

CORRIDOR FORWARD

I-270 Transit Plan



December 23, 2021
Montgomery Planning



Work Session Agenda

I. Enhanced MARC Rail

II. Managed Lanes Enhanced Commuter Bus

III. Enhancing Transit's Competitiveness

IV. Role of Transit Hierarchy in Proposed Network

V. Near-Term and Long-Term Discussion

VI. MCDOT's Ride On Reimagined Study

VII. General and/or Minor Comments

VIII. Request: Approve Revisions as Planning Board Draft for Transmittal

How the Recommendations are Organized

Topics Discussed at Work Session 1

- Originally recommended edit:
 - **All changes: black**
 - **Additions: UNDERLINED**
 - **Removals: ~~STRIKETHROUGH~~**
- New recommended edit:
 - **All changes: red**
 - **Additions: UNDERLINED**
 - **Removals: ~~STRIKETHROUGH~~**

New Topics for Today's Work Session

- Originally recommended edit:
 - **All changes: black**
 - **Additions: UNDERLINED**
 - **Removals: ~~STRIKETHROUGH~~**

I. Enhanced MARC Rail

Enhanced MARC Rail

Feedback from MTA

- **Potential for Improvements:** Incremental improvements may include mid-day service, limited weekend service, and the addition of one train in AM and PM peak hours. The priority order and implementation are largely dependent on rail capacity.
- **Mid-Line Turnaround:** Due to operational constraints (Positive Train Control, train storage, and host railroad scheduling) MARC trains cannot turn around mid-line.
- **New Stations:** Even with additional mainline track, it is likely that CSX would continue to require the removal of existing stations to implement new stations.
- **Rail Line Ownership:** It is very likely that the host railroad would own and maintain any new rail infrastructure on its mainline, due to proximity to their existing mainline and their role as the host railroad for Positive Train Control.
- **Run-Through Service:** The track alignment for the Brunswick Line is not ideal for run-through service as trains on the Brunswick Line would cross other tracks coming into Union Station, including Amtrak's regional services.

Enhanced MARC Rail

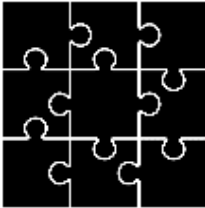

- Move discussion of how investments in one mode impact ridership on another into additional Appendix content
- Feedback that the comparison depicts MARC unfairly

Recommended Revision to Draft Plan (Attachment 1 - Page 23):

~~Enhancing MARC service would impact other modes. Because the Brunswick Line offers some redundancy with segments of the Red Line, existing Metro service could lose as many as 7,600 trips in 2045 if MARC was to be improved without concurrent transit enhancements to other modes. On the other hand, if the county and/or state were to pursue the studied Red Line Extension, Frederick Rail Connection, or Enhanced Managed Lanes Commuter bus options, the existing MARC service would potentially lose riders, with the more direct Frederick Rail Connection receiving the greatest number of current MARC riders.~~

Enhanced MARC Rail

Enhanced MARC Rail Recommendation (Table 7 – Attachment 1 Page 24)

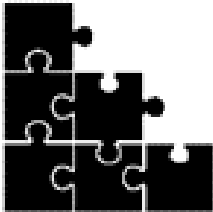

To Strengthen Regional Transit Connections, Corridor Forward Recommends:	County Actions	Priority	Champion
<p>Obtain right-of-way, through dedication or acquisition, to Support the long-term potential of the Maryland Transit Administration MARC Rail Brunswick Line.</p>	<p>A. Continue to advance the long-term potential of the Brunswick Line by obtaining <u>Obtain</u> 25-foot wide land dedications adjacent to the northbound tracks of the Brunswick Line right-of-way along the segments identified in the 2018 MARC Cornerstone Plan.</p> <p>B. <u>Support the state’s Brunswick Line Master Plan, which will identify short-term, mid-term, and long-term service enhancements and the infrastructure improvements required to achieve them.</u></p>		

II. Managed Lanes Enhanced Commuter Bus

Managed Lanes Enhanced Commuter Bus

- Focus on serving Montgomery County population and employment centers
- Support compact land use in corridor and limit sprawl
- Encourage state funding of Corridor Connectors
- Not a county priority and led by the state

Recommended Revision to Draft Plan (Table 9 - Attachment 1 Page 27): This Plan further recommends supporting infrastructure for commuter bus service that maximizes person throughput and public benefit.



To Strengthen Regional Transit Connections, Corridor Forward Recommends:	County Actions	Priority	Champion
<p>Continue state-provided commuter bus service on I-270, making use of the Corridor Connectors when diverting to bus stations in Montgomery County’s population and employment centers.</p> <p>If the managed lanes proceed, support commuter bus service in any future managed lanes on I-270, making use of the Corridor Connectors when diverting to bus stations within activity centers.</p>	<p>A. Prioritize commuter bus service to population and employment centers, making use of Corridor Connectors to reach these destinations.</p> <p>A. Recommend the state explore opportunities to fund the Corridor Connectors as a mechanism to enhance commuter bus service, prioritizing the Germantown and Life Sciences connectors.</p>		

III. Enhancing Transit's Competitiveness

Dedicated Bus Lanes – Flexibility

- **MCDOT:** flexibility in facility planning necessary
 - some mixed traffic service may be sufficient
 - repurposing auto capacity may be challenging
- **Planning Board:** references to facility planning and flexibility are unnecessary as facility planning already exercises flexibility

Recommendations to Enhance Transit’s Competitiveness (Table 18 – Attachment 1 Page 49)

To Strengthen Regional Transit Connections, Corridor Forward Recommends:	County Actions	Priority	Champion
<p>Following the review and outcomes of traffic studies, convert <u>Convert</u> existing general-purpose travel lanes to dedicated transit lanes on targeted streets, including—but not limited to—the streets detailed in the right-of-way table (Table 11).</p>	<p>A. Convert existing auto travel lanes to dedicated transit lanes to advance [the recommended transit network]. B. Modify congestion standards to include a BRT station designation between that of Metrorail station areas (120 seconds) and local bus (80 seconds). C. Continue to explore and prioritize other locations in the corridor where local bus service can be enhanced through the provision of express bus lanes, queue-jumps, and other facilities.</p>		

Dedicated Bus Lanes – Flexibility

Four other references to traffic studies/facility planning struck:

- *Additional Operational and Tactical Priorities (Attachment 1 Page 39):*
 - “This Plan supports the implementation of the proposed network, including repurposing travel lanes, following technical review in facility planning, as consistent with this Plan’s recommendations.”
- *Chapter 5 - Right of Way Table Footnotes (Attachment 1 Page 42):*
 - Prioritize lower number of automobile lanes to allow transit, pedestrian, and bicycle capacity, ~~ultimate number of lanes and right-of-way width to be determined by traffic study findings during facility planning and regulatory review.~~
 - Provision of transit lanes is strongly suggested for municipal consideration, which has planning authority independent of the county. Prioritization of dedicated bus lanes over automobile travel lanes is strongly recommended. ~~pending the results of facility planning and or engineering studies.~~
- *Chapter 6 - Implementation Strategies (Attachment 1 Page 48):*
 - ~~As segments of the recommended network move into facility planning, traffic studies should be completed to determine the most appropriate roadway treatments based on context, prioritizing the need of transit.~~

IV. Role of Transit Hierarchy in Proposed Network

Hierarchy of Transit

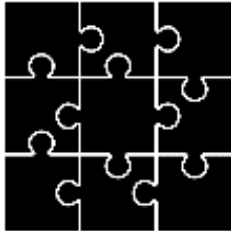

Recommended Addition to Chapter 5 (Attachment 1 Page 29): The proposed Corridor Connectors provide dedicated bus lanes within and among the Corridor Cities of Rockville, Gaithersburg, Germantown, and Clarksburg, and provide the opportunity for transit that is accessible, convenient, and efficient among these centers of activity. The proposed Corridor Connectors introduce an additional transit choice and a viable alternative to driving for trips within the midcounty and upcounty – fulfilling the missing link in the hierarchy of mobility needs discussed in Chapter 3.

