

TECHNICAL MEMORANDUM

To: Bill Brewer
 Eric Fischer
 Trammell Crow Company

From: Maribel Wong
 Katie Wagner, PE, PTOE
 Erwin Andres

Date: May 7, 2020

Subject: 4865 MacArthur Boulevard NW Transportation Statement

Introduction

This memorandum presents a review of the transportation elements of the proposed development located at 4865 MacArthur Boulevard NW (Square 1389, Lot 25). These transportation elements are the project’s anticipated trip generation under different development options; site description including a review of access, loading facilities, and parking program; and a Transportation Demand Management (TDM) Plan. The site was most recently used as a 14,350 square foot grocery store. Those operations ceased in 2019. The proposed project will redevelop the site into a senior living facility comprised of two wings, with approximately 5,600 square feet, and 52 parking spaces in a below-grade garage. The primary wing of the facility, five-stories in height, will be located along MacArthur Boulevard in a commercial zone. The secondary wing, three-stories in height, will be located along V Street in a residential zone. The MacArthur Wing will include both independent living (IL) and assisted living (AL) units, including memory care (MC) units, as well as the grocery store. The V Street Wing will provide either independent living units or memory care units. The total building program for the options emphasizing either independent living or memory care included in secondary wing, is summarized below in Table 1.

Table 1: Development Scenarios

Land Use	Existing Conditions	Proposed Total Development Program*	
		MacArthur Wing (IL, AL, MC) V St Wing (IL)	MacArthur Wing (IL, AL) V St Wing (MC)
Memory Care	--	35 beds	36 beds
Independent Living	--	65 units	49 units
Assisted Living	--	50 beds	64 beds
Retail	14,350 sf	5,600 sf	5,600 sf

***Note:** The units in the development program scenarios are presented as “dwelling units” for the independent living (IL) use and beds for the memory care (MC) and assisted living (AL) uses in order to analyze these land uses with variables that are consistent with the *Institute of Transportation Engineers’ (ITE)* methodology. A breakdown of total units and beds allocated to each use will be available as part of the zoning application Trammell Crow (“Applicant”) will submit for the V St Wing.

The analysis performed as part of this review compares the trip generation between existing conditions and development of (i) the MacArthur Wing alone, with an emphasis on independent living; (ii) the MacArthur Wing and the V Street Wing, with an emphasis on independent living; (iii) the MacArthur Wing alone, with an emphasis on memory care; and (iv) The MacArthur Wing and the V Street Wing, with an emphasis on memory care.

In comparison to the site’s existing use, the proposed project results in a reduction of vehicle trips under any of the development scenarios. The proposed project generates fewer than the District Department of Transportation (DDOT) threshold of 25 new peak hour directional trips for performing capacity analysis for traffic studies and therefore a full transportation study is not required as the project will have negligible impact on the transportation network surrounding the area.

Site Description

The proposed project will redevelop the site located at 4865 MacArthur Boulevard NW (Square 1389, Lot 25) into a senior living facility, which is defined under the District's zoning regulations (ZR16) as a continuing care retirement community (CCRC).¹ The project site is bounded by MacArthur Boulevard NW to the west, 48th Place NW to the northwest, V Street NW to the north, residential properties to the east, a public surface parking lot to the southeast, and U Street NW to the south. The proposed facility is comprised of two wings joined by a one-story connection at the ground floor level. The larger wing is located along MacArthur Boulevard in the MU-4 District, which allows both commercial and residential uses. It will feature independent and assisted living units (including memory care), and a small grocery store with approximately 5600 square feet of space. The smaller wing is located along 48th Place and V Street NW in the R-1-B District, and will be comprised of either independent living units or assisted living (memory care) units. CCRCs and retail uses are permitted as a matter-of-right for zoning purposes in the MacArthur Wing. However, CCRCs are only permitted in the V Street Wing through special exception approval from the Board of Zoning Adjustment (BZA). That process is intended to ensure that the use is not likely to become objectionable to neighboring properties because of noise, traffic, or other objectionable conditions. 11-U DCMR § 203.1(g).

The project eliminates two (2) curb-cuts total: one (1) along MacArthur Boulevard NW and another along U Street NW. The existing curb-cut along 48th Place NW will be relocated to provide access to the redeveloped site. The project will also feature an internal driveway for site circulation and below-grade parking under the northeastern V Street wing.

