

# Appendix B:

# Transportation



# Transportation Technical Appendix

## TRANSPORTATION ANALYSIS FOR SILVER SPRING DOWNTOWN AND ADJACENT COMMUNITIES PLAN

### Policy Area-Level Plan Boundary and Study Area

The Silver Spring Downtown and Adjacent Communities rearea (SSDAC) Plan transportation analysis study area encompasses the area of the County inside the Beltway (I-495) and east of Rock Creek and includes the following policy areas:

1. Silver Spring/Takoma Park
2. Silver Spring CBD
3. East Purple Line
4. Lyttonsville
5. Takoma
6. Woodside
7. Montgomery Hills/Forest Glen (area south of I-495)

Figure 1 depicts the relationship of the Sector Plan area to these seven policy areas. The study area comprises the traffic analysis zones (TAZs), within and contiguous to the Plan boundary. The geographical definition of the Plan area is important in that it is the first step in establishing the interface between the Department's regional transportation model (TRAVEL/4) and the subarea Plan-specific local area model (referred to as TRAVEL/4MP<sup>1</sup>).

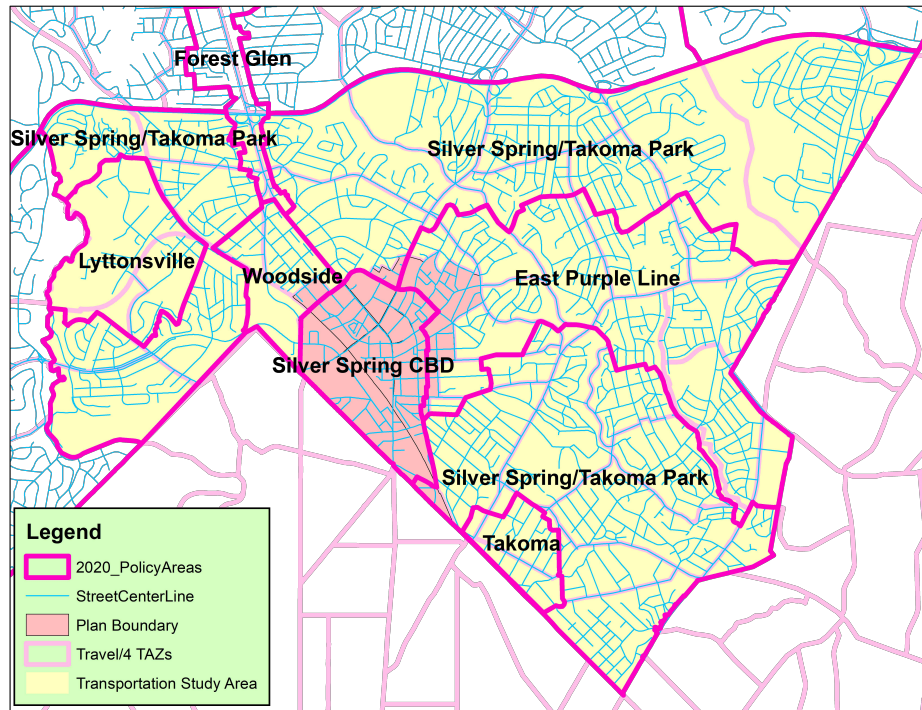


Figure 1. Policy Areas within the Study Area for Transportation Analysis

<sup>1</sup> Travel/4MP reflects a more detailed traffic analysis zone and transportation network structure relative to Travel/4.

## Travel Demand Forecasting Process and Assumptions

An enhanced version of the Planning Department's regional travel demand forecasting model, TRAVEL/4, was used to develop traffic forecast results for weekday travel and AM/PM peak periods. TRAVEL/4 is a Montgomery County-focused adaptation of the regional travel demand model developed by the Metropolitan Washington Council of Governments (MWCOCG). The application of TRAVEL/4 included the validation of the tool to reflect 2015 base year traffic conditions and the utilization of this tool to forecast of future 2045 traffic conditions in the study area. This tool is a four-step model (Figure 2), consisting of:

- **Trip generation:** the number of person trips that are generated by given types and densities of land uses within each TAZ.
- **Trip distribution:** how many person trips generated by each TAZ will travel to each of the other TAZs within the metropolitan area.
- **Mode split:** which mode of travel the person trips will use, including single-occupant auto, multiple-occupant auto, transit, or a non-motorized mode such as walking or bicycling.
- **Traffic assignment:** the roadways that will be used for vehicular travel between TAZs.

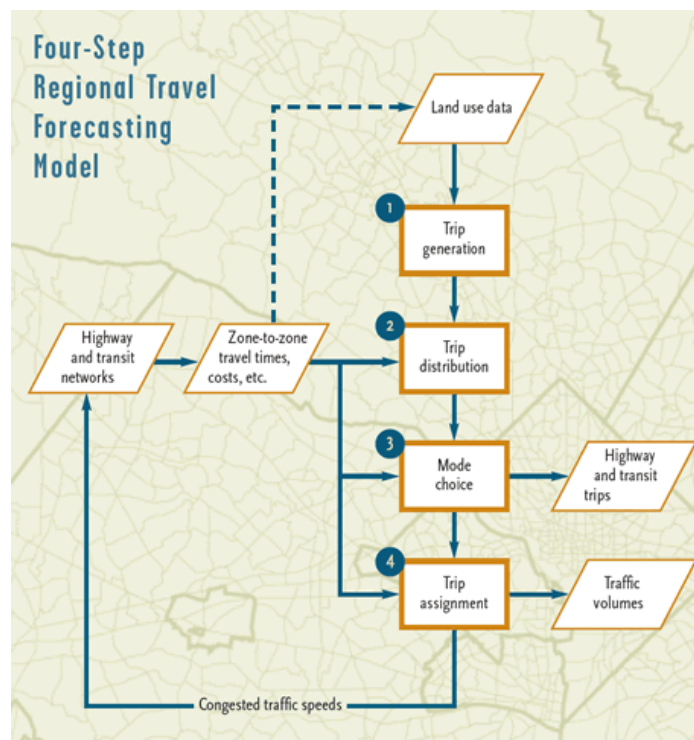
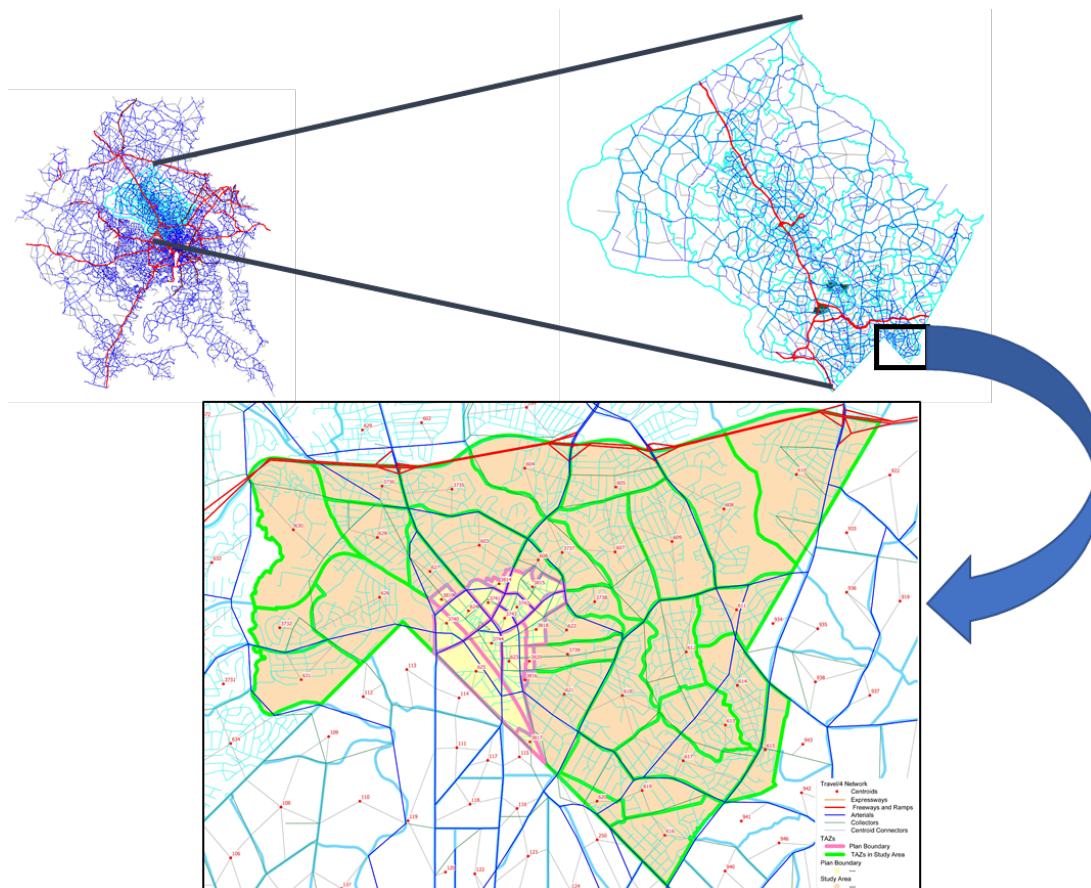


Figure 2: Four-Step Travel Model

The TRAVEL/4 model incorporates land use and transportation assumptions for the metropolitan Washington region, using the same algorithms as applied by the Metropolitan Washington Council of Governments (MWCOCG) regional travel demand modeling tool, Version 2.3.75, for air quality conformity analysis.

Figure 2 shows the relationship of Montgomery County in the regional travel demand network, featuring the coding of street network characteristics to reflect the general level of adjacent development density.



*Figure 3. Study Area Network Reflected in the Travel Demand Model, TRAVEL/4MP*

#### TRAVEL/4 for Countywide Traffic Analysis

The TRAVEL/4 regional travel demand model is used to reflect county-wide and regional traffic effects. This tool is an adapted version of MWCOG's Version 2.3.75 regional travel demand forecasting model, reflecting a more detailed transportation system network structure within Montgomery County relative to the standard MWCOG model. In addition, relative to the standard MWCOG regional modeling tool, a more detailed transportation analysis zone (TAZ) structure is incorporated into TRAVEL/4, reflecting the expansion from 376 to 466 TAZs in Montgomery County (an increase of 90 TAZs). Consequently, this change resulted in an expansion from 3709 TAZs reflected in the MWCOG regional travel demand model to 3,799 TAZs in TRAVEL/4.

