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Bicycle Master Plan Public Hearing Draft Work Session #2

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DESCRIPTION

On January 25, 2018, the Planning Board conducted a public hearing on the Bicycle Master Plan Public Hearing Draft and received testimony from the public. This staff report includes all written testimony in Attachment A. Attachment B summarizes public comment (both verbal and written testimony) as well as staff responses on all non-bikeway specific comments in matrix form. Note that staff's response to several comments have been updated since the first work session. These changes are shaded in Appendix B.

The February 22, 2018 work session is anticipated to include these issues:

- Issue #1: Protected Intersections
- Issue #2: Breezeway Network Attributes (Neighborhood Greenways)
- Issue #3: Breezeway Network Attributes (Pavement Surfaces)
- Issue #4: Development Impact Taxes
- Issue #5: Use of Developer Contributions
- Issue #6: Bicycle Parking
- Issue #7: Bikeway Prioritization
- Issue #8: School Siting Policies
- Issue #9: Loading Zones

The March 1, 2018 work session is anticipated to address any remaining non-bikeway specific issues, including comments raised by the Planning Board during their review of the Working Draft of the Bicycle Master Plan. Future work sessions after March 1, 2018 will focus on comments related to specific bikeway recommendations.

Planning Board Commissioners are asked to bring their copy of the Bicycle Master Plan Public Hearing Draft and Appendix, which was included in the January 25, 2018 packets.

DISCUSSION

Issue 1: Protected Intersections

Protected intersections are the mechanism used to extend the protection of separated bike lane through the intersection. They increase safety by reducing the speed of turning traffic, improving sightlines and designating space for all road users. They reduce conflict points between motor vehicles, pedestrians and bicyclists and can eliminate the remaining conflicts with signalization. There are several different configurations of protected intersections, many of which are illustrated in Appendix B of the Bicycle Master Plan. An example of a standard protected intersection design is shown here:



Policy 2.10 on page 110 of the Bicycle Master Plan states:

Make Protected Intersections the Preferred Intersection Type

Revise Montgomery County's context-sensitive road design standards to make protected intersections the preferred type of intersection treatment at all intersections where at least one street is recommended to have a sidepath, separated bike lane, buffered bike lane or conventional bike lane.

Justification: Protected intersections improve safety for all modes of transportation by slowing traffic and consolidating conflicts to a single point so that remaining minimal conflicts can be mitigated.

Lead Agency: Montgomery County Department of Transportation

Supporting Agency: Montgomery County Planning Department

The Montgomery County Department of Transportation (MCDOT) commented that they are hesitant to make protected intersections the preferred intersection type, as they currently have no experience with implementing them and have concerns with pedestrian safety and operations. During a follow-up conversation they suggested describing the performance characteristics of protected intersections and to indicate that the current state of the practice needed to achieve the performance metrics is the protected intersection. (Attachment B, Comment #83)

Bill Schultheiss from the Toole Design Group will provide an overview of protected intersections.

Staff Response: To address MCDOT's concern, staff proposes the following changes to Policy 2.10:

Policy 2.10: Extending Separated Bike Lanes through Intersections Make Protected Intersections the Preferred Intersection Types

Where motorists cross paths with bicyclists, intersection designs should be chosen for their ability to minimize the following at the point of conflict:

- Bicyclist exposure to the conflict.
- Speed differential between bicyclists and motorists.
- Bicyclists and pedestrian crossing distance.

Protected intersections are the state of the practice for extending separated bike lanes through the intersection and should be implemented where separated bike lanes cross major highways, arterial roads, business district street or other high-volume streets. Revise Montgomery County's context-sensitive road design standards to make protected intersections the preferred type of intersection treatment at all intersections where at least one street is recommended to have a sidepath, separated bike lane, buffered bike lane or conventional bike lane.

Justification: Protected intersections improve safety for all modes of transportation by slowing traffic and consolidating conflicts to a single point so that remaining minimal conflicts can be mitigated.