A proposed site plan is shown in Figure 1. A detailed profile for the proposed facility provided by the Applicant that includes information such as the anticipated number of visitors, employee shift information, and a detailed breakdown of anticipated number of staff each day on site, is included in the Technical Attachments.

Site Transit and Bicycle Access

The project site is located adjacent to the MacArthur Boulevard and U Street NW bus stops. These stops serve the Metrobus D5: MacArthur Boulevard – Georgetown Line, and the Metrobus D6: Sibley Hospital – Stadium Armory Line routes connecting the site to local and regional destinations throughout the region.

A 19-dock Capital Bikeshare station is adjacent to the project site on MacArthur Boulevard NW. Capital Bikeshare is a bicycle sharing system operating throughout the metro DC area. The program has placed over 500 stations across Washington, DC; Arlington County and Fairfax County, Virginia; the cities of Alexandria and Falls Church, Virginia; and Montgomery County and Prince George's County, Maryland, with over 4,500 bicycles provided.

In addition to Capital Bikeshare, several dockless vehicle companies currently operate in the District, providing an additional option for point-to-point transportation on shared electric bicycles, scooters, and mopeds. Dockless vehicle availability is tracked through mobile phone applications for each company individually.

Site Access and Circulation

Vehicular and loading access to the site is proposed via a relocated curb-cut along 48th Place NW. An internal site driveway will provide access to the garage and loading facilities. Similarly, pedestrian access to each wing's entrance will be available from the internal driveway. While the driveway connection at 48th Place NW will allow inbound and outbound movements, the internal driveway will operate as a one-way loop. Site access and circulation is shown in Figure 2.

¹ A CCRC may consist of independent living, assisted living (including memory care), or skilled nursing units, or any combination thereof. It is treated as a multi-family residential building for zoning purposes with the same parking and loading requirements for apartment or condominium buildings. See 11-C DCMR § 701.5. The zoning regulations do not break out different parking requirements for the various types of units in a CCRC. ITE, however, does distinguish between Independent living and assisted living/memory care units to account for different trip generations.

Site Trip Generation

Weekday peak hour trip generation was calculated based on the methodology outlined in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition. This methodology was supplemented to account for the urban nature of the area and to project trip generation for multiple modes.

Table 2 outlines the development programming information for the existing condition, and development of (i) the MacArthur Wing alone, with an emphasis on independent living; (ii) the MacArthur Wing and the V Street Wing, with an emphasis on independent living; (iii) the MacArthur Wing alone, with an emphasis on memory care; and (iv) The MacArthur Wing and the V Street Wing, with an emphasis on memory care.

Table 2: Development Assumptions for Existing Conditions, Maximum Build-Out under Existing Zoning, and Build-Out for Proposed Independent Living or Memory Care Scenarios

Land Use	Existing Condition	Independent Living Scenarios			Memory Care Scenarios		
		MacArthur Wing	With V St Wing	Proposed Total	MacArthur Wing	With V St Wing	Proposed Total
Memory Care	--	35 beds	--	35 beds	--	36 beds	36 beds
Independent Living	--	38 units	27 units	65 units	49 units	--	49 units
Assisted Living	--	50 beds	--	50 beds	64 beds	--	64 beds
Retail (Grocery Store)	14,350 sf	5,600 sf	--	5,600 sf	5,600 sf	--	5,600 sf

Trip generation for the independent living units was calculated based on ITE land use 252, Senior Adult Housing (Attached). Trip generation for the proposed memory care and assisted living beds was calculated based on ITE land use 254, Senior Adult Housing (Attached). Trip generation for the proposed and existing retail was calculated based on ITE land use 850, Supermarket. The mode split applied to the ITE trip generation methodology is based on census tract data and American Community Survey (ACS) data and is shown on Table 3 for each use. Mode split for the existing and proposed retail components is based on TAZ resident data as these retail uses serve the surrounding neighborhoods. Mode split for the senior facility component of the proposed project is based on census data near the site and age group travel patterns. The ITE trip generation methodology accounts for employee trip generation using the number of units and beds as a fixed element of the project. This methodology and how it compares to the anticipated number of employees is discussed in the Employee Based Trip Generation section of this report. Mode split assumptions are included in the Technical Attachments.