Additional model run scripting enhancements were made to the model code. In response to adjustments to the regional model transportation network and zone structure, other inputs, such as aggregate socio-demographic data, lookup tables and model parameters, were revised accordingly for incorporation into TRAVEL/4. When transportation network and TAZ structures in Montgomery County area were expanded, the regional total of socio-demographic data, such as population, households and employment in the TRAVEL/4 model remain consistent with MWCOG's Round 9.1a Cooperative Forecast land use data.

#### TRAVEL/4MP Model Refinements Incorporated into TRAVEL/4

The TAZ structure in the SSDAC area was expanded utilizing block level land use data. Accordingly, the local roadway network and centroid connectors were revised based on the expanded TAZ structure. The TRAVEL/4MP model represents the SSDAC area as seven (7) transportation analysis zones (TAZs) based on



**Legend**

- Transportation Study Area
- Travel/4MP TAZs in Study Area
- Transportation Study Area

Beyond the plan area, the TRAVEL/4 model runs described above included background regional land use demographics reflecting the MWCOG Round 9.1a and Round 9.2 Cooperative Forecast for existing conditions (year 2015 TRAVEL/4 model runs) and the plan vision (year 2045 TRAVEL/4 model runs). The demographic assumptions pertaining to the 2020 *Forest Glen/Montgomery Hills Sector Plan*<sup>2</sup> were also reflected in these model runs.

**Table 1. Land Use Inputs for Year 2015, Existing Scenarios 1 and 2**

TAZ	Population				Employment				
	Household	Household	Group	Total	Industrial	Retail	Office	Other	Total
623	1,414	2,687	-	2,687	383	894	1,258	498	3,033
624	2,756	5,282	-	5,282		130	4,781	39	4,950
625	3,593	6,826	-	6,826	118	529	5,098	491	6,236
3740	716	1,361	-	1,361	-	-	283	-	283
3741	876	1,665	-	1,665	-	116	3,992	444	4,552
3742	319	607	-	607	-	364	1,160	227	1,751
3743	-	-	-	-	-	3,045	1,005	168	4,218
3744	978	1,858	98	1,956	-	227	3,747	86	4,060
3814	274	531	-	531	35	-	249	44	328
3815	441	985	7	992	-	-	62	114	176
3816	11	30	-	30	-	-	-	-	-
3817	185	352	-	352	-	-	-	-	-
3818	171	462	-	462	-	-		29	29
3819	31	84	-	84	-	-	-	-	-
3820	19	51	-	51	-	-	-	-	-

**Table 2. Land Use Inputs for Year 2045 - Scenario 3**

TAZ	Population				Employment				
	Household	Household	Group	Total	Industrial	Retail	Office	Other	Total
623	3,266	6,758	-	6,758	116	642	990	151	1,899
624	4,328	7,912	-	7,912	190	598	3,228	391	4,407
625	4,915	9,087	-	9,087	245	946	5,366	521	7,078
3740	1,088	2,012	-	2,012	20	189	259	33	501
3741	378	691	-	691	274	695	3,649	575	5,193
3742	312	571	-	571	96	640	1,156	157	2,049
3743	-	-	-	-	135	750	1,253	241	2,379
3744	1,307	2,703	98	2,801	172	484	3,311	550	4,517
3814	186	404	-	404	-	15	326	188	479
3815	532	1,093	7	1,100	6	30	152	49	254
3816	11	32	-	32	-	18	-	-	-
3817	215	439	-	439	-	18	-	-	-
3818	307	784	-	784	12	5	118	18	159
3819	18	55	-	55	2	3	69	-	-
3820	110	258	-	258	-	1	-	25	19

<sup>2</sup> <https://montgomeryplanning.org/planning/communities/area-1/forest-glen-montgomery-hills-sector-plan/>

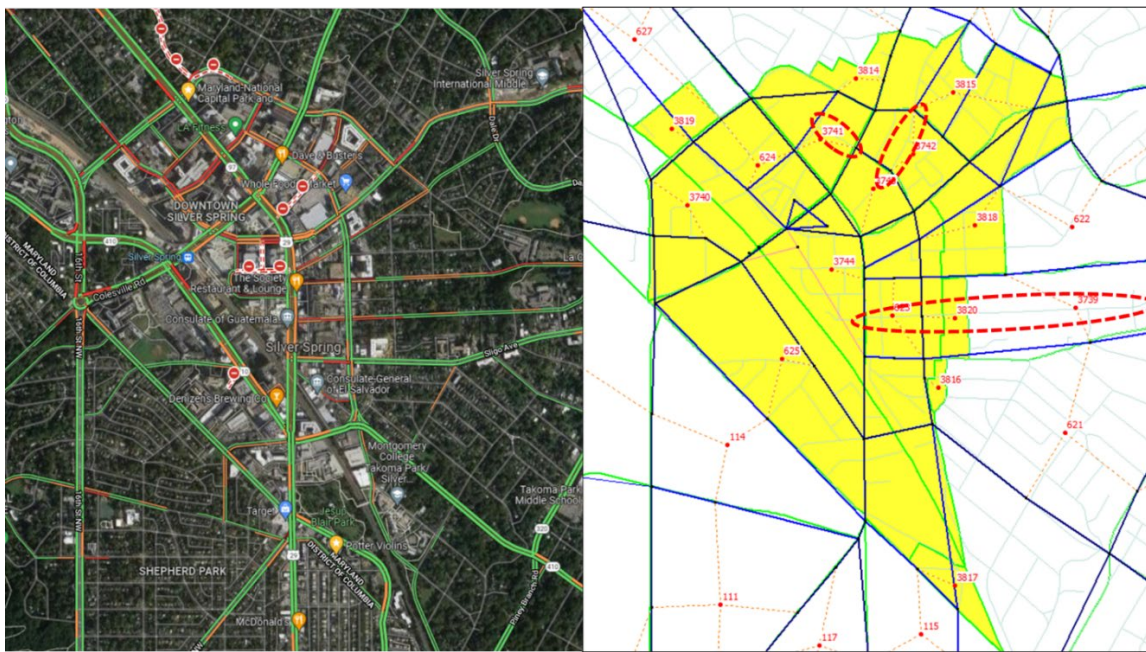
**Table 3. Land se Inputs for Year 2045 - Scenario 4**

TAZ	Population				Employment				
	Household	Household	Group	Total	Industrial	Retail	Office	Other	Total
623	3,266	6,758	-	6,758	116	642	990	151	1,899
624	4,328	7,912	-	7,912	190	598	3,228	391	4,407
625	4,915	9,087	-	9,087	245	946	5,366	521	7,078
3740	1,088	2,012	-	2,012	20	189	259	33	501
3741	378	691	-	691	274	695	3,649	575	5,193
3742	312	571	-	571	96	640	1,156	157	2,049
3743	-	-	-	-	135	750	1,253	241	2,379
3744	1,307	2,703	98	2,801	172	484	3,311	550	4,517
3814	289	564	-	564	-	25	1,017	38	1,080
3815	621	1,321	7	1,328	-	-	-	17	17
3816	12	32	-	32	-	-	-	-	-
3817	236	449	-	449	-	-	-	-	-
3818	187	486	-	486	-	-	12	173	186
3819	30	81	-	81	-	-	-	-	-
3820	104	227	-	227	-	4	-	22	26

#### TRAVEL/4MP Network Refinements

The standard TRAVEL/4 model network does not reflect minor classification local streets and/or lacks the sufficient level detailed network coding necessary to adequately represent traffic movements within the study area. The roadway network was revised to better represent observed traffic circulation in these areas. In this regard, three link segments were added to the model network:

- Fenton St. (from Cameron St to Colesville Rd)
- Ellsworth Dr. (from Fenton St. to Spring St.)
- Silver Spring Ave (from Georgia Ave. to Fenton St.)



*Figure 5. Traffic Conditions during AM peak period (Left) and Corresponding TRAVEL/4MP Network*

## Regional Travel Demand Model Forecasting Assumptions

The Silver Spring Downtown & Adjacent Communities Plan forecasts assumed the following parameters:

- A 2045 horizon year. This is currently the most distant horizon year for which forecast land use and transportation system development is available.
- Regional growth per the MWCOG Round 9.1a Cooperative Forecast beyond Montgomery County and Round 9.2 Cooperative Forecast within Montgomery County.
  - For the Washington region, the Round 9.1 forecasts include an increase from 3.2 million jobs and 2 million households in 2015 to 4.3 million jobs and 2.7 million households in 2045.
  - For Montgomery County<sup>3</sup>, the Round 9.2 forecasts include an increase from 644,000 employees and 426,000 households in 2015 to 841,000 employees and 535,000 households in 2045.
- Transportation improvements in the region's Constrained Long Range Plan (CLRP), a fiscally constrained transportation network. Notable projects assumed to be in place for the build-out of the Silver Spring Downtown & Adjacent Communities Plan include:
  - the Purple Line between Bethesda and New Carrollton
  - Randolph Road, North Bethesda, US 29, MD 355, Veirs Mill Road and MD 650 BRT
  - HOV lanes on I-95 between the ICC and MD 198
  - express toll lanes on I-270 from I-370 to the city of Frederick

## Traffic Implications of "Vision Zero"-related Plan Recommendations

The "Targeted Vision Zero Improvements" applied in the analysis included the removal of reversible lane operations on US 29 and Georgia Avenue and replacement with a dedicated transit lane. In addition, the following modifications were incorporated in the network analysis:

1. East-West Highway (16<sup>th</sup> Street to Georgia Avenue)- Road diet to 2 travel lanes, left-turn lane with median, and separated bike lanes
2. Georgia Avenue (Spring Street to Colesville Road, Wayne Avenue to Blair Mill Road, and Blair Mill Road to DC Line) - Dedicated bus lanes and road diet to 4 lanes
3. Colesville Road (16<sup>th</sup> street circle to N Noyes Drive) - Dedicated bus lanes and road diet to 4 lanes

## Area-wide Transportation Analysis

The adopted 2020-2024 Growth and Infrastructure Policy (GIP) calls into question the need for vehicle capacity-based level-of-service (LOS) transportation analysis methods traditionally used to evaluate land use/transportation balance for master plans. In Red policy areas—those around Metro stations and future Purple Line stations—the GIP specifies that there is no limit on the amount of allowable traffic congestion, and that new developments will not be tested for the traffic they would be projected to generate. In Orange, Yellow, and Green policy areas, developer-funded road capacity improvements would only be allowed as a last resort, if transportation demand management and operational improvements don't meet the applicable policy area traffic congestion standard. As for the bicycle and pedestrian networks, their respective functional master plans (the latter scheduled for adoption in 2022) already identify where facilities are to be constructed by the time of a plan's buildout.