Lead Agency: Montgomery County Department of Transportation

Supporting Agency: Montgomery County Planning Department

Issue 2: Breezeway Network Attributes (Neighborhood Greenways)

The Breezeway Network is a high-capacity network of arterial bikeways connecting major activity centers. It will enable bicyclists to travel with fewer delays, while also enabling slower moving pedestrians and bicyclists to safely and comfortably coexist with faster bicyclists. The Bicycle Master Plan states that the Breezeway Network will be composed of four types of bikeways:

- Trails
- Sidepaths
- Separated bike lanes
- Neighborhood greenways

These bikeway types are separated from traffic, with the exception of neighborhood greenways, which are shared spaces with motor vehicles on low-speed and low-volume roads.

MCDOT initially indicated that they do not think neighborhood greenways should be included in the Breezeway Network. After more discussion, they qualified this statement indicating that they do not think that neighborhood greenways should be included in the Breezeway Network if they have higher traffic volumes. (Attachment B, Comment #39)

Staff Response: Staff recommends adding the following text to page 71 as a characteristic of the Breezeway Network:

" Neighborhood Greenways: For neighborhood greenways that are designated as part of the Breezeway Network, traffic volumes should be less than 2,000 vehicles per day. Where traffic volumes are around 3,000 vehicles per day, a designated bikeway may need to be implemented in lieu of a neighborhood greenway."

On page 61, staff recommends adding the following text to the "Typical Application" section:

"Traffic volumes should be less than 3,000 per day and preferably closer to 1,000 vehicles per day."

Issue 3: Breezeway Network Attributes (Pavement Surfaces)

MCDOT commented that there may need to be differentiation between on-street facilities and off-street bikeways that are designated as part of the Breezeway Network, because these facilities may have differing demands on construction techniques, materials, etc. In addition, MCDOT questioned whether the "Pavement Surfaces" section should be less detailed. After more discussion with MCDOT, they indicated that to address their concerns, staff should remove much of the detail in this section and instead state that the bikeways in the Breezeway Network should meet the requirements of public road design standards. (Attachment B, Comment #42, #43) **Staff Response**: Staff agrees with MCDOT's recommendation. We recommend these changes to the text in the "pavement surface" section:

Pavement Surface: Breezeways will <u>be constructed to meet the requirements of public road</u> <u>design. They will</u> feature high-quality construction, surface materials and maintenance practices that maximize surface smoothness and pavement life, minimizing potential for pavement cracking and buckling.

Specific construction requirements should be adapted to each location in a manner appropriate to local conditions and anticipated wear-and-tear. If maintenance, service or emergency vehicles will need to access the Breezeway, construction methods and materials should take that into account. During Breezeway design, pavement technologies to be investigated include, but are not limited to:

- Fine-grained asphalt and porous asphalt surface courses to reduce road noise.
- Thickened pavement courses to accommodate vehicular loading where necessary and lengthen pavement life.
- Appropriate slope for drainage.
- Special treatments for tree roots.
- Thickened aggregate base courses to accommodate vehicular loading where necessary
 and lengthen pavement life.
- High-modulus pavements to reduce pavement thickness.
- Higher asphalt content in asphalt base courses to increase durability and fatigue resistance.
- Structural enhancements for poor pavement subgrades to accommodate vehicular loading and lengthen pavement life.
- Perpetual pavement technologies to lengthen pavement life.
- Porous pavement to reduce ice-buildup and water spray from tires.

Breezeways will feature construction practices designed to result in high-quality pavement installation. These practices include improved subgrade preparation and testing, installation of pavements with appropriate lift thicknesses, rigorous asphalt temperature monitoring and thorough compaction for uniform density and smoothness.

Within the bikeway network, Breezeways are prioritized for maintenance in a manner similar to priority arterials within the roadway network. This priority applies to snow removal, resurfacing, sweeping and other general maintenance activities.

