GOROVE SLADE
Transportation Planners and Engineers

TECHNICAL MEMORANDUM

To:	Brian Kim	Columbia Community Concepts, LLC
From:	Anila Moorthy, EIT Maribel Donahue Katie Wagner, PE, PTOE	
Date:	October 17, 2025	
Subject:	Long Reach Village Center Parking Needs Study	

Introduction

This memorandum presents the findings of a Parking Needs Study for the proposed development located at Long Reach Village Center in Howard County, Maryland. This parking needs study was conducted in support of the proposed parking quantity.

As shown in Figure 1, the site located at 8775 Cloudleap Court is bounded by Cloudleap Court and Tamar Drive to the north, Foreland Garth to the east, Longwood Apartments to the south, and Timber Apartments and Route 175 to the west.

The Project proposes redeveloping the existing office and retail uses to include approximately 200 senior multi-family units, 255 multifamily units, 50 townhomes and 258,330 sf commercial space. For the full build-out scenario, the project proposes 781 garage parking spaces, 90 surface lot spaces, and 72 on-street parking spaces.

The objective of this study is to identify the parking needs of the project as required by Howard County Zoning Regulations based on a review of the nature of the proposed land use, community context, surrounding multimodal network, and parking ratio standards. The parking needs are also compared to the proposed parking supply to determine whether the project provides sufficient parking. The following summarizes the findings of this study:

- The project site is surrounded by a robust existing and planned multimodal network with high-quality pedestrian and bicycle infrastructure and convenient direct access to transit that reduce demand for site parking.
- Parking demand was estimated using ITE Parking Generation, ULI Shared Parking, and Howard County Parking ratios.
- Contextual adjustments were informed by adjacent multimodal facilities, the Tamar Drive Complete Streets improvements, and ridesharing trends.
- Due to shared parking efficiencies and enhanced multi-modal connectivity, a right sized supply is anticipated to meet peak concurrent demand while minimizing excess capacity. Based on the project's mixed-use program and multimodal access, the parking needs will be satisfied with 943 on-site spaces.

Project Overview

The project site encompasses approximately 16.1 acres and is bounded by Cloudleap Court and Tamar Drive to the north, Foreland Garth to the east, Longwood Apartments to the south, and Timber Apartments and Route 175 to the west. This setting places the LRVC within a well-established suburban context framed by residential neighborhoods, community-serving uses, and regional transportation infrastructure.

Surrounding land uses include a mix of multifamily and single-family residential, educational, and recreational facilities. Long Reach High School and associated athletic fields lie to the northeast, while adjacent communities such as Longwood and Timber

provide higher-density residential uses directly to the south and west. Nearby open spaces including the Elkhorn Branch Trail, offer community access to recreation and connect to the broader Columbia pathway system.

The site is currently developed with six buildings containing 71,886 square feet of retail and 15,000 square feet of office, served by 404 paved parking spaces. The proposed redevelopment would replace these uses with approximately 200 senior multi-family units, 255 multifamily units, 50 townhomes, and 258,330 square feet of commercial space.

The site is well connected to surrounding neighborhoods and commercial areas via 5-foot sidewalks on both sides of Tamar Drive, providing direct and convenient links to Downtown Columbia and nearby residential areas. As shown in Figure 3, the project also benefits from access to the Elkhorn Branch Trail, which extends from Old Annapolis Road to Lake Elkhorn.

Bicycle access is available on a growing network of facilities, including existing separated bike lanes on southbound Old Dobbin Lane and shared bike lanes on northbound Old Dobbin Lane. The Tamar Drive Complete Streets study proposes a road diet with 6-foot dedicated bicycle lanes in both directions, further enhancing bicycle safety and connectivity.

As shown in Figure 2, the project also has direct access to the “Maroon Bike Wayfinding Route” which extends from Quarterstaff Road & Freetow Road intersection west of the site to the Main Street & Levering Avenue intersection east of the site. This wayfinding bike route is part of the larger county-wide bicycle wayfinding network that aims to promote active transportation with improved access and wayfinding.

Transit service is immediately adjacent to the site. RTA Routes 402 and 408 provide connections to the Mall in Columbia, Dobbin Center, Snowden Square, Waterloo Park, and the Homewood Center, with additional regional connectivity via MTA Route 345.

Given the site’s high-pedestrian context and strong multimodal access including direct connections to nearby schools, existing conditions support a lower on-site parking supply than would typically be expected for a conventional suburban site.

