Montgomery Planning

UNIVERSITY BOULEVARD CORRIDOR PLAN - WORK SESSION #3

Description

The third work session will continue discussions on the recommendations for the Kemp Mill Shopping Center, including a discussion of the existing and recommended square footages of commercial and residential uses.

The third work session will also focus on the transportation recommendations, including (1) the transportation vision for the University Boulevard Corridor Plan, (2) policy guidance related to safety and multimodal travel options, (3) the existing transportation conditions that inform the Draft Plan recommendations, and (4) the public testimony received on the Draft Plan's transportation recommendations. The Planning Board is encouraged to review Chapter 8 (Transportation) of the Public Hearing Draft, as well as the Draft Plan's Appendix F, included as Attachments C and D.

RAR Alex Rixey, Planner IV, Midcounty Planning, alex.rixey@montgomeryplanning.org, 301-495-4512

Zubin Adrianvala, Planner III, Midcounty Planning, zubin.adrianvala@montgomeryplanning.org, 301-495-4703

JM Jessica McVary, Supervisor, Midcounty Planning, jessica.mcvary@montgomeryplanning.org, 301-495-4723

Carrie Sanders, Chief, Midcounty Planning, carrie.sanders@montgomeryplanning.org, 301-495-4653

SUMMARY

- The Planning Board received testimony on the Public Hearing Draft Plan during the public hearing on February 27, 2025, and received written testimony through March 13, 2025. The first work session was held on March 20, 2025, and the second work session was held on April 3, 2025.

- During the second work session, the Planning Board directed staff to provide additional information on recommendations for the Kemp Mill Shopping Center, including the existing and recommended square footages of commercial and residential uses. This information will be discussed during the third work session.

- The third work session will also include an overview of the policy guidance that has informed the Draft Plan's transportation recommendations, discuss existing transportation conditions in the Plan area, and discuss testimony related to the Draft Plan's transportation recommendations.

- Staff anticipates returning to the Planning Board for the fourth work session on May 1, 2025, to discuss the Draft Plan's land use, zoning, and urban design recommendations for the existing residential blocks between the mixed-use "nodes." The fourth work session will also include a discussion on the recommended overlay zone.

University Boulevard Corridor Plan

Draft
Public Hearing Draft

Date
April 17, 2025

Lead Planner
Zubin Adrianvala

Planning Division
Midcounty

Staff Contact
zubin.adrianvala@montgomeryplanning.org,
301-495-4703

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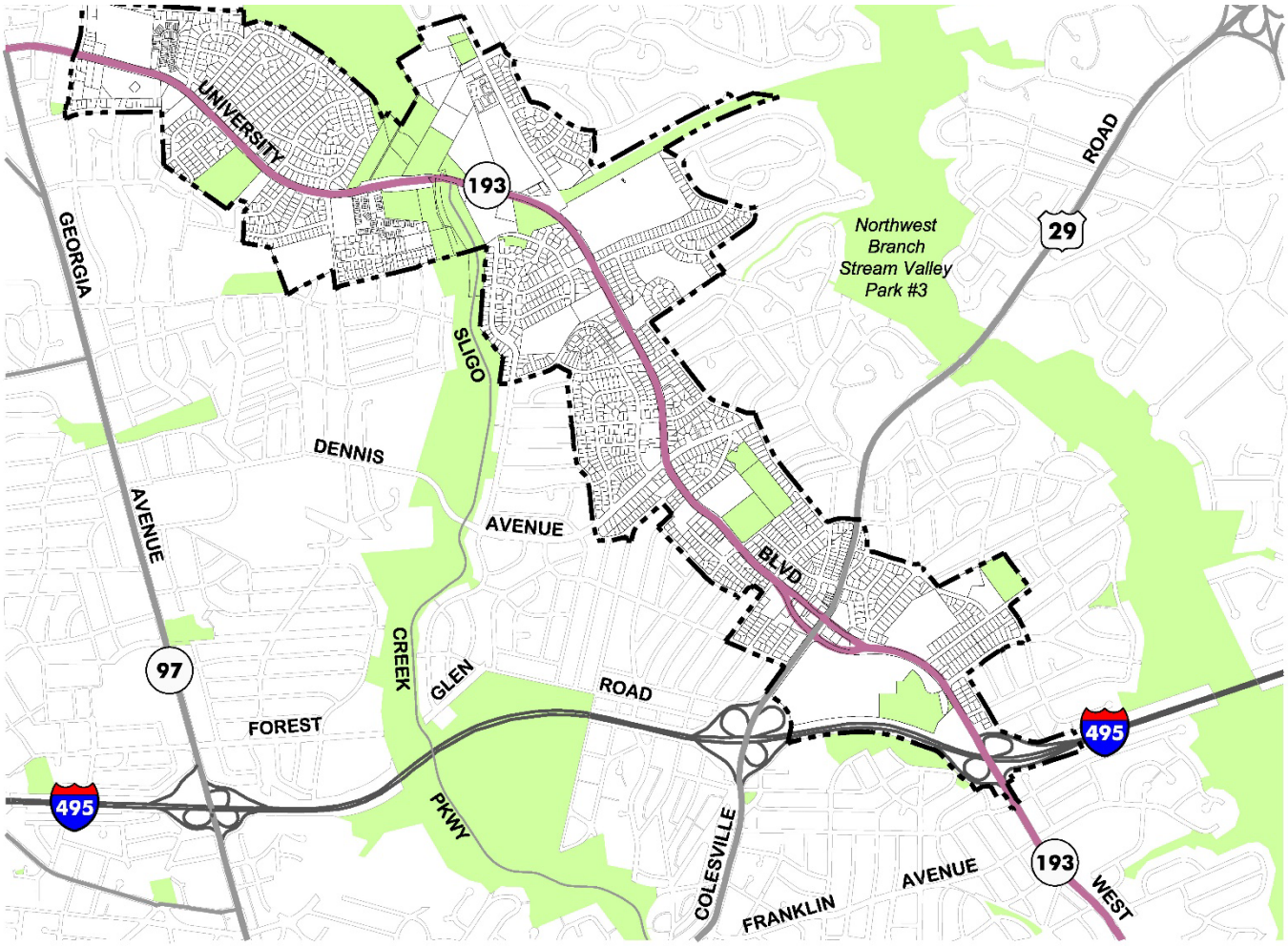


WORK SESSION #3

BACKGROUND AND OVERVIEW

The Planning Board Public Hearing for the University Boulevard Corridor Plan (Draft Plan) was held on February 27, 2025, and the public record remained open for written testimony through March 13, 2025. The Planning Board held their first work session on the Draft Plan on March 20, 2025, during which they discussed the public testimony received, as well as the organization and schedule of remaining work sessions. The second work session was held on April 3, 2025, and the work session focused on the land use, zoning, and urban design recommendations for properties recommended for Commercial Residential (CR) or Commercial Residential Town (CRT) zones, and testimony received.

During the second work session, the Planning Board directed staff to provide additional information on recommendations for the Kemp Mill Shopping Center, including the existing and recommended square footages of commercial and residential uses. The Planning Board also directed staff to explore minor revisions to floor area ratios (FAR) and heights among the properties recommended for the CRT zone in the Draft Plan's Four Corners District.

The third work session will continue the discussion on the Kemp Mill Shopping Center, including the existing and recommended square footages of commercial and residential uses. However, the minor revisions to the FAR and heights in the Four Corners District will be discussed during the fourth work session on May 1, 2025.

In addition to continuing the discussion on the Kemp Mill Shopping Center, the third work session will also focus on the Draft Plan's transportation recommendations. The work session will include a discussion on 1) the Draft Plan's vision, 2) policy guidance that informed the vision and transportation recommendations, and 3) existing transportation conditions. The work session will also include a discussion on the public testimony received pertaining to the transportation recommendations, and questions received from the Planning Board since the presentation of the Working Draft Plan on January 16, 2025.

The fourth work session is tentatively scheduled for May 1, 2025. The fourth work session will include a discussion on the Draft Plan's land use, zoning, and urban design recommendations for the existing residential blocks between the mixed-use "nodes," the recommended overlay zone, and relevant testimony received. The FAR and heights recommended for CRT properties in the Four Corners District will also be discussed.

Subsequent work sessions are anticipated to return to land use, zoning, urban design, and transportation, as necessary, but also focus on additional elements in the Draft Plan, including housing, community facilities, schools, historic resources, environmental sustainability, and parks, trails, and open space. Subsequent work sessions are tentatively scheduled on May 1, May 15, and May 22.

The Kemp Mill Shopping Center is currently zoned Neighborhood Retail (NR), that originally allowed for up to 30% residential development. However, on April 8, 2025, the Montgomery County Council approved Zoning Text Amendment (ZTA) 25-03, which removed the 30% gross floor area cap on household living uses in the General Retail (GR), Neighborhood Retail (NR), and Employment Office (EOF) zones. ZTA 25-03 significantly enhances the site's capability for housing and the removal of the residential cap is one of several strategies in the ZTA. The ZTA acknowledges that Montgomery County faces high commercial vacancy rates and rising housing costs. ZTA 25-03 also aims to facilitate repurposing vacant commercial buildings for residential use. This adaptive reuse methodology addresses both office vacancies and housing shortages. It defines a new Commercial to Residential Reconstruction use for commercial buildings with 50% vacancy, converting or replacing them with residential buildings. An expedited approval process will apply to buildings primarily used as offices, ensuring better utilization of properties and addressing housing needs.

During the second work session, held on April 3, 2025, the Planning Board directed staff to evaluate potential square footage and unit yields based on the existing and recommended zoning. The Planning Board also asked staff to provide additional details on the existing and recommended zoning with development scenarios for the Kemp Mill Shopping Center. The Planning Board requested clarity on potential residential versus commercial development scenarios based on existing versus proposed zoning.

Below is a comparison of the existing Neighborhood Retail (NR) zone and the maximum density that can be built within that zone compared to the zone that is recommended in the Plan. This comparison includes adjustments to the NR zone recently approved by the Montgomery County Council on April 8, 2025. The calculations include the total site area of four addresses, 1301 Lamberton Dr, 1398 Lamberton Dr, 1370 Lamberton Dr, and 1299 Lamberton Dr.

Table 1: Potential Square Footages with Existing Neighborhood Retail (NR) Zoning

Site Area	Gross Floor Area at Maximum FAR	Total Housing Units at 1,750 ft² Average	Total Housing Units at 2,200 ft² Average	Existing Commercial Area (Sq. Ft)	Potential Commercial (Sq. Ft)
456,799	342,599	196	156	96,777	342,599

Although the NR zone permits 342,599 square feet of commercial use on the combined site, the removal of the residential use cap, along with the constraints imposed by the existing NR zoning, particularly the 45-foot height limit—will likely encourage townhouse-style housing if the site was to redevelop under the existing NR zone. Townhouse-style housing growth, under these height

restrictions and density requirements creates limitations on the ability to provide a mix of commercial and residential uses.

Low heights and low densities limit a mix of commercial and residential uses because infrastructure and site design are less consolidated. For example, in a townhouse development, each townhouse unit has its own parking, utility connections, and vehicle/fire access, promoting single-use development across the site.

In addition, commercial space typically occupies ground-level areas, while townhouses are ground-oriented, meaning they consume more ground area compared to apartment buildings. Consequently, the competition for ground area is greater in townhouse arrangements versus apartment setups.

The Draft Plan's recommended zoning (CRT 1.5, C-0.75, R-1.25, H-70) provides several benefits for the Kemp Mill Shopping Center. The recommendation aims to support development while retaining the essence of local commerce and contributing positively to the balance between residential and commercial spaces.

Table 2: Comparison of Development Possible Under Existing and Recommended Zoning

Zoning	Gross Floor Area at Maximum FAR	Maximum Available Area for Residential Use (sq. ft)	Available Area for Commercial Use (sq. ft) if Residential Use is Maximized	Existing commercial use (sq. ft)	Additional area for new commercial use (sq. ft) if Residential Use is Maximized	Optional Method?
NR 0.75 Height: 45'	342,599	342,599	0	96,777	0	No
CRT 1.5, C-0.75, R-1.25 Height: 70'	685,198	570,998	114,199	96,777	17,423	Yes

The CRT zone, along with the 70 feet height recommendation, makes a mixed-use development more viable and allows for development that supports commercial uses. While the exact mix of housing in a CRT development is difficult to predict, a combination of townhouses and low-to-medium-rise apartments, supported by local retail and commercial businesses, can yield between 200 to 350 housing units. This type of growth also provides a variety of housing options in the neighborhood.

Montgomery County Zoning Ordinance Sec 59.6.2 determines the minimum and maximum number of required vehicle parking spaces. Parking space requirements vary based on usage, such as multi-unit living or townhouse living having different standards compared to restaurants and medical clinics. For example, a restaurant with 1,000 sq. ft for patron use (excluding outdoor seating area) in the Commercial/Residential and Employment zones requires a minimum of 4 parking spaces. Similarly, each dwelling unit in townhouses requires a baseline minimum of 2 spaces. Detailed tables are available in the Montgomery County Zoning Ordinance here.

The Commercial/Residential (C/R) Zones are a family of mixed-use zones that allow a range of densities and heights. These zones are designed to encourage a mix of commercial and residential uses, create interactive streets, provide meaningful public spaces, and foster jobs and services where people can live, work, shop and play within a given neighborhood.

There are three Commercial/Residential Zone classifications which define the types of uses and the method of development allowed:

Commercial Residential Neighborhood (CRN)

Commercial Residential Town (CRT)

Commercial Residential (CR)

The CRN Zone allows standard method development; the CRT and CR Zones allow standard and optional method development. Optional method development requires the provision of public benefits in exchange for increased density.

The family of zones allows for a range of densities and heights – as low as 0.25 floor area ratio (FAR), near single-family neighborhoods, to 8.0 FAR, which may be used in areas with direct access to Metro Stations such as the county's Central Business Districts. Within this range, master plans use the flexibility of the zones to ensure that development fits within the context of each community. Once mapped with specific density and height limitations, the zone provides certainty for residents about the type of development they can expect. Any zone must be designated on the official zoning map approved by the County Council.

For the reasons stated above the Commercial Residential Town Zone (CRT 1.5, C-0.75, R-1.25, H-70) with the addition of the language proposed in the April 3 work session is the most effective approach to meet the community's needs while ensuring sustainable and viable future growth.

Recommended Plan Language: (Existing Plan language is shown in plain text and recommended language is shown in underlined text)

The Kemp Mill Shopping Center is a treasured cultural resource for the Kemp Mill community. The shopping center's services, amenities, retail stores, and restaurants, combined with the nearby places of worship, communal gathering spots, schools, recreational facilities, and diverse housing options,

create a community that residents greatly value. Many of the businesses and retail establishments in the Shopping Center are locally owned and provide employment for nearby residents.

This Plan recommends new infill residential and non-residential development, via the CRT Zone, for the properties associated with the Kemp Mill Shopping Center, including the Cornerstone Montgomery Inc. office building at 1398 Lamberton Drive. As the Kemp Mill Shopping Center fulfills a critical need in the community, the Plan encourages any new development to retain retail space that serves the needs of the Kemp Mill community. To incentivize retaining the retail space, the Plan recommends:

- A phased redevelopment of the Kemp Mill Shopping Center, that allows existing neighborhood retail to operate and site access to be maintained during redevelopment activities.
- Implementing strategies for retaining existing and attracting new independent retailers that may include incentives to preserve affordable rents, establishing business cooperatives, and building smaller store sizes that could accommodate local businesses.
- Attracting and supporting local retailers and small businesses through loans and technical assistance programs offered by State and County economic development agencies.

TRANSPORTATION

PLAN VISION

The University Boulevard Corridor Plan Public Hearing Draft (Draft Plan) envisions University Boulevard as a pedestrian-oriented, multimodal corridor that supports safe, accessible, and healthy travel options and connects vibrant communities with a diverse range of housing options, supported by bus rapid transit (BRT). The Draft Plan builds on previous plans and policies, including the 2013 *Countywide Transit Corridors Functional Master Plan*, *Thrive Montgomery 2050* (Thrive), and Vision Zero, to advance BRT, corridor-focused growth, environmental sustainability, economic resilience, and equity.

Reimagining University Boulevard into a multimodal corridor that facilitates the safe movement for all people also advances the county's commitment to Vision Zero, an international strategy to eliminate severe and fatal crashes. Recommended walkways, bikeways and trails promote additional access to existing and future parks, community facilities, and new amenities. New growth along University Boulevard reflects an environmentally sustainable framework to land use planning that leverages new transit infrastructure to reduce carbon emissions and advance the county's Climate Action Plan (CAP) goals.

The primary vision of the University Boulevard Corridor Plan is to create a more connected community, and equity is central to this sense of connectedness. An equitable community where all residents can thrive depends on access to a diverse range of housing options, safe and accessible transportation options, parks, trails, and public open spaces, and community facilities and services.

TRANSPORTATION POLICY GUIDANCE

The key policy guidance informing the University Boulevard Corridor Plan transportation recommendations emphasizes safety and travel options.

THRIVE MONTGOMERY 2050

Thrive Montgomery 2050 identifies both University Boulevard and Colesville Road in the Plan Area as Growth Corridors and contains transportation-related policies and practices that improve safety for all travel modes and provide multiple travel options. Selected policies and practices include:[1]

Develop a safe, comfortable and appealing network for walking, biking, and rolling.

- Expand the street grid in downtowns, town centers, transit corridors, and suburban centers of activity to create shorter blocks.
- Convert existing traffic lanes and on-street parking to create space for walkways, bikeways, and street buffers with landscaping and street trees, in a manner consistent with other county policies.
- Prioritize the provision of safe, comfortable, and attractive sidewalks, bikeways, roadway crossings, micromobility infrastructure and services, and other improvements to support walking, bicycling, micromobility, and transit usage in capital budgets, development approvals and mandatory referrals.
- Transform the road network by incorporating Complete Streets design principles with the goal of eliminating all transportation-related roadway fatalities and severe injuries and supporting the emergence of more livable communities.

Build a frequent, fast, convenient, reliable, safe, and accessible transit system.

- Build a network of rail, bus rapid transit, and local bus infrastructure and services—including demand-responsive transit service—that make transit the fastest, most convenient and most reliable way to travel to centers of economic, social and educational activity and opportunity, both within and beyond Montgomery County.
- Convert existing general purpose traffic lanes to dedicated transit lanes, in a manner consistent with other county policies.
- Connect historically disadvantaged people and parts of the county to jobs, amenities, and services by prioritizing investments in increasing access to frequent and reliable morning to late night transit service.

[1] *Thrive Montgomery 2050*, pp. 112-114.

- Ensure safe and comfortable access to transit stations via walking, rolling, and bicycling.

