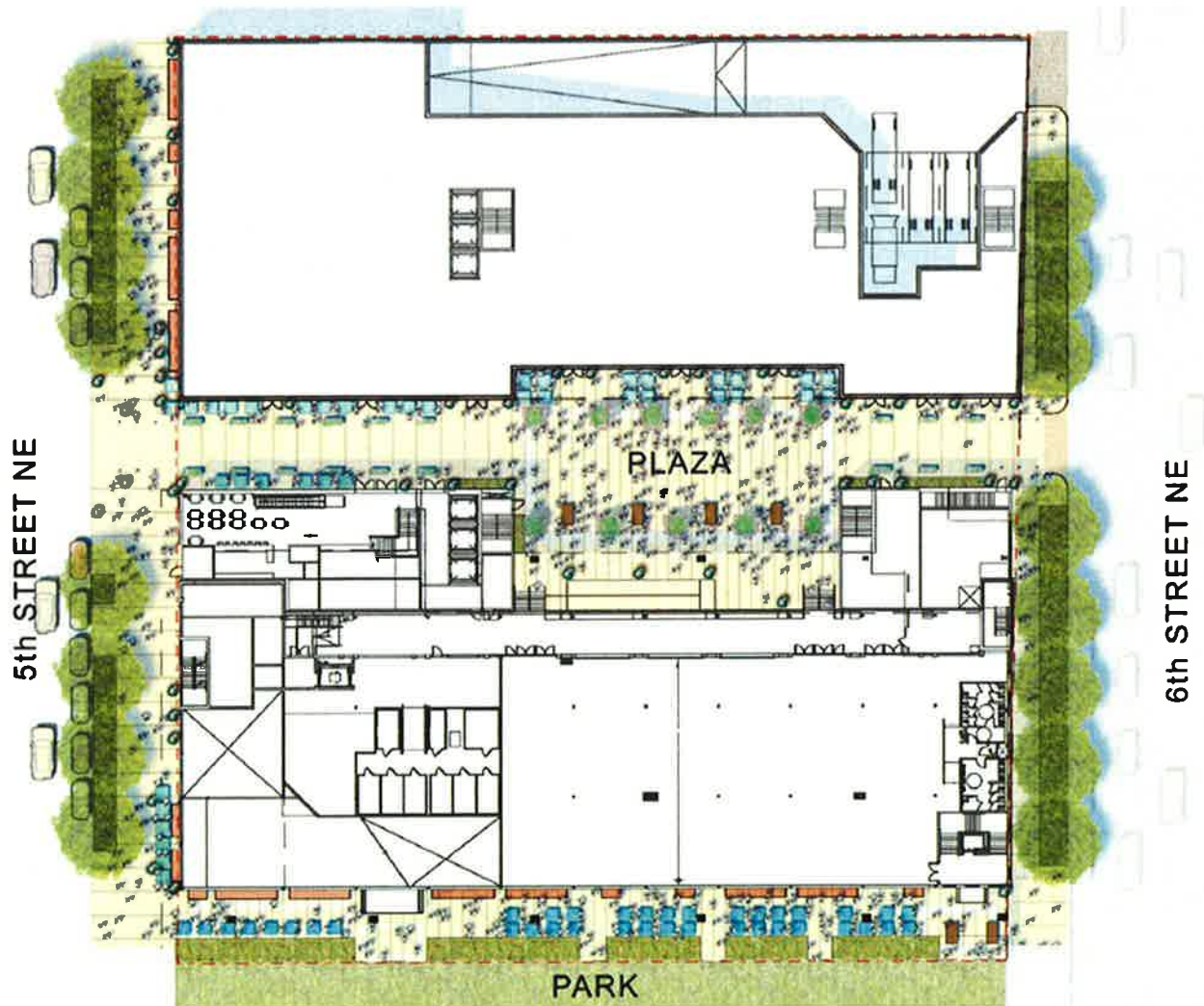


Figure 1 Site Design and Access (Source: Grove/Slade)

The Applicant proposes to convert 4th Street and 5th Street from one-way couplets to two-way operations as part of the subject PUD and the 1270 4th Street PUD. Conversion of these streets to two-way could improve circulation within the Market and could help encourage the use of non-auto modes by calming vehicle traffic.