The Corridor Connectors, in combination with local and commuter bus, bus rapid transit, and rail create a complete transit network for the midcounty and upcounty that serves existing and planned land use as well as provides a viable alternative to travel by car for trips among neighborhoods, centers of activity, and destinations within the region.

Corridor Connectors Prioritization

- **Attorneys representing Lantian Development:** Milestone/COMSAT East Clarksburg Connector is lowest priority. Consider adjusting priority or adding language that allows for implementation flexibility.
- **Staff Response:** Prioritization scheme is statement of intention, but not statute. Connectors can advance in order different from what is proposed.

Recommendations for Efficient and Effective Implementation (Table 17 – Attachment 1 Page 48)

To Strengthen Regional Transit Connections, Corridor Forward Recommends:	County Actions	Priority	Champion
Where beneficial and/or necessary, support the incremental implementation of dedicated bus lanes.	<p>A. When and where necessary, break larger transit projects into more easily implemented components—when such components offer independent utility— in order to support the ultimate build-out of the proposed network.</p> <p>B. Embrace all <u>funding implementation</u> opportunities—large and small—that support the ultimate build-out of the proposed infrastructure network.</p>		

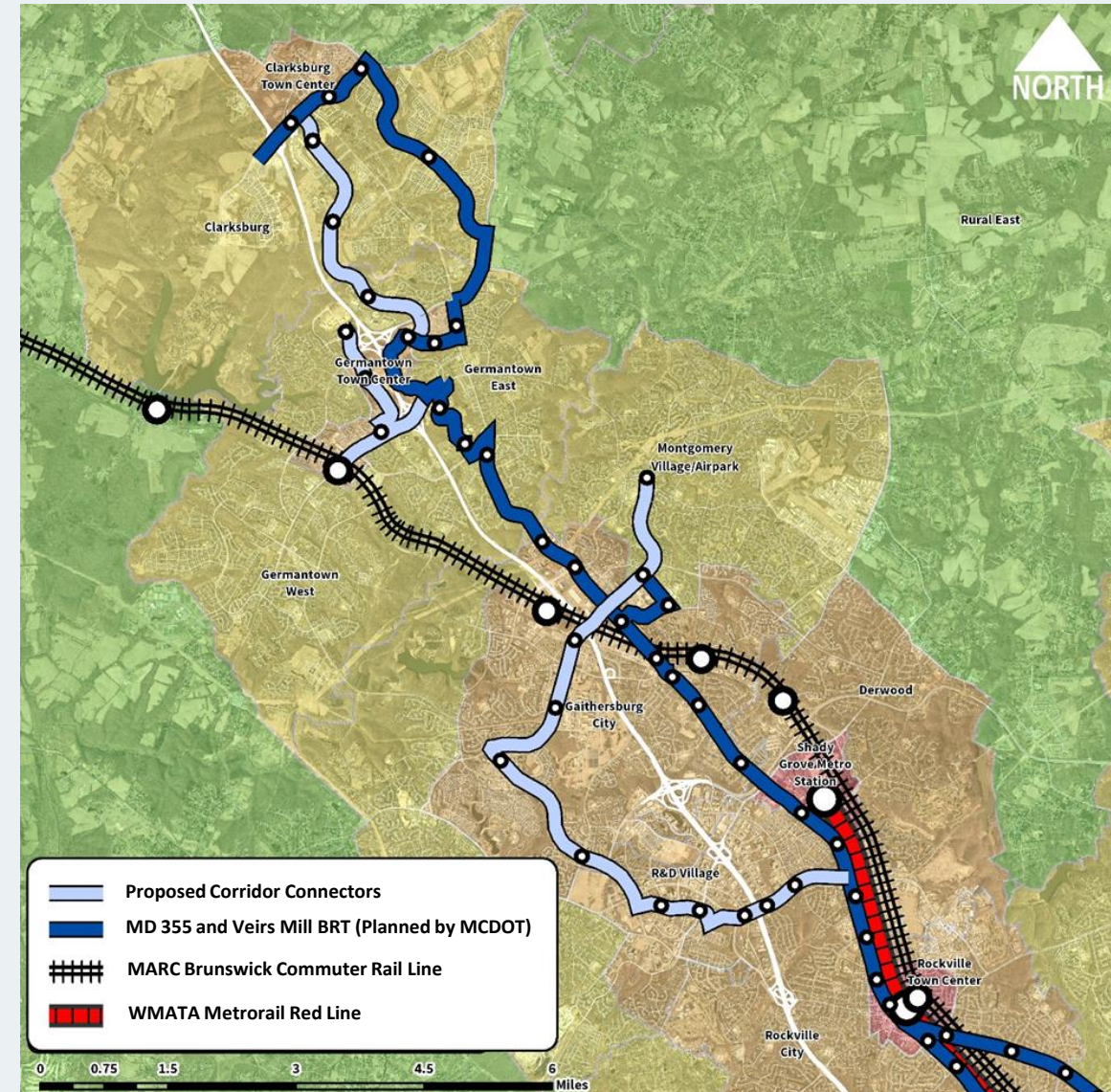
Connector Prioritization

What they are: segments of dedicated bus lane infrastructure

What they are not: a single branded BRT service

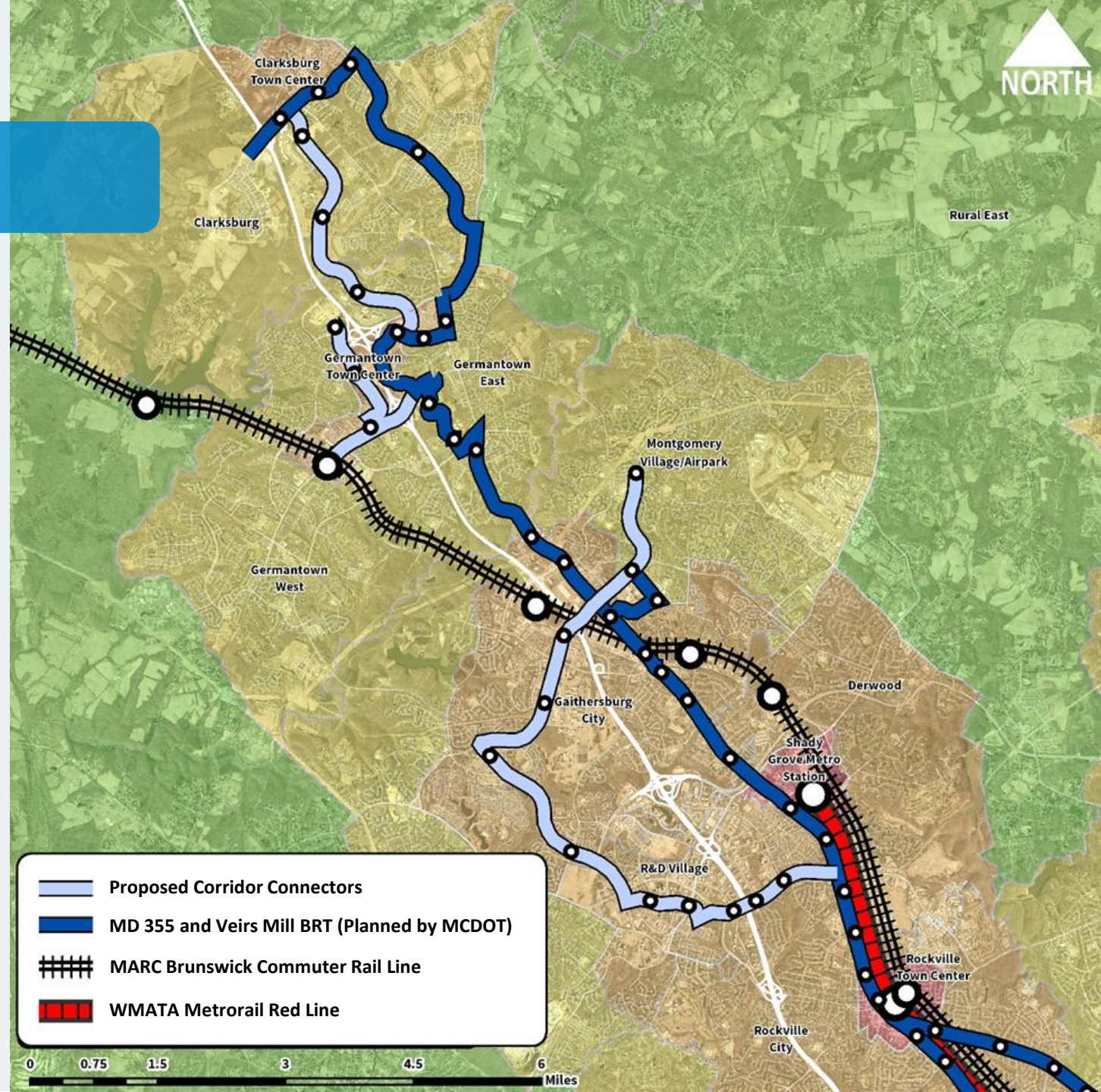
What they offer:

