

Project Name & Applicant Team:	
<u>Applicant:</u>	Ditto Residential, 2217 14 th Street NW, Suite 300, Washington, DC 20009 Attn: Jamie Weinbaum (202-285-3967/ jamie@dittodc.com)
<u>Land Use Counsel:</u>	Holland & Knight, 800 17 th Street NW, Suite 1100, Washington, DC 20006 Attn: Chip Glasgow (202-419-2460/ norman.glasgowjr@hklaw.com)
<u>Transportation Consultants:</u>	Gorove/Slade Associates, Inc., 1140 Connecticut Avenue NW, Suite 600, Washington, DC 20036 Attn: Erwin Andres (202-540-1925/ ena@goroveslade.com); Jim Watson (202-296-8628/ jww@goroveslade.com)
Case Type & No. (PUD, LTR, etc.):	PUD
Street Address:	301 Florida Avenue NE, Washington, DC 20002
Current Zoning and/or Overlay District:	C-M-1
Date of Filing:	Spring 2015
Estimated Date of Hearing:	Summer-Fall 2015
Description of Project:	The 301 Florida Avenue NE PUD site is located in a triangular block bounded by Florida Avenue to the north, N Street to the south, and Third Street to the west, as shown in Figure 1. The site is located approximately 800 feet from the north portal of the NoMa Gallaudet Metro Station and approximately 1,000 feet from the south portal of the station. Robust bus service also exists along Florida Avenue with four Metrobus routes serving the site directly via a bus stop adjacent to the site. The PUD plans to include approximately 56 residential units above approximately 4,500 square feet (sf) of ground floor retail, as shown in Figure 2. No parking is planned to be provided for this development. Loading and delivery access will be provided curbside from Third Street. Primary pedestrian access will be via entrances along Florida Avenue. It should be noted that some discussion has occurred within the community to close N Street. While this project supports this initiative, the PUD itself does not propose to close N Street and is planned to continue whether N Street remains open or closed.
1. Strategic Planning Elements (Planning Documents)	DDOT Comments/Action Items
<p>Planning Guidelines: The CTR will address how the proposed development considers the primary city-wide planning documents, as well as localized studies. See Section 3.1 of the CTR guidelines for more information.</p> <p>Proposed Documents:</p> <ul style="list-style-type: none"> • DDOT Comprehensive Transportation Review (CTR) Process (August 2012) and TIS Study Guidelines • DDOT Design & Engineering Manual • DC Public Realm Design Manual • District of Columbia Pedestrian Master Plan • District of Columbia Bicycle Master Plan • DCMR Title 11 - Zoning Regulations [Section 21 – Off-street Parking, Section 22 – Off-Street Loading] • MoveDc Multimodal Long-Range Transportation Plan 	<p>Also include DDOT’s Green Infrastructure Standards on this list for managing stormwater runoff and layout of green space in public space.</p>



<ul style="list-style-type: none"> • NoMA Neighborhood Access Study and Transportation Management Plan • Florida Avenue Safety Study • Florida Avenue Market Study/Small Area Plan 	
2. Roadway Network, Capacity & Operations	DDOT Comments/Action Items
<p><u>Vehicle Trip Generation Assumptions</u> Guidelines: Provide <i>preliminary</i> site-generated vehicle trips and mode split assumptions. In addition, provide the assumptions and supporting documentation behind the proposed mode split. See Section 3.2.1 of the CTR guidelines for further information.</p> <p>Proposed preliminary mode split and supporting documentation: Attached to this form are more details on the trip generation and mode split assumptions. The trip generation assumptions are summarized on pages 9-12 below.</p> <p>Table 1: Trip Generation Summary</p>	<p>Given the zero parking provision, a 50% auto mode split is likely too high. A reduction to 30% is appropriate if properly supported with TDM. While a 50% mode split has been used in other pipeline developments, the parking provision warrants a lower mode split.</p>



Trip Gen Summary for Residential						
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	4 veh/hr	12 veh/hr	16 veh/hr	12 veh/hr	6 veh/hr	18 veh/hr
Transit	3 veh/hr	11 veh/hr	14 veh/hr	11 veh/hr	5 veh/hr	16 veh/hr
Bike	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
Walk	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	1 veh/hr	3 veh/hr
Trip Gen Summary for Retail						
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	1 veh/hr	1 veh/hr	2 veh/hr	4 veh/hr	4 veh/hr	8 veh/hr
Transit	2 veh/hr	1 veh/hr	3 veh/hr	5 veh/hr	5 veh/hr	10 veh/hr
Bike	1 veh/hr	0 veh/hr	1 veh/hr	1 veh/hr	1 veh/hr	2 veh/hr
Walk	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr
Total Trip Gen Summary						
Mode	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Auto	5 veh/hr	13 veh/hr	18 veh/hr	16 veh/hr	10 veh/hr	26 veh/hr
Transit	5 veh/hr	12 veh/hr	17 veh/hr	16 veh/hr	10 veh/hr	26 veh/hr
Bike	2 veh/hr	0 veh/hr	2 veh/hr	2 veh/hr	2 veh/hr	4 veh/hr
Walk	2 veh/hr	3 veh/hr	5 veh/hr	5 veh/hr	3 veh/hr	8 veh/hr

