Technical Notes on Current Multimobility Conditions, Planned Improvements, and Remaining Needs at Eleven Purple Line Station Areas

Success of the Purple Line requires safe and comfortable multimodal access around station areas. From 2023 to 2024, PLCC enlisted a transportation consultant, Rich Kuzmyak, to identify current conditions, planned investments to the extent they are known, and remaining gaps in the pedestrian environment around 11 key station areas. The analysis built on the NCSG Corridor-Wide Multimobility Analysis and Technical Assessment, completed in 2022.

The following set of station area profiles was an interim document that helped give shape to a series of community-led walks and a culminating report of recommendations for improving the physical environment in identified station areas. It is not an authoritative source of information; rather, it represents PLCC's understanding of plans and remaining needs as of early 2024.

The completion of the document involved a significant amount of work to compile information from local and state plans across multiple jurisdictions. We share it with the hope that public agencies, elected officials, advocates, and members of the public can use the information for their own participation in public planning processes.

This analysis was completed on behalf of the Purple Line Corridor Coalition by Rich Kuzmyak

Remaining Needs Reports

New Carrollton

Conditions Found/Issues Raised in Initial TOD Study

Existing conditions are described below and illustrated in the map that follows.

Station Location:

- The New Carrollton Purple Line station will be situated adjacent to and just north of the existing Metrorail station.
- The line will enter the station area from Veteran's Parkway (MD 410) on the west and share right of way with Ellin Road moving east until it departs the roadway to a separate platform area.
- This station area is somewhat unique it that its half-mile service area is essentially bifurcated by the CSX railroad mainline, with the MARC/Amtrak station on the southeast and where access is almost entirely by auto or feeder bus, while the Purple Line is more integrated with the environment on the northwest hemisphere of the station area.
- While persons wishing to use the Purple Line can reach this station by auto or feeder bus (parking and loading areas are on both sides of the New Carrollton station, most if not all pedestrian or bicycle access should be from the area northwest of the station. The only place where riders can cross the tracks is at the existing rail station node.

Road and Street System:

- The biggest challenge for the Purple Line in this station area is the preponderance of major arterial highways that border the site: Veterans Parkway on the west, Capital Beltway on the east, US Route 50 on the south.
- Several other arterial roads crisscross this station area, all with posted speeds of 35pmh and with pedestrian and bicycle mobility challenges:
    - Annapolis Road, a 6 lane arterial, runs west-east across the north of the station area.
    - Ellin Road, the main 4-lane arterial immediately north of the station area complex that will share its right of way with the Purple Line near the station.
    - Harkins Road, a 4-lane arterial that intersects with Ellin Road in front of the station.
    - Garden City Drive, which lies south of the CSX/Amtrack/MARC mainline and is the principal access road for these other rail services.

Pedestrian Facilities:

- Clearly none of the major arterial roadways are designed for walking or biking, although Annapolis Road at the extreme north of the station area does have sidewalks.
- Sidewalk provision along Ellin Road is mixed.

    - The best existing facilities are in the central part of the road near the station, between Emerson Place and Harkins Road.
    - On the western portion between Emerson and Veterans Parkway there is no sidewalk on the northern (westbound) side, and a minimal sidewalk on the southern side, though this area is under construction with the Purple Line. This
    - Sidewalks east of Harkins are substandard (narrow, no buffer) until one reaches the Carrollan Gardens Condominium complex. This diminishes access from the residential areas to the station.
- There are very few places to cross Ellin Road, with the only signalized intersection being at Harkins Road. The absence of a connecting link between the West Lanham Hills neighborhood and Ellin Road, or the existence of a sidewalk along the northern curb would appear to restrict access from this area.
- Sidewalks along Harkins Road appear in good condition, which will aid access to the employment activities along Harkins.
- Crosswalks in the northern portion of the station area are limited or badly worn in many locations, particularly at cross streets, business entrances and parking facilities.
- Access by pedestrians using the Purple Line to and from the employment campus on the southeast side of the New Carrollton station complex (south of Garden City Drive and east of Corporate Drive) is technically feasible, though the transition from the station needs to negotiate a large intersection of the two roads, and then requires walking through an office-park environment with large parking lots, curb cuts, and elongated indirect paths.

Existing Conditions

Source: Rich Kuzmyak

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific for this station area
- Listing under "minor projects" for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

- $3b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings)

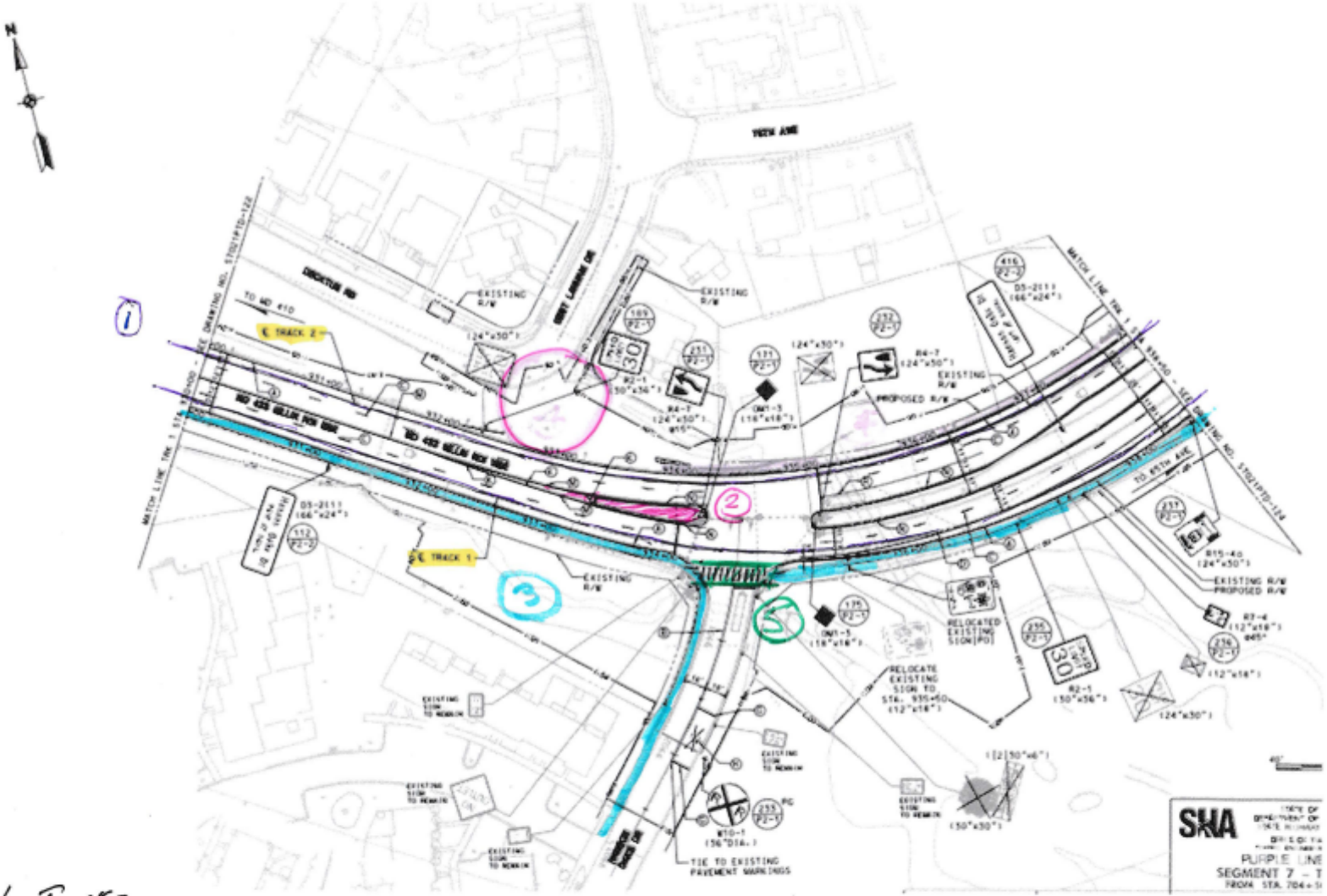
Marked up images of the engineering drawings for the New Carrollton station are in the section that follows. In sum, very little will be changed in the vicinity of the station as regards pedestrian and bike access. As per the pattern with other stations, the state will limit its improvements to the area immediately adjacent to the Purple Line right of way. For New Carrollton, that venue is Ellin Road, which brings the rail line from Veteran's Parkway (MD 410) on the west to the platform located adjacent to the Metrorail entrance along Elim just before the intersection with Harkins Road.

All projects here involving sidewalks, medians, and crosswalks appear to be simply replacement of what is already there; it should be ascertained whether the reconstructed sidewalks will be closer to desired width and buffer criteria than what currently exists. It does not appear than any new sidewalk infrastructure will be provided on the north side of Ellin Road in the westbound direction.

This means several things:

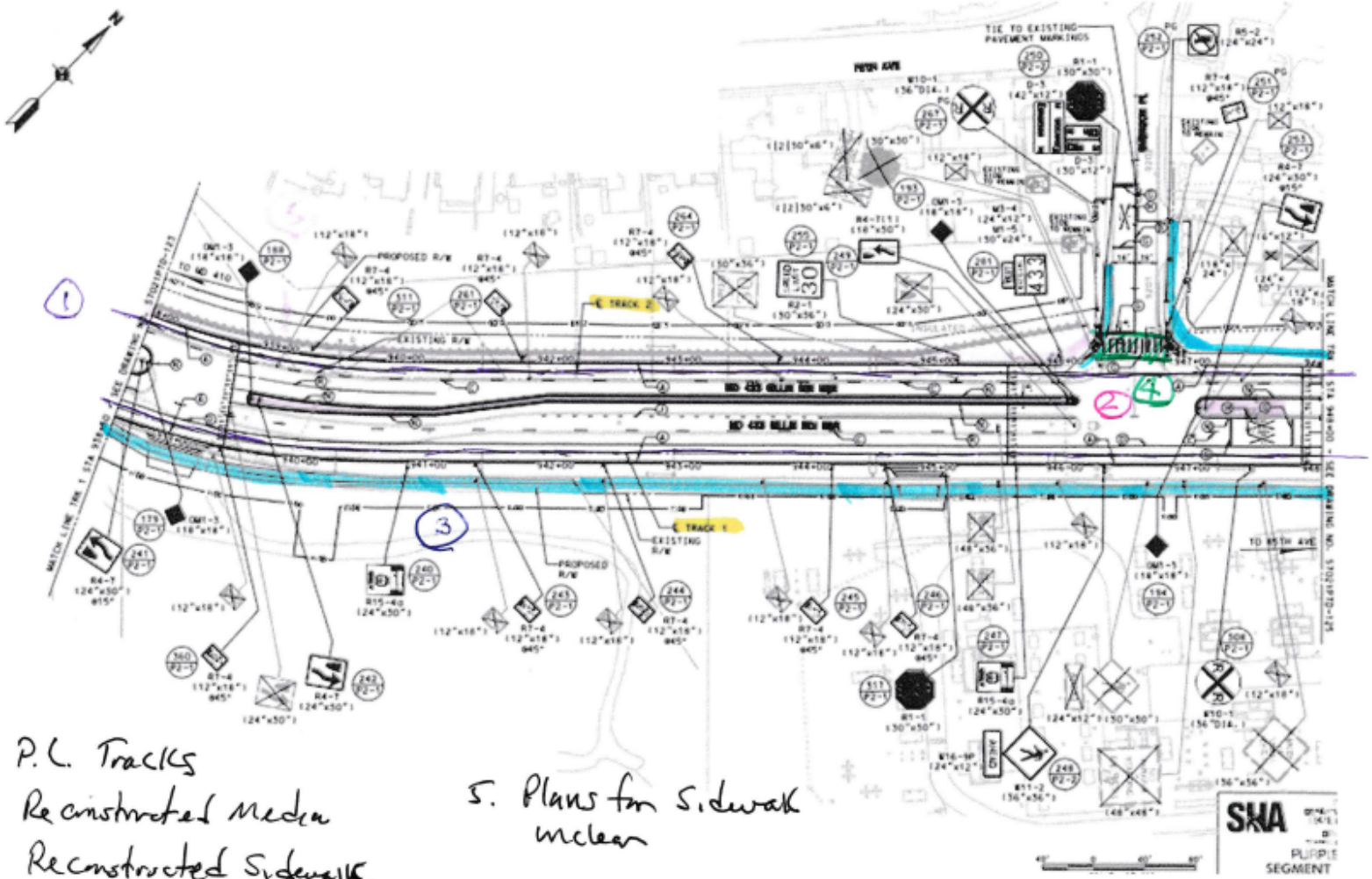
- Neighborhoods that would use the station will be no better connected than they currently are. In particular, all neighborhoods north of the station will not gain new access points to Ellin Road but will need to travel to Harkins Road in order to reach a signalize crossing over Ellin Road to the station.

- The multifamily residential areas northeast of the station will not see any changes in existing sidewalk infrastructure along Ellin Road.
- None of the area on the other (south, east) side of the main rail line will receive any improvements in walk infrastructure as a result of the Purple Line.



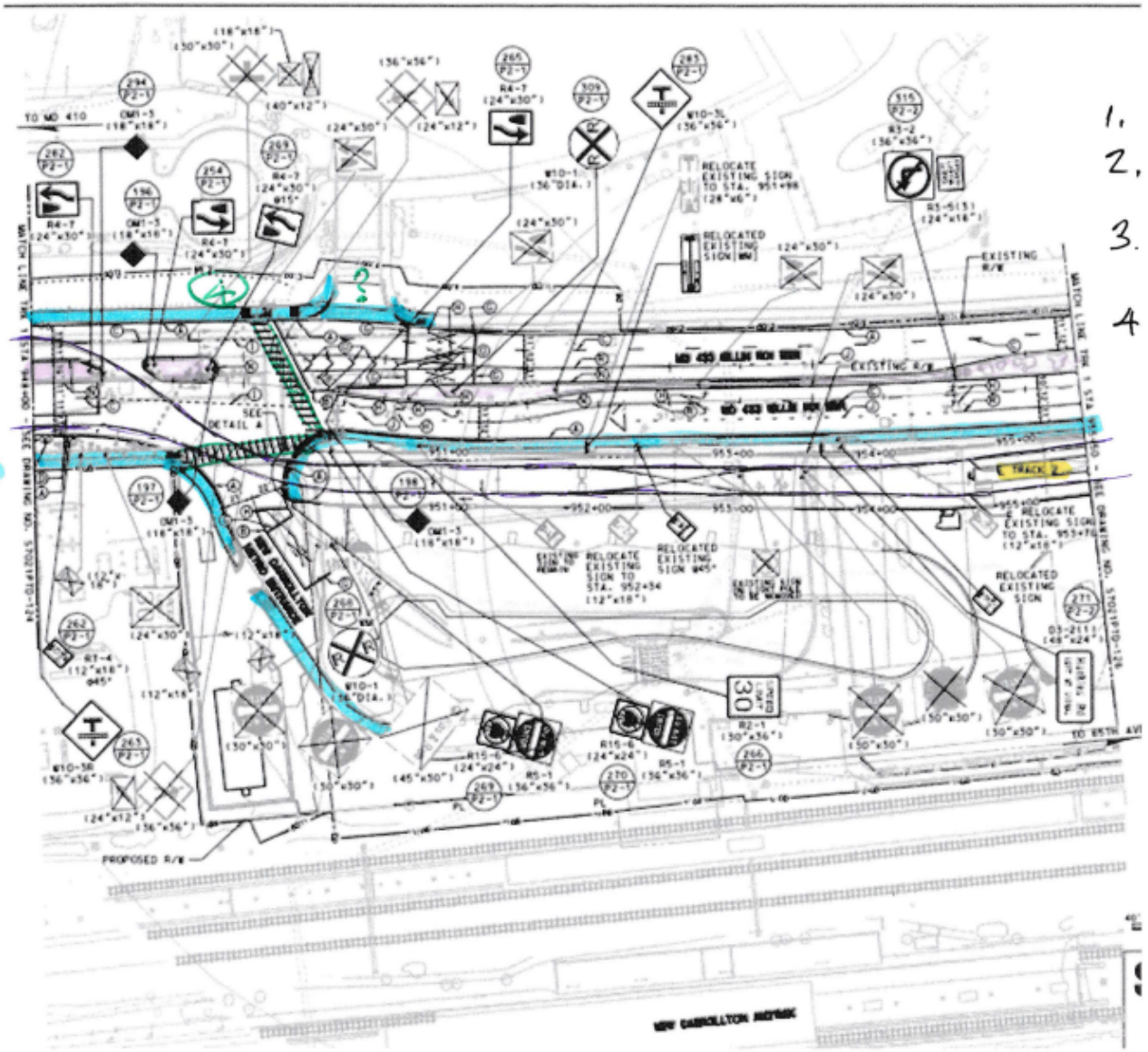
1. P.L. Tracks
2. Reconstructed median
3. Reconstructed Sidewalk (specs unclear)
4. Neighborhood remains disconnected. unclear if any sidewalk on this side
5. New crosswalk

3



1. P.L. Tracks
2. Reconstructed Median
3. Reconstructed Sidewalk. (areas unclear
4. New Crosswalk
5. Plans for Sidewalk unclear

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak



Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak

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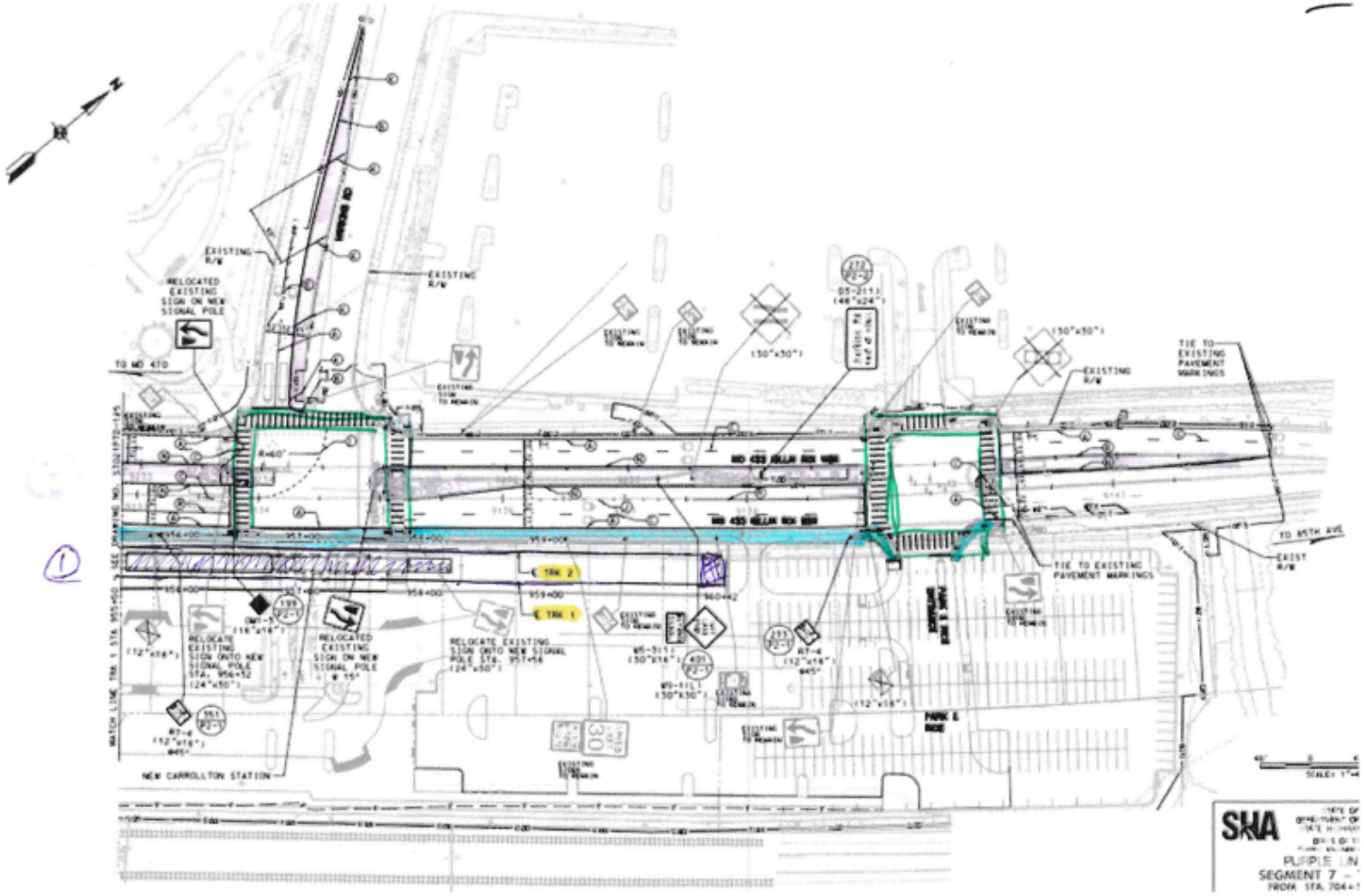


1

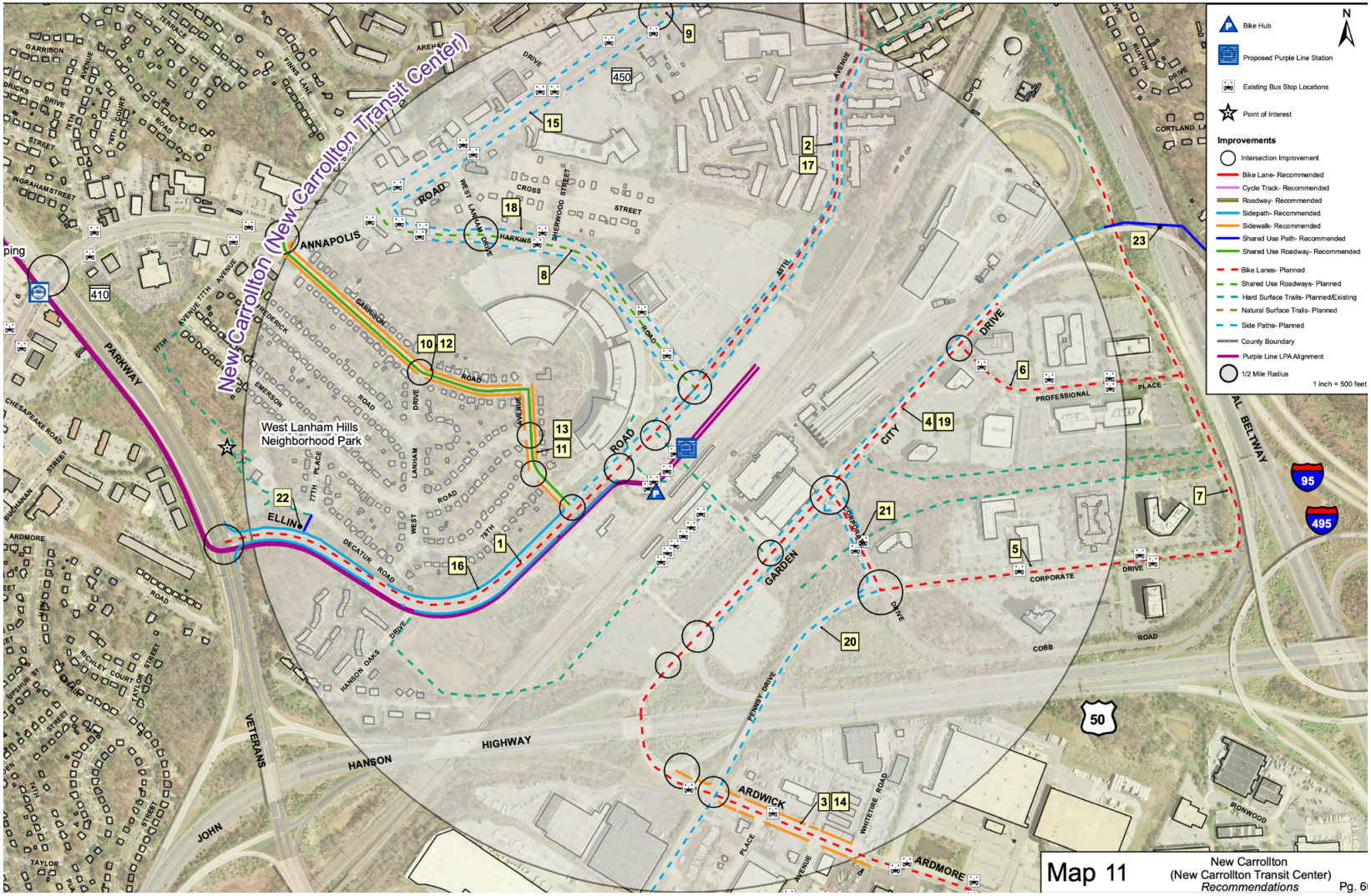
1. P.S. Tracks & station
2. Reconstructed median
3. Reconstructed sidewalk
4. Crosswalk

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak

Prince George's County, 2011 Purple Line Corridor Access Study (CAST)

Recommended improvements are shown on the map below:

- Sidewalks: Reconstruct existing narrow (<4 ft) sidewalks and construct missing sidewalks links with 5' sidewalk and vegetated buffer on
    - (12) Garrison Rd from Annapolis Rd to Emerson Pl (both sides)
    - (13) Emerson Pl from 78th Ave to Ellin Rd (west side)
    - (14) Ardwick-Ardmore Rd from Lottsford Vista to Pennsy Dr (both sides)
- Bike lanes: Construct 5' striped bike lane along the curb lane on both sides of: (1) Ellin Rd, (2) 85th Ave, (3) Ardwick-Ardmore Rd, (4) Garden City Dr, (5) Corporate Dr, (6) Professional Pl, and (7) Cobb Rd
- Side paths: 8' minimum sidepath with vegetative buffer on: (15) Annapolis Rd, (16) Ellin Rd from Veterans Pkwy to station, (17) 85th Ave From Ellin Rd to Annapolis Rd, (18) Harkins Rd [east side only], (19) Garden City Dr, (20) Pennsy Dr, and (21) Corporate Dr from Garden City Dr to Pennsy Dr.
- Shared Use roadways on: (8) Harkins Rd, (9) Riverdale Rd, (10) Garrison Rd, and (11) Emerson Pl.
- Shared use path on (22) Ellin Rd to Recreation Center, and (23)
- Pedestrian bridge (23) over I-495 from Garden City Dr to Whitfield Chapel Park
- Intersection and entrance Improvements:
    - Pedestrian countdown signals, leading intervals, ADA access to APC buttons, and appropriate timing at all signalized intersections.
    - Annapolis Rd: reduce number of curb cuts and reconfigure parking for rear access
    - Extend existing raised medians to provide pedestrian refuge
    - Upgrade intersections and entrances with new ADA ramps or aprons
    - Provide crosswalks with high-intensity cross-hatching
- Traffic Calming:
    - Install pedestrian HAWK signal crossing on Elling Rd at the Metro entrance and Harkins Rd, and at Garden City Dr and the Southwest Metro entrance
    - Provide curb extensions where on-street parking is provided on Garrison Rd and Emerson Pl.


New Carrollton (New Carrollton Transit Center)
West Lanham Hills Neighborhood Park
Bike Hub
Proposed Purple Line Station
Existing Bus Stop Locations
Point of Interest
Improvements
Intersection Improvement
Bike Lane- Recommended
Cycle Track- Recommended
Roadway- Recommended
Sidepath- Recommended
Sidewalk- Recommended
Shared Use Path- Recommended
Shared Use Roadway- Recommended
Bike Lanes- Planned
Shared Use Roadways- Planned
Hard Surface Trails- Planned/Existing
Natural Surface Trails- Planned
Side Paths- Planned
County Boundary
Purple Line LPA Alignment
1/2 Mile Radius
1 inch = 500 feet
N
Map 11
New Carrollton
(New Carrollton Transit Center)
Recommendations
Pg. 6

Source: 2011 Purple Line Corridor Access Study (CAST)

Table XII-1 Pedestrian and Bicycle Access

Improvements	Map Key	Location	Description
Bike Lanes	1	Ellin Rd.	Reconstruct the outside curb lane in each direction to provide 5' striped/directional on-road bike lanes.
	2	85th Ave.	
	3	Ardwick Ardmore Rd.	
	4	Garden City Dr.	
	5	Corporate Dr.	
	6	Professional Pl.	
	7	Cobb Rd.	
Shared Use Roadway	8	Harkins Rd.	Designate as bicycle routes as shared-use roadways by providing "Share the Road" signage and thermoplastic pavement "sharrow" decals.
	9	Riverdale Rd.	
	10	Garrison Rd.	
	11	Emerson Pl.	
+Sidewalk	12	Garrison Rd. from Annapolis Rd. to Emerson Pl. (Both Sides)	Reconstruct existing narrow sidewalk (less than 4' wide) and construct missing sidewalk links with 5' sidewalk and vegetated buffer.
	13	Emerson Pl. from 78th Ave. to Ellin Rd. (West Side)	
	14	Ardwick-Ardmore Rd. from Lottsford Vista Rd. to Pennsy Dr. (Both sides)	
+Sidepath	15	Annapolis Rd. (Both sides)	Construct 8' minimum sidepath with vegetative buffer.
	16	Ellin Rd. from Veterans Pkwy. to Station (Both Sides)	
	17	85th Ave. from Elin Rd. to Annapolis Rd. (Both Sides)	
	18	Harkins Rd. (East Side)	
	19	Garden City Dr.	
	20	Pennsy Dr.	
	21	Corporate Dr. from Garden City Dr. to Pennsy Dr.	
+Shared Use Path	22	Ellin Rd. to Recreation Center	Construct an 8'minimum shared use path.
	23	Capital Beltway	Construct a pedestrian bridge over the Capital Beltway from Garden City Drive to the Whitfield Chapel Park vicinity.
Lighting	Enhance street lighting along Annapolis Rd., Ellin Rd., 85th Ave., Harkins Rd., Garrison Rd. and Emerson Pl.		
Way-finding Signage	Install way-finding signs along pedestrian and bicycle routes to various destinations such as the Purple Line station, MARC/Amtrak station, Greyhound bus station, IRS building, local schools and parks.		
Bike Racks	Provide inverted-U bike racks on sidewalks as needed on key sites including retail, commercial, and restaurant blocks.		

+Improvement may require additional right-of-way or a public access easement beyond that required for the Purple Line construction.

Source: 2011 Purple Line Corridor Access Study (CAST)

Table XI-3 Intersection and Traffic Calming

Improvements	Location	Description
Intersection/Entrance Improvements	All Signalized Intersections	• Provide a leading pedestrian interval for right turning vehicles. • Provide pedestrian countdown signals. • Verify all signals are properly timed and meet the current pedestrian crossing standards. • Verify ADA access to all pedestrian push buttons.
	*Annapolis Rd. from 71st Ave. to Veterans Prwy. (10 Intersections, 30 Entrances)	• Annapolis Rd. - Reduce the number of curb cuts for business entrances and reconfigure parking for access from the rear of the businesses. • Upgrade the intersections with new ADA sidewalk ramps. • Upgrade entrances with ADA standard aprons. • Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station.
	Gallatin St. from Annapolis Rd. to 72nd Ave. (4 Intersections, 3 Entrances)	
	Chesapeake Rd. from Annapolis Rd. to east of Buchanan St. (1 Intersection, 7 Entrances)	
	Ardwick-Ardmore Rd. from Annapolis Rd. to Richley Ct. (4 Intersections, 3 Entrances)	
	Buchanon St. from 72nd Ave. to Chesapeake Rd. (3 Intersections, 3 Entrances)	
	75th Ave. from Ardwick-Ardmore Rd. to Taylor St. (5 Intersections)	
	72nd Ave. from Annapolis Rd. to Weber St. (3 Intersections)	
	70th Pl. from Greenvale Pkwy. to Freeport St. (4 Intersections)	
	71st Ave. from Greenvale Pkwy. to Flintridge Dr. (4 Intersections	
Traffic Calming	Annapolis Rd. at Varnum Rd. and St. Mary's Catholic School	Install new pedestrian-activated crosswalk (high-intensity activated crosswalk, HAWK)
	Greenvale Pkwy.	Provide curb extensions at intersections where on-street parking is provided.
	70th Pl.	
	71st Ave.	
	75th Ave.	
	Buchanan St.	

*Portions of the improvement to be completed by Purple Line Project.

Source: 2011 Purple Line Corridor Access Study (CAST)

Remaining Gaps

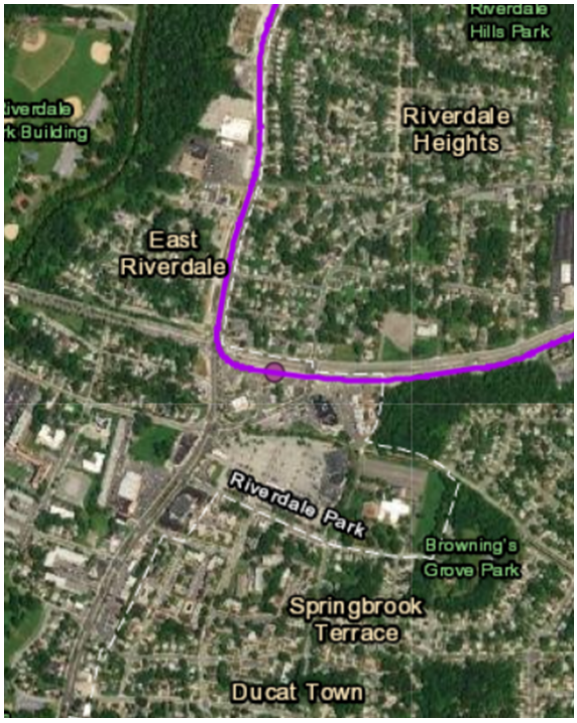
- *It is unclear which if any of the CAST study recommendations have been implemented or have been programmed for implementation.*
- The sheer number of multilane arterials in the station area will continue to make pedestrian and bicycle access challenging. Sidewalk coverage is spotty in many locations, there are very few signalized crossings, and posted speed limits are 30 mph on most of the principal roads through the station area. A problem not unique to New Carrollton is that the number of speed limit signs is so sparse that the burden falls mainly on the driver to observe a “proper” speed, and absent enforcement, traffic typically moves much faster than the official speed.
- Clearly, the existing Amtrak/MARC/ Metrorail station at this site was designed primarily to be accessed by auto or feeder bus. This is particularly true on the main southeast side of the station, where users arrive rapidly from the Beltway, MD 410 and US 50. Since there is not much residential development on this side of the station, the auto-oriented environment would not seem to be a relevant impediment to residential foot traffic. However, employees of or visitors to the business park around Corporate Drive must exert above average effort to reach destinations in the park given long, indirect walk distances and massive parking lots.
- On the north side of the station complex where the Purple Line will locate, there is greater proximity to residential areas that would be expected to generate walk trips to the station. For these areas, including West Lanham Hills on the west and Carrollan Gardens Condominiums and Hilltop Apartments on the east, access via Ellin Rd is limited by current sidewalk conditions, direct access to the neighborhoods, and opportunities to cross Ellin Rd safely.