Table 3: Assumed Mode Split

Land Use	Mode			
	Drive	Transit	Bike	Walk
Existing Retail Mode Split	65%	25%	5%	5%
Proposed Project Mode Split	65%	33%	0%	2%

Table 4: Trip Generation for Previous Grocery Store Use

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday Total
		In	Out	Total	In	Out	Total	
Auto	Retail	21 veh/hr	15 veh/hr	36 veh/hr	45 veh/hr	41 veh/hr	86 veh/hr	996 veh
Transit	Retail	15 ppl/hr	10 ppl/hr	25 ppl/hr	31 ppl/hr	30 ppl/hr	61 ppl/hr	697 ppl
Bike	Retail	3 ppl/hr	2 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr	139 ppl
Walk	Retail	3 ppl/hr	2 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr	139 ppl

Independent Living Scenario Trip Generation Comparison

Table 5: Trip Generation for Independent Living Max Build-out for MacArthur Wing (MU-4)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Senior Housing	8 veh/hr	7 veh/hr	15 veh/hr	9 veh/hr	13 veh/hr	22 veh/hr	226 veh
	Retail	9 veh/hr	5 veh/hr	14 veh/hr	18 veh/hr	16 veh/hr	34 veh/hr	208 veh
	Total	17 veh/hr	12 veh/hr	29 veh/hr	27 veh/hr	29 veh/hr	56 veh/hr	434 veh
Transit	Senior Housing	7 ppl/hr	6 ppl/hr	13 ppl/hr	8 ppl/hr	10 ppl/hr	18 ppl/hr	192 ppl
	Retail	6 ppl/hr	4 ppl/hr	10 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	145 ppl
	Total	13 ppl/hr	10 ppl/hr	23 ppl/hr	20 ppl/hr	22 ppl/hr	42 ppl/hr	337 ppl
Bike	Senior Housing	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	29 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	2 veh/hr	3 veh/hr	5 veh/hr	29 ppl
Walk	Senior Housing	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	12 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	29 ppl
	Total	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	4 ppl/hr	6 ppl/hr	41 ppl

Table 6: Trip Generation for Independent Living Scenario - MacArthur Wing (MU-4) and V Street Wing (R1B)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Senior Housing	10 veh/hr	9 veh/hr	19 veh/hr	12 veh/hr	14 veh/hr	26 veh/hr	297 veh
	Retail	9 veh/hr	5 veh/hr	14 veh/hr	18 veh/hr	16 veh/hr	34 veh/hr	273 veh
	Total	19 veh/hr	14 veh/hr	33 veh/hr	30 veh/hr	30 veh/hr	60 veh/hr	570 veh
Transit	Senior Housing	8 ppl/hr	8 ppl/hr	16 ppl/hr	10 ppl/hr	12 ppl/hr	22 ppl/hr	252 ppl
	Retail	6 ppl/hr	4 ppl/hr	10 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	191 ppl
	Total	14 ppl/hr	12 ppl/hr	26 ppl/hr	22 ppl/hr	24 ppl/hr	46 ppl/hr	443 ppl
Bike	Senior Housing	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	38 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	2 veh/hr	3 veh/hr	5 veh/hr	38 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	15 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	38 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	53 ppl

Table 7: Trip Generation Comparison between Existing and Independent Living Scenario

Density Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Existing Conditions	21	15	36	45	41	86
Independent Living Max Build-Out	17	12	29	27	29	56
Independent Living with V St Wing	19	14	33	30	30	60
Difference Between Allowed Max and Existing	-4	-3	-7	-18	-12	-30
Net New Trips (Difference Between Proposed and Existing)	-2	-1	-3	-15	-11	-26