Adapt policies to reflect the economic and environmental costs of driving alone, recognizing car-dependent residents and industries will remain.

- Stop proposing new 4+ lane roads in master plans.
- Give a lower priority to construction of new 4+ lane roads, grade-separated interchanges, or major road widenings.

MDOT SHA COMPLETE STREETS POLICY

The Maryland Department of Transportation State Highway Administration's (MDOT SHA) Complete Streets Policy endeavors to "create a comprehensive multi-modal network by ensuring connectivity for vehicles, bicycling, walking, transit and freight trips throughout Maryland's transportation system" and "requires that all SHA staff and partners consider and incorporate complete streets criteria for all modes and types of transportation when developing or redeveloping our transportation system."

MONTGOMERY COUNTY COMPLETE STREETS POLICY

Montgomery County's Complete Streets Policy and Standards require that "each transportation facility in the County must be planned and designed to … maximize the choice, safety, convenience, and mobility of all users, regardless of age, ability, or mode of transportation…"

COMPLETE STREETS DESIGN GUIDE

The Montgomery County Complete Streets Design Guide, developed as a collaboration between the Montgomery County Department of Transportation (MCDOT) and Montgomery Planning, supports the design and operation of roadways to provide safe, accessible, and healthy travel for all users of the roadway system, including pedestrians, bicyclists, transit riders, and motorists. The document provides guidance on land use contexts and appropriate corresponding street types. For each street type, the document provides further guidance on street design parameters, such as target speeds, maximum spacing for protected crossings, and ranges of dimensions and priorities for elements of the street cross section.

The Draft Plan envisions the land use context of the University Boulevard Corridor as a combination of Suburban, Town Center, and Growth Corridor area types, as shown in Figure 63 on page 94 of the Public Hearing Draft. Suburban areas are "envisioned as low-to-moderate intensity residential development" and "may include isolated retail establishments" while Town Centers include "a mixture of uses" and are "commonly envisioned as high-to-moderate intensity residential development, including multifamily buildings and townhouses, and retail (existing or planned)."[2]

[2] Complete Streets Design Guide, p. 19

VISION ZERO

Vision Zero, adopted by Montgomery County in 2017, is an international effort to achieve zero deaths and serious injuries on roadways due to traffic crashes. Vision Zero holds that traffic deaths are preventable and seeks to prevent severe and fatal crashes through a systemic approach that integrates and expects human failure. Interventions that decrease the frequency and severity of crashes, such as reduced vehicular travel speeds, designated space for different users, reduced exposure to high kinetic energy, and more predictability in user interactions are key components for achieving Vision Zero. While Vision Zero's sole focus is on safety, this safety also expands travel options by transforming some travel choices—like walking, bicycling, and accessing transit—from unpleasant and dangerous experiences to safe and viable transportation modes.

CLIMATE ACTION PLAN

The Montgomery County Climate Action Plan, adopted in June 2021, identifies short-, mid-, and long-range actions to combat and adapt to climate change, including transportation actions that seek to move people and connect places safely, affordably, and sustainably.[3] These actions include:

- Transitioning to 100% zero emissions transportation and expanding supporting infrastructure.
- Provide clean, efficient, frequent, and reliable public transit.
- Reduce use of personal automobiles and increase use of transit and active transportation options.

EXISTING CONDITIONS

TRANSPORTATION NETWORK CONTEXT

University Boulevard is an important east-west corridor that provides a direct connection among several destinations in Montgomery and Prince George's Counties, including Kensington, Wheaton, the Takoma/Langley Crossroads, and College Park. University Boulevard also connects to several important corridors, including the Capital Beltway (I-495), Colesville Road (U.S 29), and Georgia Avenue (MD 97), providing access throughout the Washington Metropolitan Region. As University Boulevard directly connects to both activity centers and other major roadways, it is a well-traveled corridor for people driving vehicles as well as people riding transit.

University Boulevard's role in the transportation network is anticipated to increase with the completion of the Maryland Department of Transportation and Maryland Transit Administration's Purple Line in 2027. The Purple Line, a new 16-mile light rail line that will connect communities from

[3] Montgomery County Climate Action Plan, p. 145

New Carrollton in Prince George's County to Bethesda in Montgomery County, will travel within the University Boulevard right-of-way from the station planned at the intersection of University Boulevard and Adelphi Road in Prince George's County to the intersection of University Boulevard and Piney Branch Road in Montgomery County. While the Purple Line will divert along Piney Branch Road to travel to Silver Spring, University Boulevard west of Piney Branch Road will become an additional connection to existing and planned transit along Colesville Road (U.S. 29) and at the Wheaton Metrorail Station.

While University Boulevard is a significant regional roadway and transit corridor, it also serves local needs. University Boulevard provides access to adjacent residential communities and in many cases, also serves as a gateway to residential neighborhoods, places of worship, and schools. The segment of University Boulevard within the Plan area serves particularly vulnerable people, including seniors, people with disabilities, and students at Northwood and Montgomery Blair High Schools.

University Boulevard serves multifaceted roles as a major roadway, transit corridor, and a boulevard lined with a variety of housing types, but its auto-oriented character prioritizes vehicular movement over people walking, biking, rolling, and riding transit. The lack of sidewalks and bikeways buffered from high-speed traffic and the distance between safe, protected crossings, make it challenging and unsafe to walk, bike, roll, or access transit along University Boulevard.

The University Boulevard Corridor Plan Public Hearing Draft seeks to provide multiple safe and convenient transportation options for all travelers, regardless of age, ability, or mode of transportation. The Draft Plan priorities safety and choice, serving pedestrians, bicyclists, transit users, and vehicle passengers who live, work, learn and visit the Plan area over the through-movement of high-speed vehicles.

EXISTING ROADWAYS

The Plan area boundary includes University Boulevard (MD 193), between Amherst Avenue and the Capital Beltway (I-495). Georgia Avenue (MD 97) and Veirs Mill Road (MD 586) intersect University Boulevard in Downtown Wheaton, just west of the Plan area. The Plan area includes the interchange of University Boulevard and I-495 near its eastern boundary. Colesville Road (US 29)—which carries traffic between I-70 near Ellicott City and the District of Columbia—intersects University Boulevard in Four Corners in a complex jughandle configuration that includes a one-way couplet where University Boulevard (MD 193) is split into eastbound and westbound sections, one of the most complex at-grade intersection configurations in Montgomery County. Other key intersecting roadways along the corridor include Inwood Avenue, Sligo Creek Parkway, Arcola Avenue, and Dennis Avenue.

Street connectivity in the Plan area is limited for people traveling by all modes, including for people driving. Most neighborhoods along University Boulevard are isolated from one another and have limited access points to University Boulevard; where neighborhood access points do exist, they are often misaligned across University Boulevard and are frequently unsignalized, requiring challenging and potentially dangerous maneuvers like unprotected left turns across multiple lanes of oncoming

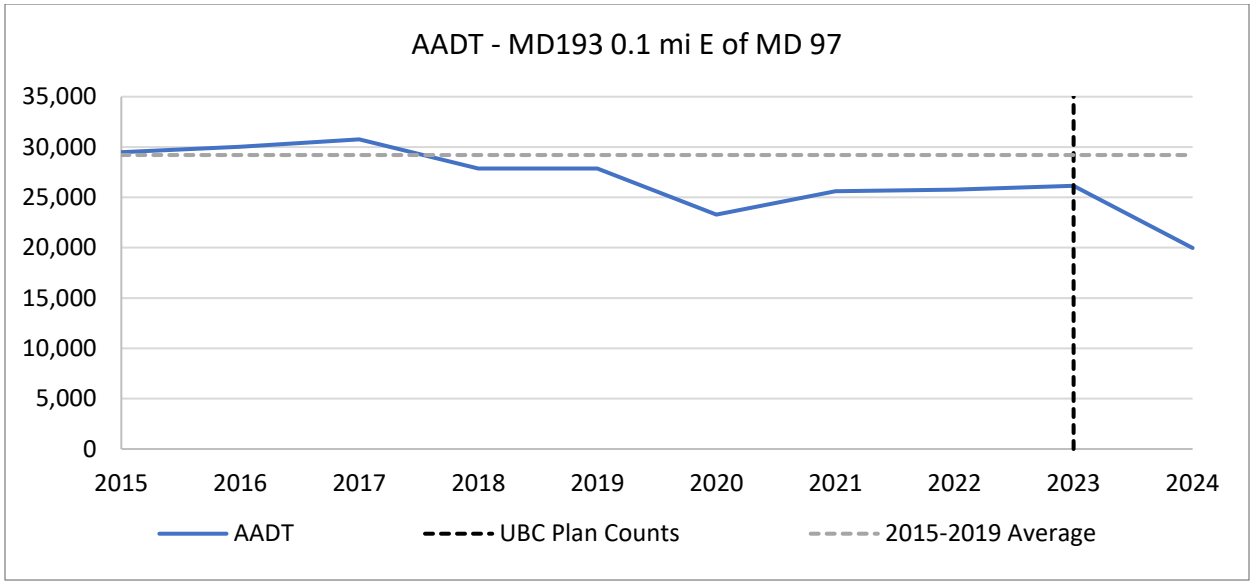
traffic. This same condition also threatens people walking, biking, and rolling, since drivers navigating unsignalized left turns are also turning across crosswalks while monitoring multiple crash risks.

Vehicular Traffic Volumes

The Maryland Department of Transportation (MDOT) reports annual average daily traffic (AADT) values, reflecting the 24-hour bi-directional travel volumes and typically based on adjusted 48-hour counts, for program count locations. AADT data for key count locations within the Plan Area are presented below.

For reference, counts for the University Boulevard Corridor Plan were collected in Spring and Fall 2023, indicated by a vertical dashed line on each chart, to provide the most recent data possible given the project schedule.[4] The "pre-pandemic" average of each AADT value from years 2015-2019 is illustrated by a horizontal dashed line on each chart and compared in the text below to the MDOT-reported AADT for 2023.

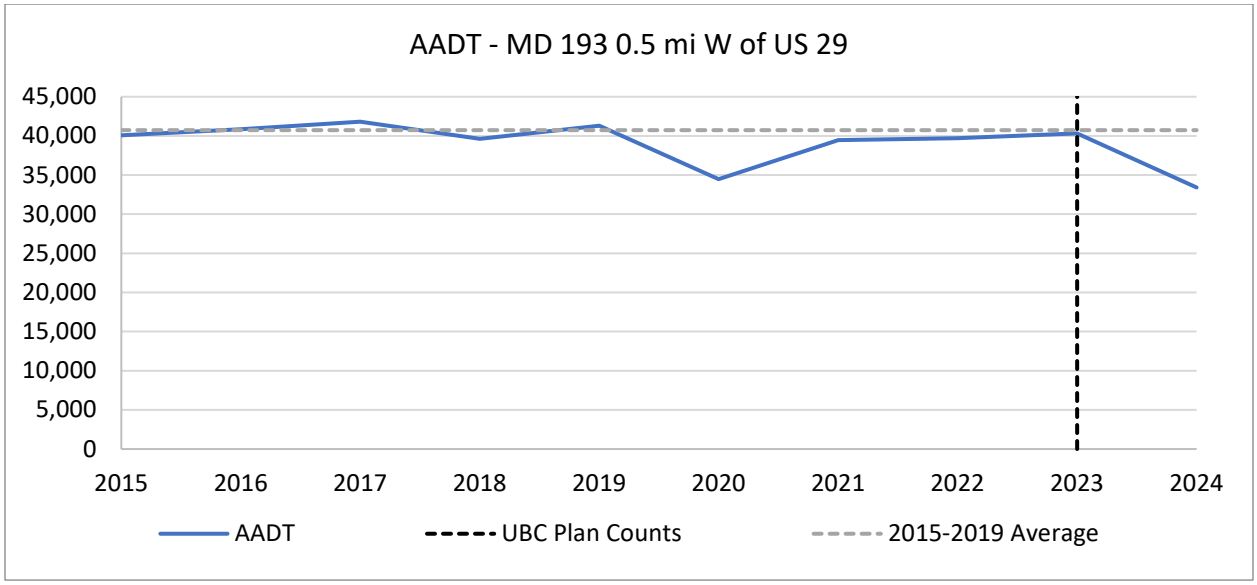
MD 193 0.1 mi East of MD 97



Year 2023 AADT is approximately 10% lower than the average of the AADT for years 2015-2019.

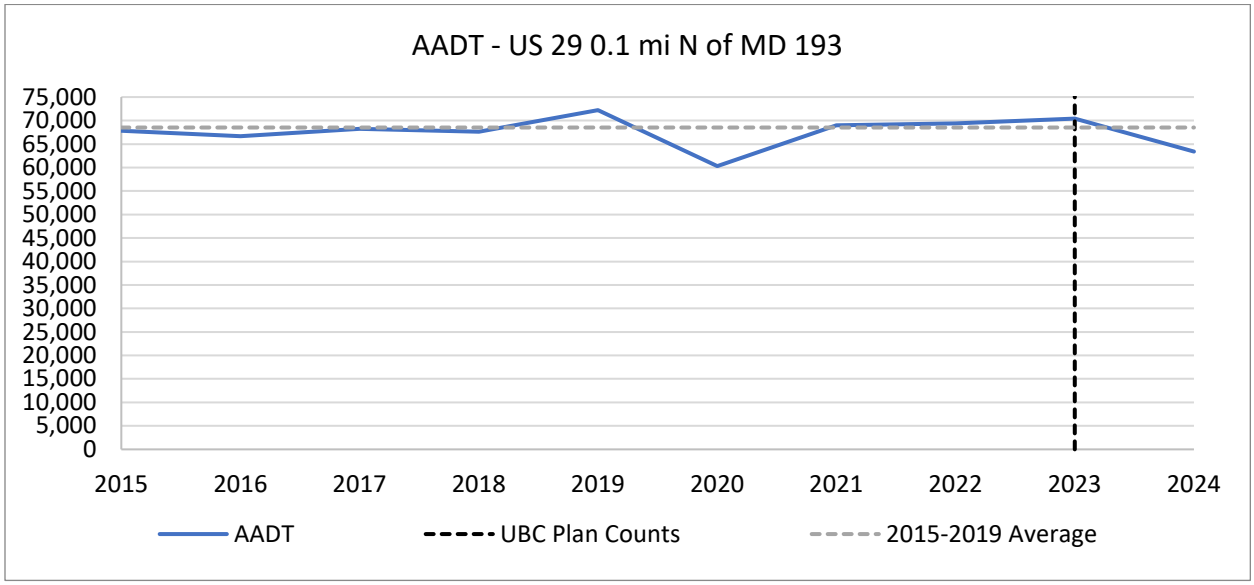
[4] Additional detail on the tube and intersection multimodal traffic counts is provided in the Transportation Appendix.

MD 193 0.5 mi West of US 29



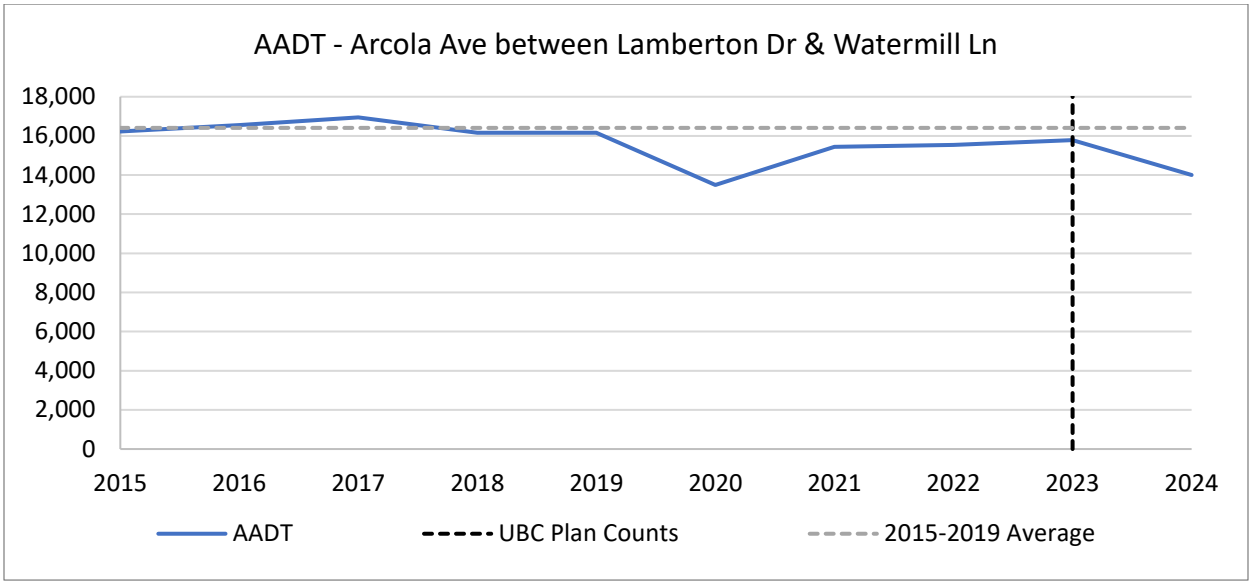
Year 2023 AADT is approximately 1% lower than the average of the AADT for years 2015-2019.

US 29 0.1 mi North of MD 193



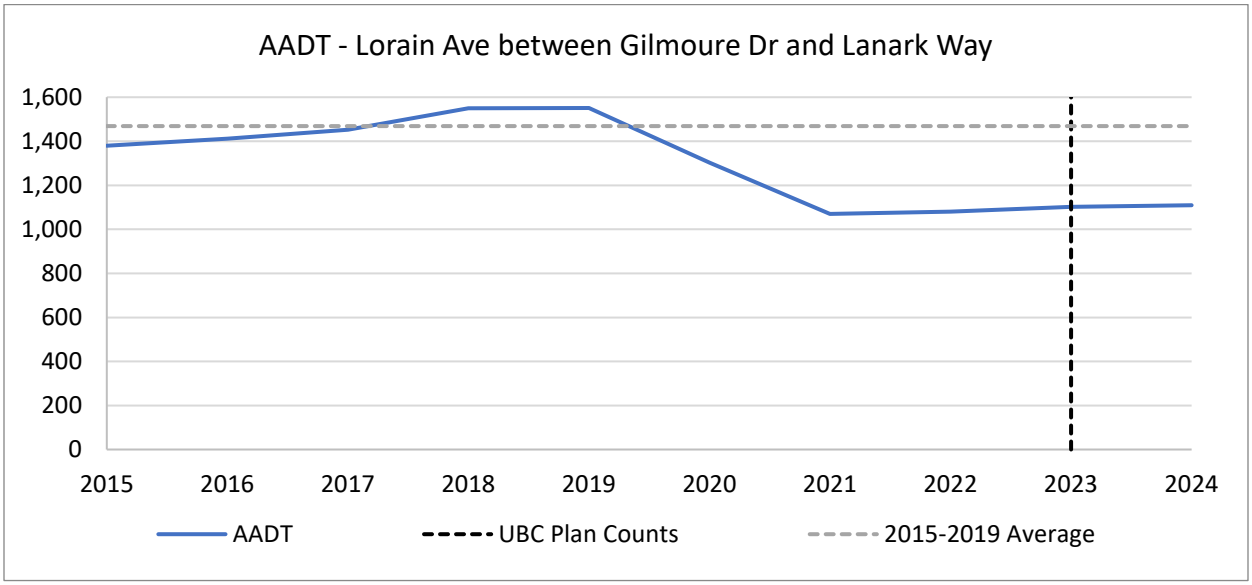
Year 2023 AADT is approximately 3% higher than the average of the AADT for years 2015-2019.