Riverdale Park

Conditions Found/Issues Raised in Initial TOD Study

- The Purple Line will enter Riverdale Park from the north at ground level along Kenilworth Avenue (MD 201), and then become elevated [not really sure where or for how long] and turns east onto MD 410 (University Blvd which then merges with and becomes Riverdale Road). The station will be elevated on the southeast corner of the 201/410 intersection.
- Both East-West Hwy and Kenilworth Ave are arterial highways with posted speed limits of 35 mph. Both roads are 4-lane highways with median dividers along 410 west of the intersection and along 201 south of the intersection. Both roads feature extra turning lanes at major intersections.

Existing conditions as affect pedestrian movement are highlighted in the map on the next page:



- Sidewalk coverage along the principal arterials is very limited: there are no sidewalks along 410 west of the station, on 201 north of the station, and exist only on the north side of 401 going east from the station. Where sidewalks on the arterials do exist, they tend to be narrow, immediately adjacent to curbside traffic, or broken up by frequent uncontrolled curb cuts and driveways into commercial establishments.
- There are 7 signalized intersections within the station area walkshed. Only three provide full 4-way crosswalks: Kenilworth and East-West Hwy, Kenilworth at Riverdale Road, and East-West at Riverdale Road. Those at Kenilworth and Rittenhouse and Riverdale and Mustang Drive have only a single crossing over the main road. The intersection at Kenilworth and Tuckerman has no crosswalks at all.

- The major crossings at Kenilworth and University and Kenilworth at River Road incorporate channelized right turns on all four corners, with no signal controls affecting vehicle movement through the turns and the pedestrian crosswalks.
- The neighborhoods south of the station have generally good internal street systems and sidewalks. The areas north of the station across MD 410 are much less served; only 58th Ave which serves as a neighborhood collector in the area northeast of the station has sidewalks. The configuration of the local street networks does not allow for convenient point-to-point access to the station area.
- In addition to the impediment imposed by the large number of curb cuts, virtually all of the intersections in the walkshed feature large radius turns, which allow faster turning speeds for vehicles and longer curb-to-curb walk distances for pedestrians.

Source: Rich Kuzmyak

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific for this station area
- Listing under "minor projects" for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

- $3b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings)

- Signalization of intersection at Riverdale Rd (MD 410) and 63rd Ave with 4-way crosswalks.
- Full crosswalk coverage at Kenilworth and Rittenhouse intersection (already signalized)
- Sidewalks along west side of Kenilworth (MD 201) from MD 410 north to River Rd/Tuckerman.

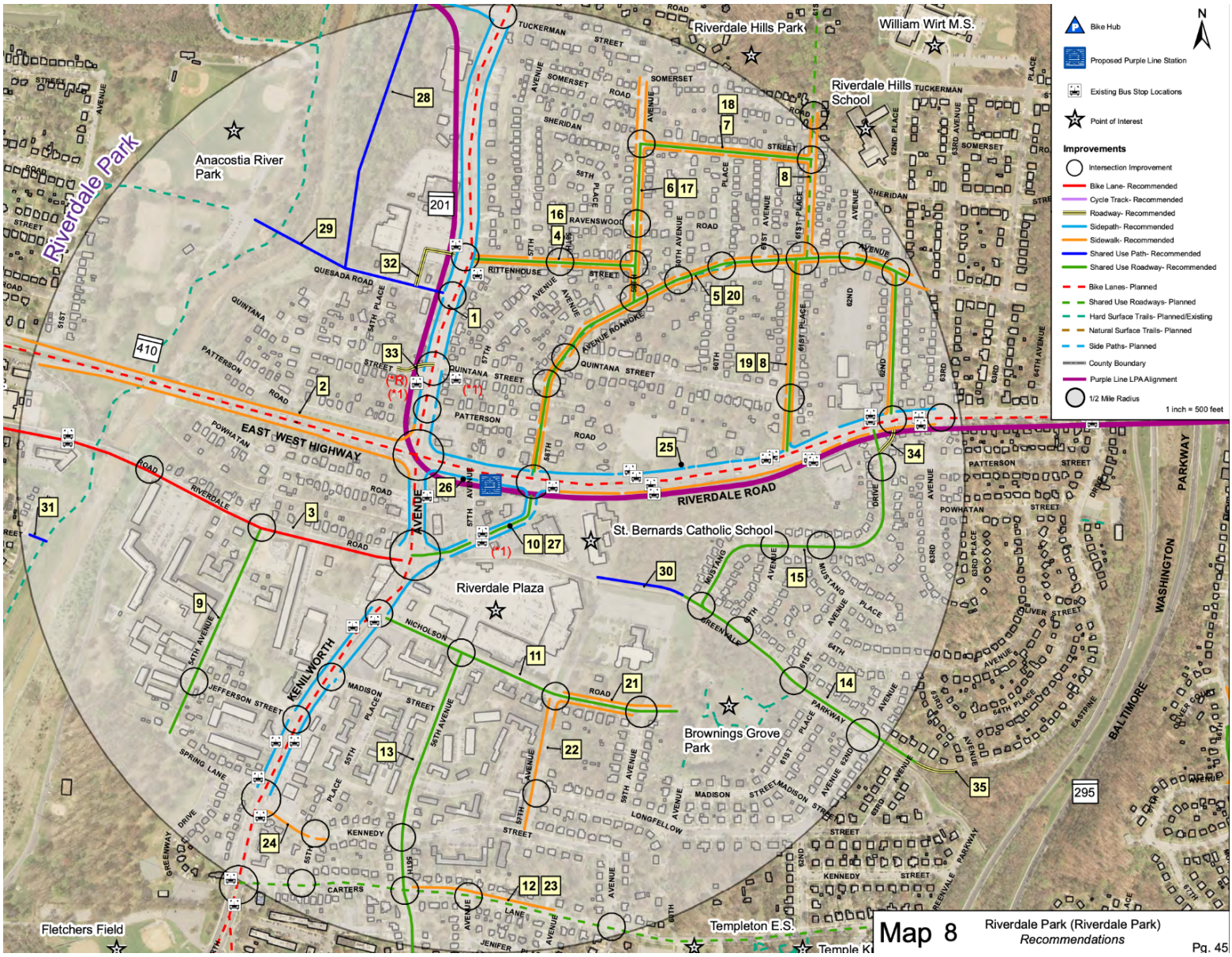
Prince George's County, 2011 Purple Line Corridor Access Study (CAST)

Recommended (or "Planned") improvements are shown on the map below were recommended:

- Bike Lanes (Nos. 1-3)
    - Kenilworth Ave from River Rd to Carter's Ln (and sidewalk)
    - MD 410 from Kenilworth to Mustang Dr (and sidewalk)
    - Riverdale Rd west of junction with E-W Hwy (MD 410) plus traffic calming
- Shared-use roadways (nos. 4-15): see map
- Sidewalks (16-24): see map
- Sidepaths (25-27): see map
- Shared Use Paths (28-31): see map
- New Roadway (32-35): see map
- Intersection/Entrance improvements (on map as circles, not numbered:
    - Leading pedestrian interval, countdown signal, timing and APC at all signalized intersections

- On Kenilworth from Rittenhouse to Carters Ln: widen/extend median noses, new or upgraded ADA features
- Other shown intersections or entrances: new ADA ramps, high visibility crosswalks

- Traffic calming: Carters Ln, Nicholson, 54th & 56th Aves, 61st Pl, Mustang Dr.



Source: [2011 Purple Line Corridor Access Study (CAST)]

Remaining Gaps and Needs

- *It is not clear which if any of the recommendations in the 2011 CAST study have been implemented or scheduled for implementation by Prince George's County*.
- Lack of sidewalks (and proposed bikeways) on Kenilworth Ave north of East-West Hwy, on East-West Hwy west of Kenilworth Ave, and the entire south side of East-West Highway/Riverdale Rd (MD 410) east of Kenilworth.
- Notably poor pedestrian connectivity between the residential areas north of E-W Highway and the station and commercial areas below.
- No discussion about reducing speeds or increased enforcement in the vicinity of the station.
- Remaining channelized/uncontrolled right turns at the key intersections of Kenilworth and E-W Hwy and Riverdale Rd.
- Incomplete crosswalks at remaining signalized intersections.
- Many commercial curb cuts/driveways along Kenilworth south of the station at E-W Hwy.
- Missing, faded or poor-quality crosswalks at many intersections.
- Preponderance of large radius turns at most major and minor intersections, enabling higher vehicle turning speeds and lengthening pedestrian crossing distance/exposure.
- Residential neighborhoods facing indirect access to the station and commercial activities because of discontinuous local street networks or barriers between commercial parcels and the neighborhoods.

East Campus – Baltimore Ave

Conditions Found/Issues Raised in Initial TOD Study

- The Purple Line station at East Campus will be located on Rossborough Lane at the intersection of Baltimore Ave (US 1) and Campus Drive/Rossborough Lane.
- Given the presence of the University and student activity that frequents establishments and services along Baltimore Ave, and travel between the campus and student housing to the east and south, this area is in reasonably good position to welcome a rail transit station. Maryland DOT is working toward completion of a major remake of the corridor to ensure its safety for students and visitors, as well as reasonably accommodate vehicle travel along this major north-south regional artery.

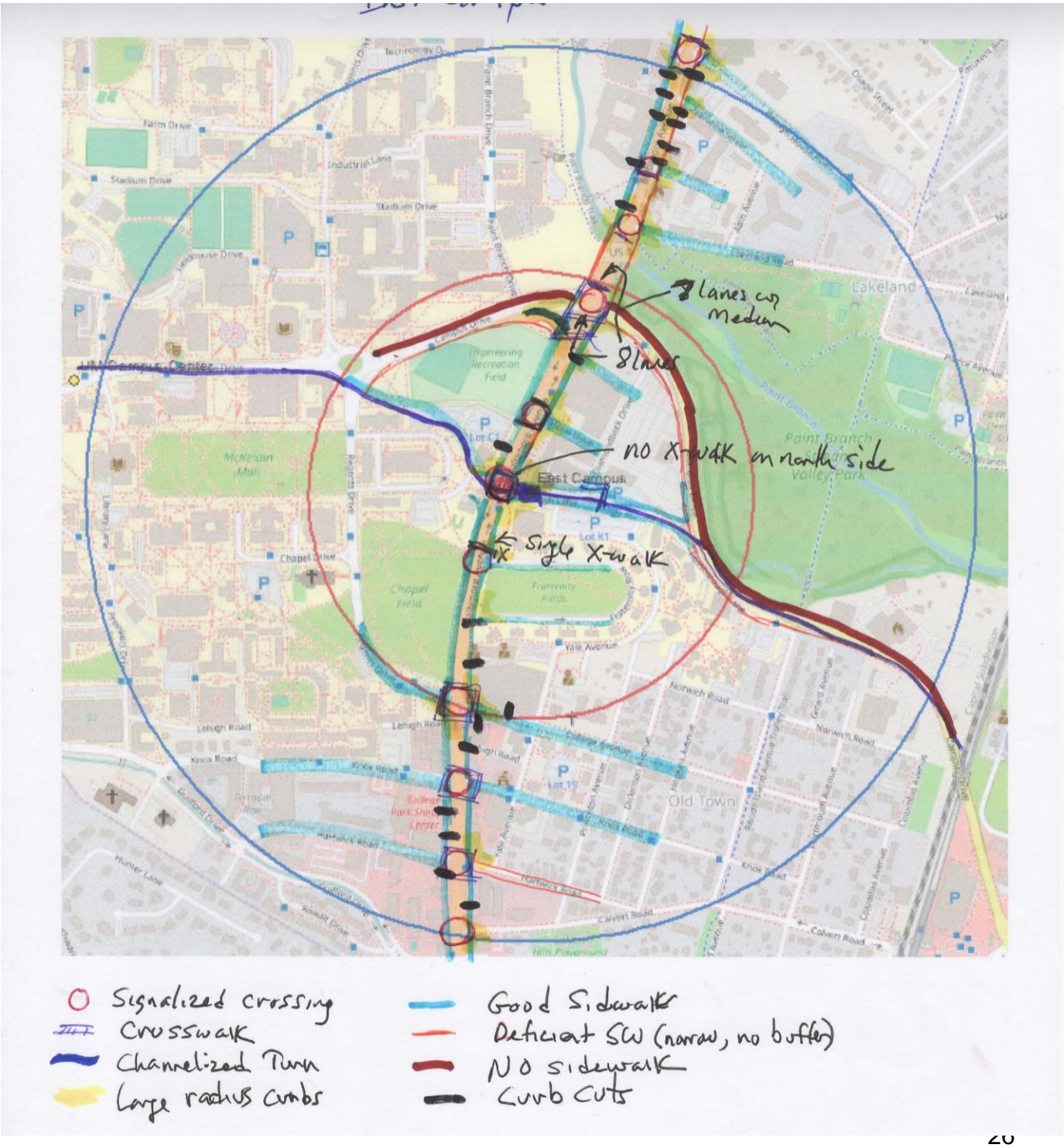
Existing conditions as regards pedestrian access are highlighted in the map below

- US 1 consists of 6 lanes, three per direction, with provision of turning lanes at major intersections. Posted speeds throughout the station area segment are 25 mph.
- Campus Drive is the only other multi-lane facility; it crosses US 1 north of the station, is a four-lane limited access facility, and has a posted speed of 35 mph. While it has a sidewalk along its southbound side (wide and in good condition, but with no buffer), it does not appear to serve a major pedestrian connectivity function.
- The sidewalk system along Baltimore Ave is very adequate, in many cases new as a result of the state corridor project. Sidewalks cover both sides of the street, are separated from road traffic by either a protective wall/fence or a vegetated buffer, and have appropriate ADA design features. In a few cases, the sidewalk diverts through or around a short service road/parking lot, but without obvious inconvenience or safety concerns.
- Along Rossborough Lane, where the station will be located, and from the US-1 intersection east to Campus Dr, there are currently no sidewalks on either side of the street.
- As one leaves the campus area to the north – beyond Campus Drive – the sidewalk quality is less, with narrower pavements and no buffering, although this is primarily on the northbound side, while the southbound side is mostly adequate. Improvements here may still be in store through the corridor project.
- There are 11 signalized intersections along US 1 through the station area, and except for those at Melbourne Pl, Lakewood Rd, Fraternity Road and Calvert Rd, all have four-way crossings.
- Sidewalk coverage on all the local connecting streets also appears equally adequate.
- The only notable shortcomings seen are the design of the intersections themselves: large radius curbing is present at most intersections, and

crosswalks are frequently missing or worn away, which combine to increase exposure for crossing pedestrians. There is also an unsignalized slip lane on Campus Dr at US 1

- Similar in effect, there are a large number of curb cuts onto Baltimore Ave, particularly outside the quarter-mile radius of the station and in the more commercial sections of the corridor.

Existing Conditions: East Campus-Baltimore Avenue



Source: Rich Kuzmyak

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Completion of the $63 million US 1 Reconstruction project, between College Ave and MD 193; project is in its final 2 years of construction
- Other non-specific, potentially applicable for this station area
    - Listing under “minor projects” for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2023 Tour Meeting

- $3b transportation budget shortfall announced
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MTA Purple Line (Drawings)

- Sidewalks and crosswalks along Rossborough Drive
- Replacement intersection & crosswalks at Rossborough and US 1.

Prince George’s County, 2011 Purple Line Corridor Access Study (CAST)

The CAST study for the East Campus station identified as its major challenges the sheer volume of traffic on US 1, particularly in relation to proximity to the university campus, and the lack of connectivity in the street network in the neighborhoods east of US 1, which would serve to force more local trips are forced onto US 1 and portions of Rhode Island Avenue

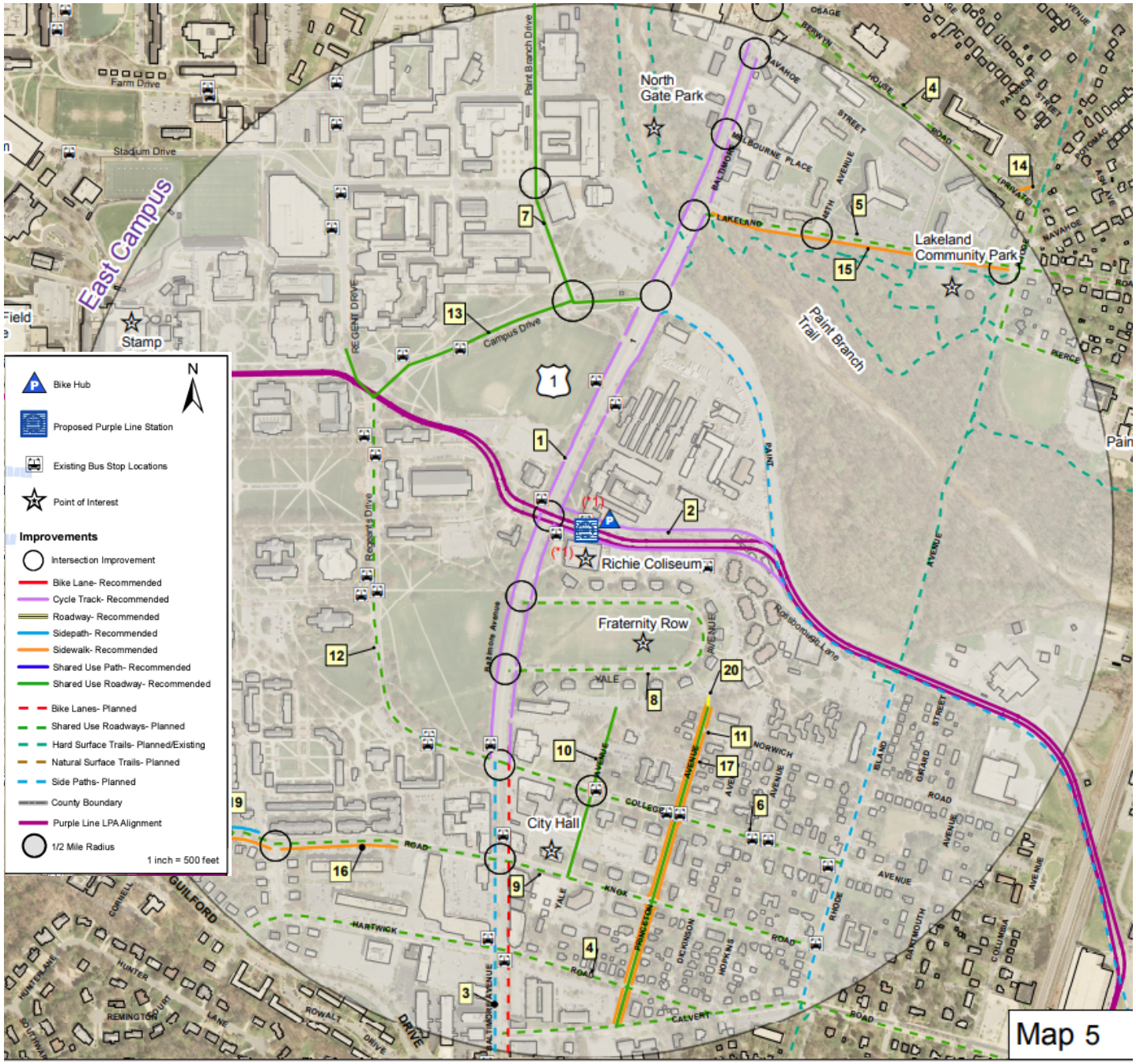
Specific recommended improvement projects are shown on the map below, and detailed in the summary tables that follow. A brief summary of the improvements is as follows:

- Sidewalks (14-18): Reconstruct or construct new 5’ sidewalks with buffer on Berwyn House Rd, Lakeland Rd, Knox Rd, Princeton Ave, and Cornell Ave.

- Intersection and entrance improvements:
    - At all signalized intersections: pedestrian countdown and leading interval, signal timing to pedestrian standards, ABS
    - Upgrade ADA ramps and aprons, crosshatch crosswalks with high intensity paint at 22 intersections and 54 entrances
    - Curb extensions on College Ave, Knox Rd and Princeton Ave.
- Bike facilities:
    - Cycle Tracks (1 & 2) on Baltimore Ave and Rossborough Ln.
    - Sidepath (19) on Knox Rd
    - Shared-use Roadways (3 – 13) on 11 streets

2011 CAST Study Proposed Improvements – East Campus/Baltimore Ave

Source: [2011 Purple Line Corridor Access Study (CAST)]



Source: 2011 Purple Line Corridor Access Study (CAST)

Table VI-3 Intersection and Traffic Calming

Improvements	Location	Description
Intersection/ Entrance Improvements	All Signalized Intersections	• Provide a leading pedestrian interval for right turning vehicles. • Provide pedestrian countdown signals. • Verify all signals are properly timed and meet the current pedestrian crossing standards. • Verify ADA access to all pedestrian push buttons.
	*Baltimore Ave. from Berwyn House Rd. to Guilford Dr. (9 Intersections)	• Upgrade the intersections with new ADA sidewalk ramps. • Upgrade entrances with ADA standard aprons. • Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station.
	Guilford Dr. from Mowatt Ln. to Baltimore Ave. (2 Intersections, 9 Entrances)	
	Hartwick Rd. from Guilford Dr. to Princeton Ave. (3 Intersections, 4 Entrances)	
Intersection/ Entrance Improvements (Cont.)	Knox Rd. from Mowatt Ln. to Princeton Ave. (3 Intersections, 13 Entrances)	• Upgrade the intersections with new ADA sidewalk ramps. • Upgrade entrances with ADA standard aprons. • Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station.
	College Ave. from US 1 to Princeton Ave. (2 Intersections, 1 Entrance)	
	Rossborough Ln. from US 1 to Rhode Island Ave. (9 Entrances)	
	Lakeland Rd. from US 1 to Rhode Island Ave. (2 Intersections, 4 Entrances)	
	**Rhode Island Ave. from Rossborough Ln. To Calvert Rd.	
	Berwyn House Rd. from US 1 to Rhode Island Ave. (12 Entrances)	
Traffic Calming	College Ave.	Provide curb extensions at intersections where on-street parking is provided.
	Knox Rd.	
	Princeton Ave.	

Table VI-1 Pedestrian and Bicycle Access

Improvements	Map Key	Location	Description
[+]Cycle Tracks	1	Baltimore Ave. (US 1) from Capital Beltway (I-95/I-495) to College Ave.	Implement the Central US 1 Corridor Sector Plan typical section which includes a median, 5' to 6' cycle tracks, 2' to 5' buffer, and 5' to 10' sidewalk. Provide two-way cycle track along the east side from Paint Branch Pkwy. to Rossborough Ln.
	2	Rossborough Ln. from US 1 to Paint Branch Pkwy. (Both Sides)	Provide 5' cycle tracks with 2' buffer, and separate 5' minimum sidewalk.
Shared Use Roadway	3	Baltimore Ave. (US 1) from College Ave. to Guilford Dr.	Implement the Central US 1 Corridor Sector Plan typical section which includes the removing of the center median, narrowing 2 center travel lanes to 10', providing 8' parking lanes on both sides, and use remaining width to widen sidewalks for shared use purposes.
	4	Berwyn House Rd.	Designate as shared use roadway by providing "Share the Road" signage and thermoplastic pavement "sharrow" decals.
	5	Lakeland Rd.	
	6	College Ave.	
	7	Paint Branch Dr.	
	8	Fraternity Row	
	9	Knox Rd.	
	10	Yale Ave.	
	11	Princeton Ave.	
	12	Regents Dr.	
	13	Campus Dr.	
[+]Sidewalk	14	Berwyn House Rd. at Rhode Island Trolley Trail / Rhode Island Ave.	Construct 5' sidewalk in location where dirt path was created.
	15	Lakeland Rd. from US 1 to Rhode Island Ave. (South Side)	Reconstruct existing narrow sidewalk (less than 4' wide) or construct missing sidewalk links with 5' sidewalk and vegetated buffer.
	16	Knox Rd. from Guilford Dr. to Baltimore Ave. (South Side)	
	17	Princeton Ave. from Yale Ave. to Calvert Rd. (Both Sides)	
	18	Cornell Ave. from Knox Rd. to 100' south of Knox Rd. (West Side)	
[+]Side Path	19	Knox Rd. from Guilford Dr. to Rossburg Dr. (North Side)	Construct 8' sidepath with vegetated buffer.
Shared Use Path	20	End of Princeton Ave. to Yale Ave.	Construct an 8' shared use path.
Bike Racks	Provide inverted-U bike racks on sidewalks as needed on key sites including retail, commercial, and restaurant blocks.		
Way-finding Signage	Install way-finding signs along pedestrian and bicycle routes to various destinations such as the Purple Line station, College Park Metrorail Station, Acredale Park, Lakeland Community Park, Lake Artemesia, Rhode Island Trolley Trail, Anacostia Tributary Trail System, Paint Branch Stream Valley Park Trail, North Gate Park, and other campus destinations.		
Lighting	Enhance street lighting along Baltimore Ave., Berwyn House Rd., Lakeland Rd., Paint Branch Pkwy., Rossborough Ln., College Ave., Knox Rd., Calvert Rd., Guilford Dr., Princeton Ave.		

[+]Improvement may require additional right-of-way or a public access easement beyond that required for the Purple Line construction.

Source: 2011 Purple Line Corridor Access Study (CAST)

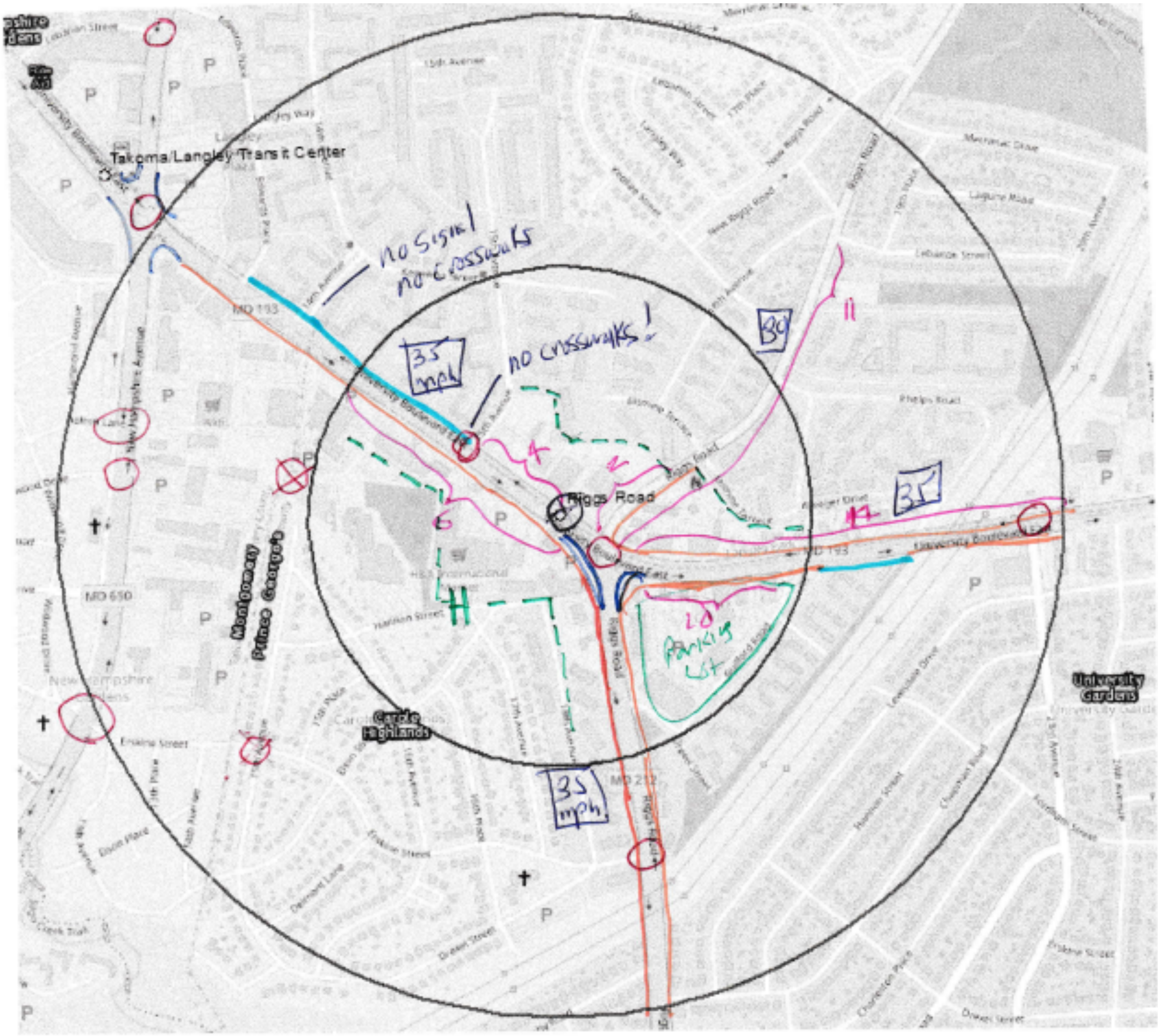
Remaining Gaps

- Improvements to be made by the state by the Purple Line contractor should satisfy remaining sidewalk needs along the immediate right of way, and the ongoing US 1 corridor project should remaining deficiencies along Baltimore Ave upstream and downstream of the PL station, with exception of the following concerns:
    - A large number of curb cuts/entrances along US 1 remain, particularly in the commercial areas beyond one-quarter mile from the station; plans for upgrading sidewalks in the segment of Baltimore Ave north of Campus Drive should be ascertained (are they part of the Corridor project?).
    - Most of these entrances and also the intersections incorporate large radius curbs which facilitate rapid vehicle turns and increase pedestrian exposure
    - Right-turn-on red policies should be revisited and revised where they exist (e.g., Campus Dr at Baltimore Ave)
- The recommendations in the CAST study all appear reasonable and helpful, but it is not clear which have been implemented or what plans are to follow through.

Riggs Road

Conditions Found/Issues Raised in Initial TOD Study

- The Purple Line will traverse the station area along University Blvd, with the station situated in the center of University just west of the Riggs Road intersection.
- Speed limits are 35 mph on the main arterial roads, Riggs and University, and 30 mph on Riggs Rd. north of University. Speed limits are 25 mph on local streets but only posted on the busier local collector streets. There are no speed cameras located within the station area.
- Most of the residential neighborhoods are fairly walkable: narrow streets with parking, sidewalks (though often narrow and only on one side of the street), stop signs with stop bars, and ADA curb ramps (though many look in need of repair). However, curbs at most intersections have large radii (enabling faster turns and widening the crossing for pedestrians) and there are very few crosswalks.
- To reach the station – or any of the existing retail/service opportunities -- residents will need to walk along the major arterial highways, since there is no direct path through the commercial development parcels – all of which are blocked off to foot traffic from the neighborhoods except for occasional informal paths.
- Walking along the arterial streets is unpleasant and unsafe in most locations. Sidewalks are narrow, contain obstructions, and seldom have buffer areas to shield from fast-moving vehicle traffic that runs right to the curb. Only the portions of University along the north side between 15th Ave and Edwards Pl and the south side between Guilford and the PEPCO ROW offer pedestrian separation as a result of a service road.
- The sidewalks along University and Riggs contain many curb cuts for vehicle entry to busy commercial establishments, very few with visible crosswalks or traffic controls to guard pedestrians. The map below shows the number of curb cuts along each segment of University and Riggs.
- The south side of the main intersection at University and Riggs features channelized right turns that enable free traffic flow at the corners, requiring pedestrians to cross to a safety island without traffic signal protection, and then wait to cross the main highway (on both sides). This intersection also has dedicated left turns and signal light cycles, which add to pedestrian crossing time & delay.
- There are only 4 signalized crossings within the station area including the main intersection at University/Riggs. Apart from the crossing at University and 15th Ave which is roughly 1/8 mile from the station, the others (On Riggs Road south at Erskine and University east at 23rd Ave) are 3/8 to ½ mile away, with several busy intersections having no signalized treatment. Riggs Road north of the station has no signalized crossings, despite 3 major intersections with a crosswalk.
- Given the absence of signalized intersections and signal timing that favors vehicle throughput, vehicles are able to maintain speeds that are uncomfortable and unsafe to pedestrians.



O Signalized crossing
– Channelized turns
– narrow SW, no buffer
– Service road, SW set back
– Curb cut (not public street)
-- Blocked Access

Wide radius corners and very limited/marginal crosswalks at main Hwy & secondary street intersections, back in neighborhoods

Source: Rich Kuzmyak

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific for this station area
- Listing under "minor projects" for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

- $2b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings)

- Signalization of University & 14th Ave intersection
- Removal of channelized turn on southwest corner of University-Riggs intersection
- New crosswalks at signalized intersections along University; nothing along Riggs.
- Apparent replacement of sidewalks along University, but hard to discern details from drawings; it does appear that existing curb cuts will not be removed or consolidated.
- Lanes will be reconfigured in the immediate vicinity of the station: two through lanes and a new right turn lane going east.

Prince George's County, 2011 Purple Line Corridor Access Study (CAST)

Recommended or Planned (??) improvements are shown on the map below were recommended:

- Reconstruction of existing narrow sidewalks (less than 4 feet) or construction of missing sidewalk links with 5-foot sidewalk and vegetated buffer at:
    - (21) East side of Riggs Rd. from Jasmine Terrace to Lebanon St.

