

TECHNICAL MEMORANDUM

To: Theodore VanHouten
Aaron Zimmerman
DDOT

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

Date: October 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 6,400 square feet retail/grocery store use, 62 parking spaces in a below-grade garage, and 15 surface parking spaces. 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 assisted living units or memory care units. The total building program for the options emphasizing either assisted 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*	
		AL Scenario: MacArthur Wing (IL, AL, MC) V St Wing (AL)	MC Scenario: MacArthur Wing (IL, AL) V St Wing (MC)
Memory Care	--	40 beds	44 beds
Independent Living	--	13 units	13 units
Assisted Living	--	140 beds	124 beds
Retail	14,350 sf	6,400 sf	6,400 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 assisted living; (ii) the MacArthur Wing and the V Street Wing, with an emphasis on assisted 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 6,400 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 assisted living units or 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 includes two (2) curb-cuts to access the redeveloped site, one (1) curb-cut along 48th Place NW relocated to serve the site's loading facilities and parking garage and one (1) curb-cut along V Street NW to serve the project's surface parking lot. The project eliminates two (2) curb-cuts total: one (1) along MacArthur Boulevard NW and one (1) curb-cut along U Street NW. The project will also feature an internal driveway for site circulation, below-grade parking under the northeastern V Street wing, and surface parking accessible from V Street NW on the V Street wing.

A proposed first floor plan is presented in Figure 1 that shows the below-grade parking garage and a second floor plan is presented in Figure 2 which shows the surface parking facilities.

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. Vehicular access is also proposed via a new curb-cut on V Street NW for the surface parking lot. An internal site driveway will provide access to the parking 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 3.

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 assisted living; (ii) the MacArthur Wing and the V Street Wing, with an emphasis on assisted 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 the Proposed Assisted Living or Memory Care Scenarios

Land Use	Existing Condition	Assisted Living Scenario			Memory Care Scenario		
		MacArthur Wing	With V St Wing	Proposed Total	MacArthur Wing	With V St Wing	Proposed Total
Memory Care	--	40 beds	--	40 beds	--	44 beds	44 beds
Independent Living	--	13 units	--	13 units	13 units	--	13 units
Assisted Living	--	94 beds	46 beds	140 beds	124 beds	--	124 beds
Retail (Grocery Store)	14,350 sf	6,400 sf	--	6,400 sf	6,400 sf	--	6,400 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

Assisted Living Scenario Trip Generation Comparison

Table 5: Trip Generation for Assisted 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	11 veh/hr	6 veh/hr	17 veh/hr	11 veh/hr	15 veh/hr	26 veh/hr	244 veh
	Retail	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	224 veh
	Total	20 veh/hr	13 veh/hr	33 veh/hr	31 veh/hr	33 veh/hr	64 veh/hr	468 veh
Transit	Senior Housing	9 ppl/hr	6 ppl/hr	15 ppl/hr	9 ppl/hr	13 ppl/hr	22 ppl/hr	207 ppl
	Retail	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	157 ppl
	Total	15 ppl/hr	11 ppl/hr	26 ppl/hr	23 ppl/hr	26 ppl/hr	49 ppl/hr	364 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	3 ppl/hr	2 ppl/hr	5 ppl/hr	31 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	31 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	13 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	31 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr	44 ppl

Table 6: Trip Generation for Assisted 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	14 veh/hr	9 veh/hr	23 veh/hr	14 veh/hr	20 veh/hr	34 veh/hr	322 veh
	Retail	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	296 veh
	Total	23 veh/hr	16 veh/hr	39 veh/hr	34 veh/hr	38 veh/hr	72 veh/hr	618 veh
Transit	Senior Housing	12 ppl/hr	8 ppl/hr	20 ppl/hr	12 ppl/hr	17 ppl/hr	29 ppl/hr	273 ppl
	Retail	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	207 ppl
	Total	18 ppl/hr	13 ppl/hr	31 ppl/hr	26 ppl/hr	30 ppl/hr	56 ppl/hr	480 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	3 ppl/hr	2 ppl/hr	5 ppl/hr	41 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	41 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	17 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	41 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr	58 ppl

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

Density Scenario	AM Peak Hour			PM Peak Hour		
	In	Out	Total	In	Out	Total
Existing Conditions	21	15	36	45	41	86
Assisted Living Max Build-Out	20	13	33	31	33	64
Assisted Living with V St Wing	23	16	39	34	38	72
Difference Between Allowed Max and Existing	-1	-2	-3	-14	-8	-22
Net New Trips (Difference Between Proposed and Existing)	2	1	3	-11	-3	-14