Arcola Ave between Lamberton Dr and Watermill Ln



Year 2023 AADT is approximately 4% lower than the average of the AADT for years 2015-2019.

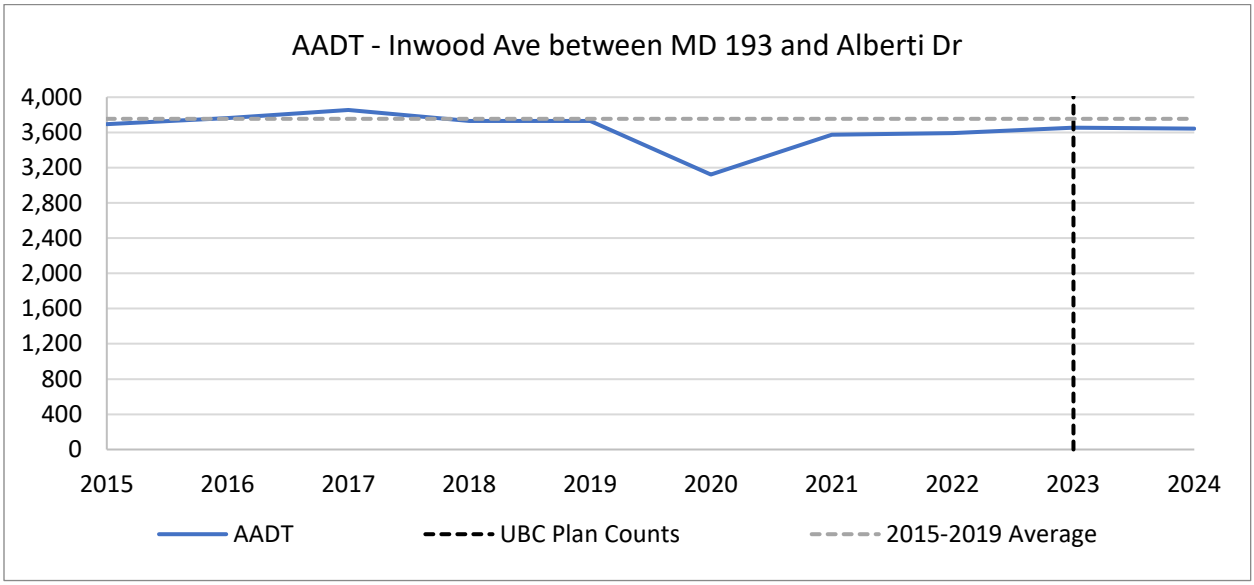
Lorain Ave between Gilmoure Dr and Lanark Way



Year 2023 AADT is approximately 25% lower than the average of the AADT for years 2015-2019. This trend differs notably from trends on nearby University Boulevard and Colesville Road: the 1%

decrease at the nearby "MD 193 0.5 mi West of US 29" location and the 3% increase at the nearby "US 29 0.1 mi North of MD 193.

Inwood Ave between MD 193 and Alberti Dr



Year 2023 AADT is approximately 3% lower than the average of the AADT for years 2015-2019.

Vehicular Speed Data

"Tube count" vehicular speed data were collected on University Boulevard between Reedie Drive and Inwood Avenue for 24 hours on Thursday, June 8, 2023. Of the 25,774 vehicles counted, 20,853 (81%) exceeded the posted speed of 35 mph, 4,433 (17%) exceeded 45 mph, 521 (2%) exceeded 55mph, 57 exceeded 65 mph, and 12 vehicles exceeded 75mph.

"Tube count" vehicular speed data were also collected on University Boulevard north of the I-495 ramps for 24 hours on Tuesday, October 3, 2023. Of the 29,700 vehicles counted,[5] 12,154 (41%) exceeded the posted speed of 35 mph, 2,475 (8%) exceeded 45 mph, 354 (1%) exceeded 55 mph, 74 exceeded 65 mph, and 17 vehicles exceeded 75 mph. The lower percentage of vehicles exceeding the posted speed at this location may reflect a higher percentage of vehicles accelerating from or decelerating toward the signalized intersection at the ramps.

At each of these locations and dates, vehicles traveling in excess of 55 mph—20 mph or more above the posted speed limit—were observed during every hour of the day, including during morning and

[5] 29,700 is likely an under-count of 24-hour vehicular volume at this location; these data were used primarily to understand vehicle speed distributions under existing conditions. Upon processing the speed data, the count firm believed that the Southbound direction of the "University Blvd North of I-495 Ramps" location was undercounted in the standard volume/speed reports. Their team created an additional report of "raw volume" data for the Southbound direction, labeled "SB Volume Supplement" in the Transportation Appendix, which better represents the true volume at that location.

evening commute periods, the lunch hour, and school start and end times, as well as the early morning and into the night. Although the percentage of vehicles traveling at speeds above 55 mph may appear small (1-2%), the hundreds of vehicles exceeding 55mph on University Boulevard in a single day underscore the significant speeding and safety concern on the corridor.

Research has shown that pedestrians have a 90% chance of survival if they are hit by a motor vehicle at 23 miles per hour, a 50% chance of survival if they are hit at 42 miles per hour, and only a 10% chance of survival if they are hit by a vehicle traveling at 58 miles per hour. The risk of severe injury is comparable at lower speeds: the average risk of severe injury for a pedestrian hit by a motor vehicle is 10% at 16 miles per hour, 50% at 31 miles per hour, and 90% at 46 miles per hour.[6] **Reducing vehicle speeds is critical to decreasing crash severity and eliminating traffic fatalities and severe injuries along University Boulevard.**

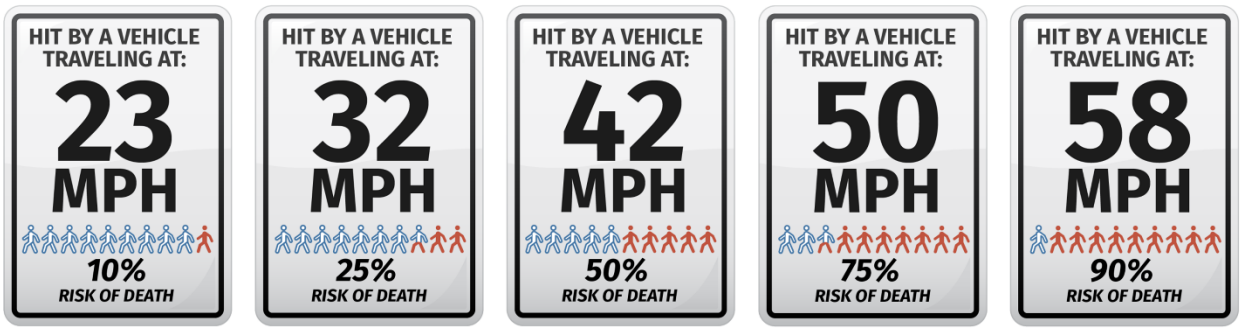


Figure 1 - Risk of Death by Vehicle Speed (FHWA)

CRASH DATA

From 2018 through 2024, there were four (4) fatal crashes and 30 severe injury crashes in the University Boulevard Corridor Plan Area. Three (3) of these fatal crashes (75%) and 21 of these severe injury crashes (70%) occurred on University Boulevard itself on the 3.4-mile segment between Amherst Avenue and East Indian Spring Drive. Table 3 breaks down the crashes on University Boulevard by year and type.

[6] Tefft, B.C. (2011). *Impact Speed and a Pedestrian's Risk of Severe Injury or Death* (Technical Report). Washington, D.C.: AAA Foundation for Traffic Safety.

Table 3 - Crash Summary by Year and Type – University Boulevard within the UBC Plan Boundary (Amherst Ave to E Indian Spring Dr – 3.4mi)[7]

Crash Type	2018	2019	2020	2021	2022	2023	2024	Total 2018-2024
Fatal – Pedestrian	0	1	0	0	0	0	0	1
Fatal – Bicyclist	0	0	0	0	0	0	0	0
Fatal – Vehicle Only	1	0	0	0	0	0	1	2
Severe Injury – Pedestrian	1	1	2	2	1	4	0	11
Severe Injury – Bicyclist	0	0	1	0	0	0	0	1
Severe Injury – Vehicle Only	0	2	0	1	3	2	1	9
All Other Crashes	159	131	90	115	106	126	117	844
Total Crashes	161	135	93	118	110	132	119	868

By comparison, during the same period of 2018 through 2024, there were no fatal crashes and six (6) major injury crashes on the 3.4-mile segment of 16th Street Northwest in Washington, DC between Webster Street and the Montgomery County border at North Portal Drive.

Table 4 breaks down the crashes on 16th Street by year and type. This segment of 16th Street is a major bus corridor served by the Washington Metropolitan Transit Authority (WMATA) S2 and S9 routes, carrying over 14,000 weekday daily riders combined, comparable to the more than 12,000 weekday daily riders on the combined C2 and C4 routes that serve University Boulevard.[8] The corridor is lined with a mix of residential housing types ranging from single unit detached home to high-rise apartment building and connects the major mixed-use centers of Silver Spring and downtown Washington, DC. Vehicular traffic volumes on 16th Street and University Boulevard are similar, with year 2023 AADT on University Boulevard ranging from 26,000 to 41,000 while 2023 AADT on 16th Street ranged from 25,000 to 32,000; however, 16th Street Northwest is a four-lane roadway with more frequent protected crossings and lower speeds, attributes consistent with the lower observed rates of severe injury and fatality crashes.

[7] Montgomery County Interactive Crash Map. Data from 2018-2023 defines crash severity through the field "incident_severity", which uses the term "severe injury". After 2023, the data collection process was overhauled and the "incident_severity" field was discontinued. Data from 2024 onward defines crash severity using the "injury_severity" field, which uses the term "serious injury".
[8] WMATA Metrobus Ridership Summary, October 2024.

Table 4 - Crash Summary by Year and Type – 16th Street from Webster St to North Portal Dr at the Montgomery County Border (3.4 mi)[9]

Crash Type	2018	2019	2020	2021	2022	2023	2024	Total 2018-2024
Fatal – Other	0	0	0	0	0	0	0	0
Fatal – Passenger	0	0	0	0	0	0	0	0
Fatal – Pedestrian	0	0	0	0	0	0	0	0
Fatal – Driver	0	0	0	0	0	0	0	0
Fatal – Bicyclist	0	0	0	0	0	0	0	0
Major Injury – Other	0	0	0	0	0	0	0	0
Major Injury – Passenger	0	0	0	0	0	0	0	0
Major Injury – Pedestrian	0	0	0	0	0	1	0	1
Major Injury – Driver	0	2	0	1	0	0	1	4
Major Injury – Bicyclist	1	0	0	0	0	0	0	1
All Other Crashes	45	44	18	18	14	20	15	174
Total Crashes	46	46	18	19	14	21	16	180

University Boulevard from Georgia Avenue to Arcola Avenue is included on Montgomery County's High Injury Network (HIN) and identified as the fourth highest priority among state-maintained roads.[10] The HIN "highlights the roads with the highest serious and fatal crash rates. Each HIN segment had 4 or more serious or fatal crashes between 2015 and 2019" and the HIN "is 100 miles or 3% of the road network but accounted for 41% of all serious and fatal crashes between 2015 and 2019."[11]

Eliminating serious and fatal crashes on University Boulevard requires reducing the frequency of crashes and the severity of crashes. Reducing the frequency of crashes is achieved in large part by providing designated space for different users and creating predictability where users interact. A complete street provides designated space for those walking, rolling, and biking, riding transit, and driving, while protected crossings introduce predictability where these users interact by controlling movements and reducing conflicts. Reducing the severity of crashes is achieved by reducing vehicle speeds and increasing the ability for drivers to successfully yield when necessary.

[9] Open Data DC – "Crashes in DC"
[10] Montgomery County Vision Zero 2030 Action Plan – FY24-25 Work Plan, p. 12
[11] Ibid., p. 11

PEDESTRIAN AND BICYCLE CONDITIONS

People walking, biking, and rolling lack safe, comfortable, and connected facilities for traveling both along and across University Boulevard. Protected crossings[12] of University Boulevard—where traffic controls stop vehicular traffic to allow people to cross—are few and far between, with a median distance of over 1,400 feet between protected crossings and one section approaching 2,800 feet between protected crossings. **Sidewalks along University Boulevard are generally directly adjacent to vehicular travel lanes and are overgrown with vegetation in some places, further narrowing the existing typical 6-foot sidewalk width. These conditions are unsafe and uncomfortable for all who would walk, bike, and roll along and across University Boulevard, and especially for those who use wheelchairs and other assistive mobility devices.** There are no bicycle facilities on University Boulevard itself, and the disconnected street network precludes direct, connected bicycle facilities on parallel streets, making bicycling through the area inconvenient, uncomfortable, and unsafe.

In Four Corners, people walking, biking, and rolling face even wider roadway crossings and large corner radii that allow vehicles to make high-speed right turns from University Boulevard onto Colesville Road where large numbers of vulnerable Montgomery Blair High School students cross before, during, and after school to access bus stops and local businesses. Sidewalks are narrow, creating unsafe conditions for students and other people to board and alight buses and wait to cross the street. Students at Northwood High School must cross 7 car lanes or about 90 feet, while students at Montgomery Blair must cross 8 car lanes at about 90 feet to reach westbound C2 and C4 buses and a combined 16 lanes totaling nearly 200 feet to reach the southbound FLASH bus station.

Safe Routes to School

Safe Routes to School (SRTS) is a nationwide program that aims to significantly improve safety for students who walk and bike to school. The program seeks to enable and encourage children, including those with disabilities, to walk and bike to school; to make biking and walking to school a safer and more appealing transportation choice that encourages a healthy and active lifestyle from an early age; and to plan and build projects and activities that improve safety and reduce traffic, fuel consumption, and air pollution. The public schools in the Plan Area have a combined enrollment of over 6,500 students in 2023[13] and include Montgomery Blair High School, which is the largest by enrollment in the state of Maryland. Multimodal safety improvements that prevent fatalities and severe injuries by providing safe ways for students to access their schools, including safe ways to reach bus stops, are essential in this corridor with a large student population.

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[12] According to the Montgomery County Complete Streets Design Guide: "On streets with operating speeds of 30 mph or more, 'protected' crossings include: Traffic/pedestrian signal or HAWK, all-way stop control, or grade-separated crossing."

[13] https://ww2.montgomeryschoolsmd.org/departments/sharedaccountability/reports/2023/EnrollmentSuppressed2024.pdf

TRANSIT RIDERSHIP

Several transit routes serve the University Boulevard Corridor Plan Area, including the Washington Metropolitan Transit Authority (WMATA) C2 and C4 routes; Ride On routes 7, 8, 9, 19, 21, 22, and 31; and the Ride On Flash Blue and Orange Routes. **In total, ridership on all routes serving the plan Area likely exceeds 15,000 weekday daily riders.**

WMATA C2 and C4

The Washington Metropolitan Area Transit Authority's (WMATA) C2 and C4 Metrobus routes travel the full length of University Boulevard through the Plan area, carrying over 12,000 weekday daily riders combined.[14] The C2 Metrobus route provides service between the Greenbelt Metrorail Station in Prince George's county and the Wheaton Metrorail Station, while the C4 Metrobus route provides service between the Hyattsville Crossing Station in Prince George's county and the Twinbrook Metrorail station.

Many of these weekday passengers traverse the Plan Area: 5,450 average weekday daily riders travel on the segment of University Boulevard within the Plan Area (Amherst Avenue to E Indian Spring Drive).[15] While only these passengers would directly travel on dedicated bus lanes within the Plan Area, improving the operation of transit service along one portion of a route like the C2/C4 benefits transit riders elsewhere on the route and throughout the transit system by helping bus routes maintain on-time performance and helping transit agencies to more effectively allocate transit vehicle and operator resources.

Future riders would also benefit from transit performance improvements. Ridership on the C2 and C4 routes has experienced strong growth since 2019. Average daily ridership grew 37% between October 2019 and October 2024 and grew 32% between October 2022 and October 2024.[16]

Ride On

Table 5 summarizes average daily ridership for FY21 and FY22 for selected Ride On Routes serving the Plan Area. Ride On Route 7 travels along University Boulevard and Inwood Avenue in the Plan Area, providing service to the Wheaton and Forest Glen Metrorail Stations. Ride On Route 8 travels along University Boulevard and Tenbrook Drive, also providing service to the Wheaton and Forest Glen Metrorail Stations. Ride On Route 9 travels along Arcola Avenue to University Boulevard, while Routes 21 and 22 provide service along Colesville Road (U.S. 29). Route 31 travels along Arcola Avenue to Kemp Mill Road, connecting several residential communities between the Wheaton Metrorail Station, Wheaton Regional Park, and the Glenmont Metrorail Station.

[14] WMATA Metrobus Ridership Summary, October 2024.
[15] WMATA Automatic Passenger Counter (APC) data as of April 11, 2025 for October 2024.
[16] WMATA Metrobus Ridership Summary, October 2019, 2022, and 2024.

Table 5 – Ride On Average Daily Route Ridership[17]

Route	FY21 Average Daily Ridership	FY22 Average Daily Ridership
Ride On Routes Traveling Along University Boulevard		
7	12	22
8	242	334
9	560	888
19	19	19
Subtotal	*833*	*1,263*
Other Ride On Routes Serving the Plan Area		
21	65	87
22	74	109
31	29	41
Subtotal	*168*	*237*
Total	**1,001**	**1,500**

The Flash Blue and Orange Routes also serve the Plan Area, providing service from Burtonsville to the Silver Spring Transit Center on Colesville Road (U.S. 29), including stops in Four Corners. Table 6 summarizes monthly average weekday, Saturday, and Sunday combined ridership for the Flash Blue and Orange Routes from January through March 2023.