Figure 1: Site Location

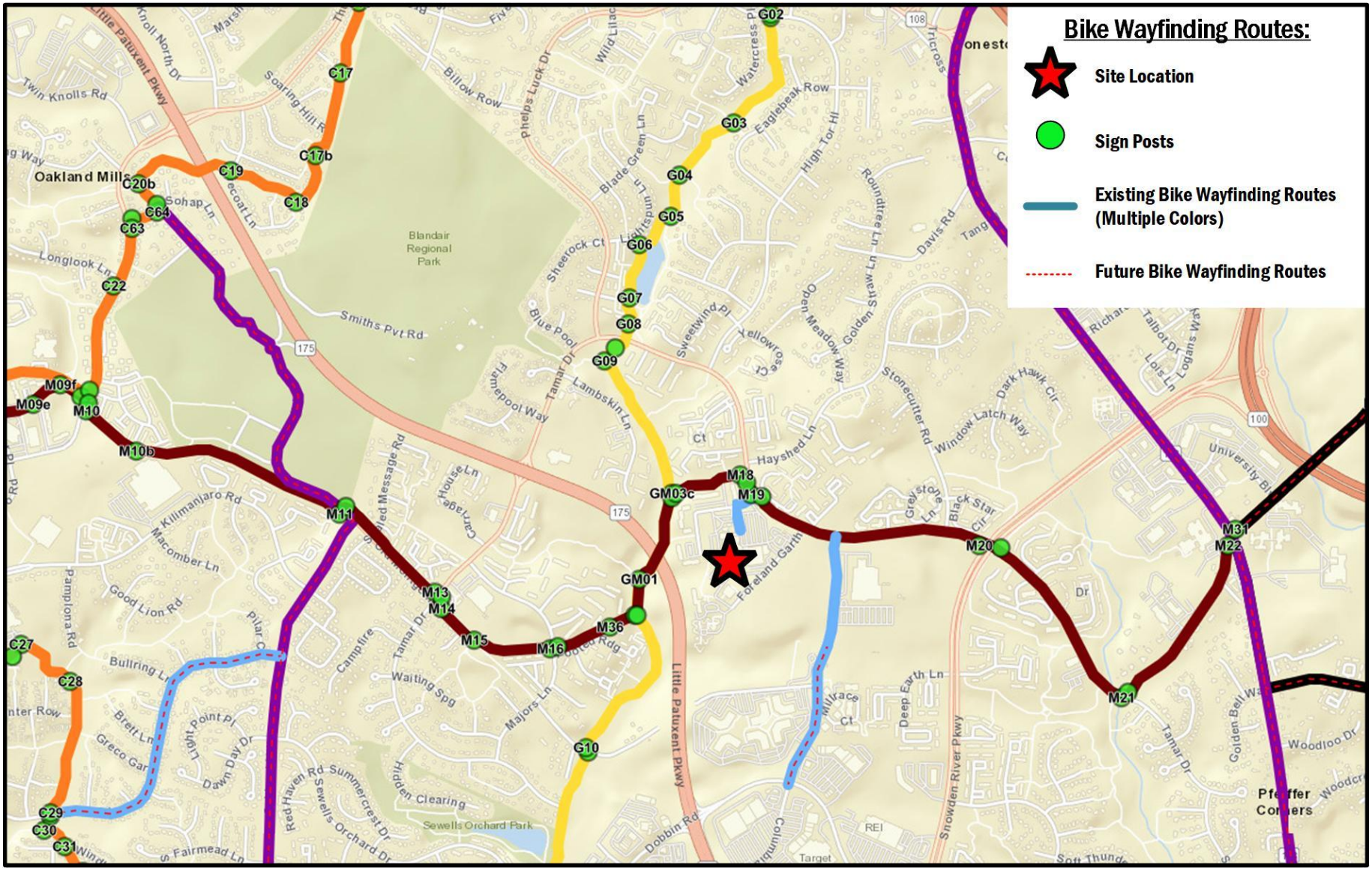

Figure 2: Bike Wayfinding Routes

Parking Demand Calculations

Given the unique mix of uses included at the proposed project, no similar or comparable existing sites were found in the region that could be used to estimate parking demand for the proposed project. Parking needs were instead calculated using the Institute of Transportation Engineers *Parking Generation Manual* and the Urban Land Institute *Shared Parking* manual as discussed below.

ITE Parking Generation Manual

Parking demand for the project was calculated using the methodology from the 6th Edition of the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*.

The average parking demand rate for "Single-Family Attached Housing" (Land Use 215), "Multifamily Housing – 1BR (Mid-Rise)" (Land Use Code 218), "Multifamily Housing – 2 + BR (Mid-Rise)" (Land Use Code 221), "Senior Adult Housing – Multifamily" (Land Use Code 252), "Recreational Community Center" (Land Use Code 495), and "Strip Retail Plaza(<40k)" (Land Use Code 822) located in a general urban/suburban setting were calculated based on the fitted curve equation published by ITE, which estimates an average parking demand of 970 parking spaces, as shown in Table 1. This parking rate is based on a national context and is an average from studies conducted throughout the USA.

Given the new proposed direct access to the Elkhorn Branch Trail, bus stops along Tamar Drive and Foreland Garth, and the planned Tamar Drive Complete Streets improvements, the Project applies a 10% non-auto mode shift reduction to base parking demand. An additional 5% captive-market reduction is applied to reflect visitors who park once and visit multiple on-site destinations within the mixed-use environment. With these adjustments, the average peak parking demand is estimated at approximately 830 spaces.

Table 1: ITE Parking Generation

Land Use	Land Use Code	Quantity	ITE Parking Rates
Single-Family Attached	215	50 du	71 (1.42 spaces per du)
Multifamily Housing - 1BR (Mid-Rise)	218	179 du	122 (0.68 spaces per du)
Multifamily Housing – 2+BR (Mid-Rise)	221	76 du	81 (1.06 spaces per du)
Senior Adult Housing - Multifamily	252	200 du	122 (0.61 spaces per du)
Recreational Community Center	495	60500 sf	309 (5.11 spaces per 1,000 sf)
Retail	821,822	90,180 sf	265 (2.94 spaces per 1,000 sf)
		Total	**970**
		w/ Mode Split Reductions (10%)	**873**
		w/ Non Captive Reductions (5%)	**830**

Urban Land Institute (ULI) Based Parking Ratio

Parking demand was also calculated using the 3rd edition of ULI *Shared Parking*, an industry-standard publication that provides base parking ratios for various land uses in suburban contexts with limited transit access. ULI's parking ratios are commonly used to inform parking supply for mixed-use developments.

The following methodology was used to determine the shared parking demand:

Step 1: Determine individual Weekday and Weekend Peak Parking Ratios for each land use

The base parking ratios for weekdays and weekends were calculated according to the ULI Shared Parking manual. Gross Leasable Area (GLA) was estimated at 80% of total floor area. The ULI weekday base parking ratios and demands are shown in Table 2. The ULI weekend base parking ratios and demands are shown in

Table 3.

Table 2: ULI Weekday Base Parking Ratios and Demands

Land Use	Quantity*	Weekday Parking Demand Rate		Parking Demand		
		Visitors	Employees	Visitors	Employees	Total
Retail	15,720 sf	2.9 spaces per ksf	0.7 spaces per ksf	46	12	58
Residential - Studio (20%)	*51 du*	*0.1 spaces per du*	*0.85 spaces per du*	*5*	*43*	*48*
Residential - 1 bedroom (50%)	*128 du*	*0.1 spaces per du*	*0.9 spaces per du*	*13*	*115*	*128*
Residential - 2 bedroom (25%)	*64 du*	*0.1 spaces per du*	*1.65 spaces per du*	*6*	*106*	*112*
Residential - 3+ bedroom (5%)	*12 du*	*0.1 spaces per du*	*2.5 spaces per du*	*1*	*30*	*31*
Residential Total	255 du			25	294	319
Age restricted Adult housing Apartments	200 du	0.55 spaces per du	0.3 spaces per du	110	60	170
Art Center	25,512 sf	5.5 spaces per ksf	0.5 spaces per ksf	141	13	154
Retail	41,920 sf	2.9 spaces per ksf	0.7 spaces per ksf	122	30	152
Athletic Center	109,008 sf	1.5 spaces per ksf	0.15 spaces per ksf	164	17	181
Retail	22,888 sf	2.9 spaces per ksf	0.7 spaces per ksf	67	17	84
Single-Family Attached	50 du	0.1 spaces per du	2.5 spaces per du	5	125	130

Table 3: ULI Weekend Base Parking Ratios and Demands

Land Use	Quantity*	Weekend Parking Demand Rate		Parking Demand		
		Visitors	Employees	Visitors	Employees	Total
Retail	15,720 sf	3.2 spaces per ksf	0.8 spaces per ksf	51	13	64
Residential - Studio (20%)	*51 du*	*0.15 spaces per du*	*0.85 spaces per du*	*7*	*41*	*48*
Residential - 1 bedroom (50%)	*128 du*	*0.15 spaces per du*	*0.9 spaces per du*	*19*	*115*	*134*
Residential - 2 bedroom (25%)	*64 du*	*0.15 spaces per du*	*1.65 spaces per du*	*17*	*185*	*202*
Residential - 3+ bedroom (5%)	*12 du*	*0.15 spaces per du*	*2.5 spaces per du*	*5*	*78*	*83*
Residential Total	255 du			48	419	467
Age restricted Adult housing Apartments	200 du	0.42 spaces per du	0.3 spaces per du	84	60	144
Art Center	25,512 sf	5.5 spaces per ksf	0.5 spaces per ksf	141	13	154
Retail	41,920 sf	3.2 spaces per ksf	0.8 spaces per ksf	108	27	135
Athletic Center	109,008 sf	1.8 spaces per ksf	0.2 spaces per ksf	197	22	219
Retail	22,888 sf	3.2 spaces per ksf	0.8 spaces per ksf	74	19	93
Single-Family Attached	50 du	0.15 spaces per du	2.5 spaces per du	8	125	133

*Gross Leasable Area was assumed to be 80% of the total floor area

Step 2: Adjust Weekday and Weekend Parking Demand based on Time of Day factors for each land use

Weekday and Weekend Time of Day adjustment factors as shown in the ULI Shared Parking manual were used to estimate the parking demand from 6 AM to 12 AM for each land use. Weekday and Weekend Time of Day adjustment factors for the applicable land uses are shown in Table 4 and Table 5. Time of Day adjusted Weekday and Weekend Parking Demand is shown in Table 6 and Table 7. The highest hourly parking demand was calculated to be 1177 parking spaces.