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<sup>3</sup> Includes the Cities of Rockville and Gaithersburg

The GIP sets the stage for a new paradigm that calls for the analysis of proposed master plan development and its potential impact upon the transportation network to consider the application five area-wide transportation system performance metrics described below:

1) **Accessibility**<sup>4</sup> is defined as the number of jobs that can be reached in the Washington DC metropolitan region within 45 minutes by auto and by transit, at the time of buildout.

(2) **Travel time** is defined as the average time by auto and by transit, considering all trip purposes during all times on a weekday at time of buildout.

(3) **Vehicle miles traveled (VMT) per capita** is defined as the sum of the weekday VMT from trips that both start and end **within the plan area** and half the weekday VMT from trips that either start or end **within the plan area**<sup>5</sup>, divided by the total number of residents and employees (the “service population”) within the plan area. This concept is illustrated in Figure 6.

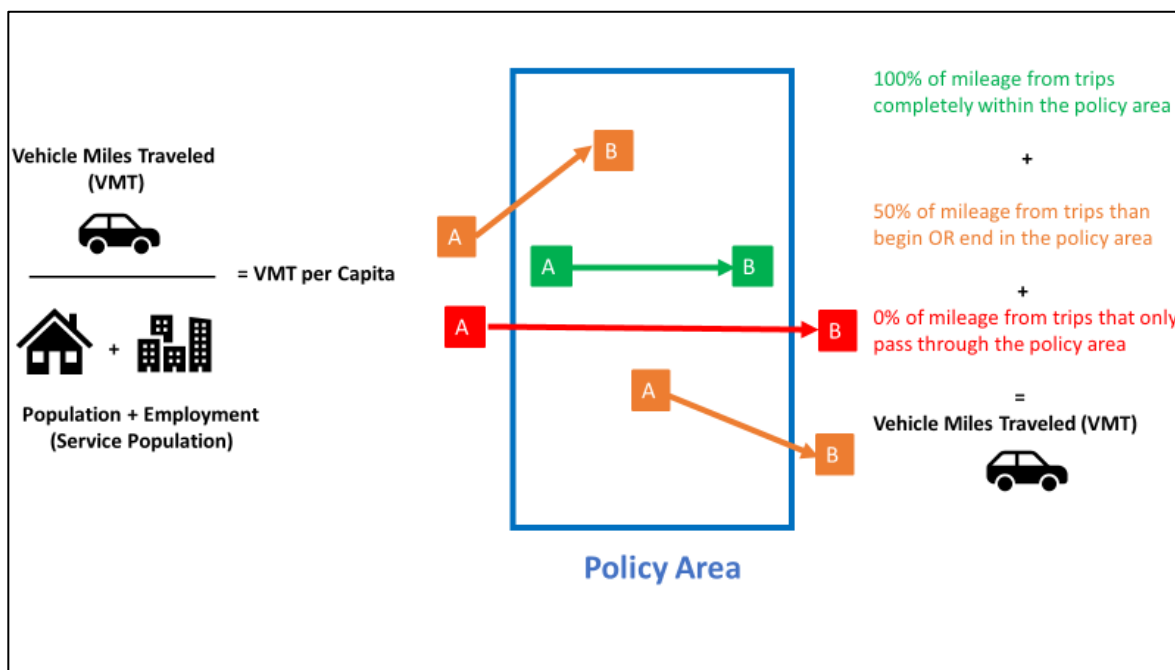


Figure 6: Conceptualization of Vehicle Miles of Travel per Capita

Adequacy for each of the metrics described above is achieved if the proposed plan reflects improvement relative to the currently adopted plan as measured *within the subject master plan policy area*. For a small-area sector plan like the Silver Spring Downtown and Adjacent Communities (SSDAC) Plan, these metrics are evaluated within the “parent” Silver Spring/Takoma Park Planning Area, which includes SSDAC Plan area within it.

<sup>4</sup> Traffic analysis zone-level, population-weighted average

<sup>5</sup> 50% of origin VMT + 50% of destination VMT



(4) **Non-auto-driver mode share (NADMS)**, is defined as the non-auto-driver mode share for the journey to work in the plan area. This is the meaning of the measure in current master plans, the 2020-2024 Growth and Infrastructure Policy (GIP)<sup>6</sup> and the goals used by the County regulating transportation demand management.

In this context, adequacy is achieved if the proposed plan achieves the relevant pre-established journey-to-work NADMS goal for the plan area. The relevant NADMS goal for the SSDAC plan is 50% for employees pursuant to the requirements of the Silver Spring Transportation Management District (TMD) depicted in Figure 7.



Figure 7: Silver Spring Transportation Management District

(5) **Low-stress bicycle accessibility** is defined as the percentage of potential bicycle trips that can be accommodated on a low-stress (LTS-2)<sup>7</sup> bikeway network. **Adequacy is achieved if the proposed plan meets or improves the average for the percentage for the county as whole at the time of buildout.** Planning staff has projected this percentage to be 79.9% assuming a year 2045 buildout time horizon. This metric is derived from the application of the Department’s Bicycle Travel Demand Model developed in support of the 2018 Bicycle Master Plan.

It should be noted that improvement in some of these metrics can be achieved without adding more road and transit improvements than is called for in the currently adopted master plan. For example, if the current plan is housing heavy, replacing some planned housing in favor of more commercial development would result in a

<sup>6</sup> <https://montgomeryplanning.org/wp-content/uploads/2020/11/20210101-Text-of-the-2020-2024-Growth-and-Infrastructure-Policy-with-Maps.pdf>

<sup>7</sup> LTS-2 is defined as bicycle travel network “appropriate for most adults” or “appropriate for most children”. (consistent with the approach for Objective 2.1 of the Bicycle Master Plan – “Countywide Connectivity”.)

closer housing/jobs balance; this in turn would likely result in better accessibility, travel times, and (lower) VMT per capita as some residents would be prone to make shorter trips to work, shopping, etc. The same would be the case for replacing some planned commercial development in job-heavy areas with more planned housing.

The results of the transportation analysis derived from the application of the Department’s regional travel demand model are reported below in Tables 4 through 6. Each table summarizes the areawide transportation system performance results reflecting the following geographies:

- Table 4 – Montgomery County
- Table 5 – Transportation Analysis Study Area (i.e., the area of the County inside the Beltway and east of Rock Creek)
- Table 6 – SSDAC Plan Area

The information reported in Table 4 is generally consistent with the results derived from recent Countywide planning studies (e.g., Thrive 2050 and Corridor Forward) and is provided for reference.

The information reported in Table 5 is relevant to the accessibility, travel time and VMT per capita metrics described above. **In this regard, the transportation system performance metrics results pertaining to the year 2045 adopted plan scenario and the year 2045 proposed SSDAC plan scenario are generally equivalent. This indicates that the SSDAC Plan achieves transportation adequacy for these metrics at buildout.** That said, the observation can be made that the average vehicle travel times for the proposed SSDAC plan is projected to be 19.9 minutes assuming the removal of reversible lane operations on Colesville Road and Georgia Avenue – the major travel “gateways” to/from the SSDAC Plan area. This compares to an average vehicle travel time of 18.6 minutes for the adopted plan scenario that assumes the continuation of reversible lane operations on these roadways.

The information reported in Table 6 is relevant to the NADMS metric described above. **In this regard, the projected NADMS results for the currently adopted and proposed SSDAC Plan are 60.8% and 60.5%, respectively. These estimates substantially exceed the pre-established 50% NADMS goal prescribed for employees in the Silver Spring CBD TMD area. This result indicates that the SSDAC Plan achieves adequacy for this metric at buildout.**

As noted above, the low-stress bicycle accessibility metric is derived from the application of the Department’s Bicycle Travel Demand Model. **Using this tool, the SSDAC plan’s recommendations are projected to increase year 2045 countywide connectivity from 79.9% to 80.6%. Low-stress connectivity in the Silver Spring CBD Policy Area is projected to increase from 66% to 73%. These results indicate that the SSDAC Plan achieves adequacy for this metric at buildout.**

**Table 4. Transportation system performance metrics (Montgomery County)**

Scenario	Auto Accessibility (Jobs) *1	Transit Accessibility (Jobs) *2	VHT (Minutes) *3	PHT (Minutes) *4	VMT per Capita* 5	NADMS *6
2015 Existing Conditions	1,148,197	130,749	17.79	50.20	13.02	31.49%
2015 Existing Conditions with VZ Recommendations & Removal of RL Operations on US29 & MD97	1,140,323	134,370	17.81	50.13	13.00	31.54%
Year 2045 2000 Adopted SS CBD Master Plan LU & Network	1,256,022	220,099	19.93	50.45	12.56	35.67%
Year 2045 Proposed Master Plan LU in VZ Recommendations & Removal of RL Operations on US29 & MD97	1,257,656	220,366	19.90	50.44	12.56	35.75%

\*1 Total Jobs/ Total Population

\*2 Total Jobs/Total Population

\*3 Total VHT/Total Auto Trips, VHT denotes Vehicle Hours of Travel

\*4 Total PHT/Total Transit Trips, PHT denotes Person Hours of Travel

\*5 Total VMT/(Total Pop+Total Emp), VMT denotes Vehicle Miles of Travel

\*6 Non-Auto Trips/Total Trips, NADMS denotes Non-Auto Drive Mode Share

**Table 5. Transportation system performance metrics (Transportation Analysis Study Area)**

Scenario	Auto Accessibility (Jobs) *1	Transit Accessibility (Jobs) *2	VHT (Minutes) *3	PHT (Minutes) *4	VMT per Capita* 5	NADMS *6
2015 Existing Conditions	1,944,075	372,556	17.06	47.85	10.53	51.37%
2015 Existing Conditions with VZ Recommendations & Removal of RL Operations on US29 & MD97	1,945,961	403,653	17.21	48.29	10.52	51.63%
Year 2045 2000 Adopted SS CBD Master Plan LU & Network	2,215,096	647,323	18.63	47.73	9.96	58.58%
Year 2045 Proposed Master Plan LU in VZ Recommendations & Removal of RL Operations on US29 & MD97	2,212,081	646,963	18.61	47.67	9.93	58.41%