Memory Care Scenario Trip Generation Comparison

Table 8: Trip Generation for Memory Care Max Build-out for MacArthur Wing (MU-4)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Senior Housing	8 veh/hr	6 veh/hr	14 veh/hr	9 veh/hr	11 veh/hr	20 veh/hr	220 veh
	Retail	9 veh/hr	5 veh/hr	14 veh/hr	18 veh/hr	16 veh/hr	34 veh/hr	202 veh
	Total	17 veh/hr	11 veh/hr	28 veh/hr	27 veh/hr	27 veh/hr	54 veh/hr	422 veh
Transit	Senior Housing	7 ppl/hr	5 ppl/hr	12 ppl/hr	8 ppl/hr	9 ppl/hr	17 ppl/hr	186 ppl
	Retail	6 ppl/hr	4 ppl/hr	10 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	141 ppl
	Total	13 ppl/hr	9 ppl/hr	22 ppl/hr	20 ppl/hr	21 ppl/hr	41 ppl/hr	327 ppl
Bike	Senior Housing	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	28 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	2 veh/hr	3 veh/hr	5 veh/hr	28 ppl
Walk	Senior Housing	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	11 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	28 ppl
	Total	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	4 ppl/hr	6 ppl/hr	39 ppl

Table 9: Trip Generation for Memory Care Scenario – MacArthur Wing (MU-4) and V St Wing (R1B)

Mode	Land Use	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Auto	Senior Housing	11 veh/hr	8 veh/hr	19 veh/hr	12 veh/hr	14 veh/hr	26 veh/hr	281 veh
	Retail	9 veh/hr	5 veh/hr	14 veh/hr	18 veh/hr	16 veh/hr	34 veh/hr	258 veh
	Total	20 veh/hr	13 veh/hr	33 veh/hr	30 veh/hr	30 veh/hr	60 veh/hr	539 veh
Transit	Senior Housing	9 ppl/hr	7 ppl/hr	16 ppl/hr	10 ppl/hr	12 ppl/hr	22 ppl/hr	238 ppl
	Retail	6 ppl/hr	4 ppl/hr	10 ppl/hr	12 ppl/hr	12 ppl/hr	24 ppl/hr	180 ppl
	Total	15 ppl/hr	11 ppl/hr	26 ppl/hr	22 ppl/hr	24 ppl/hr	46 ppl/hr	418 ppl
Bike	Senior Housing	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	36 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	2 veh/hr	3 veh/hr	5 veh/hr	36 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	14 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	2 ppl/hr	3 ppl/hr	5 ppl/hr	36 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	3 ppl/hr	3 ppl/hr	6 ppl/hr	50 ppl

Table 10: Trip Generation Comparison between Existing and Memory Care Scenario

Density Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Existing Conditions	21	15	36	45	41	86
MU-4 Memory Care Max Build-Out	17	11	28	27	27	54
Memory Care with Additional Density	20	13	33	30	30	60
Difference Between Allowed Max and Existing	-4	-4	-8	-18	-14	-32
Net New Trips (Difference Between Proposed and Existing)	-1	-2	-3	-15	-11	-26

Overall Trip Generation Comparison

As shown on Table 7 and Table 10, the 4865 MacArthur Boulevard NW development is expected to have minimal to no impact on the transportation network as it would reduce the number of vehicle trips on the area's roadways under both development scenarios under consideration.

In any of the development scenarios, the proposed project would generate three (3) fewer vehicular trips during the morning peak hour, and 26 fewer vehicular trips during the afternoon peak hour as compared to the number of vehicle trips generated by the existing land use. Detailed multimodal trip generation calculations are attached.

The level of net trip generation under both development scenarios is below the threshold of 25 or more peak hour trips in the peak direction that triggers detailed vehicular capacity analysis under DDOT guidelines. As such, this memo concludes this project as proposed will have a negligible impact on the area's transportation network.

Employee Based Trip Generation

Comparing the proposed scenarios' trip generation based on ITE's methodology, presented above, to the project's anticipated site travel patterns based on employee numbers and shift schedules, indicates the ITE methodology closely aligns with site-specific employee data based on the following assumptions:

- Shift changes are scheduled around 6:00 AM, 2:00 PM, and 10:00 PM;
- Only a portion of site trips associated with shift changes coincides with the surrounding roadways' commuter morning and afternoon peak hours (the site's peak hours of trip generation would not overlap with typical peak hours of surrounding roadways);
- The majority of the site's residential and visitor trips would take place outside of the commuter morning and afternoon peak hours; and,
- An estimated 35 percent of employees are anticipated to commute to the site via non-auto modes based on the site's proximity to transit and incentives offered by the Applicant as part of the proposed Transportation Demand Management (TDM) Plan, described below.

