

CORRIDOR FORWARD

I-270 Transit Plan

July 29, 2021

Montgomery Planning



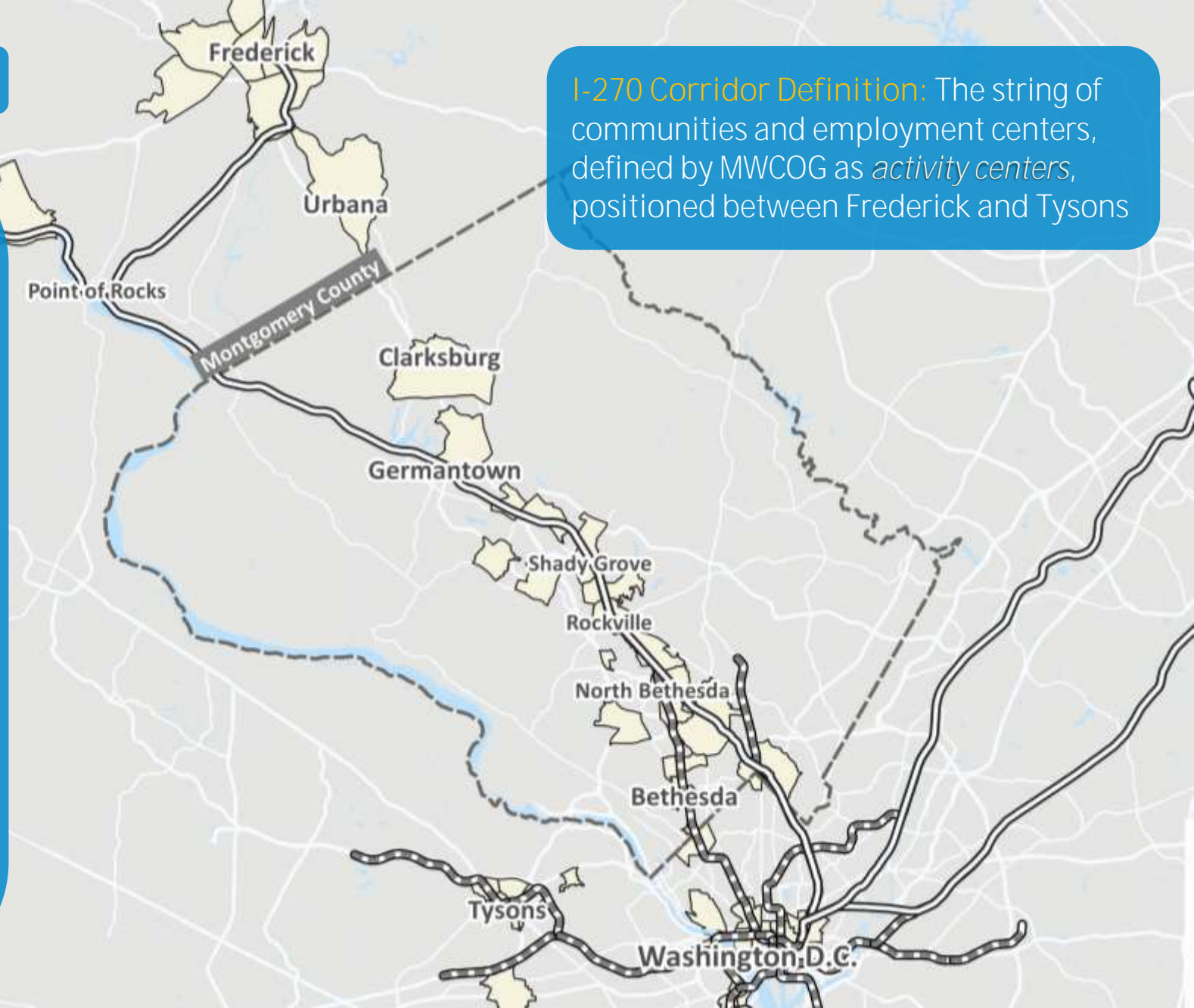
Planning Board Actions

1. Receive a detailed overview of the **transit options** advanced for study.
2. Confirm removal of the **Purple Line Extension** from the prioritization process.
3. Receive an overview of the **metrics** used for the evaluation.
4. Review and provide feedback/questions on **preliminary findings**.
5. Discuss potential **combinations of the six transit** options for additional evaluation.

Plan Overview

- **Council Direction:** “Analyze transit options serving communities along the I-270 Corridor between Frederick and Tysons”
- **Challenge:** Large menu of existing options, each serving different purposes and geographies:
 - existing master-planned options
 - existing options in the public sphere
 - new options under-development
- **Purpose:** Inventory, evaluate, and prioritize best package of options to inform future funding opportunities.

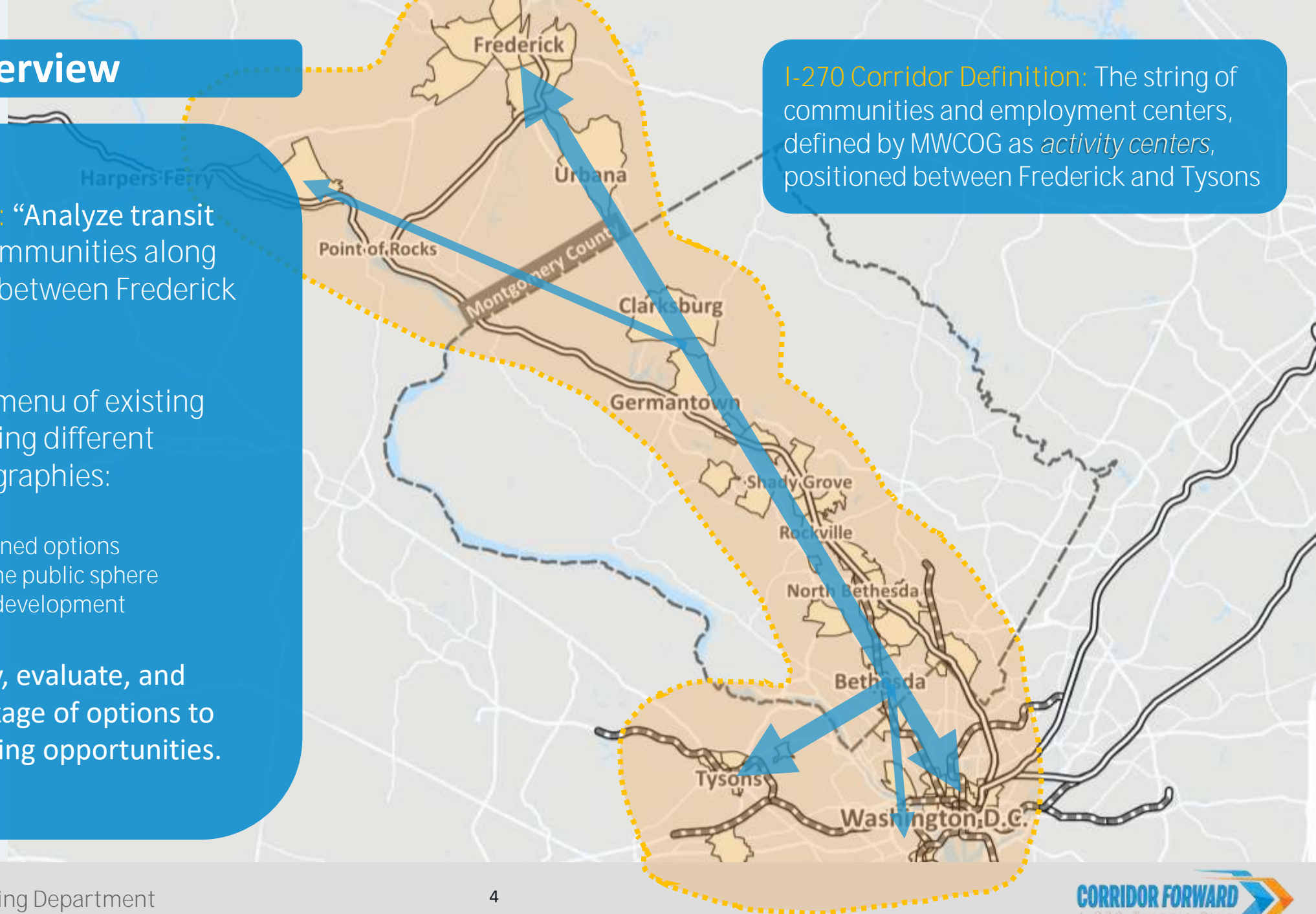
I-270 Corridor Definition: The string of communities and employment centers, defined by MWCOC as *activity centers*, positioned between Frederick and Tysons



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What's the plan approach?

Corridor Forward will:

- **Inventory** and compare mode characteristics
- **Inventory** up to 15 corridor transit options
- **Pre-screen** and retain six options per Planning Board direction
- **Develop** metrics and compare options
- **Prioritize** options and option packages based on metrics
- **Develop** an implementation plan

Pre-Screening:

- Travel Time
- Equity
- Job Access
- Population
- Growth Potential

We are here.

Master Plan to Implementation

County Functional
Plan or Master
Plan

Major: Inclusion in
Constrained Long-
Range Plan,
State/Local
Transportation
Improvement
Program

Minor: Inclusion in
County Capital
Improvement
Program

Major: National
Environmental
Protection Act
Process

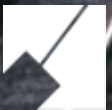
Minor: Facility
Planning

Design and
Engineering

Construction

Corridor Forward

Completed by Others



Retained Options Overview



Option A. Enhanced MARC Rail



Additional mainline track, storage capacity, and two master-planned stations



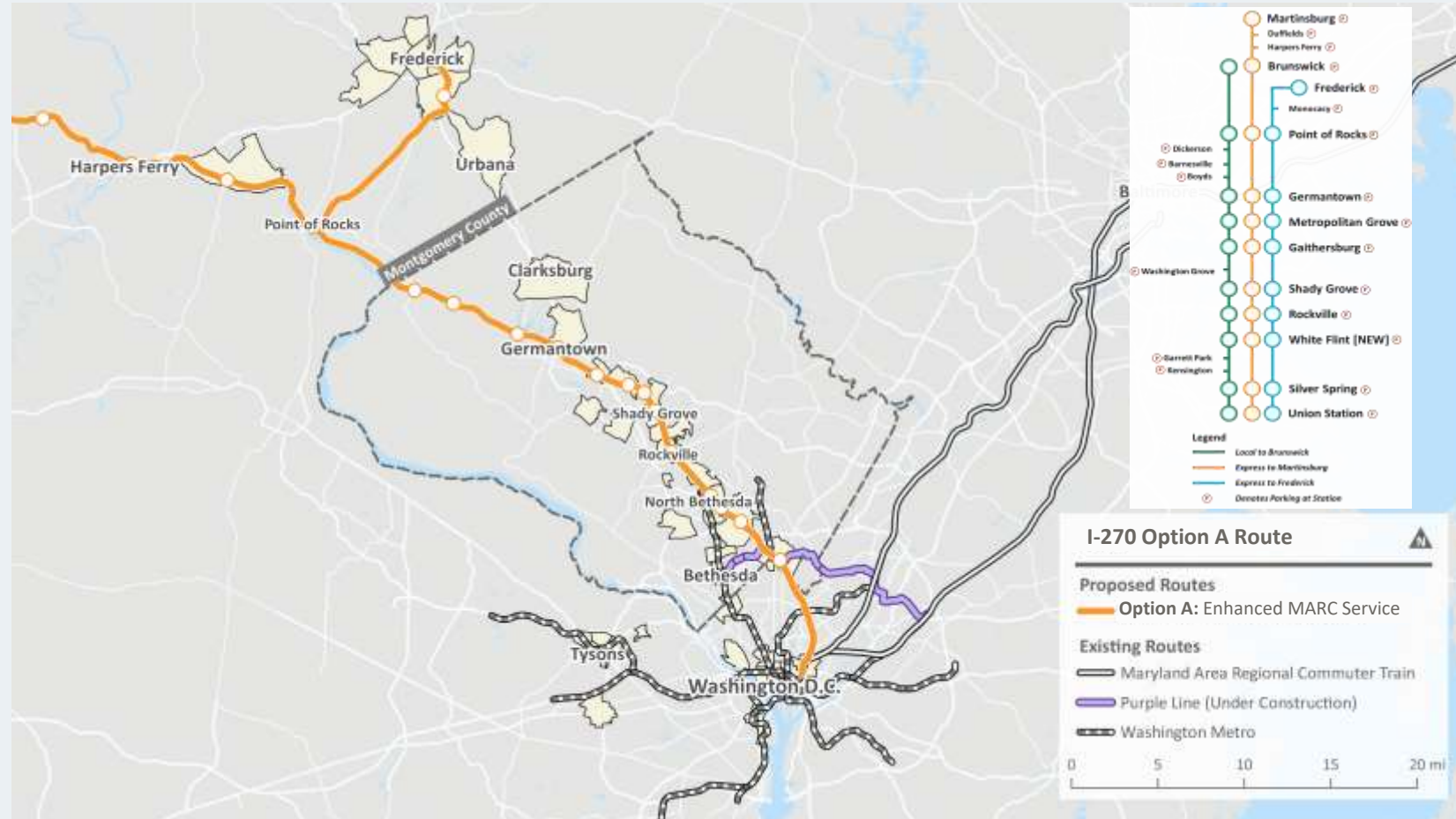
45 miles of new mainline track



Increased service with 15 minute peak period headways for major stations; hourly midday service



- Included in *Countywide Transit Corridors Functional Master Plan* (2013)
- Demonstrates potential of MTA MARC Rail *Cornerstone* (2018) investments
- Improvements currently under study by Greater Washington Partnership



Option B. Red Line Extension



A three-station extension of the Metrorail Red Line from Shady Grove to Germantown



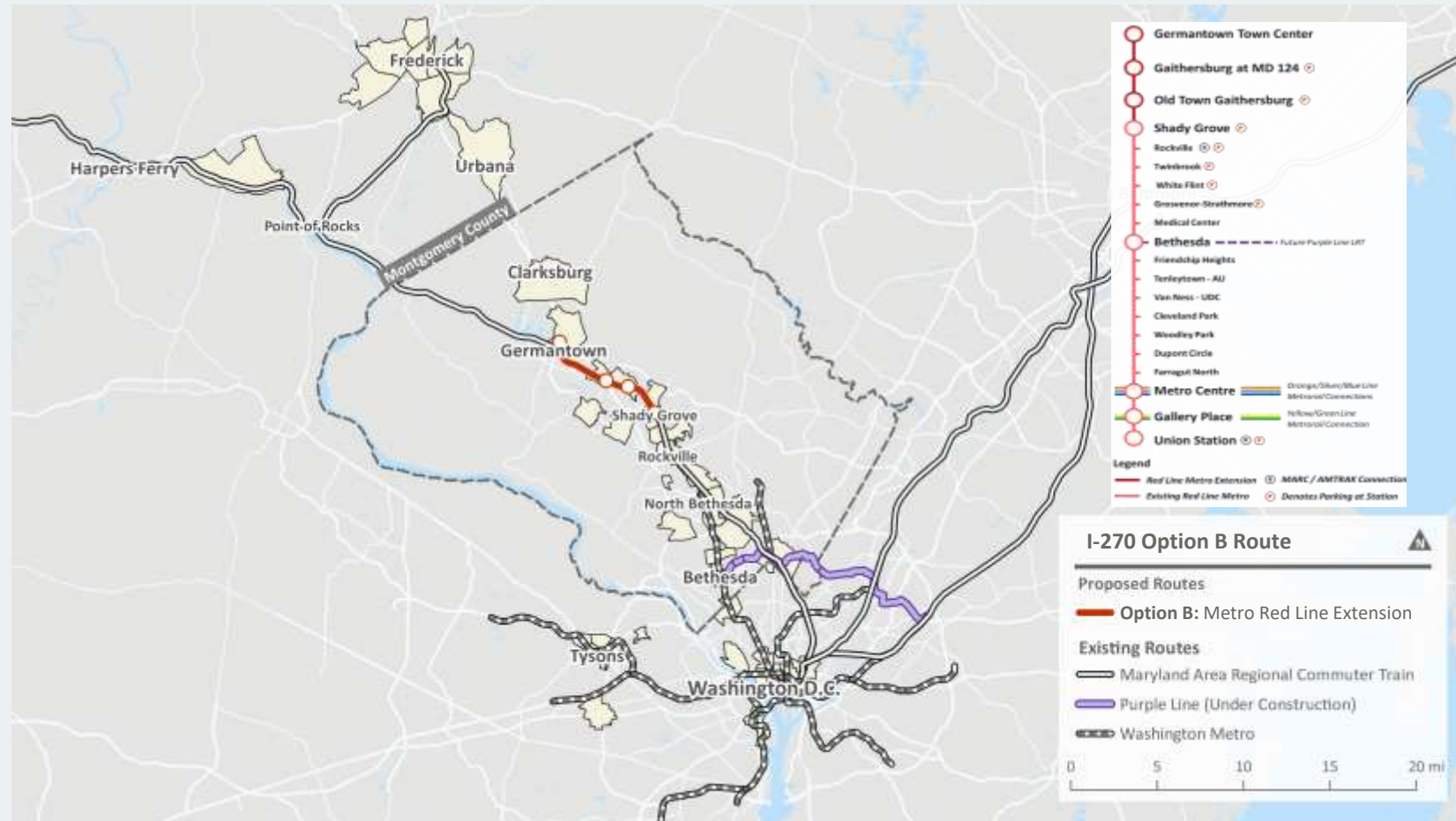
7.8 miles of new track



6-minute peak period headways, consistent with existing frequencies



- Most frequently requested improvement
- Studied by WMATA's *Connect Greater Washington* (2014 - not recommended)
- Increased emphasis on serving equity focus communities with premium transit