Table 6 – Flash Blue and Orange Route Combined Daily Average Ridership[18]

Month	Average Weekday Ridership	Average Saturday Ridership	Average Sunday Ridership
Jan 2023	2,126	1,423	1,693
Feb 2023	2,295	1,384	1,215
Mar 2023	2,250	1,644	1,117

PARTNER AGENCY EFFORTS

Partner agencies Montgomery County Department of Transportation (MCDOT) and Maryland Department of Transportation State Highway Administration (MDOT SHA) have recently undertaken multiple projects in the Plan Area, including:

- MDOT SHA – MD 193 (University Blvd) Amherst Ave to Arcola Ave Multi-Modal Shared Streets Pilot Project ("SHA Bike Lane Pilot")
- MCDOT – University Blvd (MD 193) Dedicated Bus Lane Pilot ("MCDOT Bus Lane Pilot")
- MCDOT – US 29 Flash Bus Rapid Transit (BRT) Phase 2 ("US 29 Flash BRT Phase 2")
- MDOT SHA – Pedestrian Safety Action Plan (PSAP) – MD 193 (University Blvd) MD 97 (Georgia Ave) to US 29 (Colesville Rd) ("SHA PSAP")

[17] MCDOT staff email, 7/15/2022.
[18] MCDOT staff email, 6/6/2023.

In combination, these projects demonstrate that there is a need to improve safety, reliability, and convenience for people traveling on University Boulevard, and transition the existing auto-oriented roadway to a more multimodal, complete street.

SHA Bike Lane Pilot

The MDOT SHA – MD 193 (University Blvd) Amherst Ave to Arcola Ave Multi-Modal Shared Streets Pilot Project ("SHA Bike Lane Pilot") was implemented on June 14, 2021 and demobilized after about six months on December 3, 2021. The SHA Bike Lane Pilot repurposed travel lanes adjacent to the curbs on westbound and eastbound University Boulevard between Amherst Avenue and Arcola Avenue for use by bicyclists using flex posts, signing, and striping.

The project also reconfigured the intersection of Arcola Avenue and University Boulevard, removing the right turn only lane and channelized right turn from Arcola Avenue and repurposing one dedicated left turn lane for a shared left- and right-turn lane, as illustrated on Figure 2.

MDOT SHA shared results of the project during a virtual community meeting on January 26, 2022.[19] Community members expressed added confusion around conflict points and frustration related to right turning movement operations. The presentation did not support making the pilot permanent, noting that "the project proved safe and provided efficient mobility for all users" but citing "right turning safety concerns, low bicycle lane ridership, as well as strong negative community feedback…"

Figure 2 - Arcola / University Intersection Reconfiguration during SHA Bike Lane Pilot (Demobilized 12/3/2021)[20]

[19] MD 193 MULTI-MODAL SHARED STREETS PILOT PROJECT Virtual Wrap Up Meeting, January 26, 2022
[20] Ibid., p. 21

MCDOT Dedicated Bus Lane Pilot

Following the decommissioned temporary bicycle lane, the MCDOT – University Blvd (MD 193) Dedicated Bus Lane Pilot ("MCDOT Bus Lane Pilot") was implemented on February 19, 2024. The project repurposed travel lanes adjacent to the curbs on westbound and eastbound University Boulevard between Amherst Avenue and Dennis Avenue for dedicated bus-only lanes using signing, striping, and red painted lanes. Bikes and emergency vehicles may also use the lanes and cars are allowed to use the dedicated lanes for right turning movements.

Unlike the SHA Bike Lane Pilot, the MCDOT Dedicated Bus Lane Pilot did not reconfigure turn lanes on Arcola Avenue. Vehicles turning to and from Arcola Avenue use the hatched area of the dedicated bus lane to turn right onto Arcola Avenue or merge left onto University Boulevard.

MCDOT's November 2024 evaluation included information from several time periods. Data was collected 8 months before implementation in June 2023, 4 months after implementation in May 2024, when Northwood High School was open, and 8 months after implementation in September 2024, when schools were open but Northwood High School was closed for construction. The evaluation found that 1% of non-transit vehicles used the dedicated bus lanes, Metro bus travel times were reduced by 7%, and vehicular travel times between Amherst Avenue and Dennis Avenue increased by approximately 20 seconds (7%). During field observations in spring 2024 and fall 2024 no cycle failures were observed, meaning that all cars waiting at the start of a green signal were able to pass through the intersection on a single green signal. During school dismissal, queues formed at the right turn to Arcola Avenue but also dissipated within a single signal cycle.

US 29 Flash BRT Phase 2

Another project near the Plan Area is the US 29 Flash BRT project. MCDOT is in the preliminary engineering and environmental evaluation stage of the US 29 Flash BRT Phase 2 project, which is implementing a "median-running bus lanes hybrid" concept for dedicated transit lanes along Colesville Road. Within Four Corners (approximately Timberwood Avenue to the southbound Colesville Road to Outer Loop I-495 onramps), the project is advancing two median running transit lanes, one per direction. In the rest of the Plan Area outside Four Corners, the project is advancing a single, reversible median-running transit lane. The conceptual cross section for the project within Four Corners is shown on Figure 3. The Draft Plan recommendations for Four Corners are consistent with this conceptual design and complement it by providing safer and more comfortable buffered sidewalks and side paths for people accessing transit and people transferring between routes.

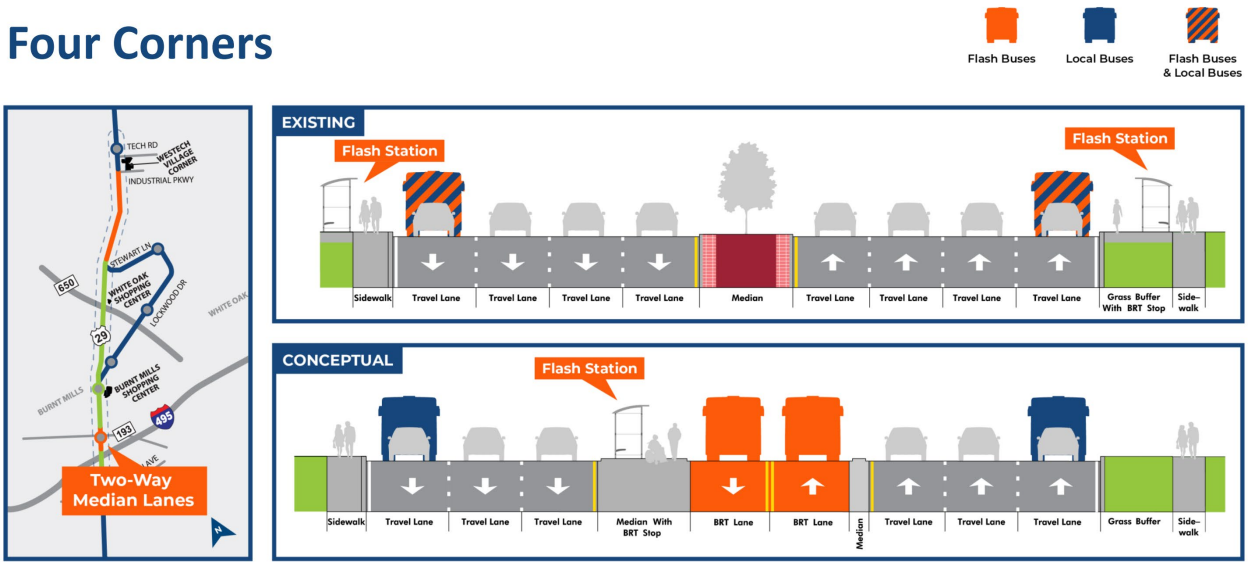


Figure 3 - US 29 Flash BRT Phase 2 Conceptual Cross Section in Four Corners[21]

SHA Pedestrian Safety Action Plan

MDOT SHA has initiated the MD 193 (University Boulevard) project as part of the Pedestrian Safety Action Plan (PSAP) that identifies corridors statewide for safety improvements. According to PSAP project materials, PSAP projects are "improvements designed to enhance the safety of vulnerable road users on Maryland roadways, including pedestrians and bicyclists. Project corridors are selected based on data-driven priorities and analysis conducted as part of the State Highway Administration's Pedestrian Safety Action Plan published in May 2023." However, PSAP projects are not long-term projects, projects focused on traffic operations, or "streetscape projects, which can have significant impact on rights of way and utilities." Instead, they are "focused in scope, responding effectively to pressing needs with available funding" and "designed to provide near-term improvements delivering an immediate safety benefit." PSAP projects are intended to be "minimally impactive to rights of way and utilities, with limited permitting or acquisition needs."[22] As such, while the PSAP project can help to implement some of the safety improvements recommended in the Draft Plan and complement the Draft Plan with near-term improvements, it cannot make many of the longer-term safety improvements, like wider street buffers and sidepaths, that require additional right of way. In contrast, the Draft Plan considers longer-term changes to both land use and transportation, which is essential to effectively plan for further improvements as capital project funding becomes available and/or redevelopment of adjacent parcels delivers improvements.

[21] Corridor Advisory Committee (CAC) #2 Meeting Presentation - Thursday, January 30, 2025, p. 17
[22] MD 193 PSAP Project Public Informational Workshop, November 14, 2024, p. 3

PUBLIC HEARING TESTIMONY AND BOARD MEMBER QUESTIONS

SUPPORT

Safety and Accessibility

Public testimony included support of Plan recommendations related to wider sidewalks, separating sidewalks from traffic, and improving shelters at bus stops.

Public testimony also included support for increased protected crossings, reduced car lane numbers and widths, expanded sidewalks and buffers, reduced curb radii, improved access to bikeshare, improved crosswalks that are visible and ADA compliant, and the implementation of "no right turn on red" restrictions at new signalized intersections.

In addition, there was support for the exploration and swift implementation of neighborhood street safety measures which should be prioritized as part of the overall traffic safety improvements. Community members expressed interest in being engaged in planning and implementation of traffic safety measures on neighborhood streets.

Reedie Drive to University Boulevard Bikeway

Public testimony included support for a bicycle-friendly connection between Reedie Drive and University Boulevard.

Access Management

Public testimony included support for better access management, by encouraging future development to reduce the number of access points that open directly onto University Boulevard. Access management is "the proactive management of vehicular access points to land parcels," which promotes "safe and efficient use of the transportation network" through techniques like intersection and driveway spacing, dedicated turning lanes and signalization, and raised medians.[23]

Bus Rapid Transit Station Locations

Public testimony included support for planned Bus Rapid Transit (BRT) stations located at or near existing traffic signals that allow protected pedestrian crossings where traffic controls stop vehicular traffic to allow people to cross.[24]

[23] https://ops.fhwa.dot.gov/access_mgmt/what_is_accsmgmt.htm

[24] According to the Montgomery County Complete Streets Design Guide: "On streets with operating speeds of 30 mph or more, 'protected' crossings include: Traffic/pedestrian signal or HAWK, all-way stop control, or grade-separated crossing."

TRAFFIC AND STREET CONNECTIONS

Intersection Safety Improvements – Leading Pedestrian Intervals and No Right Turn on Red

Public testimony included concerns about the potential delays to vehicular traffic from intersection safety improvement recommendations including Leading Pedestrian Intervals (LPIs) and "No Right Turn on Red" restrictions. A Leading Pedestrian Interval is a proven safety countermeasure that "gives pedestrians the opportunity to enter the crosswalk at an intersection 3-7 seconds before vehicles are given a green indication." LPIs "reduce potential conflicts between pedestrians and turning vehicles" and have been shown to reduce pedestrian-vehicle crashes at intersections by 13%.[25] "No Right Turn on Red" restrictions also reduce conflicts between turning vehicles and pedestrians and bicyclists traveling through; "No Turn on Red" is identified as a systemic safety improvement in Montgomery Planning's Vision Zero Community Toolkit.[26]

Bill 11-23, passed in September 2023,[27] requires Leading Pedestrian Intervals and "No Right Turn On Red" signage at intersections on county roads in downtown and town center areas, effective July 1, 2025. Acknowledging the significant safety concerns and the envisioned future land use and transportation context of the Plan Area, the Plan recommends installing "No Right Turn on Red" restrictions at all signalized intersections in the Plan Area and implementing Leading Pedestrian Intervals at all signalized intersections along University Boulevard.

While these recommendations prioritize multimodal safety, they do also have implications for vehicular traffic operations. Implementing partners would evaluate and implement Leading Pedestrian Intervals and "No Right Turn on Red" restrictions at specific signalized intersections. The Leading Pedestrian Interval and "No Right Turn On Red" recommendations in the Draft Plan are essential to improve multimodal safety. However, the following revision to the recommendation provides additional flexibility to implementing partners (revision shown in underlined text).

- <u>Outside downtown and town center areas, consider the</u> implement<u>ation of</u> "No Right Turn on Red" restrictions at signalized intersections <u>at locations where the restriction is determined to reduce the risk of fatalities and severe injuries, prioritizing crossings near parks, schools, and bus rapid transit stations.</u> (Public Hearing Draft Page 120).

Arcola Avenue Intersections

Public testimony included concerns about the potential delays to vehicular traffic because of the configuration and operations of intersections along Arcola Avenue within the Plan Area. In particular, testimony referenced the configuration of the intersection of University Boulevard and Arcola Avenue during the SHA Bike Lane Pilot (demobilized on December 3, 2021), which removed the right turn only lane and channelized right turn from Arcola Avenue and repurposed one dedicated left turn lane for a

[25] https://highways.dot.gov/safety/proven-safety-countermeasures/leading-pedestrian-interval#
[26] https://montgomeryplanning.org/planning/transportation/vision-zero/vision-zero-community-toolkit/
[27] https://www2.montgomerycountymd.gov/mcgportalapps/Press_Detail.aspx?Item_ID=44019&Dept=1

shared left- and right-turn lane. The Draft Plan recommends removing channelized right-turn lanes from all intersections to improve multimodal safety because channelized right-turn lanes have been demonstrated to bring pedestrians into high-speed, non-signalized conflict with vehicles, increasing the risk of severe injury and death; the increased turning radius of channelized right turns further contributes to higher vehicle speeds and hence severe injury and fatality risk.[28]

The Draft Plan does not recommend preventing right turns from Arcola Avenue to University Boulevard and does not recommend eliminating the right turn lane. Instead, the Draft Plan recommends that the intersection could be reconfigured to remove the channelized right-turn while maintaining three southbound approach lanes on Arcola Avenue. Implementing partners would evaluate and implement operational changes like an intersection reconfiguration at this intersection that creates safety improvements while also maintaining the existing number of vehicle lanes.

In response to the testimony received, the following text should be added as a footnote to the street network recommendations on page 100 of the Draft Plan (revision shown in underlined text)

- Remove channelized right-turn lanes from all intersections. [1]
  [1] The Plan does not recommend preventing right turns from Arcola Avenue to University Boulevard and does not recommend eliminating the right turn lane. The intersection could be reconfigured to remove the channelized right-turn while maintaining three approach lanes on Arcola Avenue. The exact lane assignment will be determined by implementing agencies with the completion of intersection improvements.

University Boulevard Lane Repurposing Traffic Effects

Public testimony included concerns about the potential delays to vehicular traffic from repurposing vehicle travel lanes on University Boulevard. The Draft Plan recommends repurposing one vehicular through travel lane per direction along University Boulevard throughout the Plan Area. Within Four Corners (between Lorain Avenue and Lexington Drive), the Draft Plan recommends repurposing this right-of-way for new or wider street buffers and wider, safer facilities for people walking, biking, and rolling. Outside Four Corners, the Draft Plan recommends repurposing this right-of-way for dedicated transit lanes.

The Transportation Appendix[29] includes a "segment analysis" of estimated peak hour lane volumes and capacities, comparing conditions in year 2045 without adoption of the Draft Plan but with other adopted plans in place ("Year 2045 Adopted Plan") to conditions with the recommendations of the Draft Plan ("Year 2045 Proposed Plan Recommendations"). Throughout most of the Plan Area (23 of 30 analyzed segments), forecasted conditions on analyzed segments of University Boulevard, Colesville Road, and Arcola Avenue do not approach congested conditions (i.e., have hourly per-lane volumes

[28] Jiang, Chaozhe & Qiu, Rui & Fu, Ting & Fu, Liping & Lu, Zhengyang. (2020). Impact of right-turn channelization on pedestrian safety at signalized intersections. Accident Analysis & Prevention. 136. 10.1016/j.aap.2019.105399.
[29] https://montgomeryplanning.org/wp-content/uploads/2025/02/Public-Hearing-Draft-Appendices.pdf

less than 800) during either peak hour. Planners review peak hour conditions to provide a measure of the "worst case" travel conditions on a typical day. The morning (AM) and evening (PM) peak hours were based on the peak hour of travel for each individual count location, reflecting the observed "worst case" hour for all locations at the same time (e.g., one intersection might experience its highest hourly volume from 4:30-5:30 PM, while another intersection experiences its highest hourly volume from 5:30-6:30 PM; both are presented as one simultaneous "peak hour"); other hours of the day, by definition, have lower observed traffic volumes.

Seven of 30 analyzed segments do exceed 800 vehicles per hour per lane (vphpl) during the AM or PM peak hour in the Year 2045 Proposed Plan Recommendations scenario; however, the same seven analyzed segments also exceed 800 vphpl in the baseline Year 2045 Adopted Plan scenario. One of these seven segments exceeds 800 vphpl in both the AM and PM peak hours. Per-lane peak hour volumes for only the locations and peak hours that exceed 800 vphpl are presented in Table 7 below.[30] **Per-lane hourly volumes forecasted for these locations and peak hours for the year 2045 Proposed Plan Recommendations condition are within approximately 2% of the corresponding per-lane hourly volumes for the Year 2045 Adopted Plan condition.**

Care should be taken in the interpretation of these results. As noted in the Transportation Appendix, forecasting future travel conditions on a 20-year time horizon is inherently uncertain and major highway forecasts could be expected to vary by more than 40%, with even higher variations on roadways with lower volumes. The 2013 Countywide Transit Corridors Functional Master Plan assumed capacity of 800 vehicles per hour per lane in urban areas and up to 1,200 vehicles per hour per lane in suburban areas, so a capacity of 800 vehicles per hour per lane was selected as a conservative threshold for approaching congested conditions; however, National Cooperative Highway Research Program guidance provides planning-level, peak hour, per-lane capacity estimates ranging from 840 to 1,470 vehicles per hour per lane, depending on speed, signal spacing, signal cycle length, and other characteristics.[31] Per-lane volumes significantly exceeding 1,000 vphpl have been observed during routine studies on other Montgomery County roadways (examples enumerated in the Transportation Appendix). With county priorities to create Complete Streets that create space for all roadway users and prioritize multimodal safety, congestion thresholds have been examined and refined over time.

[30] Data for all analyzed segments are presented on Figures 14-17 of the Transportation Appendix.
[31] NCHRP Report 825: Planning and Preliminary Engineering Applications Guide to the Highway Capacity Manual (2016).