A 50' wide easement is recorded along the path of Neal Place in front of the Union Market building, where the Applicant has identified a park and their sidewalk café in the above figure. DDOT has requested the easement document from the Applicant, but has not seen the full agreement. According to the Applicant, the easement requires a "right of way" for "ingress and egress". It is not clear if the easement defines what type of access or mode is required. The easement is evenly split between the subject property and the property to the south. The Applicant's site plan shows the movie theater structure projecting approximately 12.5' into the easement above the existing Union Market building. At ground level, support posts for the Movie Theater and office/residential structure would be located in the easement approximately 12.5' from the Union Market façade. Additionally, the Applicant site plan shows café seating and potential park space within the easement, thus providing limited pedestrian facilities to accommodate east-west pedestrian travel. If the property owner to the south builds to the easement line or constructs projections in the easement area, the navigable area of the easement may become further constrained and the anticipated pedestrian volumes may not be accommodated. DDOT expects the easement to be an important connection for people traveling between the Market and Gallaudet University and Brentwood Hamilton Park to the east. As such, DDOT requests a minimum 10' unobstructed direct path of travel of the Applicant's portion of the easement to ensure future transportation needs and connections are maintained.

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's proposed loading locations comply with DDOT's loading requirements. Loading for the South Building is proposed via the interior plaza while a loading dock within the parking garage will be used for the North Building. In order to ensure safe pedestrian activity in the interior market and that the site's loading activities are manageable within the context of the Florida Avenue Market and the loading variance, the Applicant has proposed the following Loading Management Plan:

- Designate a member of the on-site management team as a loading coordinator. The loading facility manager will coordinate with vendors to schedule deliveries and will be on duty during delivery hours;
- Require that deliveries utilize the loading docks;
- Provide tenants with information regarding loading dock restrictions, rules, and suggested truck routes at lease signing. Tenants will be encouraged to move using trucks 30' in length or shorter;
- Limit dock hours of operation to daytime hours (commercial loading between 5 am and 3 pm; residential loading between of 7 am and 4 pm.), with signage indicating these hours posted prominently at the loading dock and at both entrances to the garage;
- Prohibit loading during special events scheduled for the interior plaza;

- Schedule deliveries such that the loading facility's capacity is not exceeded. In the event that an unscheduled delivery vehicle arrives while the facility is full, that driver will be directed to return at a later time when the loading facility will be available;
- Monitor service vehicle traffic interfacing with public street traffic during peak periods and implement management measures if necessary to reduce conflicts between truck and vehicular movements;
- Monitor inbound and outbound truck maneuvers and ensure that trucks accessing the loading facility do not block vehicular traffic;
- Prohibit truck idling; and
- Disseminate suggested truck routing maps to drivers from delivery services that frequently utilize the loading facility.

DDOT finds that the Loading Management Plan as proposed sufficiently addresses loading impacts.

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 current streetscape within the Market lacks standard pedestrian infrastructure, street trees, and other elements of a streetscape that promote safe and pleasant pedestrian travel, reflecting the industrial nature of the Market. Significant improvements to the streetscape are necessary.

The Applicant proposes a non-standard streetscape that features a curb-less street section, wide sidewalks, and new street trees. The Applicant has been working closely with DDOT on the proposed streetscape to determine if the curb-less section can be acceptable to DDOT. While progress has been made on addressing DDOT questions and concerns related to the streetscape, the Applicant's streetscape proposal still has some significant questions regarding the design, including:

- Transitions between the existing streetscape and the proposed streetscape
- Phasing of the streetscape as other Market properties redevelop
- Ensuring that the proposed streetscape does not unduly impact existing businesses
- Technical design elements including storm-water management, safe pedestrian crossings, tree protection, etc.

The Applicant must continue to work closely with DDOT and the Office of Planning to ensure that the design of the public realm can satisfactorily address concerns with the curb-less streetscape and will substantially upgrade the appearance and functionality of the streetscape for public users needing to access the property or circulate around it. The Applicant has committed to develop streetscape guidelines for the Market in cooperation with District agencies. The guidelines are discussed in the Mitigations section. DDOT is committed to continuing conversations related to the curb-less streetscape; however, if the curb-less streetscape cannot be permitted, the Applicant will be required to install a streetscape that complies with DDOT's standards. Final design of the streetscape will be determined through the public space permitting process.

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 more 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 uses in the Market area are reflective of the Market's current wholesale business focus. The dominant curbside use is loading. Most truck operations in the Market involve trucks 24' or shorter parking perpendicular to the curb and loading from the front of the properties. Signage and road striping to manage curbside uses are largely lacking.