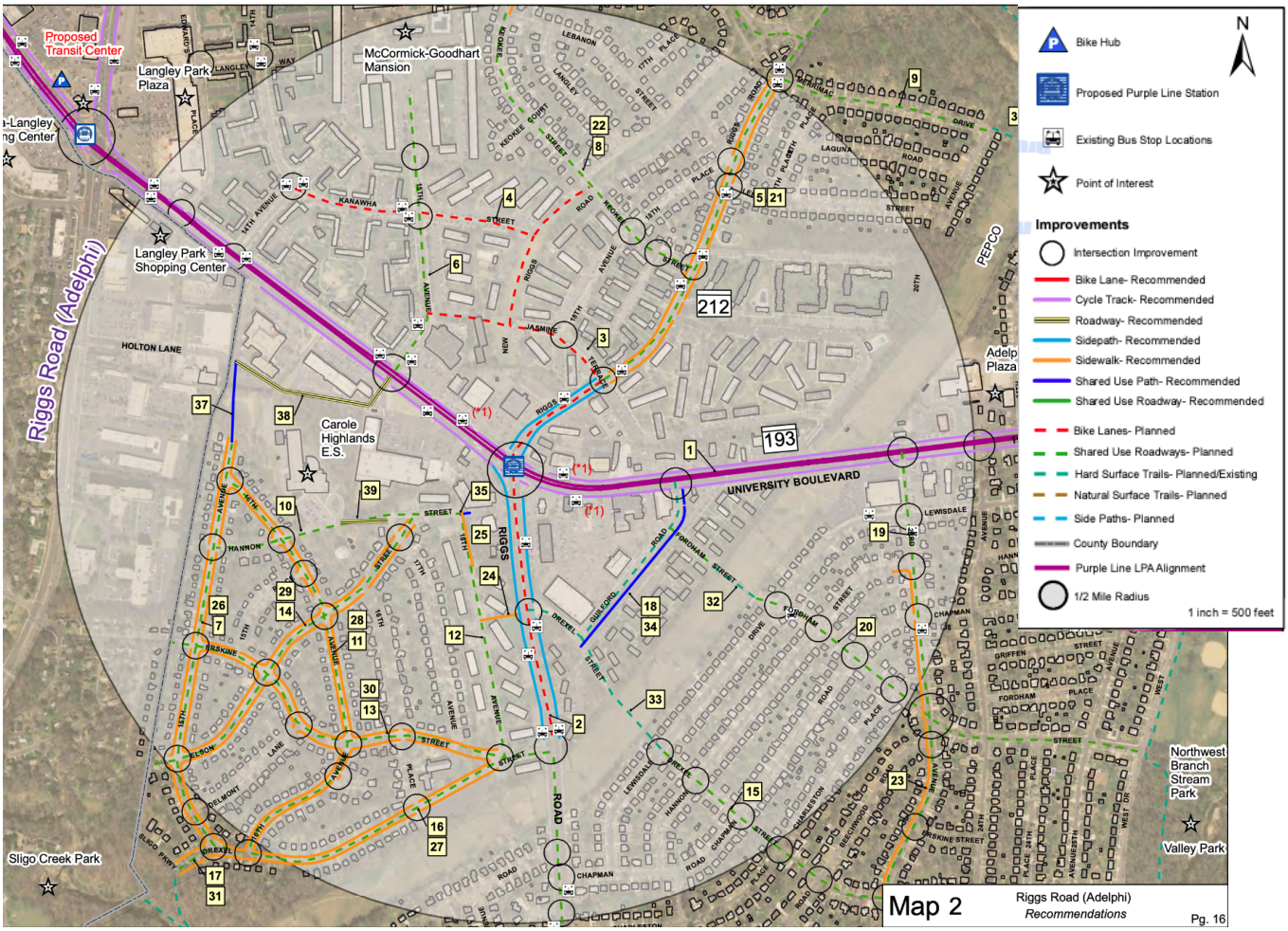
    - (22) Keokee St from Riggs to Merrimac (west side)
    - (23) 23rd Ave from Hannon to Drexel (west side)
    - (24) From 18th Ave to Riggs Rd adjacent to apartment housing
    - (25) 18th Ave south of Hannon (east side)
    - (26) 15th Ave from Sligo Creek Pkwy to north of 16th Ave (both sides)
    - (27) Drexel St from Sligo Creek Pkwy to Erskine (both sides)
    - (28) 16th Ave from 15th Ave to Drexel (both sides)
    - (29) Elson St. from 15th Ave to Hannon St.
    - (30) Erskine St. from county line to Riggs (north and south)
    - (31) Sligo Creek Pkwy from Drexel to Sligo Creek Trail entrance (both sides)
- Bike facilities:
    - Cycle tracks on University
    - Bike lanes on Riggs Rd, Jasmine Terr, and Kanawha St.
- Shared Use roadways:
    - 16 locations (5 through 20)
- Shared use paths (32 through 37)
    - Through PEPCO right of way at Fordham St.
    - Drexel St. through PEPCO right of way
    - Guilford Rd from Drexel to University (east side) : shared path with vegetated buffer and street trees
    - Fenced path with steps to University or Riggs Rd at 18th Ave/Hannon St to Hechinger Plaza
    - Shared use path with lighting to connect NW Branch Trail through PEPCO right of way at Merrimac & 20th Ave.

- Shared use path with lighting to connect Holton Ln. along 15th Ave north of 16th Ave to Holton Ave.

Source: [2011 Purple Line Corridor Access Study (CAST)]

- New roadway:
  - Holton Ave from county line to University Blvd
  - Hannon St. from Carole Highlands ES to 17th Ave.
- Intersection and Traffic Calming

Prince George's County, [2021 Strategies for Public Space and Commercial Corridor Enhancements (SPACES)]



- Performed by Prince George's County Planning Department for (in conjunction with?) Northern Gateway SPACEs PAMC Project

- Comprehensive (30% engineering) study of needed improvements to University Blvd (193) corridor from Langley Park to Adelphi Rd (approx. 2 miles)
- Has not proceeded because 98% of project is in SHA ROW

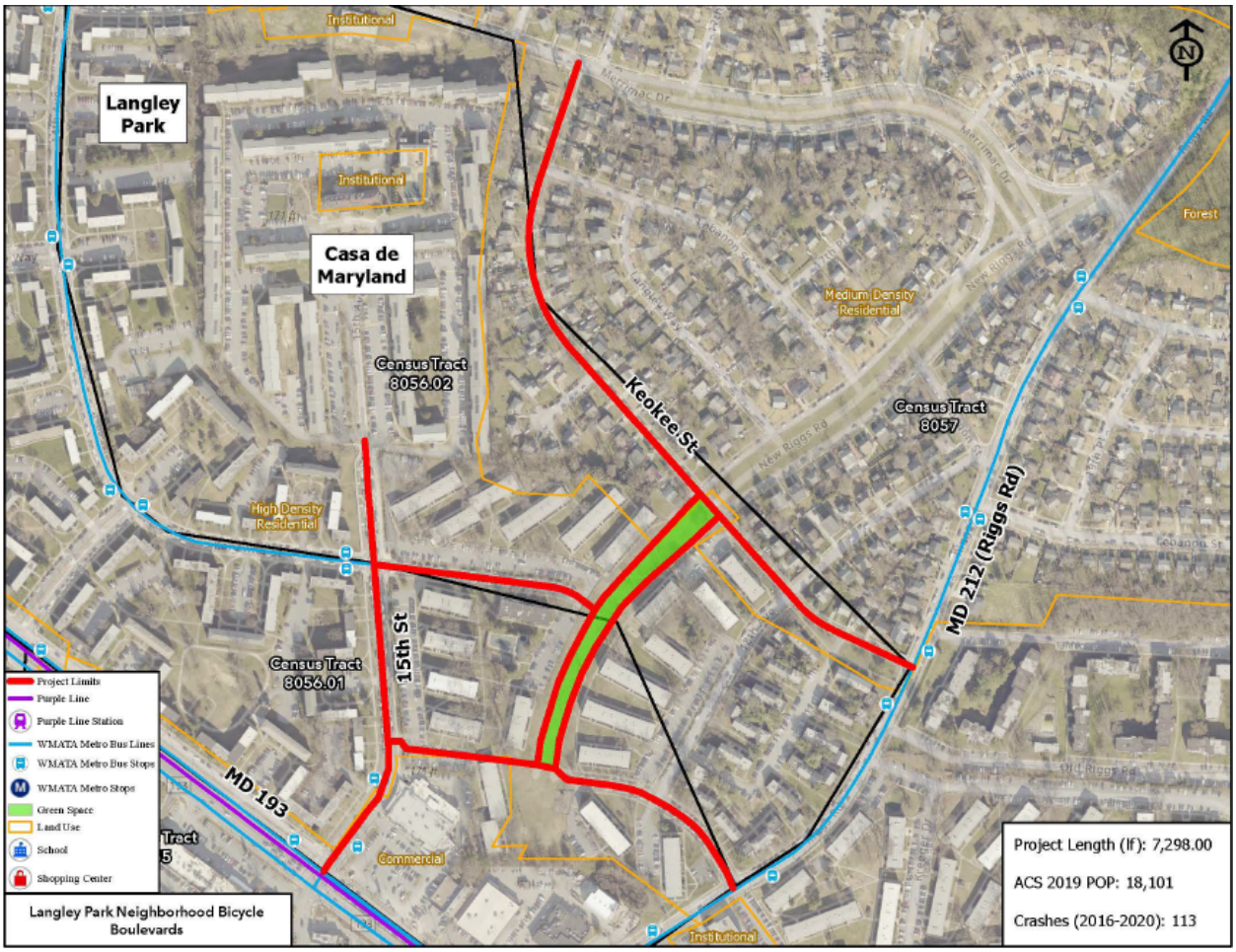
Recommendation	Preliminary Cost
Buffered Bike Lanes	$2,030,000
Driveway Consolidation	$686,000
Eliminating Free Right Turns	$564,000
Mid-Block Crossings with HAWK Beacons	$1,370,000
Landscaping/Site Design (Including Street Furniture)	$2,360,000
Pedestrian Lighting	$1,677,000
Total	**$8,687,000**

Source: 2021 Strategies for Public Space and Commercial Corridor Enhancements (SPACES)

Safe Streets for All Grant Projects (2023)

- Langley Bike Boulevards: Original MWCOG TLC-funded projects now moving forward with SS4A money
- Concentrated in neighborhoods NW of Riggs Road station; stop when reach state highways (193 and 212)
- Very similar to project listed in CAST study (earlier map) as “Planned” – why never happened?

Source: Cool Spring-Adelphi Pedestrian Bike Access Project



Remaining Gaps

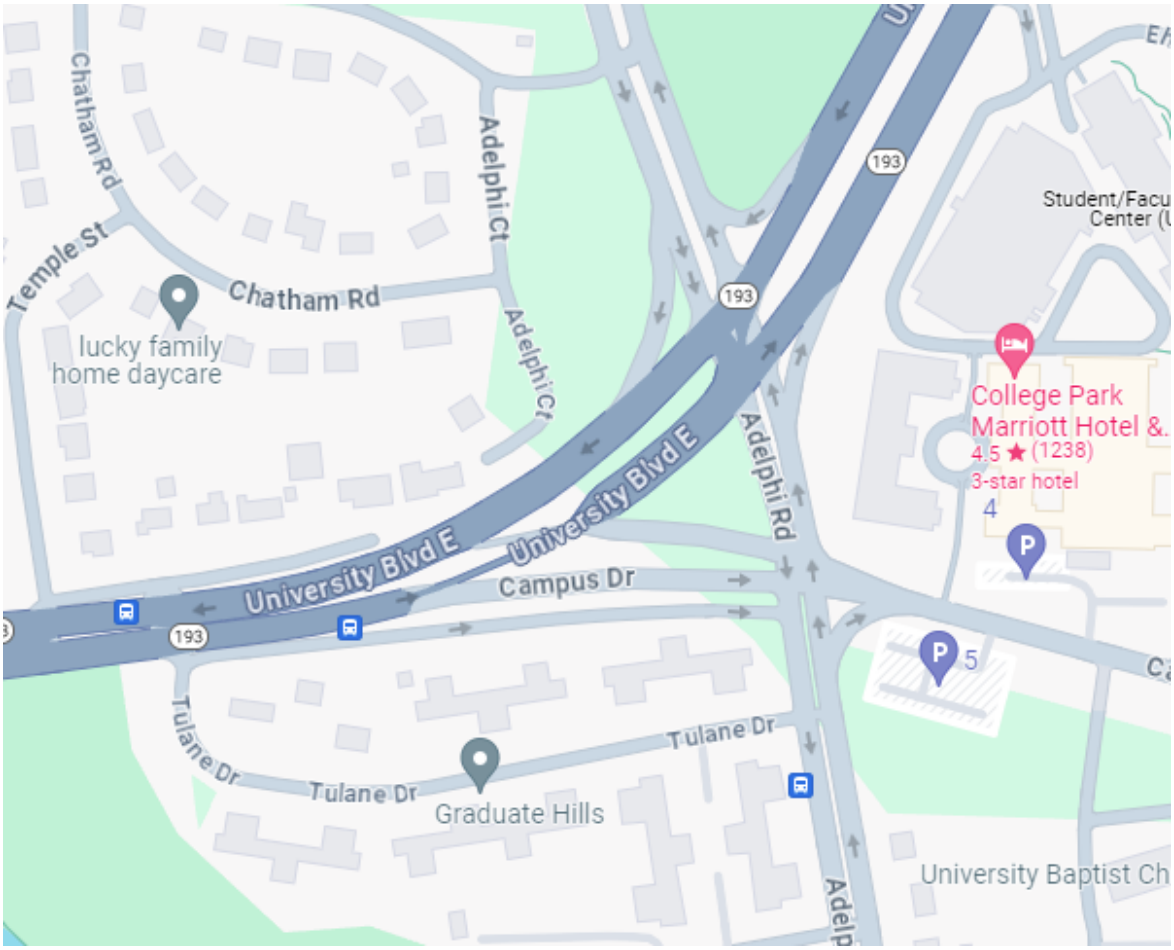
- No indication that SHA is willing to change speed limits, increase enforcement, or add new crossings at key locations (e.g., east University @ Guilford, south Riggs @ Drexel and Erskine, north Riggs @ Jasmine Ter and Keokee St.)
- Does not appear that retained slip ramp at SE corner of University and Riggs will be given signalized traffic controls.
- Appears that SHA is not supportive of cycle tracks or sidepaths on 193 or 212.
- Lack of direct access between neighborhoods and station/services because of blockage by commercial development.
- Doesn't look like any of the recommendations in the CAST study were ever implemented, including neighborhood sidewalks and bike boulevards; Langley Park Neighborhood Bike Boulevards appears to be moving forward under new SS4A funding
- Same for SPACES study, attributed to responsibility being with state.

- Sidewalk improvements to be made by Purple Line project are only along University, and details of improvements not clear from drawings, It does appear that most of the existing curb cuts will be retained, not removed or consolidated
- Sidewalks along south Riggs remain narrow and right against curb lane traffic
- While neighborhood streets seem generally tame, many lack proper sidewalks. Large curb radii and absence of crosswalks make crossings less safe and comfortable for pedestrians.
- Many intersections of secondary streets with the arterial roads lack crosswalks and feature large radius turns.

Adelphi Road

Conditions Found/Issues Raised in Initial TOD Study

- The Purple Line station will be located on Campus Dr, immediately east of the Adelphi Road intersection and at the entrance to the UMUC Inn and Conference Center.
- The transportation network in the vicinity of the station consists of two major arterial roadways, University Blvd (MD 193) and Adelphi Rd (not a state highway). Campus Drive is contiguous with MD 193 west of the Adelphi intersection prior to its entrance to the University campus from the west. This system of multi-land divided highways is designed to efficiently move large volumes of vehicle traffic, consistent with the low density, suburban nature of the area.
- The scale/design of the roadway facilities and their crossing in a unique 3-way triangular pattern makes this intersection complex and daunting, certainly for pedestrians or cyclists as well as motorists.



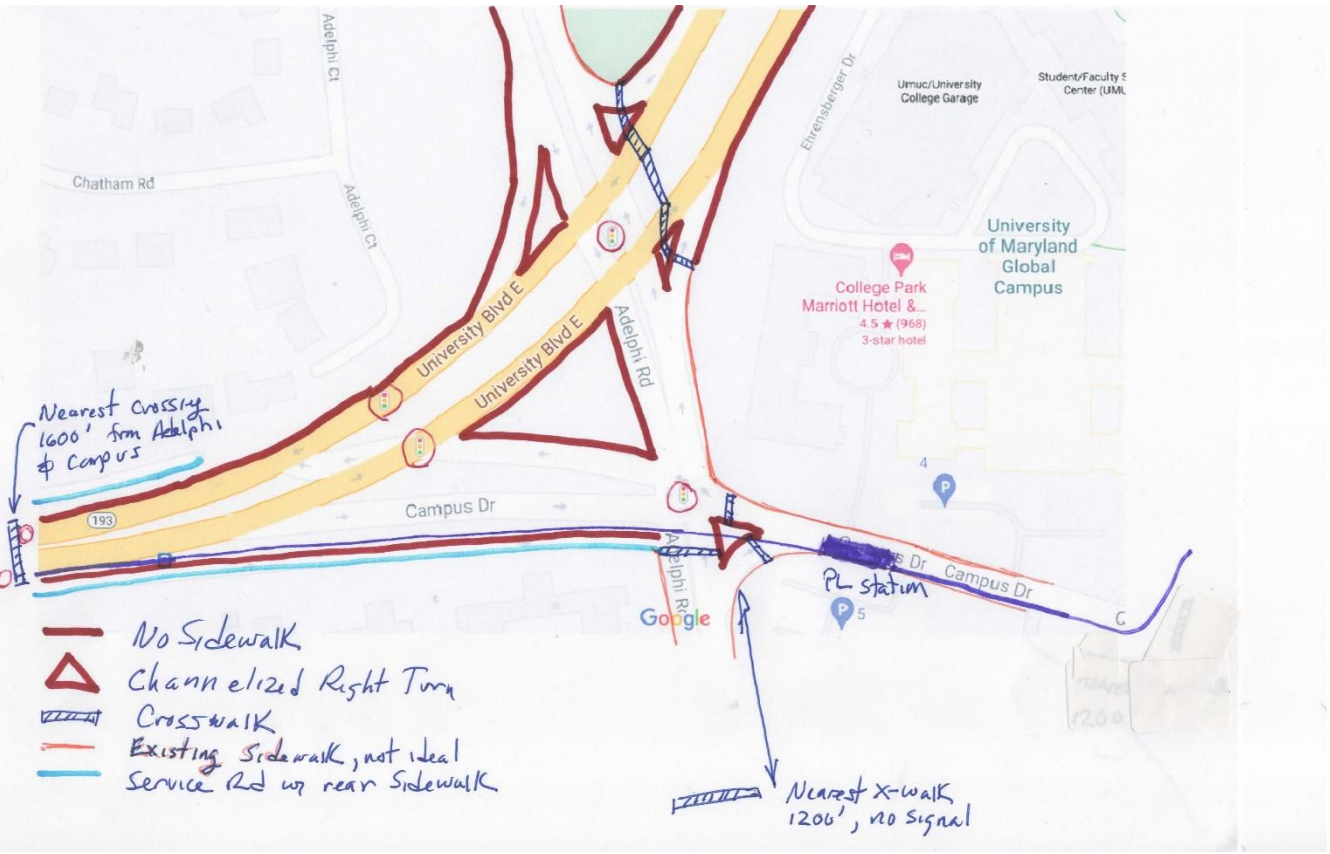
- Posted speed limits on MD 193 and Adelphi Rd are 30 mph in the immediate vicinity of the station, though it is unclear whether these speeds are linked to

ongoing construction activity (orange signs). University north/east of Adelphi is posted at 45 mph, and Adelphi north/west of University is posted at 40 mph.

- As shown in the existing conditions illustration below, there are four traffic signals in the immediate vicinity, all seemingly oriented at managing vehicle traffic efficiently though the triangular intersection.
- Each of the 3 major roadways incorporates left turn lanes, while MD 193 and Adelphi also feature channelized right turns, not controlled by the signals.
- Sidewalk coverage in the area is quite limited; where indicated by a dark red line, the major facilities have no sidewalks. Areas with an orange line indicate existing sidewalks, but requiring upgrade in most cases (narrow, no buffer from adjacent traffic, etc.).
- The light blue lines represent separate service lanes fronting residential parcels, which have publicly available sidewalks behind user parking areas.
- Pedestrian crossing areas are also quite limited, inconvenient and arguably unsafe, with the only two immediate crossings being at University east of the intersection with Adelphi, and Campus Drive itself, which is the only crossing over Adelphi. The next nearest crossing over Adelphi is 1,200' east of Campus Drive and is not signalized, and over University about 1,600' south of Adelphi (it is signalized but not an intersection).

Source: Rich Kuzmyak

- Because of the channelized turns, the 200+ ft crossing over University at Adelphi has 7 separate links, including 8 lanes of highway, a median, and two safety islands. Given the



separate left turn cycles and the absence of signal control on the slip lanes, this is a very challenging crossing.
- A narrow sidewalk exists on the south side of University Blvd separated by a narrow bike lane; however, there is only a narrow bike lane on the north side of the artery with no sidewalk for pedestrians.

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific for this station area
- Listing under "minor projects" for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

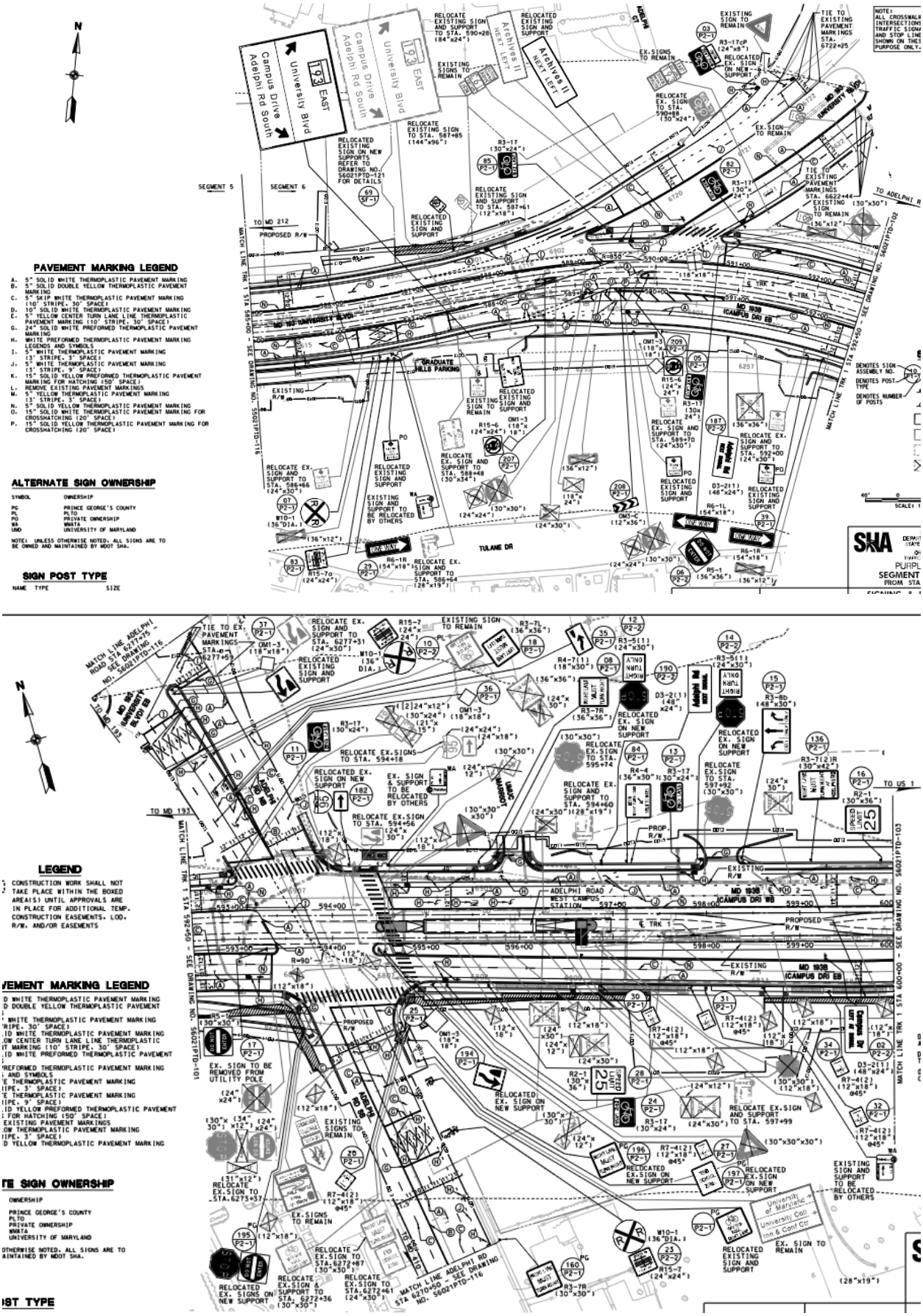
- $3b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings)

Improvements to be provided by the state as part of the Purple Line construction are illustrated in the drawings below. Key elements are as follows:

- All improvements are limited to the area immediately adjacent to the rail right of way, which includes University Boulevard, Campus Drive, and the portions of the University/Adelphi/Campus Dr. intersection that abut the project.
- Sidewalk construction along University at the intersection with Adelphi will only begin at the end of the Adelphi entrance ramp; this will also result in the new crosswalk to the station area being an extended diagonal facility across the Adelphi road slip ramp, to and across the large triangular vegetated island, and then over Adelphi Rd. north of the Campus Drive intersection.

- Any other sidewalk improvements appear to be replacement (and hopefully upgrade) of existing facilities



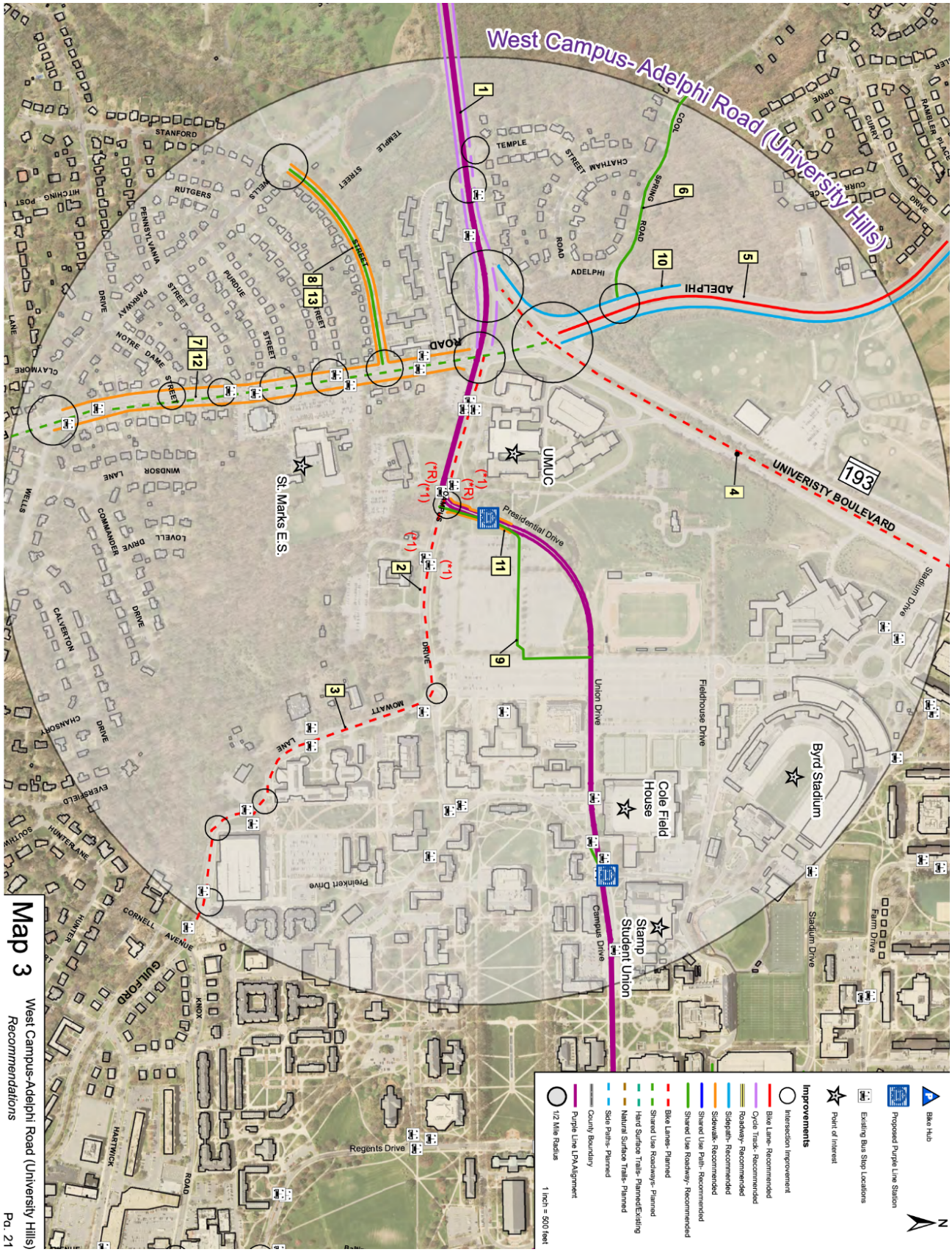
Source: MTA engineering drawings

Prince George's County, *2011 Purple Line Corridor Access Study (CAST)*

Recommended/Planned (??) improvements are shown on the map below:

- Intersection modifications
    - Signalized intersections (MD 193 and Adelphi, Adelphi and Campus Dr, MD 193 and Campus Dr: Pedestrian countdown signals, leading intervals, timing to pedestrian standards, ADA access to crossing buttons
    - Adelphi Rd at Purdue St: extend median noses to create pedestrian refuge, add pedestrian activated HAWK signal (*this intersection is not currently signalized)*
    - Intersection/entrance upgrades: ADA compliant ramps, high visibility crosswalks (locations shown as smaller circles on map)
- Sidewalks
    - Adelphi Rd from Campus Dr to Wells Pkwy (both sides – minimum 5' sidewalk with vegetated buffer); 8' sidewalk north of Stanford
    - Stanford St, from Wells Pkwy to Adelphi Rd

- Bike facilities:
    - Cycle Tracks along University Blvd west of Adelphi Rd
    - Bike lanes on shoulder of MD 193 from Adelphi to Stadium Dr, Adelphi Rd north of MD 193
    - Shared use roadways on Cool Spring Rd, Adelphi south of University, Stanford St from Wells Pkwy to Adelphi
    - Sidepath on west side of Adelphi from Cool Spring Rd to MD 193



Map 3 West Campus-Adelphi Road (University Hills) *Recommendations* Pg. 21

Source: [2011 Purple Line Corridor Access Study (CAST)]

Table IV-1 Pedestrian and Bicycle Access

Improvements	Map Key	Location	Description
[+]Cycle Tracks	1	University Blvd. (MD 193) West of Adelphi Rd.)	• Short/Mid-Term: Implement the SHA approved interim typical section for University Blvd. which includes 5' striped/directional on-road bike lane and 6' wide sidewalk. • Long Term: Convert the 6' sidewalk to an 8' cycle track (2' buffer and 6' cycle track), vegetated buffer, and a new 5' sidewalk. • East of Adelphi Rd., utilize the existing outside shoulder as on-road bike lane.
Bike Lanes	2	Campus Dr.	Reconstruct the outside curb lane in each direction to provide minimum 5' striped/directional on-road bike lanes and landscaped median.
	3	Mowatt Ln. from Campus Dr. to Knox Rd. (UMD Master Plan)	
Bike Lanes (Cont.)	4	University Blvd. (MD 193) from Adelphi Rd. to Stadium Dr.	Utilize the existing outside shoulder to provide minimum 5' min. striped directional on-road bike lanes.
	5	Adelphi Rd. north of University Blvd.	
Shared Use Roadway	6	Cool Spring Rd.	Designate as shared-use roadways by providing "Share the Road" signage and thermoplastic pavement "sharrow" decals.
	7	Adelphi Rd. south of University Blvd.	
	8	Stanford St. from Wells Pkwy. to Adelphi Rd.	
	9	Presidential Dr. and on-campus roads through parking lots	
[+]Sidepath	10	Adelphi Rd. north of University Blvd.	• Construct a new 8' sidepath on west side from north of Cool Spring Rd to University Blvd. • Provide shared-use signage for existing sidepath on east side.
[+]Sidewalk	11	*Presidential Dr. from Campus Dr. to Lot UMUC (Both Sides)	• Construct minimum 5' concrete sidewalk with vegetated buffer. • Adelphi Rd: Provide 8' sidewalk north of Stanford St. • Presidential Dr.: Install sidewalk ramps at pedestrian bridge connecting to UMUC campus.
	12	Adelphi Rd. from Campus Dr. to Wells Pkwy. (Both Sides)	
	13	Stanford St. from Wells Pkwy. to Adelphi Rd. (Both Sides)	
Way-finding Signage	Install way-finding signs along pedestrian and bicycle routes to various destinations such as the Purple Line station, University Hill Recreational Center, Northwest Branch Trail, and other campus destinations.		
Bike Racks	Provide inverted-U bike racks on sidewalks as needed on key sites including institutional buildings.		
Lighting	Enhance street lighting along University Blvd., Adelphi Rd, Campus Dr., Stanford St., and Presidential Dr.		

*Portions of the improvement to be completed by Purple Line Project.

[+]Improvement may require additional right-of-way or a public access easement beyond that required for the Purple Line construction.

Table IV-3 Intersection and Traffic Calming

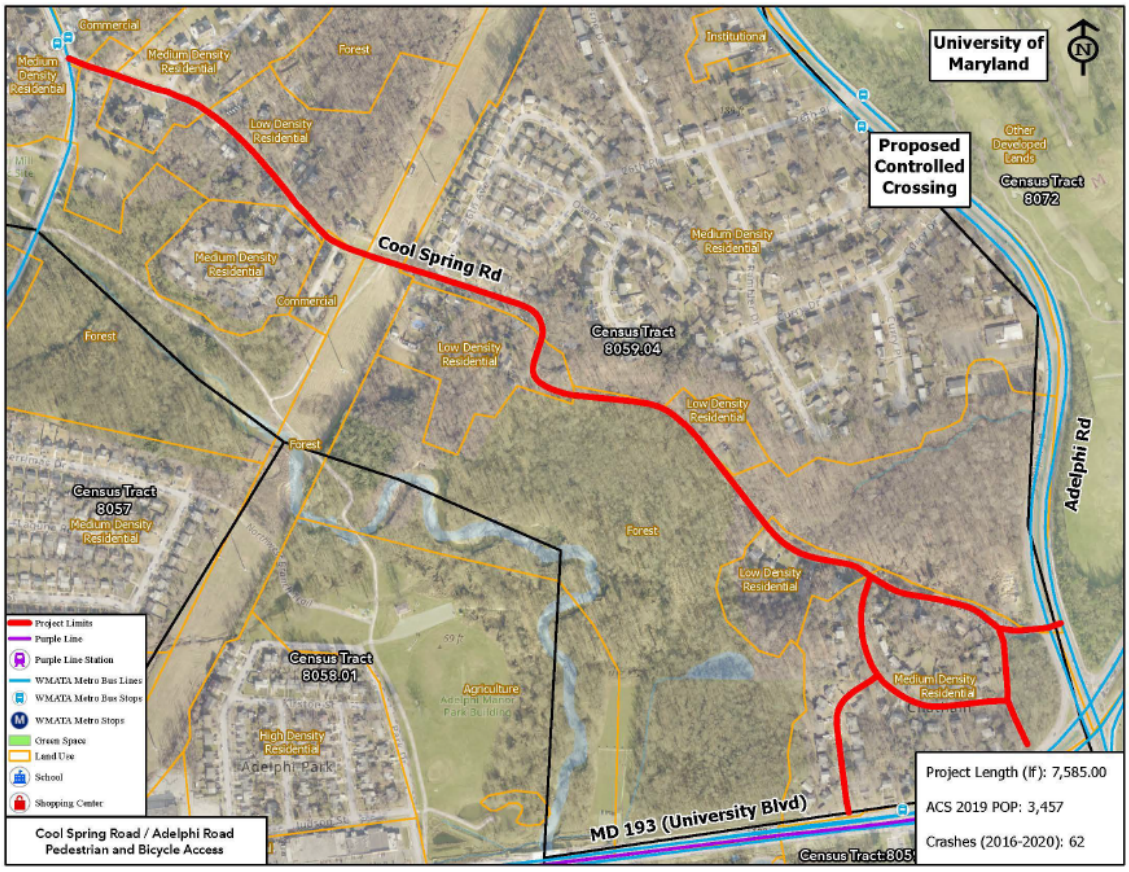
Improvements	Location	Description
Intersection / Entrance Improvements	All Signalized Intersections	• Provide a leading pedestrian interval for right turning vehicles. • Provide pedestrian countdown signals- • Verify all signals are properly timed and meet the current pedestrian crossing standards. • Verify ADA access to all pedestrian push buttons.
	Adelphi Rd. at Purdue St.	Extend the median noses further into the intersection to create pedestrian refuge area.
	University Blvd. from West Park Dr. to Stadium Dr. (5 Intersections)	• Upgrade the intersections with new ADA sidewalk ramps. • Upgrade entrances with ADA standard aprons. • Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station.
	*Adelphi Rd. from Cool Spring Rd. to Wells Pkwy. (10 Intersections, 4 Entrances)	
	Stanford St. from Adelphi Rd. to Wells Pkwy. (1 Intersection, 2 Entrances)	
	*Campus Dr. from Adelphi Rd. to Mowatt Ln. (3 Intersections, 7 Entrances)	
	Mowatt Ln. from Campus Dr. to Knox Rd. (2 Intersections, 6 Entrances)	
Traffic Calming	Adelphi Rd. at Purdue St.	• To address sight distance issue, provide pedestrian-activated, high-intensity activated crosswalk (HAWK). • Provide curb extensions.