Table 7 - Per-Lane Peak Hour Segment Volumes – Locations and Peak Hours exceeding 800 Vehicles per Hour per Lane (vphpl)

Segment	Extents	Peak Hour	2045 Adopted Plan vphpl	2045 Proposed Plan vphpl	Change in vphpl	% Change in vphpl
Arcola Avenue EB	Lamberton to University	AM	865	866	+1	+0.1%
Colesville Road SB	Lorain to Timberwood	AM	946	942	-4	-0.4%
Colesville Road SB	Timberwood to University	AM	881	870	-11	-1.2%
Colesville Road SB	University to Lanark	AM	999	1,012	13	+1.3%
Colesville Road NB	University to Timberwood	PM	966	963	-3	-0.3%
Colesville Road NB	Timberwood to Lorain	PM	965	963	-2	-0.2%
University Boulevard EB	East of I-495 Outer Loop Offramp	AM	813	803	-10	-1.2%
University Boulevard EB	East of I-495 Outer Loop Offramp	PM	861	843	-18	-2.1%

These results are based on a planning-level analysis of forecasted traffic patterns. More precise estimates of measures like corridor travel time depend on operational factors like intersection configuration and signal timing as well as transit factors like bus frequency and transit signal priority. Implementing partners would evaluate and implement these operational changes as part of a future development or capital project. In light of these vehicular traffic forecasts, the Plan Draft recommends repurposing one vehicular through travel lane per direction along University Boulevard throughout the Plan Area to improve multimodal safety; provide new or wider street buffers and wider and safer facilities for people walking, biking, and rolling; and provide dedicated transit lanes.

Public testimony also included concerns about the potential for increased response times for emergency vehicles because of repurposing vehicular travel lanes for dedicated bus lanes. As with the Dedicated Bus Lane Pilot, emergency vehicles have access to the dedicated bus lanes and, in the event of interference between buses, bikes, and emergency vehicles, "buses and bikes have equal rights to use the lane and will need to yield to emergency vehicles."[32]

Planning staff discussed the Draft Plan recommendations with the Montgomery County Police Department and the Montgomery County Fire & Rescue Service. Representatives from both agencies confirmed that emergency responders could, and likely would, use the dedicated bus lanes, particularly during peak periods. Police Department representatives noted that population is the most significant factor in response times, and the Department actively monitors population growth to increase officers or adjust the geographic assignments or "beats" of the officers to align with increases

[32] https://www.montgomerycountymd.gov/DOT/Projects/buspriority/faq.html

in population. Fire & Rescue representatives indicated their willingness to accept minor increases in travel time to achieve improved safety on roadways, noting that people are more likely to encounter risk on a high-speed roadway than to experience a fire or medical emergency.

Town Center Streets – Lamberton Drive and Access Road

Community members have expressed concerns about the street connections recommended near Arcola Avenue and the Kemp Mill Shopping Center. The Draft Plan recommends two new Town Center Streets, implemented with redevelopment: an extension of Lamberton Drive west of Arcola Avenue and an intersecting street, Access Road, that parallels Arcola Avenue and connects the Kemp Mill Shopping Center and the existing multifamily buildings to University Boulevard via a public street with an alignment similar to the existing Access Road. Figure 4, reproduced from Figure 26 on p. 45 of the Draft Plan, illustrates the locations of the new recommended Town Center Streets.

Figure 4 - Illustration of Draft Plan Recommended Town Center Streets

There is currently no direct multimodal connection between the private Access Road and the Kemp Mill Shopping Center. Although Arcola Towers is only 800 feet from the Shalom Kosher grocery story, a resident needing to drive from Arcola Towers to purchase groceries currently needs to travel down Access Road, execute a left turn without a signal across University Boulevard, turn left on Arcola

Avenue, and left on Lamberton Drive, a trip exceeding a mile in total; although it is physically possible to avoid the left turn on University Boulevard by navigating through the University Towers parking lot, the parking lot is private and is signed to prevent this route. More regional traffic accessing the Kemp Mill Shopping Center from University Boulevard must all use Arcola Avenue, turning left at Lamberton Drive. With the implementation of a more connected street network, this traffic would have another option for more direct access to the Kemp Mill Shopping Center, helping to distribute the traffic currently served by Arcola Avenue. The connection between Access Road, the Kemp Mill Shopping Center, and Lamberton Drive would also improve local circulation.

The Town Center Street type recommended for the new connections to and through the Kemp Mill Shopping Center would provide safer facilities for people walking, biking, and rolling and improve an important walking, biking, and rolling connection to the Sligo Creek Trail and neighborhoods to the west. People walking, biking, and rolling through the shopping center today must navigate the private portion of Lamberton Drive without sidewalks or bike facilities, sharing space with shopping center traffic. By contrast, the recommended Town Center Street would provide sidewalks, separated bike lanes, and buffers that better separate and protect people walking, biking, and rolling from vehicular traffic and allow space for street trees that provide shade. Narrower vehicle travel lanes and the enclosure provided by a street tree canopy would also help to calm vehicular traffic speeds.

The Housing Opportunities Commission of Montgomery County (HOC), owner of the Arcola Towers with frontage on the Access Road, submitted testimony to the Planning Board expressing concerns with the requirement to dedicate the existing easement area as a Town Center Street, as well as the cost of upgrading the private driveway to a Town Center Street. Staff discussed these concerns with HOC. The following revision to page 43 of the Draft Plan is recommended (revisions shown in strikethrough and underlined text):

- In the long-term, HOC anticipates some potential infill or redevelopment of the Arcola Towers property. An 80-foot private ~~roadway~~ easement, improved with an approximately 25-foot wide driveway, known as the "Access Road," provides transit service and linkages to multifamily residential properties. This Plan supports the extension of this roadway as a ~~public~~ Town Center street with future development to the Kemp Mill Shopping Center to improve overall circulation within this area. The Plan acknowledges that the dedication of the existing "Access Road" as a public street will be incremental as redevelopment occurs and recommends that each phase of development construct the street as a private street, built to public street standards, with a covenant for future dedication as a public street. The northern terminus of the existing 80-foot easement is located entirely on the Arcola Towers property. As infill or redevelopment of this property is anticipated in the life of this Plan, the Plan recommends that infill or redevelopment of the property construct improvements along its frontage, as well as the travel lanes and street buffers, consistent with the Complete Streets Design Guide. The final alignment of the recommended right-of-way dedication, and improvements by adjoining properties should be determined at the time of redevelopment.

Neighborhood Street Connections with Redevelopment

Public testimony included concerns that the Draft Plan recommendation for implementing a connected network of streets along University Boulevard with redevelopment would increase traffic volumes on neighborhood streets.

Page 100 of the Draft Plan states: "Implement a connected network of streets along University Boulevard **with redevelopment**, as shown in Figure 72. **Development should prioritize traffic calming as part of redevelopment to consider the context of neighborhood streets**." The Plan further states: "Connect parallel streets along the south / west side of University Boulevard to provide a more direct travel route for people walking and biking and to provide site access and local circulation for properties along University Boulevard **in the event of their redevelopment**. Priority locations include Breewood Road / Whitehall Street; Whitehall Street / Gilmoure Drive; Gilmoure Drive between Dennis Avenue and Dallas Avenue; and Gilmoure Drive between Dallas Avenue and Brunett Avenue." (Emphasis added).

These Priority Neighborhood Street Connections with Redevelopment are lower classification streets that are not included in the Master Plan of Highways and Transitways or Master Plan-level transportation analysis. The recommended street connections provide more options for neighborhood traffic to access University Boulevard more directly (e.g., residents of Orange Drive could access University Boulevard without driving along Procter Street, Gilmoure Drive, or Kerwin Road), reducing out-of-direction travel and traffic both within the neighborhood and on University Boulevard itself.

Although the Priority Neighborhood Street Connections with Redevelopment would provide more direct and convenient paths of travel for access to and from the neighborhood for travel by all modes, they do not provide more appealing paths of travel for longer-distance through traffic that today uses University Boulevard and Dennis Avenue. Nevertheless, the Draft Plan recommends that "Development should prioritize traffic calming as part of redevelopment to consider the context of neighborhood streets" and discourage longer-distance through traffic. To further clarify this recommendation, additional text should be added to the plan to include the examples of potential Neighborhood Street solutions currently found in the "Four Corners Long Term Vision" section of the Draft Plan (addition proposed in underlined text):

> "Implement a connected network of streets along University Boulevard with redevelopment, as shown in Figure 72. Development should prioritize traffic calming as part of redevelopment to consider the context of neighborhood streets.
>
> - Realign existing streets across University Boulevard to support intersection signalization, manage vehicular access, smooth vehicular traffic progression, and reduce the spacing between protected pedestrian crossings. Priority locations for future realignment include Markwood Drive / Dayton Street; Nicholas Drive / Pomander Court / Glenpark Drive; and Eisner Street / Orange Drive.

- Connect streets to University Boulevard to manage vehicular access and improve local multimodal circulation. Priority locations include Tenbrook Drive / Access Road; Orange Drive; and Greenock Road / Royalton Road.
- Connect parallel streets along the south/west side of University Boulevard to provide a more direct travel route for people walking and biking and to provide site access and local circulation for properties along University Boulevard in the event of their redevelopment. Priority locations include Breewood Road / Whitehall Street; Whitehall Street / Gilmoure Drive; Gilmoure Drive between Dennis Avenue and Dallas Avenue; and Gilmoure Drive between Dallas Avenue and Burnett Avenue.
- Potential traffic calming as part of redevelopment could include:
    - Installing new sidewalks or sidepaths and street buffers consistent with Complete Streets Design Guide Neighborhood Yield Street, Neighborhood Street, Neighborhood Connector, or Area Connector guidance, as appropriate.
    - Striping on-street parking to visually narrow the vehicle travel lanes and reduce vehicle travel speeds even when on-street parking spaces are not occupied.
    - Alternating the side of the street with on-street parking in locations with enough width for on-street parking on only one side of the street to shift traffic horizontally and reduce vehicle travel speeds.
    - Installing curb extensions at the ends of striped on-street parking bays and in locations without on-street parking to narrow vehicle travel lane widths to the minimum consistent with the Complete Streets Design Guide.
    - Reducing curb radii to the minimum consistent with the Complete Streets Design Guide to reduce the speed of turning vehicles.
    - Installing speed humps, speed tables, or other traffic calming measures."

Additional streets should not be designated as Neighborhood Connectors or Area Connectors in this portion of the Plan Area.

The Draft Plan's recommendations do not compel redevelopment but rather provide a guide for future private development and public investment. Should these properties pursue development, the alignment and operations of the street connections will be considered and evaluated through the development review process.

Four Corners Near-Term Recommendations and Long-Term Vision

Public testimony included concerns with the Draft Plan's recommendations for the Four Corners street network, including the near-term recommendations and the long-term vision. Community members expressed concern that the recommendations will result in increased traffic and reduced safety on neighborhood streets, and that the transportation analysis completed in support of the Draft Plan did not adequately consider the potential impacts. Community members expressed

opposition to the long-term vision of a more connected network of Town Center Streets in Four Corners.

As discussed in greater detail in the Transportation Analysis section of this memorandum (pages 52 to 55), a detailed operations analysis was performed for the Four Corners area to inform the Draft Plan recommendations and was decisive in the recommendations for near-term improvements and a long-term vision. The Draft Plan (page 108) also includes several potential solutions to address traffic and traffic safety in adjacent neighborhoods, which are enumerated on page 33 of this memorandum.

PARKING

Public testimony included concerns that ZTA 23-10 "eliminated" parking for redevelopment near the Colesville Road BRT station. Rather, the Montgomery County Zoning Ordinance, amended by ZTA 23-10, exempts residential uses from "baseline parking minimums" if located a certain distance from transit: "a. within ½ mile of a Metro station; b. within ½ mile of a Purple Line station; or c. within ¼ mile of an existing Bus Rapid Transit station or a Bus Rapid Transit station that has been funded for construction in the 6-year CIP at the time of application."[33] These reduced parking rates are not mandatory. Property owners and developers may still choose to provide as much parking as they desire or to meet their own or market demand, except within CR zones within a Parking Lot District or Reduced Parking Area. Properties on the west side of the WTOP site and north of University Boulevard are currently within the Wheaton Parking Lot District; otherwise, the Draft Plan does not propose a new Parking Lot District or establish a Reduced Parking Area. Figure 5 illustrates the relationship between the existing Wheaton Parking Lot District and the western portion of the UBC Plan Area.

[33] Montgomery County Zoning Ordinance, Chapter 59 of the Montgomery County Code: Division 6.2. "Parking, Queuing, and Loading" Section 6.2.3. "Calculation of Required Parking"

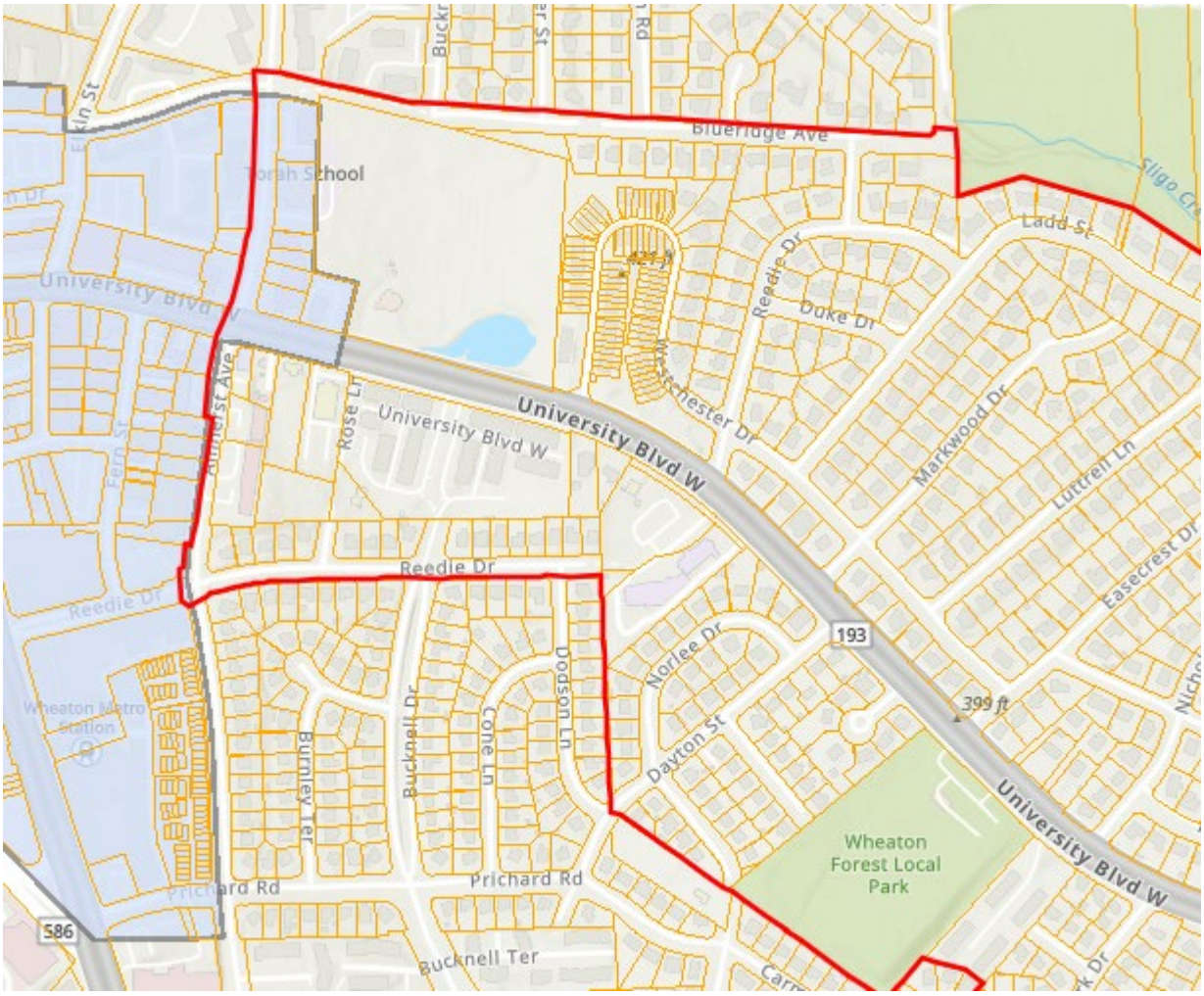


Figure 5 - Wheaton Parking Lot District (Blue Shading) and UBC Plan Area (Thick Red Border)

SAFETY

Public testimony noted that MDOT SHA's Pedestrian Safety Action Plan (PSAP) is already pursuing improvements that are not linked to the Draft Plan and can be done without the proposed zoning changes. While the PSAP is advancing important multimodal safety improvements in the near term, PSAP projects are not long-term projects nor are they able to make the more holistic safety improvements that require additional right of way, like wider street buffers and sidepaths that are critical for providing a safe and comfortable space for people walking, biking, and rolling by separating them from adjacent traffic.

Please see the "Crash Data" and "SHA PSAP" sections above for additional information.

DEDICATED BUS LANES

University Boulevard BRT Overview

This section summarizes key details of the University Boulevard Bus Rapid Transit (BRT) recommendations in response to questions raised at the Planning Board Working Draft presentation held on January 16, 2025.

The Draft Plan recommendations for BRT on University Boulevard are consistent with the 2013 Countywide Transit Corridors Functional Master Plan[34] within the Plan Area, including approximately 2.5 miles of dedicated bus lanes between Amherst Avenue and Lorain Avenue and approximately 0.6 miles of dedicated bus lanes between Lexington Drive and East Indian Spring Drive, a total of approximately 3.1 miles. Buses would operate in mixed traffic for approximately 0.3 miles between Lorain Avenue and Lexington Drive. The Draft Plan confirms the five station locations identified in the 2013 Countywide Transit Corridors Functional Master Plan within the Plan Area: Amherst Avenue, Inwood Avenue, Arcola Avenue, Dennis Avenue, and U.S. 29. Figure 6, reproduced from Figure 78 on p. 114 of the Draft Plan, illustrates the locations of the recommended dedicated-lane and mixed-traffic segments as well as the locations of planned BRT stations.