Issue 4: Development Impact Taxes

Pages 135 – 138 of the Bicycle Master Plan discuss implementation of bikeways through development approvals and indicate what developers will be required to construct when there is a master-planned bikeway within a proposed private development or along a development's frontage on a public right-of-way. MCDOT commented that this statement on page 136 should be removed from the plan:

"The applicant's financial contribution to the future construction of the bikeway or protected intersections can be credited toward the applicable development impact taxes, pursuant to Montgomery County Code."

MCDOT states that: "Such contributions may not be directly adding capacity, therefore, they may not be eligible for impact tax credits. There may be some room for exceptions if the project being contributed to is advancing toward construction in the very near-term, and also UMPs / LATIP fees may be eligible for credits." (Attachment B, Comment #103)

Robert Dalyrmple commented that:

"[MCDOT] has recently determined that it will not certify Impact Tax credits for a developer's financial contribution (or construction costs) towards a separated bikeway facility project unless such project results in the widening of the existing roadway. In many policy areas of the County (Particularly in Metro Station Policy Areas), existing roadways will not and simply cannot be widened to accommodate separated bicycle facilities. As a result, it does not appear at this time that MCDOT will certify Impact Tax credits for these important financial contributions towards separated bicycle facilities in these policy areas. We recommend that this inconsistency be reconciled through the Bicycle Master Plan process, and that it be very clearly reiterated that any financial construction toward a separated bicycle facility (or protected intersection) is an allowable credit against the Impact Tax...irrespective of whether the separated bicycle lanes involves the widening of an existing roadway." (Attachment B, Comment #101)

Staff Response: Under Section 52-50 of the County Code, MCDOT has the authority to determine when a bikeway improvement reduces traffic demand or provides additional transportation capacity. We therefore propose the following revision to page 136:

"In certain cases, as determined by the Montgomery County Department of Transportation, \underline{t} = applicant's financial contribution to the future construction of the bikeway or protected intersections <u>may</u> = be credited toward the applicable development impact taxes, pursuant to Montgomery County Code."

Issue 5: Use of Developer Contributions

Pages 135 – 138 of the Bicycle Master Plan discuss implementation of bikeways through development approvals and indicate what developers will be required to construct when there is a master-planned bikeway within a proposed private development or along a developments frontage on a public right-of-way. Page 136 of the plan discusses when the development project will be required to make a financial contribution to pay for some of the cost of implementing the bikeway. It states:

"This financial contribution will be used by the Montgomery County Department of Transportation to implement bikeway projects within the vicinity of the right-of-way frontage of the development project." MCDOT requests that the last sentence be deleted. They state that they cannot guarantee that the contribution will be used in the immediate vicinity of the ROW frontage. (Attachment B, Comment #105)

Staff Response: Staff strongly recommends that developer financial contributions be used on bikeway improvements as close as possible to the development site. After discussion with MCDOT, they stated that they could possibly ensure that financial contributions are used within the same policy area (see page 225 for a map of the policy areas). While this may be an adequate solution, we would encourage MCDOT to continue to work towards a system that would allow them to use these funds in a more targeted area. To provide MCDOT with more flexibility, while continuing to indicate that it is important to construct projects as close as possible to the development project, we recommend the following change to page 136:

"Lay the groundwork for future implementation (see sidebar below) of separated bike lanes along the project's right-of-way frontage where there are not logical end points for the bikeway, as determined by the Montgomery County Planning Board. In this case, the developer must make a financial contribution to make up for the difference in cost between laying the groundwork for future implementation of the bikeway and full implementation of the bikeway. This financial contribution will be used by the Montgomery County Department of Transportation to implement bikeway projects <u>as close as possible to</u>within the vicinity of the right-of-way frontage of the development project."

Issue 6: Bicycle Parking

Bicycle parking stations offer transit riders a secure location to store their bicycles. These enclosed and covered facilities offer high-volume and high-security bicycle parking. Additionally, many bicycle parking stations offer services such as bicycle repair, bicycle rental, bicycle retail, food service, showers and changing rooms, lockers for personal belongings and bicycling information. Image of a bicycle parking stations in suburban and urban locations are shown below.