**Table 6. Transportation system performance metrics (Sector Plan Area)**

Scenario	Auto Accessibility (Jobs) *1	Transit Accessibility (Jobs) *2	VHT (Minutes) *3	PHT (Minutes) *4	VMT per Capita* 5	NADMS *6
<b>2015 Existing Conditions</b>	1,929,699	893,263	19.20	47.85	10.53	53.76%
<b>2015 Existing Conditions with VZ Recommendations &amp; Removal of RL Operations on US29 &amp; MD97</b>	1,934,388	924,582	19.45	47.42	10.54	54.04%
<b>Year 2045 2000 Adopted SS CBD Master Plan LU &amp; Network</b>	2,404,721	1,165,001	20.77	45.79	9.27	60.83%
<b>Year 2045 Proposed Master Plan LU in VZ Recommendations &amp; Removal of RL Operations on US29 &amp; MD97</b>	2,408,301	1,164,008	20.73	45.70	9.22	60.48%

\*1 Total Jobs/ Total Population

\*2 Total Jobs/Total Population

\*3 Total VHT/Total Auto Trips, VHT denotes Vehicle Hours of Travel

\*4 Total PHT/Total Transit Trips, PHT denotes Person Hours of Travel

\*5 Total VMT/(Total Pop+Total Emp), VMT denotes Vehicle Miles of Travel

\*6 Non-Auto Trips/Total Trips, NADMS denotes Non-Auto Drive Mode Share

## PEDESTRIAN AND BICYCLE INFRASTRUCTURE

The pedestrian network within the majority of the Plan area is generally complete with sidewalks on both sides of the street. Many intersections have marked crosswalks and signalized intersections typically have dedicated phases for pedestrian crossing movements.

Walking and biking conditions within the Adjacent Communities District are inconsistent. Some streets have gaps in the sidewalk network on at least one side. Buffers, if they are present range in width. Motorists speeding through neighborhoods make pedestrians uncomfortable, especially walking and biking on roads without a designated space for active transportation users.

Staff applied the Pedestrian Level of Comfort Analysis developed by the Department's Countywide Planning and Policy Division, to identify potential strategies to improve safety, comfort, and connectivity, which can also be used to evaluate and prioritize recommended facility improvements.

### Pedestrian Network: Pedestrian Level of Comfort Analysis

The Pedestrian Level of Comfort (PLOC) analysis tool was created by the Montgomery County Planning Department for two reasons:

1. To identify locations in the existing walking network that are uncomfortable due to inadequate or incomplete sidewalks and crossings.
2. To quantify how different investments will increase connectivity.

The approach was inspired by the Bicycle Level of Traffic Stress (LTS) analysis conducted in support of the Montgomery County Bicycle Master Plan. The following sections describe the PLOC analysis and supporting evaluation metrics as they exist in the fall of 2018.

PLOC scores range from High-Quality to Unacceptable.

- High-Quality: This walking environment enables parents to walk with young children with a moderate level of supervision.
- Acceptable: This walking environmental is comfortable for families, but parents would hold the hands

of young children.

- Unacceptable: This walking environment is uncomfortable, and most adults will only walk if they have no other option.

Sidewalks and crossings are scored based on a “weakest link” approach in which the comfort of a segment of the network is governed by its most uncomfortable characteristic. For example, along the north side of Randolph Road, south of Selfridge Road, a lack of an adequate width buffer between the sidewalk and the road gave the walking routes on both sides of the street an “unacceptable” rating.

Sidewalk and street crossings are evaluated using different methodologies. Sidewalk scoring considers the following inputs:

- Adjacent Land Uses
  - Urban
    - Mixed-use or high-density land use zones
    - ½ mile of rail or 1/4-mile bus rapid transit
  - Suburban
- Walkway Width (sidewalk or sidepath):
  - Less than 3.5 feet
  - 3.5 to less than 5 feet
  - 5 feet to less than 8 feet
  - 8 feet or more
- Walkway Type
  - Pedestrians only
  - Shared with bicyclists
- Walkway Quality:
  - Presence of a buffer that is at least 5 feet wide
  - Frequency of obstructions
- Traffic Volume on Adjacent Roadway

Each leg of the intersection is analyzed as a separate street crossing. Street crossings are scored using the following inputs:

- Adjacent Land Uses
  - Mixed-use or high-density land use zones
  - ½ mile of rail or 1/4-mile bus rapid transit
- Presence of Traffic Control
  - Traffic Signal
  - Stop Sign
  - No Traffic Control
- Presence of a Right Turn on Red Restriction
- Cross Street Characteristics
  - Number of Lanes
  - Posted Speed Limit
- Presence of a Median
- Presence of a Crosswalk Marking



## Priorities for New Protected Crossings

During the development of the Sector Plan, The Montgomery County Planning Department and Montgomery County Department of Transportation undertook a joint effort to re-evaluate the County's street classification system in a way that emphasizes traffic safety, ecological sustainability and enhancing community vitality through a context-sensitive approach. The result of this effort was the Complete Streets Design Guide, which serves to provide policy and design guidance that should be applied when designing future streets, implementing a capital improvements project and even when conducting planned maintenance such as street resurfacing. Superficially the Complete Streets Design Guide assigned new classifications to every street within the County, and provided recommendations affecting the pedestrian, bicycle, motorist and transit components of the street, based on the adjacent land uses. Additionally, guidance is provided on the maximum spacing between protected crossings.

Within the Plan area there are generally three master plan street typologies:

1. Downtown Boulevards - These are Montgomery County's highest intensity streets – with a bustling mix of vehicle traffic, dense development, walking, bicycling, and transit. Downtown Boulevards are located in central business districts and urban centers. Buildings are located close to the street and offer a blend of places to live, work, shop, and visit. Because Downtown Boulevards carry significant vehicle traffic that operates in potential conflict with high numbers of pedestrians and bicyclists, reducing vehicle speeds is essential to safety.
2. Downtown Streets - Downtown Streets are also found in bustling, mixed-use and commercial areas; however, the building heights tend to be lower than on Downtown Boulevards. Downtown Streets are often the side streets in busy commercial areas that connect to Downtown Boulevards.
3. Shared Streets - Shared Streets typically provide a space that is shared by people using all modes of travel. The design encourages extremely low vehicle speeds and volumes. Shared Streets are often curbsless, providing pedestrians with freedom of movement and creating optimal spaces for special events.

New locations for protected crossings were chosen based on the maximum distance between protected crossings, as recommended in the Complete Streets Design Guide and based on the proximity of activity and residential centers, which have strong pedestrian desire lines. For Downtown Boulevards and Downtown Streets, the maximum distance between protected crossings is 400'. The intersections identified for new protected crossings are included in Table 7. They need to be studied to determine the most appropriate traffic control device which could include (but is not limited to) the following treatments: a full traffic signal, a high activity walk signal (HAWK), a pedestrian-activated signal, stop-signs, etc.

Table 7: Protected Crossing Recommendations

	Street 1	Street 2
1	Georgia Avenue	Fenwick Lane
2	Georgia Avenue	Ripley Street
3	Georgia Avenue	Jesup Blair Drive
4	Georgia Avenue	King Street
5	Spring Street	Roeder Road
6	16th Street	Mid-block between E-W Hwy and Colesville

7	Colesville Road	Draper Lane
8	Colesville Road	Mid-block (across from old Library Site, existing crosswalk marked)
9	Kennet Street	Mid-block (across from land acquired by parks)
10	13th Street	Mid-block between Eastern Ave and Kennet St
11	Wayne Avenue	Marked crosswalk near St. Michael's Church (east of Whole Foods Parking Lot)
12	Blair Road	Across KFC entrance
13	Blair Road	Marked crosswalk near Blair Park Gardens
14	Blair Road	Juniper Street
15	E-W Highway	Blairs Shopping Center entrance
16	Fenton Street	Gist Ave

### Bicycle Level of Traffic Stress

The Montgomery County Bicycle Planning Guidance, developed in July 2014, provides an award-winning, innovative planning tool for determining the suitability of specific bicycle facilities and identifying alternate bicycle routes around streets with higher vehicular speed and traffic volumes. This has come to be known as the “level of traffic stress” (LTS).

The analysis of existing conditions in Figure 8 shows that there are islands of low-stress bicycling (LTS 1 and LTS 2), typically in the residential neighborhoods isolated by streets with moderate-to-high levels of traffic stress (LTS 3 and LTS 4). Connecting these low-stress islands at key locations can create a robust bicycling network that spans high stress roadways (and other barriers) that can be comfortable to the majority of the adult population.