<p><u>Vehicle Site Access</u></p> <p>Guidelines: If vehicle access is needed, at a minimum the CTR will provide locations of access point(s) and desired access controls (full, right-in/right-out, etc.). See Section 3.2.2 of the CTR guidelines for any further requirements.</p> <p>The proposed site plan is shown in Figure 2.</p> <p>Access Location(s): Since no parking will be provided, no vehicular access will be provided to the site. Loading access is planned to be curbside from Third Street.</p> <p>Access Control: N/A</p> <p>Existing Curb cuts utilized: No existing curb cuts will be utilized for the site.</p> <p>Existing curb cuts abandoned: Three curb cuts will be abandoned along Florida Avenue and one curb cut will be abandoned along Third Street. There is a newly constructed curb along N Street, which effectively closes access to the site from N Street. The site was previously served by a very large open curb cut from N Street,</p>	<p>Plan proposes to close all existing curb cuts around the site. This will provide opportunities to add green space and trees especially along Florida Avenue. UFA supports closing the curb cuts and encourages the</p>
---	---



<p>which is now closed.</p> <p>Proposed curb cuts: None as no parking or loading access is planned for the site.</p> <p>Curb cut width and radii: N/A</p>	
<p><u>CTR Triggers for further vehicle analysis (for sections below)</u></p> <p>Guidelines: See Section 3.2.3 of the CTR guidelines to determine if a more comprehensive vehicle analysis is required. If so, completion of the remainder of the <i>Roadway Network, Capacity & Operation</i> section of the scoping form is required.</p> <p>Trigger is not met. However, the study will include a discussion of trip generation for the site for general information.</p>	
<p><u>Development Scenarios</u></p> <p>Guidelines: See Section 3.2.4 of the CTR guidelines for discussion of the required development scenarios.</p> <p>Proposed Development Scenario:</p> <p>Trigger for vehicular study is not met, thus no existing or future development studies will be examined.</p>	
<p><u>Vehicle Study Area</u></p> <p>Guidelines: See Section 3.2.5 of the CTR guidelines for discussion of the study area.</p> <p>Proposed Study Area intersections, including access points:</p> <p>No capacity analyses will be reviewed as a part of this study, thus no intersections are presented for review. However, given the parking variance being sought, an assessment of the on-street parking inventory and occupancy is proposed. As shown on Figure 3 below, an on-street parking inventory and occupancy study area bound by Florida Avenue, Sixth Street, L Street, and Delaware Avenue in the immediate area of the site. Given the barrier that Florida Avenue and the railroad create to pedestrians as well as the complete redevelopment that is planned in the Florida Avenue Market area, the parking and occupancy study is not proposed to extend further north or west.</p>	
<p><u>Data Collection and Hours of Analysis</u></p> <p>Guidelines: See Section 3.2.6 of the CTR guidelines for discussion of the required data collection and hours of analysis.</p> <p>Proposed turning movement count intersections:</p> <p>No capacity analyses will be reviewed as a part of this study, thus no turning movement data collection will occur. As discussed above, parking inventory and occupancy will be examined in the blocks surrounding the site. This data will be collected from 6:00am to 9:00am and from 5:00pm to 11:00pm on a typical weekday.</p>	
<p><u>Roadway Improvements</u></p>	