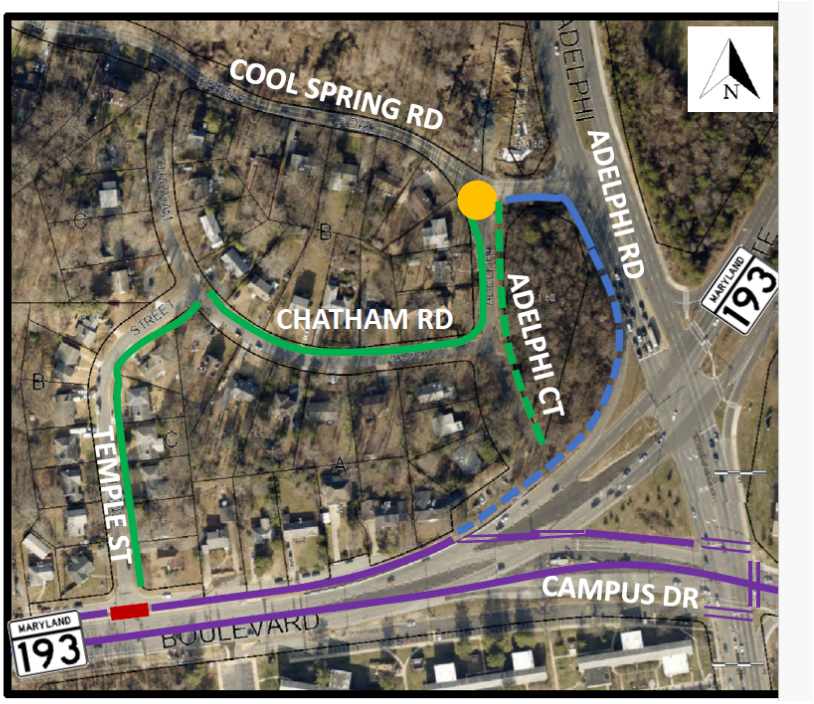
Source: 2011 Purple Line Corridor Access Study (CAST)

Maryland DOT, *Safe Streets for All Grant Projects (2023)*

Prince George's received several grants from the US DOT under its Safe Streets for All program in 2023, two of which will involve projects in the Adelphi Rd. station area.

The first project is the **Adelphi/Cool Spring Rd. Bike/Ped Access** Project. As illustrated in the map below, the project will focus on development of a 7,600-foot-long bikeway along Cool Spring Rd., a narrow 2-lane quasi-rural road reaching back from the Adelphi/University intersection to the northwest in service of a low-density single-family subdivision that abuts Adelphi Road [unclear why this area wouldn't be better served with a facility along southbound Adelphi Rd].





1. External Sidewalk
2. Internal Sidewalk
3. Temple Street Closure
4. Traffic Calming
5. Wayfinding/LED Lighting Upgrades

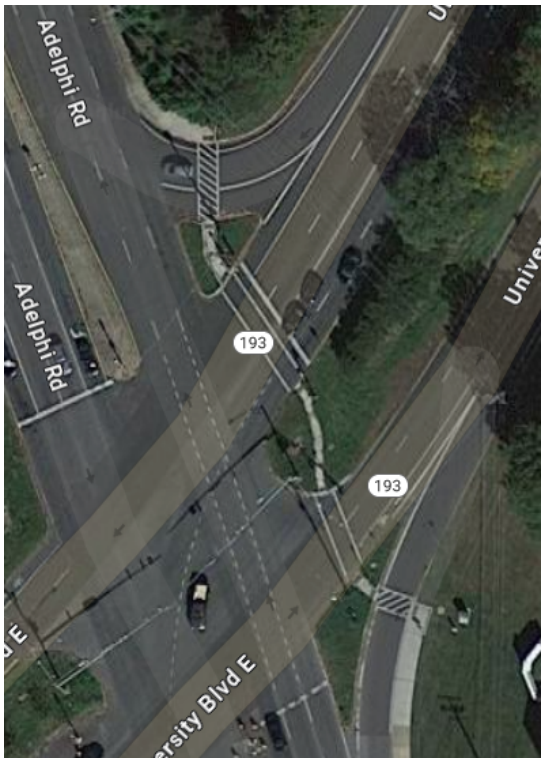
Source: [Cool Spring-Adelphi Pedestrian Bike Access Project]

Also included in the project are various street improvements in the immediate vicinity of the Adelphi/University intersection. As indicated in the figure below, these entail a sidewalk along Adelphi from the Cool Spring entrance around the corner of the main intersection, where there currently is no sidewalk (or crossing). There are also new internal sidewalks in the small subdivision at the corner, new lighting, and curb/crosswalk treatment at an internal intersection.

The other SS4A project is a **Shared Use Path** to be constructed along the southbound side of Adelphi Rd, from Cool Spring Rd south through the station area to Queens Chapel Rd. Since there are already sidewalks along the section from Campus Dr to Wells Parkway, it appears that the shared path will be essential a bicycle sidepath constructed in what is currently a shoulder lane.

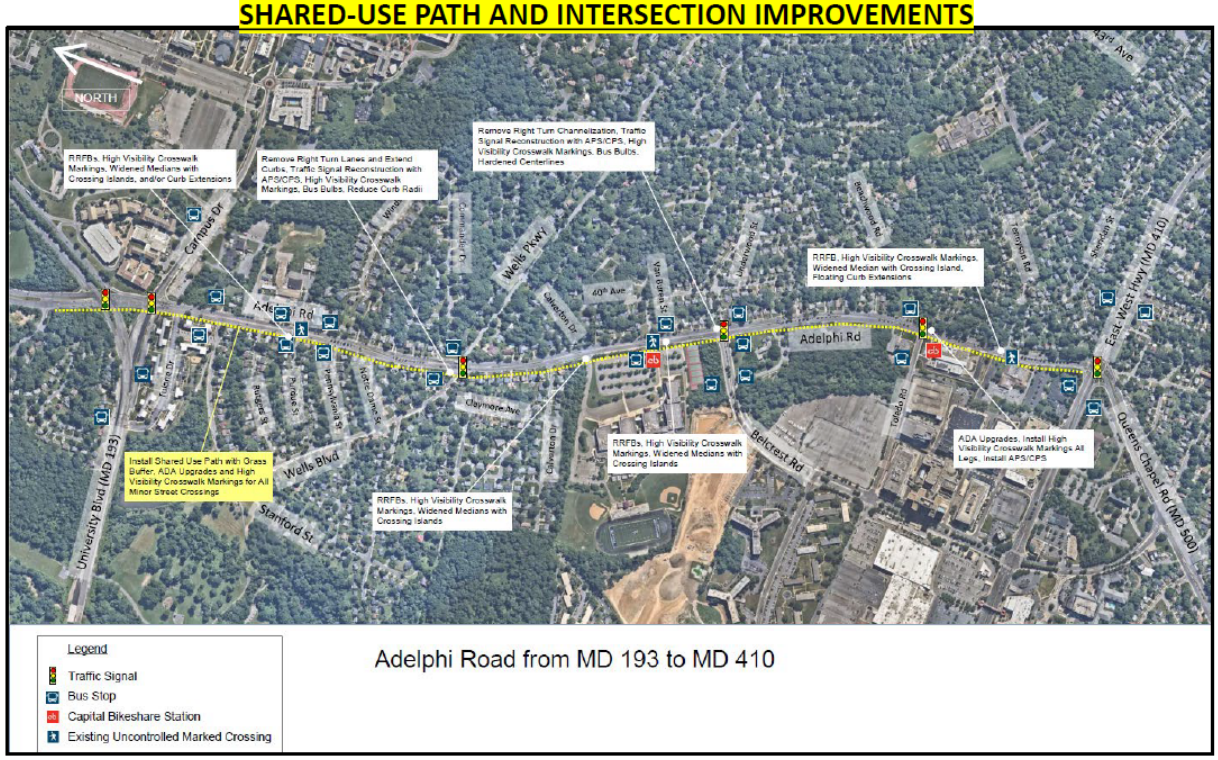
Remaining Gaps

- The major three-way intersection will remain a challenge to pedestrian and bicycle access under the best of conditions. This is a massive highway crossing with multiple lanes, channelized turns, and signal patterns that are challenging to vehicle traffic, led alone bike or pedestrian.
- The improvements to be made by the state as part of the Purple Line are conspicuously limited to the right of way along University and then to Campus Drive. There is little application to the broader needs of the intersection. The new crosswalk from the corner of Adelphi and University through the triangular safety island to Campus Drive is as long and daunting as the existing facility that crosses University Blvd north of Adelphia (shown here)



- The absence of signalized intersections and crossings at any location other than the principal intersection is notable.
- Inadequate or nonexistent sidewalks along major arteries, including University Blvd (west of Adelphi Rd), University Blvd (northeast of Adelphi Rd), and west side of Adelphi Rd (north of University Blvd).
- The various channelized right turns at the principal intersection need to be either removed or managed by traffic signal to reduce the danger and inconvenience to pedestrians.
- Most intersections in the study area feature large radius corners, which encourage faster vehicle turning speeds and make the exposed portion of the pedestrian crossing longer. Also, few of these intersections have crosswalks.
- No discussion about reducing speed limits to 25 mph in the vicinity of the station, or regarding increased enforcement.
- Interesting/curious to note the continuous sidewalk along westbound Adelphi Rd from the intersection with University. While not buffered, it is a wide sidewalk but one wonders who

SHARED-USE PATH AND INTERSECTION IMPROVEMENTS



or what it is serving. The only activity (residential) lies along the eastbound side, but there is no sidewalk and also no place to cross Adelphi to get to the existing sidewalk.

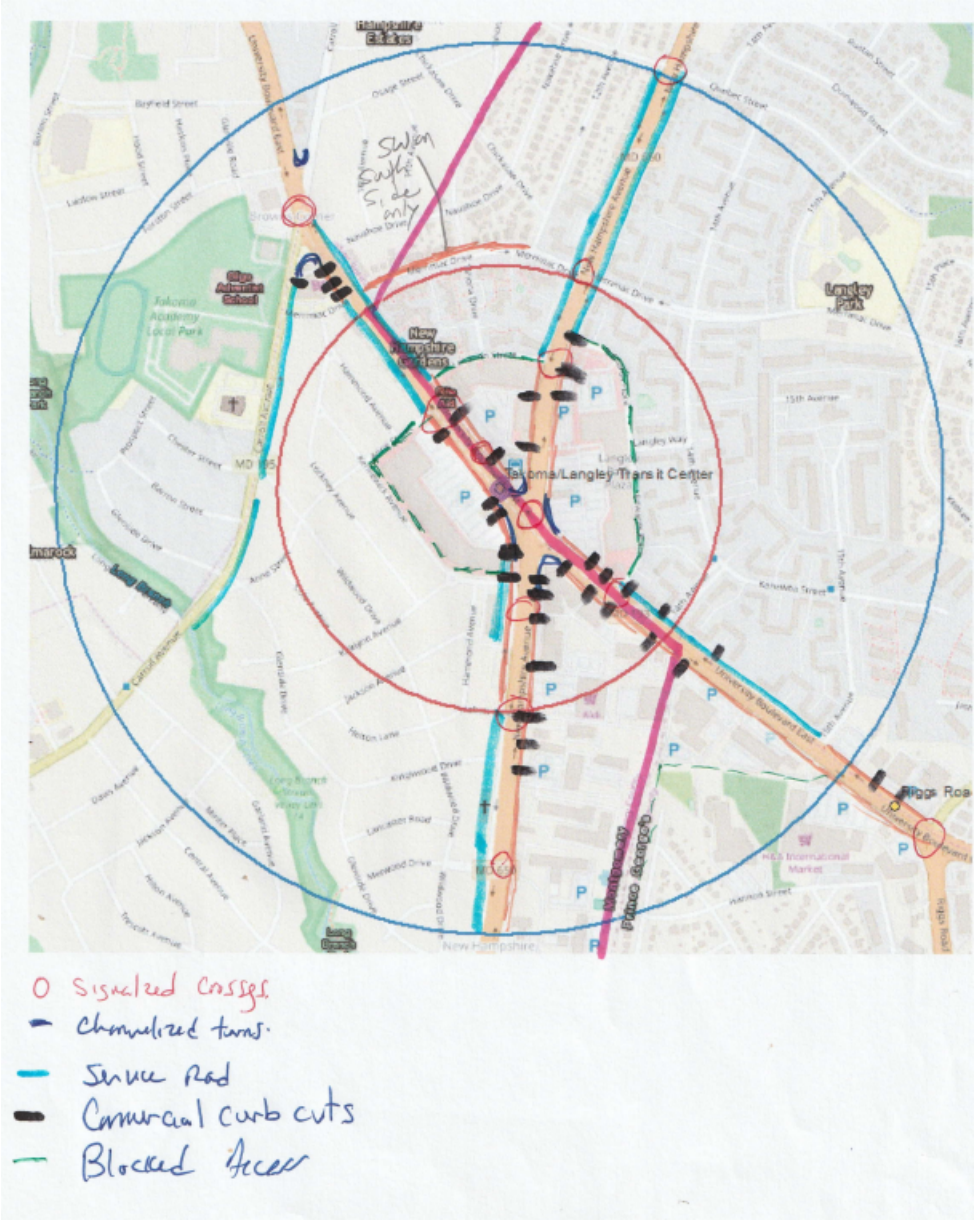
Source: [Cool Spring-Adelphi Pedestrian Bike Access Project]

Takoma/Langley

This station area is unique in being split between the two counties, Montgomery and Prince George's. Both are covered in this profile.

Conditions Found/Issues Raised in Initial TOD Study

- The Purple Line stop at this location will be in the right of way of University Blvd at the New Hampshire intersection, immediately south of the existing bus terminal.
- Most of the residential neighborhoods are very walkable: narrow streets with parking, sidewalks, low speed limits, stop signs and crosswalks.
- To reach the station – or any of the existing retail/service opportunities -- residents must leave the local street network and walk along the major arterial highways, since there is no direct path through the commercial development parcels.
- Walking along the arterial streets of University and New Hampshire is unpleasant and unsafe in most locations. Sidewalks are narrow, and seldom have buffer areas to shield from fast-moving vehicle traffic that runs right to the curb.
- The sidewalks on University and New Hampshire also contain frequent curb cuts for vehicle entry to busy commercial establishments, very few with visible crosswalks or traffic controls. Rough count:
- University west of New Hampshire: Montgomery 6, Prince George's 2
- University east of New Hampshire: Montgomery 5, Prince George's 5
- New Hampshire north of University: Prince George's 5
- New Hampshire south of University: Montgomery 10
- The main intersection at New Hampshire and University is poorly suited to pedestrian travel. Channelized right turns support free traffic flow on all corners, requiring pedestrians to cross to a safety island without traffic signal protection, and then wait to cross the main highway (on both sides), which is 7 lanes wide with a narrow median (except for New Hampshire southbound which is 6 lanes). Having to make a double crossing (diagonal corners) requires 6 separate crossing sections, and with channelized turns included is 15 lanes of highway.
- A similarly bad design for pedestrians exists at the intersection of University and Carroll Ave (MD 195) on the west edge of the area; radical angles and channelized turns on the NW and SE corners make for a complicated and tedious crossing. The only crossing over University entails 7 lanes and a service road which, because of the diagonal orientation, is roughly 150 feet across.
- Signalized crossings are very limited once leaving the immediate University/New Hampshire intersection. On University west of New Hampshire there is a 1,400' gap between Carroll Ave. and Anne St., while on the east side of New Hampshire there is no crossing between Langley Park Plaza and 15th Avenue, a gap of 1,700'.
- Posted speed limits are 35 mph on the main arterial roads. With so few signalized intersections, questionable traffic enforcement (no automated enforcement), and signals timed to maximize traffic flow, actual traffic speeds may exceed the posted speed by up to 12 mph under the 85th percentile guideline used for enforcement.
- The conditions above translate to the highest rates of pedestrian/bicycle fatality rates in the state occurring on these facilities.



Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific cited for this station area

- Listing under “minor projects” for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

- $3b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings 42-47)

- Reconstructed channelized turns and pedestrian islands on NW and SE corners of Carroll and University, but *increased radius makes turn easier for vehicles.*
- New sidewalks along University where there is no service road; no improvement to sidewalks in existing service road areas.
- Removal of channelized turns on NE and SW corners of University-New Hampshire intersection
- New crosswalks at Merrimac and University, but no signalization; curbs rebuilt but existing geometry retained.
- Looks like Purple Line in widened median will reduce through traffic to two lanes in each direction along University; new partial medians at secondary intersections.
- One new signalized intersection, at University and 14th Ave.
- Hard to discern from drawings which if any existing curb cuts will be removed or consolidated.
- No sidewalk or other infrastructure improvements extend beyond the immediate vicinity of the PL right of way along University.

Vision Zero High-Injury Network

These are (mostly) state facilities that are shown on the county’s HIN map. Have not identified projects from state CTP.

Montgomery

- Piney Branch from Flower Ave. to University
- Wayne Ave from Georgia Ave to Sligo Creek Pkwy
- University from Franklin to Piney Branch (adjacent to corridor)

Prince George's

- University Blvd from Edwards Pl to West Park Dr
- Kenilworth Ave from River Rd to Carters Lane
- Riggs Rd from University Blvd to MD 410
- Merrimac Ave from Keokee to 14th Ave (county road)
- Annapolis Rd from Decatur St to Finns Ln

Montgomery County, *Purple Line Pedestrian Connectivity Report*

- Takoma/Langley earned an existing pedestrian connectivity score of 21%, one of the three lowest among Montgomery's Purple Line stations (Figure 4a).
- Recommended improvements listed below and shown in the table following would raise the score to 86% (Figure 4b), a substantial change.
    - Reduced speeds on the arterial (state) roadways, coupled with automated enforcement
    - High visibility crosswalks at major intersections with University and New Hampshire
    - Removal of the channelized turn at University and New Hampshire adjacent to the Transit Center
    - Select new sidewalks with buffer
    - Construction of a separated bikeway on New Hampshire

Source:Purple Line Pedestrian Connectivity Report

Source:Purple Line Pedestrian Connectivity Report

Station Area Recommendations

TAKOMA-LANGLEY STATION			
TERM	**TYPE**	**#**	**RECOMMENDATION**
SHORT TERM	**Slower Speeds**	1	Reduce posted speed limit on University Blvd between Carroll Ave and 14th Ave from 35 to 25 mph
		2	Reduce posted speed limit on New Hampshire Ave between Lebanon St and Sligo Creek Pkwy from 35 to 25 mph
		3	Reduce posted speed limit on Carroll Ave between University Blvd and Flower Ave from 30 to 25 mph
		4	Provide automatic speed enforcement on University Blvd in the vicinity of the Purple Line station
	Safe Crossings	5	Install high visibility crosswalk with pedestrian refuge at Carroll Ave and Glenside Dr
		6	Install high visibility crosswalks at University Blvd and New Hampshire Ave (if not provided already by the Purple Line Construction)
		7	Install high visibility crosswalks at New Hampshire Ave and Takoma-Langley Crossroads Center
		8	Install high visibility crosswalks at New Hampshire Ave and Holton Ln
		9	Install high visibility crosswalks at New Hampshire Ave and Merwood Dr
		10	Install high visibility crosswalks at New Hampshire Ave and Glenside Dr
	Designated Space for Walking and Bicycling	11	Consider vertical separation (e.g. bollards) at the University Blvd and New Hampshire Ave intersection where space between face of the curb and back edge of sidewalk is 8' or greater
MEDIUM-LONG TERM	**Safe Crossings**	12	Explore alternatives to remove the channelized right turn at the northwest corner of University Blvd and New Hampshire Ave
	Designated Space for Walking and Bicycling	13	Provide a 5' wide sidewalk with a 5' wide buffer on the east side of New Hampshire between University Blvd and Erskine St
		14	Construct the "New Ave Bikeway", a two-way, separated bike lane on west side of New Hampshire from University Blvd to Sligo Creek Pkwy
		15	Install a 5' wide sidewalk at the west side of Jackson Ave and Hammond Ave

Fig 4a: Existing Takoma-Langley Station Pedestrian Connectivity: 21%

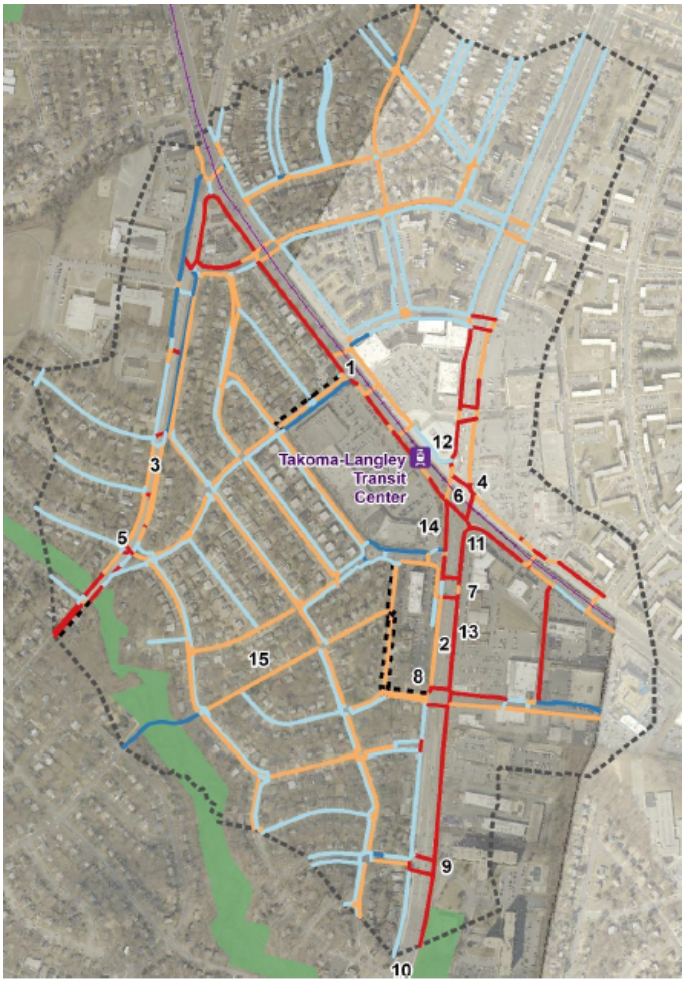


Fig 4b: Takoma-Langley Station Pedestrian Connectivity with all improvements: 83%

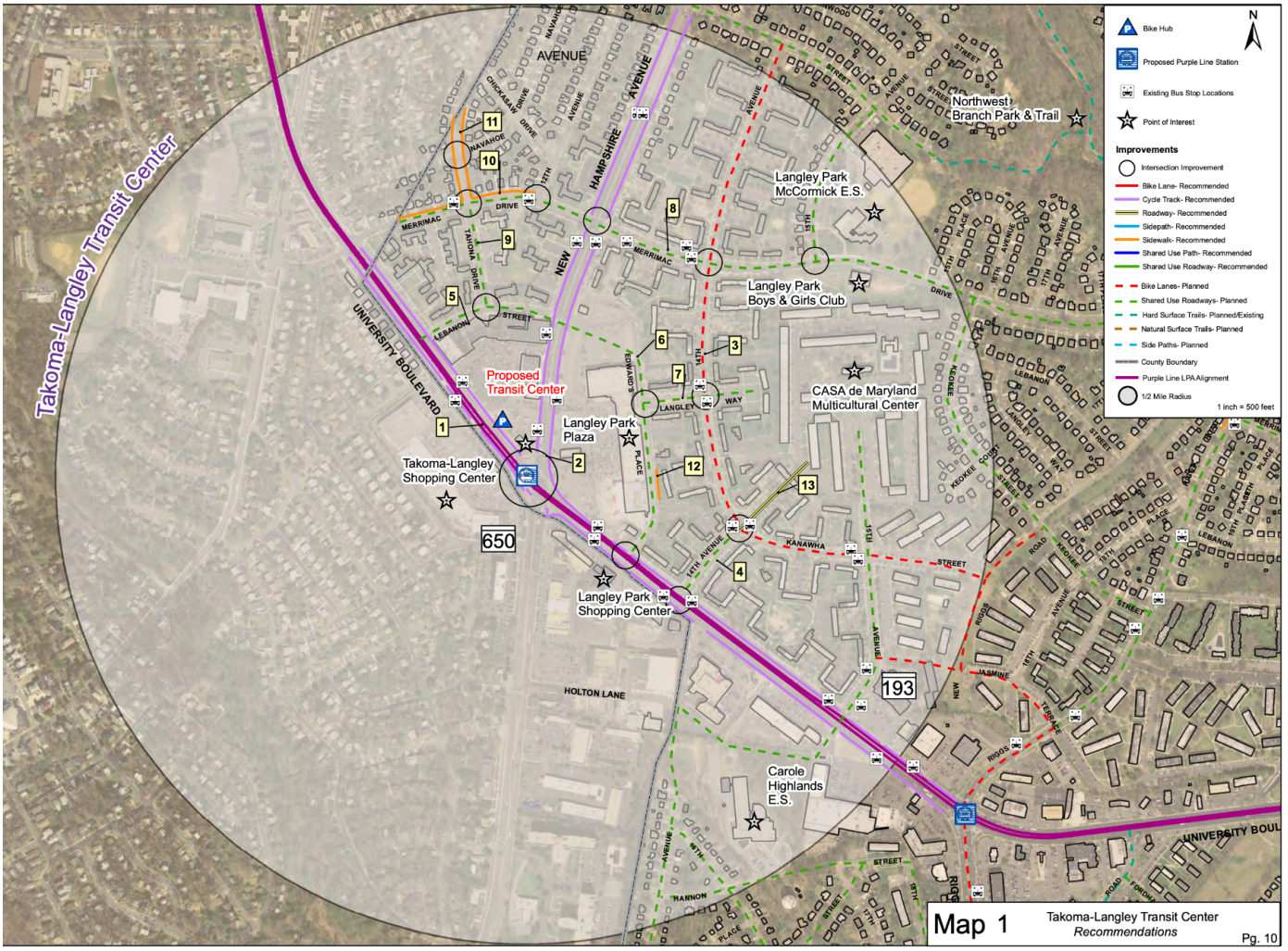
Montgomery County Department of Transportation, *Bicycle Pedestrian Planning Area (BiPPA) Study (Oct 2021) and on-line map*

- Areawide spot improvements to address ADA issues (ramps, aprons, obstructions, APS)
- Sidewalk modifications on west side of New Hampshire, from Kingwood to University; further "evaluation" of needs on east side, concerns about impacting parking or SHA ROW
- Improvements (crosswalks, stop bar location) to NH and Merwood intersection
- Sidewalk upgrades along Carroll Ave south of University
- Ramps, aprons, obstacles along Holton Lane, Long Branch Parkway
- Remove obstacles on Anne St.

- Construction of new sidewalks along at least one side of street: Barron St, Hammond/Lockney, Chester, Glenside, Kirklynn, Prospect

Prince George's County, *2021 Strategies for Public Space and Commercial Corridor Enhancements (SPACES)*

- New sidewalks at:
  - Merrimac (north side) from county line to 12th Ave.
  - Tahona Dr. (both sides) from Merrimac to county line
  - Edwards Purple Line (east side) along parking area south of Langley Way
- Enhance street lighting along University Blvd., New Hampshire Ave., 14th Ave., Merrimac Dr., Lebanon St. and Edwards Pl.
- Intersection/entrance improvements at all signalized intersections:
  - Provide a leading pedestrian interval for right turning vehicles.
  - Provide pedestrian countdown signals.
  - Verify all signals are properly timed and meet the current pedestrian crossing standards.
  - Verify ADA access to all pedestrian push buttons.
  - Widen and extend the median noses further into the intersection to create pedestrian refuge area.
  - Provide yield lines for right turning vehicles.
  - Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station
- Traffic calming
  - Provide curb extensions at intersections where on-street parking is permitted



Source: [2011 Purple Line Corridor Access Study (CAST)]

2021 Public Space and Commercial Corridor Enhancements (SPACES) Study

- Performed by Prince George's County Planning Department for (in conjunction with?) Northern Gateway SPACEs PAMC Project
- Comprehensive (30% engineering) study of needed improvements to University Blvd (193) corridor from Langley Park to Adelphi Rd (approx. 2 miles)
- See recommended enhancements in table below
- Has not proceeded because 98% of project is in SHA ROW

Recommendation	Preliminary Cost
Buffered Bike Lanes	$2,030,000
Driveway Consolidation	$686,000
Eliminating Free Right Turns	$564,000
Mid-Block Crossings with HAWK Beacons	$1,370,000
Landscaping/Site Design (Including Street Furniture)	$2,360,000
Pedestrian Lighting	$1,677,000
Total	**$8,687,000**

Source: 2021 Strategies for Public Space and Commercial Corridor Enhancements (SPACES)

Remaining Gaps:

- No mention of reduced speed limits or active enforcement along University Blvd or New Hampshire
- Channelized turns will remain at NW and SE corners of University/New Hampshire intersection, without any discussion of adding traffic controls for vehicles negotiating slip lanes
- Carroll Ave and University remains a large, complex and difficult intersection for pedestrians, with uncontrolled channelized right turns and long crossing distances
- Virtually all county sidewalk improvements are focused on light-traffic local streets, and in Montgomery county the emphasis is on ADA compliance.
- While it appears the state is taking responsibility for improving sidewalks and pedestrian conditions along University, no state efforts seem to be directed at New Hampshire; other than the Kingwood to University improvements, no changes are recommended for the east side of New Hampshire, where the current sidewalk has no buffer from fast-moving curbside traffic. Earlier recommendations from PLPC included:
    - A 15'sidewalk with shade trees along New Hampshire
    - A 5' sidewalk and 5' buffer along New Hampshire (east side) between University and Erskine
- It is not clear from the drawings as to how the alterations along University will address the problem of frequent and unmanaged curb cuts, or sidewalk width and buffering from traffic.
- Lack of direct access between neighborhoods and station because of blockage by commercial development remains an issue, forcing residents into longer walks along dangerous arterial highways

- Other than a new signalized intersection at University and 14th Ave, there is a need for additional signalized crossings over University and New Hampshire within the project boundaries.
- It is unclear which if any of the improvements recommended in the CAST study were ever implemented; similarly, the SPACES study does not appear to have moved forward.
- No discussion of how signal timing and sequencing favors vehicles over pedestrians and how this will be addressed.
- Recommendations from the Purple Line Ped Connectivity study for high-visibility crosswalks at several key intersections along New Hampshire have not been addressed.
- Recommendations for sidewalks and buffer treatment listed in the PLPC study for Jackson and Holton Ave were not addressed, nor the unnamed street between Aldi's and University

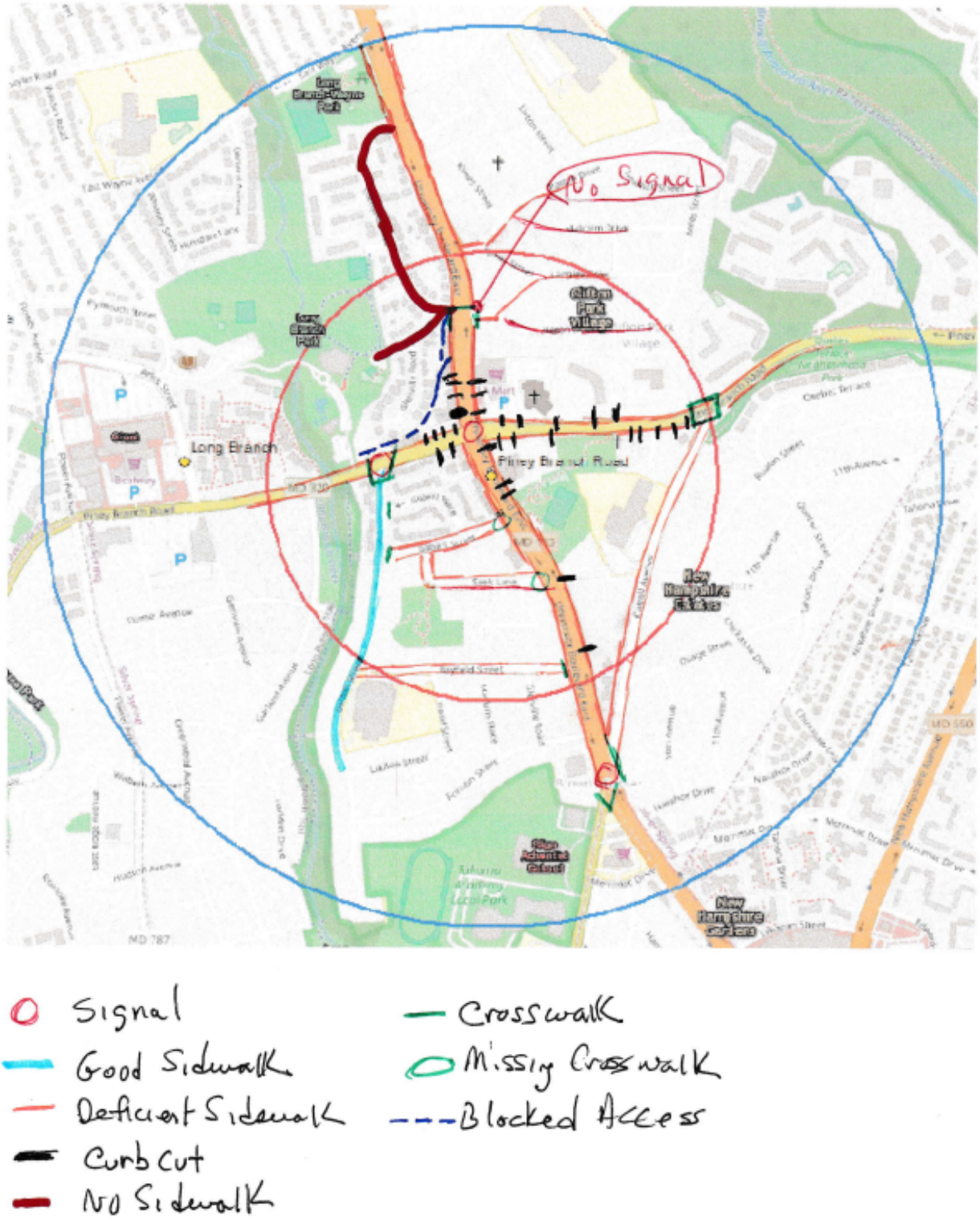
Piney Branch

Conditions Found/Issues Raised in Initial TOD Study

(Observations are linked to map on following page)

- The Piney Branch station will be located in the median of MD 193 (University Boulevard), just south of its intersection of MD 320 (Piney Branch Road).
- MD 193 is 6 lanes with median plus turning lanes, MD 320 is four lanes plus turning lanes.
- Posted speed limits are 30 mph on Piney Branch west of the MD 193 intersection and 40 on the east side. University is normally posted at 35, but is currently 30 mph in proximity to the station due to construction.
- There are very few signalized intersections with complete pedestrian crossings in the area.
    - The primary intersection at MD 193 and MD 320 has crosswalks on all legs, but features large radius corners that extend the walking distance over an already large cross-section of 7 lanes plus median on MD 193, 5 lanes on MD 320 west and 6 lanes on MD 320 east.
    - The only other signalized intersection along MD 193 is at Carroll Ave, almost one-half mile away, which contains long, multi-link crosswalks on 2 of the 3 sides where they are provided. While there is a 3-way crossing over MD 193 north of the MD 320 intersection at Langley Drive, there is no traffic signal across 7 lanes plus a median.
    - On MD 320, there is a signal with 3-leg crosswalk at Barron St. west of MD 193, and a 4-way at Carroll Ave east of MD 193.
- Sidewalks are present along all of the major roadways, but almost all would be regarded as deficient on one more of the following criteria:
    - Narrow width
    - No buffer from curbside traffic
    - Few if any crosswalks over local streets or commercial driveways.
- As shown in the illustration, a large number of curb cuts interrupt pedestrian movement along MD 320 and MD 193 in the vicinity of the station, making walking there uncomfortable and potentially unsafe.
- Sidewalk coverage and quality in the neighborhoods is varied. In the neighborhoods south of MD 320, sidewalks follow an early suburban pattern where they are set back from the curb with a grass buffer but are very narrow and probably do not conform to all ADA specifications. The neighborhoods north of MD 320 follow a more contemporary suburban subdivision pattern with no sidewalks or sidewalks on only one side of selected streets.
- The neighborhood on the northwest corner of the station site is also cut off from direct access to the MD 193/320 corner by existing commercial development.
- Substantial high-rise apartment buildings on the SE corner of the intersection will require residents to cross a large (7-lane) intersection across University (193) to reach station.
- Elementary school is located to the SE side of the station/major intersection, alongside a large local park. No direct path exists through the park to the school.