The proposed development will have different curbside needs compared to the wholesale businesses. These needs are reflected in the proposed streetscape plan that prioritizes wider sidewalks and street trees over loading space. As the Market transitions from a wholesale business district to a mix of wholesalers, retail, office, and residential, the curbside management plan must be adapted and still respect wholesaler needs. Accordingly, a curbside management plan must address the following needs:

- Accommodate 24' or shorter trucks with perpendicular loading operations adjacent to and across from the Site;
- Make provisions for larger trucks that cannot be accommodated in the perpendicular loading spaces; and
- Provide on-street vehicle parking spaces.

The Applicant has agreed to coordinate with DDOT on the development of a curbside management plan for the entirety of 5th Street between Florida Avenue and Penn Street.

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. Only projects that were reasonably expected to be approved and constructed were included in the analysis. Three background developments – 1270 4th Street PUD, Gateway Market, and Washington Gateway – were included. Given public and private sector interest in developing the Market, it is likely that additional background developments may be added prior to the delivery of the North Building. Additional analysis for the North Building's Stage 2 PUD may be required to account for any new background developments expected between the baseline year and 2019.

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 MWCOG's regional travel demand model. The Applicant coordinated with DDOT on an appropriate regional growth rates based on volume projections at two different time periods within the model.

Off-Street Parking

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

300 to 475 vehicle parking spaces are proposed for the site at full build out. All of these spaces will be located the North Building. No long term on-site vehicle parking spaces are proposed for the South Building and the Applicant proposes to provide 112 temporary parking spaces on the site of the future North Building. In addition, the Applicant proposes to continue to use the Gallaudet University owned 225-space parking garage leased to Edens through 2016.

The Applicant provided analysis to show the parking supply for three time periods – Existing conditions, South Building opens, and North Building opens.

Table 1 Parking Phases (from Applicant)

Phase	Parking Supply
Existing	225 spaces (Gallaudet surface lot)
South Building Opens	206 spaces (temporary lot on North Building site, Penn Street surface lot, and 4 th Street surface lot)
North Building Opens	300-475 spaces (proposed range in North Building garage)

The Applicant’s analysis did not identify parking for the interim phase following the opening of the South Building during the construction of the North Building. During this period, likely between 2017 and 2019, the 112 temporary parking spaces on the site of the North Building would not be available due to construction activity. It is also possible that the Gallaudet surface lot would be unavailable, since this is after the duration of the current lease. In this scenario, visitors to the South Building will likely use the Penn Street surface lot and 4th Street surface lot as well as the parking garages within ZC 06-40C (Gateway Market site) and ZC 14-07 (Shapiro site).

Table 2 Additional Parking Phase

Phase	Parking Supply
Interim Phase between South Building Opening and North Building Opening	Penn Street surface lot: 54 spaces 4 th Street surface lot: 40 spaces ZC 06-40C: 215 spaces (85 required) ZC 14-07: 400-550 spaces (160 required)

DDOT has concerns with the overall high level of parking provision to be provided within the Market area. As shown in Table 3 below, nearly 700 spaces in excess of the required number of parking spaces are proposed. The Applicant’s justification for the high parking provision is to provide parking reservoirs to serve properties in the Market’s “spine” (between Neal Place, Morse Street, 4th Street, and 5th Street) that are small and may not have the ability to provide the parking needed to serve those sites. High levels of parking provision, however, serve to induce additional vehicle trips whereas constrained and properly managed parking can encourage a more balanced mix of travels options that include transit, walking, biking, and driving. Providing parking in excess is likely to result in high automobile mode splits

for the Market, potentially leading to congestion within and adjacent to the Market. High vehicle volumes can detract from the vision for high transit, bike, and pedestrian activity as laid out in various District policies and documents like the Florida Avenue Market Small Area Plan, Comprehensive Plan, moveDC, and the Sustainable DC Plan. DDOT notes that the Applicant has assumed an auto-mode split commensurate with the level of parking provision and that the vehicle traffic projections in the CTR reasonably account for the high level of parking.

Table 3 Parking at Edens Properties

Development	Req'd Parking Spaces	Proposed/Approved Parking Spaces (max)	# of Additional Spaces Provided	% of Req'd Space Provided
Gateway Market	85	215	130	253%
Shapiro	160	550	390	344%
ZC 14-12	301*	475	174	158%
TOTAL	546	1240	694	227%

*Office of Planning's report to the Zoning Commission, Dated December 29, 2014.

Trip Generation

The Applicant is seeking flexibility in the development program to allow for either office or residential for the project. In order to provide a conservative analysis, trip generation was calculated based on the office option since office uses typically have higher trip generation rates. Should the Applicant ultimately elect the residential option for the North and/or South buildings, the trip generation is likely to be lower than the levels assumed in this analysis though the travel patterns are likely to be reversed and can be revisited during the Stage 2 CTR update.

