

# **Springfield to Quantico Enhanced Public Transportation Feasibility Study**

**Technical Advisory Committee Meeting #5**  
**March 18, 2021**



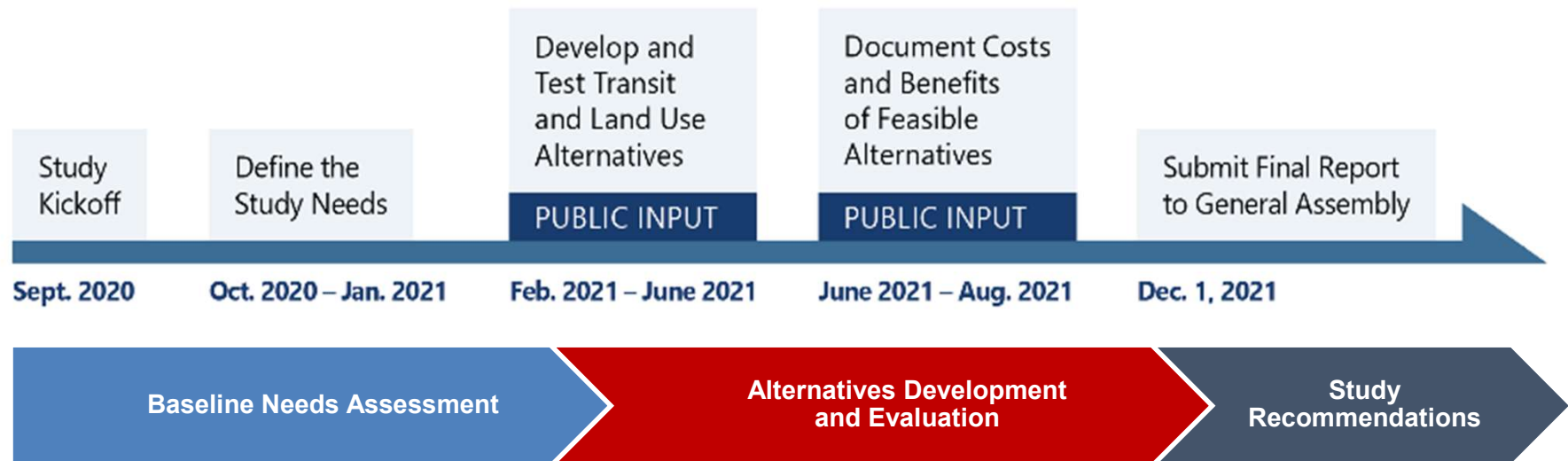
Virginia Department of Rail and Public Transportation

# Meeting Agenda

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- Introductions / Welcome
- Elected Officials Briefing
- Public Outreach Status & Next Steps
- Review Technical Approach & Needs Statement
- Land Use Assessment Status
- Draft Evaluation Framework
- Alternatives Development
- Next Steps – Future TAC Meetings