Option C. Corridor Cities Transitway



A BRT service with 17 planned stations connecting Shady Grove Metrorail Station, the Universities at Shady Grove, Metropolitan Grove, Germantown, and COMSAT



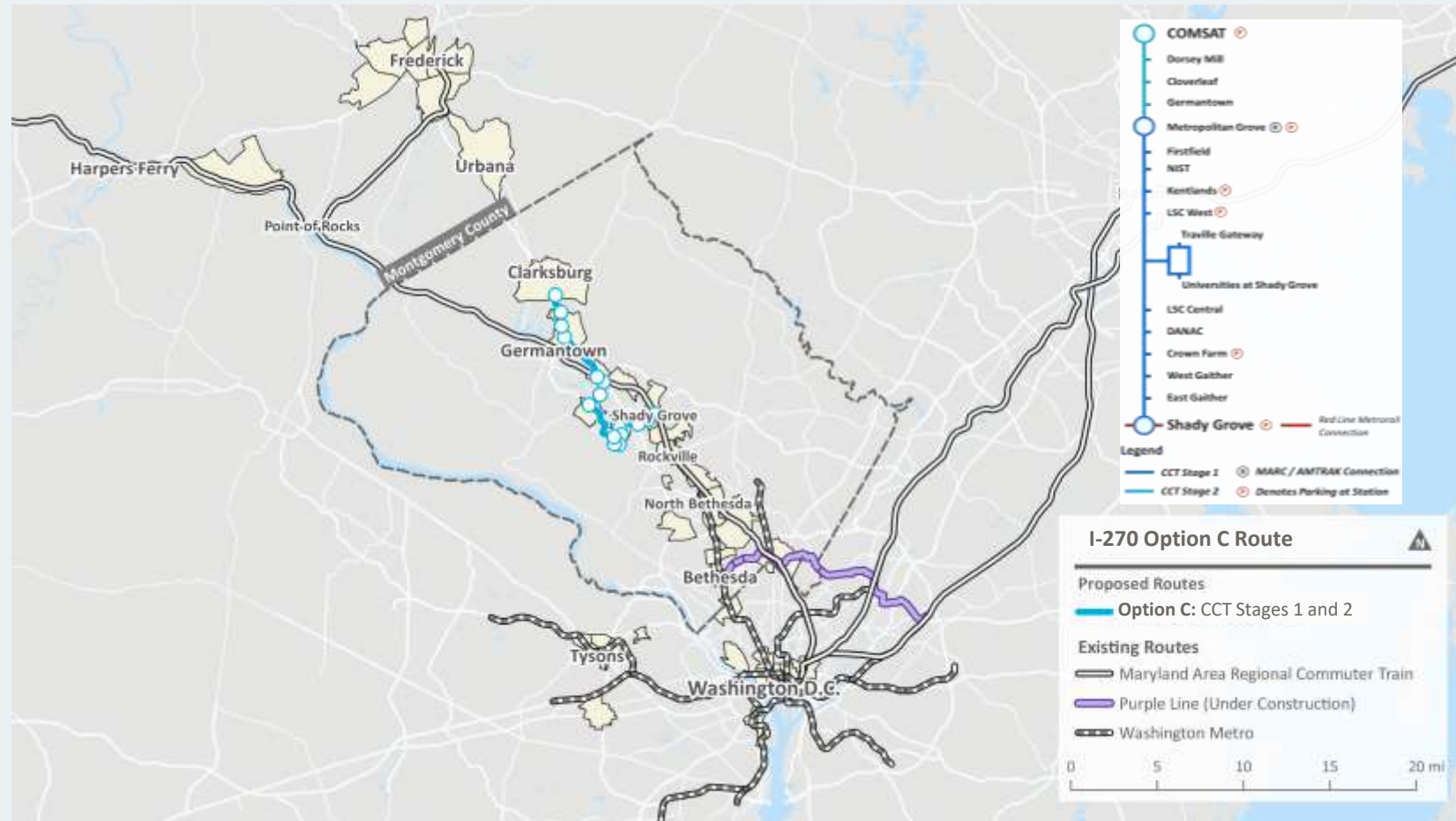
17 miles of transit routes



5-minute peak period headways



- Included in multiple Department master plans
- 30 percent design for majority of phase one complete
- Complements travel between I-270 corridor communities and employment centers; supports vision for the Life Sciences Center



Option D. Purple Line Extension



A further western extension of the current Purple Line from the terminus of Bethesda to Tysons in Fairfax, VA



11.6 miles of below-grade, at-grade and elevated track



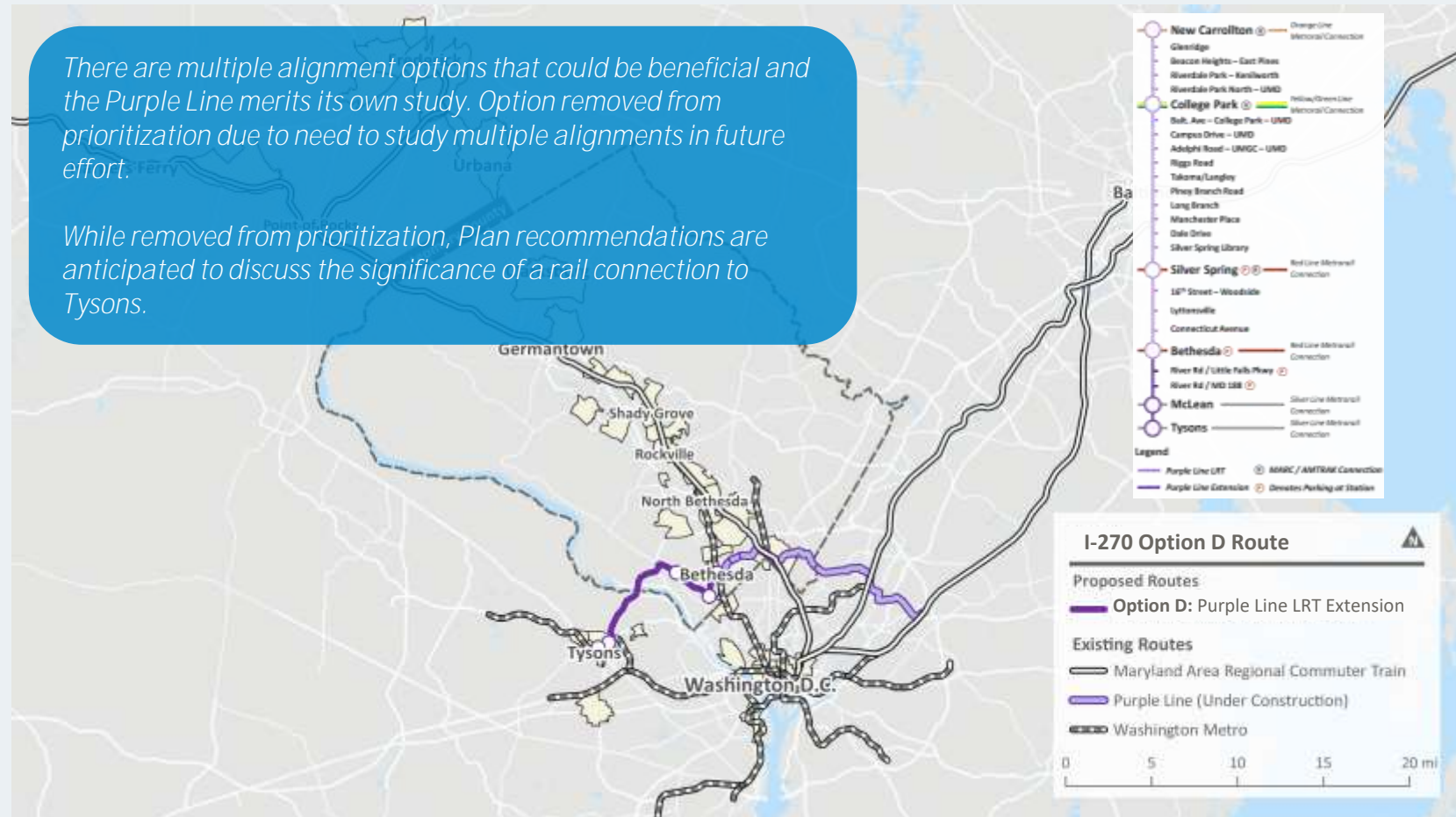
6-minute headways, consistent with planned frequencies for phase under construction



- Serves travel between Bethesda and Tysons, a high demand travel pair lacking direct premium service
- Frequently-requested

There are multiple alignment options that could be beneficial and the Purple Line merits its own study. Option removed from prioritization due to need to study multiple alignments in future effort.

While removed from prioritization, Plan recommendations are anticipated to discuss the significance of a rail connection to Tysons.



Option E. New Rail Extension to Frederick



Frequent rapid transit service between Shady Grove Metrorail Station and Downtown Frederick



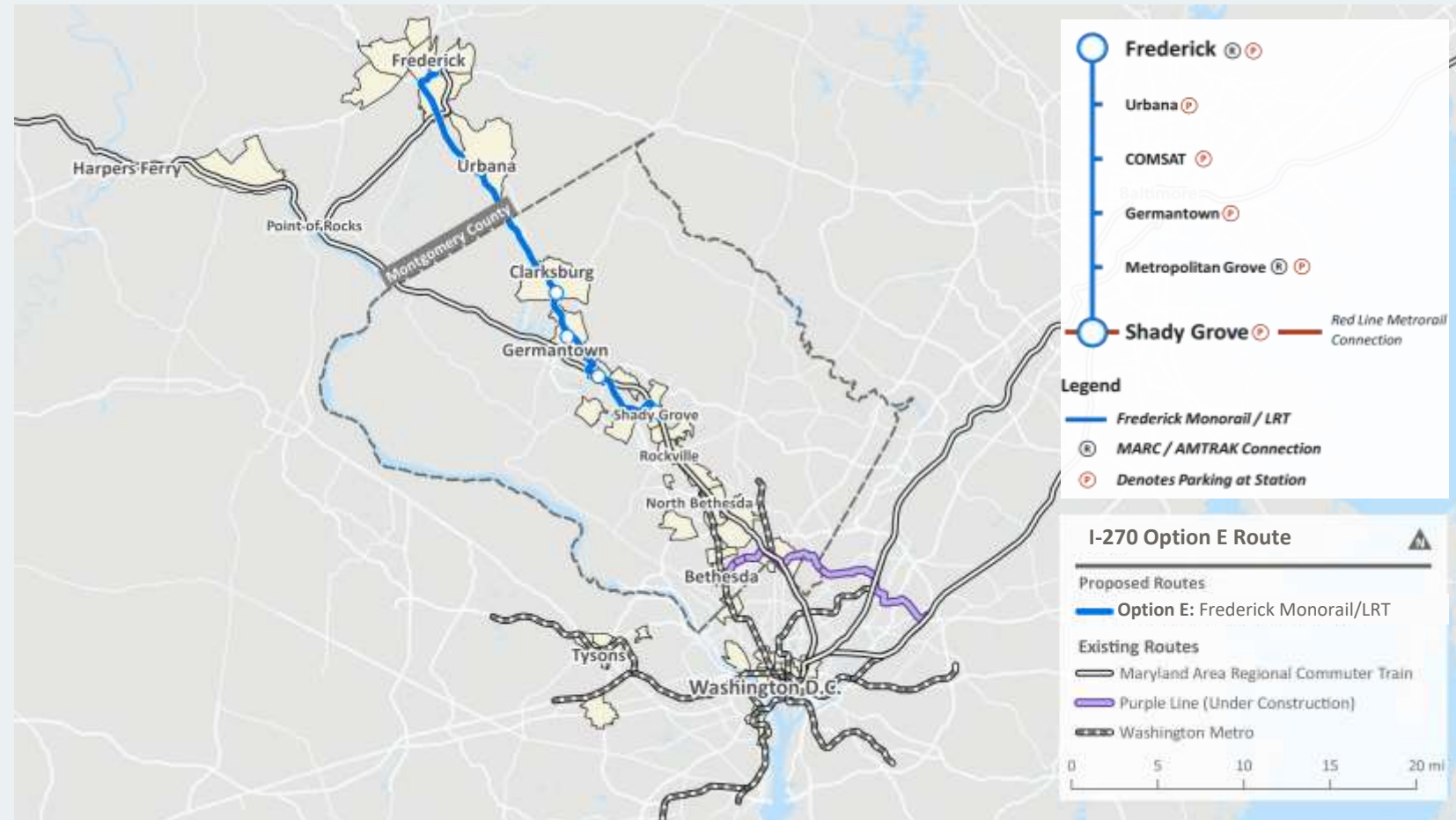
27.4 miles of track



6-minute headways, consistent with MDOT's Monorail Feasibility Study service plan



- Studied by High Road Foundation garnering significant advocacy
- Improves transit access to Shady Grove Metro from points in Frederick with more direct route



Option F. I-270 Corridor Bus Rapid Transit



A BRT service between Downtown Frederick and Tysons Corner, including four different Express and Local Service patterns