Figure 7 illustrates the approximate half-mile walksheds around each BRT station along University Boulevard in the Plan Area. The Neighborhood Street Connections with Redevelopment included in the Draft Plan would further extend these walksheds. Beyond and to the west of the Plan Area, the planned University Boulevard BRT corridor terminates at the Wheaton Metro Station, where the Washington Metropolitan Transit Authority (WMATA) operates a 977-space parking structure. For people whose disability prevents them from using bus or rail, MetroAccess provides a shared-ride, door-to-door paratransit service that complements the transit system in the county.[35]

[34] https://www.montgomeryplanning.org/transportation/highways/documents/countywide_transit_corridors_plan_2013-12.pdf

[35] https://www.montgomerycountymd.gov/DOT-Transit/special-transportation/metro-access.html

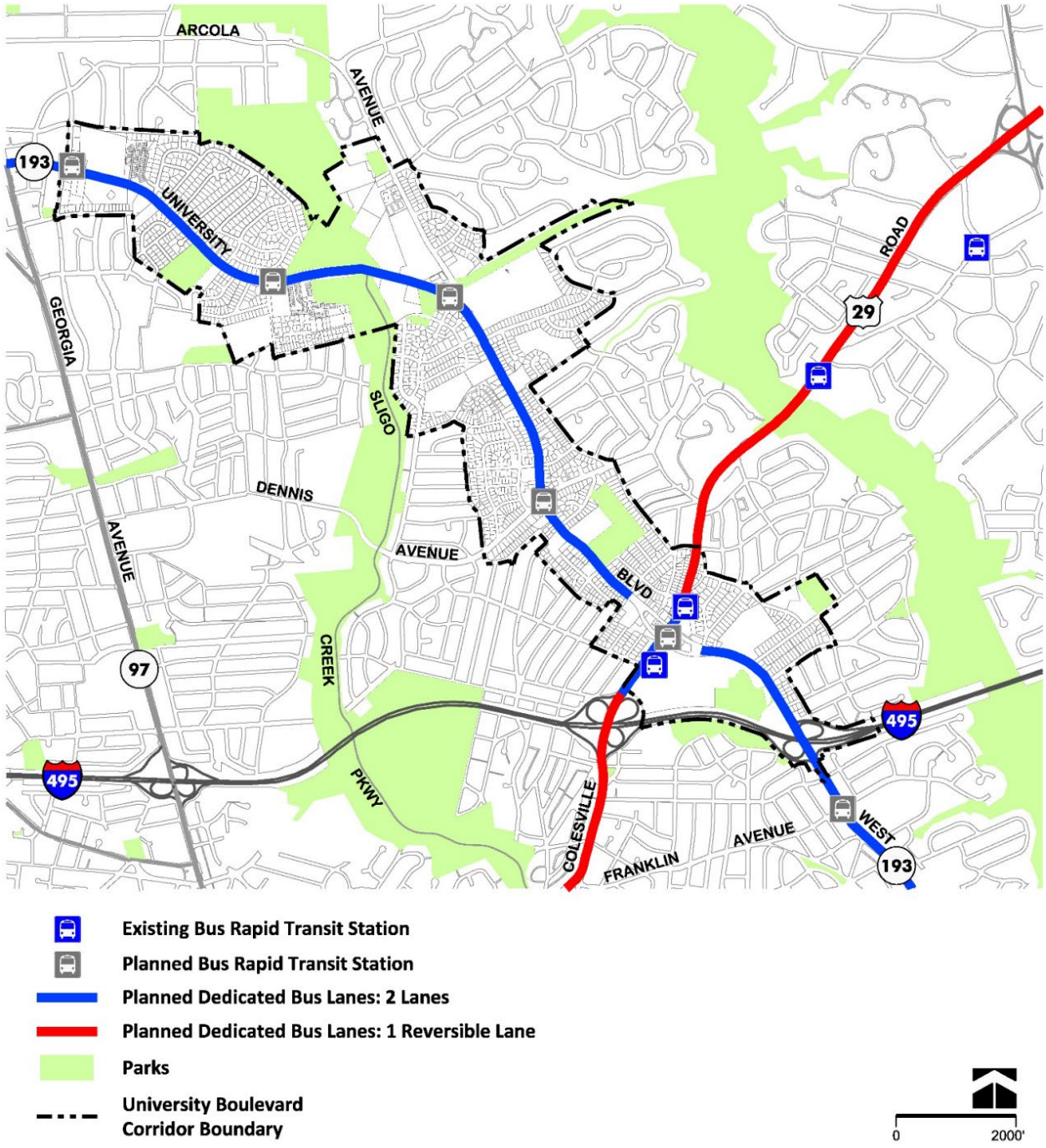


Figure 6 - Planned Dedicated Bus Lanes and BRT Stations

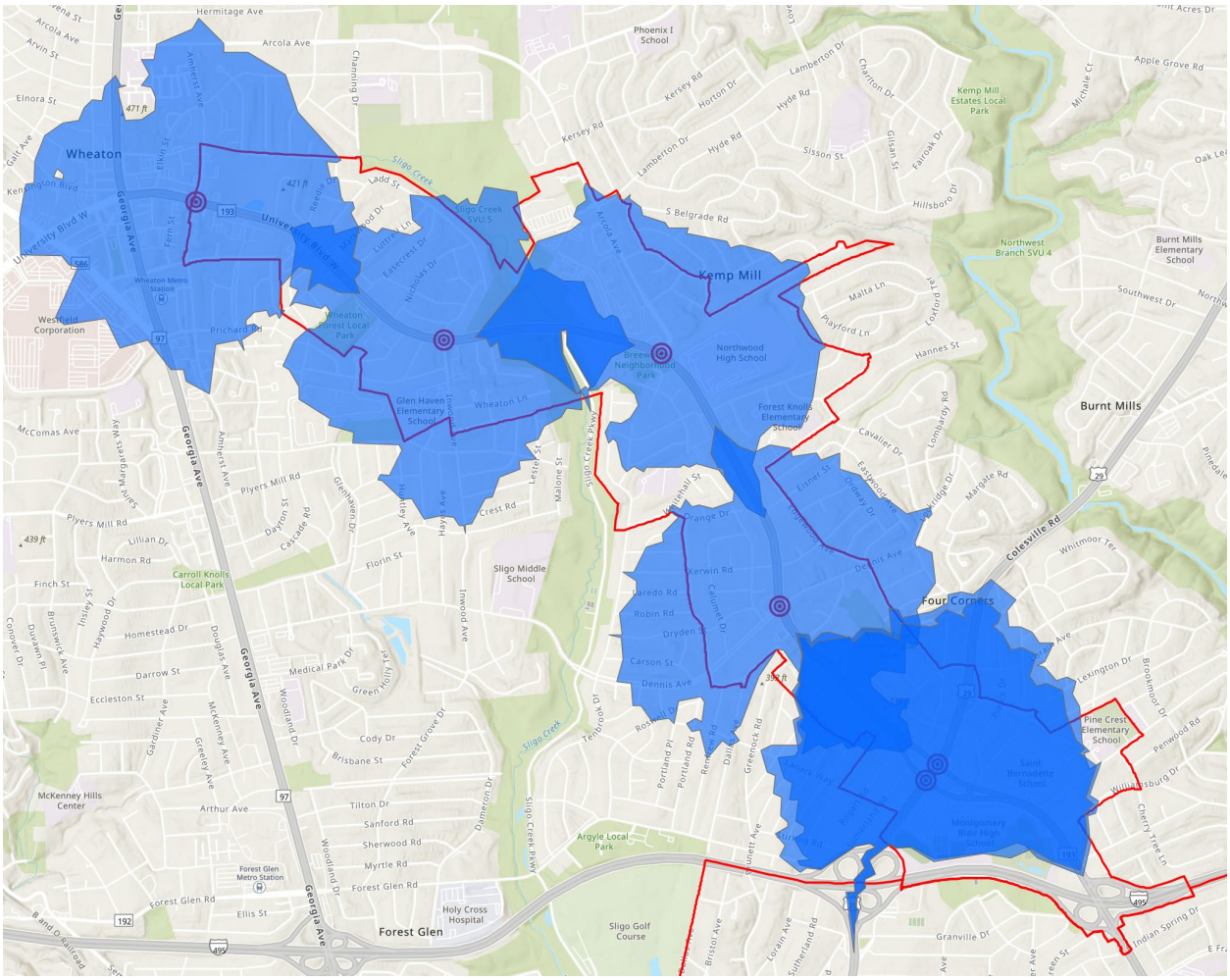


Figure 7 - Half-Mile Walksheds Surrounding Planned University Boulevard BRT Stations (MCATLAS)

Transit Connectivity

Public testimony included concerns that bus transit on University Boulevard, even with dedicated lanes, cannot connect would-be transit passengers to the places they want and need to travel. Each piece of any interconnected transportation network is important to provide the connectivity that makes the network useful. As a vehicular street network depends on multiple streets, parking or loading locations, and intersections to connect travelers to their destinations, a transit network depends on multiple routes, stops, and connections. As the number of destinations and connections grows, the overall network becomes more useful and attractive.

The 2013 Countywide Transit Corridors Functional Master Plan includes University Boulevard as one of ten Bus Rapid Transit corridors throughout Montgomery County. Consistent with the Countywide Transit Corridors Functional Master Plan, the Draft Plan recommends dedicated lanes between Amherst Avenue and Lorain Avenue and again from Lexington Drive to the eastern Plan Area Boundary; the Eastern Silver Spring Communities Plan will make recommendations about University Boulevard to the east. The dedicated bus lanes recommended in the Draft Plan are an important part

of connecting the high-quality transit envisioned for University Boulevard to destinations throughout the Plan Area as well as to the Wheaton Metro, Veirs Mill BRT, Georgia Avenue BRT, US 29 Flash BRT, Takoma Langley Transit Center, Purple Line light rail, and New Hampshire Avenue BRT.

Existing Transit Ridership

Public testimony included concerns that existing transit ridership levels do not justify repurposing right-of-way for dedicated transit lanes. The Draft Plan recommends repurposing general purpose vehicular through travel lanes for dedicated transit lanes, consistent with the 2013 Countywide Transit Corridors Functional Master Plan and with explicit guidance from Thrive Montgomery 2050 to "Build a frequent, fast, convenient, reliable, safe, and accessible transit system" and to "convert existing general purpose traffic lanes to dedicated transit lanes, in a manner consistent with other county policies." The Draft Plan "prioritizes safety and choice, serving pedestrians, bicyclists, transit users, and vehicle passengers … over the through-movement of high-speed vehicles."

The existing level of transit ridership is not the main consideration for the Draft Plan's future right-of-way allocation recommendation. Nevertheless, it is worth noting that the C2 and C4 Metrobus routes combined have the highest bus ridership in the State, carrying over 12,000 weekday daily riders in 2024, Flash Blue and Orange Routes carry approximately 2,200 weekday daily riders, and the Ride On routes serving the Plan Area carry approximately 1,000-1,500 daily riders.[36] 5,450 average weekday daily C2/C4 riders travel on the segment of University Boulevard within the Plan Area (Amherst Avenue to E Indian Spring Drive).[37] Dedicated transit lanes that improve bus travel times and schedule reliability can improve conditions for both these existing transit riders as well as future transit riders attracted by improved transit facilities and the supportive land use context and urban design recommended by the Draft Plan.

Comparison of Median-Running and Curb Running Transit Lanes

Board members have expressed interest in exploring median-running transit lanes along University Boulevard. This section presents a comparison of center-running and curb-running BRT, including two examples of successful curb-running BRT, conceptual cross sections for a median-running BRT option, and discussion of some advantages and disadvantages of median-running BRT.

Curb-Running BRT Example: King County Metro RapidRide A Line

The King County Metro's RapidRide A Line entered service in 2010 on an 11-mile route through a suburban land use context between Tukwila, Washington (about 12 miles south of downtown Seattle) and Federal Way, Washington (about 12 miles northeast of downtown Tacoma) on Pacific Highway South. The route includes a curb-running, semi-exclusive Business Access Transit / High-Occupancy Vehicle (BAT/HOV) lane that allows transit vehicles, high-occupancy vehicles, and right-turning vehicles. Similar to University Boulevard, Pacific Highway South has three vehicular travel lanes per

[36] See "Transit Ridership" on p. 13 for more detail.
[37] WMATA Automatic Passenger Counter (APC) data as of April 11, 2025 for October 2024.

direction (with one lane per direction allocated to the BAT/HOV lanes) and landscaped medians with street trees and left turn bays. Over four years, the A Line increased ridership by 78 percent, from about 5,600 in 2010 to about 9,900 in 2014.[38]

Curb-Running BRT Example: SFMTA Geary Boulevard

The San Francisco Municipal Transportation Agency's (SFMTA's) Geary Rapid Project ("Phase 1") was implemented in 2021, creating curb-running, dedicated transit lanes (shared with right turns and parking access) along three miles of Geary Boulevard between Stanyan Street and Market Street. An example diagram of the configuration of Geary Boulevard west of Gough Street is shown on Figure 8; east of Gough Street, the two-way, median-separated roadway transitions to a one-way couplet. Although the context of Geary Boulevard in the Richmond District of San Francisco is denser than the Plan Area, it shares some similarities and challenges with University Boulevard, including three vehicular travel lanes per direction (with one lane per direction now allocated for dedicated bus lanes) and landscaped medians with street trees and left turn bays. While Geary Boulevard has fewer curb cuts, it shares University Boulevard's right lane access challenge, with frequent intersections and on-street parking.

Figure 8 - Geary Rapid Configuration (Example West of Gough Street)

SFMTA found that Phase 1 resulted in up to 18% faster bus travel times, a 37% improvement in transit reliability, and an 81% reduction in excessive speeding by private vehicles.[39] Following the Phase 1 evaluation, "The SFMTA is now recommending side-running instead of center-running transit lanes in the Geary Boulevard Improvement Project limits" (Phase 2). The Phase 2 extension, implemented in a "quick build" phase in 2023 and under development for more permanent installation in 2025 continues the project west to 34th Avenue. When weighing center-running vs. side-running dedicated transit lanes, SFMTA found travel time improvements of 25% for center-running vs. 22% for side-

[38] https://web.archive.org/web/20160217231606/http://blogs.seattletimes.com/today/2014/07/rapidride-use-is-way-up/
[39] https://www.sfmta.com/blog/riders-are-feeling-difference-geary

running and comparable transit reliability improvements of between 20% and 40% for each type, depending on location and peak direction. The project Frequently Asked Questions (FAQs) also noted that "With a side-running alternative, both Rapid and local bus services can remain, while center-running would have required Rapid and local services to be consolidated since buses would not be able to pass one another in the center median transitway." Finally, "a side-running project allows transit and safety benefits to begin years sooner than a center-running project, which would be more costly, take longer to construct, and would require the project and other coordinated utility work to be completely built before transit lanes are operational. Side-running transit lanes could be implemented over the course of a couple months after project approval."[40]

Conceptual Median-Running Cross Sections

To further explore a median-running dedicated bus lanes option for University Boulevard, the following conceptual cross sections for the portion of University Boulevard outside Four Corners were prepared.[41]

Figure 9 illustrates a potential conceptual cross section for median-running BRT, compared to existing conditions. The cross-section maintains the existing outer curb-to-curb dimension and is compatible with the current master-planned right-of-way of 124' established for most of the University Boulevard corridor. Median curbs, stormwater, and street trees would need to be relocated. Outside the curbs, the recommendations for facilities for people walking, biking, and rolling are the same as with the Draft Plan's recommended curb-running cross section.

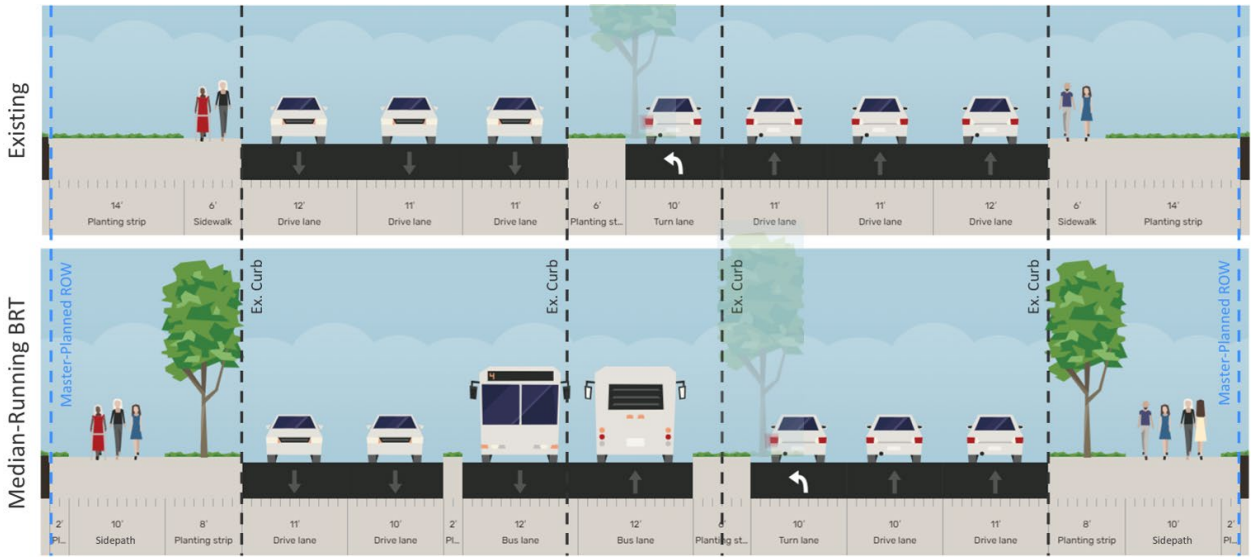


Figure 9 - Median BRT Conceptual Cross Section – Midblock

[40] https://www.sfmta.com/projects/geary-boulevard-improvement-project
[41] https://www.montgomerycountymd.gov/dot-dte/Resources/Files/Standards/MCDOT%20FLASH%20BRT%20Guidelines.pdf

Figure 10 illustrates potential conceptual cross sections for both curb-running and median-running BRT at station locations. The top cross section is consistent with Draft Plan recommendations and explores the possible configuration of a BRT station at an intersection location. Although the MCDOT Flash BRT Guidelines list a constrained site minimum platform depth of 12 feet for in-line stations, the conceptual cross section illustrates a station with 11-foot depth, consistent with the dimension for the proposed northbound Rockville Metrorail BRT station on MD-355 for the Veirs Mill Road BRT Mandatory Referral.[42] The 84-foot curb-to-curb distance is consistent with the Draft Plan recommended cross section, but the transit station outside the curb would require an additional 3 feet at station locations beyond the 20 feet in mid-block locations. The bottom cross section uses the MCDOT Flash BRT Guidelines minimum platform depth for constrained sites in a median of 13 feet. In addition to the median challenges for the midblock median-running cross section, this median-running station cross section would require moving at least one outer curb, widening the curb-to-curb distance from 84 feet to 88 feet. This conceptual configuration of the median station also increases the longer distance between the outer curb and the median pedestrian refuge (or BRT station) by 10 feet from 44 feet to 54 feet. The transit buffer or other aspects of the median-running transitway may need to be wider than shown in this configuration to align the transitway across the intersection, where the BRT station would switch to the other direction of travel.