Table 4: Weekday Time of Day Adjustment Factors

Land Use		6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm	12am
Retail	Visitors	1%	5%	15%	35%	60%	75%	100%	100%	95%	85%	85%	85%	90%	80%	65%	45%	15%	5%	0%
	Employees	10%	15%	25%	45%	75%	95%	100%	100%	100%	100%	100%	100%	100%	100%	90%	60%	40%	20%	0%
Apartments	Residential Guests	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
	Residential Suburban	95%	80%	67%	55%	50%	45%	40%	40%	40%	40%	45%	50%	60%	70%	80%	85%	95%	97%	100%
Single-Family Attached	Residential Guests	0%	10%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
	Residential Suburban	95%	80%	67%	55%	50%	45%	40%	40%	40%	40%	45%	50%	60%	70%	80%	85%	95%	97%	100%
Age Restricted Adult Housing	Visitors and Employees	95%	97%	100%	100%	99%	98%	98%	99%	98%	100%	99%	94%	96%	98%	97%	97%	97%	98%	98%
	Residents	95%	97%	100%	100%	99%	98%	98%	99%	98%	100%	99%	94%	96%	98%	97%	97%	97%	98%	98%
Art Center	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%
	Employees	5%	30%	33%	33%	100%	100%	100%	100%	100%	100%	90%	70%	40%	25%	20%	20%	5%	0%	0%
Athletic Center	Visitors	0%	0%	0%	0%	25%	65%	85%	90%	95%	95%	90%	95%	100%	95%	90%	65%	10%	0%	0%
	Employees	5%	5%	5%	25%	75%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	75%	10%	5%	5%

Table 5: Weekend Time of Day Adjustment Factors

Land Use		6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm	12am
Retail	Visitors	1%	5%	30%	50%	70%	90%	95%	100%	100%	95%	90%	80%	75%	70%	65%	50%	30%	10%	0%
	Employees	10%	15%	40%	75%	85%	95%	100%	100%	100%	100%	100%	95%	85%	80%	75%	65%	45%	15%	0%
Apartments	Residential Guests	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
	Residential Suburban	100%	95%	88%	80%	75%	70%	68%	65%	65%	68%	71%	74%	77%	80%	83%	86%	89%	92%	100%
Single-Family Attached	Residential Guests	0%	20%	20%	20%	20%	20%	20%	20%	20%	20%	20%	40%	60%	100%	100%	100%	100%	80%	50%
	Residential Suburban	100%	95%	88%	80%	75%	70%	68%	65%	65%	68%	71%	74%	77%	80%	83%	86%	89%	92%	100%
Age Restricted Adult Housing	Visitors and Employees	94%	98%	97%	95%	93%	94%	97%	99%	100%	10%	99%	98%	98%	98%	97%	95%	94%	98%	98%
	Residents	94%	98%	97%	95%	93%	94%	97%	99%	100%	100%	99%	98%	98%	98%	97%	95%	94%	98%	98%
Art Center	Visitors	0%	0%	50%	100%	100%	100%	100%	100%	100%	100%	100%	100%	50%	30%	30%	10%	0%	0%	0%
	Employees	5%	30%	33%	33%	100%	100%	100%	100%	100%	100%	90%	70%	40%	25%	20%	20%	5%	0%	0%
Athletic Center	Visitors	0%	0%	0%	0%	25%	65%	85%	90%	95%	95%	90%	95%	100%	95%	90%	65%	10%	0%	0%
	Employees	5%	5%	5%	25%	75%	100%	100%	100%	100%	100%	90%	100%	100%	100%	100%	75%	10%	5%	5%

Table 6: Time of Day Adjusted Weekday Parking Demand

Land Use		6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm	12am
Retail	Visitors	1	3	7	17	28	35	46	46	44	40	40	40	42	37	30	21	7	3	0
	Employees	2	2	3	6	9	12	12	12	12	12	12	12	12	12	11	8	5	3	0
Apartments	Residential Guests	0	3	5	5	5	5	5	5	5	5	5	10	15	25	25	25	25	20	13
	Residential Suburban	280	236	197	162	147	133	118	118	118	118	133	147	177	206	236	250	280	286	294
Age Restricted Adult Housing	Visitors and Employees	105	107	110	110	109	108	108	109	108	110	109	104	106	108	107	107	107	108	108
	Residents	57	59	60	60	60	59	59	60	59	60	60	57	58	59	59	59	59	59	59
Art Center	Visitors	0	0	71	141	141	141	141	141	141	141	141	141	71	43	43	15	0	0	0
	Employees	1	4	5	5	13	13	13	13	13	13	12	10	6	4	3	3	1	0	0
Retail	Visitors	1	5	15	35	59	74	98	98	94	84	84	84	89	79	64	45	15	5	0
	Employees	3	4	6	11	18	23	24	24	24	24	24	24	24	24	22	15	10	5	0
Athletic Center	Visitors	0	0	0	0	41	107	140	148	156	156	148	156	164	156	148	107	17	0	0
	Employees	1	1	1	5	13	17	17	17	17	17	17	17	17	17	17	13	2	1	1
Retail	Visitors	1	4	11	24	41	51	67	67	64	57	57	57	61	54	44	31	11	4	0
	Employees	2	3	5	8	13	17	17	17	17	17	17	17	17	17	16	11	7	4	0
Single-Family Attached	Residential Guests	0	1	1	1	1	1	1	1	1	1	1	2	3	5	5	5	5	4	3
	Residential Suburban	119	100	84	69	63	57	50	50	50	50	57	63	75	88	100	107	119	122	125
Full Build Out Total:		**573**	**532**	**581**	**659**	**761**	**853**	**916**	**926**	**923**	**905**	**917**	**941**	**937**	**934**	**930**	**822**	**670**	**624**	**603**
With Modal Reductions (10%)		**516**	**479**	**523**	**593**	**685**	**768**	**824**	**833**	**831**	**815**	**825**	**847**	**843**	**841**	**837**	**740**	**603**	**562**	**543**
With Non-Captive Reductions (5%)		**490**	**455**	**497**	**563**	**651**	**730**	**783**	**791**	**789**	**774**	**784**	**805**	**801**	**799**	**795**	**703**	**573**	**534**	**516**