Piney Branch Existing Conditions



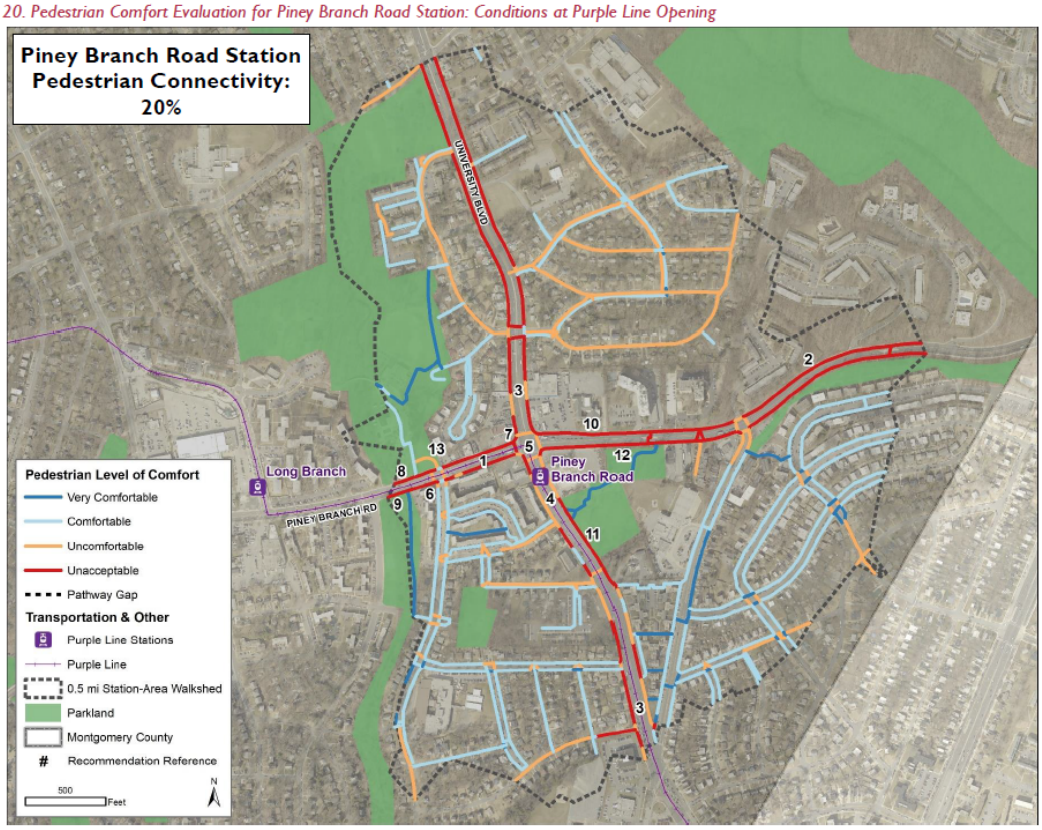
Source: Rich Kuzmyak

Montgomery County, *Purple Line Pedestrian Connectivity Report*

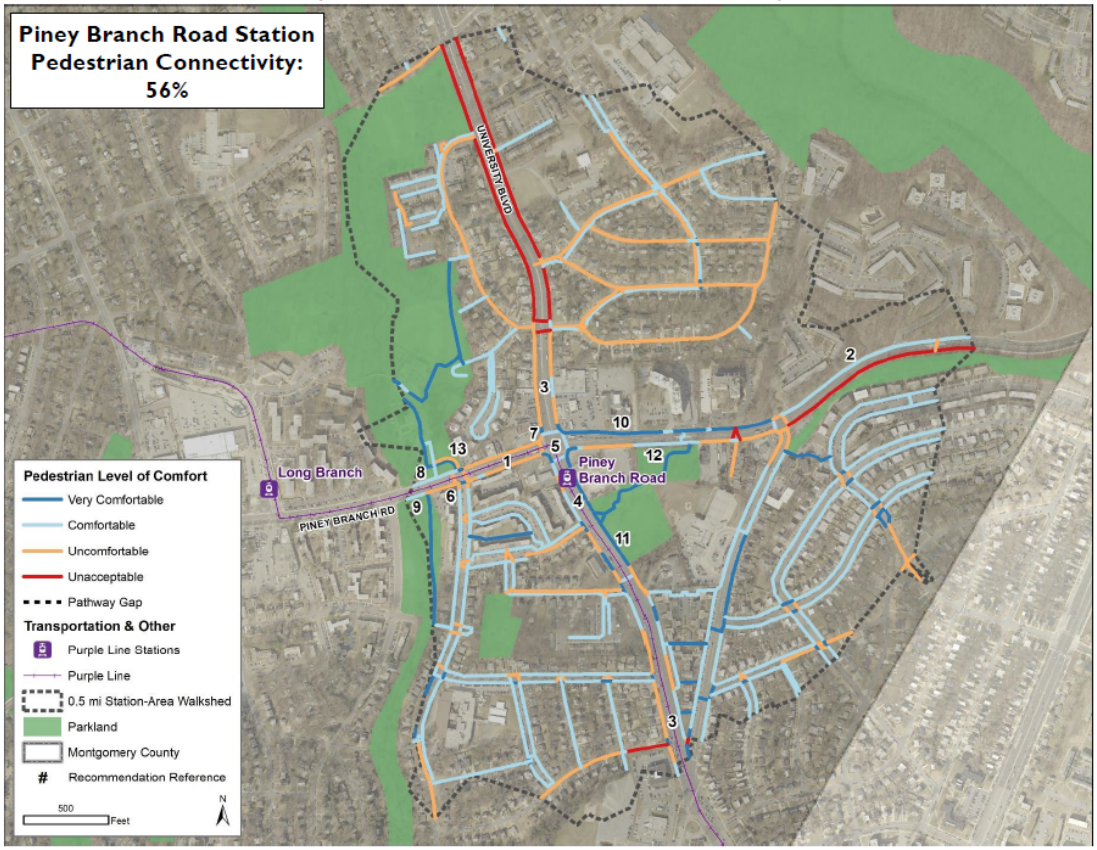
- This station earned the poorest baseline pedestrian connectivity score (20%) of any of Montgomery's Purple Line stations (Figure 4A).
- As per the NCSG assessment in the previous section, the biggest shortcomings are walking conditions along MD 193 and MD 320, but also reflecting the poor walking conditions in the neighborhood at Langley Drive.
- Recommended improvements in Table 4 focus on:
    - Reduced speeds and automated enforcement along the three state arterial roadways
    - Sidewalk upgrades along MD 193 and MD 320
    - High visibility crosswalks
    - Separated bike lanes on MD 320 between University Blvd and New Hampshire Ave.
    - These improvements are projected to raise the connectivity score to 56%, which is still quite low.

Source:Purple Line Pedestrian Connectivity Report

Map 20. Pedestrian Comfort Evaluation for Piney Branch Road Station: Conditions at Purple Line Opening



Map 21. Pedestrian Comfort Evaluation for Piney Branch Road Station: Conditions with All Recommended Improvements



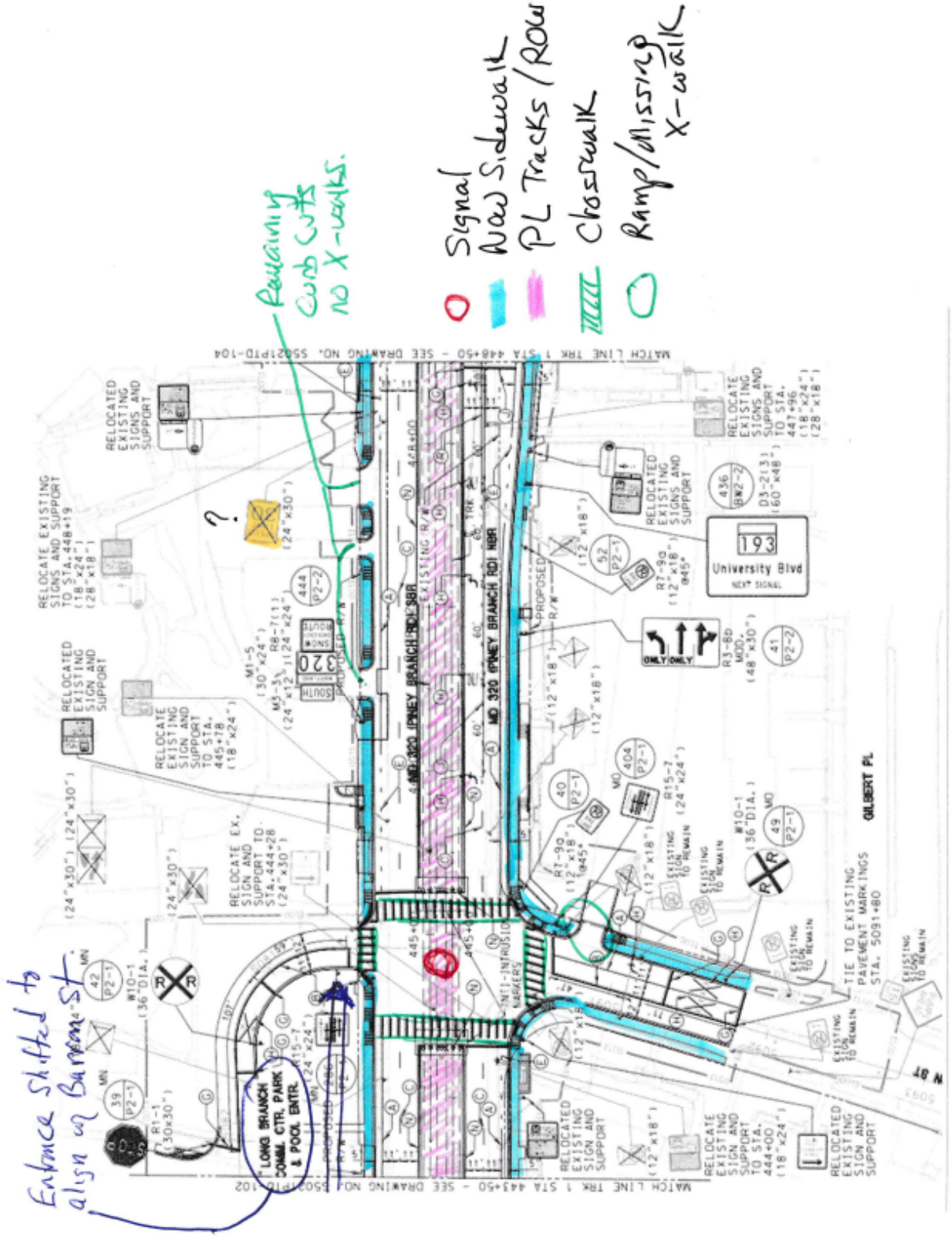
Source:[Purple Line Pedestrian Connectivity Report]

Contributing Studies and Recommendations

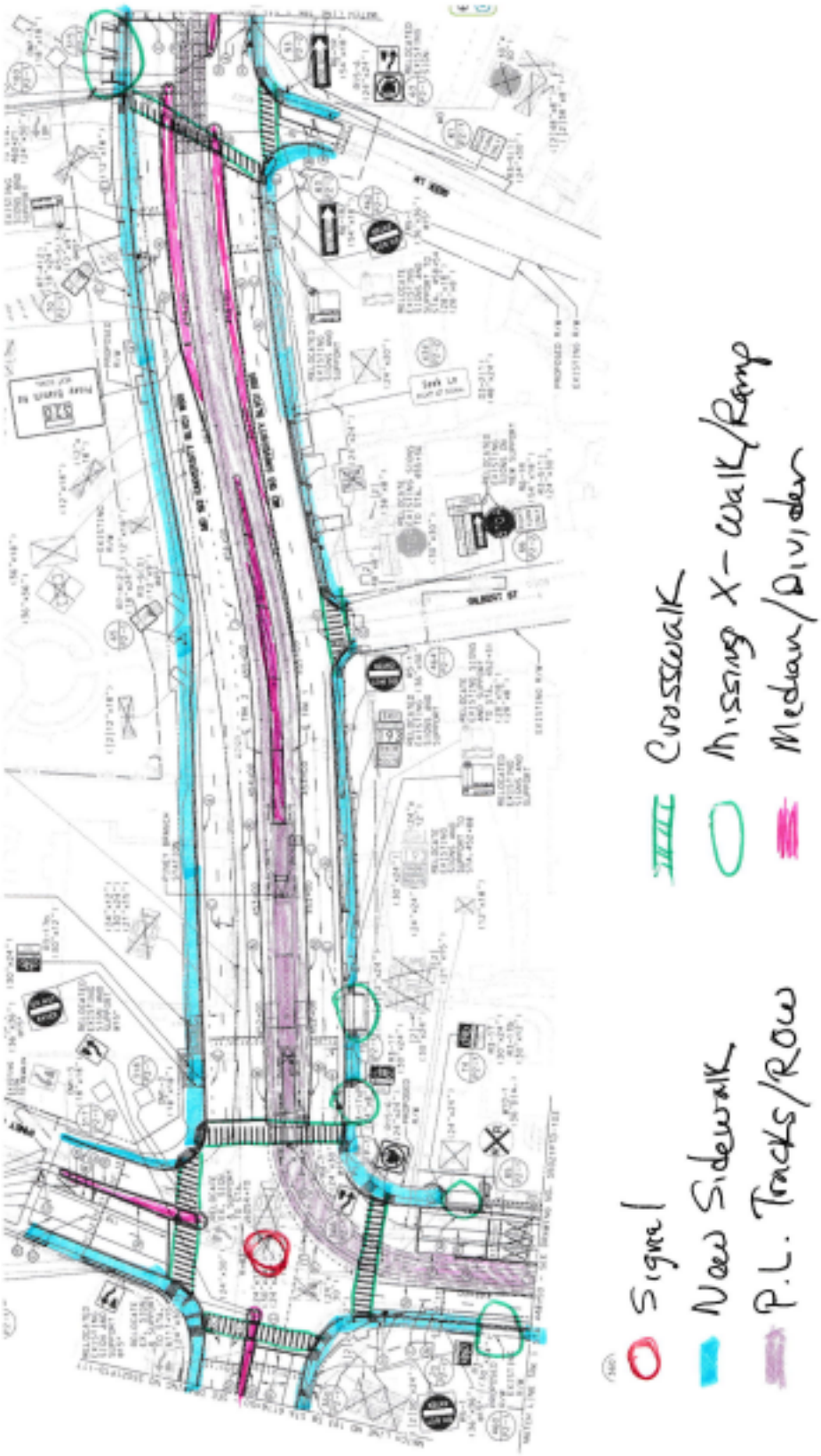
Maryland Department of Transportation, Mass Transit Administration, Purple Line Contractor

See marked-up drawings below for explanation of key improvements. As earlier noted, improvements to be made by the state in conjunction with Purple Line construction are limited to the immediate right of way of the state highway in which the Purple Line will operate. The following improvements are noted:

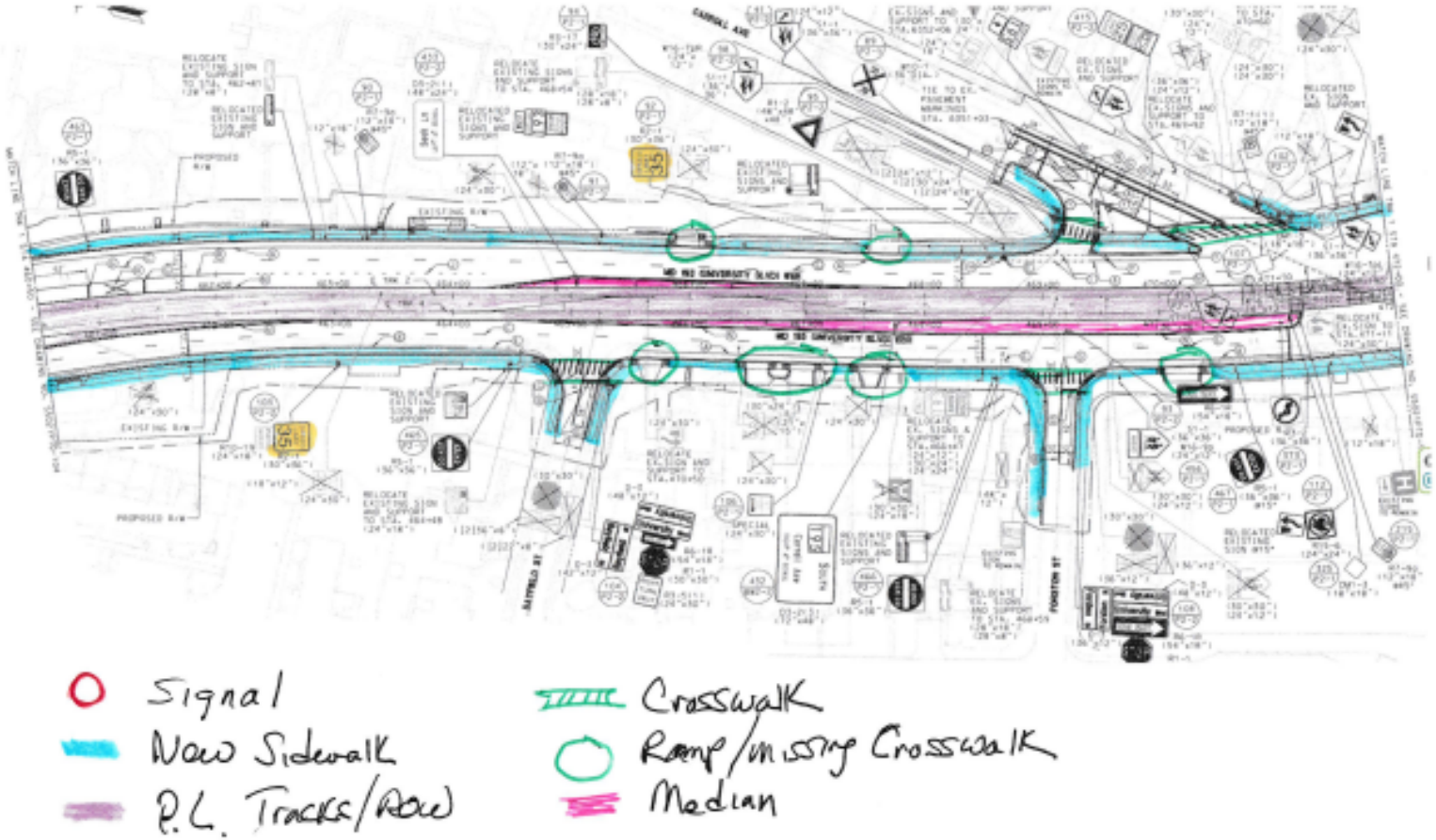
- New/reconstructed sidewalks on both sides of Piney Branch west of the station and University Blvd south of the station
- Reconfiguration of the Piney Branch/Barron Ave intersection to incorporate the entrance to the Long Branch Community Center and park in a 4-way signalized intersection with crossings on all legs.
- Reconstruction of Piney Branch/University intersection, with extended medians on MD 193 north and MD 320 east, reconfigured crosswalks with shorter crossing distances.
- New signalized intersection at University Blvd and Seek Lane
- *Privately constructed sidewalks at Park Mahogany along Piney Branch north, and wider sidewalks with buffer at Long Branch Center on NW corner of Piney Branch and University.*



Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak



Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak


Signal
New Sidewalk
P.L. Tracks/ROW
Crosswalk
Ramp/missing Crosswalk
Median

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak

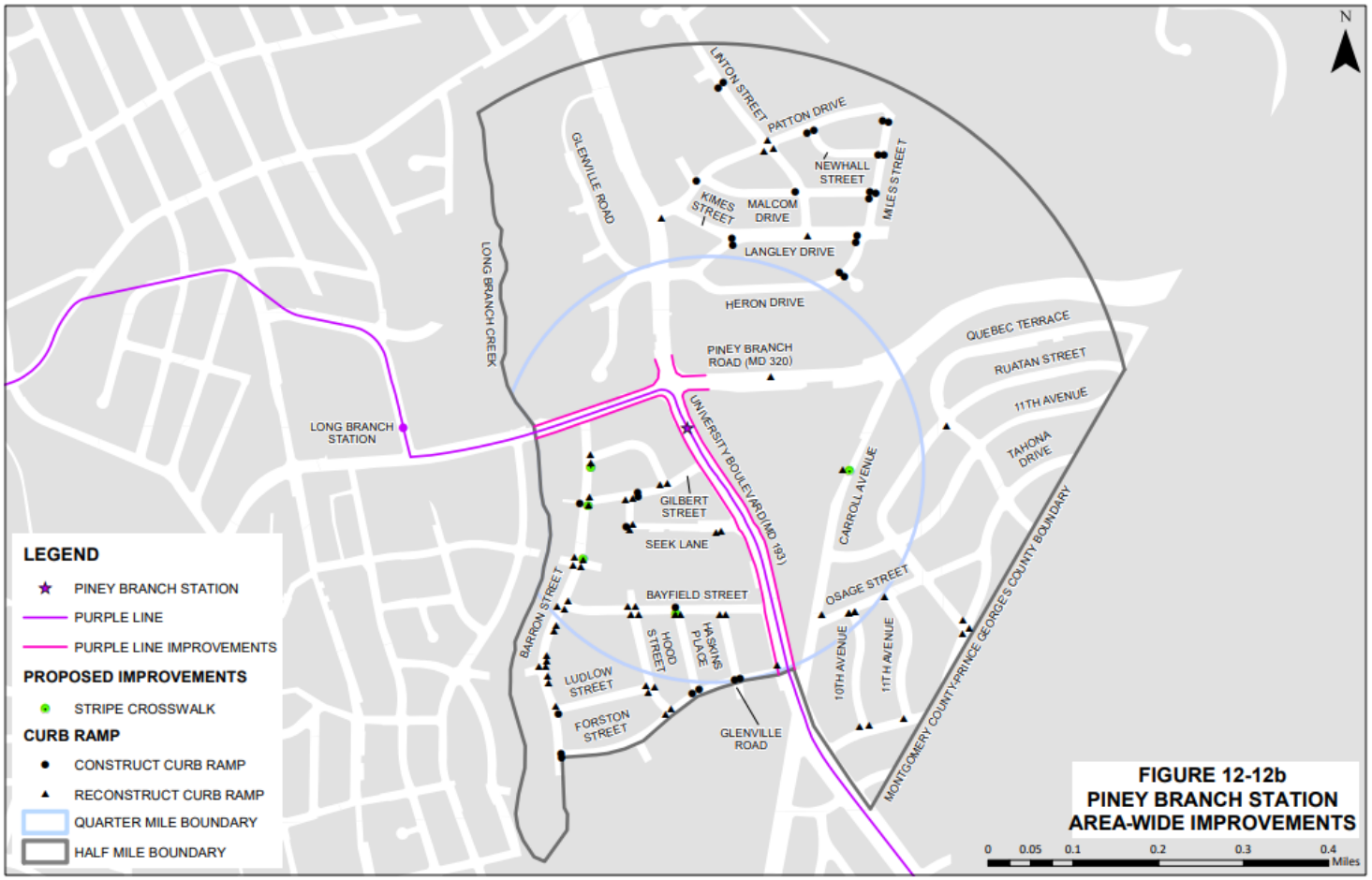
Montgomery County Department of Transportation, Bicycle Pedestrian Planning Area (BiPPA) Study (Oct 2021) and on-line map

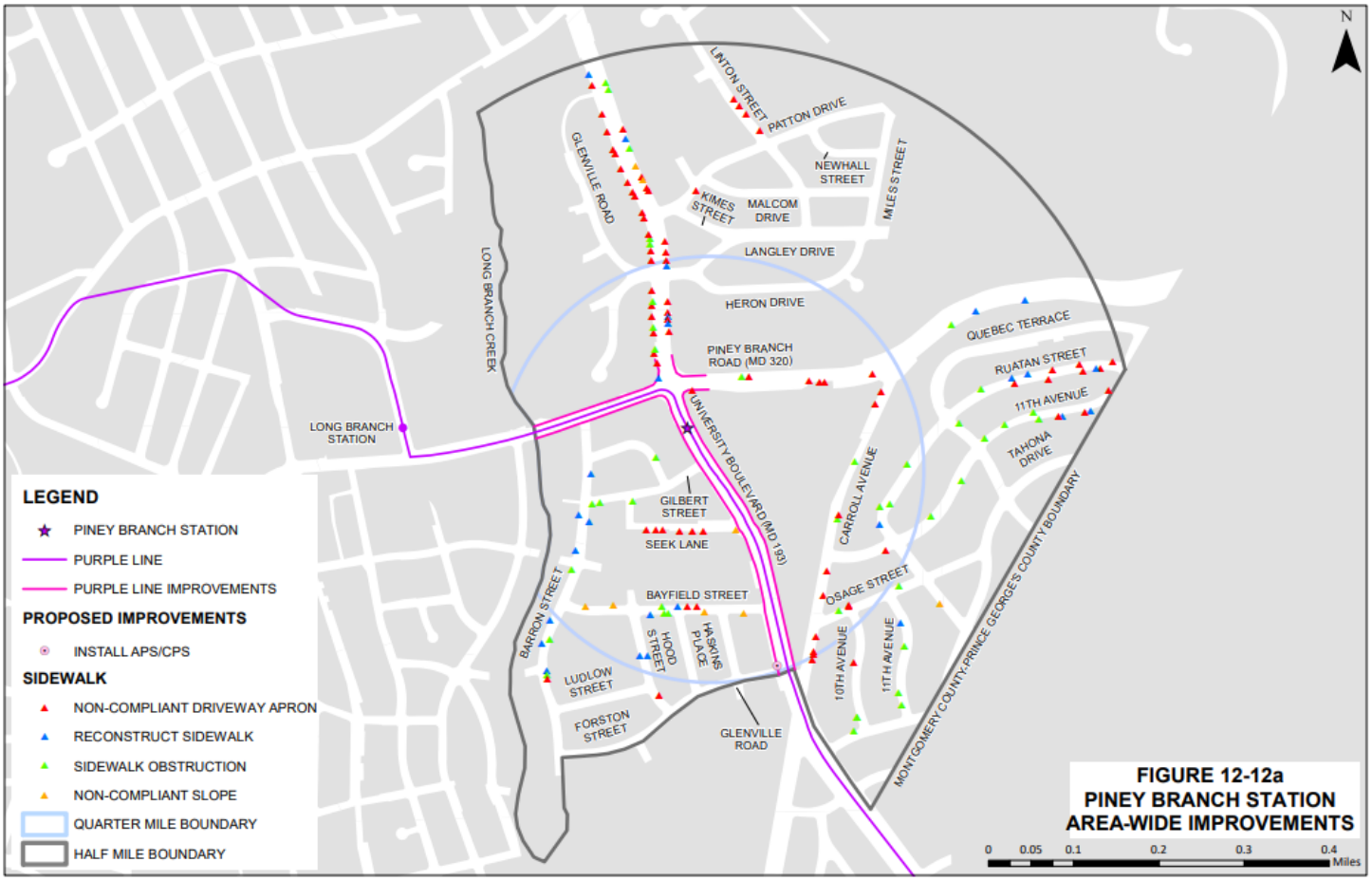
Improvements scheduled for this area are shown in the map figures below and summarized as follows:

- No improvements planned along Piney Branch or University where the Purple Line is sharing right of way, and the state is presumed responsible for construction & reconstruction of sidewalks and pedestrian features.
- Curb ramp construction/reconstruction in the neighborhoods northeast and southwest of the station, plus several crosswalk restripings.
- Extensive sidewalk repairs and maintenance along University Blvd north of the station (the section not covered by the Purple Line work); various similar activities in the neighborhoods southwest of the station and east of Carroll Avenue.
- Shared use path on Piney Branch from University to Carroll; Carroll to New Hampshire

Cycling infrastructure improvements:

- Separated bike lanes on Carroll from University to Piney Branch
- Shared use path on Piney Branch from Long Branch to New Hampshire


N
LINTON STREET
PATTON DRIVE
NEWHALL STREET
MILES STREET
GLENVILLE ROAD
KIMES STREET
MALCOM DRIVE
LANGLEY DRIVE
LONG BRANCH CREEK
HERON DRIVE
QUEBEC TERRACE
PINEY BRANCH ROAD (MD 320)
RUATAN STREET
11TH AVENUE
LONG BRANCH STATION
UNIVERSITY BOULEVARD (MD 193)
TAHONA DRIVE
GILBERT STREET
CARROLL AVENUE
SEEK LANE
BARRON STREET
BAYFIELD STREET
OSAGE STREET
HOOD STREET
HASKINS PLACE
10TH AVENUE
11TH AVENUE
LUDLOW STREET
FORSTON STREET
GLENVILLE ROAD
MONTGOMERY COUNTY-PRINCE GEORGE'S COUNTY BOUNDARY
LEGEND
PINEY BRANCH STATION
PURPLE LINE
PURPLE LINE IMPROVEMENTS
PROPOSED IMPROVEMENTS
STRIPE CROSSWALK
CURB RAMP
CONSTRUCT CURB RAMP
RECONSTRUCT CURB RAMP
QUARTER MILE BOUNDARY
HALF MILE BOUNDARY
FIGURE 12-12b
PINEY BRANCH STATION
AREA-WIDE IMPROVEMENTS
0 0.05 0.1 0.2 0.3 0.4
Miles


N
LINTON STREET
PATTON DRIVE
NEWHALL STREET
MILES STREET
GLENVILLE ROAD
KIMES STREET
MALCOM DRIVE
LANGLEY DRIVE
LONG BRANCH CREEK
HERON DRIVE
QUEBEC TERRACE
PINEY BRANCH ROAD (MD 320)
RUATAN STREET
11TH AVENUE
LONG BRANCH STATION
UNIVERSITY BOULEVARD (MD 193)
TAHONA DRIVE
GILBERT STREET
CARROLL AVENUE
SEEK LANE
BARRON STREET
BAYFIELD STREET
OSAGE STREET
HOOD STREET
HASKINS PLACE
10TH AVENUE
11TH AVENUE
LUDLOW STREET
FORSTON STREET
GLENVILLE ROAD
MONTGOMERY COUNTY-PRINCE GEORGE'S COUNTY BOUNDARY
LEGEND
PINEY BRANCH STATION
PURPLE LINE
PURPLE LINE IMPROVEMENTS
PROPOSED IMPROVEMENTS
INSTALL APS/CPS
SIDEWALK
NON-COMPLIANT DRIVEWAY APRON
RECONSTRUCT SIDEWALK
SIDEWALK OBSTRUCTION
NON-COMPLIANT SLOPE
QUARTER MILE BOUNDARY
HALF MILE BOUNDARY
FIGURE 12-12a
PINEY BRANCH STATION
AREA-WIDE IMPROVEMENTS
0 0.05 0.1 0.2 0.3 0.4
Miles