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	11 veh/hr	6 veh/hr	17 veh/hr	10 veh/hr	14 veh/hr	24 veh/hr	227 veh
	Retail	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	208 veh
	Total	20 veh/hr	13 veh/hr	33 veh/hr	30 veh/hr	32 veh/hr	62 veh/hr	435 veh
Transit	Senior Housing	9 ppl/hr	5 ppl/hr	14 ppl/hr	8 ppl/hr	12 ppl/hr	20 ppl/hr	192 ppl
	Retail	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	146 ppl
	Total	15 ppl/hr	10 ppl/hr	25 ppl/hr	22 ppl/hr	25 ppl/hr	47 ppl/hr	338 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	3 ppl/hr	2 ppl/hr	5 ppl/hr	29 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	29 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	12 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	29 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr	41 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	14 veh/hr	8 veh/hr	22 veh/hr	13 veh/hr	19 veh/hr	32 veh/hr	302 veh
	Retail	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	277 veh
	Total	23 veh/hr	15 veh/hr	38 veh/hr	33 veh/hr	37 veh/hr	70 veh/hr	579 veh
Transit	Senior Housing	12 ppl/hr	7 ppl/hr	19 ppl/hr	11 ppl/hr	16 ppl/hr	27 ppl/hr	256 ppl
	Retail	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	194 ppl
	Total	18 ppl/hr	12 ppl/hr	30 ppl/hr	25 ppl/hr	29 ppl/hr	54 ppl/hr	450 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	3 ppl/hr	2 ppl/hr	5 ppl/hr	39 ppl
	Total	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	39 ppl
Walk	Senior Housing	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	16 ppl
	Retail	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	39 ppl
	Total	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr	55 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	20	13	33	30	32	62
Memory Care with Additional Density	23	15	38	33	37	70
Difference Between Allowed Max and Existing	-1	-2	-3	-15	-9	-24
Net New Trips (Difference Between Proposed and Existing)	2	0	2	-12	-4	-16

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 generate a negligible number of new trips or reduce the number of vehicle trips on the area's roadways under both development scenarios under consideration.

Under the Assisted Living development scenario, the proposed project would generate three (3) vehicular trips (two (2) inbound vehicular trip and one (1) outbound vehicular trip) during the morning peak hour, and 14 fewer vehicular trips (11 fewer inbound and three (3) fewer outbound trips) during the afternoon peak hour as compared to the number of vehicle trips generated by the existing land use. Under the Memory Care development scenario, the proposed project would generate two (2) inbound vehicular

trips and no outbound vehicular trips during the morning peak hour, and 16 fewer vehicular trips (12 fewer inbound and four (4) fewer outbound 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 includes 77 parking spaces total, 62 parking spaces in a below-grade parking garage below the V Street wing and 15 parking spaces in a surface parking lot north of the V Street wing. 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.

Based on DC Code 11-C DCMR § 701.5, the project is subject to the following requirements:

- 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, amounting to a requirement of 41 parking spaces for 126 units (13 Independent living units, 73 Assisted living units, and 40 Memory Care units) in the MacArthur Wing under the Assisted Living scenario, and a requirement of 36 parking spaces for 110 units (13 Independent living units and 97 Assisted living units) in the MacArthur Wing under the Memory Care scenario;
- 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, amounting to a requirement of 15 parking spaces for 34 Assisted living units in the V Street Wing under the Assisted Living scenario, and a requirement of 20 parking spaces for 44 Memory care units in the V Street Wing under the Memory Care scenario; and
- 1.33 parking spaces for every 1,000 square feet of retail space in excess of 3,000 square feet, amounting to five (5) retail parking spaces required for the 6,400-square foot grocery store.

Under zoning regulations, a total of 61 vehicle parking spaces are required based on the proposed Assisted living development program, and 60 vehicle parking spaces required based on the Memory Care development program. The project meets zoning requirements with the provision of 77 parking spaces.

Additionally, 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.

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 (MWCOCG) or other comparable service if MWCOCG 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.