# Study Schedule



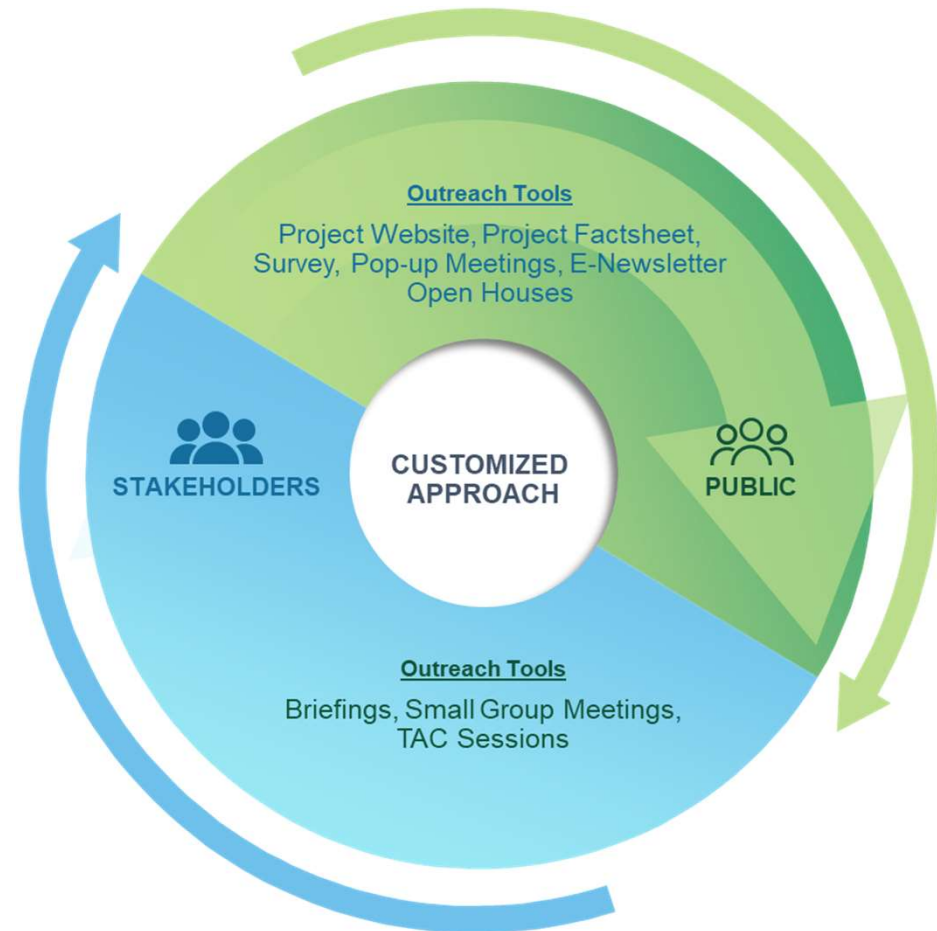
# Elected Officials Briefings

**Purpose:** Provide a venue for elected officials to learn about and provide input to the study

- Composition:
  - Local and state elected officials
- Supported by:
  - DRPT and consultant team
  - Senior staff from local governments, transit providers, regional bodies
  - Senior military base staff – Fort Belvoir and Quantico
- All meetings advertised and open to public (via livestream)