Table 7: Time of Day Adjusted Weekend Parking Demand

Land Use		6am	7am	8am	9am	10am	11am	12pm	1pm	2pm	3pm	4pm	5pm	6pm	7pm	8pm	9pm	10pm	11pm	12am
Retail	Visitors	1	3	16	26	36	46	49	51	51	49	46	41	39	36	34	26	16	6	0
	Employees	2	2	6	10	12	13	13	13	13	13	13	13	12	11	10	9	6	2	0
Apartments	Residential Guests	0	10	10	10	10	10	10	10	10	10	10	20	29	48	48	48	48	39	24
	Residential Suburban	419	399	369	336	315	294	285	273	273	285	298	311	323	336	348	361	373	386	419
Age Restricted Adult Housing	Visitors and Employees	79	83	82	80	79	79	82	84	84	9	84	83	83	83	82	80	79	83	83
	Residents	57	59	59	57	56	57	59	60	60	60	60	59	59	59	59	57	57	59	59
Art Center	Visitors	0	0	71	141	141	141	141	141	141	141	141	141	71	43	43	15	0	0	0
	Employees	1	4	5	5	13	13	13	13	13	13	12	10	6	4	3	3	1	0	0
Retail	Visitors	2	6	33	54	76	98	103	108	108	103	98	87	81	76	71	54	33	11	0
	Employees	3	5	11	21	23	26	27	27	27	27	27	26	23	22	21	18	13	5	0
Athletic Center	Visitors	0	0	0	0	50	129	168	178	188	188	178	188	197	188	178	129	20	0	0
	Employees	2	2	2	6	17	22	22	22	22	22	20	22	22	22	22	17	3	2	2
Retail	Visitors	1	4	23	37	52	67	71	74	74	71	67	60	56	52	49	37	23	8	0
	Employees	2	3	8	15	17	19	19	19	19	19	19	19	17	16	15	13	9	3	0
Single-Family Attached	Residential Guests	0	2	2	2	2	2	2	2	2	2	2	4	5	8	8	8	8	7	4
	Residential Suburban	125	119	110	100	94	88	85	82	82	85	89	93	97	100	104	108	112	115	125
Full Build Out Total:		**573**	**532**	**694**	**701**	**807**	**900**	**993**	**1104**	**1149**	**1157**	**1167**	**1097**	**1164**	**1177**	**1120**	**1104**	**1095**	**983**	**801**
With Modal Reductions (10%)		**625**	**631**	**726**	**810**	**894**	**994**	**1034**	**1041**	**1050**	**987**	**1048**	**1059**	**1008**	**994**	**986**	**885**	**721**	**653**	**644**
With Non-Captive Reductions (5%)		**594**	**599**	**690**	**770**	**849**	**944**	**982**	**989**	**998**	**938**	**996**	**1006**	**958**	**944**	**937**	**841**	**685**	**620**	**612**

Step 3: Apply Modal and Non-Captive Reductions

Given the new proposed direct access to the Elkhorn Branch Trail, bus stops along Tamar Drive and Foreland Garth, and the planned Tamar Drive Complete Streets improvements, the Project applies a 10% non-auto mode shift reduction to base parking demand. An additional 5% captive-market reduction is applied to reflect visitors who park once and visit multiple on-site destinations within the mixed-use environment. With the reductions, the highest hourly parking demand was reduced to 1006 parking spaces.

Howard County Parking Requirements

Under Howard County Zoning Ordinance Sec. 133.0.D, minimum parking requirements for the applicable land uses are presented in Table 8.

Table 8: Howard County Minimum Parking Requirement

Land Use	Zone Code	Quantity	Baseline		Visitor		Total
			Requirement	Spaces	Requirement	Spaces	
Retail	4q	19650 sf	5 spaces per ksf	99	-	-	99
Apartments	2b	255 du	2 spaces per du	510	0.3 spaces per du	77	587
Age restricted Adult Housing	2c2	200 du	1 space per du	200	0.3 spaces per du	60	260
Art Center*	6i	300 seats	1 space per every 3 seats	100	-	-	100
Retail	4q	41920 sf	5 spaces per ksf	210	-	-	210
Athletic Center	6a	136260 sf	10 spaces per ksf of assembly area	1363	-	-	1363
Retail	4q	28610 sf	5 spaces per ksf	144	-	-	144
Single-Family Attached	2a	50 du	2 spaces per du	100	0.5 spaces per du	25	125
*Current arts center assumed at 300 seats based on SDP						Total	2888

The minimum parking requirements were adjusted based on time of day reductions as shown in Table 9.

Given the new proposed direct access to the Elkhorn Branch Trail, bus stops along Tamar Drive and Foreland Garth, and the planned Tamar Drive Complete Streets improvements, the Project applies a 10% non-auto mode shift reduction to base parking demand. An additional 5% captive-market reduction is applied to reflect visitors who park once and visit multiple on-site destinations within the mixed-use environment. Minimum parking requirements with reductions are shown in Table 10.

Table 9: Howard County Time of Day Reductions

Land Use Category	Weekday				Weekend		Night
	6AM - 8AM	8AM - 3PM	3PM - 5PM	5PM - 12AM	6AM - 6PM	6PM - 12AM	12AM - 6AM
Residential	80%	60%	60%	100%	100%	100%	100%
Retail	20%	60%	60%	90%	100%	70%	5%
Commercial Recreation	40%	40%	40%	100%	80%	100%	10%

Table 10: Minimum Parking Requirements with Reductions

Land Use	Weekday				Weekend		Night
	5PM - 12AM	6AM - 6PM	6PM - 12AM	5PM - 12AM	6AM - 6PM	6PM - 12AM	5PM - 12AM
Retail	20	60	60	90	99	70	5
Apartments	470	353	353	587	587	587	587
Age restricted Adult Housing	208	156	156	260	260	260	260
Art Center*	40	40	40	100	80	100	10
Retail	42	126	126	189	210	147	11
Athletic Center	546	546	546	1363	1091	1363	137
Retail	29	87	87	130	144	101	8
Single-Family Attached	100	75	75	125	125	125	125
Full-Buildout Total w/ Time of Day Reductions	*1455*	*1443*	*1443*	*2844*	*2596*	*2753*	*1143*
w/ Modal Reductions (10%)	*1310*	*1299*	*1299*	*2560*	*2337*	*2478*	*1029*
w/ Non Captive Reductions (5%)	***1245***	***1235***	***1235***	***2432***	***2221***	***2355***	***978***
* Current arts center assumed at 300 seats based on SDP						**Total**	**2432**

As shown in Table 10, the minimum parking requirement based on Howard County's parking minimums is calculated to be **2432 parking spaces**. The Howard County minimum parking requirement is significantly higher than the ITE and ULI parking demand and would be more suitable for a site without pedestrian, bicycle, and transit access.