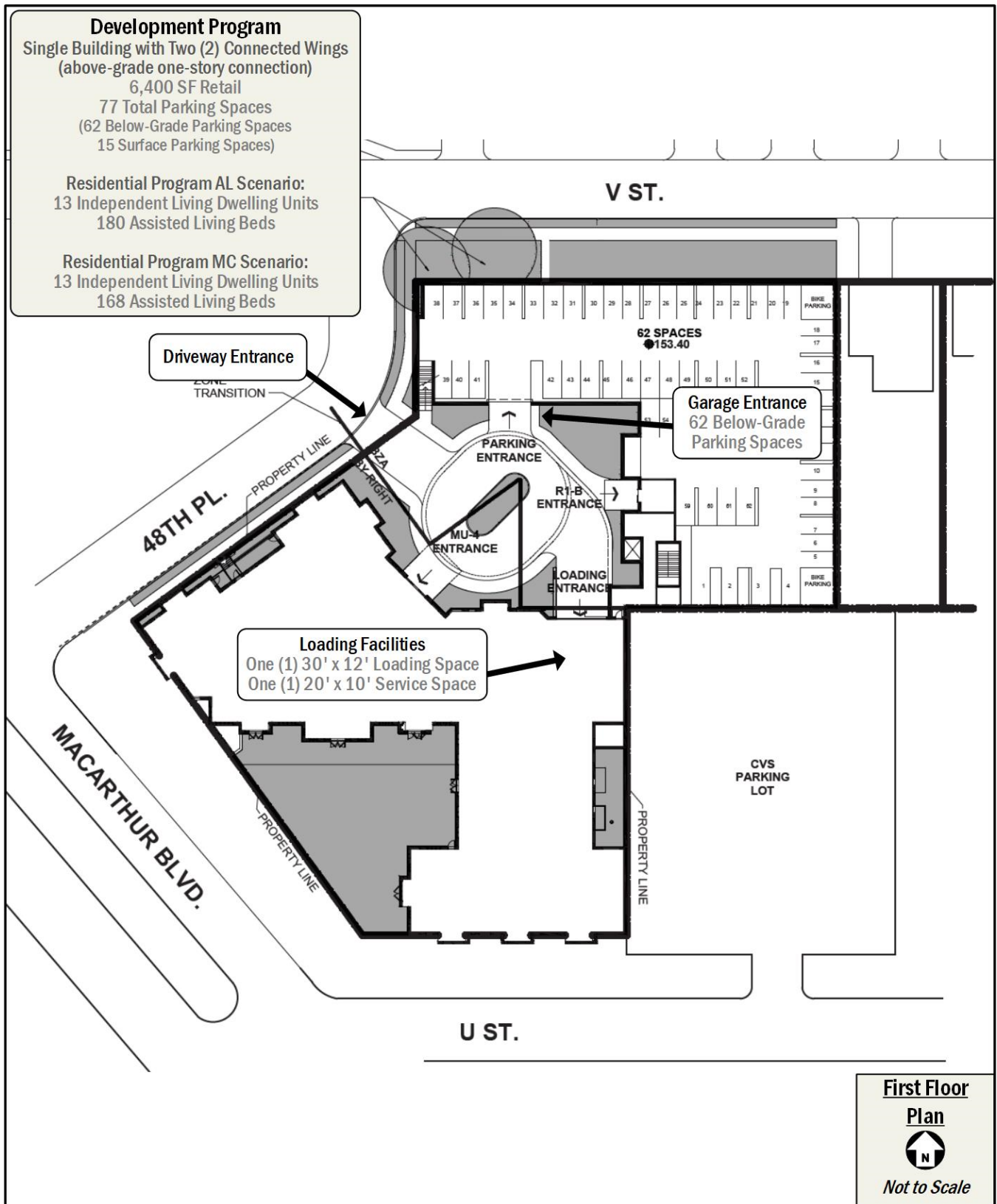


Figure 1: First Floor Plan

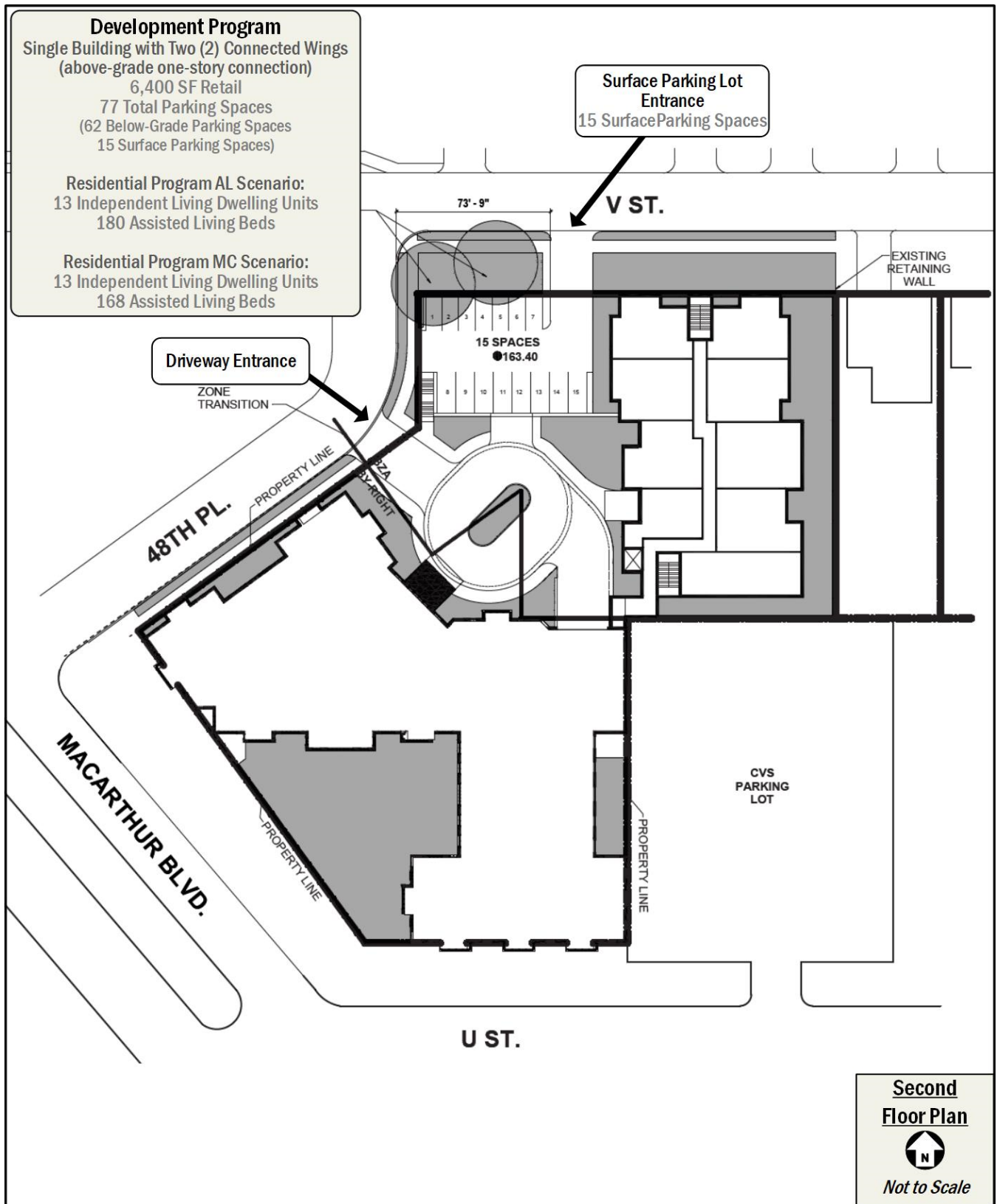


Figure 2: Second Floor Plan

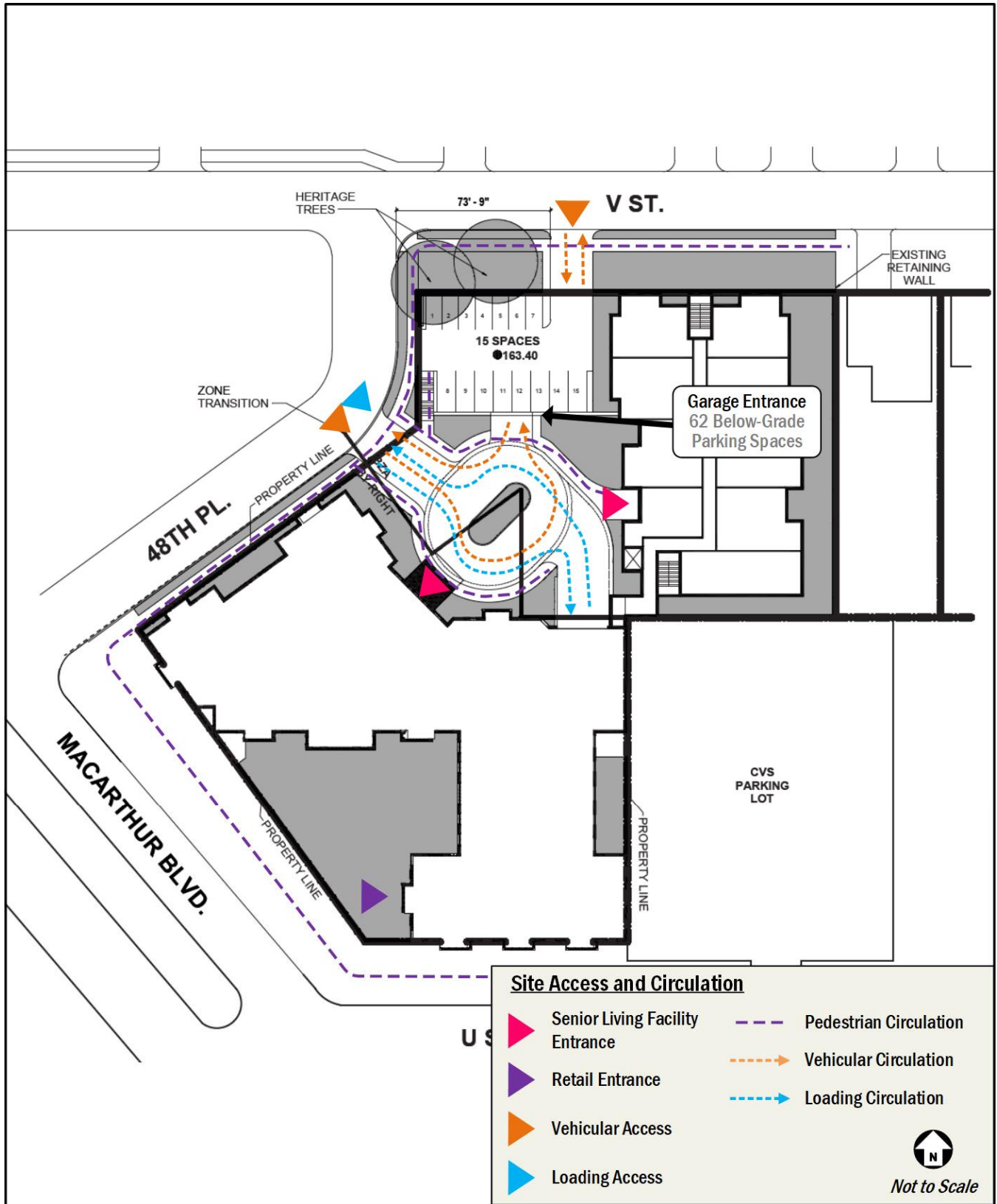


Figure 3: Site Access and Circulation

Mode Split Assumptions

Existing (retail) Component

Description of retail component of project:

The development contain approximately a 14,350 sf grocery store

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents (TAZ 20086)	49%	16%	4%	2%	8%	21%	-
Census Tract - Residents (CT 8.01)	60%	10%	15%	1%	5%	9%	-
WMATA Ridership Survey (Retail Average)	36%		37%	27%		---	
WMATA Ridership Survey Table 4 (average for Suburban-Inside the Beltway)	66%		30%	4%		---	