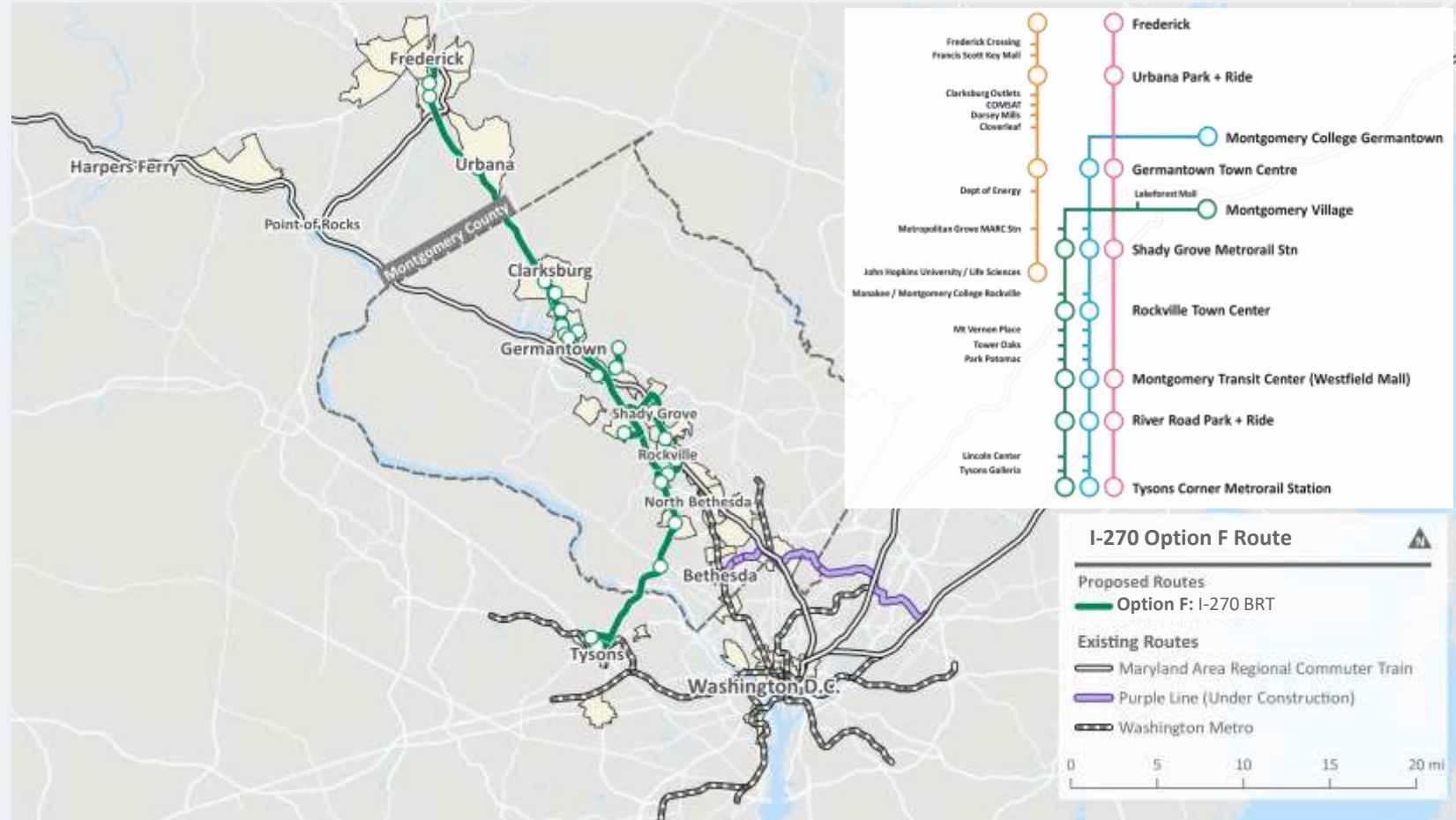
Generally managed lanes, with some off-highway dedicated service and some off highway mixed-traffic service



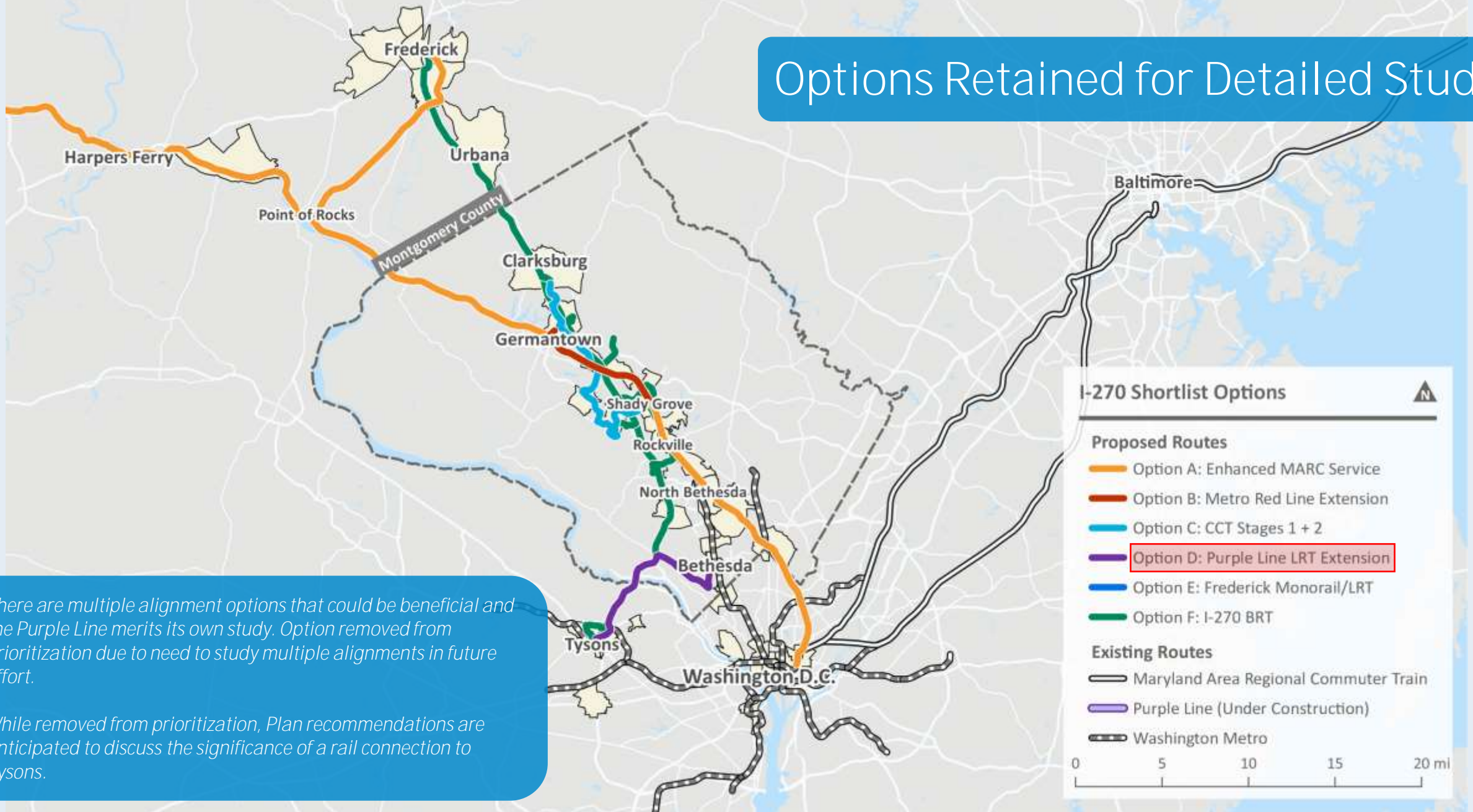
Service every 15-30 minutes in peak hours and 30-60 minutes in off-peak hours



- High-level study performed by Virginia's DRPT and Maryland's MTA
- Can be delivered in phases to provide expanded connectivity on the corridor
- Serves travel between Bethesda and Tysons, a high demand travel pair lacking direct premium service
- Improves transit access to Shady Grove Metro from points in Frederick with more direct route



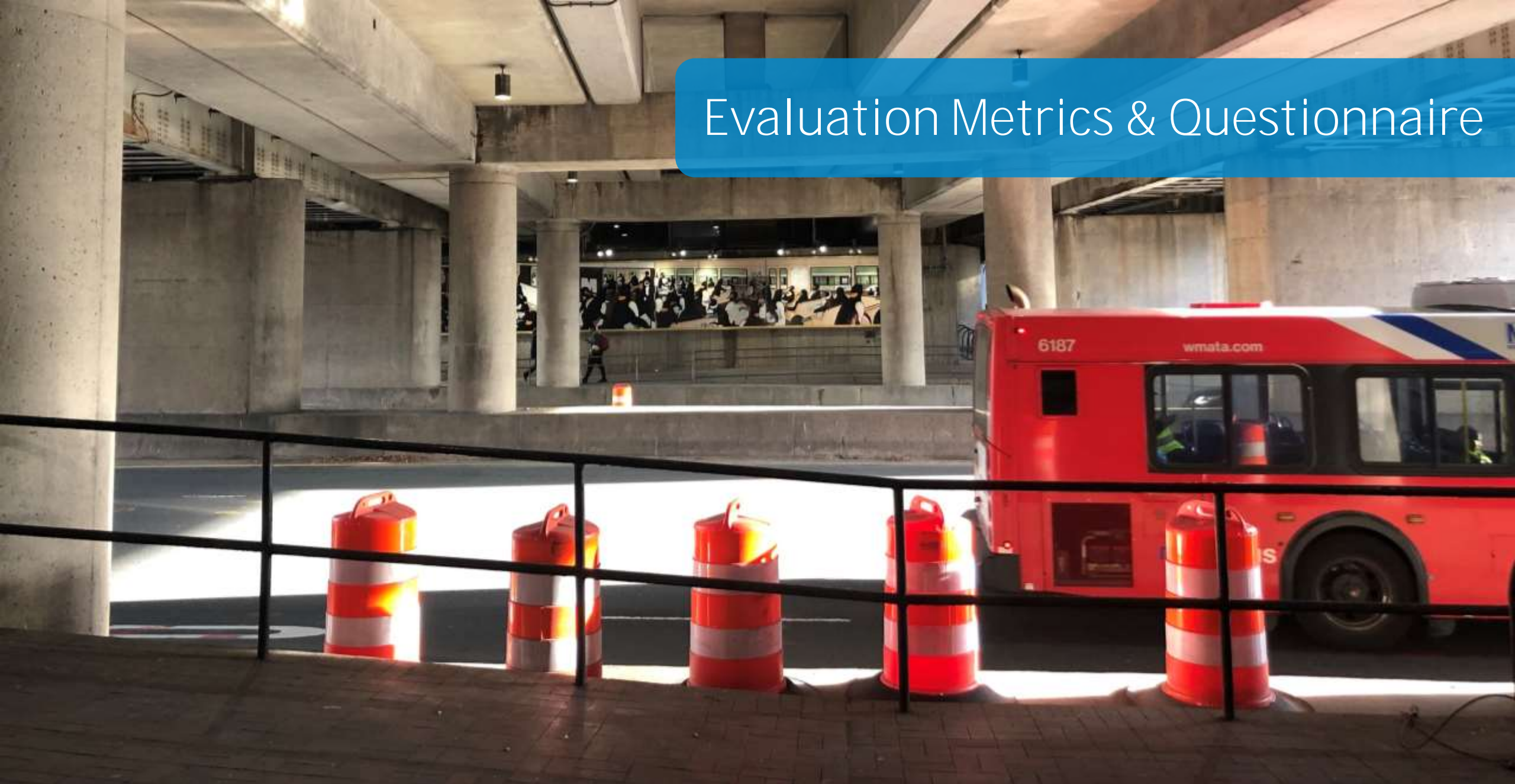
Options Retained for Detailed Study



There are multiple alignment options that could be beneficial and the Purple Line merits its own study. Option removed from prioritization due to need to study multiple alignments in future effort.

While removed from prioritization, Plan recommendations are anticipated to discuss the significance of a rail connection to Tysons.

Evaluation Metrics & Questionnaire



Evaluation Framework Overview

Four-dimensional evaluation framework:

1. Strategic

- Strategic Connections
- Equity
- Environmental Resilience
- Economic Health

2. Socio-Economic

3. Financial

4. Implementation

Strategic

- Does the option meet our strategic priorities for the County and region?
- *Focuses on: ridership, VMT reduction/environment, accessibility/travel time, and equity, key connections*

Socio-Economic

- Monetizes benefits of strategic dimension

Financial

- Operating costs
- Capital costs
- Other financial indicators

Implementation

- Approval complexity
- Funding complexity
- Operation assumptions
- Feasibility
- Negative impacts

Transit Values Questionnaire & Strategic/Implementation Dimension

- Respondents choose not to take transit because:
 - 37% - other options are more time-competitive
 - 28% - stops are not convenient
 - 11% - service is not reliable
- Respondents care more about transit options that provide travel times equal to or better than driving (62%) rather than options that relieve congestion (31%).
- Respondents want a balance between convenient access (50%) and short travel times between major stops (43%).

Transit Values Question

Ranking Immediate and Future Delivery of Plan Values:

Respondents' Higher Priorities:

- Realizing Near-Term Benefits
- Serving Existing Centers
- Serving Existing Equity Needs

Respondents' Lower Priorities:

- Realizing Long-Term Benefits
- Serving Areas Designated for Growth
- Grappling with Potential Displacement

Other Takeaways:

- Balance economic, environmental, and equity benefits to the greatest extent possible.

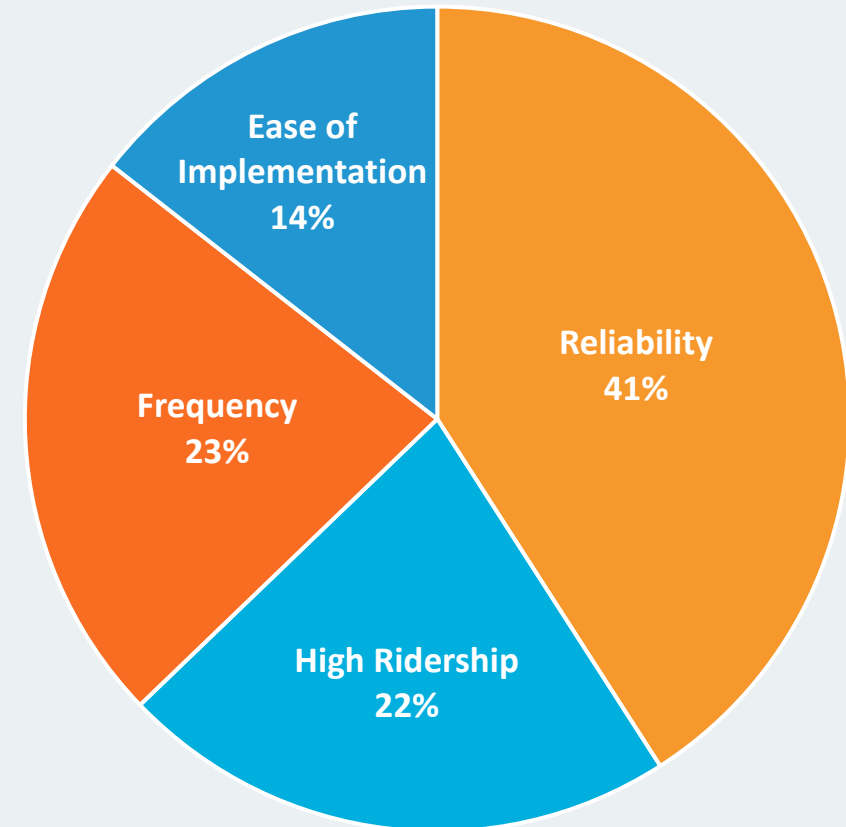
Note: results do not sum to 100 percent as "no preference" and lower performing responses are excluded.

Transit Values Questionnaire & Strategic/Implementation Dimension

Transit Characteristics: Trade-Offs

- Some retained options, like Red Line Extension, offer reliable and frequent service and generate high ridership, but are more challenging to implement due to engineering, cost, and political constraints.
- Some options are easier to implement, but may provide less frequent or reliable service, like the I-270 Corridor Bus Rapid Transit Option.
- Some options may prove to be both challenging to implement and only offer modest ridership gains. These options will be de-prioritized.