<p>Guidelines: The study will account for approved and funded roadway improvement projects within the study area that are expected to begin before the proposal’s horizon year. See Section 3.2.7 of the CTR guidelines.</p> <p>Proposed roadway improvements: The planned reconfiguration of Florida Avenue adjacent to the site will be considered in the CTR, however, since the trigger for vehicular study is not met, this reconfiguration will be discussed in a qualitative manner.</p>	
<p><u>Background Developments</u></p> <p>Guidelines: The study will account for vehicle trips generated by developments in the study area that have an origin/destination within the study area. See Section 3.2.8 of the CTR guidelines.</p> <p>Proposed background development: Trigger for vehicular study is not met, thus no background development will be included in the study.</p>	
<p><u>Background Growth</u></p> <p>Guidelines: The study will account for annual growth or decrease in through traffic on minor and principal arterials that pass through the proposed study area. See Section 3.2.9 of the CTR guidelines.</p> <p>Proposed annual background growth: Trigger for vehicular study is not met, thus no background growth will be included in the study.</p>	
<p><u>Site Trip Distribution & Assignment</u></p> <p>Guidelines: Trips generated by the site will be distributed throughout the study area network. See Section 3.2.10 of the CTR guidelines for information in trip distribution and assignment.</p> <p>Proposed site distribution and assignment (attach Figures, as needed, at end of Scoping Form): Trigger for vehicular study is not met, thus no site trip generation and assignment will be included in the study.</p>	
<p><u>Analysis Methodology</u></p> <p>Guidelines: Capacity analyses are typically performed using Highway Capacity Manual (HCM) methodologies or a similar industry recognized software. See Section 3.2.11 of the CTR guidelines.</p> <p>Proposed analysis methodology: Trigger for vehicular study is not met, thus no analysis methodology has been discussed here.</p>	
<p><u>Vehicle Trip Mitigation</u></p> <p>Guidelines: Proposed mitigation of vehicle impacts, if needed, must not add significant delay to other travel modes. Standard non-urban mitigation often includes geometric re-design which may not fit DDOT’s practice of balancing safety and capacity across multiple transportation modes. See Section 3.2.12 of the CTR guidelines.</p>	



<p>For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in the scoping form.</p>	
<p>3. Bicycle & Pedestrian Facilities</p>	<p>DDOT Comments/Action Items</p>
<p><u>CTR Triggers for bike and pedestrian mode share</u> Guidelines: A CTR is required to include some level analysis of the bike and pedestrian network at a minimum, based on several potential factors. See Section 3.3.1 of the CTR guidelines to determine if a more comprehensive analysis is required. If so, complete the remainder of the <i>Bicycle & Pedestrian Facilities</i> section of this scoping form. Trigger is not met, however this study will review the bicycle and pedestrian facilities within the immediate vicinity of the site as well as paths to and from the NoMa Gallaudet Metro Station.</p>	
<p><u>CTR Bike and Pedestrian Study area</u> Guidelines: See Section 3.3.2 of the CTR guidelines to determine bike and pedestrian study areas. Proposed bike and pedestrian study areas: The study will review the existing bicycle and pedestrian facilities within the immediate vicinity of the site, defined as all facilities within a ¼-mile radius of the site and bicycle routes to major destinations within a 1-mile bikeshed.</p>	
<p><u>Data Collection and Analysis of Bike Network and Facilities</u> Guidelines: See Section 3.3.3 of the CTR guidelines for data collection requirements and analysis for bike and pedestrian modes. Proposed Bike network and facilities analysis: Deficiencies in the connectivity or accessibility of routes through the bike and pedestrian study areas indicated above will be noted. An overview of the proposed on-site bicycle and pedestrian infrastructure improvements, including any changes to the pedestrian streetscape as well as the locations and routes to proposed on- and off-street bicycle parking will be provided.</p>	
<p><u>Mitigation for Bike network</u> Guidelines: If deficiencies have been documented in the study area’s pedestrian or bike facilities that would preclude the proposed mode split, then mitigation of these deficiencies is required. See Section 3.3.4 of the CTR guidelines for mitigation requirements of the bike network. For Informational purposes only. Mitigation will be documented in the final CTR. No information required in scoping form.</p>	<p>Given the importance of non-auto modes for this site, off-site deficiencies in the sidewalk should be improved as part of this application. Location of bike racks in public space shall be coordinated with overall streetscape amenities to include street trees. UFA supports the installation of bike racks which deters cyclists</p>