Mode Split assumed in TIS:

Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Retail Mode Split	65%	25%	5%	5%	---

Notes: Based on CTPP TAZ as a residence data as the existing grocery store would qualify as neighborhood serving retail.

Proposed Senior Living Facility Component

Description of proposed project:

The development will contain 13 dwelling units of senior housing living (attached), 168-180 beds of assisted living beds, and a 6,400 sf grocery store.

Pertinent Mode Split data from other sources:

Information Source	Mode						
	SOV	Carpool	Transit	Bike	Walk	Telecommute	Other
CTPP - TAZ Residents (TAZ 20086)	49%	16%	4%	2%	8%	21%	-
Census Tract - Residents (CT 8.01)	60%	10%	15%	1%	5%	9%	-
Census Tract - Residents (CT 8.01 - BY AGE)	62%	0%	7%	0%	4%	27%	-
State of the Commute 2016 (of District residents)	35%	4%	42%	16%		3%	
State of the Commute 2016 (by age group 55 or older)	66%	5%	20%	3%		6%	
Travel Patters of the Elderly 2003 Paper Table 4-6	47%	21%	8%	21%		-	
WMATA Ridership Survey (average for Suburban-Inside the Beltway)	39%		49%	12%		---	

Mode Split assumed in TIS:

Land Use	Mode				
	Drive	Transit	Bike	Walk	Telecommute/Other
Proposed Project Mode Split	65%	33%	0%	2%	---

Notes: Proposed mode split primarily based on census data and age group travel patterns. Trip generation methodology accounts for travel associated with facility staff.