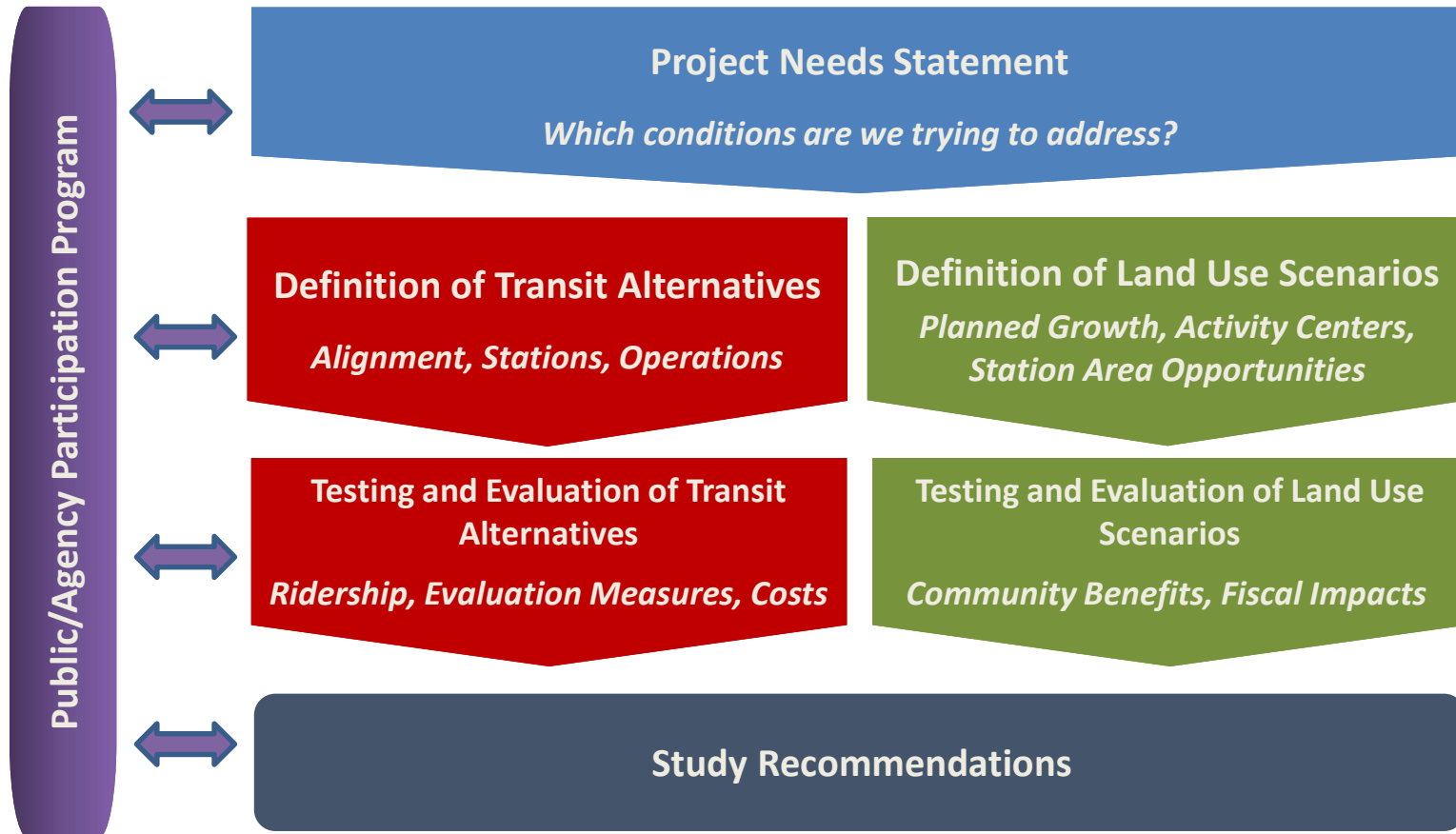
# Public Outreach Status

- Completed Activities
  - DRPT Website Launched
  - Project Factsheet
- Upcoming Activities
  - Launch On-Line Survey
  - Virtual Public Meetings
  - Future Elected Officials Briefings



<http://www.drpt.virginia.gov/transit/springfield-to-quantico/>

# Study Technical Approach



# Enhanced Public Transportation is Needed Because ...

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Transit Service Quality: Transit service is competitive for commute trips to the core. Other trips have little/no service.

Future Development: Existing transportation services and networks may need enhancements to support planned land uses and economic development

Equity: Specifically need to connect low-income and minority populations to opportunities

Connections to Activity Centers: Transit connections to key regional activity centers, such as Fort Belvoir and Quantico bases, are limited and infrequent

Traffic Congestion and Travel Times: Traffic congestion is severe and continuing to get worse, resulting in slow and unreliable travel times for drivers and buses in mixed-traffic

Access to Transit Services: Access is reliant on park & ride or long walks to bus, posing a particular challenge for transit-dependent riders