While the employee data closely matches the ITE trip generation for both scenarios, it is not used in the trip generation analysis in this report as ITE's methodology based on the number of units and beds may more accurately forecast the project's impact on the transportation network. The number of units and beds within the facility is a constant element of the project unlike the number of employees on site at one time.

Loading Facilities

The project meets zoning regulation requirements by providing a loading dock with one (1) 30' loading berth and one (1) 10' by 20' service space. Both wings, including the retail component of the project, will have direct and internal access to the loading facilities. All loading activity is proposed to take place within the site. Access to the loading dock is proposed from the internal site driveway ensuring head-in head-out maneuvers are performed at the public space connection on 48th Place NW. Trucks will use MacArthur Boulevard NW, a designated truck route, and 48th Place NW to access the site and internal loading facilities.

Based on loading data collected from other senior living facilities operated by the Applicant, the proposed project is anticipated to generate the following loading activity on a weekly basis:

- 0.7 move-ins and 0.7 move-outs
- 4 waste removal trips
- 14 deliveries to the senior living facility
- 28 grocery deliveries
- 21 mail and package deliveries

Based on the anticipated loading activity and the proposed loading facilities, the proposed project meets loading requirements and would accommodate the anticipated loading demand of approximately 10 loading trips per day.

Parking

The project proposes 52 below-grade parking spaces for the senior living facility. In addition to the proposed parking, the project is located adjacent to an off-street surface parking lot east of the project at 4817 U Street NW. The adjacent lot offers approximately 76 public parking spaces that serve the surrounding area and can be accessed from U Street NW. The lot is surrounded by single-family homes to the east, a church and school with on-site parking facilities to the south, and commercial uses on the southeast corner of MacArthur Boulevard and U Street, NW.

The project's proposed parking will be used by the senior living facilities residents, staff, and visitors. Retail patrons will be able to use the adjacent parking lot.

Parking supply data from other senior living facilities operated by the Applicant is shown in Table 11, which indicates the project's proposed parking ratio is in line with similar facilities. In addition, the proposed project is located in an area near transit and will be providing a robust Transportation Demand Management (TDM) Plan to reduce the parking demand and number of vehicle trips to and from the site.

Table 11: Parking Ratio Data

Facility Type and Location	Units	Parking Supply	Parking Ratio
Assisted Living/Memory Care in Stapleton, CO	74 du	30 spaces	0.41
Independent Living/Assisted Living/Memory Care in Denver, CO	203 du	74 spaces	0.36
Independent Living/Assisted Living/Memory Care in Ann Arbor, MI	151 du	74 spaces	0.49
Independent Living/Assisted Living/Memory Care in Brookline, MA	160 du	98 spaces	0.61
Proposed Project: Independent Living/Assisted Living/Memory Care in Washington, DC	133-137 du	52 spaces	0.38 – 0.39

Based on ZR16, the project is required to supply one (1) parking space for every three (3) dwelling units for a residential building in excess of four (4) dwelling units for the MU-4 portion of the site and one (1) parking space for every two (2) dwelling units for a residential building in excess of four (4) dwelling units for the R-1-B portion of the site. For the retail component, the project is required to provide 1.33 parking spaces for every 1,000 square feet in excess of 3,000 square feet. With a proposed mix of 97-110 units on the MU-4 portion of the site, 27-36 units on the R-1-B portion of the site, and a 5,600 square foot grocery store, the project is required to provide a total of 51 parking spaces. In the MU-4 portion of the site, two parking spaces may be devoted to carshare companies and be credited as six (6) parking spaces under ZR16.

Using the mode split assumptions presented in Table 3, the parking demand for the residential component of the project was calculated using ITE's *Parking Generation Manual*, 5th Edition based on the proposed Independent Living and Memory Care scenarios (including the V St Wing) and was found to be 47 and 45 parking spaces, respectively, as shown in Table 12. The ITE parking demand takes into consideration the demand of staff, residents, and visitors; however, it does not separate the demand for each use as those vary throughout the day. The proposed 52 parking spaces will meet the project demand based on ITE's *Parking Generation Manual* and similar senior housing facilities.