Existing Supermarket Trip Generation

approximately a 14,350 sf grocery store

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Supermarket	850	14,350 sf	33 veh/hr	22 veh/hr	55 veh/hr	68 veh/hr	65 veh/hr	133 veh/hr	1532 veh
Calculation Details:			60%	40%	=3.82(X/1000)	51%	49%	=9.24(X/1000)	=106.78(X/1000)

Note: Setting used for trip generation above is General Urban/Suburban

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Supermarket	1.82 ppl/veh	60 ppl/hr	40 ppl/hr	100 ppl/hr	124 ppl/hr	118 ppl/hr	242 ppl/hr	2788 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Supermarket	Auto	65%	39 ppl/hr	26 ppl/hr	65 ppl/hr	81 ppl/hr	76 ppl/hr	157 ppl/hr	1812 ppl
Supermarket	Transit	25%	15 ppl/hr	10 ppl/hr	25 ppl/hr	31 ppl/hr	30 ppl/hr	61 ppl/hr	697 ppl
Supermarket	Bike	5%	3 ppl/hr	2 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr	139 ppl
Supermarket	Walk	5%	3 ppl/hr	2 ppl/hr	5 ppl/hr	6 ppl/hr	6 ppl/hr	12 ppl/hr	139 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Supermarket	1.82 ppl/veh	21 veh/hr	15 veh/hr	36 veh/hr	45 veh/hr	41 veh/hr	86 veh/hr	996 veh

Trip Gen Summary for Supermarket

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

Proposed Assisted Living Scenario MU-4 Portion Trip Generation

Approximately 13 dwelling units of senior housing living (attached), 134 beds of assisted living beds, and a 6,400 sf grocery store

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	252	13 du	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	27 veh
<i>Calculation Details:</i>			35%	65%	=0.2X-0.18	55%	45%	=0.24X+2.26	=4.02X-25.37
Assisted Living	254	134 beds	16 veh/hr	9 veh/hr	25 veh/hr	13 veh/hr	22 veh/hr	35 veh/hr	348 veh
<i>Calculation Details:</i>			63%	37%	=0.19X	38%	62%	=0.26X	=2.6X
Supermarket	850	6,400 sf	14 veh/hr	10 veh/hr	24 veh/hr	30 veh/hr	29 veh/hr	59 veh/hr	683 veh
<i>Calculation Details:</i>			60%	40%	=3.82(X/1000)	51%	49%	=9.24(X/1000)	=106.78(X/1000)

Note: Setting used for trip generation above is General Urban/Suburban

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	28 ppl/hr	17 ppl/hr	45 ppl/hr	27 ppl/hr	40 ppl/hr	67 ppl/hr	626 ppl/hr
Supermarket	1.82 ppl/veh	25 ppl/hr	19 ppl/hr	44 ppl/hr	55 ppl/hr	52 ppl/hr	107 ppl/hr	1243 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	Auto	65%	18 ppl/hr	11 ppl/hr	29 ppl/hr	18 ppl/hr	26 ppl/hr	44 ppl/hr	407 ppl
Senior Housing	Transit	33%	9 ppl/hr	6 ppl/hr	15 ppl/hr	9 ppl/hr	13 ppl/hr	22 ppl/hr	207 ppl
Senior Housing	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
Senior Housing	Walk	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	13 ppl
Supermarket	Auto	65%	16 ppl/hr	13 ppl/hr	29 ppl/hr	36 ppl/hr	34 ppl/hr	70 ppl/hr	407 ppl
Supermarket	Transit	25%	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	157 ppl
Supermarket	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	31 ppl
Supermarket	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	31 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	11 veh/hr	6 veh/hr	17 veh/hr	11 veh/hr	15 veh/hr	26 veh/hr	244 veh
Supermarket	1.82 ppl/veh	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	224 veh

Trip Gen Summary for Proposed

Mode	AM Peak Hour			PM Peak Hour			Weekday
	In	Out	Total	In	Out	Total	Total
Auto	20 veh/hr	13 veh/hr	33 veh/hr	31 veh/hr	33 veh/hr	64 veh/hr	468 veh
Transit	15 ppl/hr	11 ppl/hr	26 ppl/hr	23 ppl/hr	26 ppl/hr	49 ppl/hr	364 ppl
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	31 ppl
Walk	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr	44 ppl

Proposed Assisted Living Scenario - Total Density Trip Generation

Approximately 13 dwelling units of senior housing living (attached), 180 beds of assisted living beds, and a 6,400 sf grocery store

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	252	13 du	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	27 veh
<i>Calculation Details:</i>			35%	65%	=0.2X-0.18	55%	45%	=0.24X+2.26	=4.02X-25.37
Assisted Living	254	180 beds	21 veh/hr	13 veh/hr	34 veh/hr	18 veh/hr	29 veh/hr	47 veh/hr	468 veh
<i>Calculation Details:</i>			63%	37%	=0.19X	38%	62%	=0.26X	=2.6X
Supermarket	850	6,400 sf	14 veh/hr	10 veh/hr	24 veh/hr	30 veh/hr	29 veh/hr	59 veh/hr	683 veh
<i>Calculation Details:</i>			60%	40%	=3.82(X/1000)	51%	49%	=9.24(X/1000)	=106.78(X/1000)