Additional Supporting Justification

Surrounding Transportation

The site location is surrounded by a robust network of transit, pedestrian, and bicycle amenities to help support the proposed parking reduction. The site has access to regional vehicular and transit-based transportation options, as shown in Figure 3, that connect the site to destinations throughout Virginia, the District, and Maryland.

Transit Service

The development has great access to local transit services such as Regional Transportation Agency of Central Maryland (RTA) and Maryland Transit Administration (MTA). The site is located adjacent to RTA and MTA Bus Stops along Tamar Drive which connects to other transit services. These transit services provide local, city wide, and regional transit connections and link the site with major cultural, residential, employment, and commercial destinations throughout the region.

There are nine (9) bus stops within a quarter-mile from the site. The two (2) RTA bus routes (402 and 408) provide connections to the mall in Columbia. The RTA route 402 runs from 7:46 AM to 5:46 PM on weekdays, 8:46 AM to 5:46 PM on Saturdays, and 9:46 AM to 5:46 PM on Sundays, with frequencies of up to 60 minutes in each direction. The 408 route service runs from 6:16 AM to 11:16 PM on weekdays, 8:16 AM to 10:16 PM on Saturdays, and 9:16 AM to 8:16 PM on Sundays, with frequencies of up to 60 minutes in each direction.

The MTA bus route (345) is an express service operating between Ellicott City/Columbia and Washington DC. This route provides connections to the red, blue, orange, green and yellow line Metro Stations in DC. The MTA bus route 345 operates between 5 AM to 7:20 PM on the weekdays with a 40-minute headway during AM and PM Peak hours. The existing bus stops near the site are shown in Figure 3.

Bicycle Facilities

The project is located adjacent to the Elkhorn Branch Trail, a loop trail approximately 1.9 miles long running through Elkhorn Branch wetlands in the heart of Columbia. Existing separated bike lanes are located along southbound Old Dobbin Lane.

BikeHoward, the Howard County Bicycle Master Plan, guides transportation and recreational biking improvements both on-street and off-street. The proposed BikeHoward network is divided into short-term (10 years), mid-term (10 to 20 years), and long-term (20 to 30 years) improvements. Per BikeHoward Recommendations, short-term bike lanes are recommended along Tamar Drive and mid-term Sharrows are recommended along Cloudleap Court. The recommended bicycle facilities improvements are shown in Figure 4.

The Tamar Complete Street Study proposes a road diet along Tamar Drive, including 6' dedicated bike lanes in both directions. Further improvements as part of the Tamar Complete Streets are discussed later.

The proposed development will connect the Tamar Drive bike lanes with the Elkhorn Branch Trail via bike lanes on the site.

Pedestrian Facilities

In the vicinity of the site, the area has existing pedestrian facilities along the frontages on Tamar Drive, Cloudleap Court and Tamar Drive.

Per WalkHoward, new sidewalks are recommended south along Foreland Garth and around the site building with sidewalk improvements recommended along Cloudleap Court, Tamar Drive and north along Foreland Garth. The recommended improvements for pedestrian facilities are shown below in Figure 5.

The Tamar Complete Street Study proposes additional pedestrian improvements including high visibility crosswalks as discussed later.

A network of pedestrian and bicycle pathways will connect the Project with nearby properties and Columbia Association pathways. This includes new pedestrian crosswalks and internal streets. The redevelopment aims to make the Project visibly accessible, convenient, and comfortable, with well-lit and landscaped pathways.

A 10-, 20-, 30- minute walkshed and bikeshed graphics from the site are shown in Figure 6 and Figure 7.

The proposed project will substantially enhance the pedestrian environment and provide connections to surrounding residential, public and commercial areas. The development incorporates additional traffic calming measures and newly designed crosswalks to improve safety for non-motorized users. Dedicated pedestrian pathways will be included, effectively discouraging automobile usage within the site.