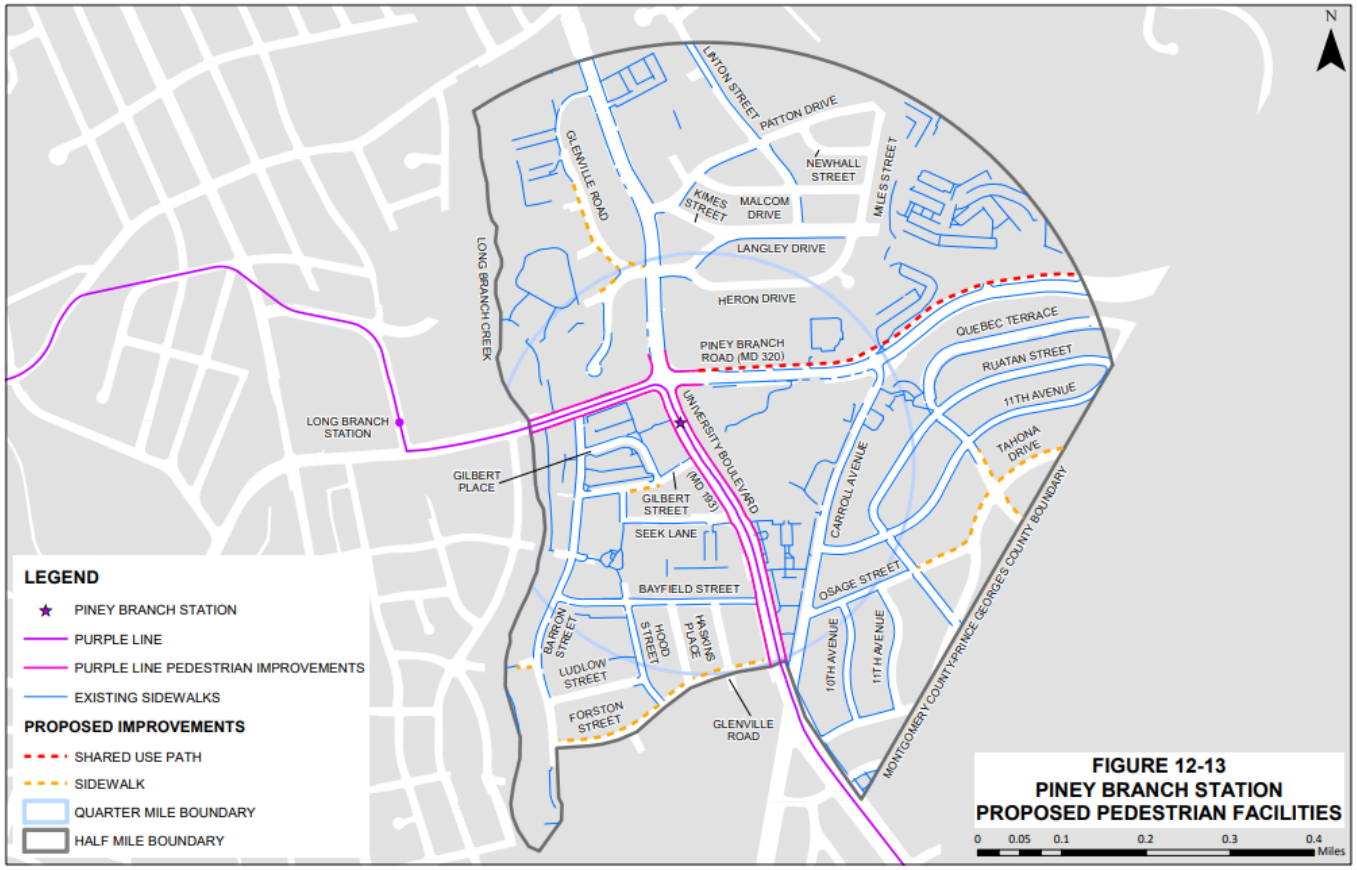


FIGURE 12-13
PINEY BRANCH STATION
PROPOSED PEDESTRIAN FACILITIES

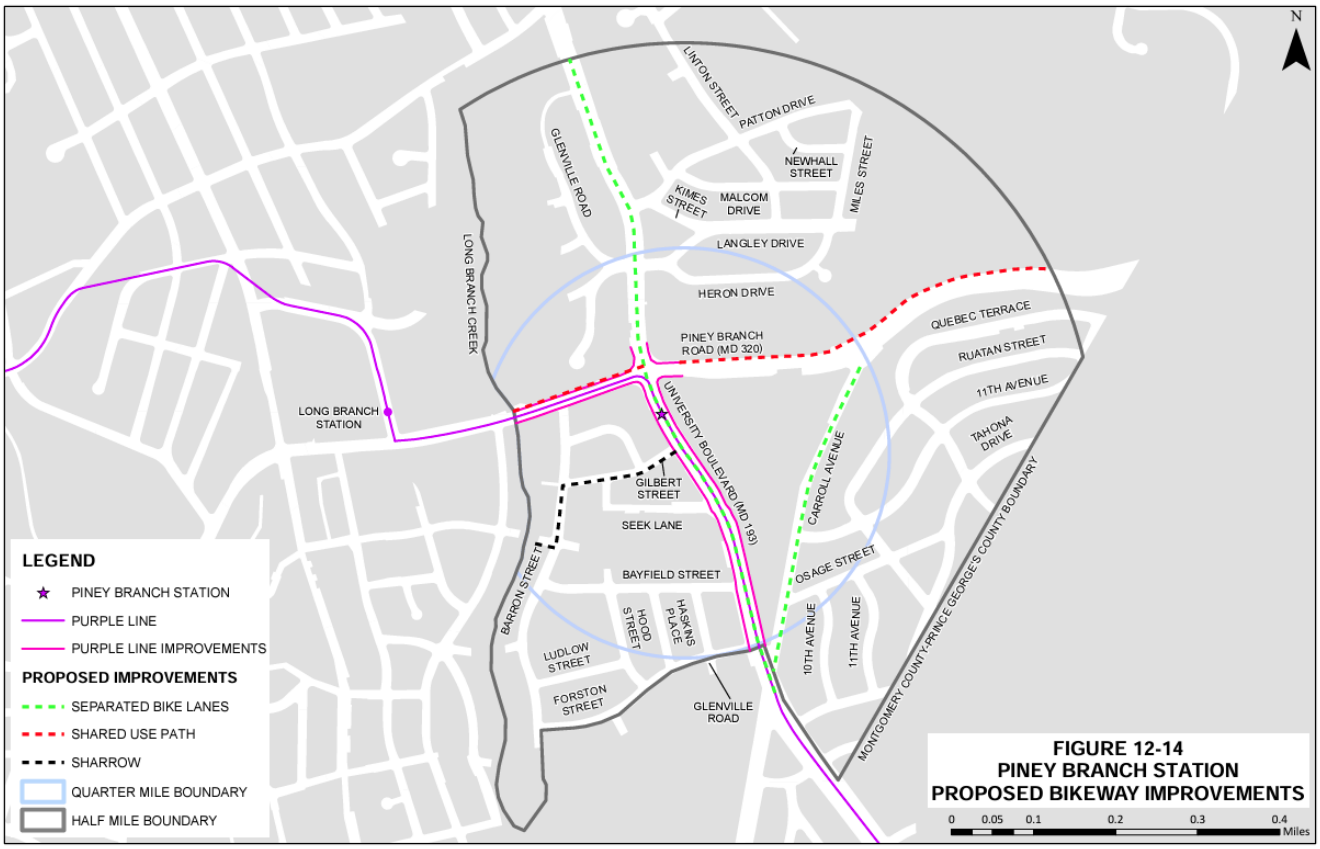


FIGURE 12-14
PINEY BRANCH STATION
PROPOSED BIKEWAY IMPROVEMENTS

Source: *2021 Purple Line Stations* [*Bicycle and Pedestrian Priority Area*]

Outstanding Needs & Gaps

- Speed reductions or enforcement not discussed.
- The sidewalk program for the state does not eliminate any of the existing curb cuts, which are especially numerous in the immediate vicinity of the station along both Piney Branch and University. These remain impediments to safe pedestrian travel.
- The intersection and Piney Branch and University remains large and daunting: many lanes to cross with no safety refuge and large radius curbs to support rapid vehicle turning movements.
- It is not clear whether the sidewalk improvements along University Blvd north of the station by the county will address the issues of sidewalk width or proximity to the curb lane of traffic (i.e., provision of a buffer); this same question extends to the sidewalks being built by the state.
- Why is there not a signalized crossing proposed for the University and Langley Drive intersection?
- Many existing intersections of secondary streets with University or Piney Branch have crosswalks but large radius corners that facilitate rapid vehicle movements.
- Need to ascertain what the policy will be for management of curb cuts, right turn on red, and signal timing and synchronization.
- The triangle of land bounded by Piney Branch, University and Carroll Ave pose a connectivity issue for east-west movements between the station area and the Carroll Ave community; not clear if Seek Lane will become a through passageway to address this issue.
- The inability of residents of the neighborhood northwest of the station to directly access the commercial area at the intersection or the station due to blockage by the commercial activity should be addressed, as pedestrian facilities in that neighborhood are also limited, as they are also in the neighborhoods accessed via Langley Drive.

Long Branch

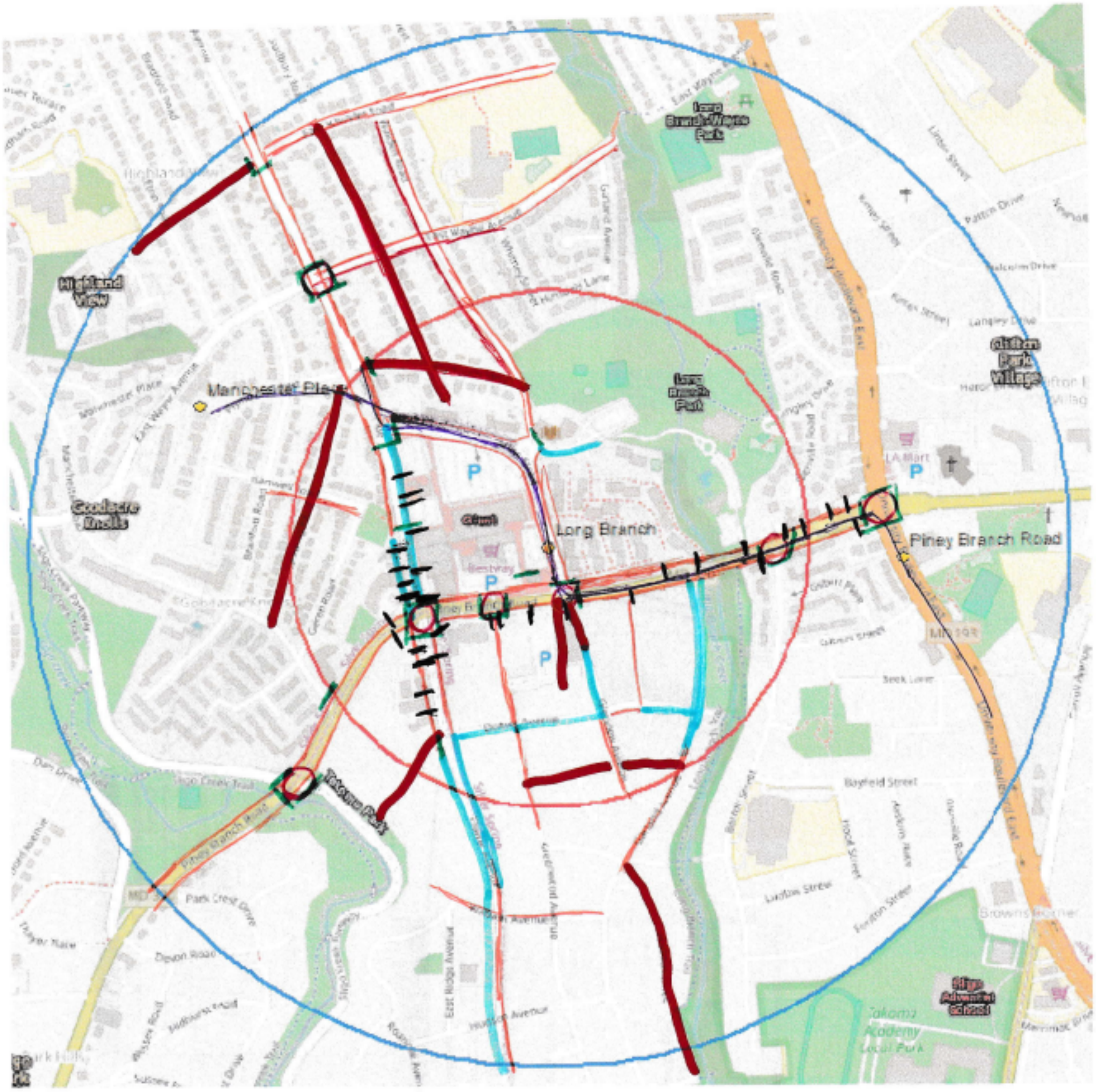
Conditions Found/Issues Raised in Initial TOD Study

(see map illustration below)

- Two main arterial roads define the area:
    - Flower Avenue (a County Road) – North-south, 2 to 3 lanes, speed limit 25; parking is permitted along the southbound curb.
    - MD 320 Piney Branch Road – East-west, 4 lanes with a center turning lane, speed limit 30.
- The Purple Line enters the station area from underground at the Flower Ave/Arliss intersection, then proceeds at grade along the southbound curb of Arliss; the station lies in this expanded curbside area just before the Piney Branch intersection
- The shopping center bordered by Flower, Piney Branch and Arliss contains a Giant supermarket, and numerous retail, service, restaurant, and community enterprises. The center contains substantial surface parking and many separate entrances and driveways.
- Speed limits on Flower and Arliss are 25 mph, but Piney Branch is posted at 30 mph.
- There are only three signalized intersections within ¼ mile of the station, all along Piney Branch at Flower, Greenwood and Arliss. Three other intersections are some distance from the station.
- Sidewalks exist along Piney Branch and Flower in the vicinity of the station, but their comfort and serviceability is questionable due to narrow walkways, numerous busy curb cuts, and no buffer from curbside traffic.
- While crosswalks exist at each of the signalized intersections, at least half are not complete on four sides, and most curb cuts and side streets have no crosswalks at all.
- Access from the neighborhoods surrounding the station is variable: Typical of older suburbs, local streets are narrow, allow parking, and either have no sidewalks or sidewalks that are older, narrow, and only on one side of the street. The sidewalks along Flower south of Piney Branch, and Gardner from Piney Branch to Glenview, are among the best currently.
- The Flower Branch Apartment complex just east of the station should have excellent access. However, the areas south, north and west of the station will incur impediments in relation to continuous and adequate sidewalks, and controlled crossings.
- Existing bikeways in the area are minimal and are typically comprised of shared lane segments rather than a separated bike facility, however, the Purple Line will construct east-west bike lanes

Long Branch Existing Conditions

Source: Rich Kuzmyak

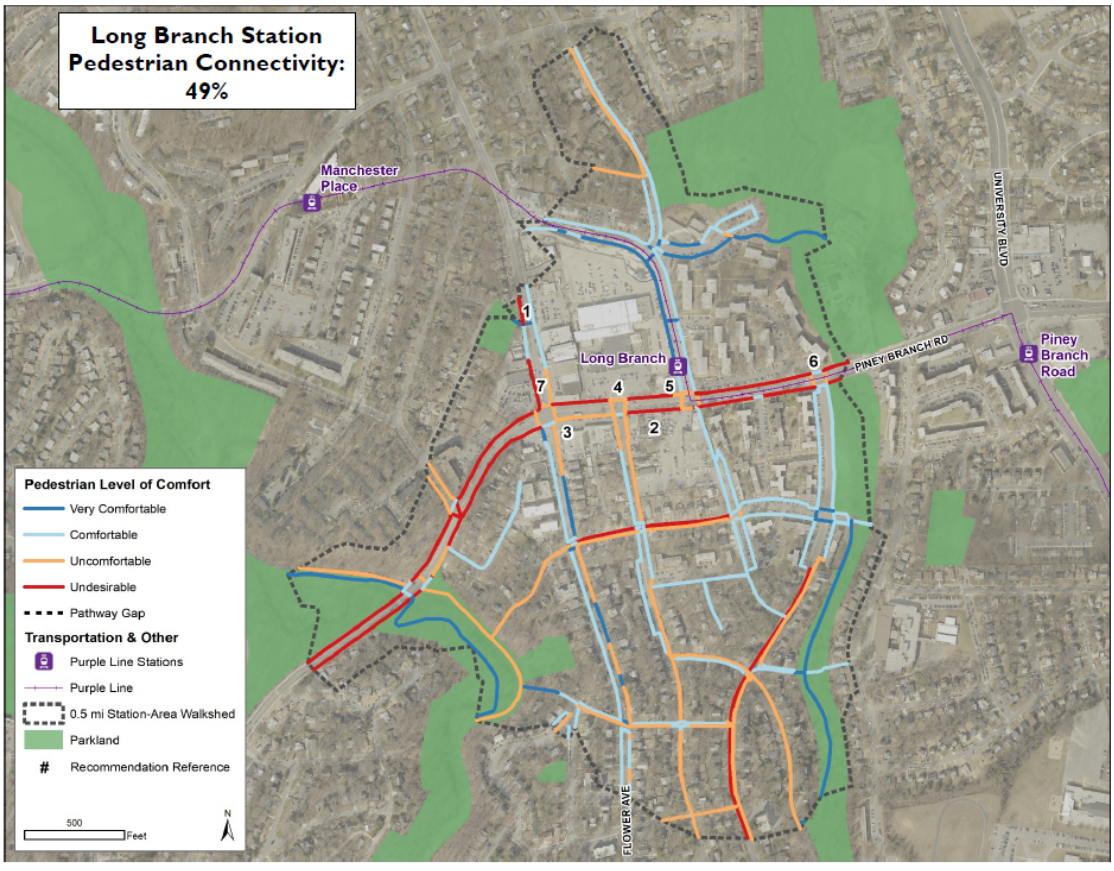


○ Signalized Crossing
— Crosswalk
— Curb-Cuts
— No sidewalk
— No sidewalk
— Adequate Sidewalk
— Deficient Sidewalk

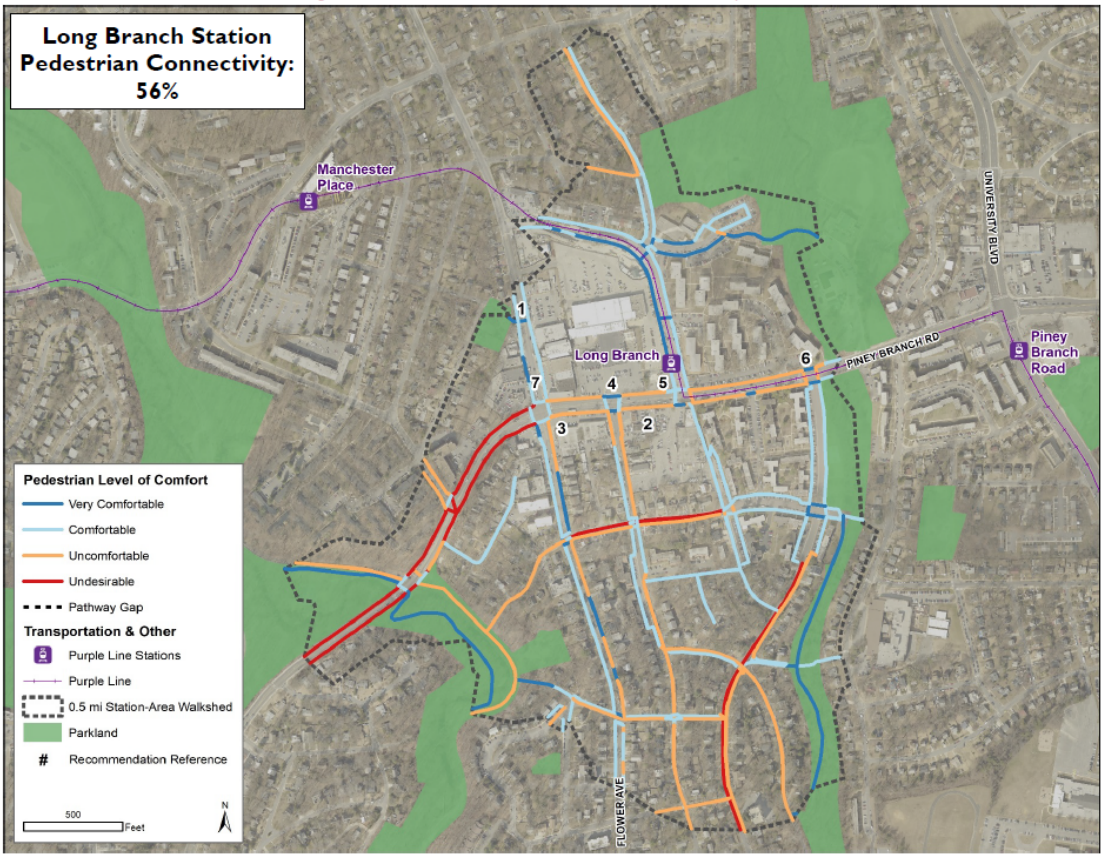
- Montgomery Planning rated Long Branch at 49% at present in its Pedestrian Comfort study. Suggested planned improvements would raise the score to 56% (Figs. 3A and 3B).
- The following improvements were recommended:

Conditions with and without the recommended improvements are shown in Map 18 and 19

Map 18. Pedestrian Comfort Evaluation for Long Branch Station: Conditions at Purple Line Opening



Map 19. Pedestrian Comfort Evaluation for Long Branch Station: Conditions with All Recommended Improvements



Source: Montgomery County, *Purple Line Pedestrian Connectivity Report*

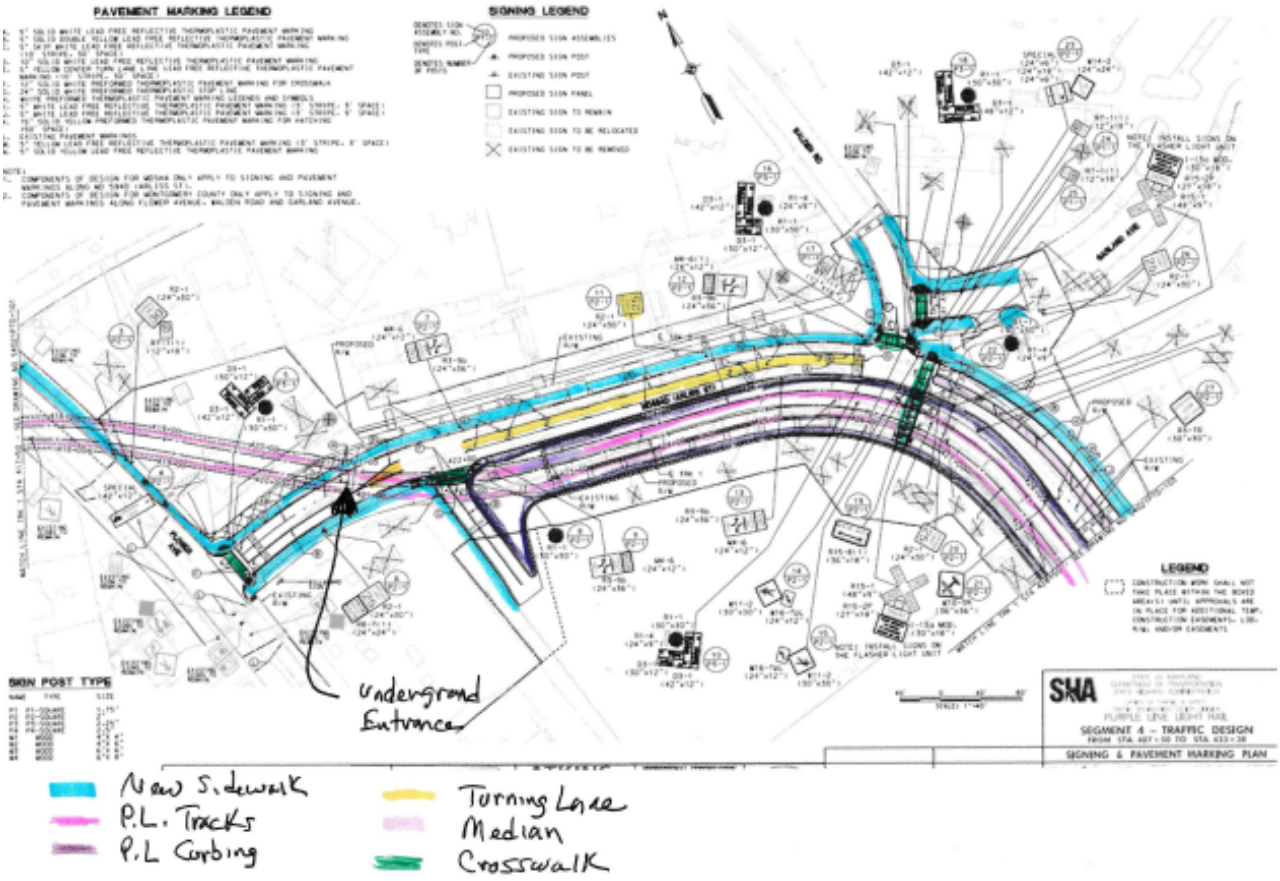
Contributing Studies and Recommendations

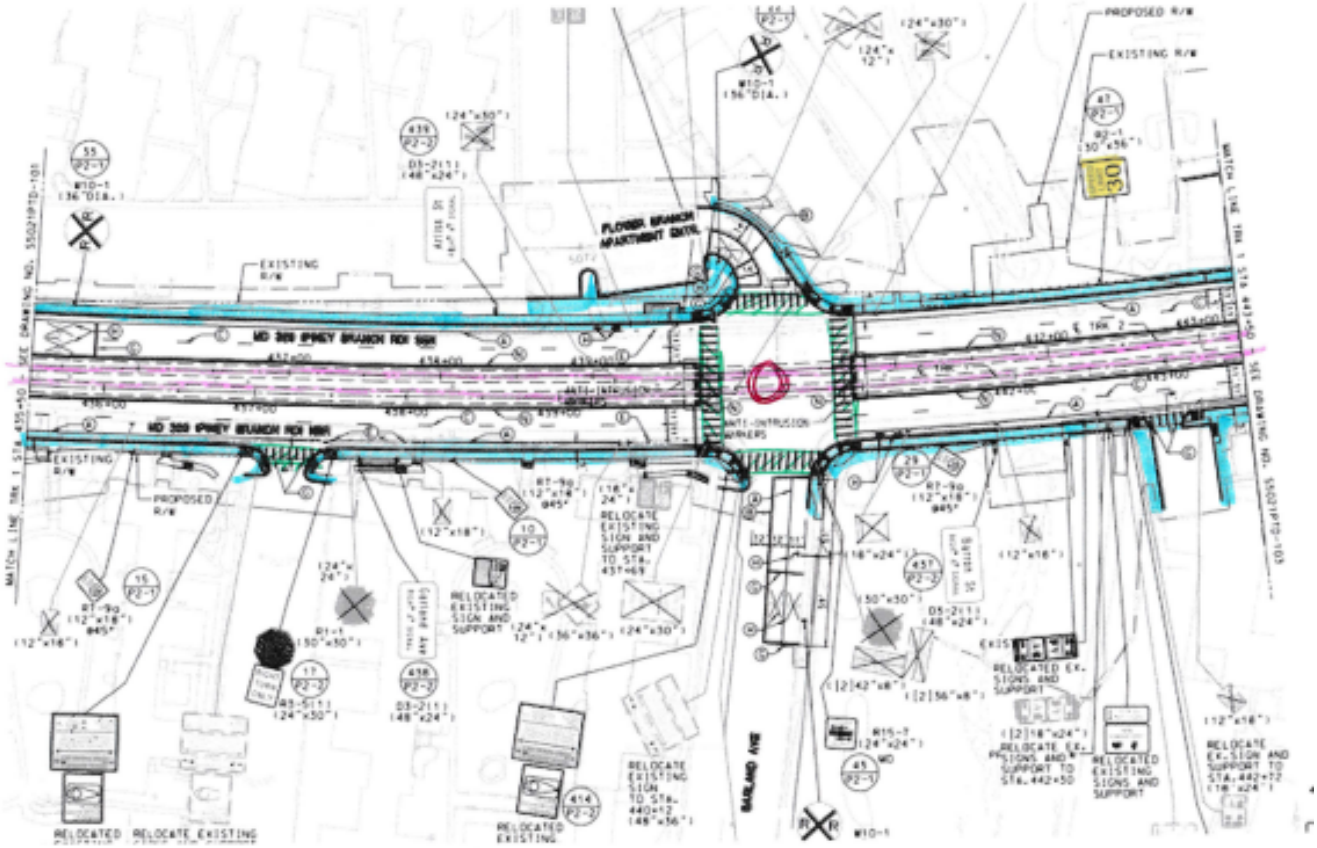
Maryland Department of Transportation, Mass Transit Administration, Purple Line Contractor

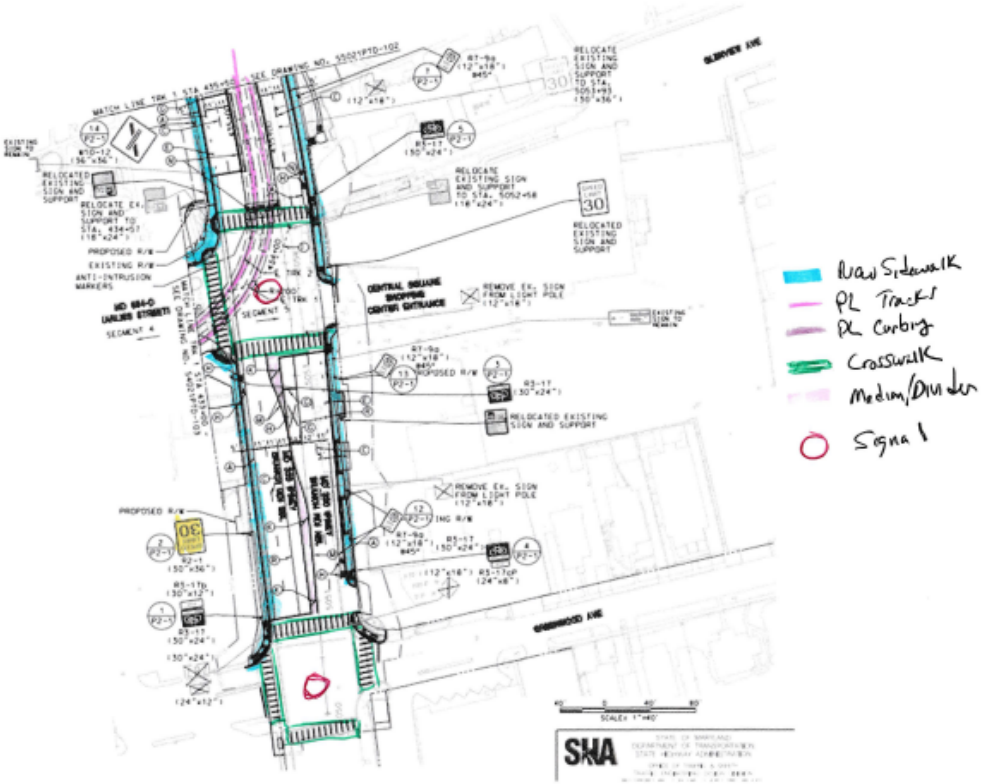
- As shown in the marked-up drawings below and consistent with the PLTP's responsibility being defined as the immediate right of way, planned improvements are along the adjacent roadways, to include:

    - New sidewalks along Arliss, the eastern side of Flower Ave north of its intersection with Arliss, and both sides of Piney Branch from the intersection with Greenwood all the way east to University Blvd.
    - Replacement curb cuts and entrances onto intersecting streets.
- Not clear whether state or county will be responsible for new crosswalks and signals
- HAWK signal at Flower & Plymouth (details unclear)

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak




New Sidewalk
P.L. Tracks
Crosswalk
Traffic Signal

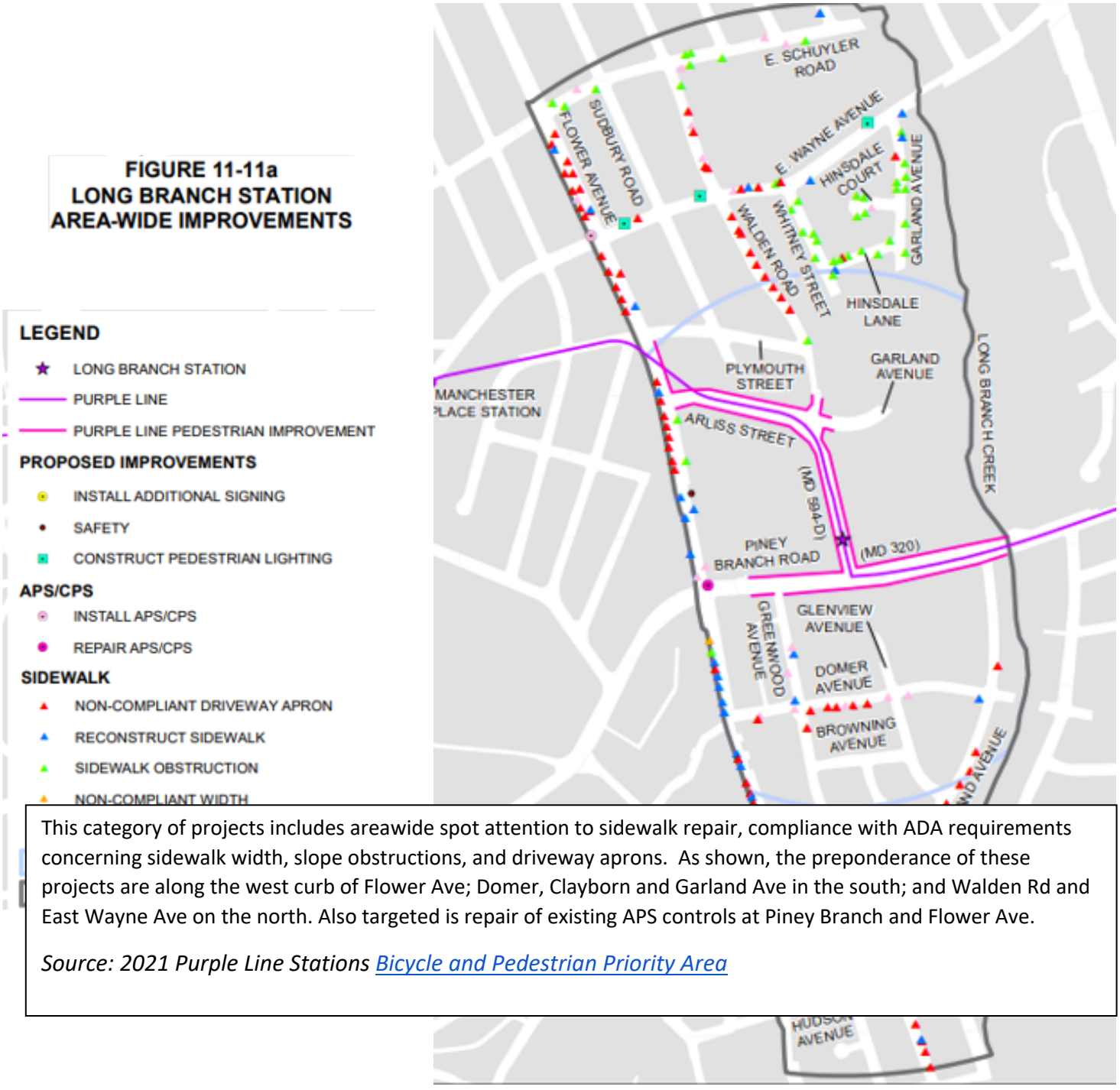

New Sidewalk
PL Tracks
PL Curbing
Crosswalk
Median/Divider
Signal
SHA

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak

Montgomery County Department of Transportation, Bicycle Pedestrian Planning Area (BiPPA) Study (Oct 2021) and on-line map

- Improvements recommended in the 2021 BiPPA report are numerous and best summarized through annotated maps from the report.