- Can be developed incrementally
- Integrate with other dedicated bus lane infrastructure
- Provide service to CCT communities
- Offer multiple service patterns for different routes
- Less expensive to implement than the CCT



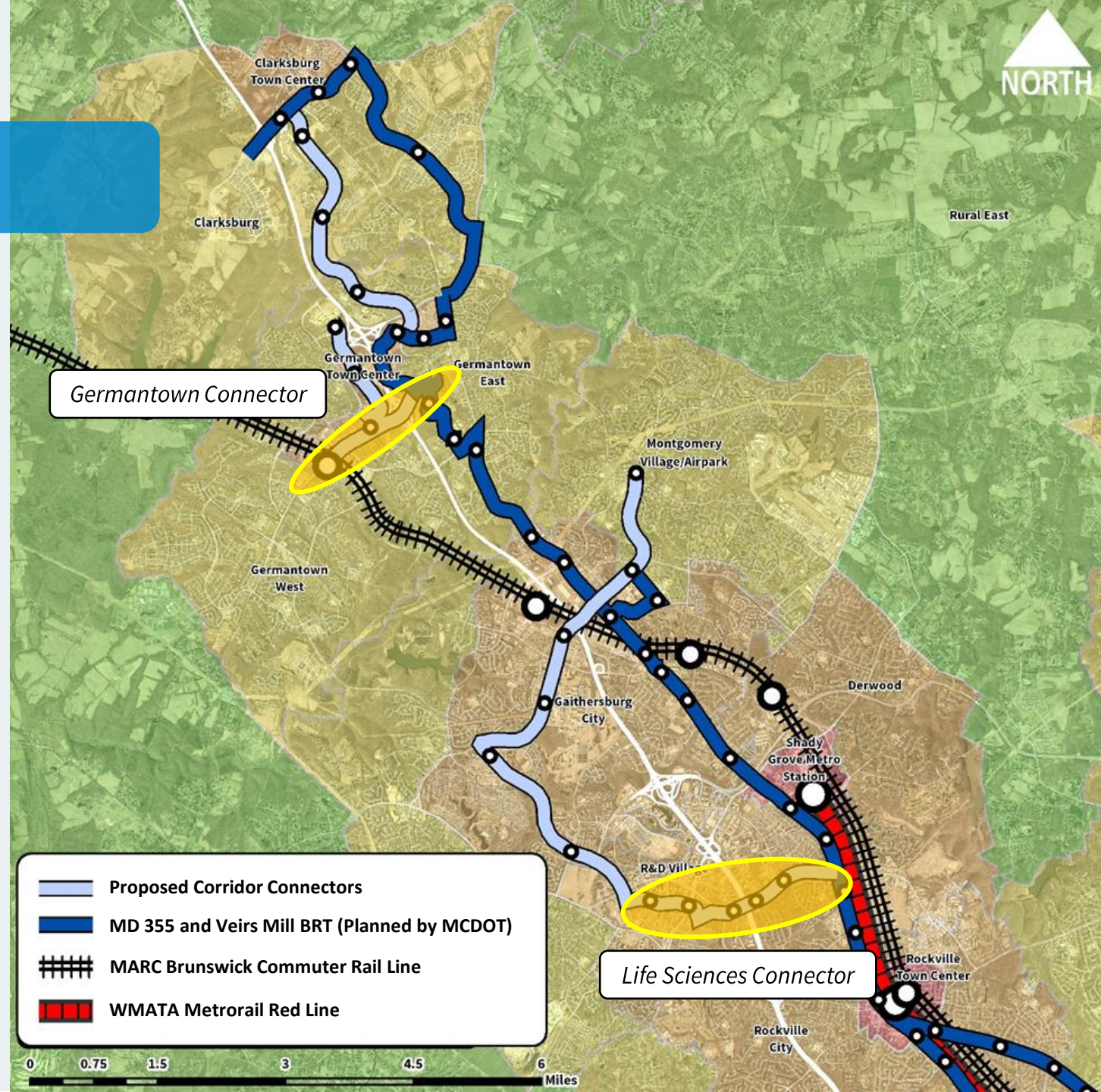
Connector Prioritization

- **CRUCIAL FIRST PRIORTIES**
 - MD 355 BRT
 - Veirs Mill BRT



Connector Prioritization

- CRUCIAL FIRST PRIORTIES
 - Veirs Mill BRT
 - MD 355 BRT
- **First Connector Priorities**
 - Life Sciences Connector
 - Germantown Connector