	from damaging trees.
4. Transit Service	DDOT Comments/Action Items
<p><u>CTR Triggers for transit mode share</u> Guidelines: A CTR is typically required to include some level analysis of the transit network, based on several potential factors. See Section 3.4.1 of the CTR guidelines to determine the minimum analysis requirements and if a more comprehensive transit analysis is required. If so, completion of the remainder of the <i>Transit Service</i> section of this scoping form is required. See Section 3.4.1 of the CTR guidelines.</p> <p>Trigger is met.</p>	
<p><u>CTR Transit study area</u> Guidelines: If further analysis of the transit network is triggered, see Section 3.4.2 of the CTR guidelines for determining the requisite study area.</p> <p>Proposed transit study area: The study will include a review of all Metrorail stations within a half-mile of the site (NoMa Gallaudet) and all Metrobus services with stops within a quarter-mile of the site. In particular, service to the bus stops adjacent to and across Florida Avenue will be included as well.</p>	
<p><u>Analysis of Transit Network</u> Guidelines: Analysis of the transit network will incorporate both a quantitative and qualitative review. See Section 3.4.3 of the CTR guidelines for further information.</p> <p>Proposed transit analysis: The study will discuss transit routes; schedules, including headway and span of service; stop conditions; and a discussion of planned future services in the area. The study will evaluate the sufficiency of the identified services and access to those services from a qualitative standpoint. This study will not include a quantitative study of boarding and alighting volumes at specific transit stops.</p>	<p>In addition to evaluating current conditions, the 2010 studies for the 90s Lines and H Street-Benning Road (X Lines) should be examined for potential future improvements along those routes. They can be found at: http://metrobus-studies.com/90s/90s.htm http://metrobus-studies.com/Benning-H/Benning-H.htm</p>
<p><u>Transit Trip Mitigation</u> Guidelines: Proposed mitigation of transit impacts may be needed, given certain impacts to the network. See Section 3.4.4 of the CTR guidelines for more information.</p> <p>For Informational purposes only. Mitigation will be documented in the final CTR. No information is required in scoping form.</p>	<p>Green space/planting of street trees shall be included along Florida Avenue in conjunction with the existing bus service. Bus zones should not be totally devoid of green space and placement of required ADA access at front and back doors shall be as per DDOT Standards.</p>
5. Site Access and Loading	DDOT Comments/Action Items



<p>Guidelines: At a minimum, the Applicant is required to show site access for vehicles, pedestrians, and bicyclists. In addition, DDOT has additional policies for site access and loading as they relate to public space. See Section 3.5 of the CTR guidelines for additional information regarding these policies.</p> <p>Freight\Delivery The study will identify existing and proposed commercial vehicle access to the site. See Section 3.5.1 of the CTR guidelines.</p> <p>Motorcoach For developments that will generate significant tourist activity (hotels, museums, etc.) the study will discuss the site plan’s accommodation of motorcoach access. See Section 3.5.2 of the CTR guidelines.</p> <p>Proposed Loading Analysis: Loading for the site will be accommodated curbside from Third Street. Maneuvers into and out of the curb lane along Third Street will be included in the report. A discussion of trash pick-up operations will also be included.</p> <p>This site is not expected to attract Motorcoaches, so no Motorcoach analyses will be conducted.</p>	<p>Note that curbside loading zones are not granted for residential loading or trash/recycling. Additionally, a commercial loading zone is not warranted in this area.</p> <p>Residents will need to get a public space permits for their moving truck for move-in/move-out the. The permit should be for 3rd Street NE.</p> <p>DDOT prefers trash/recycling be handled on N Street NE. The trash/recycling can be moved out of the door provided on 3rd Street and wheeled to N Street where it can be picked up by the trash and recycling provider. This is DDOT’s preferred option as N Street is not a through street and does and will have lower traffic volume.</p> <p>Access to/from the trash/recycling room must be provided for all uses in the building.</p> <p>DDOT recognizes loading is not required for the commercial use in this building however, deliveries will be generated by this use. DDOT expects the Applicant (and future tenant) to accommodate retail deliveries on N Street NE.</p> <p>Please provide a loading management plan to establish procedures for residential move-in/move out, residential and retail trash, and retail deliveries.</p> <p>Please remove the area marked “Loading” on the site plan (Figure 2). This is misleading as not on-site loading zone is proposed.</p>
<p>6. Parking</p>	<p>DDOT Comments/Action Items</p>