A suburban bicycle parking station at Kramer Station in Austin, Texas.



An urban bicycle parking station at Union Station in Washington, DC.

Pages 86 to 91 of the Bicycle Master Plan recommend long-term bicycle parking stations within or directly adjacent to transit stations to increase transit ridership at a fraction of the cost of operation local bus service or constructing and operating parking garages. The plan recommends 33 bicycle parking stations to be located at each Red Line station, and at the higher demand MARC, future Purple Line and future Corridor Cities Transitway stations.

MCDOT stated that there are too many bike stations and suggest a more rigorous assessment, greater use of tiered prioritization, or a larger variation in the scale of facilities (in lieu of full stations, perhaps instead simply covered bike racks). (Attachment B, Comment #66)

Staff Response: Staff agrees that the number of stations recommended is too high. We disagree that the prioritization of the bicycle parking stations on pages 184 – 185 of the Bicycle Master Plan is inadequate. Of the 33 proposed stations, 7 are proposed for Tier 1, 6 are proposed for Tier 2, 7 are proposed for Tier 3 and 6 are proposed for Tier 4. An additional 7 stations located along Phase 2 of the Corridor Cities Transitway are proposed to occur beyond the life of this plan.

After discussing this comment with MCDOT in greater detail, they suggested removing some of the seven bicycle parking stations located along Phase 2 of the Corridor Cities Transitway.

Staff proposes to remove two stations: Gateway Center Station and Manekin Station. There are other nearby bicycle parking stations that bicyclists will be able to use in lieu of these stations.

Issue 7: Bikeway Prioritization

The Bicycle Master Plan includes an extensive network of bikeways and is likely to be only partially completed during the 25-year life of this plan. Such a large network is proposed so that opportunities to implement the preferred bicycling network are not lost when unforeseen circumstances arise. Therefore, the plan recommends a tiered approach to prioritizing bikeways, since funding for implementation will be limited.

The approach to prioritizing the bicycling network is based on reaching the targets established for each metric in the Goals, Objectives, Metrics and Targets section of this plan (pages 19 – 33). The priorities focus on increasing bicycling in the county as quickly as possible, by focusing initial efforts on constructing networks of bikeways in places that the Montgomery County Council has designated as Bicycle Pedestrian Priority Areas (BPPA) and completing connections between major activity centers. Also prioritized are missing gaps in the existing low-stress bicycling network and low-cost bikeways, such as neighborhood greenways, which will funnel bicyclists to the BPPAs. The plan states that prioritization should be reassessed every few years based on available resources and lessons learned during the implementation process. The prioritization is described below.

Programmed bikeways include those that are completely or partially funded in the county's capital improvements budget and are components of the recommended low-stress bicycling network.

Tier 1 Bikeways are recommended to be substantially completed within five years of approval of the Bicycle Master Plan. These projects include:

- Bikeways located in seven Bicycle Pedestrian Priority Areas (Bethesda CBD, Friendship Heights CBD, Life Sciences Center, Silver Spring CBD, Wheaton CBD, White Flint and White Oak).
- Neighborhood greenways feeding into these BPPA areas (such as the Edgemoor Lane neighborhood greenway).
- Bikeways with high demand that are included in the capital improvements program (such as the Montrose Parkway East project).
- Other county priorities (such as the Germantown Grosvenor Breezeway, aka the PEPCO Trail).

Tier 2 Bikeways are recommended to be substantially completed within 10 years of approval of the Bicycle Master Plan. These projects include bikeways located in the remaining Bicycle Pedestrian Priority Areas.

Tier 3 Bikeways are recommended to be substantially completed within 20 years of approval of the Bicycle Master Plan. These projects include:

- Remaining neighborhood greenways.
- Highest demand bikeways located outside of the Bicycle Pedestrian Priority Areas.
- High demand recreational bicycling routes.