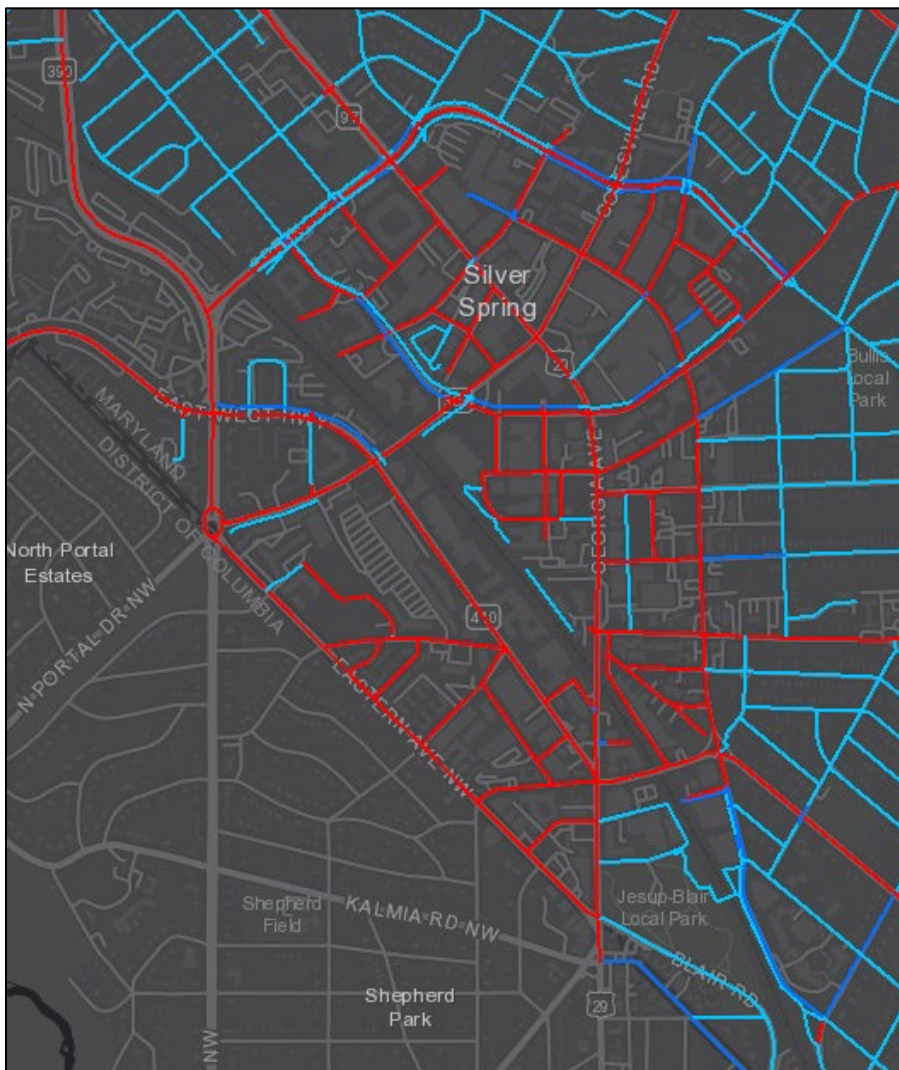


Figure 8: Level of Traffic Stress

### Master Plan Approach

The recommendations in this sector plan were based on analysis that followed the Level of Traffic Stress Analysis criteria discussed above. Bicycle recommendations in the sector plan were then refined using the following criteria:

- Accommodate bicyclists with different levels of ability: While some bicyclists are comfortable riding on the road, either sharing the lane with traffic or in separated bike lanes, other bicyclists are more comfortable riding on off-road shared use paths that are physically separated from the roadway. The sector plan includes recommendations for both on-road and off-road bicycle facilities.
- Separation from Pedestrians in Urban Areas: Due to the substantial volumes and meandering travel patterns of pedestrians in urban environments, on-road bikeways (such as separated bike lanes, buffered bike lanes, traditional bike lanes) are recommended instead of shared use paths along roadways. In these urban environments, the speed differential between pedestrian and bicycle traffic on public sidewalks often leads to conflicts and a degradation of quality for both parties. As a result, bicyclists are often reluctant to travel in what is perceived as a pedestrian-only space.
- Enhance connections to transit: A robust bikeway network with direct connections to the transit can attract people who live beyond the walking area around transit stations, typically considered to be a distance of 0.5 to 1.0 miles (5 to 10-minute walk, respectively).

- Improve connections between the Planning Districts: A Central Loop, and Outer Loop, and key connectors that bridge between the two loops was identified in the Plan to help prioritize bicycle and pedestrian connections within the Sector Plan.

### Bicycle Facility Classification

Bicycle facilities in Montgomery County are designed to be used by a wide variety of bicyclists with differing travel purposes, abilities, and levels of comfort with vehicular traffic. In response to that variety, there exists a range of bicycle accommodations available for implementation. Existing and proposed bicycle facilities within the sector plan area include the following (See also, Figure 9):

1. Shared use path: A paved path that is typically 10 feet wide but can vary between 8 and 14 feet wide, designated for bicycles and pedestrians that is separated from motorized traffic by a curb, barrier, or landscape panel.
2. Separated bike lane: a bikeway that is physically separated from motor vehicles and pedestrian facilities. The separation may be vertical, such as a curb; horizontal, such as a landscape panel or parking lane; or a combination.
3. Shared use roadway: A roadway open to both bicycle and motor vehicle travel and which is designated as a preferred route for bicycle use by warning or informational signs.

Figure 9: Types of Bicycle Facilities

**Least Separation**



**Most Separation**

### Regional Bikeways

The Sector Plan abuts the District of Columbia to the south/west, The City of Takoma Park to the east, and the greater Silver Spring and Lyttonsville neighborhoods beyond the northern, western and eastern boundaries. For this reason, it is important to have a thorough understanding of how people travel to, from and through the Sector Plan area. The demand for safe, regional bikeways continues to grow with the implementation of the countywide 2018 *Bicycle Master Plan*, and the Sector Plan aims to further refine and expand that foundation. Three Breezeways terminate within the Sector Plan Area:

1. Burtonsville to Silver Spring Breezeway
2. Capital Crescent Trail Breezeway
3. Glenmont to Silver Spring Breezeway

A fourth Breezeway connects south to the District of Columbia beyond County lines with the Metropolitan Branch Trail Breezeway. At the direction of the Planning Board, another regional connection recommended is

along East-west Highway with the intent of connecting to destinations in northwest DC, specifically the former Walter Reed Army base located between 16<sup>th</sup> Street and Georgia Avenue. This Plan will increase connections to Eastern Avenue with new separated bike lanes Blair Mill Road.

### Bicycle Parking

Bicycle parking facilities are of equal importance to active bicycle facilities (bike lanes, paths, etc.) because bicycle parking at each trip end influences the quality and utility of that particular trip. At this time, there is a shortage of short- and long-term bicycle parking facilities throughout the sector plan area. The Sector Plan confirms the Bicycle Master Plan recommendation for 600 long- and a total of 178 short-term bicycle parking spaces be provided at the Silver Spring Metro Station. Additionally, 40 long-term spaces and 170 short-term spaces are recommended for the Silver Spring Library Purple Line Station.

Of the 127 blocks in the Silver Spring CBD BiPPA where there is a need for short-term bicycle parking:

- 93 blocks (or 73 percent) have insufficient short-term bicycle parking
- 80 blocks (or 63 percent) have no short-term bicycle parking

Overall, there is a deficit of 381 short-term bicycle parking spaces in the Silver Spring CBD BiPPA. Of the 127 blocks in the Silver Spring CBD BiPPA where there is a need for short-term bicycle parking, 93 blocks (or 73 percent) have insufficient short-term bicycle parking. 80 blocks (or 63 percent) have no short-term bicycle parking. Overall, it was determined that there is an area-wide deficit of 381 short-term bicycle parking spaces within the Silver Spring CBD BiPPA. When sites within the Sector Plan Area redevelop, this Plan strongly recommends against providing waivers for short-term bicycle parking.





Figure 10: Bicycle Parking Deficiencies within the Silver Spring CBD

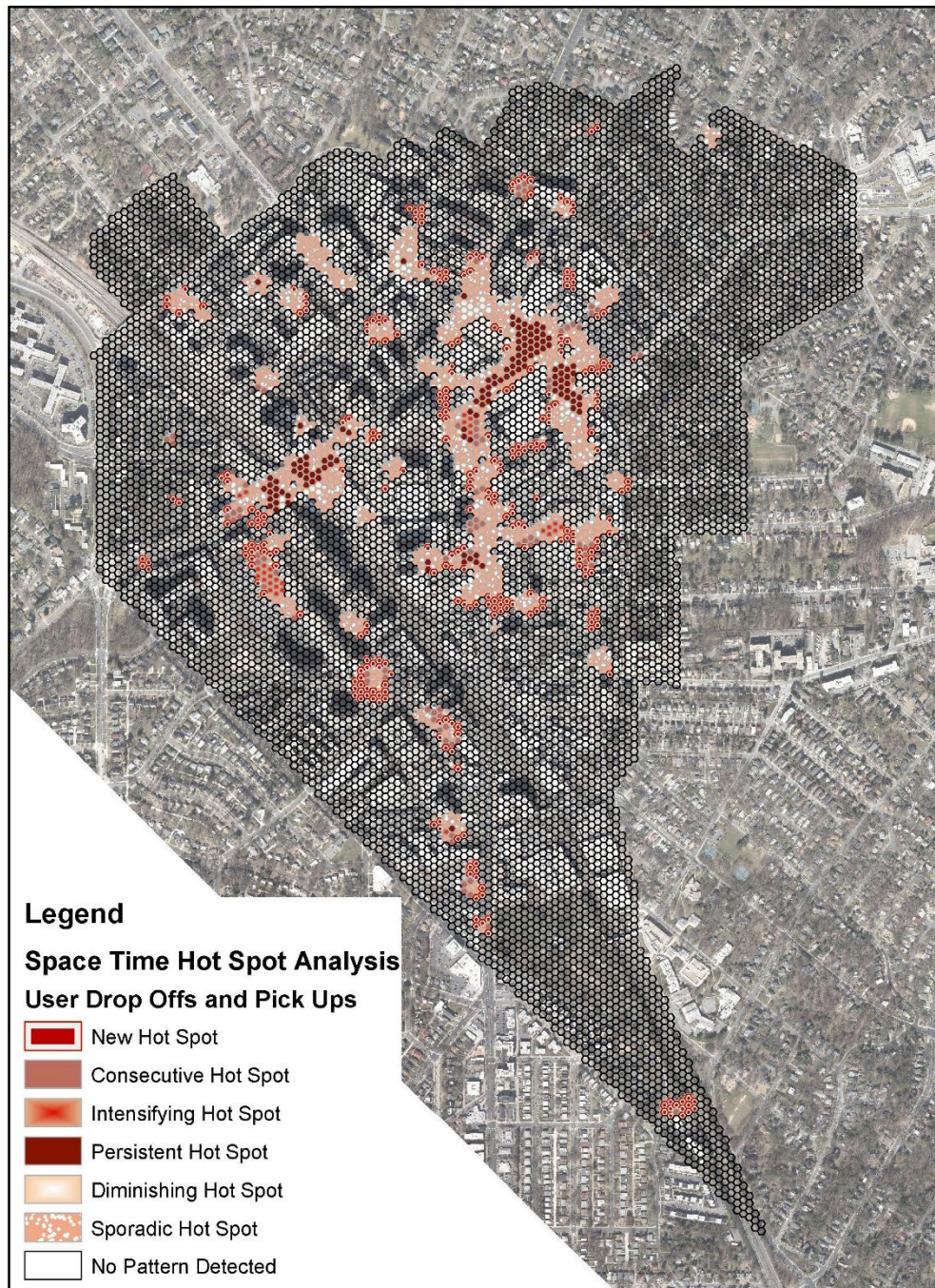
### Micromobility

In October 2017 Montgomery County became the first US Suburb to receive a fleet of dockless bikeshare bikes. LimeBike started with a fleet of 240 bikes and other providers soon followed. Eventually scooters and electric bikes were also launched. These services have been collectively referred to as micro-mobility services. Similar to Capital Bikeshare, they allow members to rent bikes for short trips. Unlike Capital Bikeshare the trips are confined within a geographical area, but the trade-off is that members do not need to locate a specific dock or station at the end of the trip. Instead, members immobilize the bikes with the built in lock anywhere within the Central Business District. Over night the bikes are collected and rebalanced by the companies to appropriate locations within the public right-of-way based on usership data and recommendations from MCDOT. In Silver Spring, MCDOT identified two locations for rebalancing at the following corrals:

- Fenton Street Corral - adjacent to Whole Foods
- Thayer Avenue Corral - adjacent to Safeway



MCDOT negotiated with micromobility providers and in exchange for rebalancing fleets within the public right-of-way, MCDOT would receive the geo-locational data for trips origins and destinations, captured by the micromobility mobile apps. Staff reviewed all micromobility events (unlocking and relocking) between July 1, 2019 and July 31, 2020 to gain a better understanding of the demands for both bicycle trips within the plan area and short-term bicycle parking needs (Figure 11).