<p>Guidelines: Minimum requirements exist for documenting parking needs and constraints, regardless of development size. Further requirements may be needed for larger developments. See Section 3.6</p> <p>Proposed Parking Analysis: Since parking relief is being requested for the site, the study will review the proposed parking for and surrounding the site. At this time, no parking is proposed on-site. The constraints and conditions of the site do not allow for below-grade parking. Thus, the applicant’s request for parking relief will be augmented by an aggressive TDM plan to reduce the parking demand for the site. In addition, a survey of the on-street parking inventory and occupancy in the blocks surrounding the site will be performed to assess any potential impacts the site may have on on-street parking nearby.</p>	<p>Include Florida Avenue in the study area but show that parking is not allowed on this road.</p> <p>Note that there is limited curbside parking in the vicinity. This makes providing incentives for non-auto travel even more important.</p> <p>Identify eligibility for RPP and note if any RPP restrictions are proposed.</p>
<p>7. Transportation Demand Management</p>	<p>DDOT Comments/Action Items</p>
<p><u>Triggers for a TDM Plan</u> Guidelines: All developments are encouraged to produce TDM plans, regardless of size. See Section 3.7</p> <p>Proposed TDM Plan: The statement will outline a TDM plan relating to loading activities as well as daily traffic and parking operations at the site.</p>	<p>A very robust TDM plan is expected to support the zero parking requirement.</p>
<p>8. Performance Monitoring & Measurement</p>	<p>DDOT Comments/Action Items</p>
<p>Guidelines: Developments of a certain size may need to incorporate a performance monitoring element as a condition of zoning approval. See Section 3.8 of the CTR guidelines for more information.</p> <p>For informational purposes only. Requirements for performance monitoring will be coordinated with the DDOT case manager.</p>	
<p>9. Safety</p>	<p>DDOT Comments/Action Items</p>
<p>Guidelines: The CTR will demonstrate that the site will not create or exacerbate existing safety issues for all modes of travel. See Section 3.9 of the CTR guidelines for further information.</p> <p>Proposed Safety Analysis: Since no vehicular analyses are proposed for this study, no corresponding crash analyses will be performed for this study.</p>	
<p>10. Streetscape/Public Realm</p>	<p>DDOT Comments/Action Items</p>
<p>Guidelines: DDOT expects new developments to rehabilitate streetscape infrastructure between the curb and property lines. The applicant must work closely with DDOT and OP to ensure that design of the public realm meets</p>	<p>A number of site design adjustments are needed:</p>



<p>current standards. See Section 3.10 of the CTR guidelines for direction on streetscape rehabilitation.</p> <p>These guidelines are provided to inform that public realm design standards may alter an Applicant’s intended use of public space.</p> <p>The applicant’s site plan will show improvements proposed within public space. The details of those improvements will be determined at the time of Public Space permitting.</p>	<ul style="list-style-type: none"> • The bay windows, particularly at the northwest corner of the site, must be compliant with The Building Code Title 12 Section 3202.7.1.1 requiring at least 15 feet of clear space from the outer edge of the curb to the outer face of the projections. This is important to ensure that a continuous row of street trees along all frontages can be accommodated. • The bay projection at the eastern corner of the site appears to project over the NPS reservation. While not a DDOT issue, note that this would have to be coordinated with NPS. <p>Provide preliminary public space plans showing how DDOT standard streetscape can be achieved, including wide sidewalks and tree boxes.</p> <p>Since there are only 2 street trees adjacent to the site, UFA supports this redevelopment because of the “green” opportunities it provides. When existing street trees are designated to remain, they must be protected as per current DDOT Standards Section 207.03, 608.07 and 608.08. No trenching is allowed within the root zone of a tree. The root zone is 1.5 ft. for every inch diameter. Contact UFA for Tree and Root Protection notes and details.</p> <p>If a street tree requires removal, then a permit application must be submitted in d.TOPS and reviewed by the Ward Arborist. UFA does not automatically approve the removal of non-hazardous trees. The developer/contractor must exhaust all options to preserve these</p>
--	---



	<p>trees. However, if the Arborist agrees after reviewing the information provided, then a removal permit must be obtained and compensation provided based on the health of the tree. Contact UFA for the Tree Removal information.</p> <p>Finally as part of the overall public space restoration, street trees must be planted according to the streetscape plan and with the proper soil volumes as per the Green Infrastructure Standards - http://ddot.dc.gov/node/469792. And trees selected should be medium to large-sized plantings to maximize canopy since there are no overhead wires to conflict.</p>
--	---

Attach any Figures, Tables, and Appendices below.

Trip generation rates from the ITE *Trip Generation Manual*, 9th Edition, with additional mode split assumptions were used for the 301 Florida Avenue development. Trip generation was projected for the morning and afternoon weekday peak hours of the adjacent street traffic (typically between 7:00 and 9:00 AM and between 4:00 and 6:00 PM). The residential mode split assumptions for the residential land use were based on data from the WMATA *Ridership Survey* for residential sites, census data from the 2008-2012 American Community Survey for Census Tracts 88.03 and 106, and previous studies and approved scopes within the area. The census data for Census Tracts 88.03 and 106 depicts a mode split of 43% transit, 33% auto, and 23% walk and other. Other area studies have tended to be extremely conservative with mode splits at approximately 50% auto. While the site is located close to the NoMa Metro Station, a mode split of 40% transit, 50% auto, 7% walk, and 3% bike has been used to be conservative and consistent with other nearby studies. The multi-modal assumptions for residential are shown in the table below.