Connector Prioritization

- **CRUCIAL FIRST PRIORTIES**

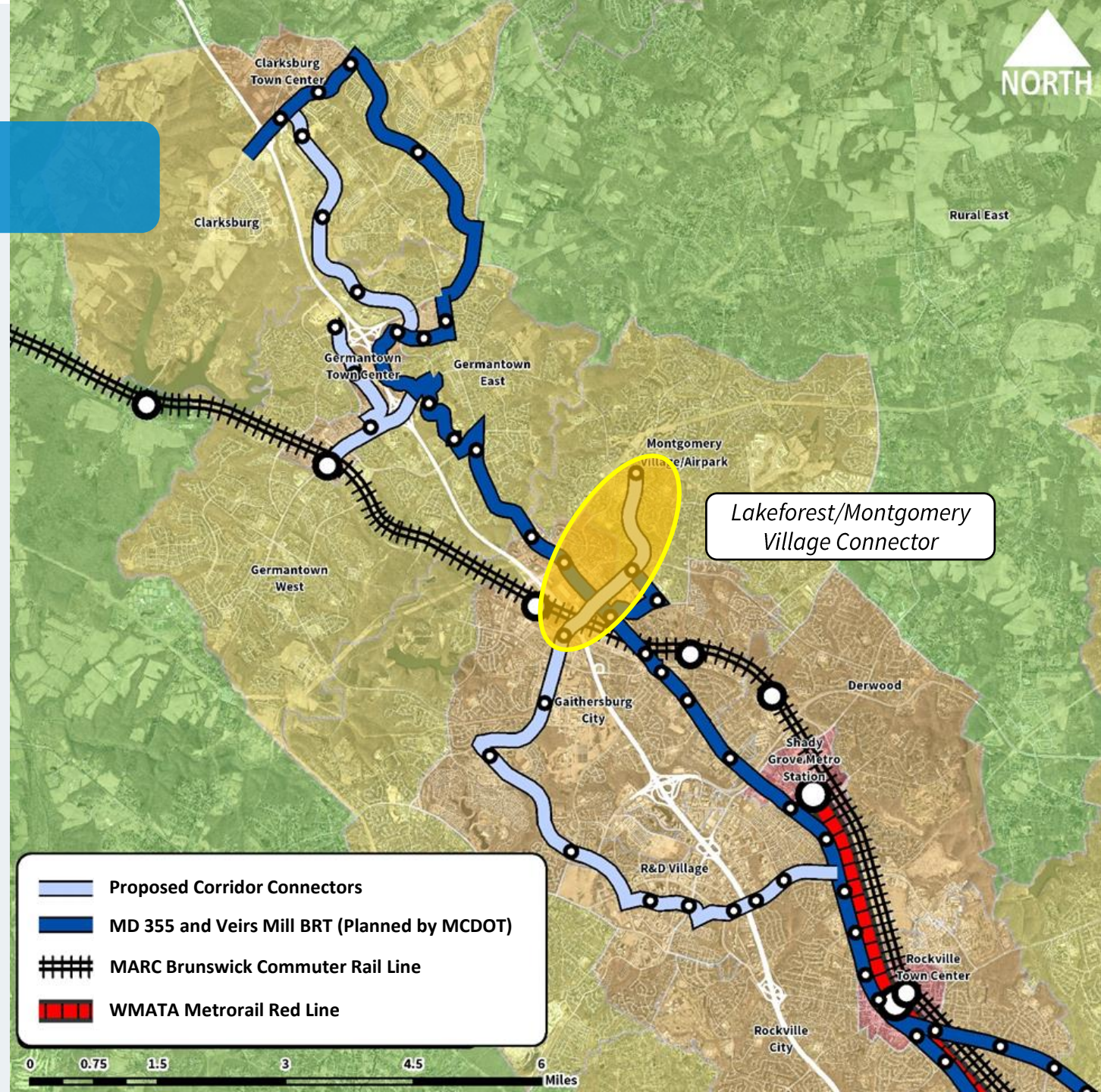
- Veirs Mill BRT
- MD 355 BRT

- **First Connector Priorities**

- Life Sciences Connector
- Germantown Connector

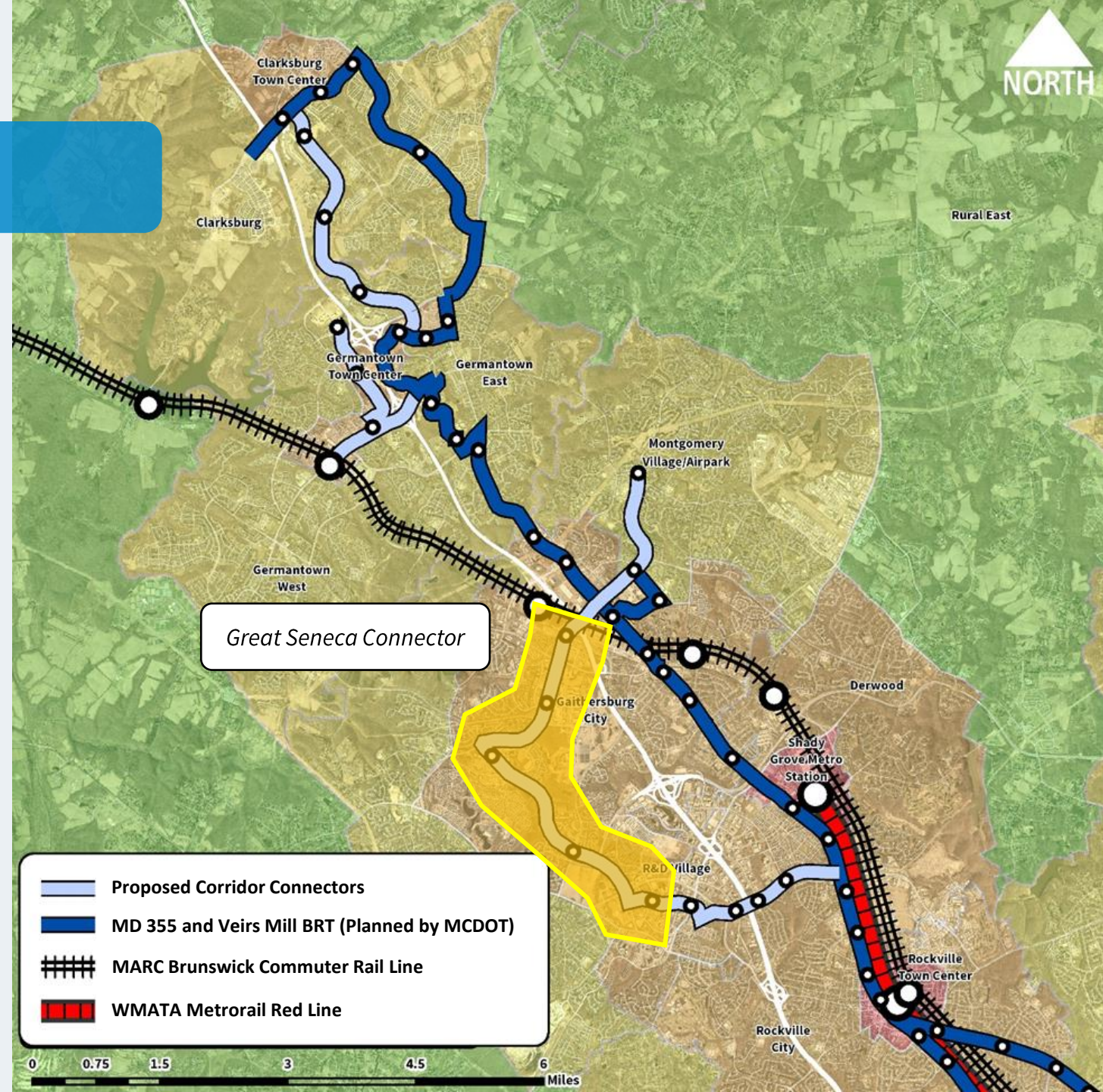
- **Second Connector Priority**

- Lakeforest/Montgomery Village Connector



Connector Prioritization

- **CRUCIAL FIRST PRIORTIES**
 - Veirs Mill BRT
 - MD 355 BRT
- **First Connector Priorities**
 - Life Sciences Connector
 - Germantown Connector
- **Second Connector Priority**
 - Lakeforest/Montgomery Village Connector
- **Third Connector Priority**
 - **Great Seneca Connector**