Questionnaire Responses



Transit Values Questionnaire General Takeaways

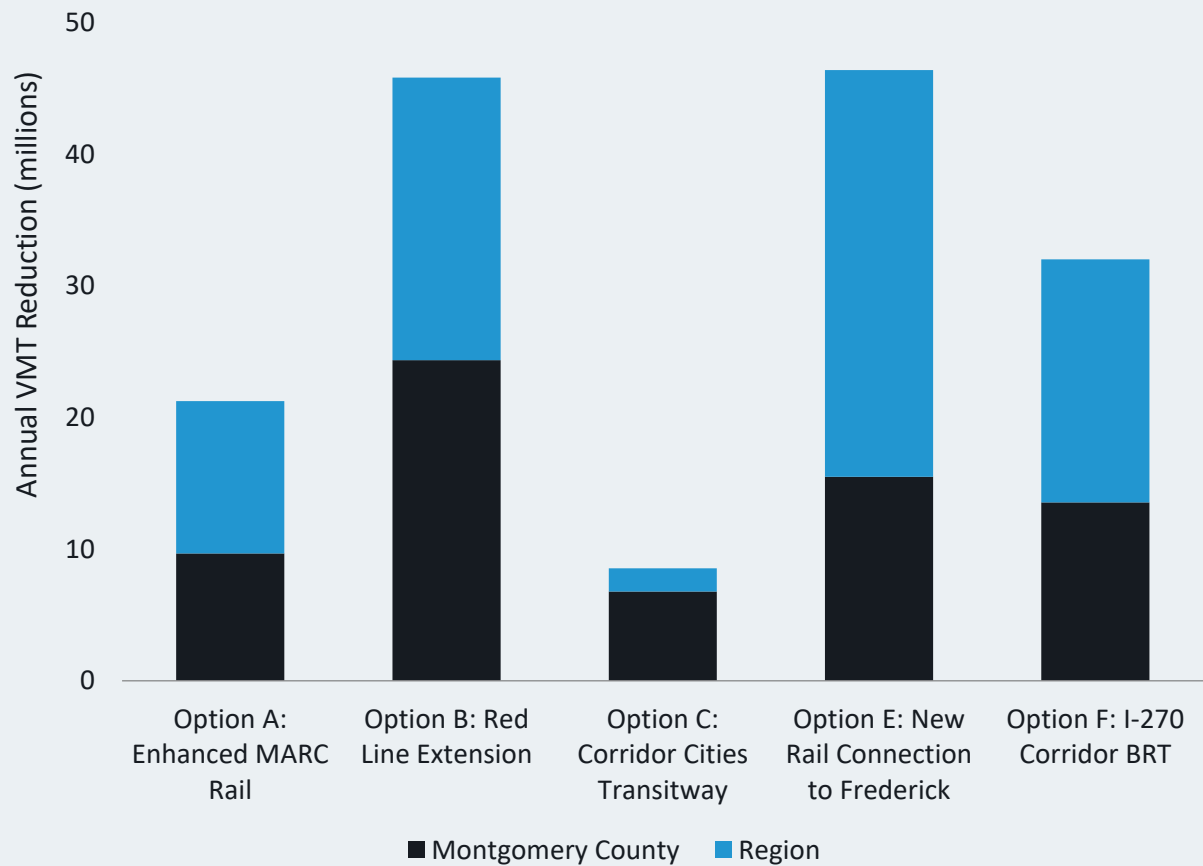
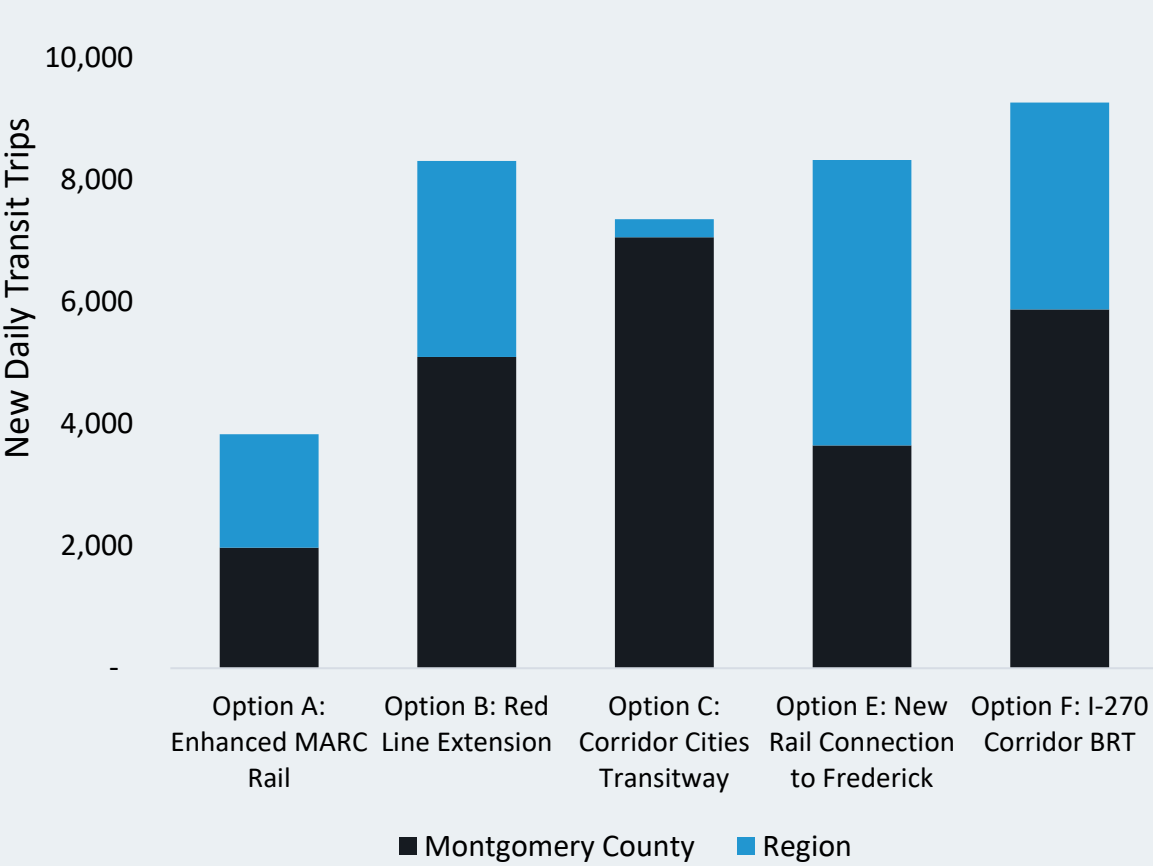
No single option can fully satisfy all preferences, as captured in the questionnaire. As such, staff proposes to prioritize **a package of corridor transit options** that consider the following feedback from the community:

- Advance high performing option(s) despite implementation challenges: acknowledge a long-term horizon
- Prioritize service for existing centers of demand and marginalized communities: focus less on areas slated for growth
- Balance local access with efficient travel
- Focus more on improving transit travel times and less on reducing congestion: **prioritize transit that best serves transit riders rather than transit that supports automobile drivers**

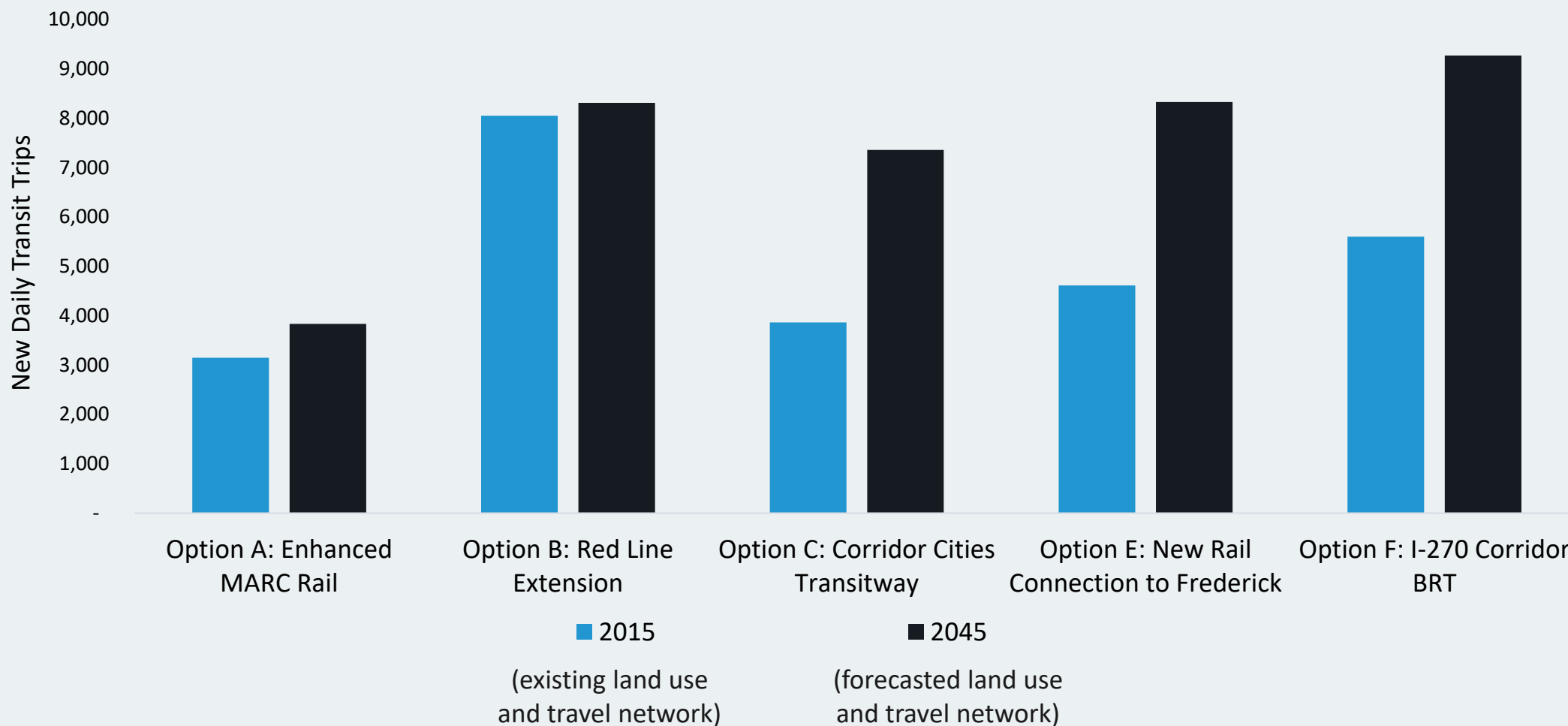
An aerial photograph of a high-speed train traveling along a track. The train is silver with large red cooling fans visible on its roof. The tracks are flanked by lush green vegetation. A blue rectangular box is overlaid on the upper right portion of the image, containing the text 'Preliminary Findings' in white.

Preliminary Findings

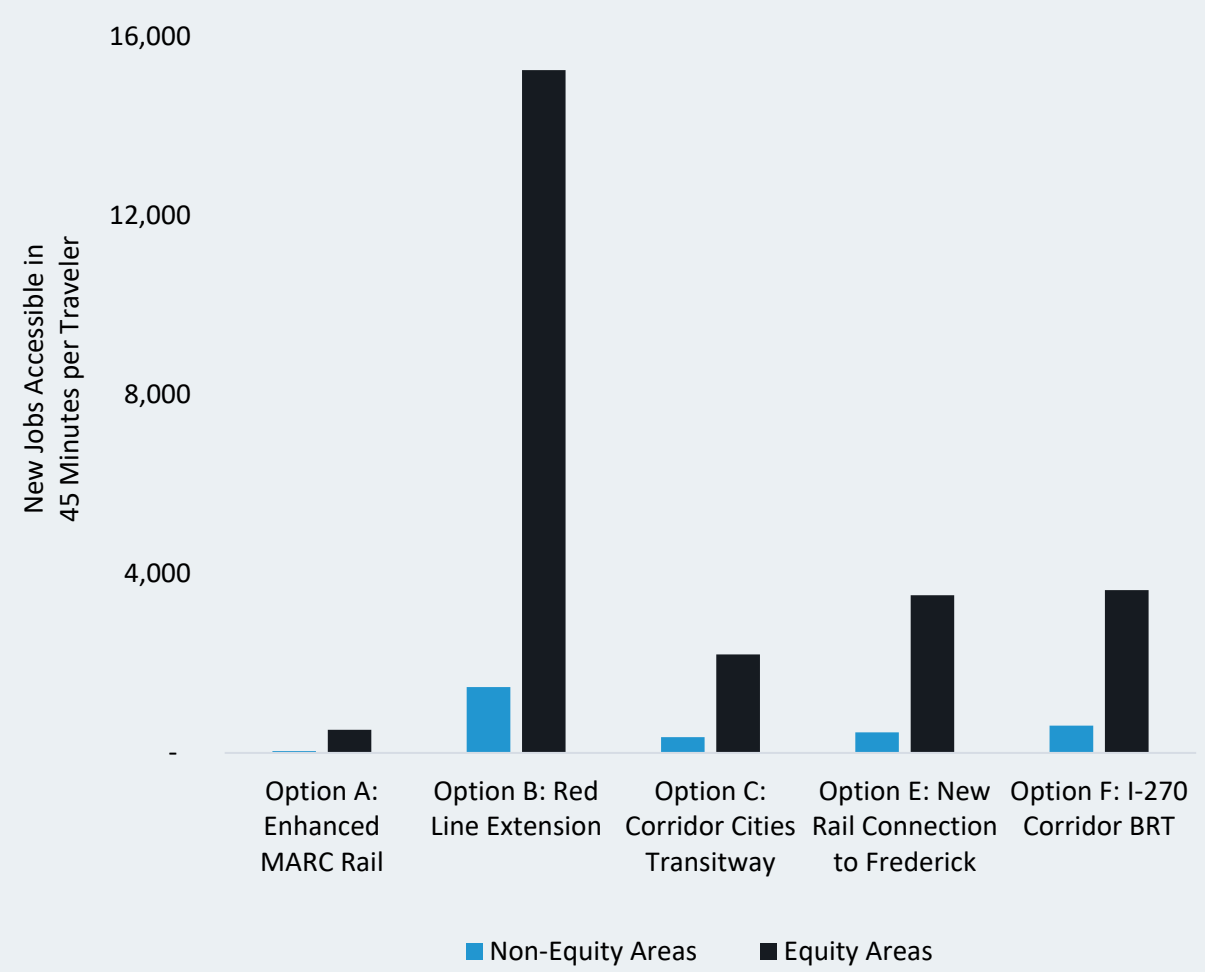
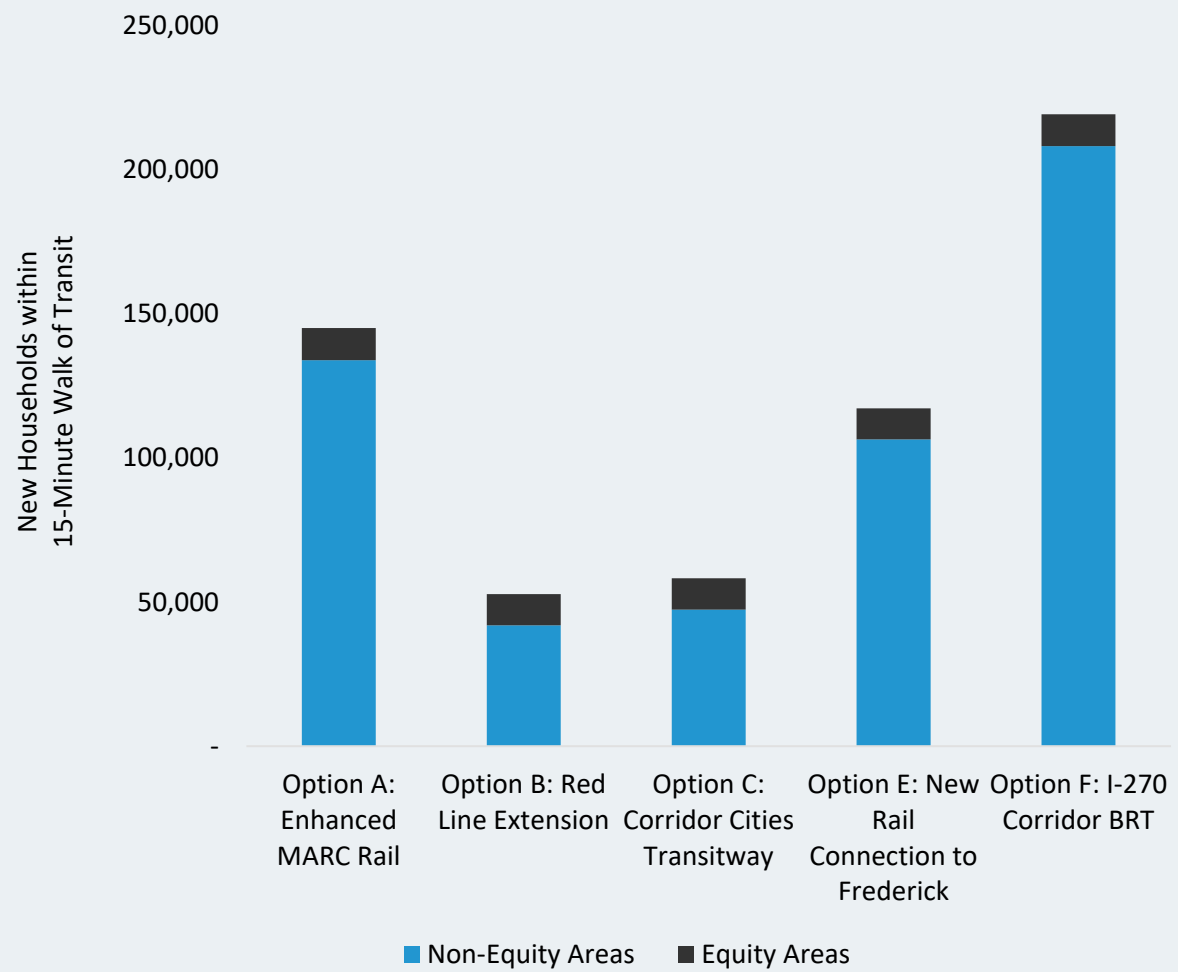
Strategic Dimension: Ridership and Vehicle Miles Traveled