Residential Mode Split Assumptions							
Pertinent Mode Split data from other sources:							
Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
Census Data (Tracts 88.03/106)	27%	6%	43%	N/A	17%	2%	4%
State of the Commute (of District residents)	41%	7%	41%	11%		---	
WMATA Ridership Survey (average for <i>Suburban-Inside the Beltway</i>)	39%		49%	14%		---	
Gateway Market TIS & 1270 4th Street PUD TIS	50%		39%	3%	8%	---	
300M/320 FL Ave DDOT Approved Mode Split	50%		40%	3%	7%	---	
Mode Split assumed in TIS:							
Information Source	Mode						
	Drive	Transit	Bike	Walk	Telecommute/Other		
Residential Mode Split	50%	40%	3%	7%	---		

The retail land use mode split assumptions were based on the WMATA *Ridership Survey* for retail sites and previous studies and approved scopes within the area. There weren't any sites that were directly comparable to the proposed development in the *Ridership Survey*; however, the average for all retail sites is 37% transit, 36% auto, and 27% walk and other. Other nearby studies have considered retail auto trips at an extremely conservatively high 70% auto, despite the area's proximity to Metro. Because this site is much closer to the Metro than some of the other sites, and to remain generally consistent with other recently approved scopes in this area, a conservative retail mode split of 30% transit, 50% auto, 15% walk, and 5% bike was assumed for the development. The multi-modal assumptions for retail are shown in the table below.



Retail Mode Split Assumptions							
Pertinent Mode Split data from other sources:							
Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
WMATA Ridership Survey (average for <i>Retail Sites</i>)	36%		37%		27%	---	
Gateway Market TIS & 1270 4th Street PUD TIS	70%		17%		13%	---	
300M/320 FL Ave DDOT Approved Mode Split	50%		30%	5%	15%	---	
Mode Split assumed in TIS:							
Information Source	Mode						
	Drive	Transit	Bike	Walk	Telecommute/Other		
Retail Mode Split	50%	30%	5%	15%	---		

The modal split assumptions described above were applied to the trip generation rates as calculated from ITE and converted to person trips, based on NHTS data as shown for residential and retail below. While the number of vehicular trips does not meet the CTR thresholds for additional vehicular study, they should still be considered conservative since no parking is planned for the site and the base modal split assumptions are overall more conservative than current census data and survey data would reflect.



Trip Generation - Residential								
56 Apartments								
Step 1: Base trip generation using ITEs' <i>Trip Generation</i>								
Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	220	56 du	6 veh/hr	23 veh/hr	29 veh/hr	23 veh/hr	12 veh/hr	35 veh/hr
Step 2: Convert to people per hour, before applying mode splits								
Land Use	People/Car (from 2009 NHTS, Table 16)		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh		7 ppl/hr	26 ppl/hr	33 ppl/hr	26 ppl/hr	14 ppl/hr	40 ppl/hr
Step 3: Split between modes, per assumed Mode Splits								
Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	Auto	50%	4 ppl/hr	13 ppl/hr	17 ppl/hr	13 ppl/hr	7 ppl/hr	20 ppl/hr
Apartments	Transit	40%	3 ppl/hr	11 ppl/hr	14 ppl/hr	11 ppl/hr	5 ppl/hr	16 ppl/hr
Apartments	Bike	3%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Apartments	Walk	7%	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr
Step 4: Convert auto trips back to vehicles/hour								
Land Use	People/Car (from 2009 NHTS, Table 16)		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Apartments	1.13 ppl/veh		4 veh/hr	12 veh/hr	16 veh/hr	12 veh/hr	6 veh/hr	18 veh/hr
Trip Gen Summary for Residential								
Mode	AM Peak Hour			PM Peak Hour				
	In	Out	Total	In	Out	Total		
Auto	4 veh/hr	12 veh/hr	16 veh/hr	12 veh/hr	6 veh/hr	18 veh/hr		
Transit	3 ppl/hr	11 ppl/hr	14 ppl/hr	11 ppl/hr	5 ppl/hr	16 ppl/hr		
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr		
Walk	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	1 ppl/hr	3 ppl/hr		