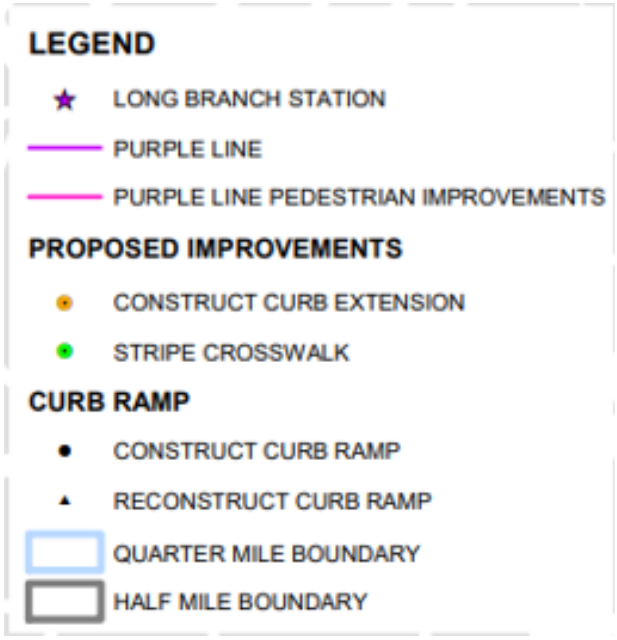
FIGURE 11-11a
LONG BRANCH STATION
AREA-WIDE IMPROVEMENTS

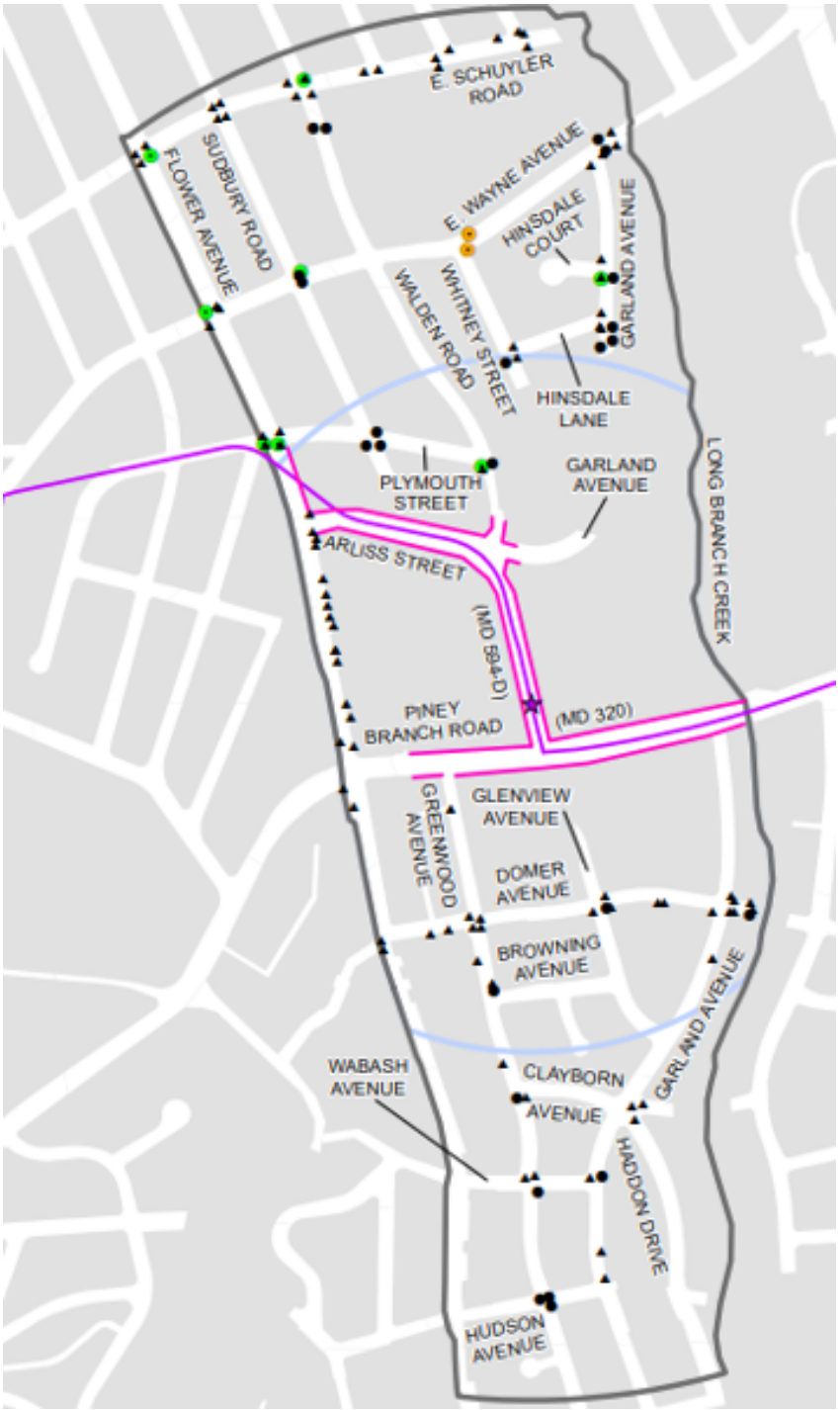


This category of projects includes areawide spot attention to sidewalk repair, compliance with ADA requirements concerning sidewalk width, slope obstructions, and driveway aprons. As shown, the preponderance of these projects are along the west curb of Flower Ave; Domer, Clayborn and Garland Ave in the south; and Walden Rd and East Wayne Ave on the north. Also targeted is repair of existing APS controls at Piney Branch and Flower Ave.

Source: 2021 Purple Line Stations [Bicycle and Pedestrian Priority Area]

FIGURE 11-11b
LONG BRANCH STATION
AREA-WIDE IMPROVEMENTS



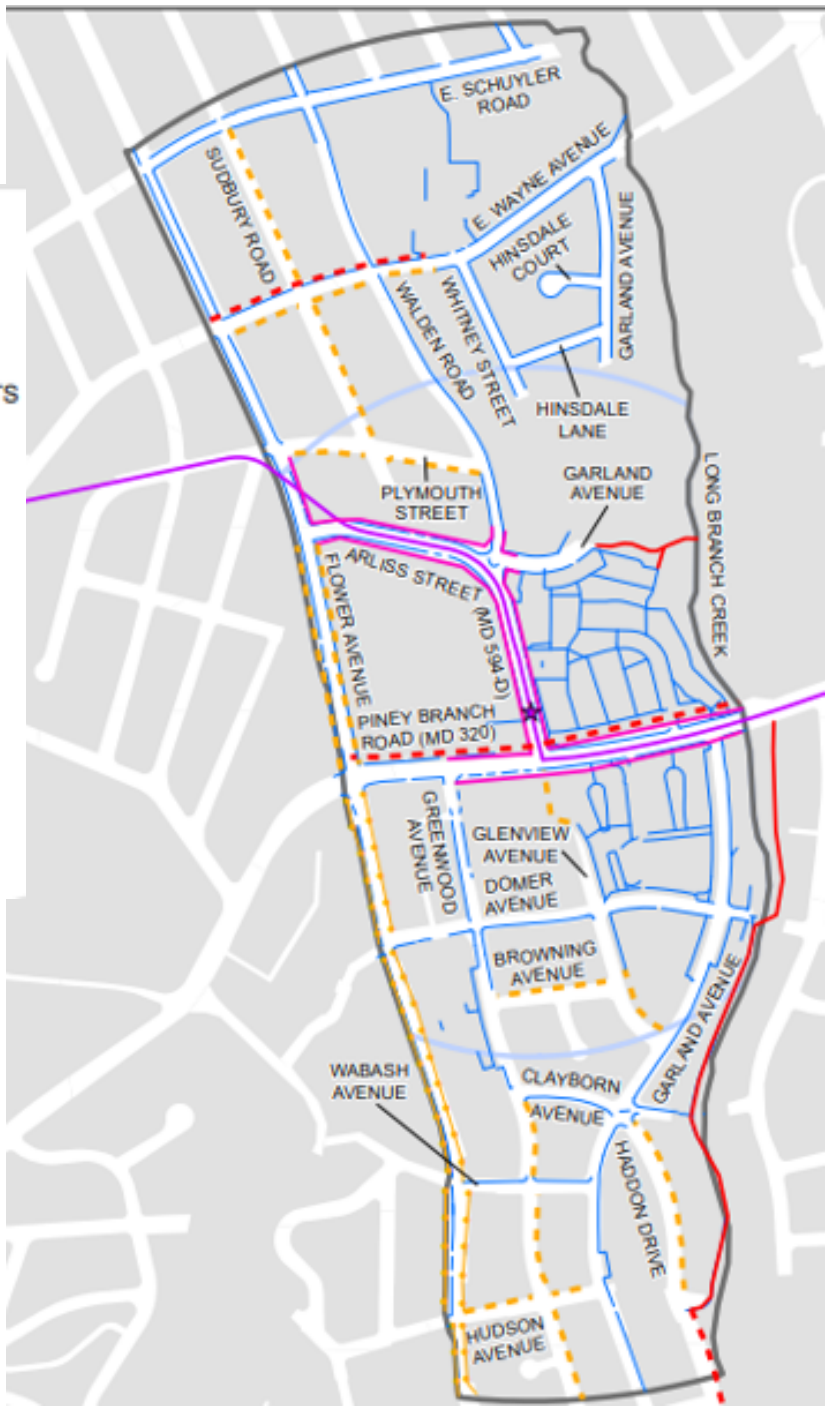


This category of Areawide projects focuses most extensively on construction/reconstruction of curb ramps, presumably also for ADA compliance.

Crosswalk restriping is proposed for the street network in the northern part of the station area, plus a pair of curb extensions at East Wayne and Whitney St.

Source: 2021 Purple Line Stations Bicycle and Pedestrian Priority Area

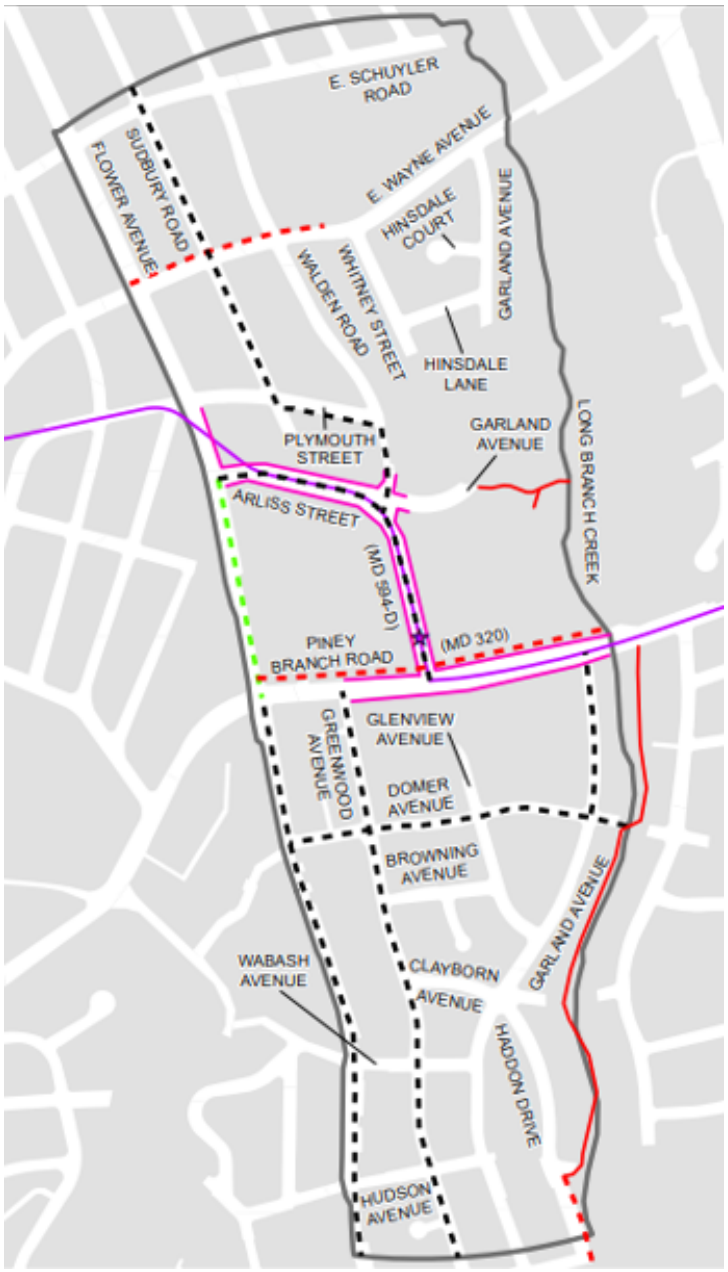
FIGURE 11-12
LONG BRANCH STATION
PROPOSED PEDESTRIAN IMPROVEMENTS



This group of projects focuses exclusively on pedestrian infrastructure, principally sidewalks but also shared use paths. It appears that sidewalk construction is underway along Flower Ave south of Piney Branch (some of this work may be reflected in the favorable designation in the existing conditions map). Projects on Flower between Piney Branch and Arliss, along Glenview, Browning, Greenwood, Haddon and Hudson are "proposed" so their implementation schedule is currently unknown. A shared use path is proposed along the north curb of Piney Branch between Flower and Arliss – again its status in the pipeline is unclear

Source: 2021 Purple Line Stations Bicycle and Pedestrian Priority Area

FIGURE 11-13
LONG BRANCH STATION
PROPOSED BIKEWAY IMPROVEMENTS



This group of projects focuses exclusively on bicycle infrastructure, consisting largely of sharrows along several mainly north-south streets and also Arliss.

Separated bike lanes are proposed for Flower Ave between Piney Branch and Arliss, and the shared use path mentioned above along Piney Branch from Flower to Garland. Status of all of these projects is currently unknown

Source: 2021 Purple Line Stations Bicycle and Pedestrian Priority Area

Outstanding Needs & Gaps

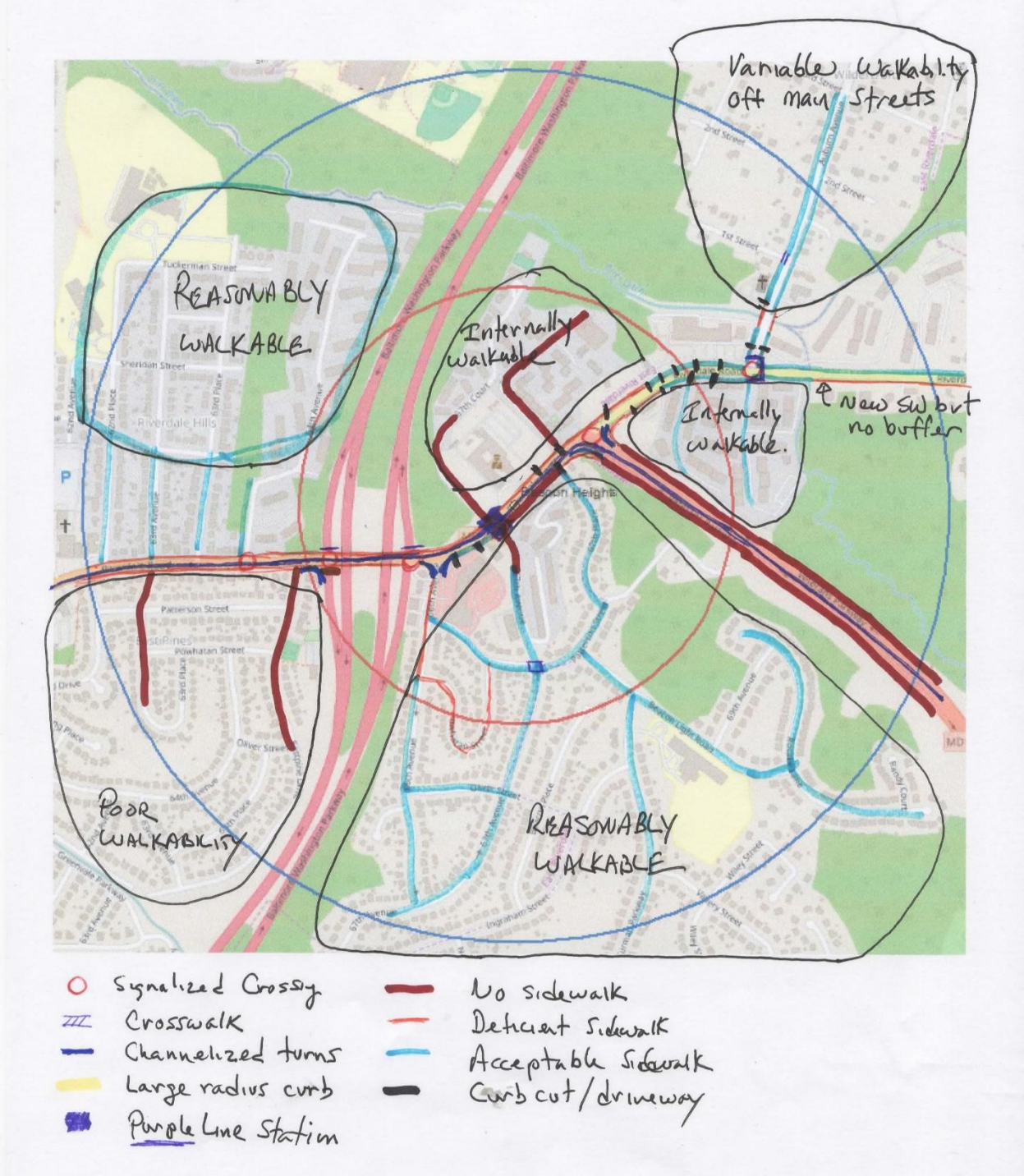
- Speed reductions or enforcement not discussed for Piney Branch.
- Exactly how the activity of the existing auto-oriented shopping center with its multiple curb cuts and plans to install bike/shared use facilities along Piney Branch and Flower will be coordinated is unclear.
- Characteristics of sidewalks planned by the state are not clear in terms of buffering, or other treatment of curbside traffic
- Access to and from the neighborhoods and the new station should be discussed, despite the thorough analysis reflected in the BiPPA study. Many of the local streets are narrow, have substandard or non-existent sidewalks, and allow parking on one or both sides.
- Clarity on the timing of proposed improvements in the BiPPA study in relation to opening of the station is desirable

Beacon Heights

Conditions Found/Issues Raised in Initial TOD Study

Existing transportation conditions in this station area are illustrated in the map below.

- The Beacon Heights Purple Line station will be located on Riverdale Road (MD 410), just east of the intersection with 67th Avenue and along the south side of the highway.
- MD 410 is Riverdale Road west of the station and continues as Riverdale Road until its intersection with Veteran' Parkway just east of the station, at which point Veteran's parkway becomes MD 410. The Purple Line will follow MD 410 through the entire station area.
- Consistent with its status as a state highway, Riverdale Road operates as a regional arterial designed for maximizing vehicle movement through the study area. It is a 4- to 5-lane (undivided) roadway with a posted speed of 35 MPH with either no sidewalks or narrow sidewalks with no buffer from vehicle traffic.
- Travel in the area is also defined by two major north-south limited-access highways, the mentioned Veteran's Parkway to the east and the Baltimore-Washington Parkway on the west, neither of which is walkable. Travel between these two major highways impacts traffic on Riverdale Road and the station site.
- There are six signalized intersections in the station area, all along Riverdale Road: one at the station site (67th Ave), two at the Baltimore-Washington Parkway exits, one at Veteran's Parkway, one at Auburn Ave and one at 64th Ave. Crosswalks are limited at these intersections: they are either partial (not all four sides) or their marking no longer visible.
- The crossings at Veteran's Parkway and 65th Ave also incorporate channelized right turns, which are unfriendly to pedestrians. In addition, almost all of the major and minor intersections in the area feature large radius corners, which encourage higher vehicle speeds, longer crossing distances and increased pedestrian exposure.
- There are a substantial number of curb cuts and driveway entrances onto Riverdale Road, west of the Veteran's Parkway intersection. In general, though, the quality of the sidewalks in this segment of Riverdale is good (wide and buffered). Interestingly, however, new sidewalks being installed along eastbound Riverdale Pkwy are not set back and buffered from the highway.
- Walkability in the surrounding neighborhoods appears very good in all but the neighborhood lying southwest of the BW Parkway interchange, and the multifamily housing complex across Riverdale Road from the station.
- The biggest setback for efficient access between the neighborhoods and the station has to do with a non-grid like street system, which make actual walk paths less direct and longer.



Source: Rich Kuzmyak

Contributing Studies and Recommendations

Maryland Department of Transportation, FY 23/24 Consolidated Transportation Program

- Nothing specific for this station area
- Listing under “minor projects” for Bike-Ped Route Purple-Line Alignment budgeted at $4,5m in FY24, but no details as to where or what
- Unspecific/potentially relevant projects statewide:
    - Sidewalk program ($12m/yr)
    - Carbon reduction program ($15-18m/yr)
    - Complete streets ($10-22m/yr)
    - Smart signals (~$6m/yr)

Fall 2003 Tour Meeting

- $3b transportation budget shortfall announced
- MTA proclaims Purple Line proceeding well, no details on outstanding needs or concerns

MTA Purple Line (Drawings)

The modifications to be performed by the PL contractor in conjunction with the project are – again – limited to the MD 410 facility as it shares its right of way with the transit line. The rail line will follow the shoulder area of eastbound Riverdale Road, and the shoulder lane of southbound Veteran’s Pkwy as it becomes MD 410.

There are a sufficient number of alterations planned, which would be difficult to relate without referring to the actual drawings. The four maps below illustrate the proposed changes over the individual segments from East Riverdale through Veteran’s Parkway. The following changes are noted:

Map 1:

- Realignment of Mustang Rd with 62nd Place to form a complete 4-way signalized intersection with crossings.
- A channelized turn added where Riverdale Road meets Mustang Rd, as it crosses the rail right of way

- Elimination of entrances to MD 410 at the commercial property at 6201 Riverdale Rd (relocation to Mustang Rd) and at 63rd Ave.
- Construction of a bike lane along the shoulder lane of Riverdale Rd, also serving as a buffer to the existing sidewalk.
- A new sidewalk along Riverdale Rd beginning at Mustang Dr. and located between the MD 410 roadway and the PL right of way

Map 2:

- Extension of 64th Ave to a new entrance at Riverdale Rd, resulting in a signalized four-way intersection with crosswalks, but also with the addition of a new channelized turn from Riverdale Rd south onto 64th Ave.
- Elimination of the entrance of Eastpine Drive onto Riverdale Rd.
- Continuation of the bike lane along westbound Riverdale Rd and the new sidewalk along eastbound Riverdale Rd. It is unclear whether the bike lane will extend east of the BW Parkway intersection.

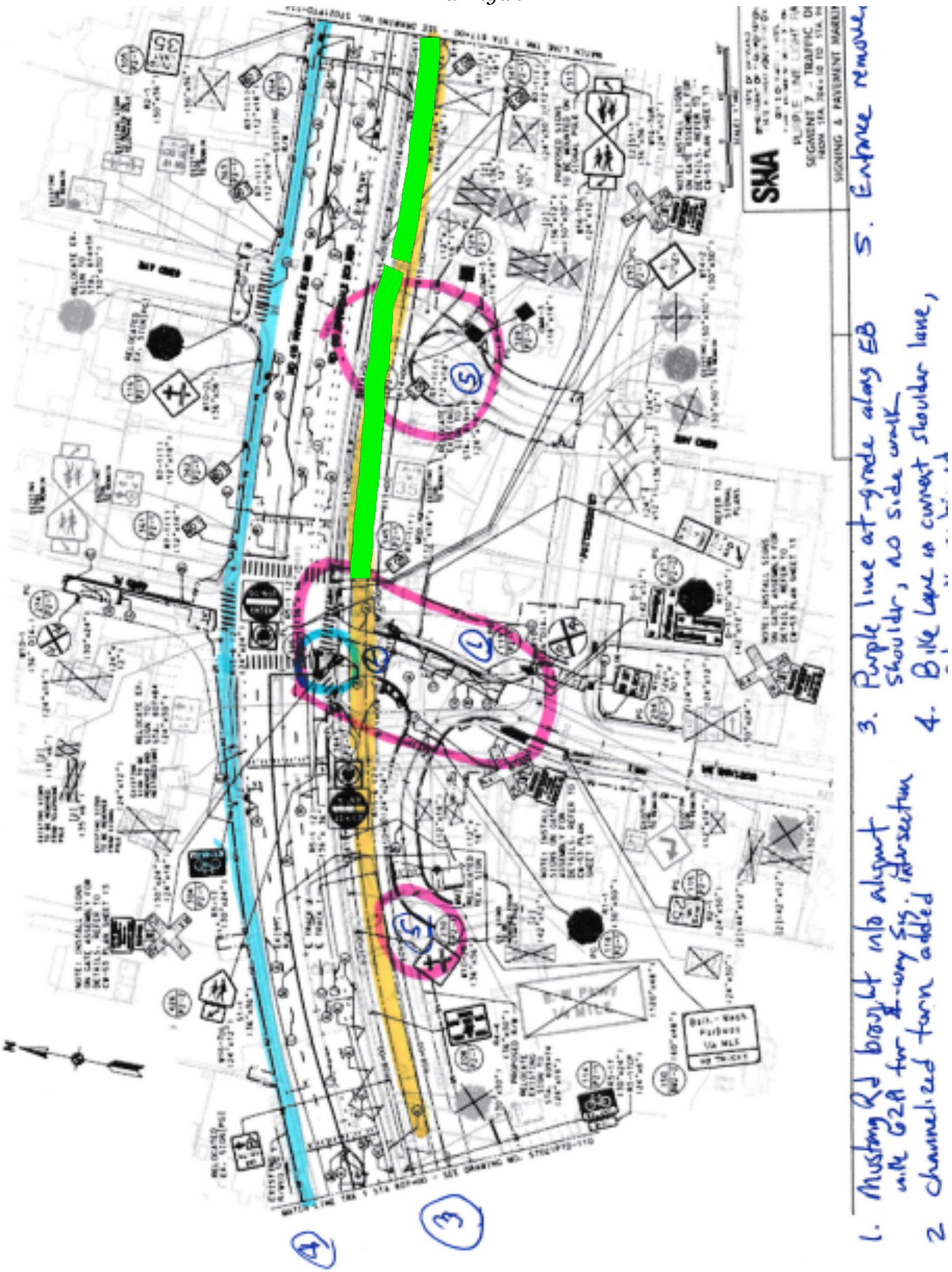
Map 3:

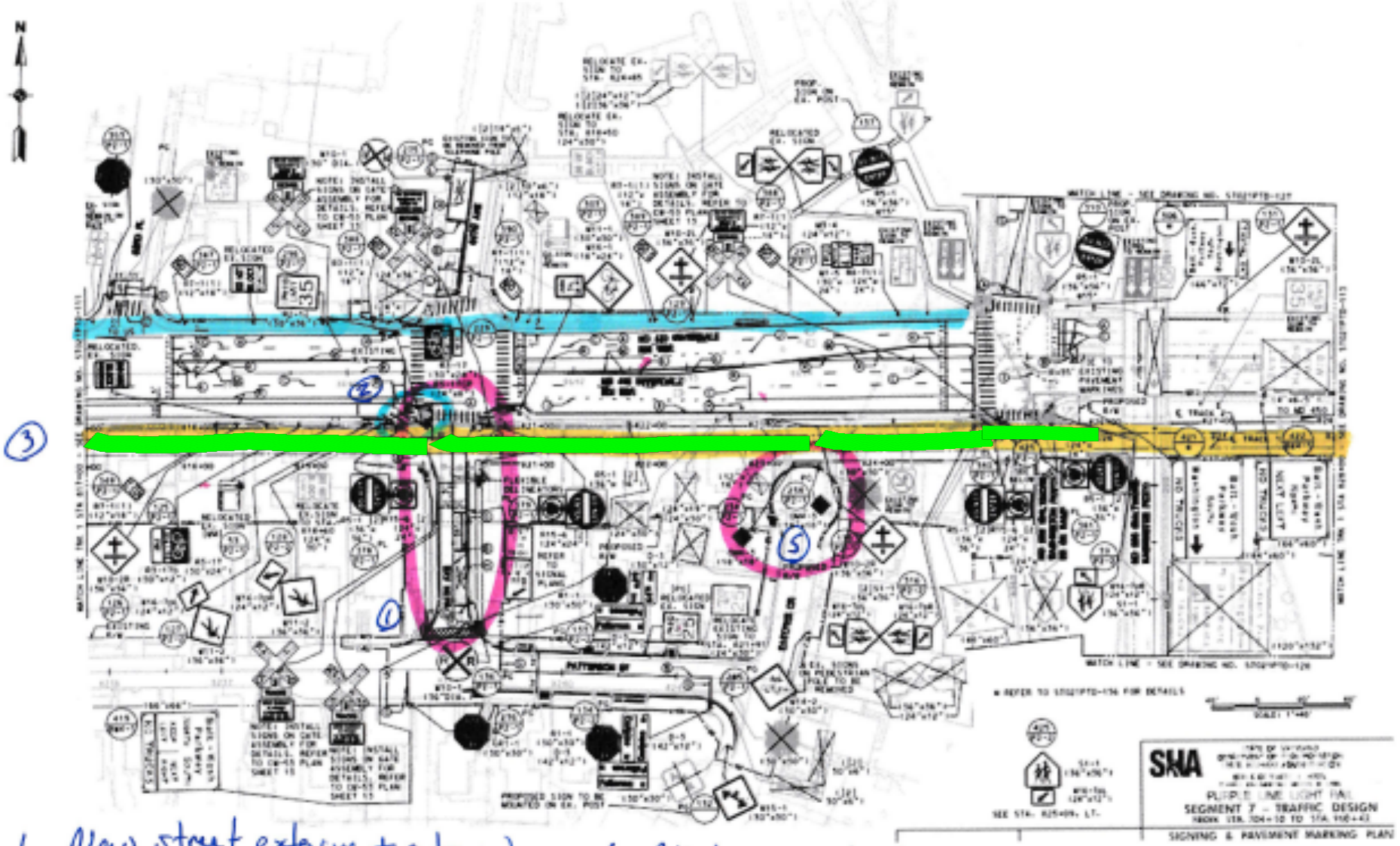
- Modification of the entrance of 66th Ave onto Riverdale Rd; the entrance no longer has a bi-directional center lane and channelized turns, but now only the channelized turns and a solid triangular safety island that crosses the rail right of way.
- The intersection at 67th Ave and Riverdale Rd will be realigned into a complete 4-way signalized intersection with crosswalks, with the entrance to southbound 67th Ave moved to just north of the rail right of way.
- The existing entrance onto Riverdale immediately west of the 67th Ave intersection will be closed and a new entrance provided on 67th Ave.

Map 4:

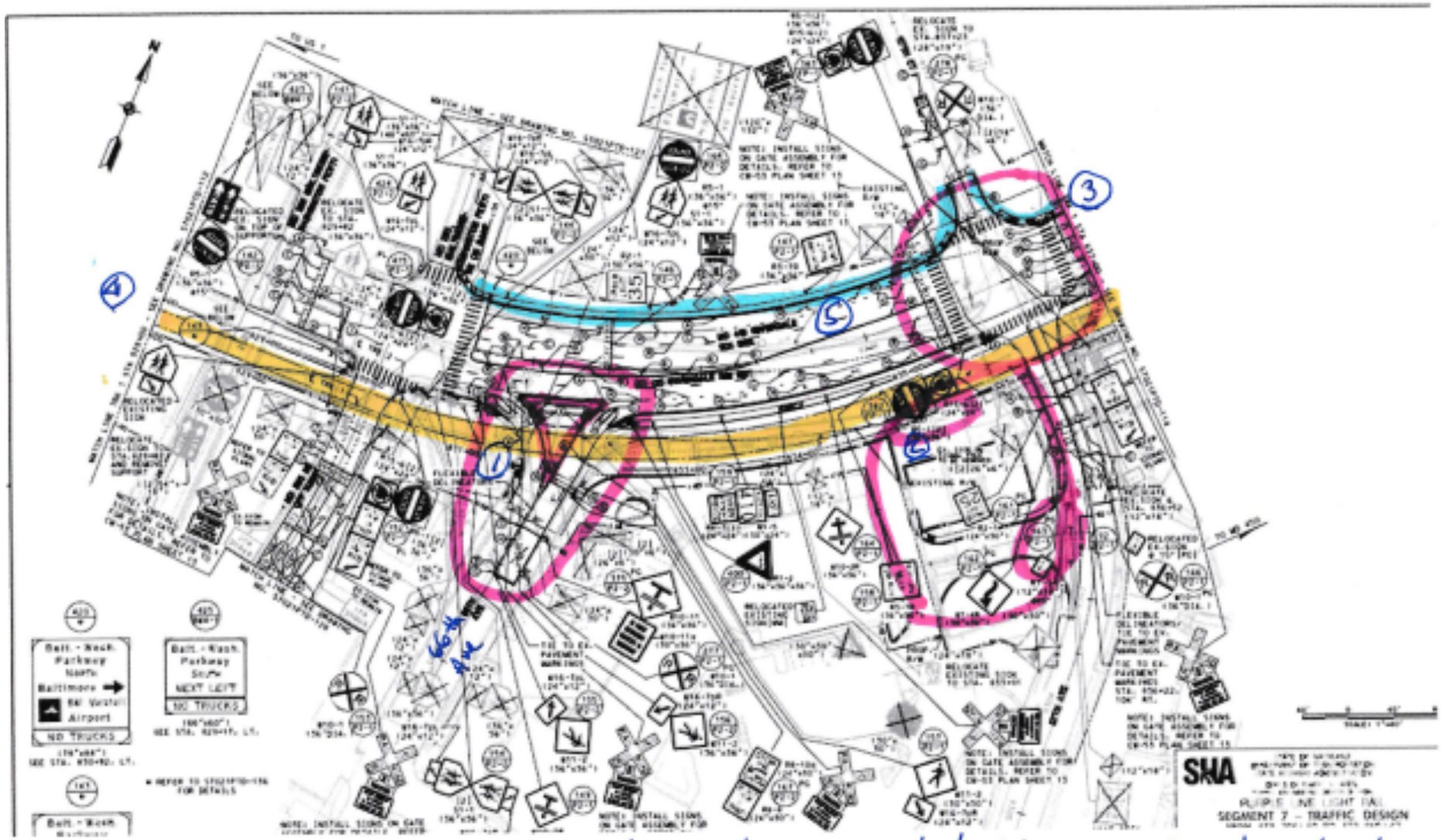
- The existing entrance of 67th Place and Riverdale Road near the intersection with Veteran's Pkwy is eliminated, as this is where the rail right of way makes its 90 degree turn south onto Veteran's Parkway.
- New sidewalks to be provided on both sides of Riverdale Road through the Veteran's Pkwy intersection.