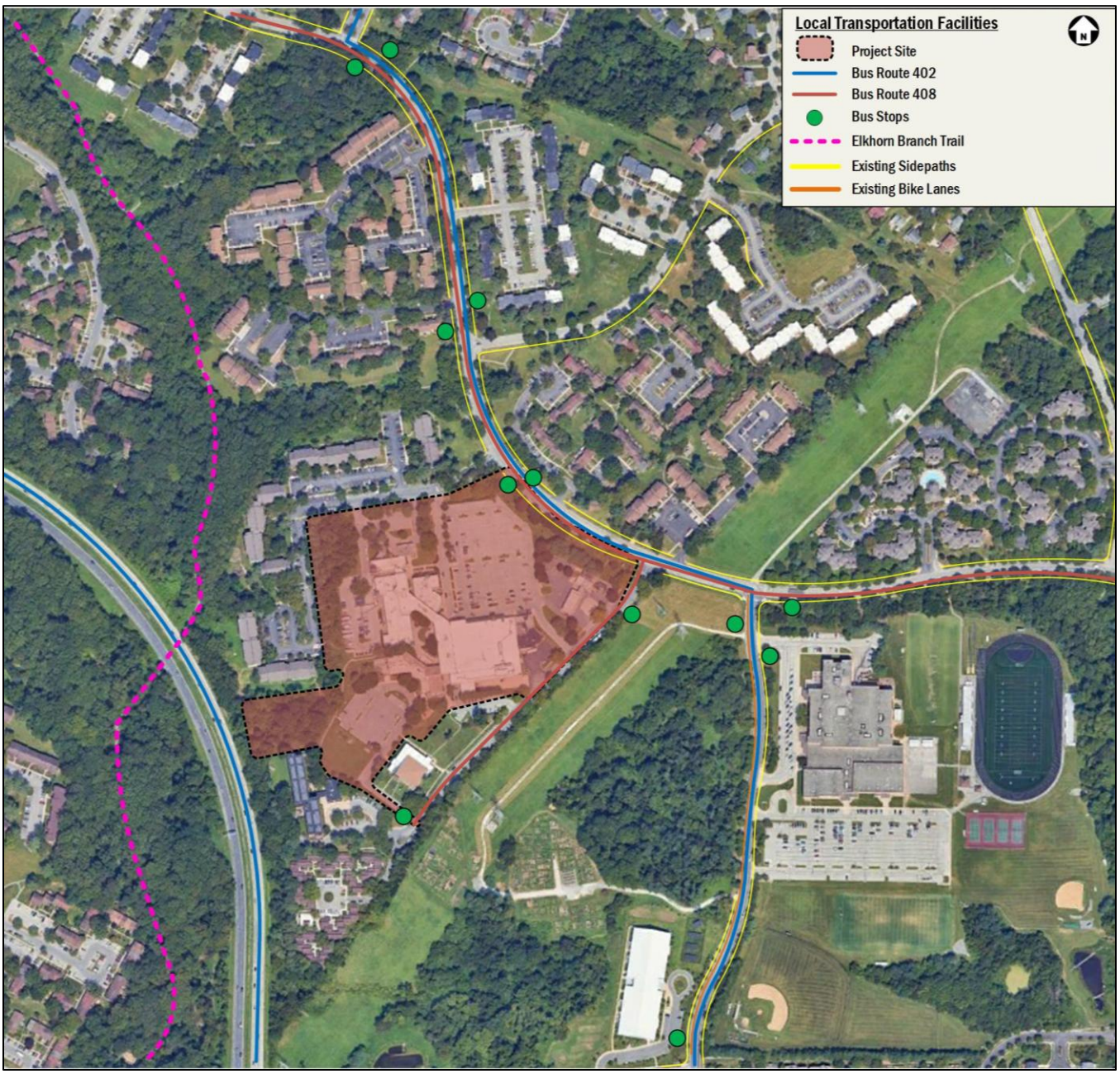

Figure 3: Local Transportation Facilities

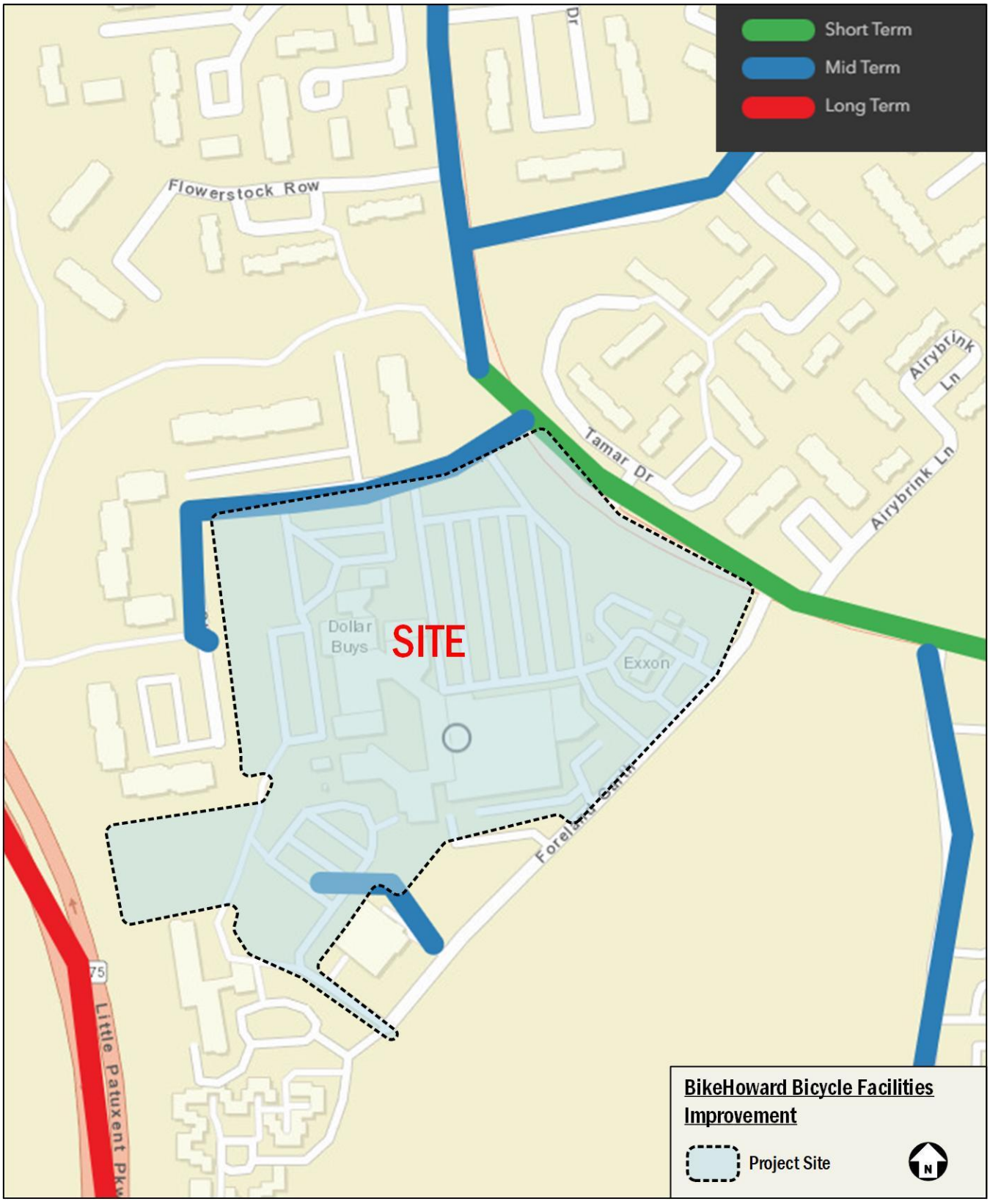

Figure 4: BikeHoward Bicycle Facilities Improvement

Figure 5: WalkHoward Pedestrian Facilities Improvements

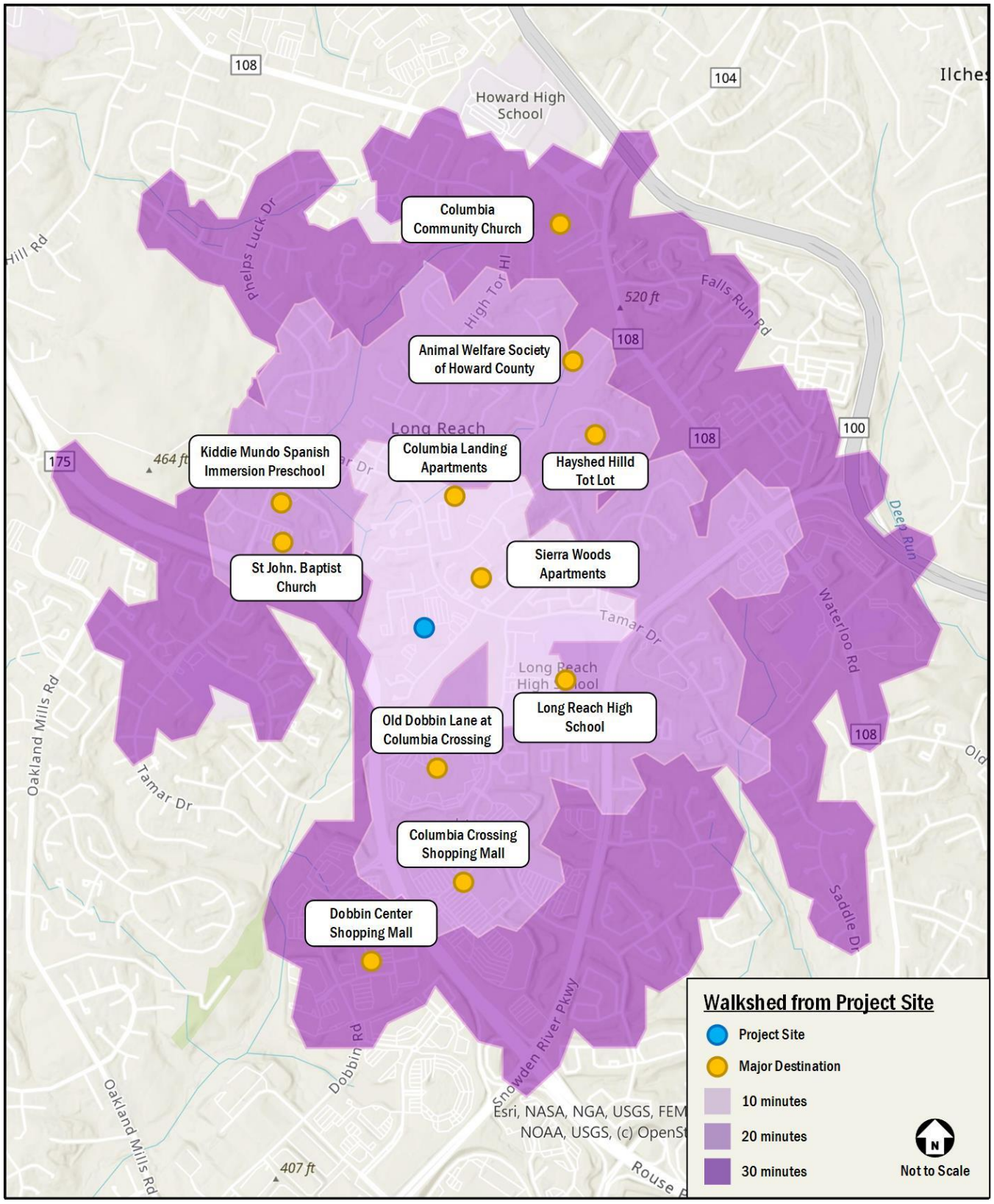

Figure 6: Walkshed from Project Site

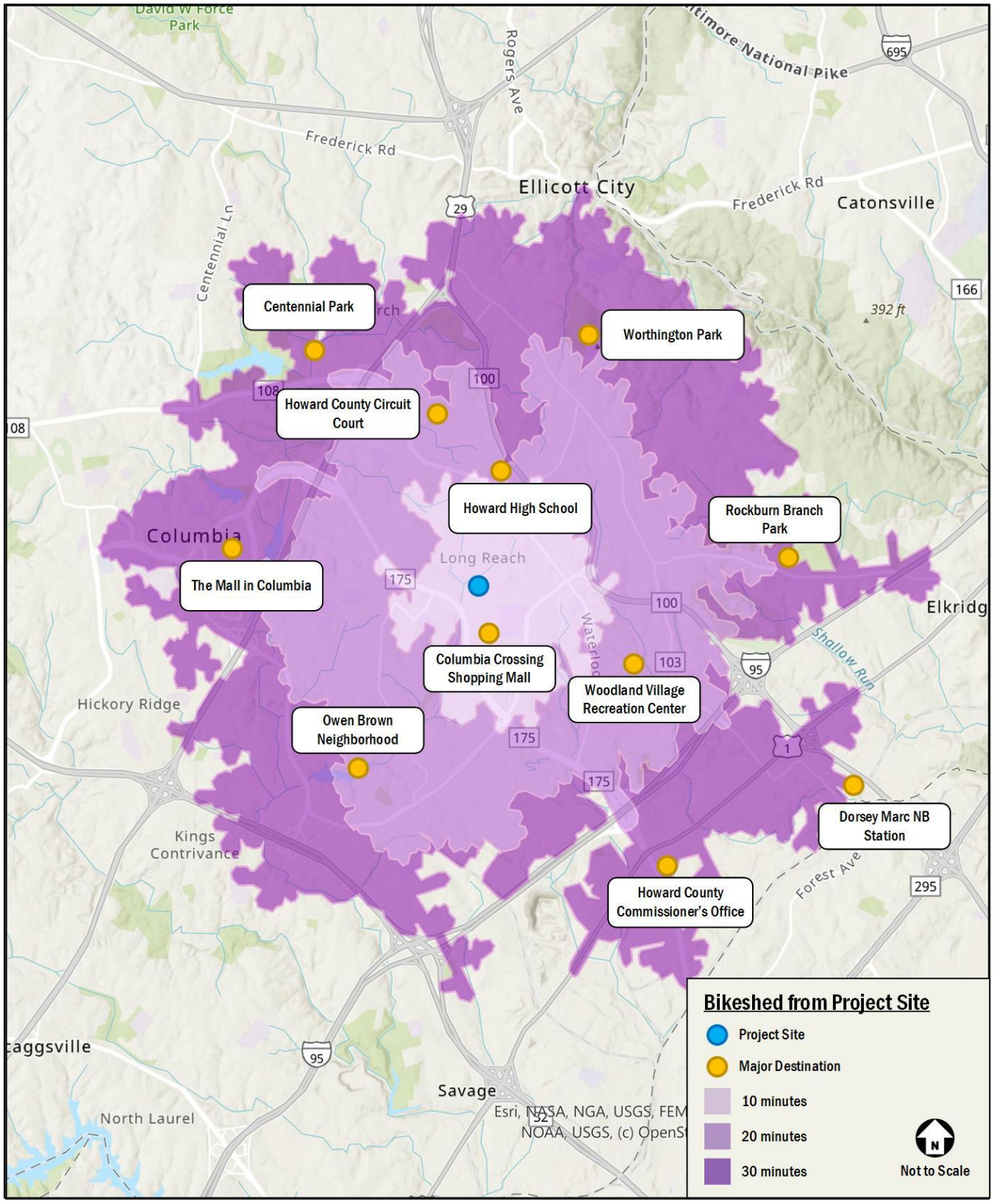

Figure 7: Bikeshed from Project Site

Tamar Complete Street Study

The Howard County Office of Transportation conducted a Complete Streets corridor feasibility study in June 2020 for the section of Tamar Drive extending from Flamepool Way to Snowden River Parkway. The objectives of the study were to:

- Formulate a collaborative vision for Tamar Drive that aligns with community objectives and adheres to the guidelines set forth by PlanHoward, BikeHoward, and WalkHoward.
- Determine cost-effective enhancements that are in line with this vision.
- Evaluate and quantify the safety, operational, and environmental impacts of the proposed modifications.

Improvements on Tamar Drive along the site frontage between Cloudleap Court and Old Dobbin Lane include:

- Single travel lanes along both directions with additional left and/or right turn storage lane where appropriate
- Addition of a 6’ dedicated bicycle lanes along both directions
- Conversion of an 11’ turn lane/ median into 10’ center turn lane
- Additional pedestrian improvements including high visibility crosswalks

The proposed development aims to meet the study's objectives by enhancing pedestrian, bicycle, and transit facilities near the site and improving connectivity to nearby neighborhoods and community destinations.

The proposed Tamar Drive modifications along the site frontage per Complete Streets are shown in Figure 8.