Note: Setting used for trip generation above is General Urban/Suburban

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	37 ppl/hr	23 ppl/hr	60 ppl/hr	35 ppl/hr	52 ppl/hr	87 ppl/hr	827 ppl/hr
Supermarket	1.82 ppl/veh	25 ppl/hr	19 ppl/hr	44 ppl/hr	55 ppl/hr	52 ppl/hr	107 ppl/hr	1243 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	Auto	65%	24 ppl/hr	15 ppl/hr	39 ppl/hr	23 ppl/hr	34 ppl/hr	57 ppl/hr	538 ppl
Senior Housing	Transit	33%	12 ppl/hr	8 ppl/hr	20 ppl/hr	12 ppl/hr	17 ppl/hr	29 ppl/hr	273 ppl
Senior Housing	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
Senior Housing	Walk	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	17 ppl
Supermarket	Auto	65%	16 ppl/hr	13 ppl/hr	29 ppl/hr	36 ppl/hr	34 ppl/hr	70 ppl/hr	538 ppl
Supermarket	Transit	25%	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	207 ppl
Supermarket	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	41 ppl
Supermarket	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	41 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	14 veh/hr	9 veh/hr	23 veh/hr	14 veh/hr	20 veh/hr	34 veh/hr	322 veh
Supermarket	1.82 ppl/veh	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	296 veh

Trip Gen Summary for Proposed

Mode	AM Peak Hour			PM Peak Hour			Weekday
	In	Out	Total	In	Out	Total	Total
Auto	23 veh/hr	16 veh/hr	39 veh/hr	34 veh/hr	38 veh/hr	72 veh/hr	618 veh
Transit	18 ppl/hr	13 ppl/hr	31 ppl/hr	26 ppl/hr	30 ppl/hr	56 ppl/hr	480 ppl
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	41 ppl
Walk	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr	58 ppl

Proposed Memory Care Scenario MU-4 Portion Trip Generation

Approximately 13 dwelling units of senior housing living (attached), 124 beds of assisted living beds, and a 6,400 sf grocery store

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	252	13 du	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	27 veh
<i>Calculation Details:</i>			35%	65%	=0.2X-0.18	55%	45%	=0.24X+2.26	=4.02X-25.37
Assisted Living	254	124 beds	15 veh/hr	9 veh/hr	24 veh/hr	12 veh/hr	20 veh/hr	32 veh/hr	322 veh
<i>Calculation Details:</i>			63%	37%	=0.19X	38%	62%	=0.26X	=2.6X
Supermarket	850	6,400 sf	14 veh/hr	10 veh/hr	24 veh/hr	30 veh/hr	29 veh/hr	59 veh/hr	683 veh
<i>Calculation Details:</i>			60%	40%	=3.82(X/1000)	51%	49%	=9.24(X/1000)	=106.78(X/1000)

Note: Setting used for trip generation above is General Urban/Suburban

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	27 ppl/hr	16 ppl/hr	43 ppl/hr	25 ppl/hr	37 ppl/hr	62 ppl/hr	583 ppl/hr
Supermarket	1.82 ppl/veh	25 ppl/hr	19 ppl/hr	44 ppl/hr	55 ppl/hr	52 ppl/hr	107 ppl/hr	1243 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	Auto	65%	18 ppl/hr	10 ppl/hr	28 ppl/hr	16 ppl/hr	24 ppl/hr	40 ppl/hr	379 ppl
Senior Housing	Transit	33%	9 ppl/hr	5 ppl/hr	14 ppl/hr	8 ppl/hr	12 ppl/hr	20 ppl/hr	192 ppl
Senior Housing	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
Senior Housing	Walk	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	0 ppl/hr	1 ppl/hr	12 ppl
Supermarket	Auto	65%	16 ppl/hr	13 ppl/hr	29 ppl/hr	36 ppl/hr	34 ppl/hr	70 ppl/hr	379 ppl
Supermarket	Transit	25%	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	146 ppl
Supermarket	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	29 ppl
Supermarket	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	29 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	11 veh/hr	6 veh/hr	17 veh/hr	10 veh/hr	14 veh/hr	24 veh/hr	227 veh
Supermarket	1.82 ppl/veh	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	208 veh