Source: MTA engineering drawings with handwritten notes by Rich Kuzmyak

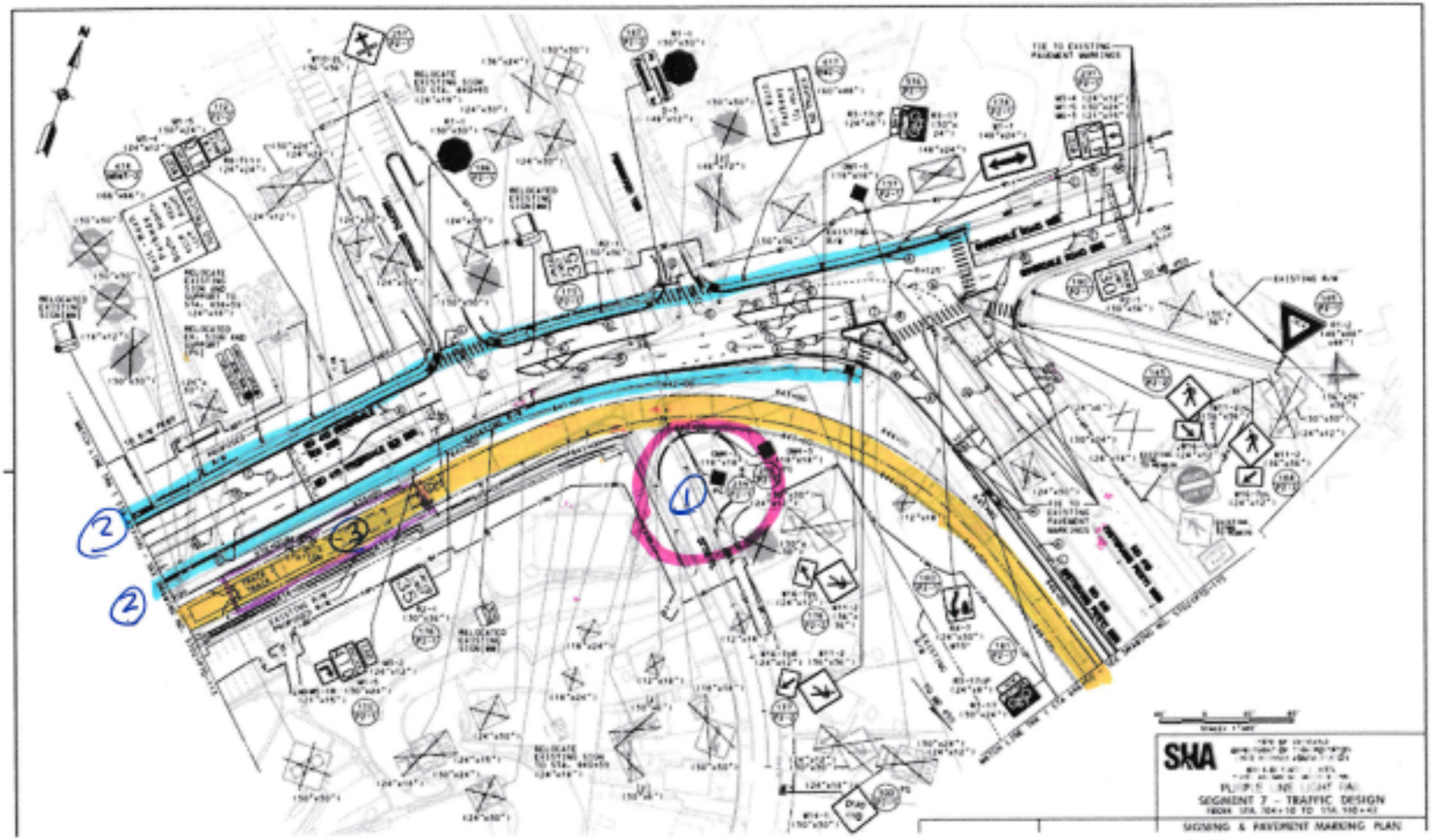




1. New street extension + entrance onto MD 410, new 4-way sig. int.
2. New channelized turn
3. PL at grade along EB shoulder, no sidewalk (?)
4. Bike lane in shoulder lane, Sidewalk retained (unclear if continues east of 64th Ave)
5. Entrance eliminated



1. Center lane entrance removed, new safety island with entry & exit slip lanes only, no signal controls
2. Entrance onto 410 removed at 67th Ave, moved to 67th Ave
3. 67th & 410 becomes full 4-way signalized intersection
4. PL at grade along EB shoulder; median & sidewalk
5. New SW along NB 410



1 entrance at 67th Pl & MD 410 eliminated.

2 New Sidewalks (?) (exact location along EB Rhandale Rd not clear

3. Station Platform

Prince George's County, 2011 Purple Line Corridor Access Study (CAST)

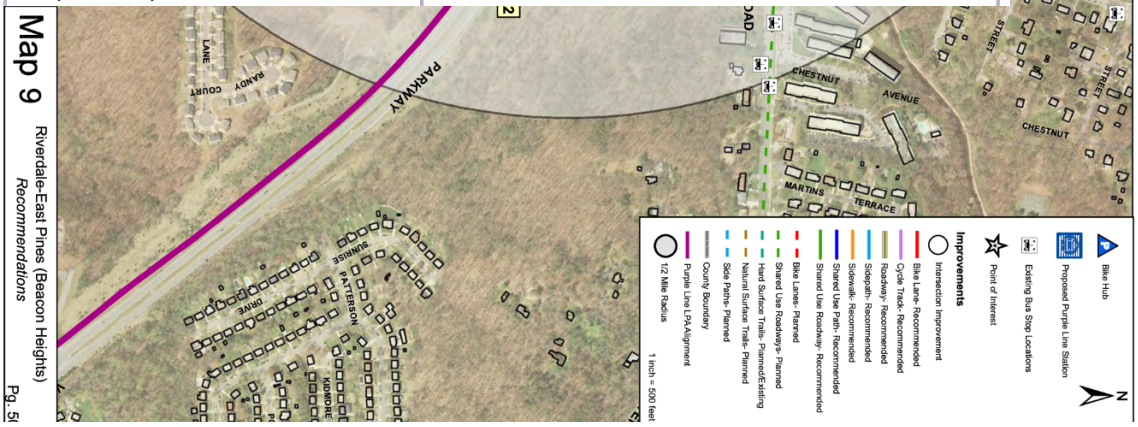
Recommended projects are pictured in the map below and the tables which follow the map. This is a brief summary of the recommended improvements

- Sidewalks (15-24): Reconstruct or construct new 5' sidewalks with buffer on Eastpine Dr, 62nd Place, Roanoke Ave, 67th Ct, Fernwood Terrace, 66th Ave, 67th Ave, Patterson St, 67th Place, and Riverdale Rd from 67th Ave to Veteran's Pkwy (south side).
- Intersection and entrance improvements:
    - At all signalized intersections: pedestrian countdown and leading interval, signal timing to pedestrian standards, ABS
    - Upgrade ADA ramps and aprons, crosshatch crosswalks with high intensity paint at 39 intersections and 34 entrances
    - Curb extensions on 62nd Pl, Eastpine Dr, 66th Ave, 67th Ave, 67th Pl, Patterson St. and Beacon Light Rd.
- Bike facilities:
    - Bike Lanes (1 & 2) on Riverdale Rd (67th Ave to Veteran's Pkwy) and Veteran's Pkwy
    - Sidepath (25 & 26) on Riverdale Rd from 62nd Pl to Auburn Ave (north side) and 62nd Pl to 67th Ave (south side)
    - Shared-use Roadways (3 – 14) on 12 streets

Table XI-1 Pedestrian and Bicycle Access

Improvements	Map Key	Location	Description
+Cycle Tracks	1	Annapolis Rd. from 65th Ave. to Gallatin St.	Replace curb lane in each direction with 7' cycle tracks, vegetated buffer and 5' minimum sidewalk.
Bike Lanes	2	Veterans Pkwy.	Provide 5'minimum striped/directional on-road bike lanes.
Shared Use Roadway	3	Chesapeake Rd.	Designate as bicycle routes as shared-use roadways by providing "Share the Road" signage and thermoplastic pavement "sharrow" decals.
	4	Ardwick-Ardmore Rd.	
	5	Buchanan St.	
	6	75TH Ave.	
	7	72nd Ave.	
	8	Gallatin St.	
	9	70th Pl.	
	10	Flintridge Dr.	
	11	71st Ave.	
	12	Greenvale Pkwy	
	13	Finns Ln.	
+Sidewalk	14	Chesapeake Rd. from Annapolis Rd. to Buchanan St. (East Side)	Reconstruct existing narrow sidewalk (less than 4' wide) or construct missing sidewalk links with 5' sidewalk and vegetated buffer.
	15	Ardwick-Ardmore Rd. from Buchanan St. to Veterans Pkwy. (Both Sides)	
	16	75th Ave. from Ardwick-Ardmore Rd. to Parkwood St. (Both Sides)	
	17	72nd Ave. from Annapolis Rd. to south of Varnum St. (Both Sides)	
	18	Gallatin St. from Annapolis Rd. to Glenridge Community Park (Both Sides)	
	19	70th Pl. from Greenvale Pkwy. To Gallatin St. (Both Sides)	
	20	71st Ave. from Greenvale Pkwy. To Flintridge Dr. (Both Sides)	
	21	Flintridge Dr. from 71st Ave. to 70th Pl. (Both Sides)	
	22	Greenvale Pkwy from Annapolis Rd. to 70th Pl. (Both Sides)	
	23	Finns Ln. from Kidmore St. to north of Annapolis Rd. (West Side)	
	24	76th Ave. from Jefferson St. to Ingraham St. (West Side)	

Source: [2011 Purple Line Corridor Access Study (CAST)]



Source: [2011 Purple Line Corridor Access Study (CAST)]

Table XI-3 Intersection and Traffic Calming

Improvements	Location	Description
Intersection/Entrance Improvements	All Signalized Intersections	• Provide a leading pedestrian interval for right turning vehicles. • Provide pedestrian countdown signals. • Verify all signals are properly timed and meet the current pedestrian crossing standards. • Verify ADA access to all pedestrian push buttons.
	*Annapolis Rd. from 71st Ave. to Veterans Prwy. (10 Intersections, 30 Entrances)	• Annapolis Rd. - Reduce the number of curb cuts for business entrances and reconfigure parking for access from the rear of the businesses. • Upgrade the intersections with new ADA sidewalk ramps. • Upgrade entrances with ADA standard aprons. • Provide cross-hatching with high intensity paint for crosswalks. Use unique color paint for crosswalks to act as a way finder to the purple line station.
	Gallatin St. from Annapolis Rd. to 72nd Ave. (4 Intersections, 3 Entrances)	
	Chesapeake Rd. from Annapolis Rd. to east of Buchanan St. (1 Intersection, 7 Entrances)	
	Ardwick-Ardmore Rd. from Annapolis Rd. to Richley Ct. (4 Intersections, 3 Entrances)	
	Buchanon St. from 72nd Ave. to Chesapeake Rd. (3 Intersections, 3 Entrances)	
	75th Ave. from Ardwick-Ardmore Rd. to Taylor St. (5 Intersections)	
	72nd Ave. from Annapolis Rd. to Weber St. (3 Intersections)	
	70th Pl. from Greenvale Pkwy. to Freeport St. (4 Intersections)	
	71st Ave. from Greenvale Pkwy. to Flintridge Dr. (4 Intersections	
Traffic Calming	Annapolis Rd. at Varnum Rd. and St. Mary's Catholic School	Install new pedestrian-activated crosswalk (high-intensity activated crosswalk, HAWK)
	Greenvale Pkwy.	Provide curb extensions at intersections where on-street parking is provided.
	70th Pl.	
	71st Ave.	
	75th Ave.	
	Buchanan St.	

*Portions of the improvement to be completed by Purple Line Project.

Source: 2011 Purple Line Corridor Access Study (CAST)

Remaining Gaps

- *It is unclear which if any of the recommended improvements in the 2011 CAST study have been implemented, or their programming status moving forward.*
- Concerns about 35 mph speed limit through the station area.
- Sidewalk and crossing deficiencies on Riverdale Rd east of Veteran's parkway remain, particularly along the westbound side where there also a large number of uncontrolled curb cuts; new sidewalks being constructed along Riverdale Rd eastbound lack buffer areas.

- Many entrances onto Riverdale Rd have large radius corners, which allow higher speeds for turning vehicles and result in longer crossing distances and greater exposure for pedestrians.
- Uncontrolled channelized turns at Mustang Dr, 64th Ave, and 66th Ave.
- Poor walkability in the neighborhood southeast of the BW Parkway intersection.
- Missing sidewalks connecting the apartment complexes north of the station along 67th Ct and Fernwood Terrace.

Woodside/16th Street

Conditions Found/Issues Raised in Initial TOD Study

- 16th St. (MD 390) is a six-lane arterial that bisects the station area, east (station location) and west; posted speed is 35 mph, but typical speeds are higher and enforcement is minimal (check this, may be camera just below 2nd Ave.)
- The CSX right of way (also the Purple Line right of way) is also a major barrier separating the station area from the Woodside neighborhood area to the east
- Significant population concentrations west of 16th St. have no direct access to the station
- Walking along the east side of 16th Street (NB) is difficult: narrow sidewalks, no buffer from fast moving traffic. West side is even more challenging, with no sidewalk at all between Lyttonsville Rd. and Spring Street
- No signalized crossings between Second Ave. and Spring St.; zig-zag crosswalk with no active control south of CSX bridge
- Channelized right turns at Spring Street and East/West Highway without pedestrian controls, signal cycle timing and synchronization favoring through traffic

Montgomery County, *Purple Line Pedestrian Connectivity Report*

- Earned poorest baseline pedestrian connectivity score (37%) of any of Montgomery's Purple Line stations (Figure 2A)
- Recommended near term improvements include the following, which the County projects will improve the PLOC score from 37% to 47%:
    - 35 to 30 mph speed reduction on 16th St. north of CSX tracks, 35 to 25 south of tracks to DC line, plus electronic enforcement
    - 30 to 25 mph speed reduction on Spring St. between 16th and Georgia Ave
    - High visibility crosswalks at 16th and Spring Streets
- Longer-term recommendations would push the score to 82%, shown in Figure 2B, but would entail substantial changes:
    - HAWK signal on 16th St. between Summit Hills and Woodside Station (unclear details)
    - Traffic signal at 16th St. and Lyttonsville Rd.
    - Removal of channelized right turn and add pedestrian refuge in median of 16th St at Spring St. (unclear details)
    - Convert NB lane of 16th St. to 2-way separated bike lane between Colesville Rd. and Georgia Ave.

Station Area Recommendations

WOODSIDE STATION			
TERM	**TYPE**	**#**	**RECOMMENDATION**
SHORT TERM	**Slower Speeds**	1	Reduce posted speed limit on 16th St between Georgia Ave and the CSX tracks from 35 to 30 mph
		2	Reduce posted speed limit on 16th St between the CSX tracks and the District of Columbia from 35 to 25 mph
		3	Reduce posted speed limit on Spring St between 16th St and Georgia Ave from 30 to 25 mph
		4	Provide automated speed enforcement on 16th St
	Safe Crossings	5	Install high visibility crosswalks at 16th St and Spring St
MEDIUM-LONG TERM	**Safe Crossings**	6	Provide a HAWK signal on 16th St between the Woodside Station and Summit Hills apartments
		7	Provide a traffic signal at the intersection of 16th St and Lyttonsville Rd
		8	Remove channelized right turn and add pedestrian refuge in the median of 16th St at the intersection of 16th St and Spring St
	Designated Space for Walking and Bicycling	9	Convert the northbound lane on 16th St between Colesville Rd and Georgia Ave to a two-way separated bike lane

Figure 2A

Map 8. Pedestrian Comfort Evaluation for Woodside Station: Conditions at Purple Line Opening

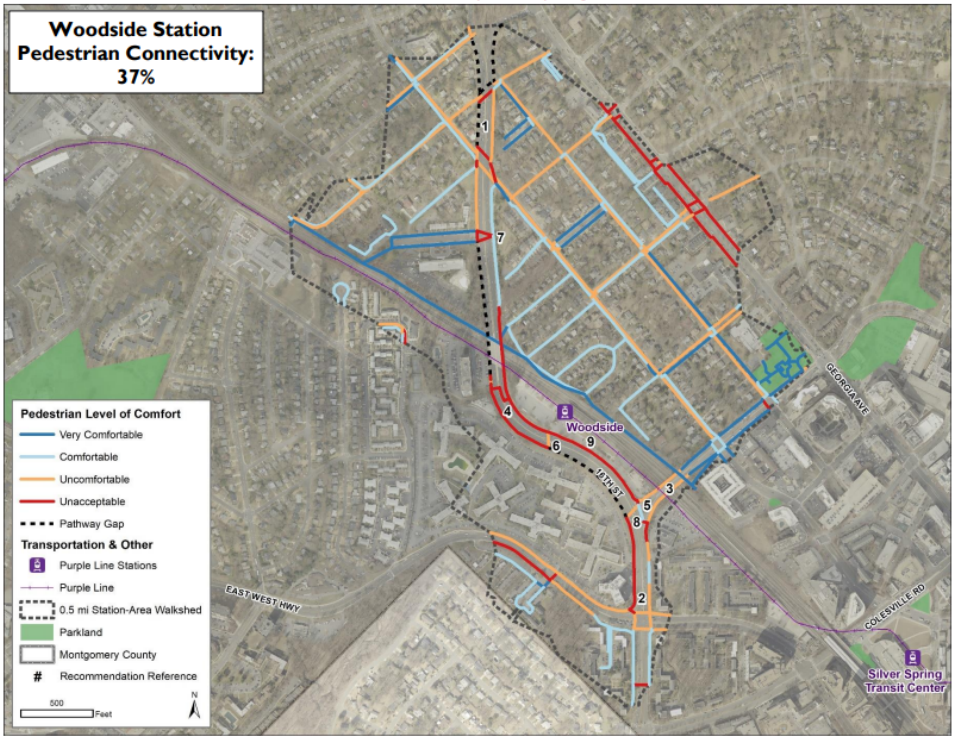
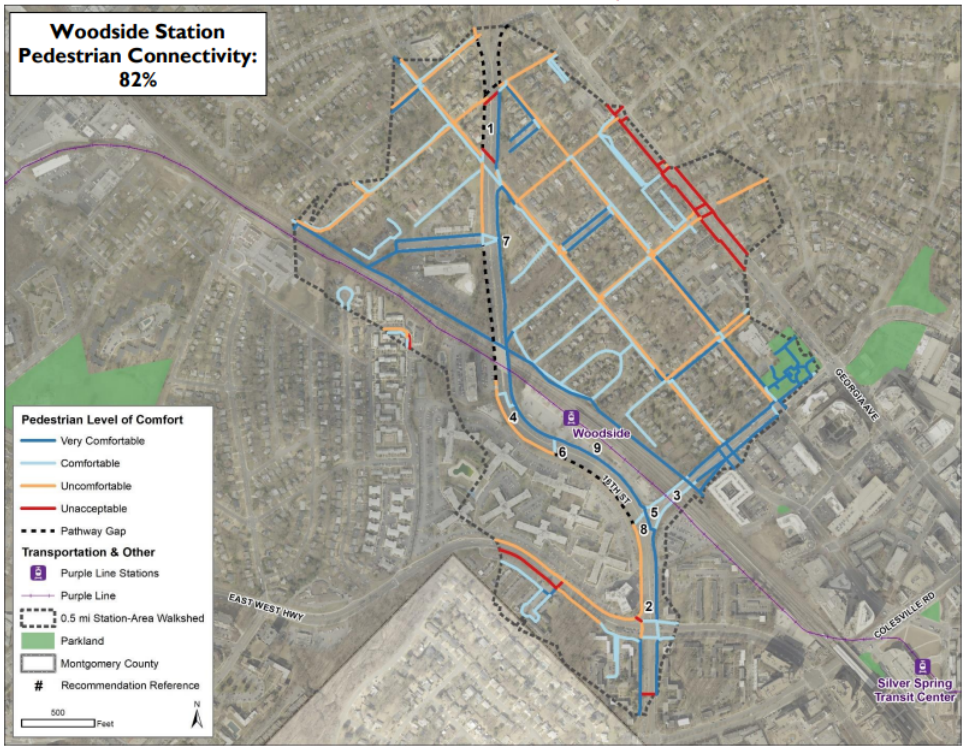


Figure 2B

Map 9. Pedestrian Comfort Evaluation for Woodside Station: Conditions with All Recommended Improvements



Contributing Studies and Recommendations

Maryland Department of Transportation, Mass Transit Administration, Purple Line Contractor

- Reconstruct sidewalk along 16th St NB from Second Ave to Georgia Ave
- Restore Capital Crescent Trail from Bethesda to Silver Spring Transit Center, plus new
- Sidewalk along SB 16th St SB, from 8600 Apts to PL main station entrance, plus replacement of zig-zag median crossing with full signalized crossing over 16th from new sidewalk to main station entrance.
- New/reconstructed sidewalks along Spring Street to 16th St.

Montgomery County Department of Transportation, Bicycle Pedestrian Planning Area (BiPPA) Study (Oct 2021) and on-line map

- Published report (Table 6-2) recommends 5' sidewalks with 5' buffer on local streets: Maywood Ave, Millard Ave, Spencer Rd, Ross Rd, Lanier Dr, Springwood Dr, 3rd Ave, Noyes Ln, Woodland Dr, Highland Dr, Cedar View Ct (all based on Greater Lyttonsville Sector Plan). *However, these are not shown in the on-line map, but rather spot ADA type improvements to ramps, aprons, cracks, etc.*
- Not included in Table 6-2, but presented as numbered items in the narrative are various sidewalk additions or improvements on the following streets: 2nd Ave, Ballard St, Lyttonsville Rd, Lanier Dr, Wilson Pl, Sundale, Highland, Grace Church, and Noyes. *These all appear to be shown on the map as spot improvements.*
- 16th St, Elkhart St (intersection with Second Ave) to Spring St: sidewalk construction, reconstruction. *Not shown on maps in the report nor on-line map; unclear which side of street, or where state effort applies*
- 16th St, Hanover to Elkhart: Construct sidewalks. *In report narrative and report map (Fig 6-13), but not in Table 6-2 or on-line map.*
- 16th St at Spring St. – construct high-visibility crosswalk, add pedestrian refuge in existing median. *Both are in Table 6-2 but not in any of the report maps on the on-line map. Pedestrian refuge may be on the Purple Line drawings.*
- Lyttonsville Rd and 16th St. – new traffic signal. *In Table 6-2 but not on either report or on-line map. No discussion of crosswalks.*
- Bike facilities from County Master Plan – 16th St from Spring St to Georgia Ave; Woodland Dr from I-495 to Spring St; Sundale Dr from Porter Rd to MD 410; Porter Rd from Lanier Dr to Sundale Dr. *In table 6-12 but not on report or on-line map.*

Outstanding Needs & Gaps

- No discussion of speed reductions or enhanced electronic enforcement, as recommended in the County Planning study.

- Removal or active control of channelized turns and multi-link crossing at 16th St. and Spring St. and 16th and 410 not addressed

Chevy Chase/Connecticut Avenue

Conditions Found/Issues Raised in Initial TOD Study

- The principal transportation facility through the station area, Connecticut Ave. (MD 185), is a major 6-lane commute artery. Posted speeds are 35 mph, but traffic seems to move much faster with limited enforcement, long distances between signalized intersections, and signals timed and sequenced for maximum flow throughout the day.
- Sidewalks exist along most of Connecticut, but most of those south of Manor Road are narrow and offer no buffer from traffic. There are a fair number of curb cuts and side streets where vehicles may dominate pedestrian movements, most with large radius corners that allow fast turns, non-existent or set-back crosswalks.
- The effective north end of the station area occurs at Jones Bridge Road and Connecticut, about 0.5 miles north of the station, and the south end at East/West Highway (MD 410), also about ½ mile from the station. Both are heavily trafficked crossings with wide cross sections. The Jones Bridge intersection includes one uncontrolled channelized right turn, while the MD 410 intersection has 3 such slip lanes.
- The only other signalized intersections occur at Manor Road, Chevy Chase Lake Parkway and Dunlop street, with Manor Road as the only 4-way crossing.
- Manor Road is a key connector between Connecticut Ave. and the mostly residential areas east of the station. Walking along Manor Road is safe and aesthetically pleasing.
- Current commercial activity is concentrated in several restaurants and a gas station on the west side of MD 185, and a rapidly changing mixed used development project on the east side in proximity to the station.

Montgomery County, *Purple Line Pedestrian Connectivity Report*

- In its Purple Line Pedestrian Connectivity Report, Montgomery Planning gave this station area a safe pedestrian connectivity score of 67% with existing conditions. With its recommended improvements shown in Table 1, that score would rise to 94%.
- Figures 1A and 1B illustrate these conditions in the station area network at the time of opening and then with both the near term and medium-long term improvements.

Source: *Purple Line Pedestrian Connectivity Report*

CONNECTICUT AVENUE			
TERM	**TYPE**	**#**	**RECOMMENDATION**
SHORT TERM	**Slower Speeds**	1	Reduce posted speed limit on Connecticut Ave between Manor Rd and Chevy Chase Lake Dr from 35 to 25 mph
		2	Reduce posted speed limit on Connecticut Ave between Jones Bridge Rd and Manor Rd and between Chevy Chase Lake Dr and Dunlop St from 35 to 30 mph
		3	Reduce posted speed limit on Manor Rd between Connecticut Ave and Jones Bridge Rd from 30 to 25 mph
		4	Provide automated speed enforcement on Connecticut Ave in the vicinity of the Purple Line station
	Safe Crossings	5	Install high visibility crosswalks at Connecticut Ave and Manor Rd
		6	Install high visibility crosswalks at Connecticut Ave and Chevy Chase Dr
		7	Install high visibility crosswalks at Manor Rd and Village Park Dr
		8	Install high visibility crosswalks at Chevy Chase Lake Dr and 8101 Connecticut Ave driveway
MEDIUM-LONG TERM	**Safe Crossings**	9	Investigate a signalized crossing with high visibility crosswalks at Connecticut Ave and Laird Pl or Newdale Rd
	Designated Space for Walking and Bicycling	10	Improve east sidewalk of Connecticut Ave between Chevy Chase Lake Dr and Dunlop St to be 5' wide with a 5' wide buffer
		11	Improve east sidewalk of Connecticut Ave between Jones Bridge Rd and Manor Rd to be a sidepath with a 6' wide buffer

Figure 1A:

Source *Purple Line Pedestrian Connectivity*

Map 4. Pedestrian Comfort Evaluation for Connecticut Avenue Station: Conditions at Purple Line Opening

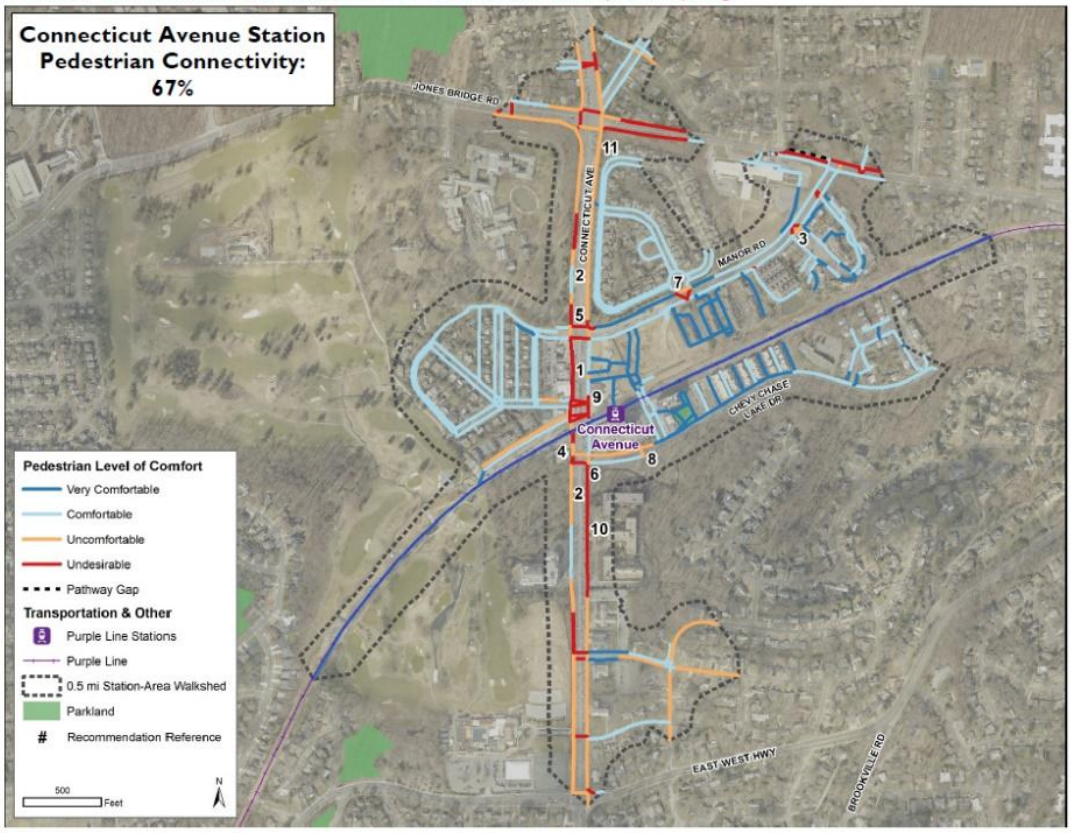
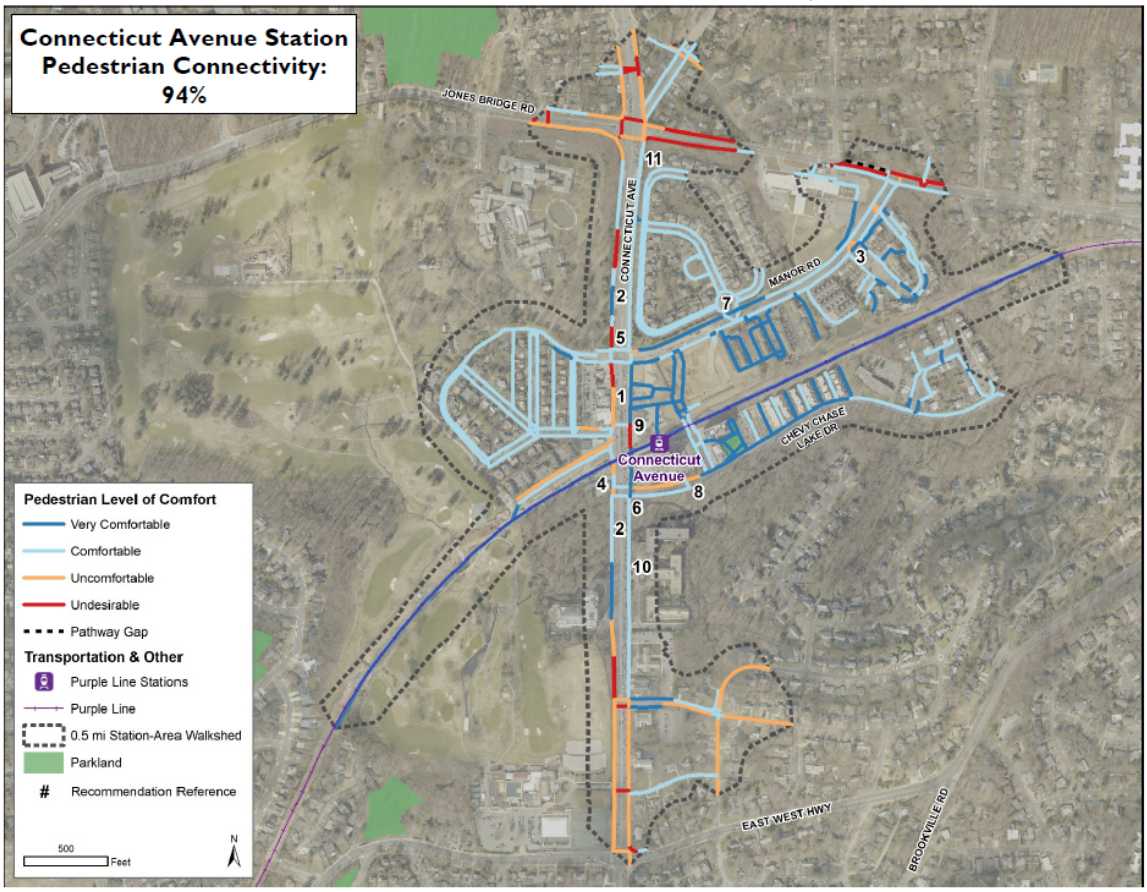


Figure 1B:

Source *Purple Line Pedestrian Connectivity Report*

Map 5. Pedestrian Comfort Evaluation for Connecticut Avenue Station: Conditions with All Recommended Improvements



Contributing Studies and Recommendations

Maryland Department of Transportation, State Highway Administration

- SHA is modifying the Connecticut Ave and Jones Bridge/Kensington Parkway intersection to add a third left turn lane on Jones Bridge west of the intersection to facilitate movement north onto MD-185, coupled with realignment of the through lanes on Jones Bridge east of the intersection. This $19m project was motivated by BRAC consolidation at Bethesda Naval and its purpose to provide additional road capacity to support the consolidation. Sidewalks are being reconstructed and a shared-use path along eastbound Jones Bridge Road from Platt Ridge Drive to Montgomery Avenue is being added. There is no indication of change regarding the uncontrolled slip lane from Jones Bridge EB onto MD 185 SB. The project is almost complete, with the remaining $6.1m to be spent in FY23 and $1.8m in FY24.

Montgomery County Department of Transportation, Bicycle Pedestrian Planning Area (BiPPA) Study (Oct 2021) and on-line map

Pedestrian Improvements from Table 4-4:

- High visibility crosswalks at Connecticut (185) and Manor Rd, MD 185 and Chevy Chase Dr, Manor Rd and Village Park Dr, driveway at 8101 Connecticut Ave. (from Purple Line Ped Connectivity Study -- PLPC)
- Improve sidewalk along NB MD 185 between Chevy Chase Lake Dr and Dunlop St to be 5’ wide with 5’ buffer (PLPC study)
- Improve sidewalk along NB MD 185 between Manor Rd and Jones Bridge Rd to a sidepath with 6’ buffer (PLPC study)
- New signalized crossing at MD 185 and either Laird Pl or Newdale Rd. (PLPC study and Chevy Chase Lake Sector Plan)
- Upgrade sidewalk on Jones Bridge Rd between Jones Bridge Rd and MD 410. (Chevy Chase Lake Sector Plan) ***This makes no sense unless they mean along MD 185, but then both sides?***
- Sidewalk construction/reconstruction all along MD 185 (Jones Bridge to MD 410), MD 410 and Jones Bridge, though specific details unknown, except for priorities near PL station, Capital Crescent trail, North CC Elementary and Chevy Chase Library. Spot improvements to driveway aprons, curb ramps, tripping hazards are noted on interactive map.
- Residential street sidewalk construction: Dunlop St, Longfellow Pl, Clifford Ave, Kerry Place. ***Note that Kerry Place is a 5-unit, single-family cul-de-sac neighborhood that connects to a main street that has no sidewalks.***

Cycling Infrastructure Improvements from Table 4-5:

- Dual bikeway on Jones Bridge from Hawkins Ln to Manor Rd
- Cycle track on CT Ave between Chevy Chase Lake Dr. and Manor Rd
- Shared roadway on Jones Br Rd between Manor Rd & Brierly Ct
- Separated bike lanes on CT Ave between Manor Rd & Laird Pl, Laird Pl & Newdale, Newdale and Chevy Chase Lake Dr

Outstanding Needs & Gaps

- Recommended reductions in speed limits and addition of automated enforcement on arterial highways not discussed in MCDOT or MDOT plans
- Signal cycle timing and synchronization to manage traffic and increase opportunities for safe pedestrian crossing not discussed
- No direct mention of elimination of right turn on red.
- There is no indication that the channelized turns at Jones Bridge or East/West Highway will be removed or modified (e.g., signal controlled)
- No direct mention of plans to address side street and driveway entrances with large radius turns and setback or no crosswalks
- Exact details of proposed sidewalk modifications along Connecticut not clear