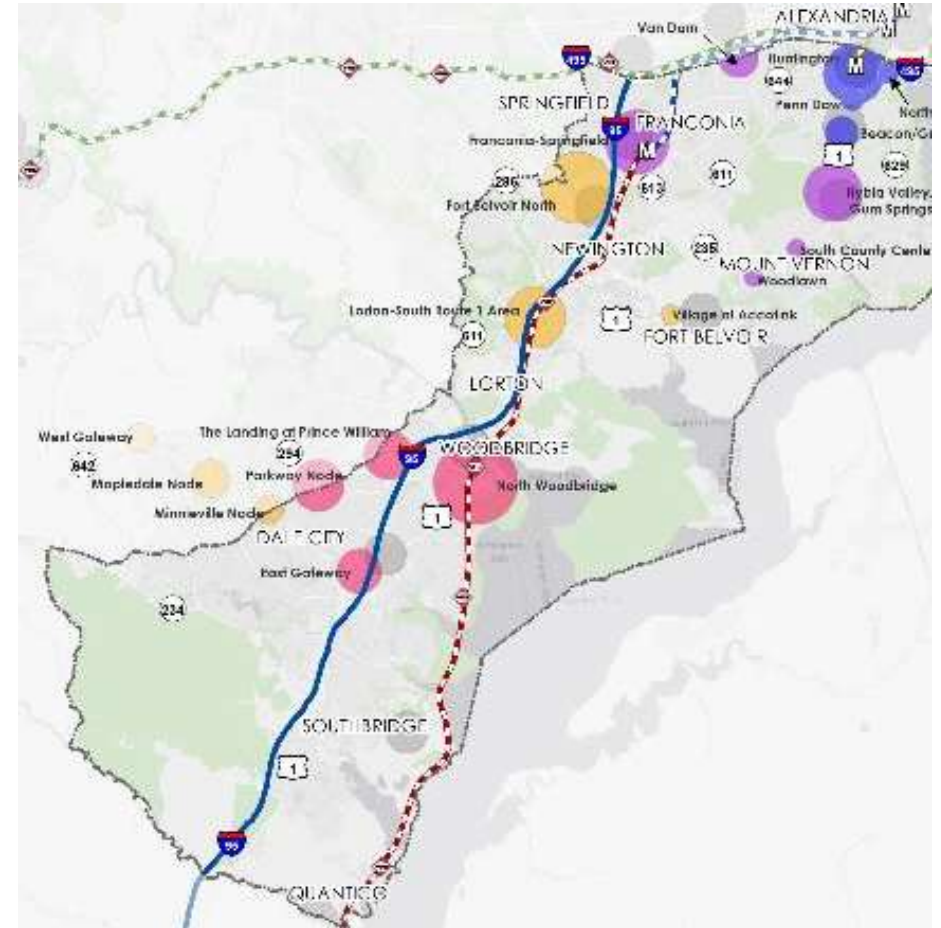
# Corridor Land Use Assessment

## Current Activities:

- Coordination with County Planning Staff
- Compilation of Existing Land Use Information and Data Files

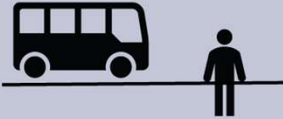


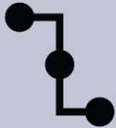


## Upcoming Work:

- Identification of Potential Mobility Hubs/Nodes by Type
- Existing Conditions Analysis for Station Areas (Up to 10)
- Station Area/Mobility Hub Planning for Station Areas (Up to 10)
- Development of Alternative Land Use Scenarios
- Modeling and Testing of Transit and Land Use Scenarios