The Applicant utilized the following Institute of Traffic Engineers land use codes in their trip generation estimation:

- Office: General Office (Code 710)
- Movie Theater: Multiplex Movie Theater (Code 445)
- Retail: Shopping Center (Code 820)

The Applicant utilized mode splits used in the Gateway Market (ZC 06-40C) CTR. Of note, the Applicant did not claim any vehicle trip reductions from internal capture, pass-by, or diverted link trip percentages as these are captured in the peak hour mode splits. Based on the trip generation and mode split assumptions, the Applicant predicted the following level of weekday peak hour trip generation:

Land Use	ITE Land Use Code	Quantity	Angellika PUD Trip Generation								
			AM Peak Hour			PM Peak Hour			Saturday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Office - South Building	710	112,000 Square Feet	185	25	210	35	169	204	26	22	48
Total Person-Trips		1.13 PPV	209	28	237	40	191	231	29	25	54
Transit Person-Trips		39% of Total	82	10	92	16	74	90	11	10	21
Walking Person-Trips		8% of Total	17	2	19	3	15	18	2	2	4
Biking Person-Trips		3% of Total	6	1	7	1	6	7	1	1	2
Auto Person-Trips		50% of Total	104	15	119	20	96	116	15	12	27
Auto Vehicle-Trips		1.13 PPV	92	13	105	18	85	103	13	11	24
Movie Theater - South Building	445	1,250 Seats	0	0	0	75	50	125	121	112	233
Total Person-Trips		2.20 PPV	0	0	0	165	110	275	266	247	513
Transit Person-Trips		17% of Total	0	0	0	28	19	47	45	42	87
Walking Person-Trips		10% of Total	0	0	0	17	11	28	27	24	51
Biking Person-Trips		3% of Total	0	0	0	5	3	8	8	7	15
Auto Person-Trips		70% of Total	0	0	0	115	77	192	186	174	360
Auto Vehicle-Trips		2.20 PPV	0	0	0	52	35	87	85	79	164
Total Transit Person-Trips			82	10	92	44	93	137	56	52	108
Total Walking Person-Trips			17	2	19	20	26	46	29	26	55
Total Biking Person-Trips			6	1	7	6	9	15	9	8	17
Total Auto Person-Trips			104	15	119	135	173	308	201	186	387
Total South Building Vehicular Trips			92	13	105	70	120	190	98	90	188
Office - North Building	710	290,000 Square Feet	394	54	448	69	334	403	68	57	125
Total Person-Trips		1.13 PPV	445	61	506	78	377	455	77	64	141
Transit Person-Trips		39% of Total	174	23	197	30	147	177	11	10	21
Walking Person-Trips		8% of Total	36	4	40	6	30	36	2	2	4
Biking Person-Trips		3% of Total	13	2	15	2	12	14	1	1	2
Auto Person-Trips		50% of Total	222	32	254	40	188	228	63	51	114
Auto Vehicle-Trips		1.13 PPV	196	29	225	35	167	202	56	45	101
Retail - North Building	820	35,000 Square Feet	21	13	34	62	68	130	88	81	169
Total Person-Trips		1.78 PPV	37	24	61	110	121	231	157	144	301
Transit Person-Trips		17% of Total	6	4	10	19	20	39	27	24	51
Walking Person-Trips		10% of Total	4	2	6	11	12	23	16	14	30
Biking Person-Trips		3% of Total	1	1	2	3	4	7	5	4	9
Auto Person-Trips		70% of Total	26	17	43	77	85	162	109	102	211
Auto Vehicle-Trips		1.78 PPV	15	9	24	43	48	91	61	58	119
Total Transit Person-Trips			180	27	207	49	167	216	38	34	72
Total Walking Person-Trips			40	6	46	17	42	59	18	16	34
Total Biking Person-Trips			14	3	17	5	16	21	6	5	11
Total Auto Person-Trips			248	49	297	117	273	390	172	153	325
Total North Building Vehicular Trips			211	38	249	78	215	293	117	103	220

Figure 2 Peak Hour Vehicle Trip Generation (Source: Gorove/Slade)

The proposed action is expected to generate a significant number of transit and vehicular trips during the weekday and weekend peak hours. It is important to note that the trip generation was calculated based on office development rather than the residential option. Office uses are associated with higher trip generation than residential uses, and performing the vehicle capacity analysis based on the office use represents a conservative analysis of the vehicular impacts of this project. However, due to different travel patterns (time of day, directionality, routing, etc.) associated with each land use, there may be differences in vehicle impacts compared to what was analyzed if the project be constructed with residential uses.