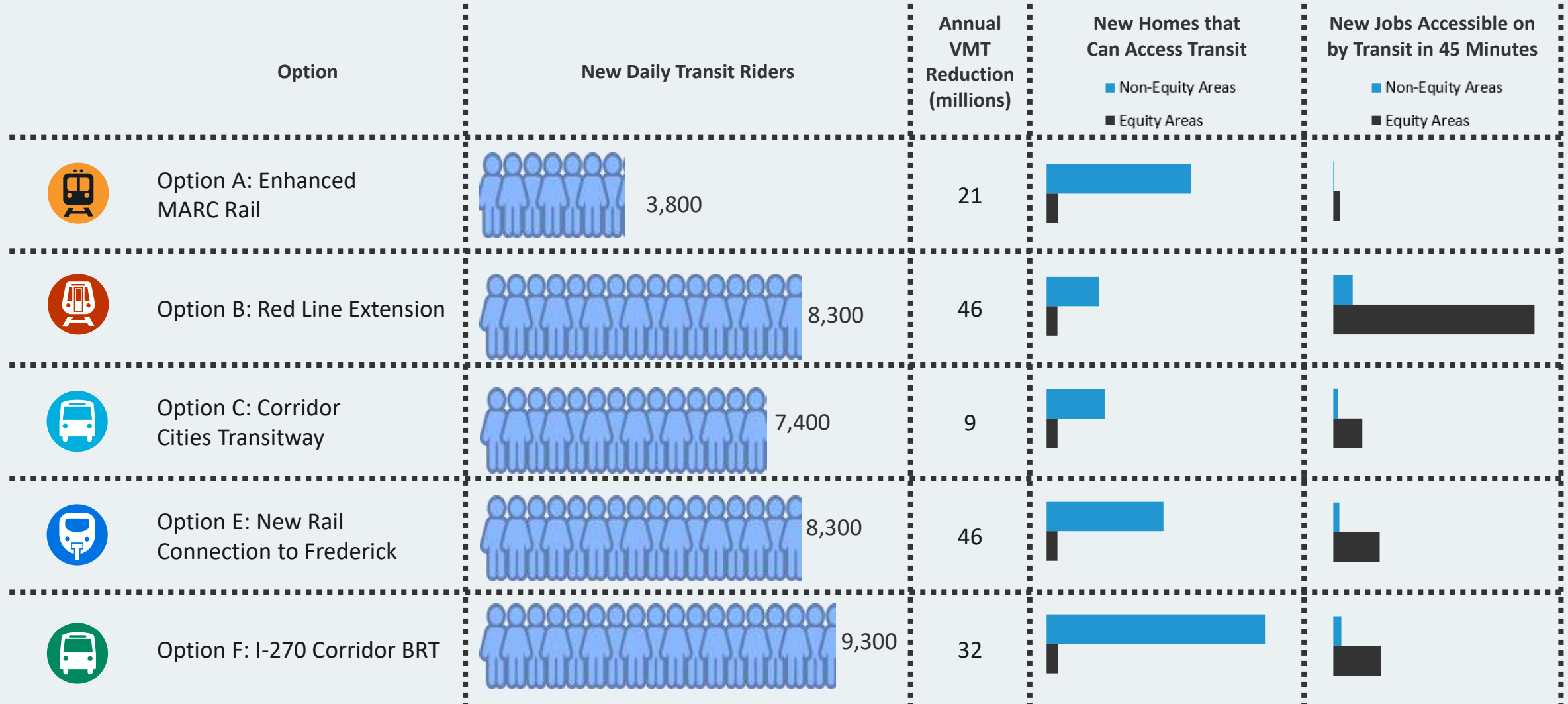
Strategic Dimension: Understanding the Role of Land Use



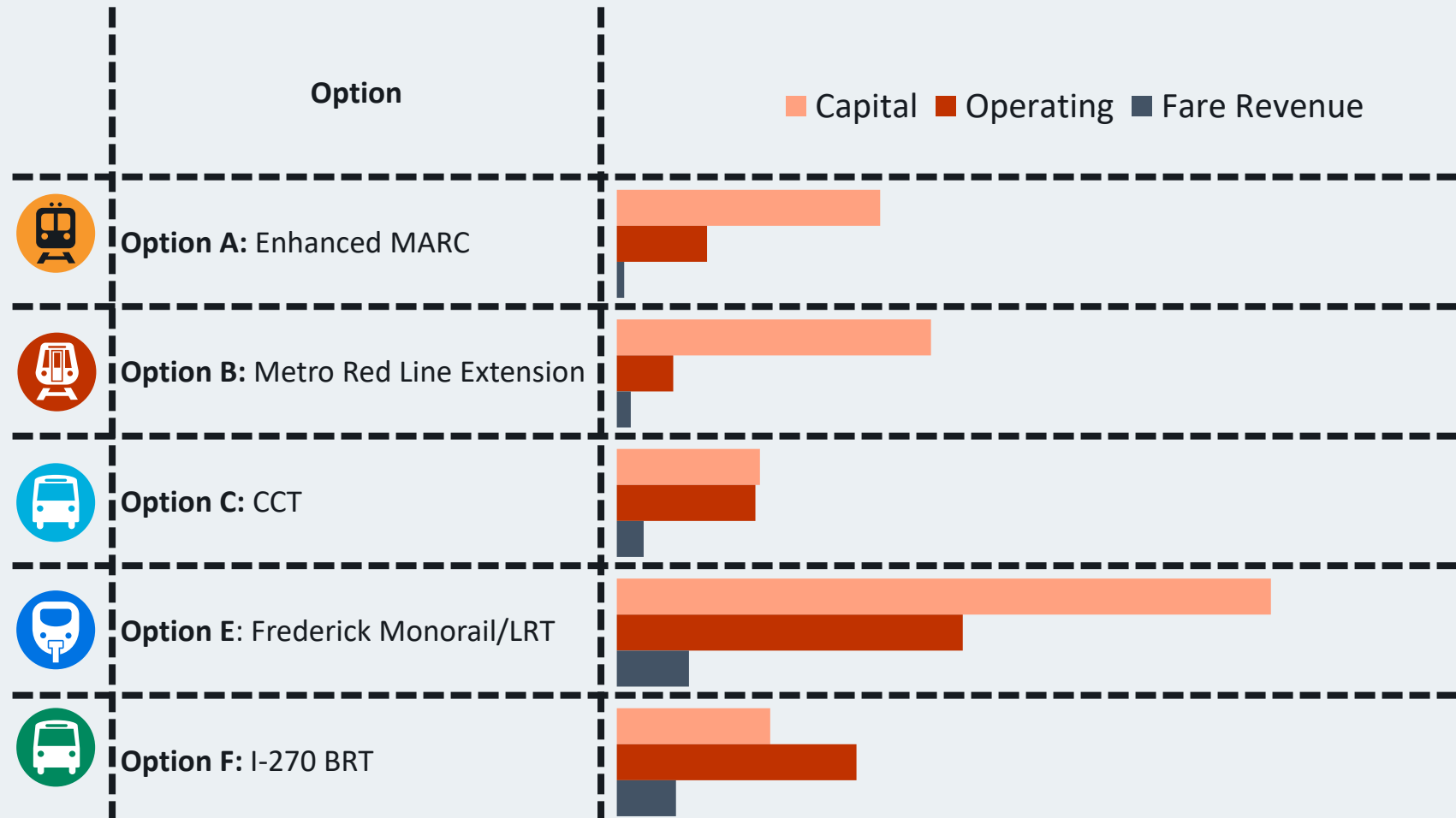
Strategic Dimension: Accessibility



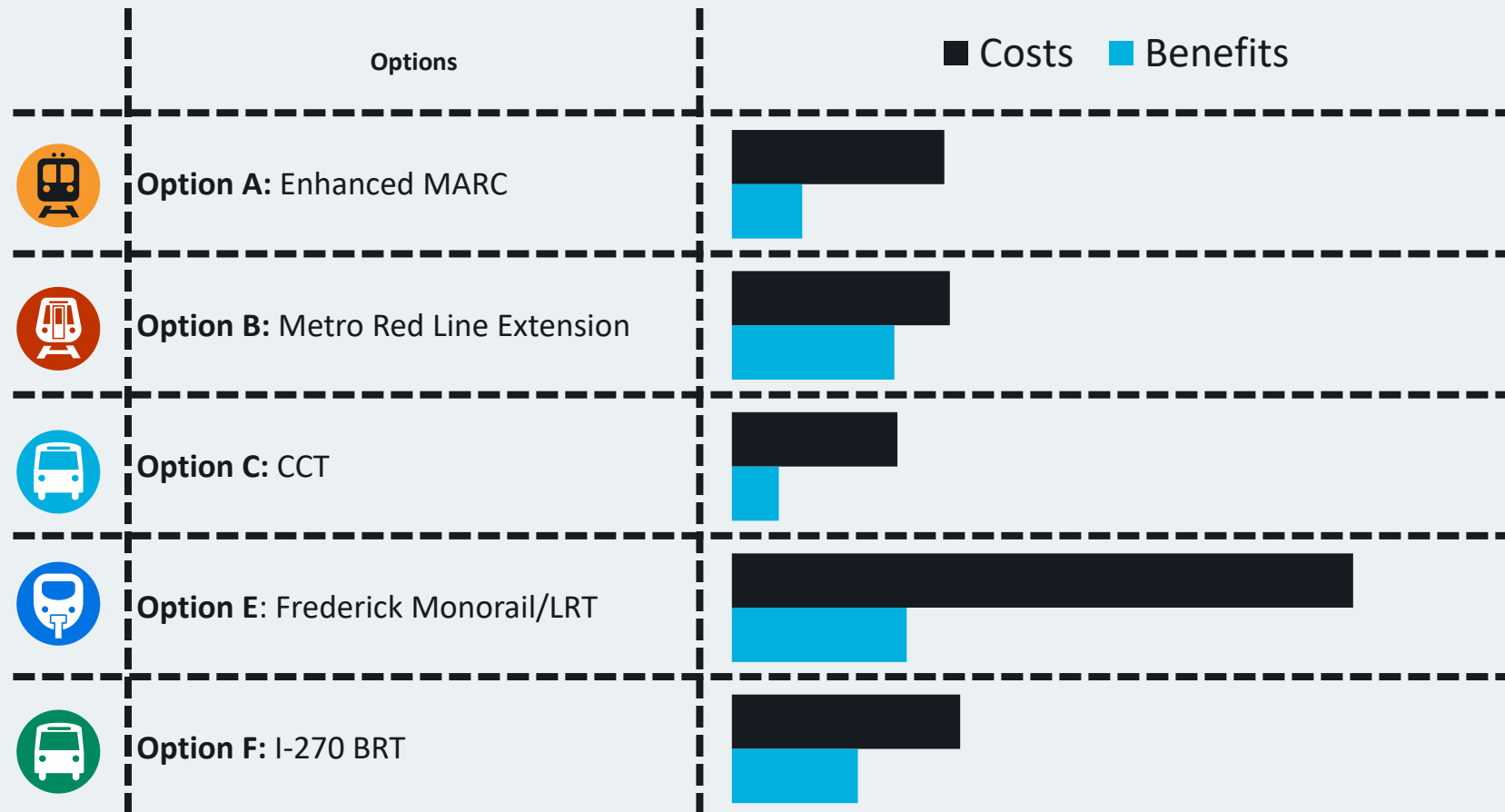
Strategic Dimension: Preliminary Findings Dashboard








Financial Dimension: Emerging Findings



Economic Dimension: Emerging Findings



Implementation Dimension: Emerging Findings

Option Delivery Risks	Overall Assessment	Roles & Resp.	Decision-Making	Feasibility Assessment	Operating Model	Negative Impacts
 Enhanced MARC Rail	MODERATE-HIGH RISK	HIGH RISK	HIGH RISK	MODERATE RISK	LOW RISK	HIGH RISK
 Red Line Extension	MODERATE-HIGH RISK	HIGH RISK	HIGH RISK	HIGH RISK	LOW RISK	LOW-MODERATE RISK
 Corridor Cities Transitway	LOW-MODERATE RISK	LOW-MODERATE RISK	MODERATE RISK	MODERATE RISK	LOW RISK	LOW-MODERATE RISK
 New Rail Extension to Frederick	MODERATE RISK	MODERATE RISK	MODERATE RISK	MODERATE-HIGH RISK	MODERATE RISK	LOW-MODERATE RISK
 I-270 Corridor Bus Rapid Transit	LOW-MODERATE RISK	MODERATE RISK	LOW-MODERATE RISK	MODERATE RISK	LOW RISK	LOW RISK

Potential Network Packages

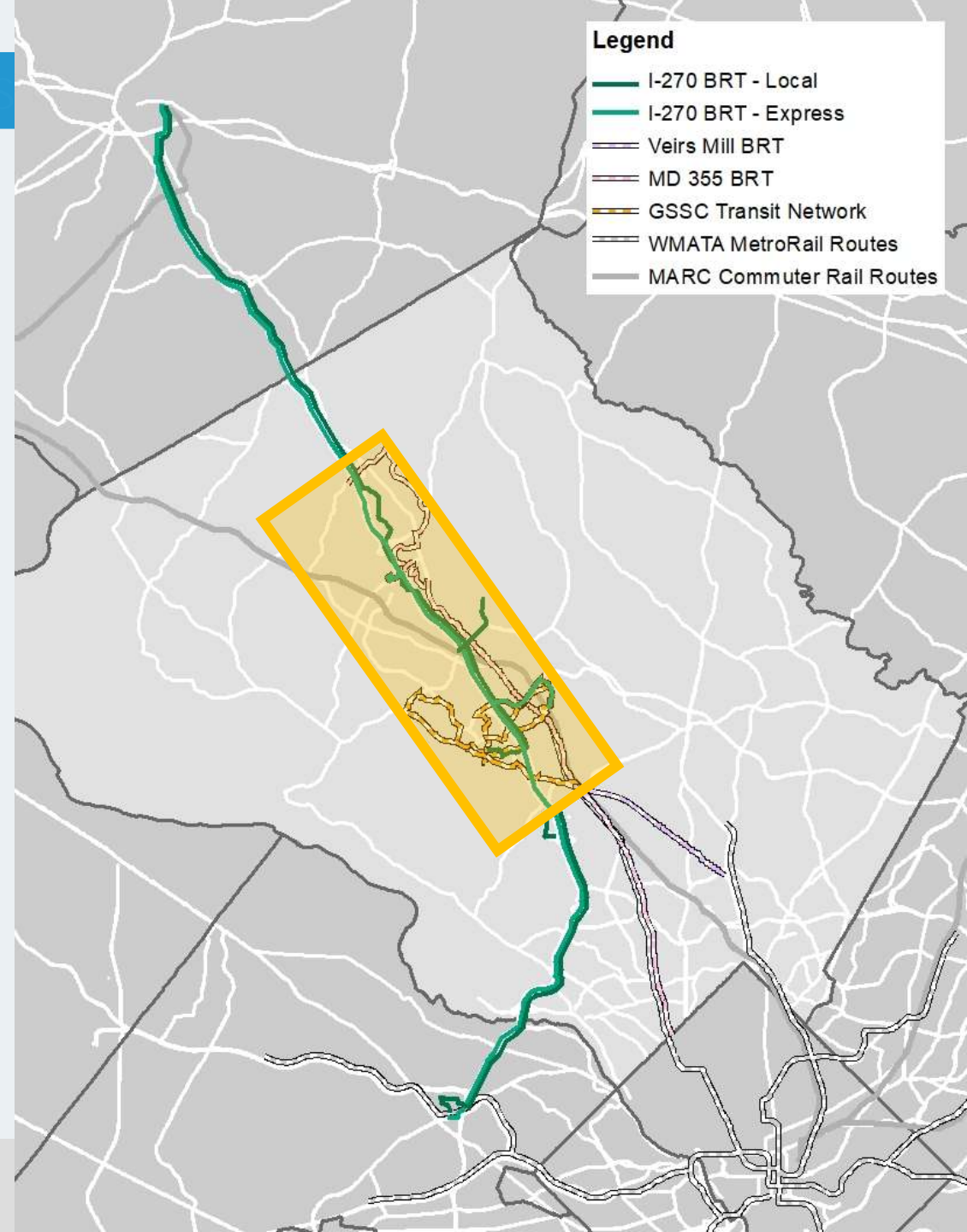


Potential Network Packages

- Network packages test performance of combinations of transit for further evaluation
- Network packages will inform preliminary recommendations, anticipated in Fall 2021
- All packages address the following needs:
 - Regional connections to Frederick and Northern Virginia
 - Local connections within and to centers of activity, including the Life Sciences Center (LSC)
 - Service connections to originally envisioned CCT Phase II Communities