*Figure 11: Micromobility Events July 1, 2019-July 31, 2020*

The key takeaways from this analysis were that short-term parking is most needed near civic centers, transit stations, high-density residential, and high concentrations of retail. Residential and office uses seemed to

show lower, but not insignificant activity levels. This informed the recommendations for additional publicly provided short-term bicycle parking within the Sector Plan area.

## **ROADWAYS**

There are no recommendations for new highways or arterials within the Sector Plan Area. The focus of the transportation recommendations within the plan are to reduce auto-driver trips by making transit, walking, and bicycling trips attractive, comfortable, and viable, rather than simply alternatives to driving. In order to this transit reliability needs to be increased and low-stress bicycling routes need to be more connected than they are today.

### **Road Diets**

The most effective way to increase reliability for on-road transit is to dedicate space in the roadway specifically for buses so that they can operate outside the typical congestion during peak travel hours. There is no appetite to widen the master-plan roadway widths, as in many cases that would require redevelopment of Sites with buildings that are not approaching the end of their lifespans. The only other option is to reallocate right-of-way from its current use to dedicated transit lanes. The 2020-2022 COVID 19 Pandemic created an interesting opportunity in which to evaluate the capacity and needs of the current roadway network in the Sector Plan area and Countywide. In March of 2020 the Governor issued a stay-at-home order directing people to avoid unnecessary travel to reduce exposure to and transmittal of the virus. Traffic volumes regionwide plummeted in the spring and summer of 2020 while many people were able to work remotely. This data suggested that if working conditions change after the conclusion of the pandemic, it may be feasible to reallocate roadways to other travel modes.

The Planning Board chose to add clear direction in the sector plan to reallocate vehicle travel lanes, one in each direction to bus rapid transit during all times of the day. For this reason, the Sector Plan includes recommendations for dedicated transit lanes on Georgia Avenue and on Colesville Road to connect to master-planned BRT routes in the County's 2013 Countywide Transit Corridor Master Plan and the Districts planned routes on Georgia Avenue and 16<sup>th</sup> Street.

Similarly, staff was directed to develop cross sections to determine the alignment of all of the master-planned separated bike lanes within the Sector Plan. In some cases, the bicycle lanes can be accommodated by reallocating portions of the streetscape to the bikeways and buffers. In the case of East-West highway, most of the on-street parking is retained while reallocating a vehicle travel lane to the separated bikeway and buffer.

### **On-street Loading and Alleys**

The demands for space along the curbside lanes of the Sector Plans streets is ever increasing. Constrained sites rely on the curb lanes for on-street parking and loading. As ridesharing increases in popularity there is added pressure to reserve space in front of site entryways to allow people to be picked-up and dropped-off the front door. These competing needs can create conflicts with the County's Vision Zero Policy which aims to reduce conflict points, especially those between vehicles and pedestrians. If the Sector Plan area had a more robust alley network, large trucks could more easily load and unload, collect trash, etc. away from the busy travel network. For this reason, the Sector Plan encourages the creation of new alleys when large sites redevelop.





## Jesup Blair Walkability Analysis

Montgomery Planning

April 2020 1

## Jesup Blair Walkability Analysis

### PURPOSE

Downtown Silver Spring is a diverse community and vibrant destination for retail, restaurants, offices, arts and entertainment. As part of the Silver Spring Downtown and Adjacent Communities Plan, a walking analysis in South Silver Spring was conducted to facilitate the creation of a pedestrian friendly environment to and from Jesup Blair Park.

The plan team identified and walked several trips to and from Jesup Blair Park while documenting existing conditions, challenges and travel impediments in the area. These trips enabled us to gain a nuanced understanding of what it feels like to walk in the area today.

The overall goal of this analysis is to identify existing conditions and develop the best recommendations to improve and create a pleasant and safe walking environment to and from Jesup Blair Park.

#### Key

- 10-minute walkshed from Jesup Blair House
- Walking routes between Jesup Blair Park and Destinations
- - - Maryland-District of Columbia Border
- Destinations
- Jesup Blair Local Park



# Jesup Blair Park Walkability Analysis

*A crosswalk would be helpful to connect the two parks (Juniper-Blair Neighborhood Park and Jesup Blair Park). Probably a H.A.W.K. beacon.*

*The sidewalks along Georgia Ave could be improved. Although sidewalks are big there is not much space to walk by.*

*The park has so many opportunities for large events*

*No Sidewalks along East West Highway near Denizens*

*Big Georgia Ave barrier. Not safe. Park feels isolated and sterile*

*Not many safe and comfortable ways to access Jesup*

*Having a central open space area because Jesup Is far and difficult to access*

*Not easy to go from street to park*

*More signage that makes It clear and available for use to everyone*

# Jesup Blair Park Walkability Analysis

## METHODOLOGY

To understand the walking experience to and from Jesup Blair Park, a total of 12 walking trips were undertaken within the Downtown South Silver Spring area. These major destinations included:

- Newell Street at Acorn Urban Park
- Denizen's Brewing Company
- Moreenko's Ice Cream Shop
- Affinity Apartment Building
- Fenton Street Intersection
- Casa Ruby Community Center

These destinations were chosen due to their proximity to Jesup Blair Park, feedback we received from the community and Park's supervisor, and status as a social space. Detailed observations regarding these walking trips are described in the following pages.

These walking trips generated qualitative data that describes the current walking environment. This data will support potential improvements to the walking experience to and from Jesup Blair Park.

### Key

- 10-minute walkshed from Jesup Blair House
- Walking routes between Jesup Blair Park and Destinations
- - - Maryland-District of Columbia Border
- Destinations
- Jesup Blair Local Park





# Acorn Urban Park to Jesup Blair Park

## ROUTE 1



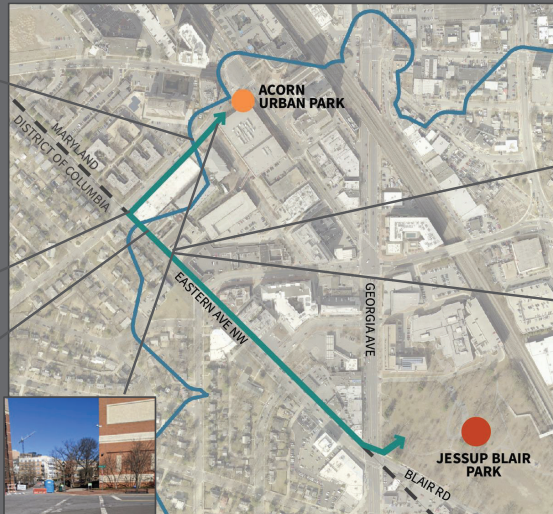
Sidewalks become narrow. Trees and parking create a buffer between sidewalk and traffic. Storage units are possible opportunity for art panels?



Blind walls and not a very welcoming path. A possible opportunity for art along the walls.



Clear distinction in pavement between loading zone and pedestrian walkway. Large sidewalk width but becomes irregular as trip continues.



No clear distinction of sidewalk and driveway into garage. Need more signage and possible opportunity for art along building walks.

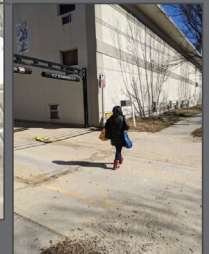
High Visibility Crosswalks and tactile strips at the entire four-way intersection of Newell Street and Eastern NW. Street trees are also provided along the residential streets.



Narrow sidewalks, but larger buffer between roadway with parking. Lack of trees in front of storage space.



Tactile strips are not present on both sides and standard crosswalks at the Intersection of Newell and Kennet St.



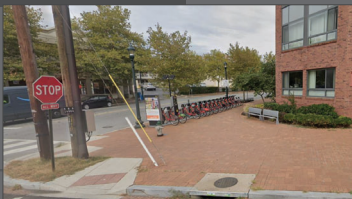
Sidewalks is interrupted by entryway to garage. No clear distinction of walking area outside of signs. Pavement is not in good condition.

# Acorn Urban Park to Jesup Blair Park

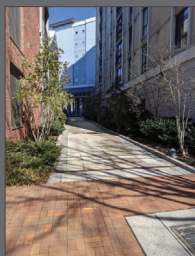
## ROUTE 1 Continued



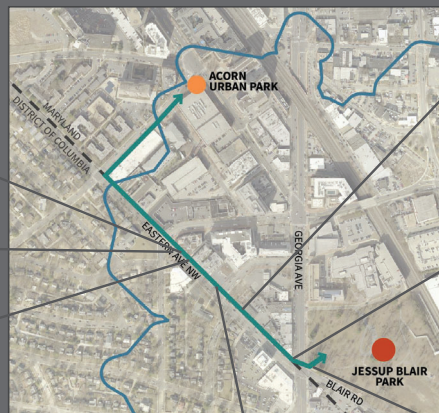
High Visibility Crosswalks and tactile strips at the entire four-way intersection of 13<sup>th</sup> street and Eastern NW.



Wide sidewalk with Capital Bikeshare and benches available. Corner of 13<sup>th</sup> street and Eastern NW.



Pedestrian cut through to residences along Eastern NW. Need more signage leading to publicly accessible spaces. Nice trees along walkway.



Wide sidewalks, but no buffer between sidewalk and road. Along Eastern NW.