Study Area and Data Collection

The Applicant in conjunction with DDOT identified 15 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 has the greatest potential to see moderate to significant increases in vehicle delay.

The Applicant utilized some data collected as part of the Gateway Market PUD and collected additional intersection data in October and November 2014. In general, DDOT agrees with the time frame and collection dates. None of the collection dates occurred during Congressional recess or outside of the DC Public School calendar.

Roadway Improvements

DDOT is currently studying the area in the vicinity of the site as part of the *Florida Avenue Multimodal Study*. The study is likely to recommend changes to the road network in order to better and more safely accommodate multiple modes of travel. The Applicant coordinated with DDOT on the roadway conditions to assume in the background and future scenarios, which included likely recommendations for Florida Avenue and 6th Street cross sections from the study. The conversion of 4th Street and 5th Street from one-way to two-way operations was assumed in the future scenarios.

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 seven intersections within the study area operate under failing conditions in the analysis years during one or more peak periods as measured by Level of Service (LOS):

- 4th Street/Penn Street NE & New York Avenue NE
- 4th Street/Morse Street NE
- 5th Street/Morse Street NE
- 6th Street/Morse Street NE
- 2nd Street/Florida Avenue NE
- 4th Street/Florida Avenue NE
- 6th Street/Florida Avenue NE

DDOT acknowledges that not all intersections which will experience new trips are included in the study area. In particular, the study area did not include the New York Avenue/Florida Avenue intersection, which currently experiences high vehicle volumes especially at peak times. It is possible that delays and queuing at this intersection could serve to artificially constrain traffic volumes at intersections within the study area.

Of these intersections, three intersections – 4th Street/Florida Avenue NE, 6th Street/Florida Avenue NE, and 6th Street/Morse Street NE – operate at unacceptable conditions due to the subject development. A fourth intersection – 5th Street/Morse Street NE – operates at unacceptable levels in 2017 but improves with the opening of the North Building in 2019 due to new traffic patterns associated with the parking garage entrance on 6th Street.

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 northern edge of the site is located approximately 0.5 miles, roughly a 10 minute walk, from the NoMa-Gallaudet U Metro Station. The station is served by the Red Line.

The site is well-served by high-frequency bus routes. No bus stops are currently located within the interior of the Market, but several exist along the perimeter on Florida Avenue. Bus routes include:

- 90, 92, 93 – U Street – Garfield Line
- X3 – Benning Road Line

These bus routes provide frequent service with peak hour headways less than 10 minutes. The closest bus stops are 0.2 miles away at 5th Street/Florida Avenue and 6th Street/Florida Avenue. The site is approximately 0.5 miles from the H Street Streetcar Line.

WMATA's analysis of bus load factors revealed overcrowding conditions on the 90 Line. A recent study of the route recommended a WMATA Express route for this line in the future.

While the site is well served by transit, no transit options serve the site directly. Transit riders must walk to/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 of Columbia 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. Vehicle and transit trips are likely to involve a walking component due to the satellite parking options and distances from the transit stops, further adding to the importance of walking. The pedestrian desire line, particularly for transit riders, would be along 4th Street north of Florida Avenue and Neal Place between 4th and 5th Street. This route would connect visitors to the site with other developments in the Market as well as transit stations/stops.

As noted in the Applicant's supplementary submission to DDOT dated December 31, 2014 regarding pedestrian infrastructure, significant substandard pedestrian facilities exist in the Market. It is expected that other developments in the Market will upgrade the public space on 4th Street between Florida Avenue and Neal Place and that the streetscape for 5th Street and 6th Street along the frontage of the subject property will be upgraded. However, where pipeline developments are not expected at this time, the public space is assumed to remain in its current condition, thus creating gaps in the pedestrian network. Most notably, the sidewalks on Neal Place between 4th Street and 5th Street are not up to current DDOT standards.

It is imperative that pedestrian connections be in place in order to connect the various satellite parking locations with the subject site. These pedestrian facilities must comply with DDOT standards in order to ensure safe, accessible, and adequate pedestrian connections. Given the locations of the satellite parking facilities, but depending on the specific satellite lots used to serve the subject site, significant pedestrian activity can be expected on 4th Street between Florida Avenue/Neal Place, Neal Place between 4th Street and 5th Street, and 5th Street between Neal Place and Penn Street. The necessary pedestrian upgrades are discussed in the Mitigations section.