Trip Gen Summary for Proposed

Mode	AM Peak Hour			PM Peak Hour			Weekday
	In	Out	Total	In	Out	Total	Total
Auto	20 veh/hr	13 veh/hr	33 veh/hr	30 veh/hr	32 veh/hr	62 veh/hr	435 veh
Transit	15 ppl/hr	10 ppl/hr	25 ppl/hr	22 ppl/hr	25 ppl/hr	47 ppl/hr	338 ppl
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	29 ppl
Walk	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	2 ppl/hr	6 ppl/hr	41 ppl

Proposed Memory Care Scenario - Total Density Trip Generation

Approximately 13 dwelling units of senior housing living (attached), 168 beds of assisted living beds, and a 6,400 sf grocery store

Step 1: Base trip generation using ITEs' Trip Generation

Land Use	Land Use Code	Quantity (x)	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	252	13 du	1 veh/hr	1 veh/hr	2 veh/hr	3 veh/hr	2 veh/hr	5 veh/hr	27 veh
<i>Calculation Details:</i>			35%	65%	=0.2X-0.18	55%	45%	=0.24X+2.26	=4.02X-25.37
Assisted Living	254	168 beds	20 veh/hr	12 veh/hr	32 veh/hr	17 veh/hr	27 veh/hr	44 veh/hr	437 veh
<i>Calculation Details:</i>			63%	37%	=0.19X	38%	62%	=0.26X	=2.6X
Supermarket	850	6,400 sf	14 veh/hr	10 veh/hr	24 veh/hr	30 veh/hr	29 veh/hr	59 veh/hr	683 veh
<i>Calculation Details:</i>			60%	40%	=3.82(X/1000)	51%	49%	=9.24(X/1000)	=106.78(X/1000)

Note: Setting used for trip generation above is General Urban/Suburban

Step 2: Convert to people per hour, before applying mode splits

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	35 ppl/hr	22 ppl/hr	57 ppl/hr	33 ppl/hr	49 ppl/hr	82 ppl/hr	775 ppl/hr
Supermarket	1.82 ppl/veh	25 ppl/hr	19 ppl/hr	44 ppl/hr	55 ppl/hr	52 ppl/hr	107 ppl/hr	1243 ppl

Step 3: Split between modes, per assumed Mode Splits

Land Use	Mode	Split	AM Peak Hour			PM Peak Hour			Weekday
			In	Out	Total	In	Out	Total	Total
Senior Housing	Auto	65%	23 ppl/hr	14 ppl/hr	37 ppl/hr	21 ppl/hr	32 ppl/hr	53 ppl/hr	504 ppl
Senior Housing	Transit	33%	12 ppl/hr	7 ppl/hr	19 ppl/hr	11 ppl/hr	16 ppl/hr	27 ppl/hr	256 ppl
Senior Housing	Bike	0%	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl/hr	0 ppl
Senior Housing	Walk	2%	1 ppl/hr	0 ppl/hr	1 ppl/hr	1 ppl/hr	1 ppl/hr	2 ppl/hr	16 ppl
Supermarket	Auto	65%	16 ppl/hr	13 ppl/hr	29 ppl/hr	36 ppl/hr	34 ppl/hr	70 ppl/hr	504 ppl
Supermarket	Transit	25%	6 ppl/hr	5 ppl/hr	11 ppl/hr	14 ppl/hr	13 ppl/hr	27 ppl/hr	194 ppl
Supermarket	Bike	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	39 ppl
Supermarket	Walk	5%	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	39 ppl

Step 4: Convert auto trips back to vehicles/hour

Land Use	People/Car (from 2017 NHTS, Table 16)	AM Peak Hour			PM Peak Hour			Weekday
		In	Out	Total	In	Out	Total	Total
Senior Housing	1.67 ppl/veh	14 veh/hr	8 veh/hr	22 veh/hr	13 veh/hr	19 veh/hr	32 veh/hr	302 veh
Supermarket	1.82 ppl/veh	9 veh/hr	7 veh/hr	16 veh/hr	20 veh/hr	18 veh/hr	38 veh/hr	277 veh

Trip Gen Summary for Proposed

Mode	AM Peak Hour			PM Peak Hour			Weekday
	In	Out	Total	In	Out	Total	Total
Auto	23 veh/hr	15 veh/hr	38 veh/hr	33 veh/hr	37 veh/hr	70 veh/hr	579 veh
Transit	18 ppl/hr	12 ppl/hr	30 ppl/hr	25 ppl/hr	29 ppl/hr	54 ppl/hr	450 ppl
Bike	1 ppl/hr	1 ppl/hr	2 ppl/hr	3 ppl/hr	2 ppl/hr	5 ppl/hr	39 ppl
Walk	2 ppl/hr	1 ppl/hr	3 ppl/hr	4 ppl/hr	3 ppl/hr	7 ppl/hr	55 ppl