Table 12: Residential Parking Demand

Land Use	Land Use Code	IL Scenario	ITE Parking Calculation	MC Scenario	ITE Parking Calculation
Independent Living	252	65 du	40 spaces	49 du	30 spaces
Assisted Living (AL+MC)	254	85 beds	33 spaces	100 beds	39 spaces
Total Number of ITE Parking Spaces			73 spaces	Total Number of ITE Parking Spaces	
35% reduction based on Non-Auto Mode Split			-26 spaces	35% reduction based on Non-Auto Mode Split	
Project Parking Demand			47 spaces	Project Parking Demand	
				45 spaces	

Using the mode split assumptions presented in Table 1, the parking demand for the retail component of the project was calculated using ITE's *Parking Generation Manual*, 5th Edition based on the proposed retail land uses and was found to be 12 parking spaces, as shown in Table 13.

Table 13: Retail Parking Demand

Land Use	Land Use Code	IL Scenario	ITE Parking Calculation	MC Scenario	ITE Parking Calculation
Supermarket	850	5,600 sf	16 spaces	5,600 sf	16 spaces
<i>35% reduction based on Non-Auto Mode Split</i>			<i>-6 spaces</i>	<i>35% reduction based on Non-Auto Mode Split</i>	
Project Parking Demand			10 spaces	Project Parking Demand	
				10 spaces	

The retail portion of the project can be accommodated on the adjacent public surface parking lot, thereby off-setting any impact the project would have on the area's on-street parking. Furthermore, the proposed TDM Plan is expected to promote and incentivize the use of public transit and alternative modes of transportation to further reduce single-occupancy vehicle trips.

Given the project's adjacent location to a bus stop with access to two (2) Metrobus routes and a Capital Bikeshare Station, in addition to the adjacent parking lot and a robust TDM Plan, the project's parking component is not expected to have a significant impact on the area's on-street parking availability.

Transportation Demand Management (TDM) Plan

TDM is the application of policies and strategies used to reduce travel demand or to redistribute demand to other times or spaces. TDM typically focuses on reducing the demand of single-occupancy, private vehicles during peak period travel times or on shifting single-occupancy vehicular demand to off-peak periods.

The Applicant proposes the following TDM strategies in order to help minimize impacts of the project to the surrounding neighborhood. These TDM measures are as follows:

- The Applicant will unbundle the cost of vehicle parking from the housing cost for each independent living unit and lease vehicle parking spaces separately at a rate equivalent to or greater than the average market rate within a half mile.
- The Applicant will provide private transportation for medical appointments, grocery shopping, errands, and other common trips to the project's residents.
- The Applicant will designate a Transportation Coordinator for the planning, construction, and operations phases of development. The Transportation Coordinator will act as the point of contact with DDOT, goDCgo, and Zoning Enforcement.
- The Applicant will provide the Transportation Coordinator's contact information to goDCgo, conduct an annual commuter survey of staff, transportation survey of residents, and report TDM activities and data collection efforts to goDCgo once per year.
- The Transportation Coordinator will develop, distribute, and market various transportation alternatives and options to the staff and residents, including promoting transportation events (i.e., Bike to Work Day, National Walking Day, Car Free Day) on the staff portal, property website, and in any internal building newsletters or communications.
- The Transportation Coordinator will receive TDM training from goDCgo to learn about the TDM conditions for this project and available options for implementing the TDM Plan.
- The Applicant will provide welcome packets to all new staff and residents that include site shuttle information, the Metrorail pocket guide, brochures of local bus lines, carpool and vanpool information, Guaranteed Ride Home (GRH) brochure, and the most recent DC Bike Map.
- The Transportation Coordinator will provide staff who wish to carpool with detailed carpooling information and will be referred to other carpool matching services sponsored by the Metropolitan Washington Council of Governments (MWCOC) or other comparable service if MWCOC does not offer this in the future.
- The Transportation Coordinator will subscribe to goDCgo's newsletters and distribute information on alternative transportation options to staff and residents on a regular basis.