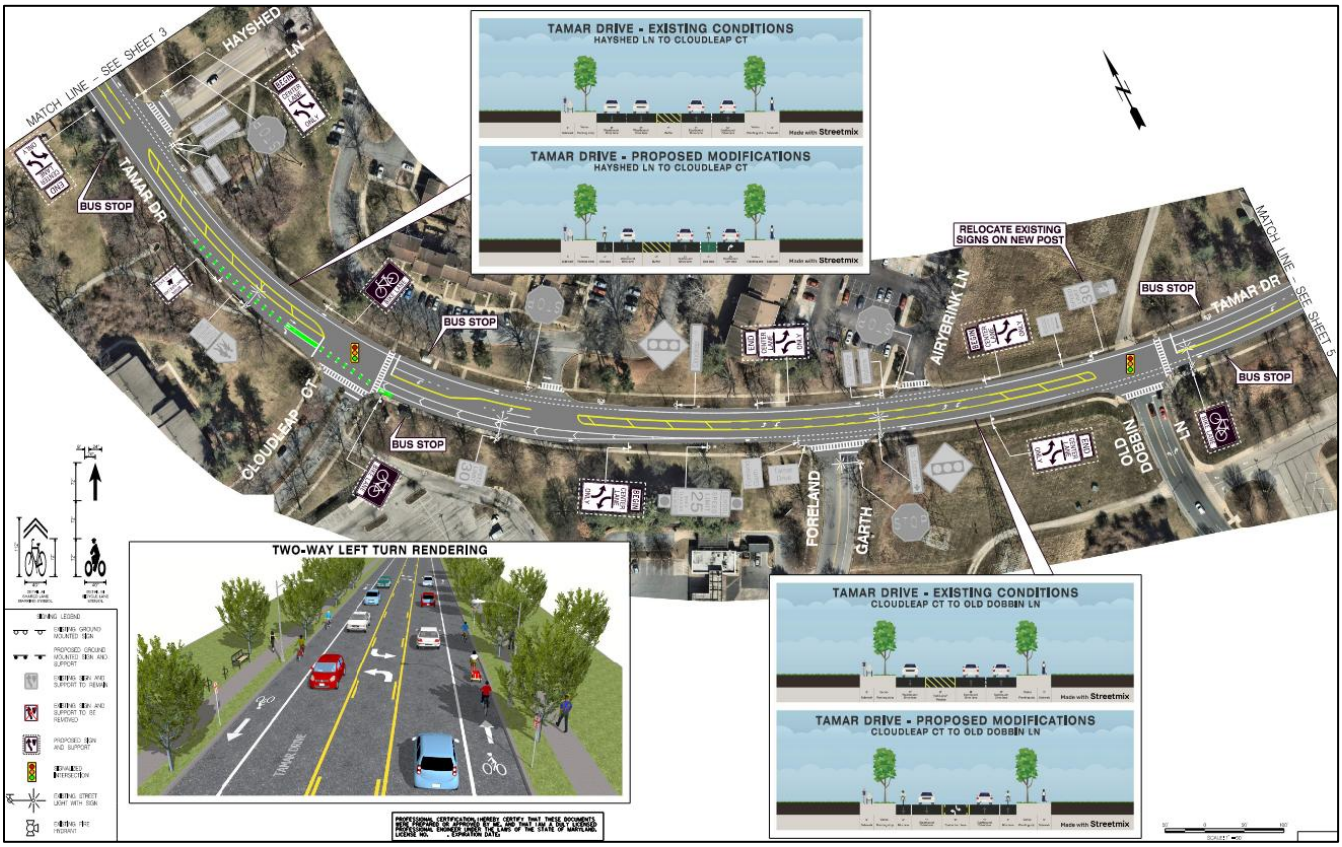

Figure 8: Tamar Drive Complete Street Design along Site Frontage

Ridesharing

Uber, Lyft, and other similar companies are a form of on-demand ridesharing where users of the app can request a ride and a nearby driver will take you where you need to go. Ridesharing is a convenient and accessible way for riders to request a ride at any time of the day for a multitude of reasons such as commuting to work, going to a vaccine or healthcare appointment, to access entertainment, or to visit family and friends.

The 2024 Rider Economic Impact Report conducted by Lyft for the state of Maryland is shown in Figure 9. As can be seen in this report summary, 50 percent of Lyft users do not own or lease a personal vehicle.

Figure 9: Ridesharing: Lyft's Economic Impact Report 2024, Maryland

Proposed Needs and Parking Supply

The Long Reach Village Center is situated within a robust multimodal context comprising continuous sidewalks, bikeways and trail connections, proximate transit service, and the planned Tamar Drive Complete Streets improvements. Collectively, these elements are expected to reduce auto reliance and, in turn, decrease on-site parking demand relative to conventional suburban conditions.

Parking need was determined using the Institute of Transportation Engineers (ITE) Parking Generation Manual, the Urban Land Institute (ULI) Shared Parking methodology, and applicable Howard County ratios. These baseline estimates were then calibrated for local conditions including existing and planned multimodal facilities, census indicators of vehicle availability, and observed ridesharing activity as well as mixed-use operating characteristics such as time-of-day variation and shared-parking efficiencies across complementary land uses.

A summary of all the parking rates and the proposed parking rates are shown in Table 11.

Table 11: Summary of Parking Rates

Land Use	Quantity	Howard County		ITE		ULI		Recommended	
		Rates	Spaces	Rates	Spaces	Rates	Spaces	Rates	Spaces
Retail	90,180 sf	3.9 spaces per 1,000 sf	350	4.1 spaces per 1,000 sf	370	2.3 spaces per 1,000 sf	210	**2.4 spaces per 1,000 sf**	**216**
Apartments	255 du	2.0 spaces per du	501	0.8 spaces per du	199	1.1 spaces per du	283	**1.1 spaces per du**	**281**
Senior Housing	200 du	1.1 spaces per du	222	0.6 spaces per du	115	0.7 spaces per du	122	**0.6 spaces per du**	**120**
Art Center	31,890 sf	2.7 spaces per 1,000 sf	86	2.0 spaces per 1,000 sf	64	4.0 spaces per 1,000 sf	128	**2.0 spaces per 1,000 sf**	**64**
Sports Complex	136,260 sf	8.6 spaces per 1,000 sf	1166	2.0 spaces per 1,000 sf	270	1.3 spaces per 1,000 sf	180	**1.3 spaces per 1,000 sf**	**177**
Townhomes	50 du	2.1 spaces per du	107	2.0 spaces per du	98	1.7 spaces per du	83	**1.7 spaces per du**	**85**
		Total	2432	Total	1116	Total	1006	**Total**	**943**

As outlined above, the project's estimated parking demand ranges from 1006 to 2432 spaces, depending on the methodology used before considering the synergies realized with the mix of land uses accommodated with the redevelopment. To meet this demand, the project proposes a total of 943 parking spaces.

- 943 on-site parking spaces
    - 781 on-site garage parking spaces
    - 90 on-site surface parking spaces
    - 72 on-site street parking spaces

The proposed parking supply is calibrated to the project's mixed-use program, which is expected to generate a high share of internal trips and attract patrons from nearby neighborhoods who are more likely to arrive by non-auto modes. The reduction is further justified by the site's extensive multimodal connectivity including a well-connected sidewalk network, direct transit access, and comfortable bicycle infrastructure. In addition, right-sizing the supply supports active transportation, reduces vehicle trip generation, and helps preserve capacity on the surrounding roadway network.