Tier 4 Bikeways are recommended to be substantially completed within 25 years of approval of the Bicycle Master Plan. These projects include:

- All remaining bikeways that are recommended for completion within the life of the plan.
- Several heavily-used recreational bicycling routes.

The table below shows the recommended mileage and percent of the overall bike network for each Phase of the Bicycle Master Plan. Of the proposed 1,202-mile bicycling network, 334 miles (or 28 percent) already exist, 17 miles (or 1 percent) are programmed in the county's capital budget, 52 miles (or 4 percent) are recommended to occur in Tier 1, 61 miles (or 5 percent) are recommended to occur in Tier 2, 118 miles (or 10 percent) are recommended to occur in Tier 3, 81 miles (or 7 percent) are recommended to occur in Tier 4, and 539 miles (or 45 percent) are recommended to occur beyond the life of this plan.

Prioritization Phase	Miles	Percent
Existing	334	28%
Programmed	17	1%
Tier 1	52	4%
Tier 2	61	5%
Tier 3	118	10%
Tier 4	81	7%
Future Bikeways	539	45%
Total	1,202	100%

Several comments were received to increase the priority of specific bikeways.

7a: White Oak Area Bikeways

The Bicycle Master Plan recommends constructing a bikeway on the east side of US 29 between Lorain Avenue and Lockwood Drive in Tier 3 of the prioritization. The plan recommends completion of the sidepath on the east side of New Hampshire Ave, south of I-495, beyond the life of the plan.

Joan Johnson recommends increasing the priority of bikeways leading to White Oak, including the New Hampshire Ave crossing of I-495 and the US 29 crossing at Northwest Branch. (Attachment B, Comment #112)

Staff Response: Staff disagrees with accelerating the completion of the US 29 project. This project will require reconstruction of the bridge over the Northwest Branch and redevelopment of many of the properties in the Burnt Mills commercial area. Reconstructing the bridge will be very complicated and expensive. Redevelopment is likely to take a long time.

Staff agrees with accelerating construction of the sidepath on the east side of New Hampshire Avenue, between I-495 and Prince George's County, and recommends adding this bikeway to Tier 3.

Issue 7b: Piedmont Crossing Local Park Trails

The Piedmont Crossing Local Park Trails are proposed connections between Crabbs Branch Way and both the Town of Washington Grove (via Brown Street) and Amity Drive. They would create a missing link between the Shady Grove Metrorail station and the Town of Washington Grove and the City of Gaithersburg.

The Town of Washington Grove, Shady Grove Advisory Committee, James Everhart and Joe Allen testified in support of increasing the prioritization of this trail from Tier 3 to Tier 1. (Attachment B, Comment #111) However, after the public hearing the Planning Board Chair's office received a call from the Town of Washington Grove indicating that the testimony that was provided did not accurately reflect the Town's position, and that the Town does not have a position regarding the connection to Brown Street. The Town was asked to provide additional testimony, but as of the time of writing, staff had not received a revised position from the Town of Washington Grove.

Staff Response: Staff agrees that this bikeway should be increased from Tier 3 to Tier 1. The Piedmont Crossing Local Park Trails are an important connection that will complete a missing section of walking and bicycling infrastructure between the Town of Washington Grove and Shady Grove Metrorail station and will improve connections to the City of Gaithersburg as well.



Piedmont Crossing Local Park Trails and Vicinity

Issue 7c: Gaps between City of Rockville and City of Gaithersburg

The proposed sidepaths on Industrial Drive and Gaither Road between I-370 and Shady Grove Road are recommended to be implemented in Tier 3. Joe Allen recommends increasing the priority of these bikeways. (Attachment B, Comment #113)

Staff Response: Staff agrees and recommends increasing the priority of the bikeways on Industrial Drive and Gaither Road between I-370 and Shady Grove Rd to Tier 2 to better link Rockville and Gaithersburg.