No High visibility crosswalks along a major road in any direction. Crosswalk signal and button present at entire 4-way intersection, but no Curb ramp and tactile strips walking towards Jesup Blair.



Sidewalk is interrupted by multiple curb cuts for parking lots and trees begin to disappear as you enter commercial space.



Entrance to Jesup Blair Park looks dull and boring. Not a very inviting sculpture. Sculpture also block main corner entry of the park.



# Acorn Urban Park to Jesup Blair Park

## ROUTE 3



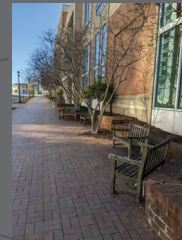
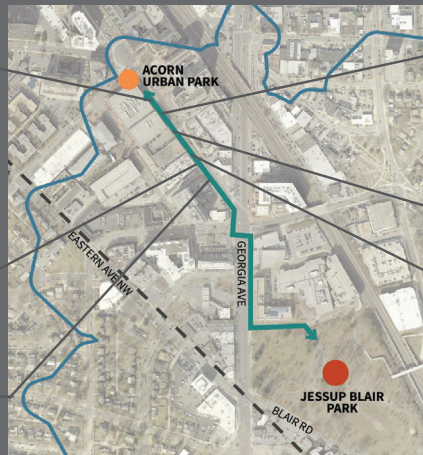
Wide sidewalks with trees on both sides. Larger and more trees on the side of the building versus along East West Highway.



Sidewalks widen again with small green space as buffer from the road.



Unmarked Crosswalk at driveway with curb ramp and tactile strips



Relaxing place for pedestrians, but benches are aging.



Pedestrian refuge/mid-block crossing with high visibility crosswalk and tactile strips.



Sidewalks become narrow and interrupted with driveway space, but clear distinction between the two. Less trees as you get closer to commercial spaces.

# Acorn Urban Park to Jesup Blair Park

## ROUTE 3 Continued

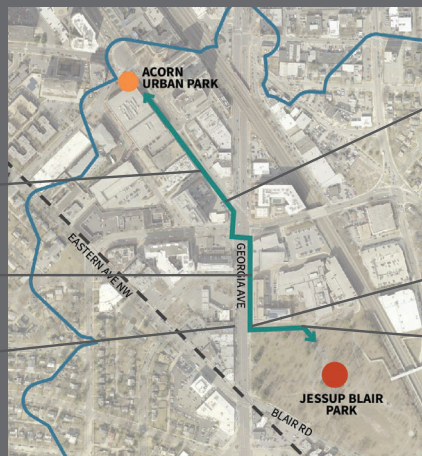
Sidewalks get narrow again with no buffer to high volume road.



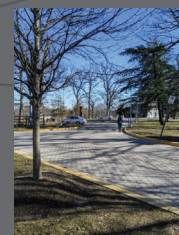
No pedestrian refuge/midblock crossing on Georgia Ave at intersection of King Street and Montgomery College. Would be very difficult to cross if needed.



No pedestrian refuge/midblock crossing on Georgia Ave at intersection of Jesup Blair Drive. Would be very difficult to cross, if needed.



Sidewalks continue to be narrow with no buffer from roadway. The pavement is also not in good condition.



Wide sidewalks on with larger buffer between the roadway. Lighting and tree presence.

No sidewalk connecting from the university into the Jesup Blair entrance. No clear separation between pedestrians and drivers. Entrance not very inviting

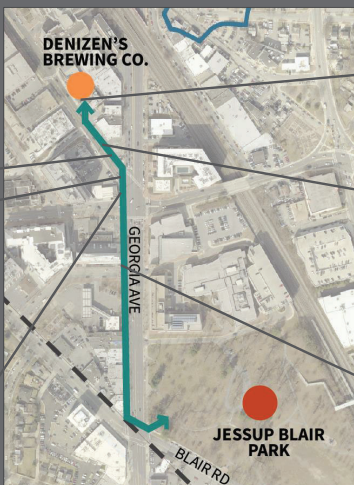


# Denizen's to Jesup Blair Park

## ROUTE 1



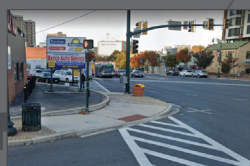
No sidewalk just asphalt along the east side of the street of East West Highway. No clear separation of driveway from pedestrian walkway. No buffer from high volume road



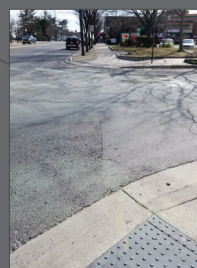
Lack of adequate sidewalks on one side of Denizens. Adequate sidewalk infrastructure begins before arriving to Denizens from the north direction along East West Highway



The pedestrian refuge provides curb ramps to allow wheelchairs and strollers to roll through them easily, but it's barely large enough for a few people to stand on and not a lot of room to be safe from cars which feels dangerous.



The small ped refuge made this walk less comfortable.



Lack of sidewalk continues with asphalt in poor condition.

Curb cuts on Georgia at the gas station are very wide. These could possibly be made narrower to encourage more caution by vehicles turning out.

# Casa Ruby to Jesup Blair Park

## ROUTE 2 Continued



Adequate sidewalk with grass buffer from road along with trees and parking.



Standard cross walk with curb ramp and tactile strips on both sides of the sidewalk



Entering into the park feels abandoned or not used. Lots of water puddling up everywhere and walkways are not maintained well. There is no programming in the park other than tennis courts and a small playground that has no shade. There are a few benches along the paths but nowhere else to sit.



No wayfinding to park. Have no idea where to go until the sidewalk dead-ends at the Park and must enter the park at the very southern tip. It feels like sneaking in the back door of the park. Not welcoming at all. Sidewalk does not continue to Georgia to link up with the network. Feels very discontinuous and disjointed here.



5-foot sidewalk right up against the curb. No buffer at all. Feels unprotected as cars are driving quickly and the street is on a curve. Condition continues until Jesup Blair Park entrance. No sidewalk on opposite side

# Conclusion

## KEY OBSERVATIONS:

- No signs or any kind of wayfinding that can guide pedestrians to Jesup Blair Park
- Segments of high-volume roads like Georgia Ave, Burlington Ave, East-West Highway, and Blair Road provide no buffer from traffic and sidewalks are too narrow for one person let alone two people going opposite directions
- Jesup Blair Park does not appear inviting or obvious as a public green space
- Additional pedestrian amenities like mid-block crosswalks would be beneficial in creating a comfortable and walking experience
- There is some opportunity to plant trees in certain places to provide shading in the summer months





# Acorn Urban Park to Jesup Blair Park

## ROUTE 2

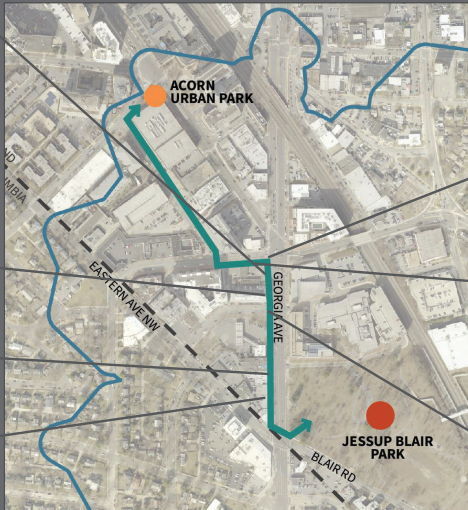
Wide sidewalks with small trees, lighting and parking providing some buffer to roadway.



No street trees and greenspace in the corner of the car wash.



Sidewalks become narrow with not much space for two-way ped travel and people with disabilities.

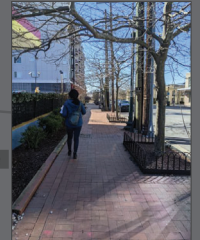


Wider sidewalk with lighting and is interrupted by driveway to Holiday Inn. Sidewalks don't provide any buffer to Georgia Ave.



High Visibility crosswalks with tactile strips and noise activated crosswalk light/button.

Great sidewalk space with trees and parking as buffers from roadway and car wash.

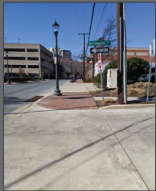


Unmarked crosswalk but provides tactile strips at curb ramp. Street trees and green space at the corner of the gas station create a more comfortable walk.



# Acorn Urban Park to Jesup Blair Park

## ROUTE 2 Continued



Large curb cuts with a few driveway spaces within the pedestrian sidewalk.



Wide unobstructed sidewalks with street lighting and trees aligned.



Large curb cut, but clear distinction between sidewalk and car wash driveway. Sidewalk also starts to become wider.



Wider sidewalks with lighting, trees, benches, and utilities well placed.



Narrow sidewalks with grass and trees along Kennett St.



High visibility crosswalk and tactile strips along 13th street towards Kennett Street.



# Affinity Apartments to Jesup Blair Park

## ROUTE 1



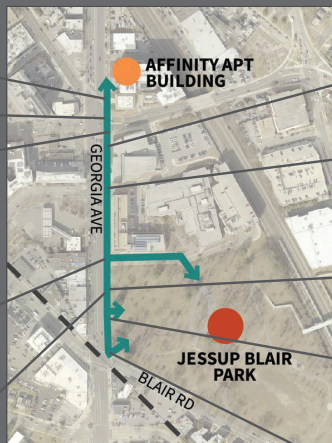
Large sidewalks with light and small trees. No distinct buffer between sidewalks and roadway.



High visibility crosswalks with tactile strips and crosswalk light/button.



Very wide sidewalks in front of Affinity Residential with trees and lights.



Wider sidewalks with lighting and trees. No distinct buffer between sidewalk and high-volume roadway.



Unmarked crosswalk at King St. and Georgia Ave with tactile strips on both sides.



Unmarked crosswalk with tactile strips and ADA curb ramps on both sides.



Wide sidewalk with buffer, trees, and bike rack closer to the main entry of the park.



Wider sidewalks towards small entry of the park, but no buffer from high-volume road.



Corner entry to the park is small.



More welcoming entry to the park is placed mid-block where there is less pedestrian traffic.

Silver Spring Downtown and Adjacent Communities Plan

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# Casa Ruby to Jesup Blair Park

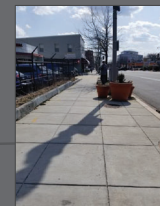
## ROUTE 1



Sidewalk is adequate with trees and light poles as buffer. Brick paving is also provided to keep pedestrians on the inside of the sidewalk.