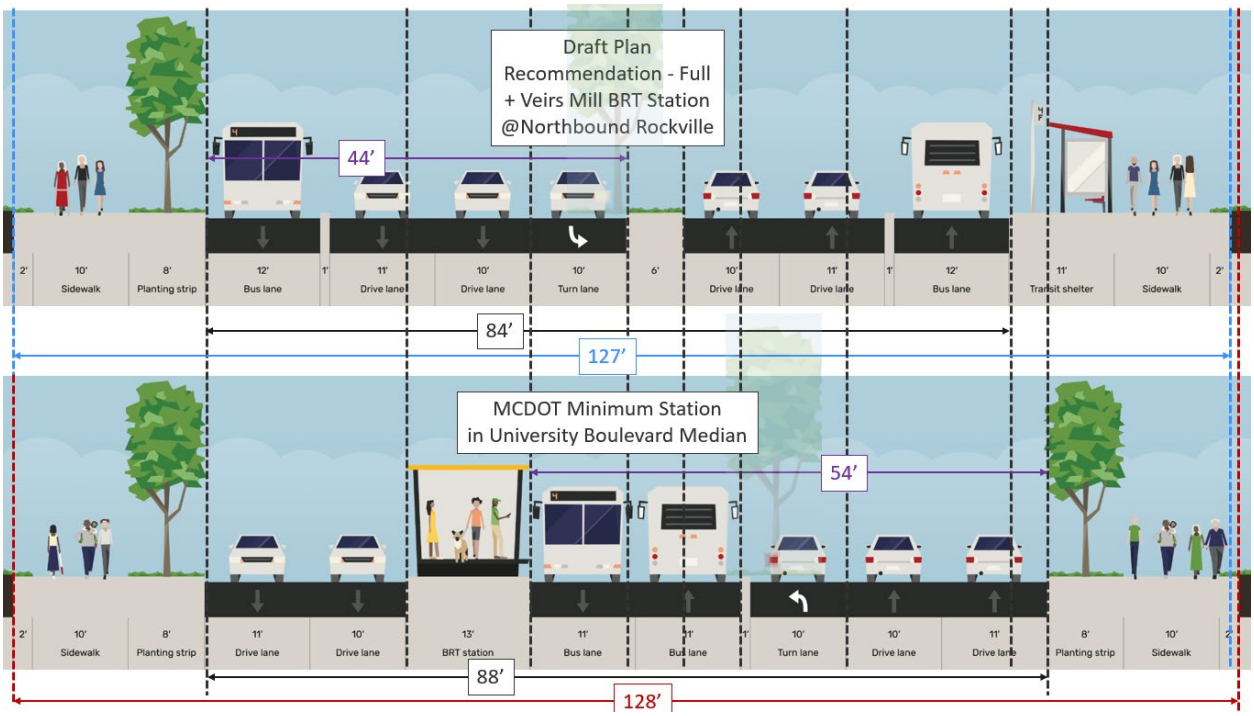


Figure 10 - Median BRT Conceptual Cross Section – At Stations

[42] https://eplans.montgomeryplanning.org/UFS/33848/107460/16-SR_Part06-MR2023013.pdf/16-SR_Part06-MR2023013.pdf, p. 9

Median-Running BRT Considerations – Advantages and Disadvantages

Advantages

Median-running transit lanes have several advantages relative to curb-running transit lanes. Median-running transit lanes are conceptually and physically more separated from general traffic, since median-running transit lanes are not shared with general traffic for right-turning movements; this makes it clearer to general traffic not to enter the lanes and simplifies enforcement. General traffic will still need to cross median-running transit lanes at selected intersection locations, but increased separation and improved enforcement can generally be thought to improve bus travel times in median-running transit lanes relative to curb-running dedicated transit lanes.[43] By consolidating both dedicated transit lanes to the median, the median itself can serve as one transit buffer and, within the same curb-to-curb cross section, the other transit buffer can be wider than in the curb-running configuration.

Finally, crossings of the median transitway by all modes—including people walking, biking, and rolling as well as general traffic crossing and turning left across the transitway—would require signalization. Although this increases cost, once signalized, these locations provide safer crossings than unsignalized locations for people walking, biking, and rolling as well as for left-turning vehicles; intersection operations can also be coordinated to smooth general traffic flow along the corridor and/or to provide transit signal priority. Intersections and crossings can also be signalized with curb-running dedicated transit lanes but, because signalization is necessary for median-running operations, it is more likely that signalization will be implemented (albeit potentially at fewer locations) with median-running transit.

Disadvantages

Median-running dedicated transit lanes also have several disadvantages relative to curb-running dedicated transit lanes. In a median-running configuration, passengers wait in the median of the roadway; although well-designed stations can help shield waiting passengers from traffic and noise, the median is closer to general traffic and farther from destinations and shade trees. The median-running configuration brings general traffic closer to sidepaths and adjacent land uses; in the curb-running configuration, dedicated bus lanes help to buffer the curb from general traffic. Median-running dedicated transit lanes require longer and more complex signal phasing to deconflict general traffic dedicated left turns.

Median-running dedicated transit lanes require more substantial reconfiguration of the right-of-way, increasing implementation costs. As shown in the conceptual cross sections above, median-running dedicated transit lanes would require additional widening of the right-of-way and the roadway itself

[43] In a curb-running configuration, transit delays due to right-turning general traffic can be partially mitigated with transit signal priority and far-side stations, which, combined, can help to clear the right lane of general traffic as a bus approaches and allow the bus to cross the intersection before the red signal.

at station locations. Existing medians, stormwater infrastructure, and mature median trees would need to be relocated or removed. A planning-level evaluation for the New Hampshire Avenue BRT project estimated median-running dedicated transit lane costs at approximately 5 times the cost of curb-running dedicated transit lanes.

Even with median-running dedicated transit lanes, local buses (e.g., Ride On routes 7, 8, 9, and 19) would likely still need to use curb lanes to access local bus stops along University Boulevard.

Figure 11 - Mature Trees in University Bouelvard Median

According to the NACTO Transit Street Design Guide, “left-turn prohibitions are an important component of high-capacity center-running transit services, such as center-running BRT…” (p. 156). Left turn prohibitions require diversion paths (rerouting) to allow general traffic to reach destinations that would have been accessed via the prohibited turn. The NACTO Transit Street Design Guide advises: “consider network connectivity when planning turn restrictions… Some diversion paths may be less desirable than the original turn…” (NACTO Transit Street Design Guide). Figure 12 illustrates potential rerouting strategies that increase general traffic volumes solely from less direct access to the neighborhood both on neighborhood streets and in some cases on University Boulevard itself. Left turn prohibitions are particularly challenging on University Boulevard due to the lack of street network connectivity and neighborhood access points.

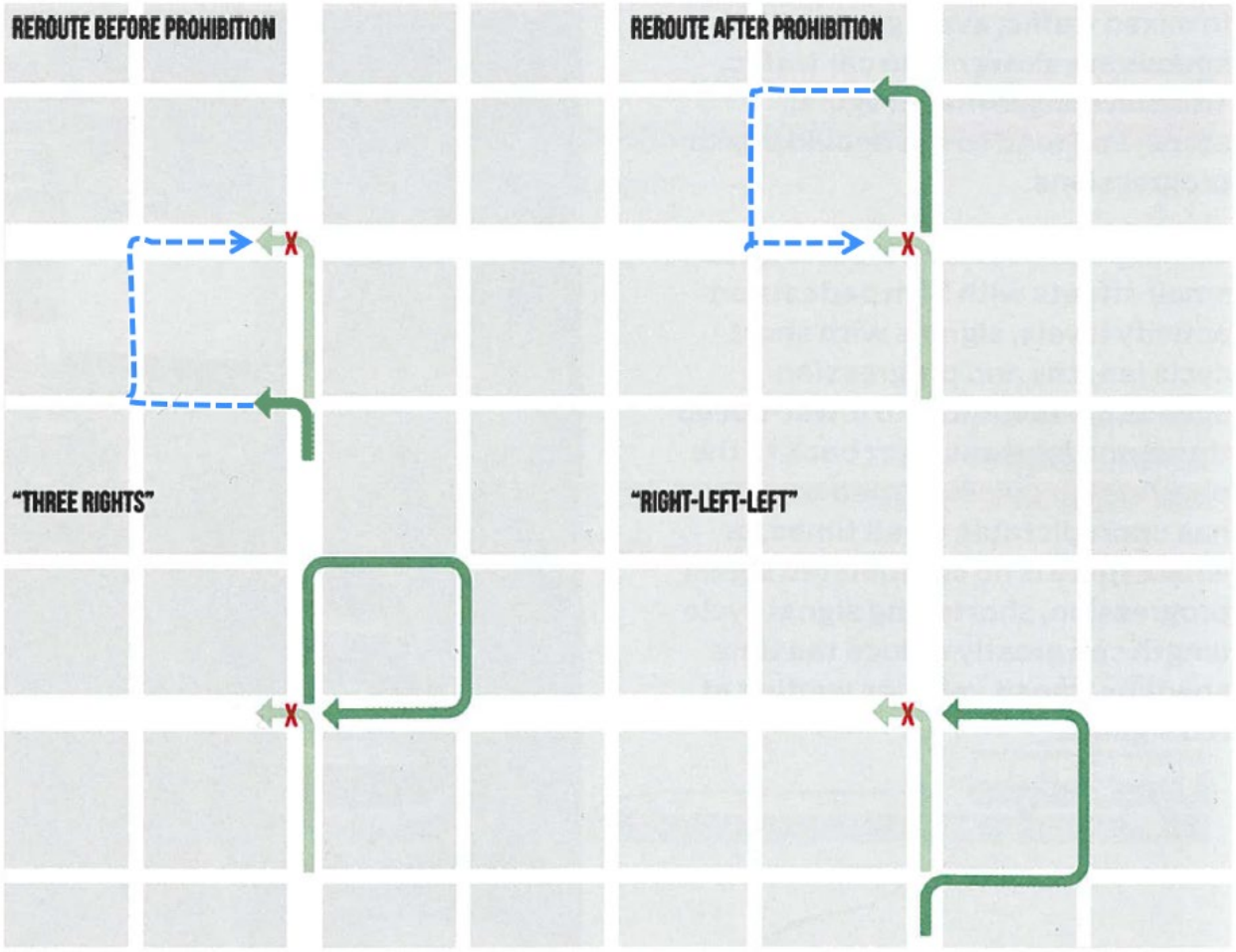


Figure 12 - Potential operational strategies to reroute problematic left turns (NACTO Transit Street Design Guide, p. 156; dashed lines added)

Based on these considerations, the Draft Plan continues to recommend the curb-running dedicated bus lane configuration for University Boulevard outside Four Corners.

Dedicated Bus Lanes on University Boulevard through Four Corners

Through the public hearing testimony, MCDOT expressed interest in dedicated and physically separated transit lanes along University Boulevard through Four Corners. This configuration was also discussed by the Planning Board during the presentation of the Working Draft on January 16, 2025. Consistent with the 2013 *Countywide Transit Corridors Functional Master Plan*, the Draft Plan recommends transit in mixed traffic along this segment of University Boulevard.[44] The Draft Plan establishes improving multimodal safety—not increasing capacity or vehicular travel speeds through Four Corners—as the top priority. Within Four Corners, the Plan prioritizes pedestrian and bicycle safety improvements, including a human scale (maintaining right-of-way widths as narrow as

[44] The Draft Plan does support MCDOT's ongoing effort to implement median-running dedicated transit lanes on US 29 through Four Corners.

possible) and reduced pedestrian crossing distances, a Breezeway that connects to bicycle and pedestrian facilities along University Boulevard, and ample street buffers.

Figure 13 reproduces a figure illustrating a conceptual aerial view of the Draft Plan recommendation for Four Corners, which includes repurposing one through vehicular travel lane per direction to achieve the priorities described above without widening the existing right-of-way.

Figure 13 - Four Corners Aerial (Public Hearing Draft Plan Figure 73, p. 104)

The Draft Plan also includes a recommendation to:

> *Study options for improving transit performance through Four Corners from Lorain Avenue to Lexington Drive as part of a long-term comprehensive redesign of the intersection of University Boulevard and Colesville Road. Improving multimodal safety—not increasing capacity or vehicular travel speeds through Four Corners—should remain the top priority of the study; as such, pedestrian and bicycle safety improvements, including a human scale and reduced pedestrian crossing distances, a Breezeway that connects to bicycle and pedestrian facilities along University Boulevard, and ample street buffers should remain part of the long-term vision.*
>
> *Public Hearing Draft, p. 115*

The cross-sections on pages 3 and 4 of the MCDOT testimony provide some potential options. In the westbound direction, MCDOT's preference is for an additional bus lane necessitating +3' on each side of the rights of-way.[45] In the eastbound direction, their preference is for an additional bus lane and a dedicated right-turn lane (as to remove right-turns from the bus lane), necessitating +6.5' on each side of the rights-of-way. While the options and study provided by MCDOT are appreciated, the Draft Plan concept is the preferred concept given the proximity to Montgomery Blair High School, Maryland's

[45] Increasing the width of one outside travel lane to the Complete Streets Design Guide minimum dimension of 11' would add one additional foot of increased right-of-way, necessitating +3.5' on each side.

largest public high school, and the volume of school children traversing the Four Corners area. As a result, pedestrian safety is prioritized over the car and bus convenience in this area.

Non-Preferred Alternatives

If the Draft Plan is modified to prioritize dedicated transit lanes through Four Corners over pedestrian and bicycle safety improvements, a human scale (maintaining right-of-way widths as narrow as possible), reduced pedestrian crossing distances, a Breezeway that connects to bicycle and pedestrian facilities along University Boulevard, and ample street buffers, the following are "non-preferred alternatives" for westbound and eastbound University Boulevard through Four Corners.

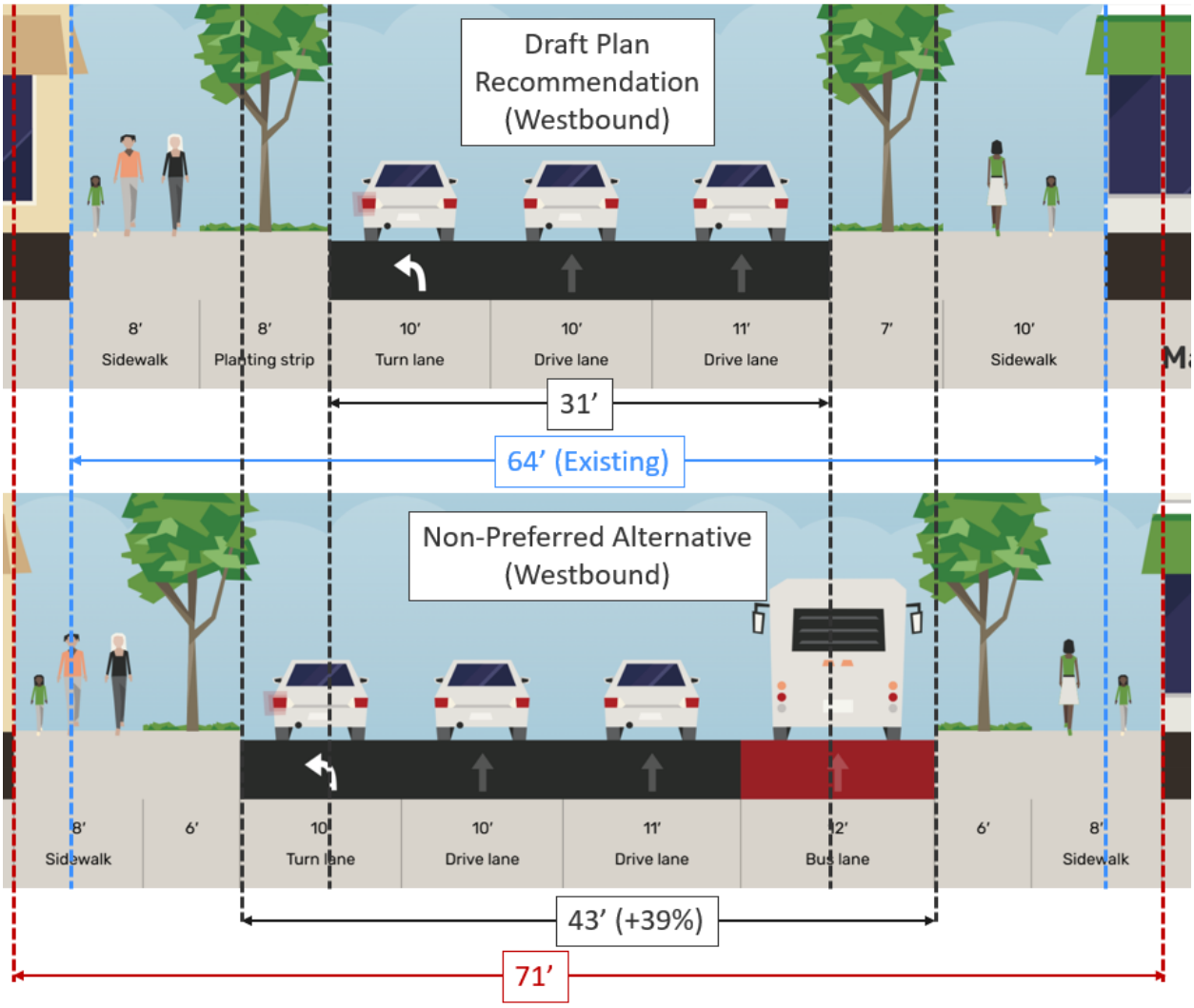
For the westbound direction, the recommended non-preferred alternative would be the 71-foot cross section shown on Figure 14 which would provide two vehicular through-travel lanes, a turn lane, a dedicated bus lane, and the Complete Streets Design Guide minimum dimensions for street buffers (6 feet) and sidewalks (8 feet) on a Town Center Boulevard; as in the cross section recommended in the Draft Plan, there would be no bicycle facility on this segment. The benefits and challenges of this cross section relative to the Draft Plan recommended cross section are summarized below:

Benefits of Non-Preferred Alternative (Westbound)

- Provides space for a westbound dedicated transit lane through Four Corners, which can improve transit operations, reliability, and travel times.

Challenges of Non-Preferred Alternative (Westbound)

- An increase to the overall right-of-way by 7 feet (+11%) relative to the Draft Plan recommendation, which would increase impacts to adjacent properties.
- Widening of the curb-to-curb distance by 12 feet (+39%) while reducing the total space for street buffers and people walking, biking, and rolling by 5 feet (-15%); these changes expose people walking, biking, and rolling across University Boulevard to additional motorized vehicle conflicts.
- The wider curb-to-curb and building-face-to-building-face distances also encourage drivers to travel at higher speeds along University Boulevard, contributing to safety concerns.
- Narrower street buffers also make it more difficult for street trees to reach maturity and provide a canopy and sense of enclosure that cues drivers to maintain a lower and safer target speed.