Connections to Montgomery County

- All network packages include connections to **Frederick and Northern Virginia** via express and local BRT service along I-270
- Differences in network packages generally focus on the corridor between **Clarksburg and Rockville**



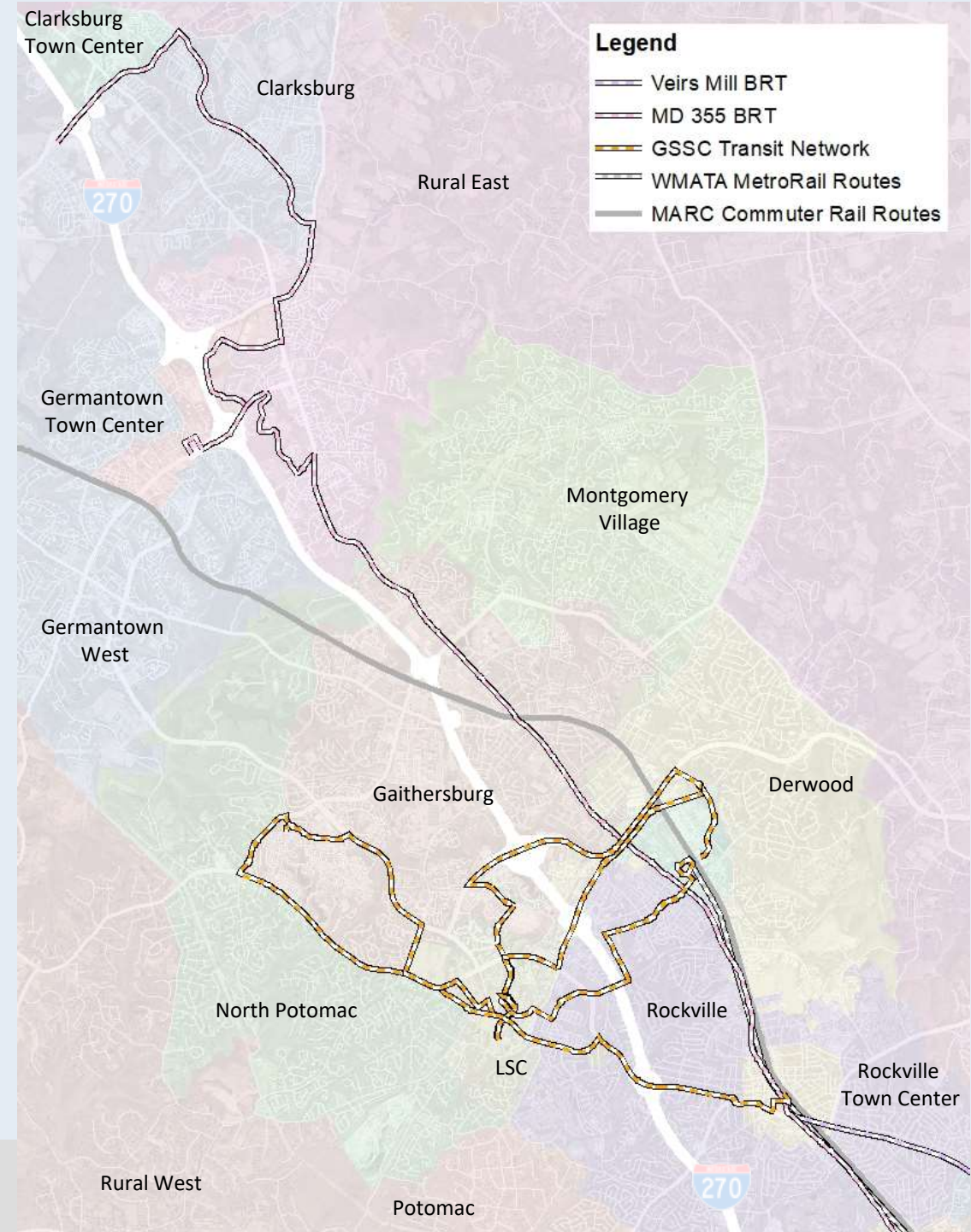
Existing and Planned Service

Existing Service

- MARC Commuter Rail
- WMATA Metrorail Red Line

Planned Service

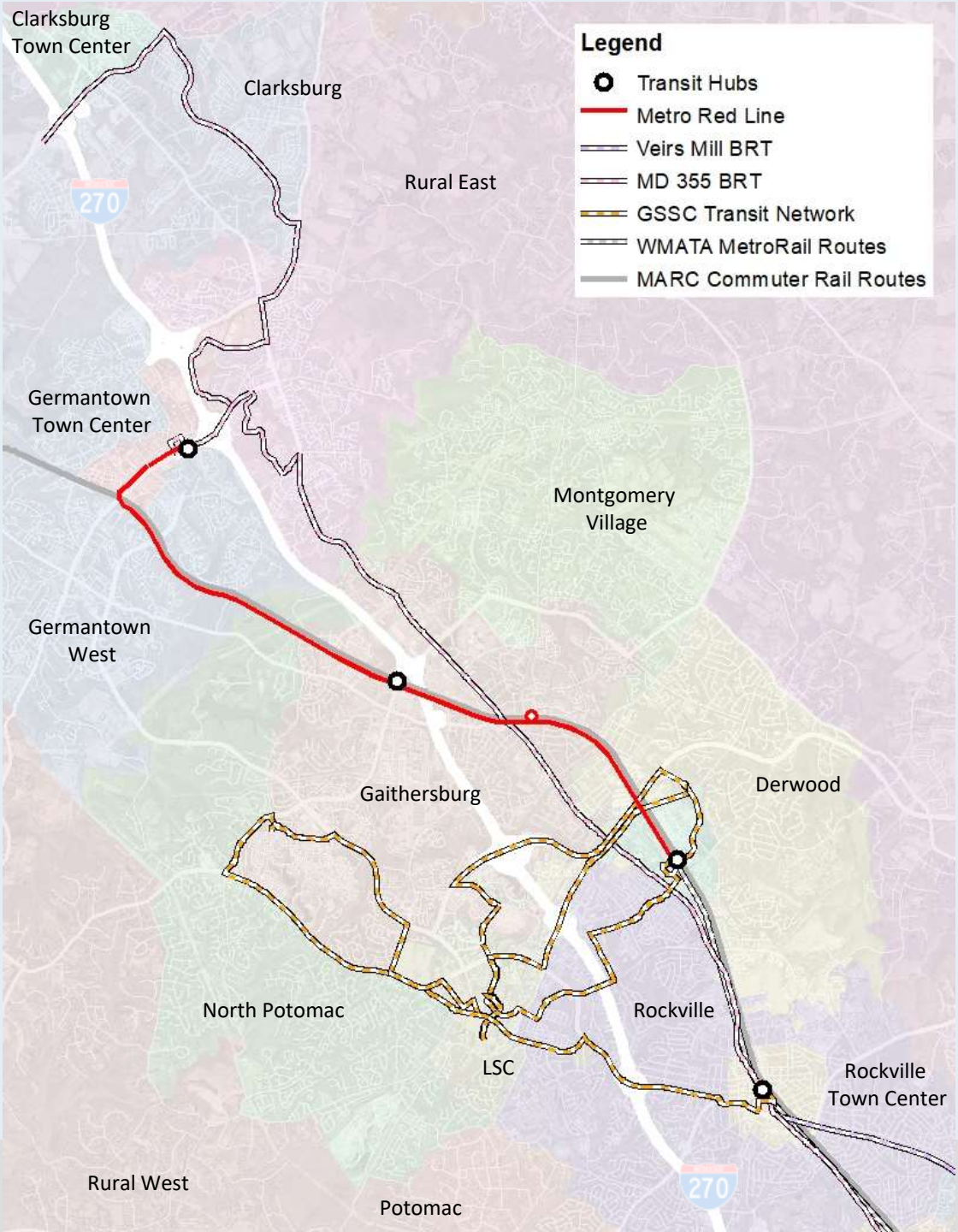
- MD 355 BRT
- Veirs Mill BRT
- GSSC Transit Network



Network Package #1

A. Red Line Extension

Efficient access to jobs and equity benefits



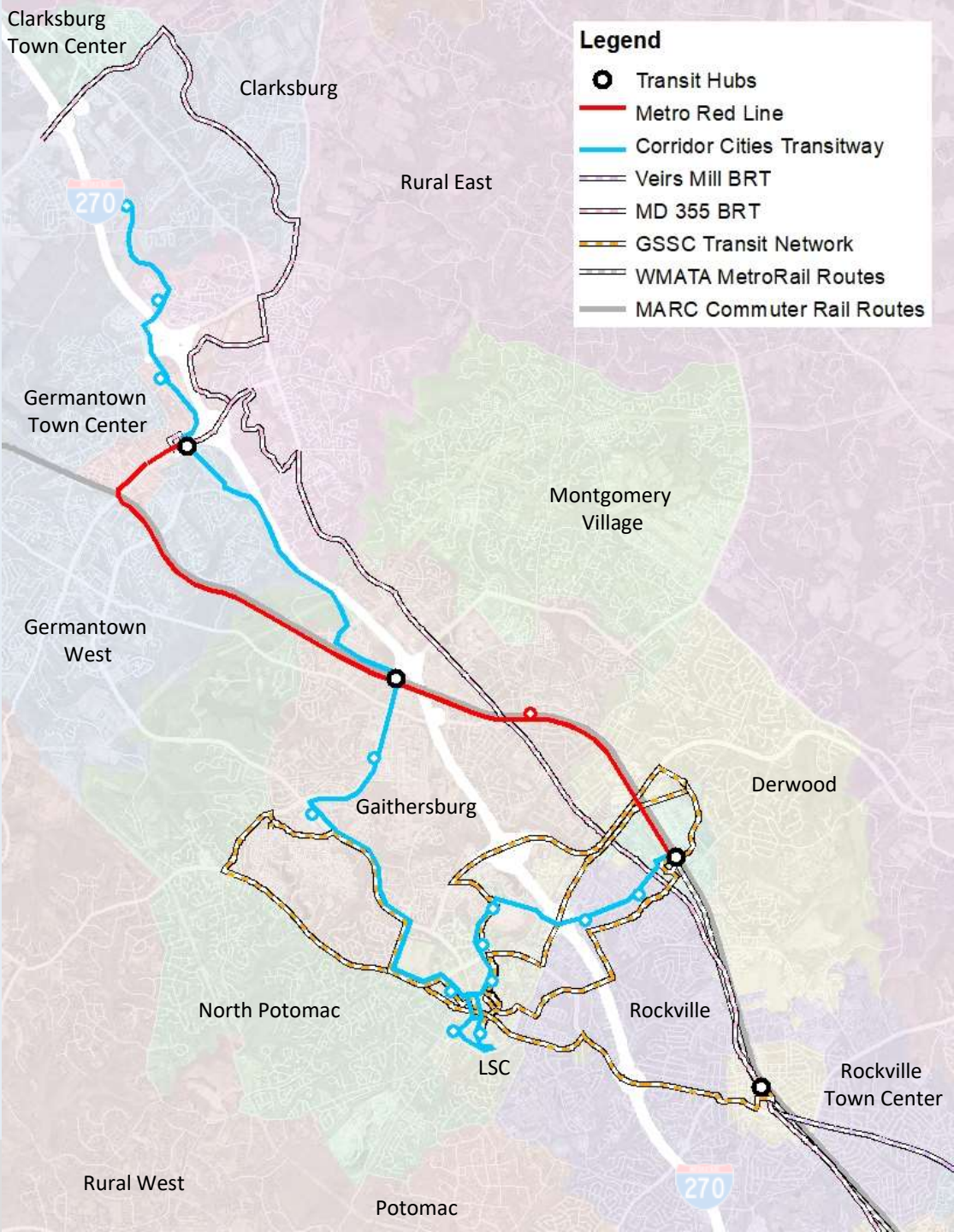
Network Package #1

A. Red Line Extension

Efficient access to jobs and equity benefits

B. Corridor Cities Transit

Connections to the Life Sciences Center and northern corridor communities



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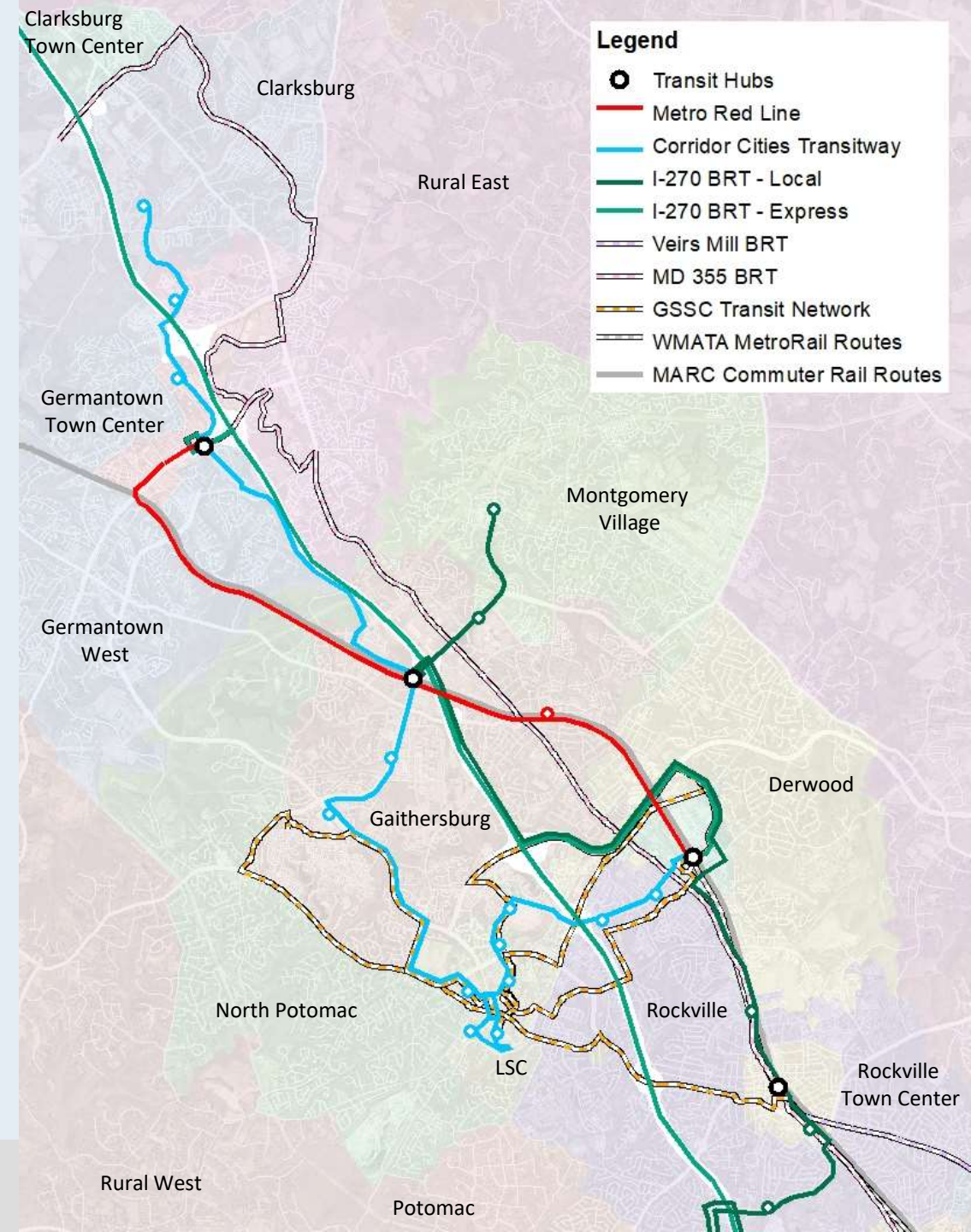
Connections to the Life Sciences Center and northern corridor communities