Connector Prioritization

- **CRUCIAL FIRST PRIORTIES**

- Veirs Mill BRT
- MD 355 BRT

- **First Connector Priorities**

- Life Sciences Connector
- Germantown Connector

- **Second Connector Priority**

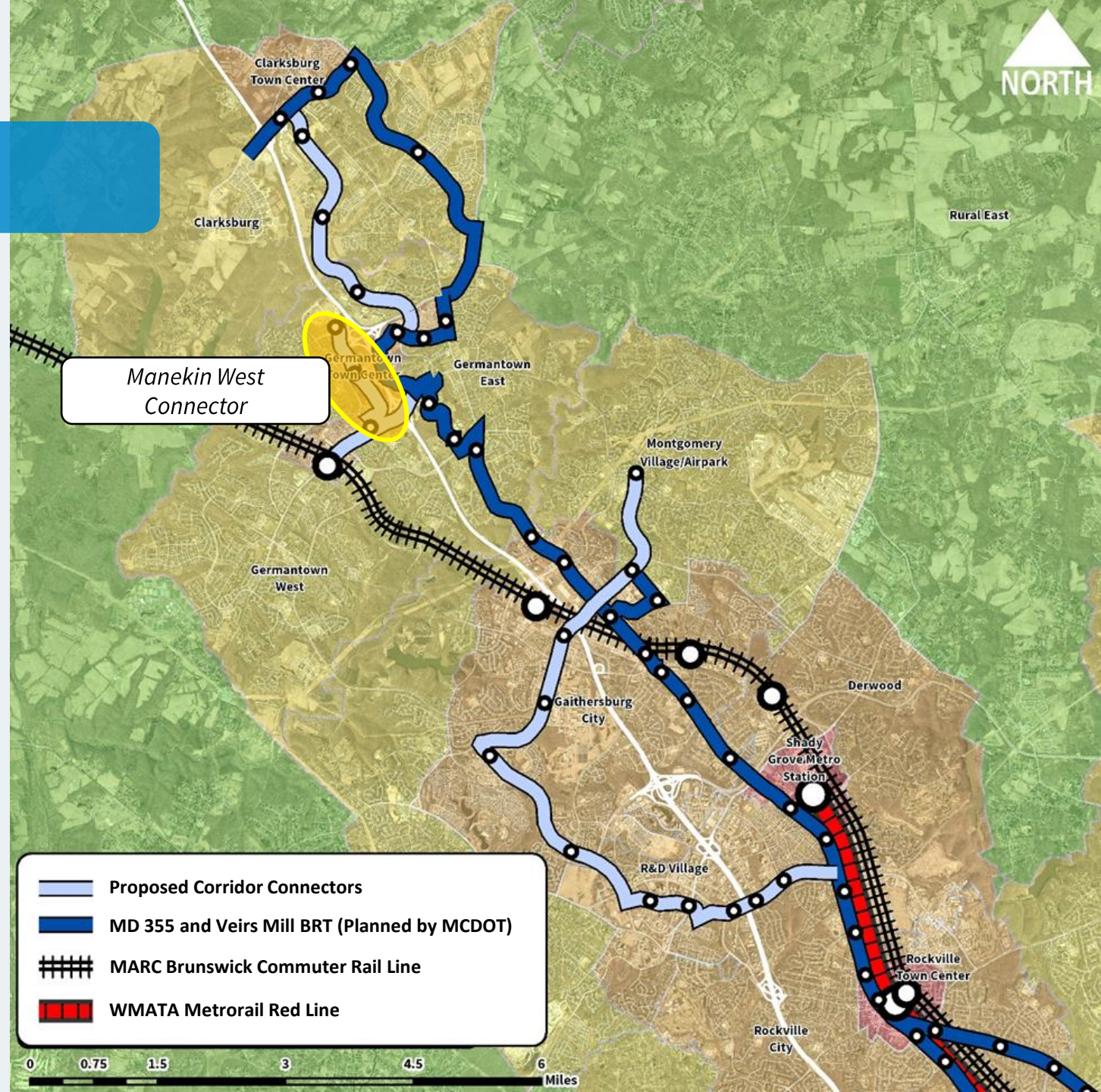
- Lakeforest/Montgomery Village Connector

- **Third Connector Priority**

- Great Seneca Connector

- **Fourth Connector Priority**

- Manekin West Connector



Connector Prioritization

- **CRUCIAL FIRST PRIORTIES**

- Veirs Mill BRT
- MD 355 BRT

- **First Connector Priorities**

- Life Sciences Connector
- Germantown Connector

- **Second Connector Priority**

- Lakeforest/Montgomery Village Connector

- **Third Connector Priority**

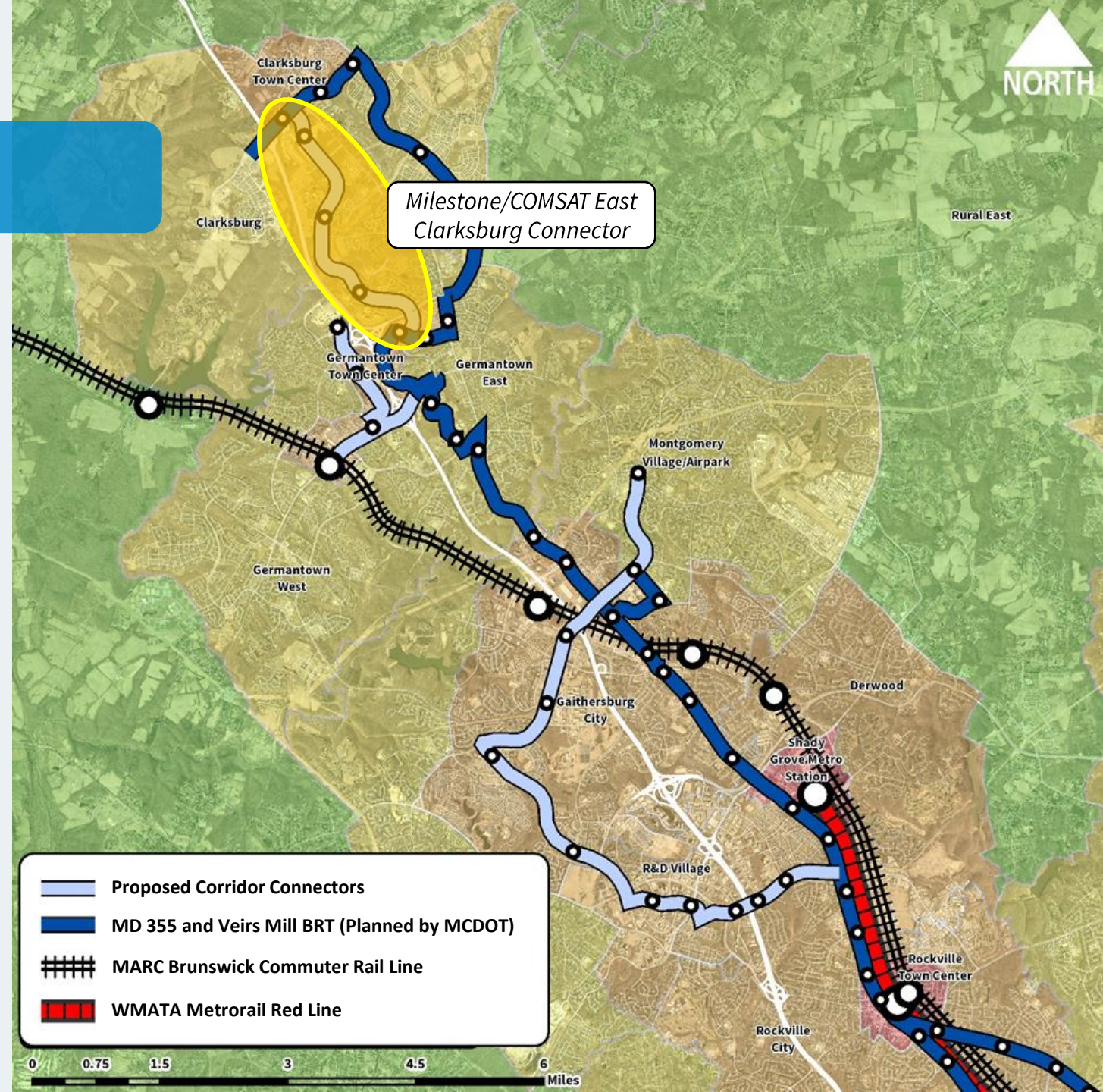
- Great Seneca Connector

- **Fourth Connector Priority**

- Manekin West Connector

- **Final Connector Priority**

- Milestone/COMSAT East Clarksburg Connector



Lakeforest/Montgomery Village Connector

- **Desire to add language in support of Lakeforest Mall Master Plan** (Gaithersburg)
- **Concerns about geometry of existing MD 124 and I-270 interchange** (Gaithersburg)
- **Questions about implementation ease and/or feasibility due to geometry** (Planning Board)

Montgomery Village Avenue Today



Lakeforest/Montgomery Village Connector

Gaithersburg: Desire to add language in support of Lakeforest Mall Master Plan (Attachment 1 Page 37)

Gaithersburg's Lakeforest Mall is planned for redevelopment and the municipality has recently completed its Lakeforest Mall Master Plan. The site is currently planned to be served by the MD 355 BRT but could be further enhanced with an east-west link that connects to points of demand along MD 124...The Lakeforest Mall Master Plan discusses potentially relocating the site's transit center closer to MD 355. During the development of Gaithersburg's Plan, Montgomery Planning provided comments to Gaithersburg recommending the municipality include language about locating the center also in proximity to MD 124. Corridor Forward reiterates this suggestion. As I-270 highway access is provided at Montgomery Village Avenue/MD 124, commuter bus service operated by others could potentially use the recommended dedicated bus lanes to improve the community's regional access for Lakeforest and Montgomery Village.