Trip Generation - Retail								
4,500 square feet								
Step 1: Base trip generation using ITEs' <i>Trip Generation</i>								
Land Use	Land Use Code	Quantity	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	820	4,500 sf	2 veh/hr	2 veh/hr	4 veh/hr	8 veh/hr	9 veh/hr	17 veh/hr
Step 2: Convert to people per hour, before applying mode splits								
Land Use	People/Car (from 2009 NHTS, Table 16)		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh		4 ppl/hr	4 ppl/hr	8 ppl/hr	14 ppl/hr	16 ppl/hr	30 ppl/hr
Step 3: Split between modes, per assumed Mode Splits								
Land Use	Mode	Split	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	Auto	50%	2 ppl/hr	2 ppl/hr	4 ppl/hr	8 ppl/hr	8 ppl/hr	16 ppl/hr
Retail	Transit	30%	2 ppl/hr	1 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr
Retail	Bike	5%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr
Retail	Walk	15%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr
Step 4: Convert auto trips back to vehicles/hour								
Land Use	People/Car (from 2009 NHTS, Table 16)		AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Retail	1.78 ppl/veh		1 veh/hr	1 veh/hr	2 veh/hr	4 veh/hr	4 veh/hr	8 veh/hr
Trip Gen Summary for Retail								
Mode	AM Peak Hour			PM Peak Hour				
	In	Out	Total	In	Out	Total		
Auto	1 veh/hr	1 veh/hr	2 veh/hr	4 veh/hr	4 veh/hr	8 veh/hr		
Transit	2 ppl/hr	1 ppl/hr	3 ppl/hr	5 ppl/hr	5 ppl/hr	10 ppl/hr		
Bike	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr		
Walk	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr		