C. I-270 BRT Express

Long-distance corridor transit travel needs

D. I-270 BRT Local

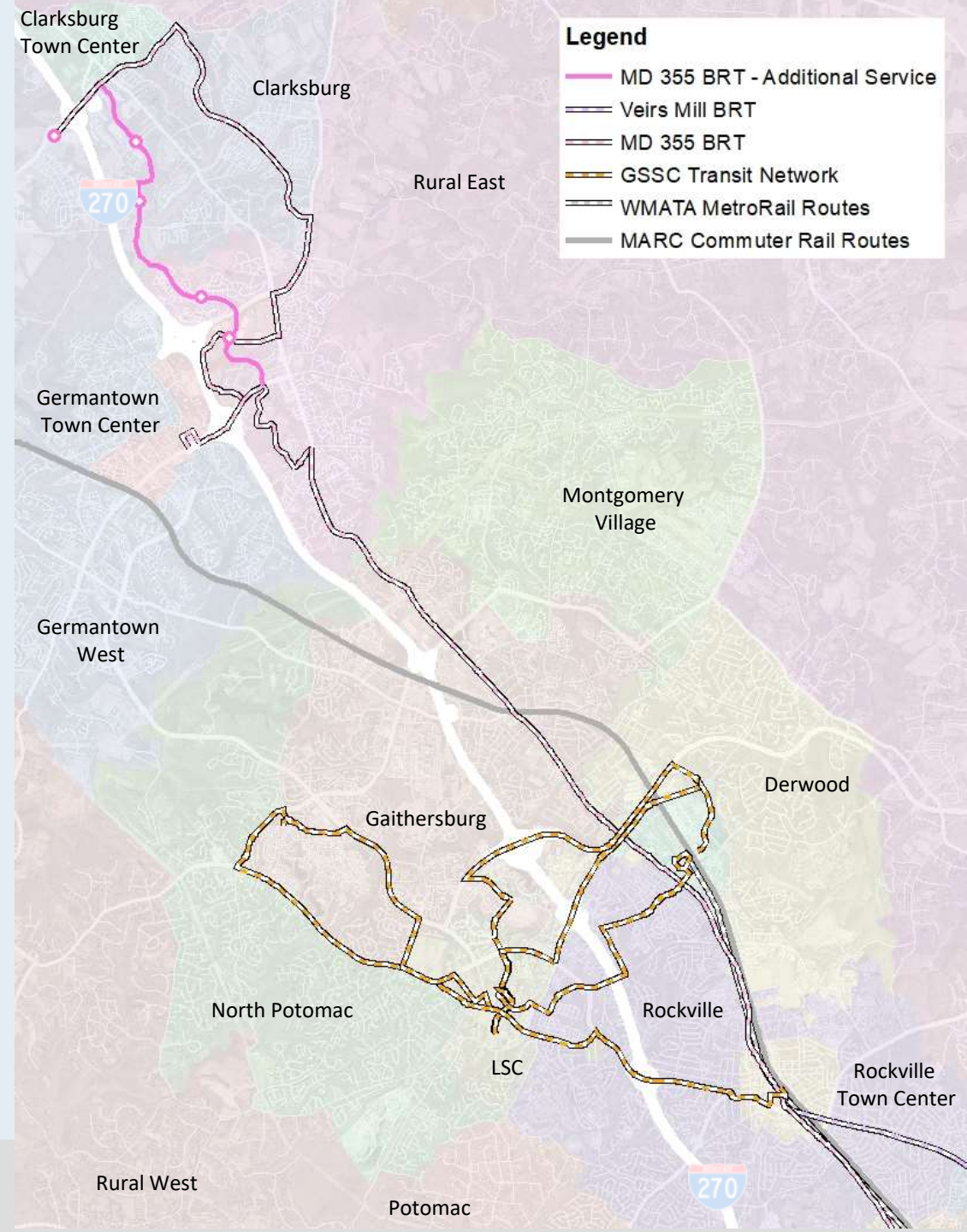
Enhanced transit connections to larger network via dedicated bus lanes



Network Package #2

A. Additional MD 355 BRT Leg on Observation Drive

Service to CCT Phase II communities; supports re-envisioning of CCT Phase II



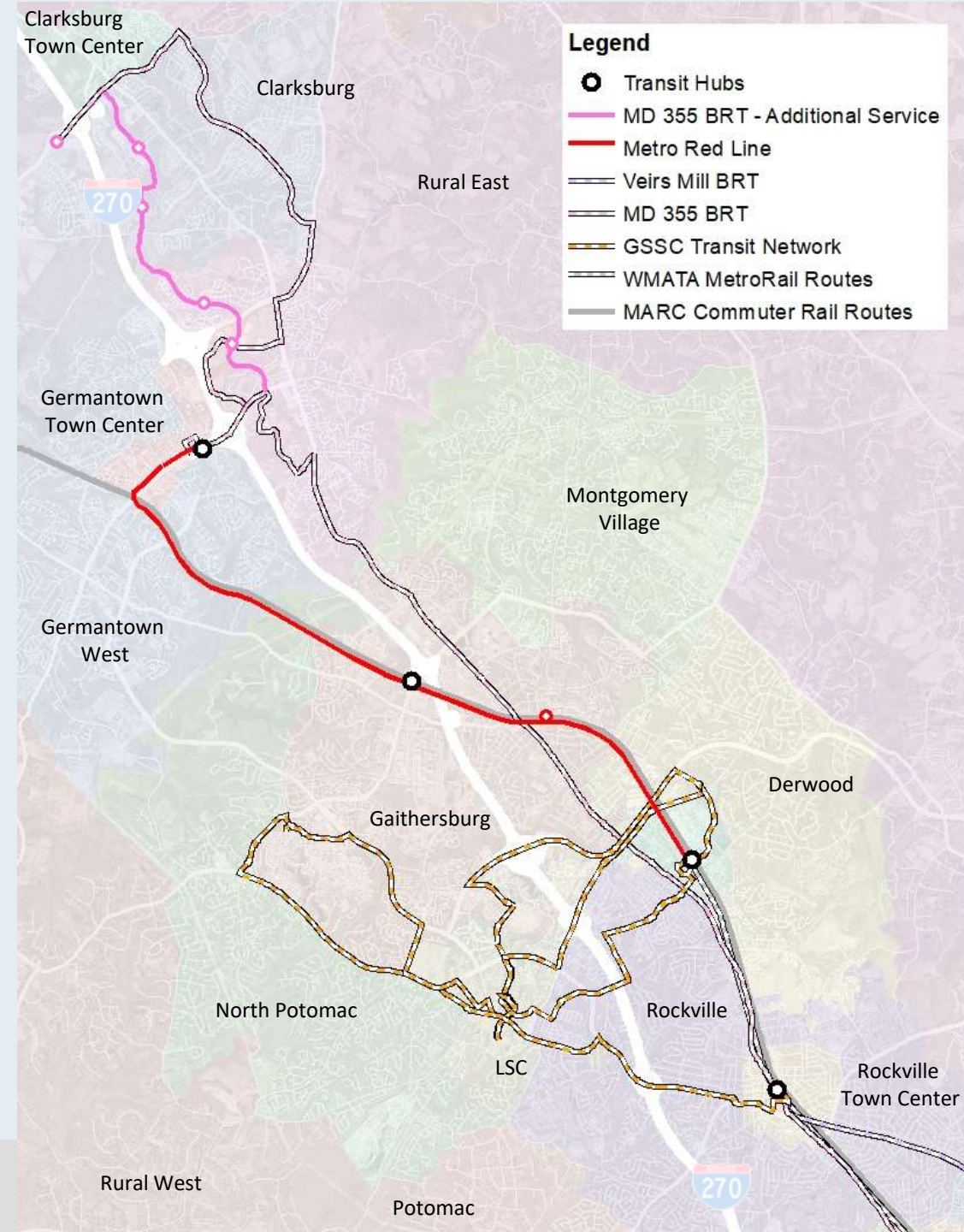
Network Package #2

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Service to CCT Phase II communities; supports re-envisioning of CCT Phase II

B. Red Line Extension

Efficient access to jobs and equity benefits, including CCT Phase II communities



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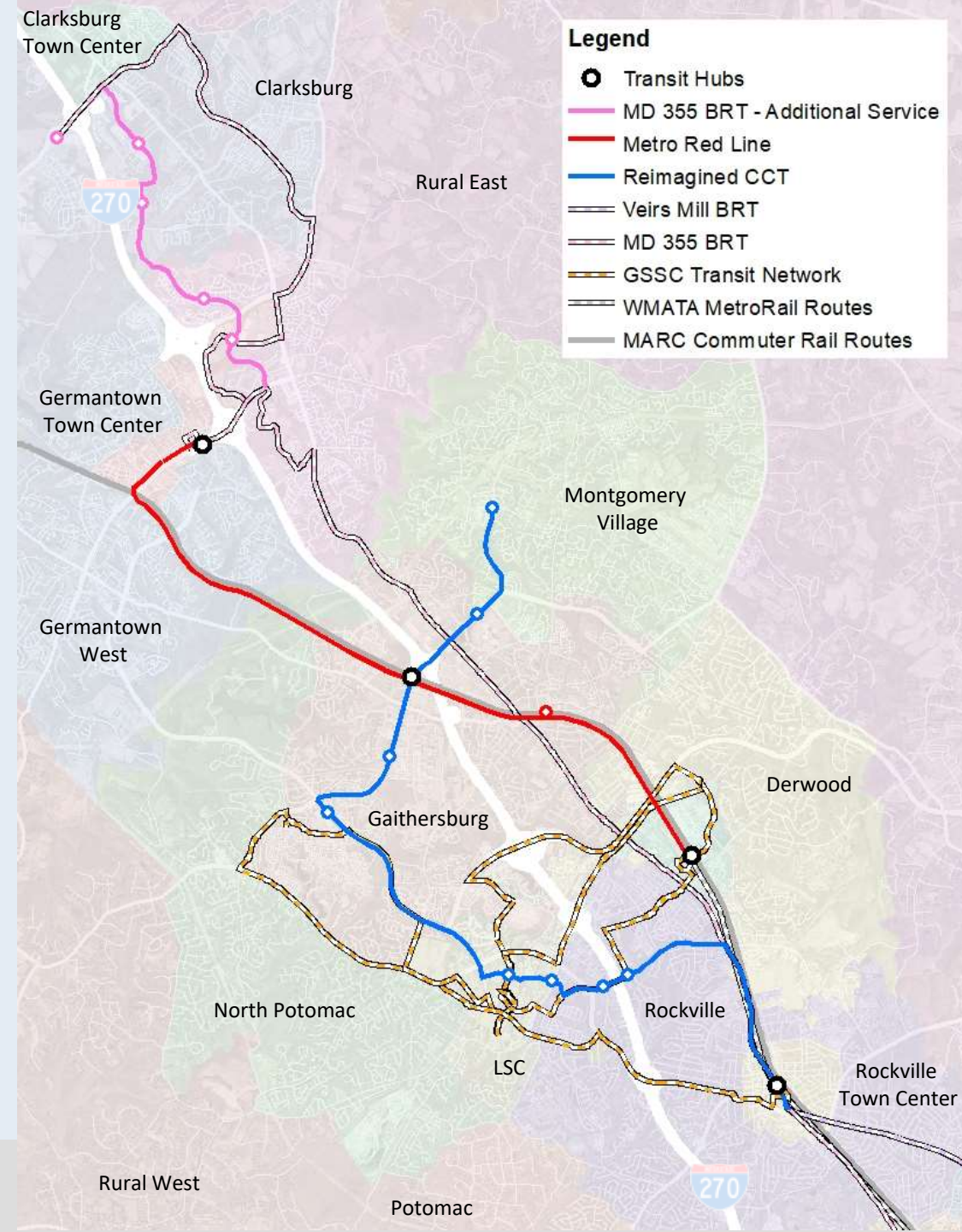
Service to CCT Phase II communities; supports re-envisioning of CCT Phase II

B. Red Line Extension

Efficient access to jobs and equity benefits, including CCT Phase II communities

C. Reimagined CCT

- Integrated CCT and Veirs Mill Transitway; operates as a single-service
- Cost and operational efficiency benefits
- Supports the access to LSC and points south for equity focus areas
- Service to CCT Phase II communities via Red Line and new MD 355 BRT Leg



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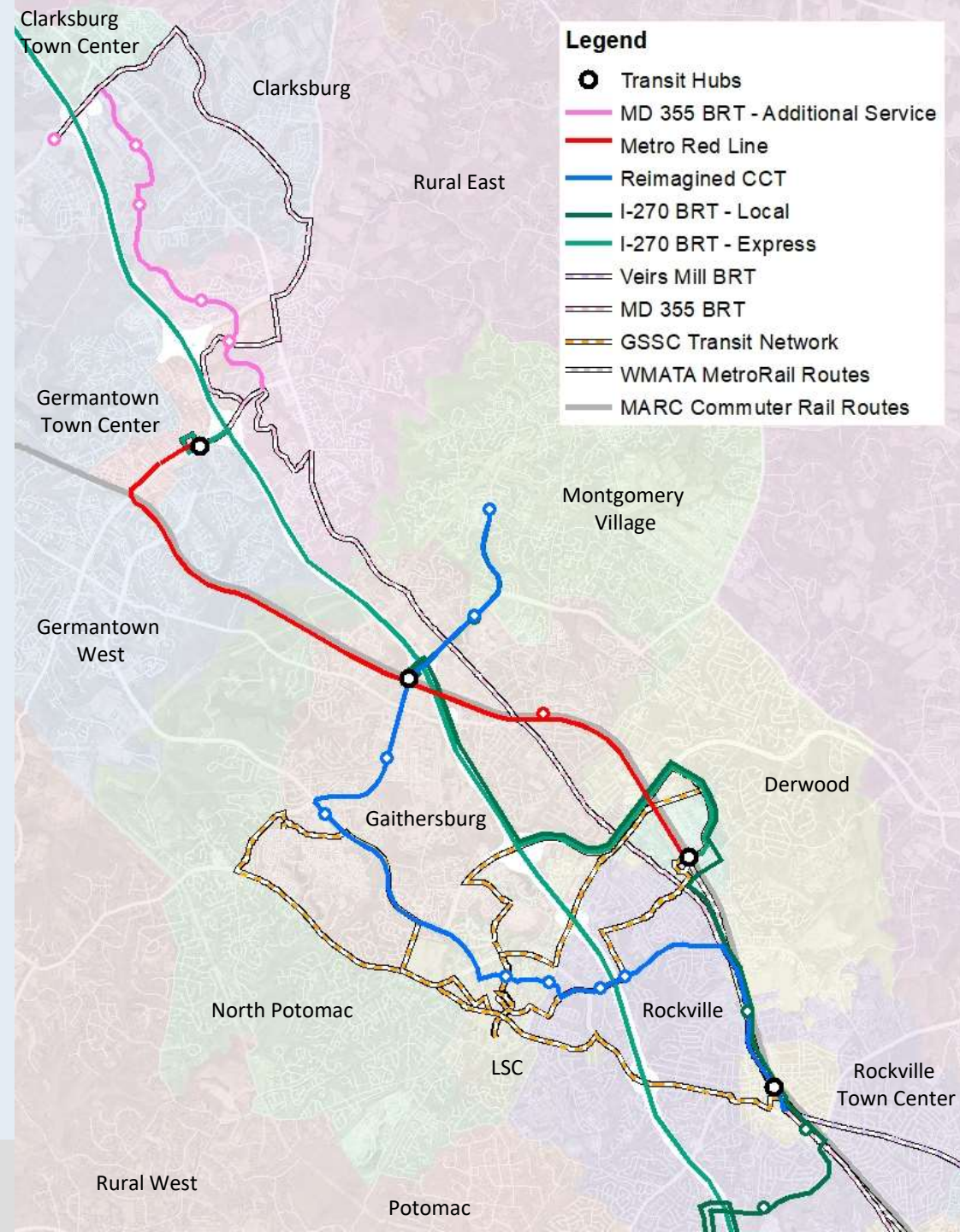
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D. I-270 Corridor BRT - Express