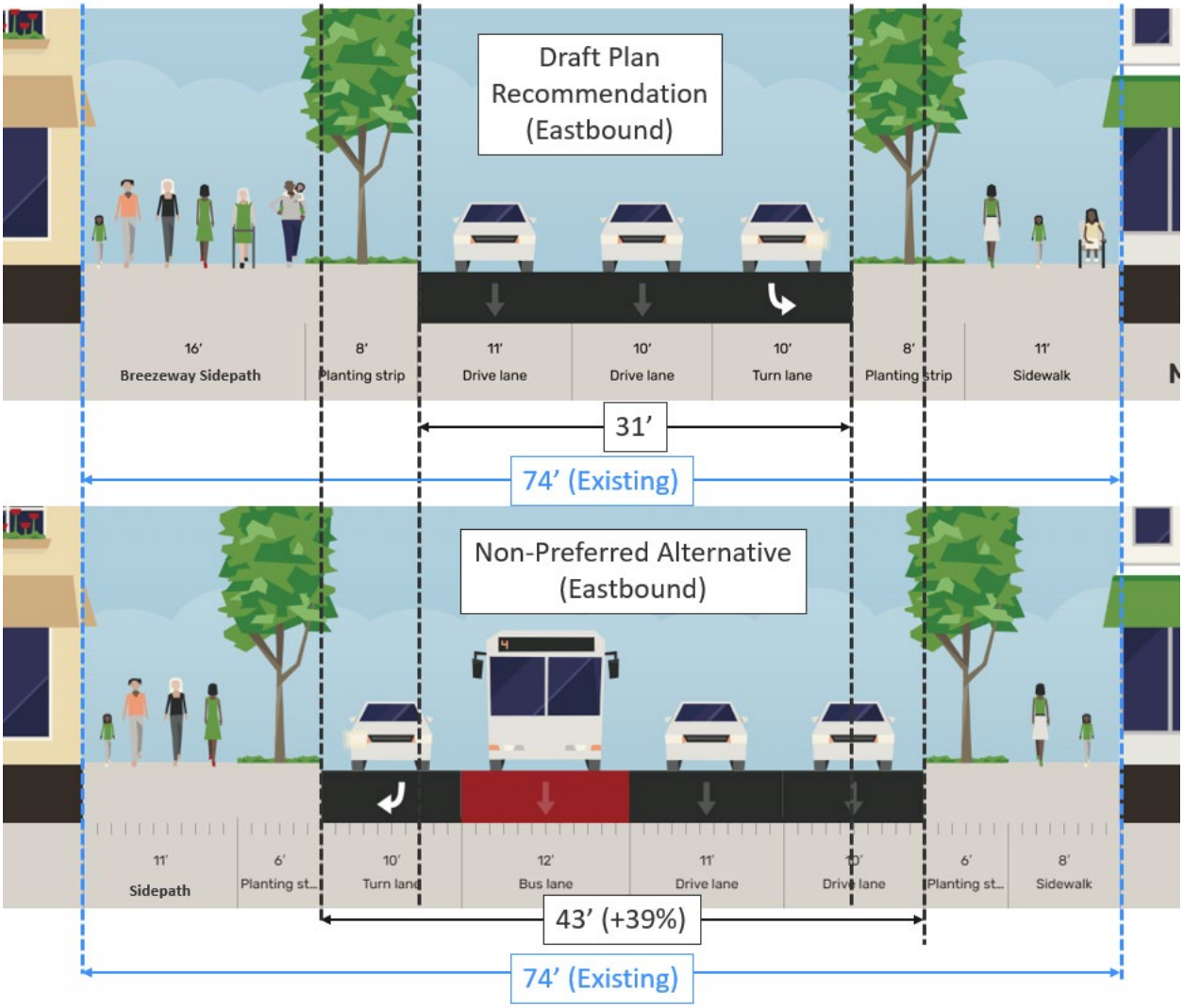


Blue lines: existing public right-of-way
Black lines: curb-to-curb dimensions
Red lines: public right-of-way needed for Non-Preferred Alternative

Figure 14 - Westbound University Boulevard Conceptual Cross Section - Draft Plan Recommendation vs. Non-Preferred Alternative

For the eastbound direction, the recommended non-preferred alternative would be a 74-foot cross section that reduces the width of the Breezeway Sidepath in the Draft Plan recommended cross section by five feet. Figure 15 illustrates the non-preferred alternative, which would remain within the existing 74-foot right-of-way, minimizing the impacts to adjacent properties. The non-preferred alternative would provide two vehicular through-travel lanes, a turn lane, a dedicated bus lane, and the Complete Streets Design Guide minimum dimensions for two street buffers (6 feet) and one sidewalk (8 feet). The 11-foot sidewalk would be shared by people walking, biking, and rolling, and would not provide the same separation between people biking and walking as the 16-foot Breezeway Sidepath shown in the Draft Plan recommended section. A shared 11-foot sidepath facility is more challenging for people walking, biking, and rolling in environments with high volumes of pedestrians,

like Four Corners during school arrival and dismissal hours, but is still a significant improvement over the existing 8-foot sidewalk with no buffer. The 11-foot sidepath, albeit present on only the south side of the street, would also be more like the 10-foot sidepaths recommended on both sides of University Boulevard throughout the rest of the Plan Area.



Blue lines: existing public right-of-way
Black lines: curb-to-curb dimensions

Figure 15 - Eastbound University Boulevard Conceptual Cross Section - Draft Plan Recommendation vs. Non-Preferred Alternative

The benefits and challenges of this cross section relative to the Draft Plan recommended are summarized below:

Benefits of Non-Preferred Alternative (Eastbound)

- Provides an eastbound dedicated bus lane through Four Corners, which can improve transit operations, reliability, and travel times.

- This non-preferred alternative cross section would maintain the same overall 74-foot right-of-way as in the Draft Plan recommendation, minimizing impacts to adjacent properties as with the Draft Plan recommended section.

Challenges of Non-Preferred Alternative (Eastbound)

- The non-preferred alternative would widen the curb-to-curb distance by 12 feet (+39%) while reducing the total space for street buffers and people walking, biking, and rolling by 12 feet (-28%); these changes expose people walking, biking, and rolling across University Boulevard to additional motorized vehicle conflicts.
- The wider curb-to-curb distance also encourages drivers to travel at higher speeds along University Boulevard, contributing to safety concerns.
- The 11-foot sidepath would be shared by people walking, biking, and rolling, and would not provide the same separation between people biking and walking as the 16-foot Breezeway Sidepath shown in the Draft Plan recommended section
- Narrower street buffers also make it more difficult for street trees to reach maturity and provide a canopy and sense of enclosure that cues drivers to maintain a lower and safer target speed.

Table 8 provides a comparative summary of the Draft Plan recommendations, and the non-preferred alternative.

Table 8: Comparative Summary of Westbound and Eastbound University Boulevard

Westbound University Blvd	**Draft Plan Recommendation**	**Non-Preferred Alternative**	**Difference Between Draft Plan Recommendation and Non-Preferred Alternative**
ROW	64 Feet	71 Feet	(+) 7 Feet
Curb-to-Curb	31 Feet	43 Feet	(+) 12 Feet
Walkways, Bikeways, Trees, and Landscaping	33 Feet	28 Feet	(-) 5 Feet
Eastbound University Blvd			
ROW	74 Feet	74 Feet	0 Feet
Curb-to-Curb	31 Feet	43 Feet	(+) 12 Feet
Walkways, Bikeways, Trees, and Landscaping	43 Feet	31 Feet	(-) 12 Feet

The Draft Plan continues to recommend a 64-foot right-of-way for Westbound University Boulevard and a 74-foot right-of-way for Eastbound University Boulevard. The following revisions should be made to the Four Corners street network recommendations (Draft Plan page 105) and the transit

recommendations (Draft Plan page 115) in response to public testimony from MCDOT and discussion during the Planning Board Working Draft presentation on January 16, 2025 (revised text is shown in strikethrough and underline):

Four Corners Street Network Recommendations (Page 105)

- Reallocate existing right-of-way ~~Repurpose one lane per direction~~ and relocate curbs along University Boulevard between Lorain Avenue and Lexington Drive to narrow the roadway and provide safer and more comfortable facilities for people walking, biking, and rolling. Figures 74 and 75 illustrate one potential option; however, other configurations are possible. In descending order, the priorities for allocation of the right-of-way are:

    1. Maintaining the existing dedicated right-of-way widths on University Boulevard as maximums and avoiding additional right-of-way dedication or acquisition.
    2. Narrowing the existing curb-to-curb widths of both eastbound and westbound University Boulevard.
    3. Maintaining at a minimum the existing pedestrian facility and street buffer widths on each side of each street.
    4. Providing at least one direct, high-quality, two-way, bicycle facility that connects to planned sidepaths along University Boulevard.
    5. On each side of each street, providing a street buffer that is consistent with the minimum dimensions recommended in the Complete Streets Design Guide.
    6. On each side of each street, providing a sidewalk or sidepath that is consistent with the minimum dimensions recommended in the Complete Streets Design Guide.

    Consider reducing lane widths and operational strategies for reallocating roadway space and time for improved transit performance along University Boulevard.

Transit Recommendations (Page 115)

- In the long-term, explore whether a median BRT or curb-running BRT approach is appropriate for the University Boulevard corridor, to the extent possible within the existing curb-to-curb dimension.

- Study both short-term treatments and a long-term redesign to support high-quality BRT service ~~options for improving transit performance~~—including dedicated bus lanes, transit signal priority, queue jump lanes, or other treatments—through Four Corners from Lorain Avenue to Lexington Drive as part of a long-term comprehensive ~~redesign~~ study of the intersection of University Boulevard and Colesville Road. Improving multimodal safety—not increasing capacity or vehicular travel speeds through Four Corners—~~should~~ must remain the top priority of the study; as such, pedestrian and bicycle safety improvements, including a human scale and reduced pedestrian crossing distances, a ~~Breezeway~~ at least one direct,

high-quality, two-way bicycle facility that connects to planned bicycle and pedestrian facilities along University Boulevard, and ample street buffers should remain part of the long-term vision. In descending order, the priorities for the study and resulting roadway are:

1. Maintaining the existing dedicated right-of-way widths on University Boulevard as maximums and avoiding additional right-of-way dedication or acquisition
2. Narrowing the existing curb-to-curb widths of both eastbound and westbound University Boulevard
3. Maintaining at a minimum the existing pedestrian facility and street buffer widths on each side of each street
4. Providing at least one direct, high-quality, two-way, bicycle facility that connects to planned sidepaths along University Boulevard
5. On each side of each street, providing a street buffer that is consistent with the minimum dimensions recommended in the Complete Streets Design Guide
6. On each side of each street, providing a sidewalk or sidepath that is consistent with the minimum dimensions recommended in the Complete Streets Design Guide

Consider reducing lane widths and operational strategies for reallocating roadway space and time for improved transit performance along University Boulevard.

TRANSPORTATION ANALYSIS

Master Plan Transportation Adequacy Metrics

The required master plan transportation adequacy analysis of the Draft Plan recommendations is described on pages 28-29 of the Transportation Appendix. These metrics provide a long-term, master plan-level assessment of the effects of planned transportation infrastructure and land use recommendations on forecasted travel using five performance metrics, described in more detail in the Transportation Appendix: auto and transit job accessibility, auto and transit travel time, vehicle miles traveled, non-auto-driver mode share, and low-stress bicycle accessibility.

The Transportation Appendix refers to "policy area-level metrics" but for the Draft Plan, the auto and transit jobs accessibility, auto and transit travel time, vehicle miles traveled, and non-auto-driver mode share metrics were summarized for the Plan Area instead, since the Plan Area intersects both the Wheaton Central Business District Policy Area and the Kensington/Wheaton Policy Area; the Transportation Appendix will be updated to include this correction and clarification. The low-stress bicycle accessibility metric was summarized for the county as a whole, as prescribed.

The transportation adequacy metrics showed improvement between the currently adopted master plans and the Draft Plan recommendations for four of the five metrics: auto and transit job accessibility, vehicle miles traveled, non-auto-driver mode share, and low-stress bicycle accessibility. The fifth metric, auto and transit travel time, comprises two parts: auto travel time and transit travel time. While the average transit travel time is reduced, the average auto travel time increases by less than one minute (5%) from approximately 16 minutes to approximately 17 minutes. A modest increase in average vehicular travel time in the context of the Draft Plan's recommendations is warranted to support multimodal safety; a frequent, convenient, reliable, and accessible transit system; and a diverse range of housing options.

Segment-Level Per-Lane Volume Analysis

In addition to the required transportation adequacy analysis described above, optional traffic volume analysis was performed for portions of University Boulevard, Arcola Avenue, and Colesville Road to better understand the effects of potential Plan recommendations and provide a planning-level assessment of resulting vehicular traffic conditions. This analysis estimates the number of vehicles per hour per general purpose travel lane during the AM and PM peak hours and is described in more detail in the "University Boulevard Lane Repurposing Traffic Effects" section above and further in the Public Hearing Draft Transportation Appendix.

Four Corners Traffic Analysis

Master plan transportation analysis does not usually include detailed operations analysis. Master plans are long-term planning documents that look ahead 20 years from the date of adoption and do not specify the type or timing of intersection controls or other operational details that are determined through subsequent planning and design processes by implementing partners like MCDOT and MDOT SHA. Nevertheless, additional traffic operations analysis was performed for the Four Corners area, acknowledging the complex challenges there, to inform Draft Plan recommendations. A driving time analysis and neighborhood traffic analysis were performed for the AM and PM peak hour to compare a "limited changes" concept, which ultimately became the basis for the Draft Plan transportation recommendations in Four Corners, and a "street grid" concept.

The driving time analysis evaluated the change in the average duration of driving time for east-west travel through Four Corners along University Boulevard and for north-south travel through Four Corners along Colesville Road. Relative to existing conditions, the analysis estimated an 8 second increase in overall average travel time for the "limited changes" concept and a 14 second increase in overall average travel time for the "street grid" concept; these results assumed traffic signals would be retimed to best accommodate anticipated traffic patterns at the time of implementation.

The neighborhood traffic analysis reports the traffic volumes entering and exiting neighborhood streets near the intersection of University Boulevard and Colesville Road, including existing counts as well as estimated future conditions for the "limited changes" and "street grid" concepts. The limited changes concept, reflective of the Draft Plan recommendations, is not predicated on rerouting

vehicular traffic that would turn between University Boulevard and Colesville Road (and vice versa) onto neighborhood streets. While the "limited changes" volume estimates are similar to existing counts, volume estimates under the "street grid" concept increase notably on several neighborhood streets because analysis of the "street grid" concept assumed restricting all turns at the intersection of University Boulevard and Colesville Road and rerouting those turning vehicles via adjacent streets. The Draft Plan recommendations acknowledge and respond to this finding and other concerns expressed by Four Corners community members by recommending a Four Corners roadway configuration similar to the "limited changes" concept which maintains similar neighborhood street volumes. The Draft Plan highlights this challenge of the "street grid" concept when further studying a more connected network of Town Center Streets: "Addressing vehicular turning movements between University Boulevard and Colesville Road. The existing configuration relies on 'jughandle' left turns from Colesville Road onto University Boulevard that would not be available with some of the long-term vision elements." (p. 108). The Draft Plan also includes "Addressing traffic and traffic safety within adjacent neighborhoods," including numerous potential solutions to consider as part of further study of a more connected network of Town Center Streets:

- "Designating selected streets as Neighborhood Connectors or Area Connectors and designing them to the guidance in the Complete Streets Design Guide. This includes elements to achieve the 20 mph and 25mph target speeds for these street types, respectively.
- Installing new sidewalks or sidepaths and street buffers consistent with Complete Streets Design Guide Neighborhood Yield Street, Neighborhood Street, Neighborhood Connector, or Area Connector guidance, as appropriate.
- Striping on-street parking to visually narrow the vehicle travel lanes and reduce vehicle travel speeds even when on-street parking spaces are not occupied.
- Alternating the side of the street with on-street parking in locations with enough width for on street parking on only one side of the street to shift traffic horizontally and reduce vehicle travel speeds.
- Installing curb extensions at the ends of striped on-street parking bays and in locations without on-street parking to narrow vehicle travel lane widths to the minimum consistent with the Complete Streets Design Guide.
- Reducing curb radii to the minimum consistent with the Complete Streets Design Guide to reduce the speed of turning vehicles.
- Installing speed humps, speed tables, or other traffic calming measures." (p. 108)

Additional information on the driving time analysis, the neighborhood traffic analysis, and additional analysis performed for Four Corners is available on pages 14-23 of the Public Hearing Draft Transportation Appendix.

Detailed Traffic Analysis Inputs

Detailed questions from community members about specific inputs to the traffic analysis have been received. The Transportation Appendix will be updated to include additional information about the Department's travel demand model as well as inputs related to analyzed intersection turn lane configurations, signalization, and speed limits with transmittal of the Planning Board Draft and can bring those revisions back to the Planning Board for review and discussion at a future work session.

CONCLUSION

The third work session, scheduled on April 24, 2025, will focus on recommendations for the Kemp Mill Shopping Center and the Draft Plan's transportation recommendations. The work session will include a discussion on 1) the Draft Plan's vision, 2) policy guidance that informed the vision and transportation recommendations, and 3) existing transportation conditions. Public testimony received pertaining to the transportation recommendations, and questions received from the Planning Board since the presentation of the Working Draft Plan will be discussed on January 16, 2025. Guidance will be requested from the Planning Board on potential revisions to Plan text and recommendations in response to the testimony received.

At the fourth work session on May 1, 2025, and it is anticipated that discussions will begin on the Draft Plan's land use, zoning, and urban design recommendations for the existing residential blocks between the mixed-use "nodes," the recommended overlay zone, and relevant testimony received. The fourth work session will also include a discussion on the FAR and heights recommended for CRT properties in the Four Corners District.

Subsequent work sessions are anticipated to return to land use, zoning, urban design, and transportation, as necessary, but also focus on additional elements in the Draft Plan, including housing, community facilities, schools, historic resources, environmental sustainability, and parks, trails, and open space. Subsequent work sessions are tentatively scheduled on May 1, May 15, and May 22.

ATTACHMENTS

Attachment A: Montgomery County Department of Transportation Comments

Attachment B: University Boulevard Public Hearing Draft Chapter 8: Transportation

Attachment C: University Boulevard Public Hearing Draft Appendix F: Transportation