The Applicant's CTR states that, "Improving conditions does not require conforming to DDOT standards." DDOT's standards for pedestrian infrastructure are more stringent than ADA requirements, particularly with respect to minimum sidewalk widths. The more demanding DDOT standards are in place in order to provide safe and adequate pedestrian facilities needed to support and encourage walking trips. These standards are particularly important in the retail-intensive Market that will generate much pedestrian activity. Accordingly, DDOT expects that pedestrian facilities be built to DDOT standards.

Rebuilding to DDOT standards entails sidewalks with at least 6' clear space and may also include tree boxes and street trees, curb and gutter, etc. Meeting DDOT standards may require moving curb lines to accommodate minimum widths.

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. Currently, one Capital Bikeshare station with 23 docks is located adjacent to the site at the 6th Street / Neal Place intersection. The site is located in close proximity to a southbound bicycle lane on 4th Street south of Florida Avenue and a northbound bicycle lane on 6th Street south of Florida Avenue. DDOT recently installed a two-way cycle track on 6th Street adjacent to the site. Future plans include a concept for a multiuse trail along New York Avenue that will connect through the Market area via railroad right of way to the west of 4th Street.

The Applicant is required to provide between 9-54 long-term bicycle parking spaces for the South Building and an additional 10-125 spaces for the North Building, depending on the ultimate land-use of each building. The Applicant is seeking relief from the long-term bicycle parking requirement for the South Building citing challenges associated with providing long-term bicycle parking in the new structure above the existing Union Market building. The Applicant has proposed to meet the long-term bicycle parking requirements both buildings in the North Building's parking garage. Site plans for the North Building did not specify a location for long-term bicycle parking facilities.

Providing long-term, secure bicycle parking is important for achieving the mode splits assumed in the analysis, encouraging bicycle travel, and minimizing vehicular impacts to the surrounding road network. As such, DDOT does not support the requested parking relief, and the Applicant should provide at least the minimum required number of long-term, secure bicycle parking spaces within the South Building. The Applicant is also expected to provide an appropriate number of short-term bicycle facilities for each phase. The number and location of short-term bicycle facilities will be determined during the public space permitting process. The adequacy of long-term bicycle parking facilities for the North Building will be reviewed during the North Building Stage 2 PUD review.

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 as study area intersections as well as a site distance analysis along the public space where there is expected to be conflicts between competing modes (e.g. crosswalks, driveway entrances, etc.).

The Applicant’s analysis of DDOT crash data reveals seven 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	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
4th Street/Penn Street & New York Avenue NE	2.94	4 4%	10 11%	5 5%	32 34%	27 29%	4 4%	1 1%	1 1%	3 3%	0 0%	3 3%	2 2%	0 0%	1 1%	93
Neal Place & 4th Street NE	4.01	0 0%	2 14%	0 0%	4 29%	4 29%	0 0%	0 0%	0 0%	0 0%	1 7%	2 14%	0 0%	0 0%	1 7%	14
Neal Place & 5th Street NE	2.21	2 29%	0 0%	0 0%	0 0%	3 43%	0 0%	1 14%	0 0%	0 0%	0 0%	1 14%	0 0%	0 0%	0 0%	7
Morse Street & 4th Street NE	6.11	2 8%	1 4%	0 0%	2 8%	7 27%	1 4%	3 12%	0 0%	2 8%	2 8%	3 12%	0 0%	0 0%	3 12%	26
Morse Street & 5th Street NE	2.55	2 20%	0 0%	0 0%	1 10%	5 50%	0 0%	0 0%	0 0%	0 0%	0 0%	2 20%	0 0%	0 0%	0 0%	10
Florida Avenue & 2nd Street NE	1.77	4 15%	3 12%	0 0%	4 15%	10 38%	0 0%	0 0%	1 4%	0 0%	0 0%	1 4%	0 0%	0 0%	3 12%	26
Florida Avenue & 3rd Street NE	2.96	6 13%	5 10%	2 4%	18 38%	11 23%	0 0%	0 0%	1 2%	0 0%	1 2%	0 0%	0 0%	0 0%	4 8%	48

Figure 3 Elevated Crash Rate Intersections by Crash Type (Source: Grove/Slade)

The Florida Avenue Multimodal Study will recommend geometric and operational changes to promote safety in the broader study area, particularly on Florida Avenue. Additionally, changes within the Market associated with new developments such as changing 4th Street and 5th Street to two-way operations, improving signage and striping, and a decrease in loading activities will serve to improve safety.

In addition, the Applicant proposes to convert several intersections from uncontrolled or two-way stop sign controlled to all-way stop sign controlled. These changes, which would require a warrant analysis, would likely have positive effects of safety, but may also have capacity implications that were not studied as part of this analysis. Further coordination is required to review and approve all proposed operational changes.