Lakeforest/Montgomery Village Connector

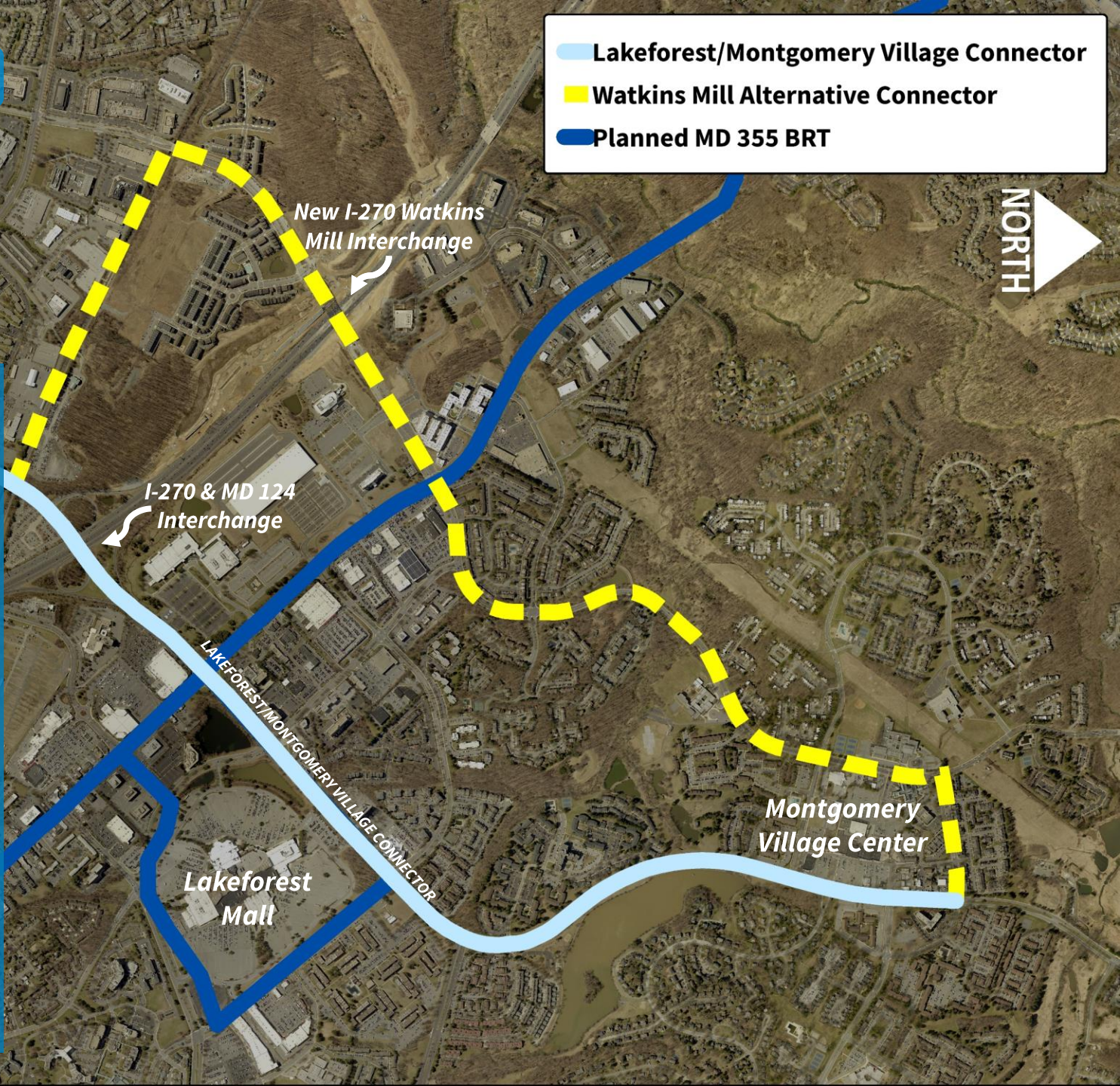
Legend for transportation connectors:

- Lakeforest/Montgomery Village Connector (light blue line)
- Watkins Mill Alternative Connector (yellow dashed line)
- Planned MD 355 BRT (dark blue line)

Gaithersburg: Concerns about geometry of existing MD 124 and I-270 interchange & preference for an alternative Watkins Mill Connector

Rationale for MD 124:

- Serving land use
- Existing riders
- Income/equity

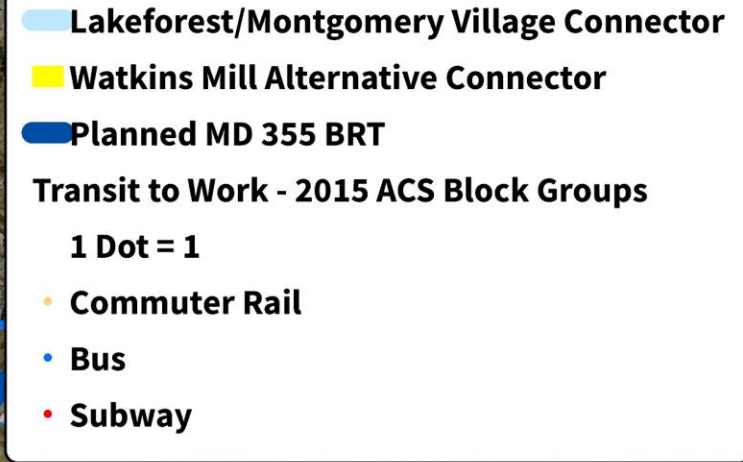


Lakeforest/Montgomery Village Connector

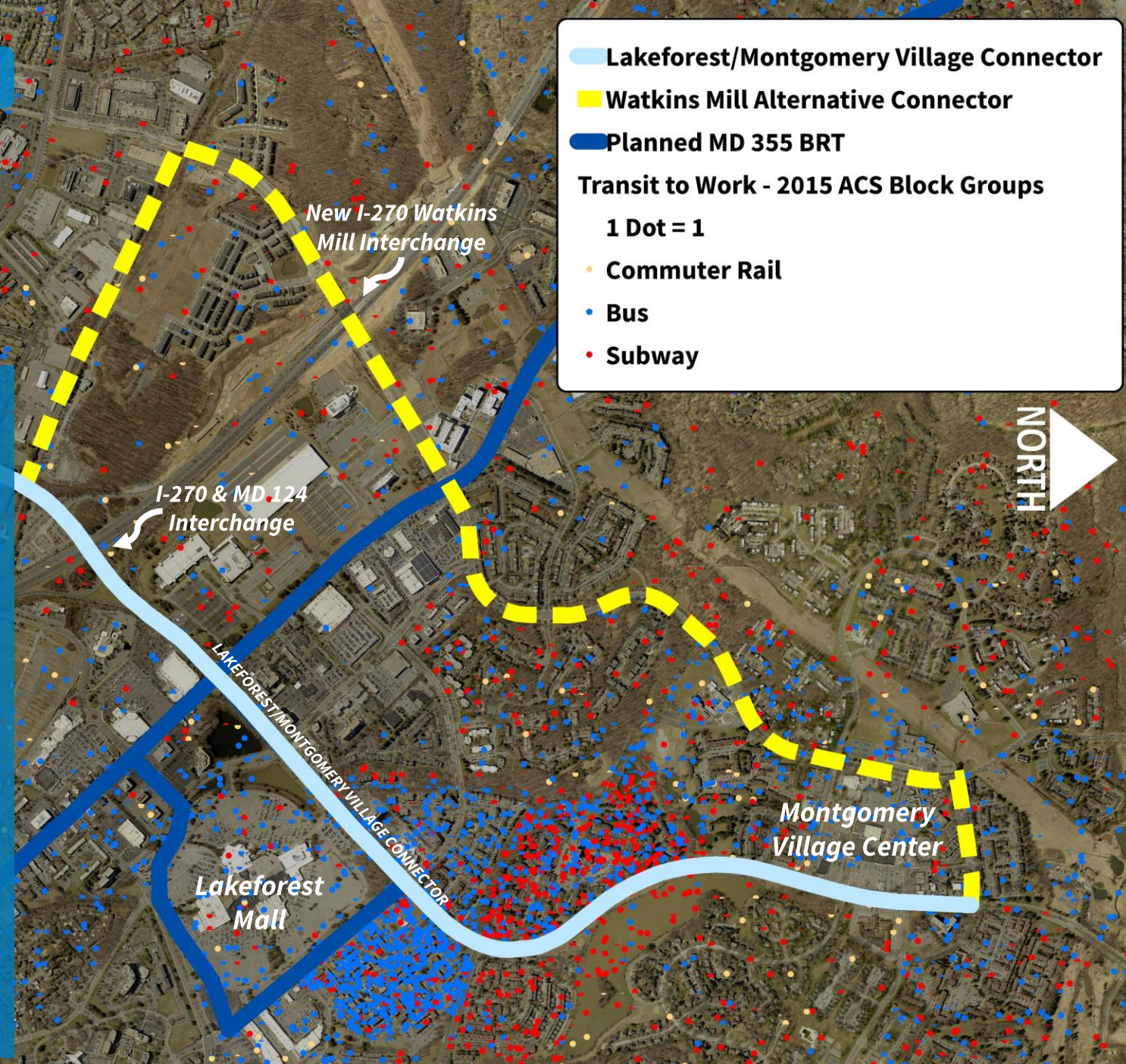
Gaithersburg: Concerns about geometry of existing MD 124 and I-270 interchange & preference for an alternative Watkins Mill Connector

Rationale for MD 124:

- Serving land use
- **Existing riders**
- Income/equity



Lakeforest/Montgomery Village Connector
Watkins Mill Alternative Connector
Planned MD 355 BRT
Transit to Work - 2015 ACS Block Groups
1 Dot = 1
• Commuter Rail
• Bus
• Subway



Notes: 2015 American Community Survey Block Groups; based on self-reporting for longest leg of commute trip; dots are randomly distributed within respondents' reported census block geographies and do not reflect respondents' actual locations.

Lakeforest/Montgomery Village Connector

Gaithersburg: Concerns about geometry of existing MD 124 and I-270 interchange & preference for an alternative Watkins Mill Connector

Rationale for MD 124:

- Serving land use
- Existing riders
- **Income/equity**



Notes: 2015 American Community Survey Block Groups; dots are randomly distributed within respondents' reported census block geographies and do not reflect respondents' actual locations.

Lakeforest/Montgomery Village Connector

Gaithersburg: Concerns about geometry of existing MD 124 and I-270 interchange & preference for an alternative Watkins Mill Connector

Rationale for MD 124:

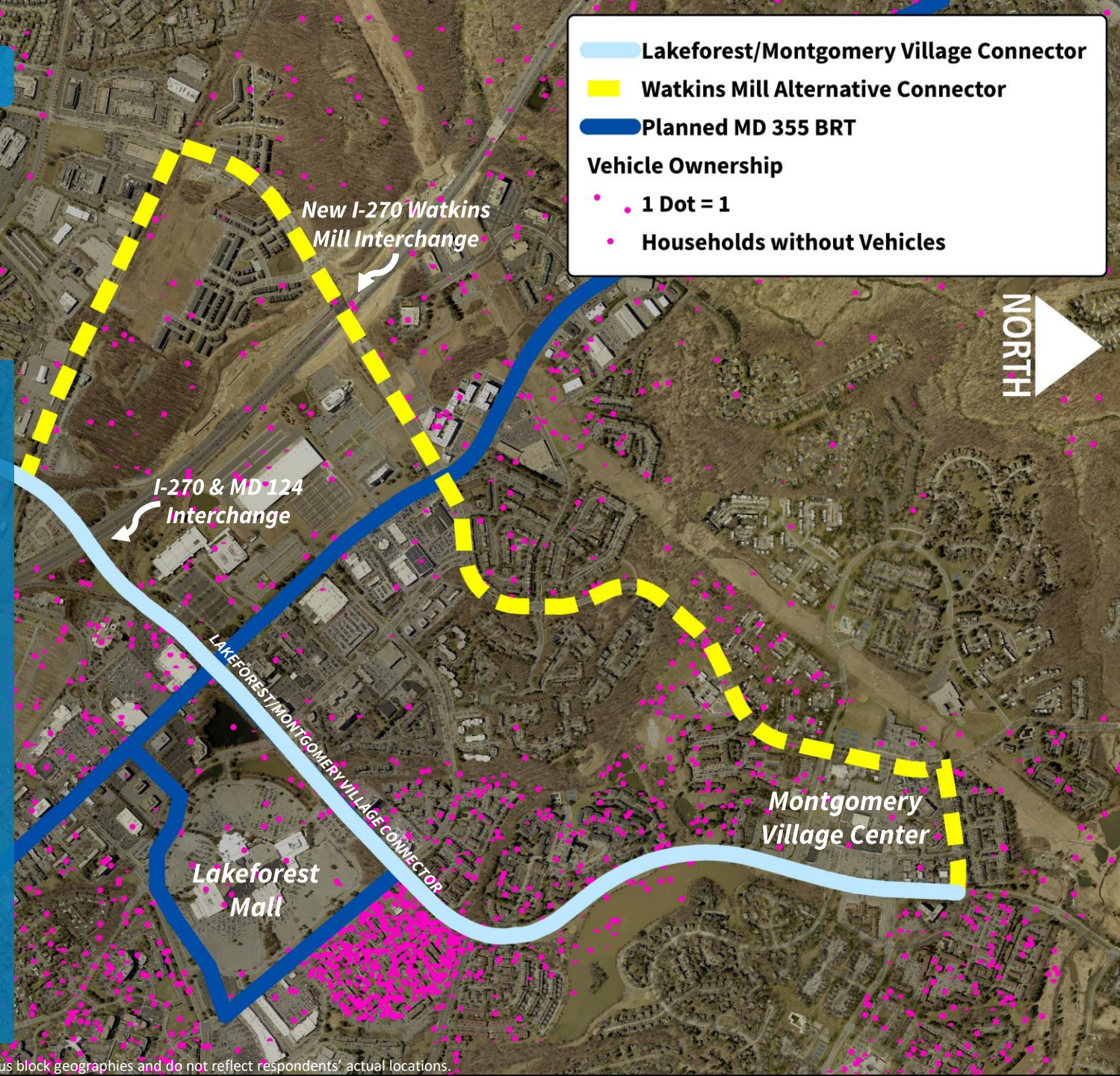
- Serving land use
- Existing riders
- **Income/equity**

Legend:

- Lakeforest/Montgomery Village Connector
- Watkins Mill Alternative Connector
- Planned MD 355 BRT