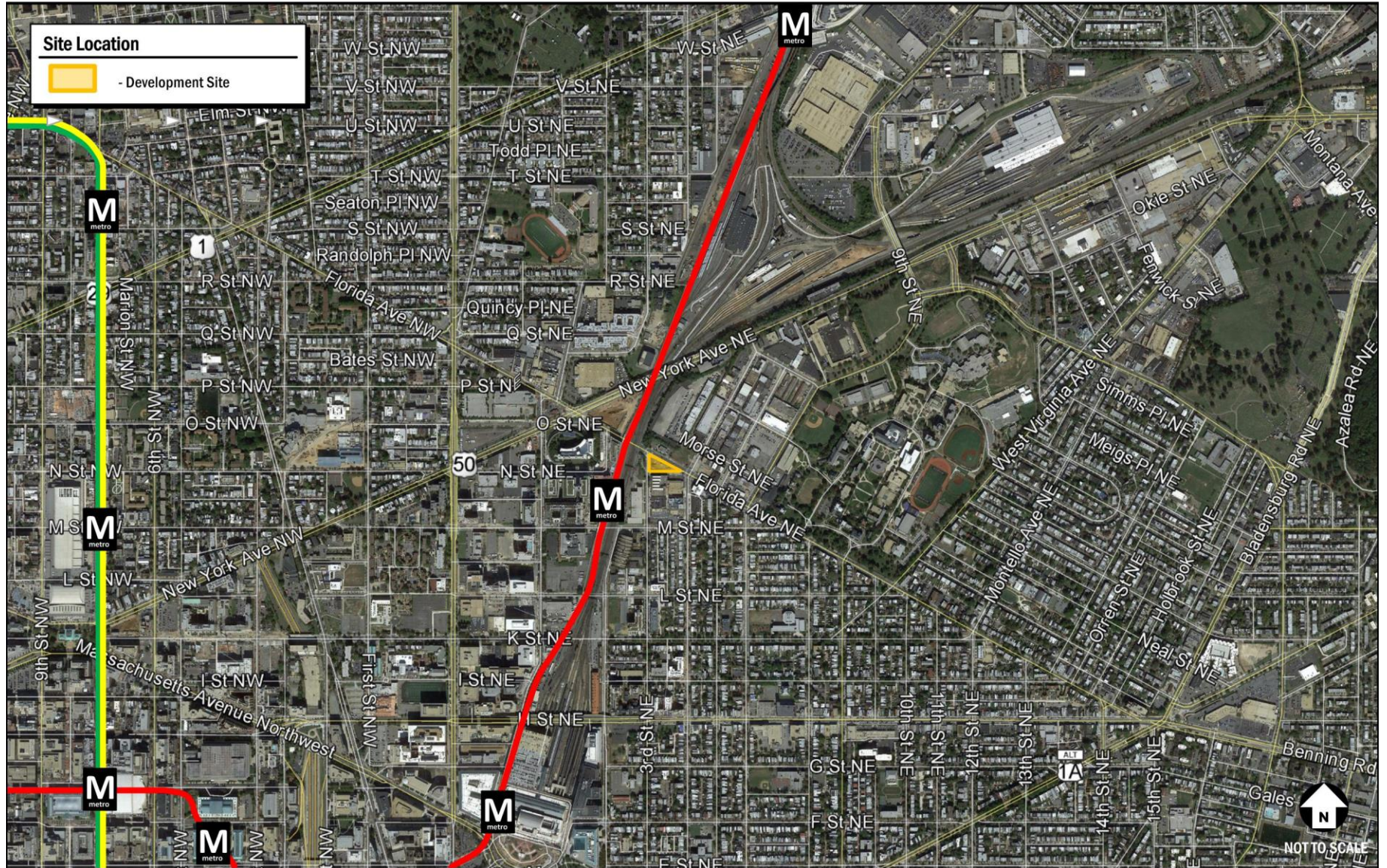


Figure 1: Site Location



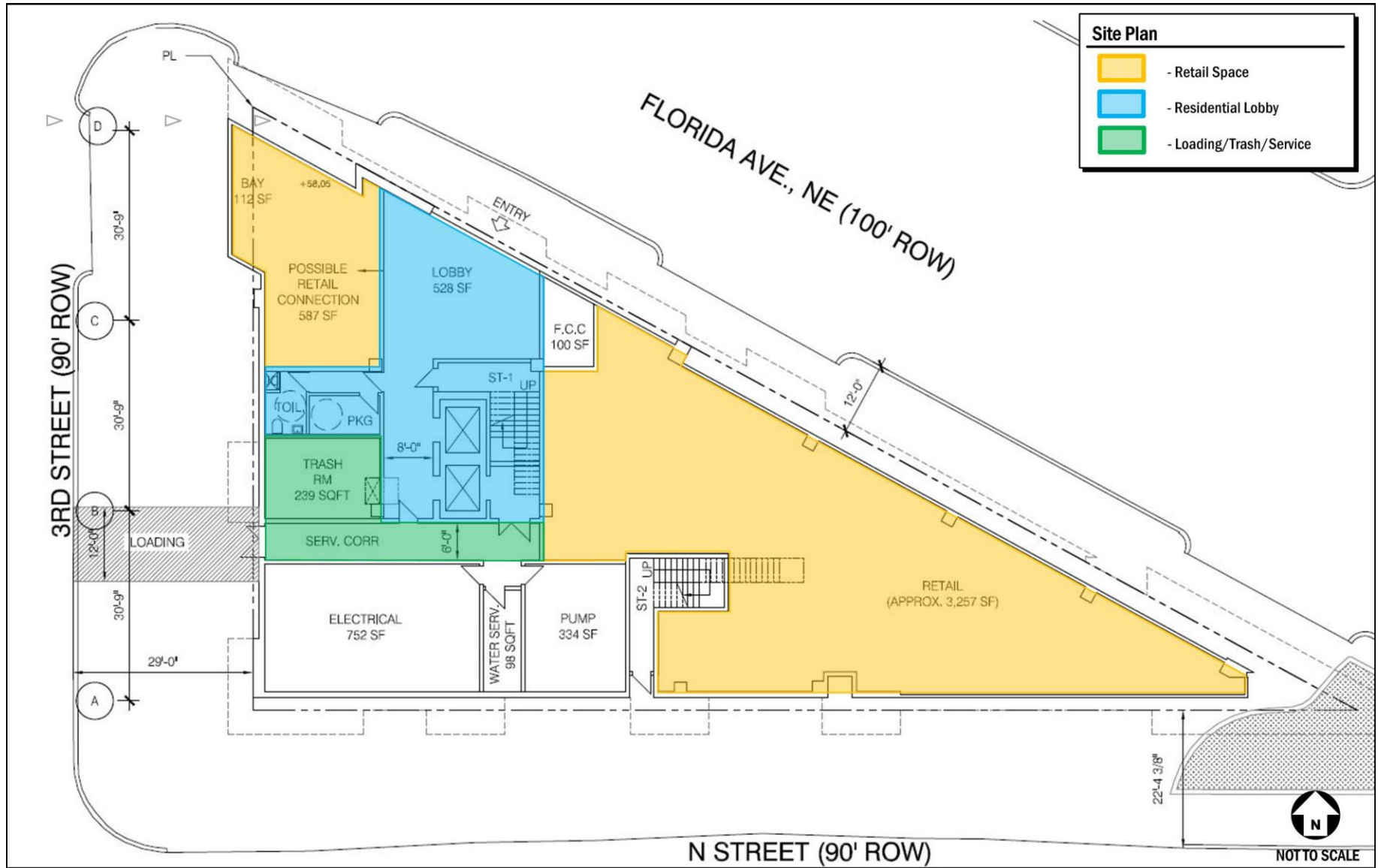


Figure 2: Site Plan





Figure 3: Parking Study Area