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.

Site Circulation, Operations, and Design

The site should be designed in a manner to facilitate internal movement of people and vehicles such that the potential impacts to the external transportation network are minimized. When potential impacts are unavoidable, operational changes, such as limitations on turn movements or changes in directionality of roadways, are an effective way to manage a site's potential transportation impact.

4th Street and 5th Street Operations

The Applicant proposes to convert 4th Street and 5th Street from one-way to two-way operations as part of the subject PUD and the 1270 4th Street PUD. DDOT has reviewed the impact of this operational change and found that such a conversion is conceptually possible. Conversion of these streets to two-way operations could improve circulation within the Market. While the conversion to two-way operation may be appropriate, it should not be implied that such changes are approved in the zoning process. Approval for the conversion is only granted through the public space permitting process. The Applicant must continue to coordinate with DDOT on the implementation of the operational changes. If approved by DDOT at permitting, the conversion of both roads to two-way operations would likely need to occur concurrently. Additionally, the Applicant would be required to pay for and install roadway striping, new signage, and other improvements associated with the operational change. The exact timing of the conversion will be determined during permitting and would be contingent upon construction schedule, traffic control plans, and maintenance of traffic plans taking into account all land development projects occurring within the Market.

4th Street / Morse Street All-Way Stop – The Applicant proposes to convert the intersection from two-way stop controlled to all-way stop control. DDOT finds that the change could improve operations at the intersection; however, a warrant analysis will be required in order to assess the need for this change. The proposed change will be evaluated during the public space permitting process.

Morse Street / 4th Street Cross Section – The Applicant proposes to optimize signal timings at this intersection and striping the southbound approach of 4th Street as one right-turn only lane and one shared through/left turn lane. The restriping of this intersection is expected to be included in the public space plans for Gateway Market and, therefore, should not be included as a proposed mitigation for the subject PUD. DDOT will review the proposed signal optimization and determine its appropriateness.

In addition, the Applicant's draft public space plans show the conversion of two-way stop controlled intersections at 4th Street / Neal Place and 5th Street / Neal Place to all-way stop controlled and a new stop sign at the crosswalk at the Neal Place easement / 6th Street. These changes will require a warrant analysis to determine the need. Each of these changes was not included in the analysis as part of this

CTR and is likely to have capacity implications. Accordingly, additional capacity analysis is likely to be required as part of the review of these recommendations during the public space permitting process.

Streetscape

As discussed in the Public Space subsection above, several details regarding the proposed curb-less streetscape remain to be addressed, including:

- Transitions between the existing streetscape and the proposed streetscape
- Phasing of the streetscape as other Market properties redevelop
- Ensuring that the proposed streetscape does not unduly impact existing businesses
- Technical design elements including drainage, tree protection, delineation of pedestrian space, vehicle barriers, etc.

To help address these issues, the Applicant has committed to contribute \$100,000 to develop streetscape guidelines for the Market in cooperation with District agencies. DDOT finds that the development of the streetscape guidelines will help explore solutions to the design and process questions posed by DDOT. Accordingly, DDOT agrees with the proffer with the following conditions:

- The scope of work for the guidelines development shall be developed in coordination with DDOT. DDOT shall approve of the scope of work;
- The scope of work shall include:
 - Outreach with both existing Market businesses and developers may be contemplating redevelopment projects in the Market; and
 - Resolution of all technical design and engineering elements.
- Deliverables shall include:
 - A determination of surface infrastructure needs;
 - Cross sections for each right-of-way within the Market, including 4th Street, 5th Street, Neal Place, Morse Street, and Penn Street;
 - Interim and final condition scenarios based on the build-out of the parcels in the Market;
 - Hard-line plans for the Market shown in section and plan view (approximately 30% design drawings);
 - Standard materials
- DDOT shall be involved in project managing the guidelines development. DDOT shall have approval authority of the final design guidelines, including all deliverables, and would need to ultimately adopt the guidelines in order for them to take effect.

DDOT is committed to continuing conversations related to the curb-less streetscape; however, if the curb-less streetscape cannot be permitted the Applicant will be required to install a streetscape that complies with DDOT's streetscape standards. Final design of the streetscape will be determined through the public space permitting process.