- The Applicant will post all TDM commitments on website, publicize availability, and allow the public to see what commitments have been promised.
- The Applicant will provide every staff member free SmarTrip card pre-loaded with \$50 and a complimentary annual Capital Bikeshare membership for 1 year after the building opens.
- The Applicant will provide every resident a free SmarTrip card pre-loaded with \$50.
- The Applicant will meet ZR16 short and long-term bicycle parking requirements with two (2) short-term spaces and one (1) long-term space for the retail staff use. Four (4) short-term bicycle parking spaces will be available as part of the senior facility component of the project and 18 long-term bicycle spaces will be provided free of charge to senior housing residents and staff.
- The Applicant will provide three (3) collapsible shopping carts (utility cart) available to residents to promote and encourage residents to walk for grocery shopping and to run errands.
- The Transportation Coordinator will host transportation events for staff and residents twice a year to raise and maintain awareness of alternative transportation options. Examples include resident social, walking tour of local transportation facilities, goDCgo lobby event, transportation fair, WABA Everyday Bicycling seminar, bicycle safety/information class, bicycle repair event, etc.

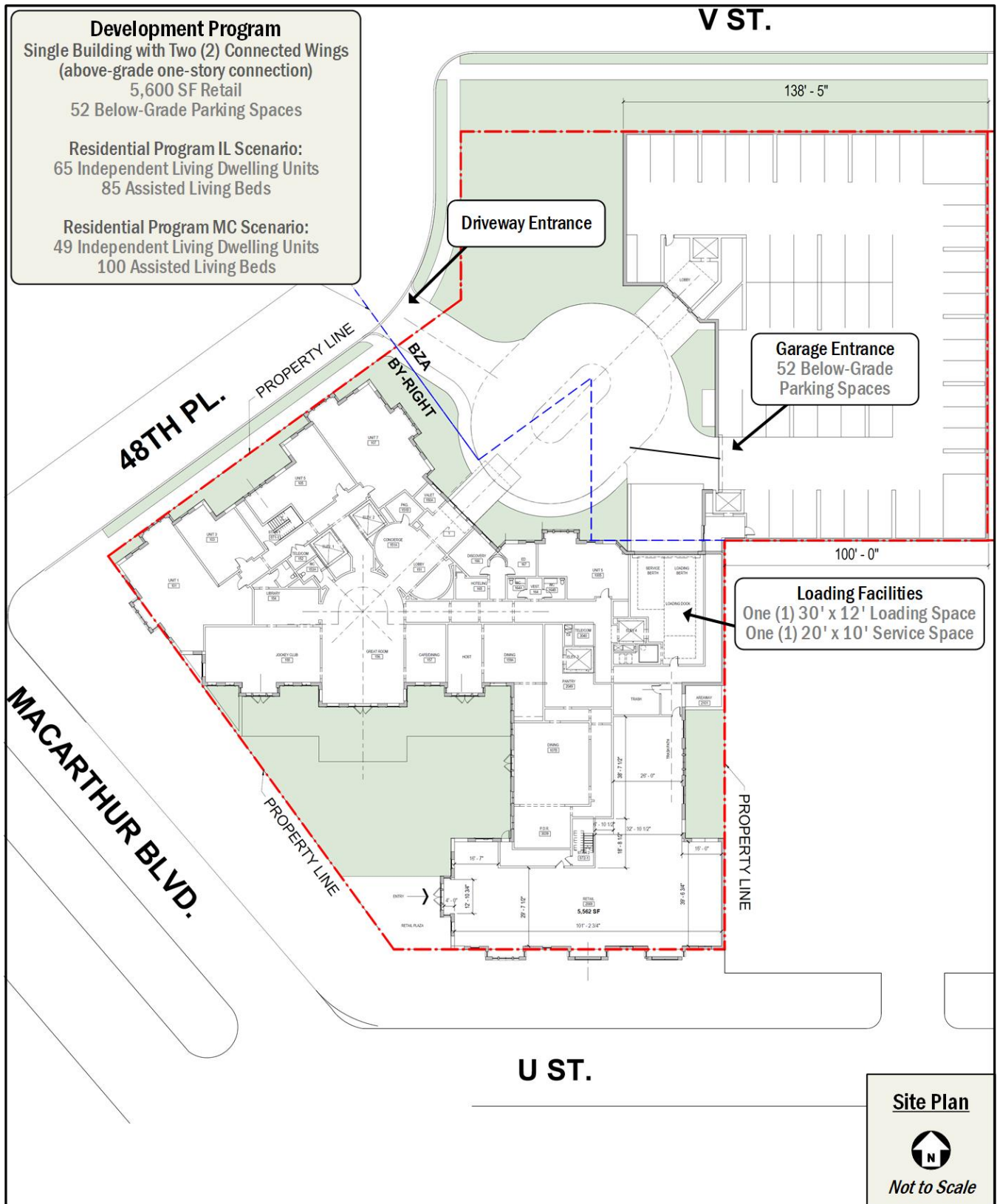


Figure 1: Site Plan

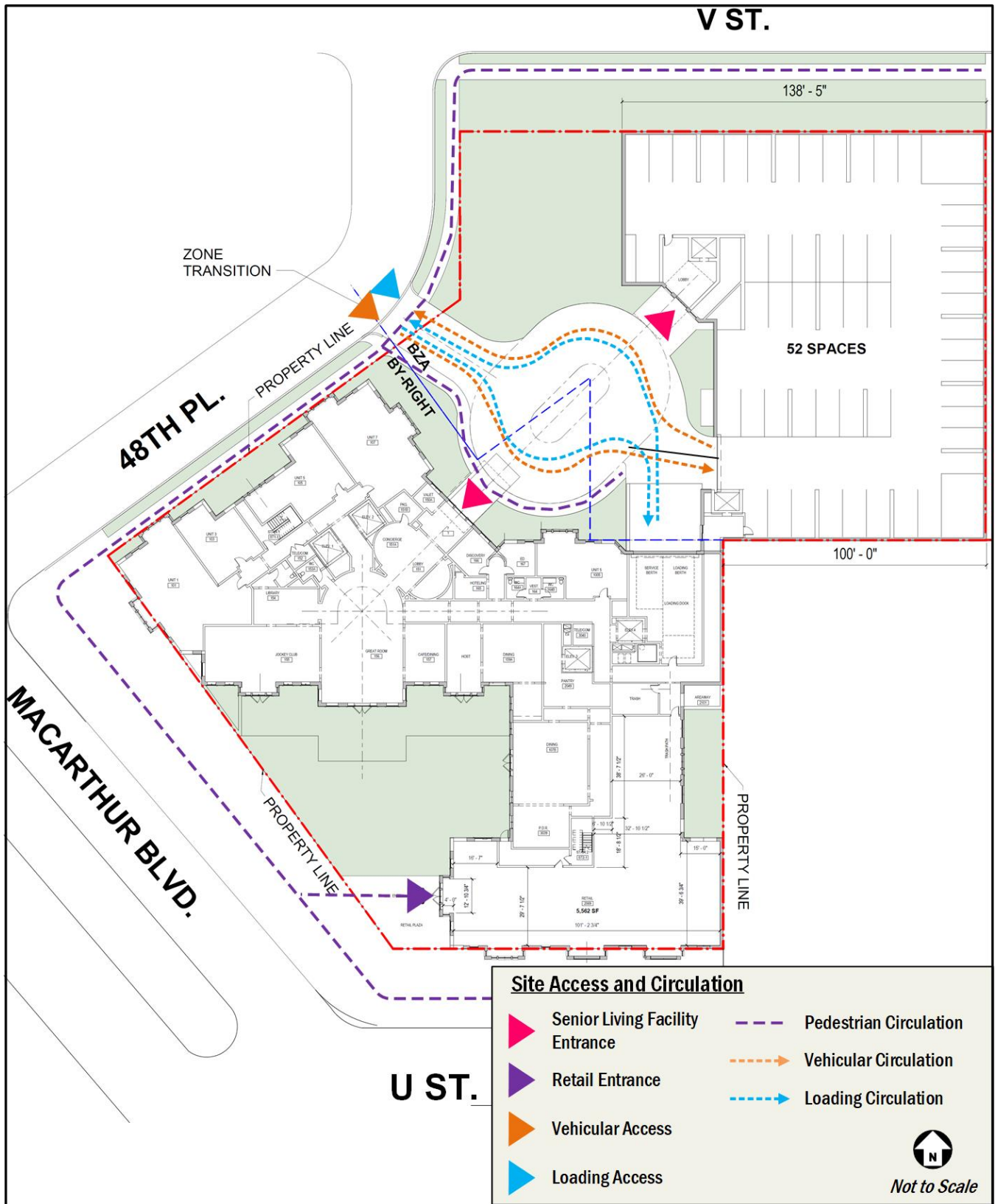


Figure 2: Site Access and Circulation