Issue 7d: Flower-Piney Branch and Takoma/Langley Crossroads Bikeways

The Bicycle Master Plan recommends that the bikeways in the Flower-Piney Branch and Takoma/Langley Crossroads Bicycle Pedestrian Priority Areas (BiPPAs) be implemented in Tier 2. The City of Takoma Park recommends accelerating projects in these BiPPAs to Tier 1. (Attachment B, Comment #114)

Staff Response: While staff agrees that the Flower-Piney Branch BiPPA and Takoma/Langley Crossroads BiPPA bikeways should be built as quickly as possible, they were designated as Tier 2 largely because the Purple Line project will be constructing bikeways along the main roads in these areas – University Boulevard, Piney Branch Road and Arliss Street. Based on the guidance in the Bicycle Master Plan, these bikeways should be constructed as separated bike lanes, but the Purple Line project will be installing conventional bike lanes, which will not create a bicycling experience that is attractive to most people. This is a missed opportunity for the county and it is likely to be a long time before the bikeways on these roads are upgraded. Staff agrees with accelerating the constructing of several specific neighborhood greenway projects within or leading to those BiPPAs that would increase connectivity to the Purple Line stations and the commercial areas through residential streets. These projects tend to be low cost and therefore implementation in Tier 1 is more feasible.

Flower – Piney Branch BiPPA:

- Domer Avenue / Gilbert Street Neighborhood Greenway
- Greenwood Avenue Neighborhood Greenway
- Garland Ave

Takoma / Langley BiPPA:

- Anne Street Neighborhood Greenway
- Wildwood Drive Neighborhood Greenway
- Glenside Drive Neighborhood Greenway

The remaining projects in the Flower-Piney Branch BiPPA and Takoma/Langley Crossroads BiPPA areas should remain Tier 2 because they will require redevelopment to implement:

- Separated bike lanes on Gilbert Street Extended from Piney Branch Road to University Blvd
- Separated bike lanes on Piney Branch Road west of Arliss Street
- Separated bike lanes and sidepaths on Piney Branch Road east of University Boulevard



Flower – Piney Branch and Takoma / Langley Bicycle Pedestrian Priority Areas

Issue 8: School Policies

Joe Allen commented that policies are needed to better consider walking and bicycling in the school site selection process. Furthermore, when a new school is constructed, the County should improve walking and bicycling connectivity to it. School zone boundaries should consider accessibility for bicycling and walking. (Attachment B, Comment #74)

Staff Response: Staff agrees with Mr. Allen's comment and recommends that the Planning Board add a new policy to pages 104 – 114:

"School Site Selection: Montgomery County Public Schools should update their school site selection criteria to consider the appropriateness of existing walking and bicycling infrastructure for children. Where good walking and bicycling does not already exist, MCPS should work with MCDOT to construct child-appropriate walking and bicycling infrastructure in the immediate vicinity of the school."

Issue 9: Loading Zones

The Washington Area Bicyclist Association (WABA) recommends adding guidance in the Bicycle Facility Design Toolkit (Appendix B) related to loading zones in the toolkit. (Attachment B, Comment #137)

Staff Response: Staff agrees that more guidance is needed on loading zones, but recommends adding a policy to pages 104-114 instead of to the Bicycle Facility Design Toolkit:

Loading Zones:

Develop a policy on loading zones that encourages loadings zones to be located on-site and that consolidates loading zones and driveways immediately adjacent to one another.

Justification: Loading zones present potential conflicts between motorists and non-motorists. On-site loading zones are desirable especially in urban areas, because they provide a designated space for trucks outside the bikeway and sidewalk. Consolidating loading zones and driveways for the same building limits exposure for pedestrians and bicyclists along a roadway.

Lead Agency: Planning Department

ATTACHMENTS

Attachment A – Public Testimony

Attachment B - Matrix of Responses to Public Testimony for Non-Bikeway Comments