Pedestrian Improvements

Walking is expected to be an important mode of transportation for this development. A significant number of pedestrian trips are anticipated and vehicle and transit trips are likely to involve a walking component due to the location of potential satellite parking locations and transit stop/station locations, further adding to the importance of walking. The Applicant's analysis of pedestrian conditions within the Market revealed significant substandard pedestrian facilities in the Market. It is expected that other developments in the Market will upgrade the public space on 4th Street between Florida Avenue and

Neal Place and that the streetscape for 5th Street and 6th Street along the frontage of the subject property will be upgraded.

The Applicant has committed to upgrade the Neal Place sidewalks between 4th Street and 5th Street to ADA-compliant standards, which are federal minimum guidelines and do not meet DDOT standards, which require wider sidewalks to accommodate pedestrian demand. As such, the Applicant should:

- Rebuild the northern sidewalk on Neal Place between 4th Street and 5th Street in accordance with the streetscape guidelines or, in the absence of the streetscape guidelines, to DDOT standards.
- If the parking lot at 5th Street/Penn Street is used for satellite parking for the subject site, rebuild at least one side of 5th Street between Neal Place and Penn Street in accordance with the streetscape guidelines or, in the absence of the streetscape guidelines, to DDOT standards

Rebuilding to DDOT standards entails sidewalks with at least 6' clear space and may also include tree boxes and street trees, curb and gutter, etc. Meeting DDOT standards may require moving curb lines to accommodate minimum widths.

Curbside Management Plan

The Applicant has agreed to coordinate with DDOT on the development of a curbside management plan for the entirety of 5th Street. Given the existing and future curbside needs and the changing land-use in the Market, DDOT finds that developing a curbside management plan for the entirety of 5th Street between Florida Avenue and Penn Street is necessary to adequately address curbside needs. The curbside management plan must address the changing curbside needs for the Market. Accordingly, the plan must include strategies for accommodating the following needs:

- Loading for existing businesses
- On-street parking
- Signage and marking

The details of the plan, which must account for the needs identified above will be determined as part of the public space permitting process.

Routing to Market

The Applicant's analysis revealed operational problems at the three primary entrance points to the Market— 4th Street/Penn Street, 4th Street/Florida Avenue, and 6th Street/Florida Avenue. These intersections, particularly 4th Street/Penn Street, would be improved by strategically routing site traffic to take advantage of approaches with excess vehicle capacity. In the case of 4th Street/Penn Street, routing ingress and egress site traffic from the east to travel through the Brentwood Parkway/New York Avenue intersection would alleviate capacity problems at 4th Street/Penn Street.

The Applicant should commit to coordinating with DDOT on optimal routing for vehicles to the Market. Preferred routes should be marked using standard DDOT signage with exact locations to be determined during permitting. Routing information should also be reflected on the websites and promotional materials for Union Market and the proposed developments.

Easement

The easement along the south edge of the Site is expected to be an important pedestrian connection for those traveling between the Market and Gallaudet University and Brentwood Hamilton Park to the east. In order to ensure adequate access to accommodate anticipated demand, the Applicant should agree to

maintain at least a 10' unobstructed clear path in the Applicant's portion of the easement. This clear path may be located at the edge of the property line and should be unobstructed by café seating, landscaping, or other features.

Transportation Demand Management

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

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

The Applicant proposes the following TDM strategies:

- Designate a TDM coordinator responsible for organizing and marketing the TDM plan;
- Unbundle parking costs from the price of lease or purchase, and price no less than charges of the lowest fee garage within one-quarter mile;
- Meet the existing regulatory minimums for bicycle parking in the North Building parking garage; and
- Install a transit information screen in building lobbies to display transit and other alternate mode information.

DDOT finds the TDM plan to be insufficient to encourage non-auto travel. Accordingly, DDOT requests that the following changes to the Applicant's TDM plan as a condition of approval:

- Provide at least two transit information screens in the South Building – one for the movie theater lobby and one for office/residential lobby;
- Provide at least the minimum required number of long-term, secure bicycle parking spaces for the South Building within the South Building;
- Provide information and website links to commuterconnections.com, goDCgo.com, and other transportation services on developer and property management websites;
- Make available at least 2 vehicle parking spaces for a carshare service if there is interest from a carshare service. These carshare spaces should be provided in the closest satellite parking location available; and
- Financial incentive:
 - Office option: Provide each office worker with a preloaded SmarTrip card with at least \$150.
 - Residential option: Provide an annual carshare or bikeshare membership to all new tenants for a period of 3 years.

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

Additional TDM measures might be necessary as part of the North Building Stage 2 PUD. In addition to providing adequate long- and short-term bicycle parking for the North and South buildings in the North Building, the Applicant will be expected to provide showers and changing facilities. An appropriate number of showers and lockers will be determined during the North Building review.

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