Vehicle Ownership

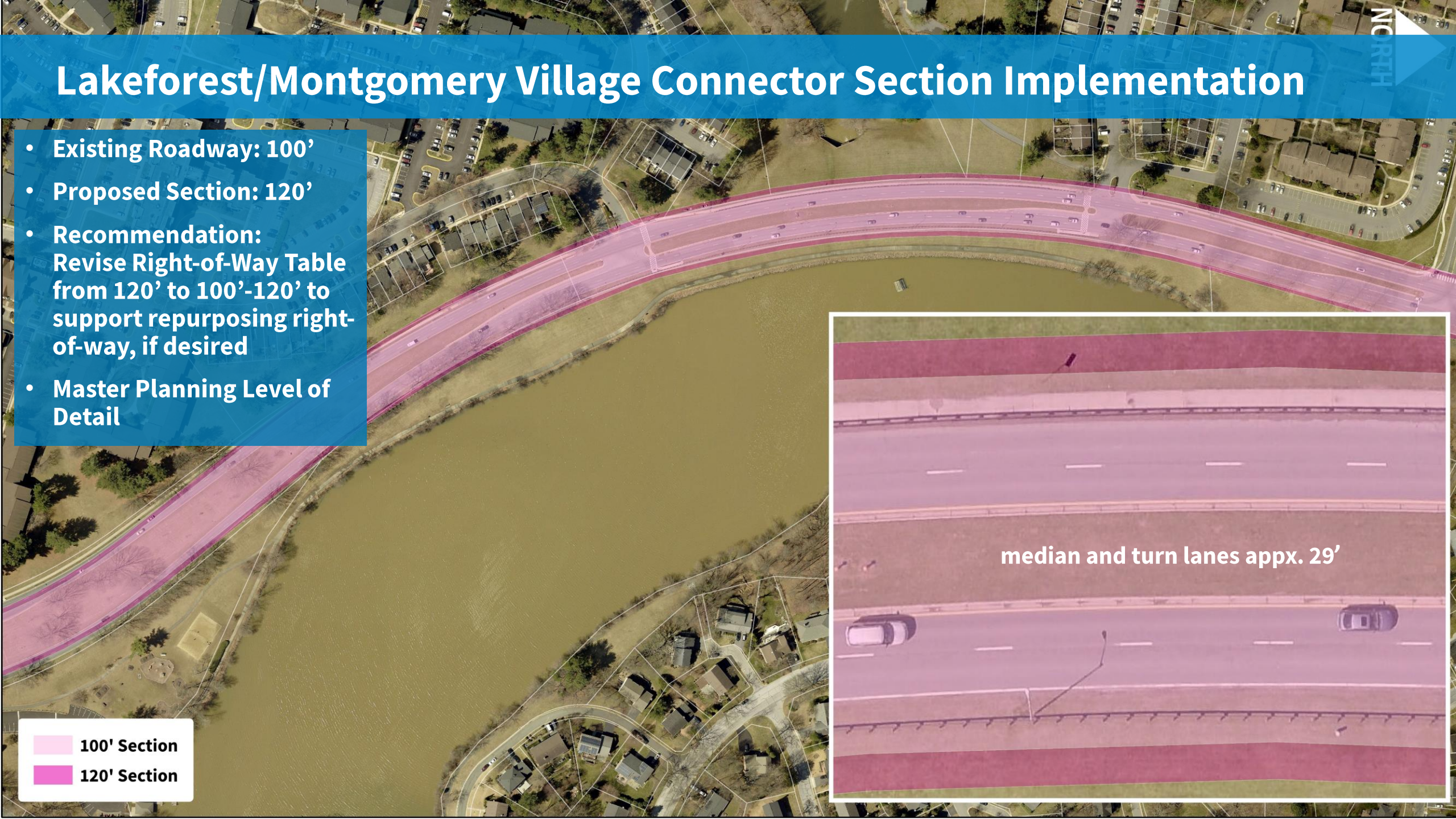
- 1 Dot = 1
- Households without Vehicles




Notes: 2015 American Community Survey Block Groups; dots are randomly distributed within respondents' reported census block geographies and do not reflect respondents' actual locations.

Lakeforest/Montgomery Village Connector Section Implementation

- Existing Roadway: 100'
- Proposed Section: 120'
- Recommendation: Revise Right-of-Way Table from 120' to 100'-120' to support repurposing right-of-way, if desired
- Master Planning Level of Detail



100' Section
120' Section



median and turn lanes appx. 29'

V. Near-Term and Long-Term

Near-Term and Long-Term – Revised Nomenclature Options

- **Gaithersburg and State Highway Administration:** What do near-term and long-term imply? Consider providing concrete timing directly in the Plan.

Recommended Addition to Abstract (Attachment 1 Page 2): Corridor Forward is a functional master plan that looks ahead 25 years from the date of adoption. Incremental implementation of the Plan's near-term recommendations and pursuit of actions to advance the long-term vision are envisioned over the Plan's horizon.

VI. RideOn Reimagined Study

Ride On Reimagined Study

- **Study Overview:** a comprehensive assessment of the bus network that will result in recommended changes to how transit operates in the county based on existing and future needs.
- **Data Analysis:** assessment of route structure, connectivity, span, and frequency of service through market research analysis, review of land use development, and anticipated technology advancements.
- **Engagement:** coordination with community leaders, activists, transit riders, and support organizations to gather feedback.

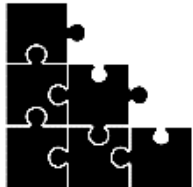

Based on the operations focus of the effort, and that it is already underway, staff does not recommend revisions to Corridor Forward to address this study.

IV. Other Minor Edits

Addressing Transit Layover Needs & Joint Development

Comment from WMATA: These proposed BRT routes are important to advancing the county’s land use goals at the Shady Grove and Rockville Metrorail stations... the transit facilities may need to be reconfigured to support the BRT services, which...may require additional space and reduce the land area that could be available for development.

Recommendations to Support Transit Access and Connectivity (Table 16 – Attachment 1 Page 47)

Recommendation	County Actions	Priority	Champion
<p>Update relevant land use plans and guidelines to support master planned transit facilities.</p>	<p>A. Update master plans and sector plans, including but not limited to the Great Seneca Science Corridor Master Plan, the Germantown Sector Plan, and the MARC Rail Communities Plan, in support of incentivizing compact, transit-oriented development patterns.</p> <p>B. Identify and zone the locations of transit operations and maintenance facilities for the recommended transit network and integrate recommended locations for these needs into applicable plan’s land use vision.</p> <p><u>C. Prioritize use of land at existing and master planned stations for transit-oriented development, minimizing space dedicated to bus storage and layover.</u></p>		

General and/or Minor Changes

- **Recommended Addition to Executive Summary (Attachment 1 Page 6) – Added footnote to table acknowledging municipal jurisdiction (Gaithersburg)**

Some recommendations contained in this Plan could require inter-jurisdictional cooperation, as the boundaries of that portion of the Regional District within Montgomery County are prescribed in the Land Use Article of the Annotated Code of Maryland.

General and/or Minor Changes

- **Recommended Addition to beginning of Chapter 4 to acknowledge organization of chapter and recommendations (Attachment 1 Page 21)** (Gaithersburg)

This chapter provides information and insight regarding the performance of the six options that advanced for further technical analysis. Three of the six options—the Corridor Cities Transitway, the Managed Lanes Enhanced Commuter Bus, and the Red Line Extension—demonstrated merit, warranting inclusion in further Plan analyses. Montgomery Planning further examined components of these three options as larger networks. This chapter includes recommendations related to the three services that were not included in the Plan’s network studies, which include Enhanced MARC Rail, a New Frederick Rail Connection, and the Purple Line Extension. Each of these options offers long-term benefits and may warrant implementation following the build-out of the prioritized network.

General and/or Minor Changes

- **Chapter 6 – Recommended Revision to “Advancing the Near-Term Dedicated Bus Lanes” section to clarify supporting use of Connectors (Attachment 1 Page 51) (Gaithersburg)**

If and when the state advances the managed lanes project north of I-370, advocate for access points at ~~Gude Drive, MD 124, and MD 118~~ or alternate locations that support ~~access~~ connections to the Life Sciences Center, Montgomery Village/Lakeforest, and Germantown Town Center via the proposed Corridor Connectors.

Requested Action

- **Request approval of revisions as Planning Board Draft for transmittal to the County Council and the County Executive**

Contact Information

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