No high visibility crosswalks and no ped crosswalk button. Crossing the intersection is good because its not a wide road. Cars also yielded to pedestrians at all times.



Sidewalk width is adequate with buffers along that includes some trees or potted plants.



Not a high visibility crosswalk and no pedestrian crosswalk button but is wide and a short distance to the other side with tactile strips and curb ramps.



High visibility crosswalk with a pedestrian push button and curb ramps with tactile strips. Crosswalk is a short distance between sidewalks.



High visibility crosswalk with curb ramps and tactile strips. Crosswalk is adequate with a short distance to either side of the street.



A bus stop is provided along Georgia, but they are not sheltered, they are just pole stops.

Silver Spring Downtown and Adjacent Communities Plan

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# Casa Ruby to Jesup Blair Park

## ROUTE 2



HAWK signal (button-activated pedestrian crossing only) to cross Georgia at Casa Ruby (appears to be closed during COVID-19). Crossing time is adequate, even if you are walking slowly. [Intersection of Georgia and Hemlock St.]



High visibility crosswalk with curb ramps and tactile strips on both sides. [Intersection of Easter and Hemlock St.]



Micromobility usage-dockless scooters present.



Adequate sidewalks along with trees and grass buffers from street. [Along Hemlock St. towards 9th St.]



High visibility crosswalk in a residential neighborhood. Includes curb ramps and tactile strips. [9th St. and Hemlock intersection]

# Casa Ruby to Jesup Blair Park

## ROUTE 3



Jesup Blair Park and Juniper Blair Neighborhood Park across from each other but no mid-block pedestrian crossing to connect the two parks



At Blair and Juniper there is nothing at all to help pedestrians across. It's a very difficult intersection to cross, b/c Blair is curving, and the visibility is not good for either driver or pedestrian, depending on the direction. Also, no sidewalk for half of the block between Eastern Ave. and Juniper St.



No sidewalks on both sides of Juniper street until passing Juniper Neighborhood Park. Must walk in grass or the street.

Sidewalk becomes narrow with only parking as buffer from the road.



Adequate sidewalk infrastructure with grass buffer begins leaving Juniper Neighborhood Park. Sidewalk is comfortable and well maintained.



Adequate sidewalks with trees and grass as buffers from the road.



High visibility crosswalks with tactile strips and curb ramps throughout entire 3-legged intersection



# Denizen's to Jesup Blair Park

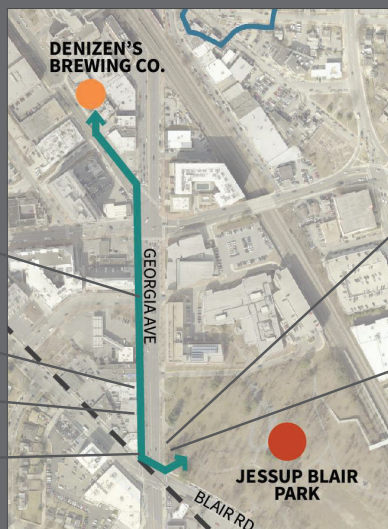
## ROUTE 1 Continued



There are street trees along the west side of Georgia in boxes, but several of them are new. Therefore, not much shade yet from these trees. Tree tags suggest they are correct and following the streetscape standards



Moving north along Georgia there are several curb cuts, but most are paved and are less visually disruptive



Bicycling racks available at the main entrance to Jesup Blair Park



Sidewalk on Georgia Ave is relatively comfortable. There is the usual buffer with some trees in pits.



Crossing time (1 minute and 45 seconds) along Georgia from Jesup Blair Park was fine, but curb ramp isn't aligned with the crosswalk



Micromobility usage such as dockless scooters present outside of Jesup Blair Park.

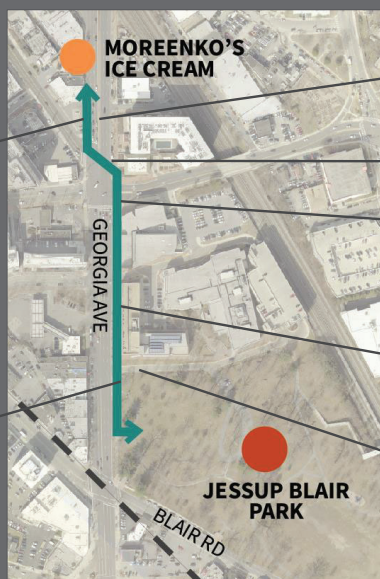
# Moorenko's Ice Cream to Jesup Blair Park

## ROUTE 1



Sidewalk narrows on west side of Georgia Ave.

Some tree pits need maintenance and are becoming too small for the street tree's growth



Clear crosswalk, but no refuge on wide road.



Georgia Avenue: Nice Stormwater Management facilities in front of campus.



Georgia Avenue: This creative art and sitting zone is hidden and unmarked. Creative signage needs to be installed.



Plenty of bus stops along Georgia, as well as sidewalk amenities (decorative planting, trashcans) that do not clutter walkway. No shelter for bus stops is provided.



Wide sidewalks with trees for shade along Georgia Ave.

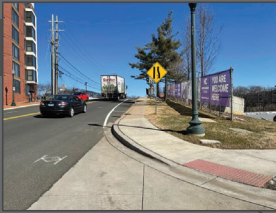




# Fenton St. Intersection to Jesup Blair Park

## ROUTE 1

Walking along this street doesn't feel comfortable with few pedestrian protections.



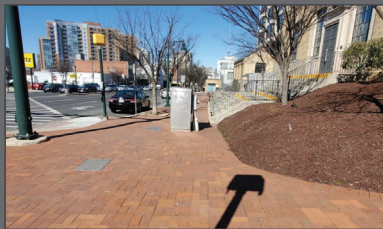
Shaded street with trees, signage and trash can in the distance for pedestrians.



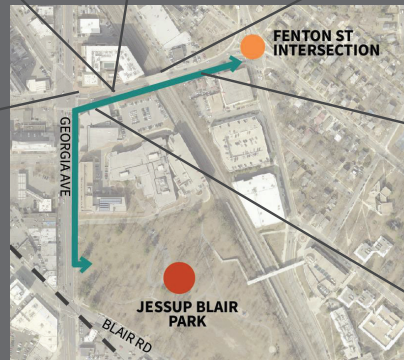
Bridge walkway unkempt with weeds and grass.



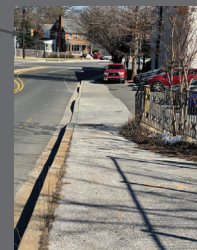
Narrow bridge with often fast traffic, painted shoulder for buffer.



Corner of Georgia and 410. Utility box placed right in the sidewalk! People must walk around it. Annoying. Wrong.



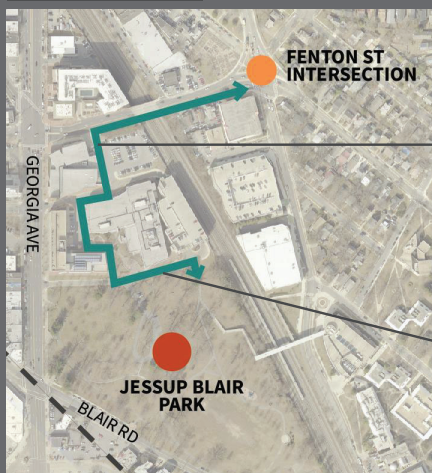
Sidewalk narrows on west side of Georgia Ave.



Many curb cuts as sidewalk widens and narrows

# Fenton St. Intersection to Jesup Blair Park

## ROUTE 2



Extensive hardscape with parking right in front of buildings. There appears to be room for walking paths and plants.



Interface from Mont. College to Jesup Blair Park. No clear pedestrian path to park.



View looking North shows more of how area caters to cars/utilitarian functions for school rather than pedestrian experience.



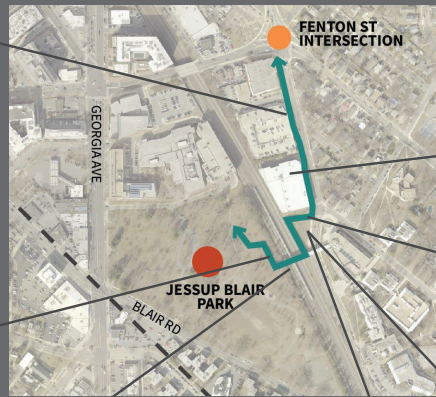
More parking in front of buildings, planted garden area is hidden but nice once you reach it.



# Fenton St. Intersection to Jesup Blair Park

## ROUTE 3

Gutters lead stormwater to sidewalk/street. Tree panels buffer narrow sidewalk.



Small tree pits, but sidewalk can be shady in the afternoon. Area could be cleaned up a bit, but not an unpleasant walk.



Metro bridge walkway is a pleasant walk among trees. Will continue to be enjoyable as trees grow.



First instance of bikeshare station. Good location, but more are needed.

Unused space adjacent to bridge. Could be better used for pedestrians or for environmental purposes (SWM, diverse plantings).

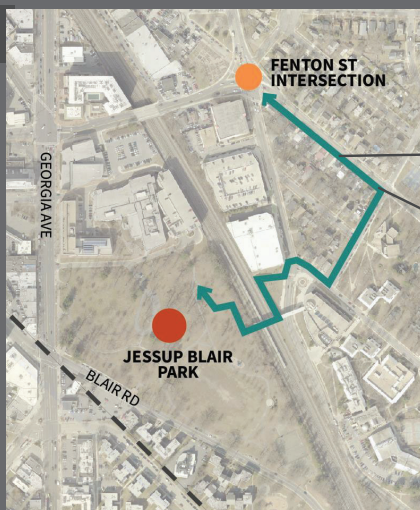


Walkway from metro bridge leads to clearly marked crosswalk. Wide sidewalks with no obstructions

Limited wayfinding information – dedicated mostly to school buildings rather than Silver Spring as a whole (parks, shops, etc).

# Fenton St. Intersection to Jesup Blair Park

## ROUTE 4



Towards Takoma Park, comically small buffer strip for planting.



Narrow sidewalk and narrow buffer with very little room for trees.



Gutters lead stormwater to sidewalk/street. Tree panels buffer narrow sidewalk. Same roadway character throughout the neighborhood along Philadelphia Ave