Long-distance corridor transit travel needs

E. I-270 Corridor BRT - Local

Enhanced transit connections to larger network via dedicated bus lanes



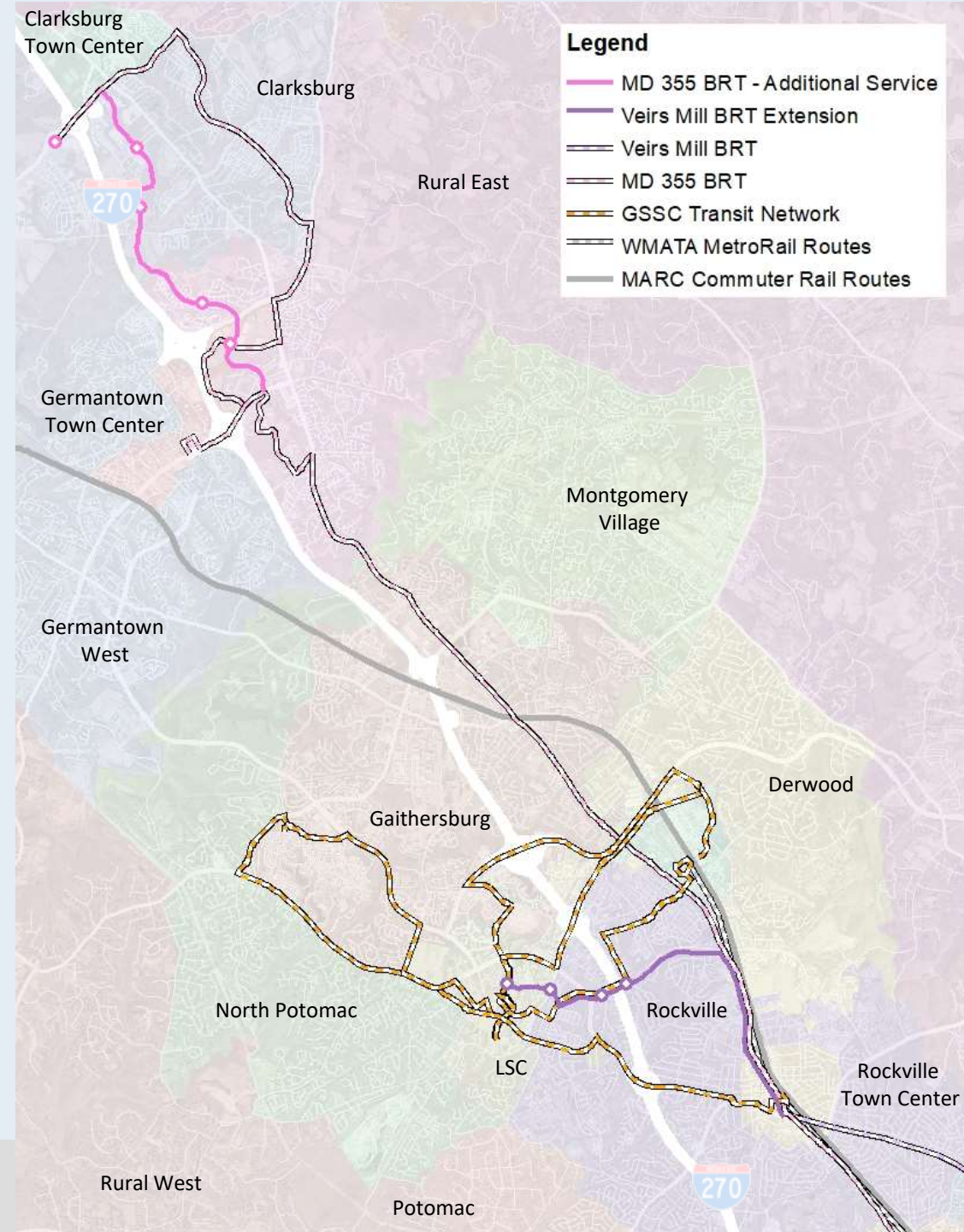
Network Package #3

A. Additional MD 355 BRT Leg on Observation Drive

Service to CCT Phase II communities; supports re-envisioning of CCT Phase II

B. Veirs Mill Transitway Extension to the LSC

Integrates the Life Sciences Centers with Mid-County Corridor



Network Package #3

A. Additional MD 355 BRT Leg on Observation Drive

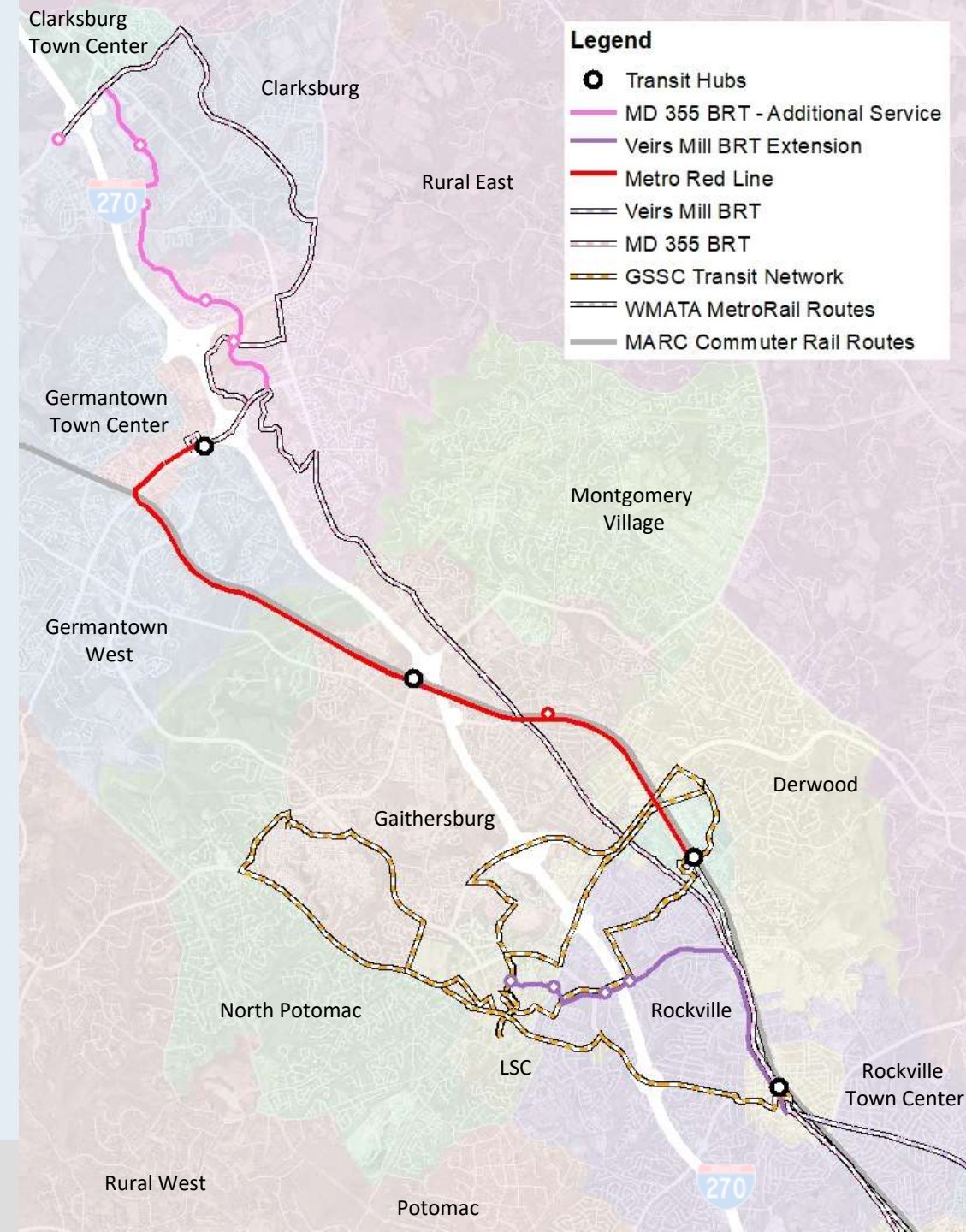
Service to CCT Phase II communities; supports re-envisioning of CCT Phase II

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Integrates the Life Sciences Centers with Mid-County Corridor

C. Red Line Extension

Efficient access to jobs and equity benefits, including CCT Phase II communities



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Service to CCT Phase II communities; supports re-envisioning of CCT Phase II

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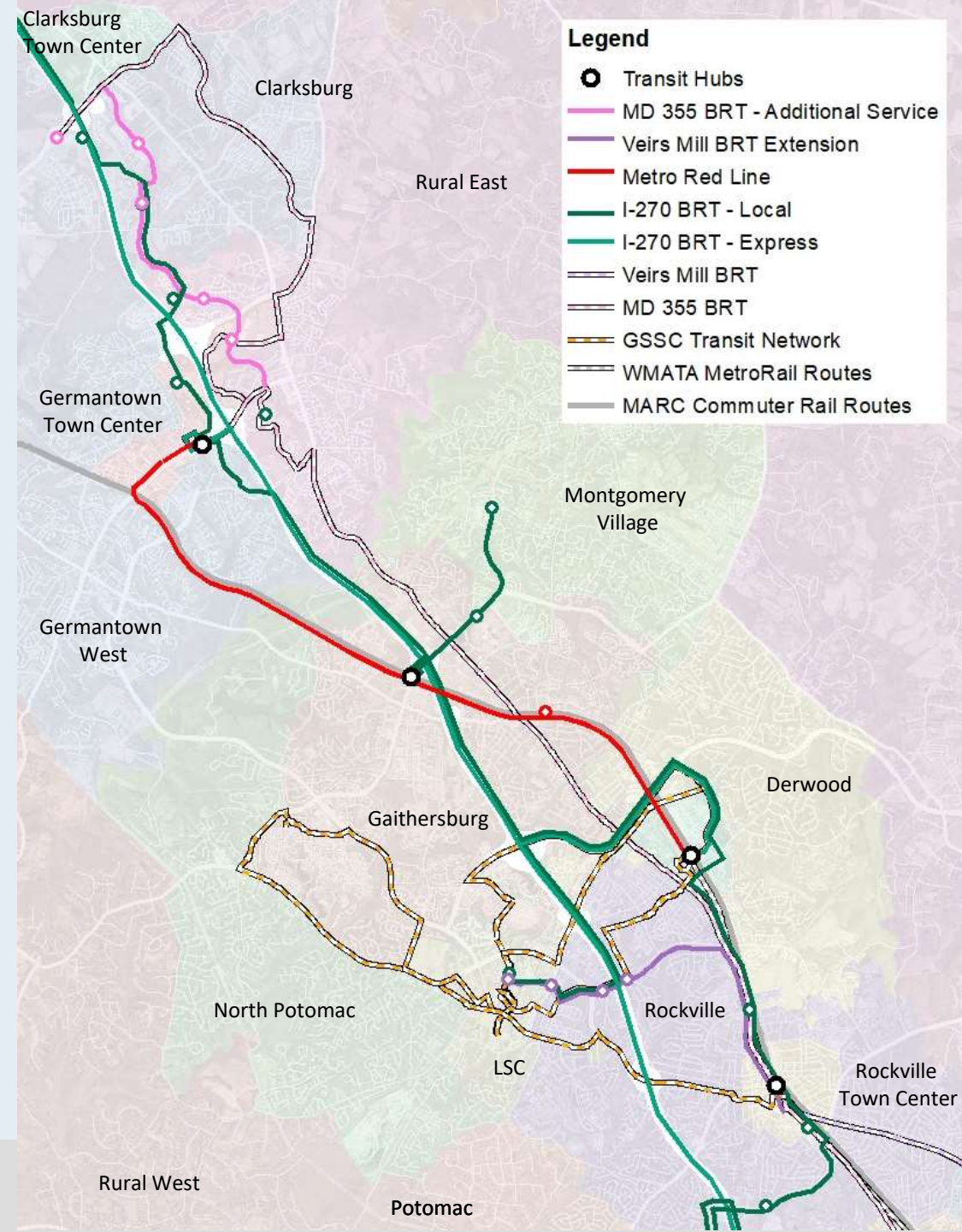
Efficient access to jobs and equity benefits, including CCT Phase II communities

D. I-270 Corridor BRT - Express

Integrates the Life Sciences Centers with Mid-County Corridor

E. I-270 Corridor BRT - Local

Efficient access to jobs and equity benefits, including CCT Phase II communities



Potential Network Packages - Summary

Description	Network Package 1	Network Package 2	Network Package 3
Network Connections			
To the North	I-270 Corridor BRT	I-270 Corridor BRT	I-270 Corridor BRT
Within Montgomery County	Red Line, CCT, Local I-270 Corridor BRT	Red Line, Reimagined CCT, Local I-270 Corridor BRT	Red Line & Local I-270 Corridor BRT
To the south	I-270 Corridor BRT	I-270 Corridor BRT	I-270 Corridor BRT

Schedule & Next Steps





Schedule & Next Steps

Ongoing

- Continue coordination with public & external agencies
- Draft preliminary recommendations

Fall-Winter 2021

- Preliminary Recommendations
- Working Draft
- Public Hearing

Winter-Spring 2022

- Anticipated Planning Board Draft
- County Council Review



Schedule & Next Steps

- **Share your Transit Story**
- **Preliminary Recommendations Meeting(s)**

Ongoing

- Continue coordination with public & external agencies
- Draft preliminary recommendations

Fall-Winter 2021

- Preliminary Recommendations
- Working Draft
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- County Council Review

- **Testify at Planning Board Public Hearing**

- **Testify at Council Public Hearing**

Share your transit experience on social media using #CorridorForward

or at the following link: <https://tinyurl.com/hsrst5s2>

“

Not everyone has the privilege of working from home. My partner does not drive for health reasons, and housing within walking distance to transit and jobs is crucial.

Questionnaire Response

“

If everyone in our county has equal access to transit, our quality of life will improve. We are in a climate emergency and must make transit a priority.

Questionnaire Response

“

I take the bus to access Metro. It saves me money and is only about 10 minutes longer than driving and parking at the Metro garage.

Questionnaire Response

“

If it's going to take you two hours to get from Gaithersburg to Northern Virginia on transit, I'm not going to do it. I'm going to drive.

Questionnaire Response

”

”

Contact Information

Project Contacts

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