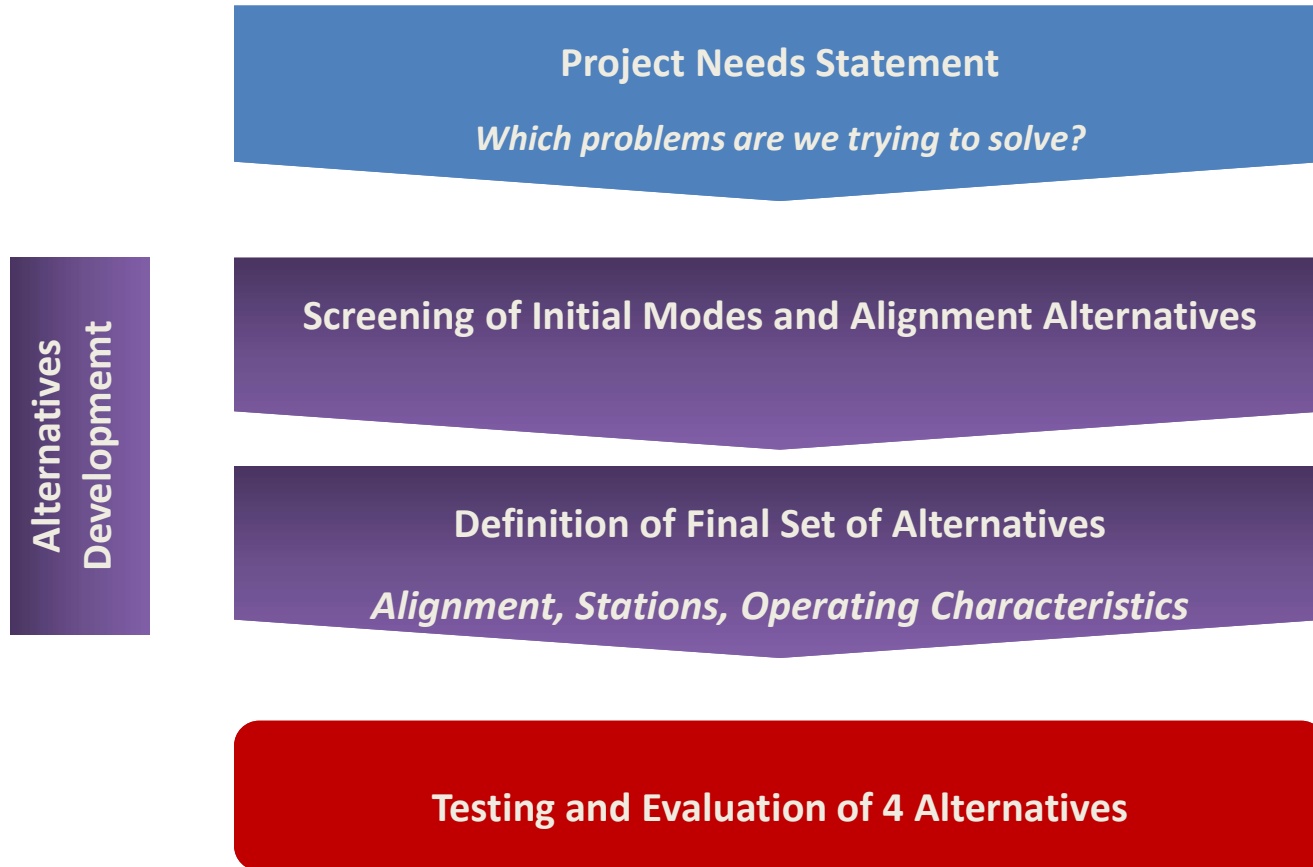
# Draft Evaluation Framework

Goals for Enhanced Transit		
<b>Ridership Potential</b>  Increase transit usage in the study corridor	<b>Congestion Mitigation</b>  Reduce the amount of traffic congestion in the study corridor	<b>Equity</b>  Provide a fair distribution of costs and benefits across different population groups
<b>Regional Accessibility/Connectivity</b>  Increase access to regional activity centers and meet identified service gaps	<b>Cost-effectiveness</b>  Ensure that resources are used efficiently	<b>Development Potential</b>  Create opportunities for development around stations or stops







# Draft Evaluation Framework

Category	Evaluation Measures
<b>Ridership Potential</b>	<ul style="list-style-type: none"> <li>• Total/new daily transit trips</li> <li>• Daily boardings on transit alternative</li> <li>• Transit person miles traveled</li> <li>• Transit person throughput at key cutlines</li> </ul>
<b>Congestion Mitigation</b>	<ul style="list-style-type: none"> <li>• Congested vehicle miles traveled (VMT)</li> <li>• Person-hours of delay (PHD)</li> </ul>
<b>Regional Accessibility/Connectivity</b>	<ul style="list-style-type: none"> <li>• Population and jobs within ½ mile of stations</li> <li>• Average number of jobs accessible within 60 minutes by transit</li> </ul>
<b>Equity</b>	<ul style="list-style-type: none"> <li>• Minority/low-income population within ½ mile of stations</li> <li>• Average number of jobs accessible within 60 minutes by transit for minority/low-income population</li> </ul>
<b>Cost-Effectiveness</b>	<ul style="list-style-type: none"> <li>• Benefits of alternatives compared to estimated capital and operating costs.</li> </ul>
<b>Development Potential</b>	<ul style="list-style-type: none"> <li>• Potential for local transit-supportive development opportunities</li> </ul>

# Transit Alternatives Development



# Transit Modes for Alternatives Testing

Screening Criteria	Metro 	VRE 	BRT 	Express Bus 	LRT 	Local Bus 
Ability to Serve Intra-Corridor Travel Markets	●	◐	●	◐	●	●
Ability to Serve Regional Travel Markets	●	●	●	●	◐	○
Compatibility with Corridor Land Use	◐	●	●	●	◐	●
Cost Effectiveness (Capital and Operating)	◐	●	●	●	◐	◐
Connectivity to Existing System	●	●	●	●	○	●
<b><i>Recommended for Alternatives Testing</i></b>	✓	✓	✓	✓		

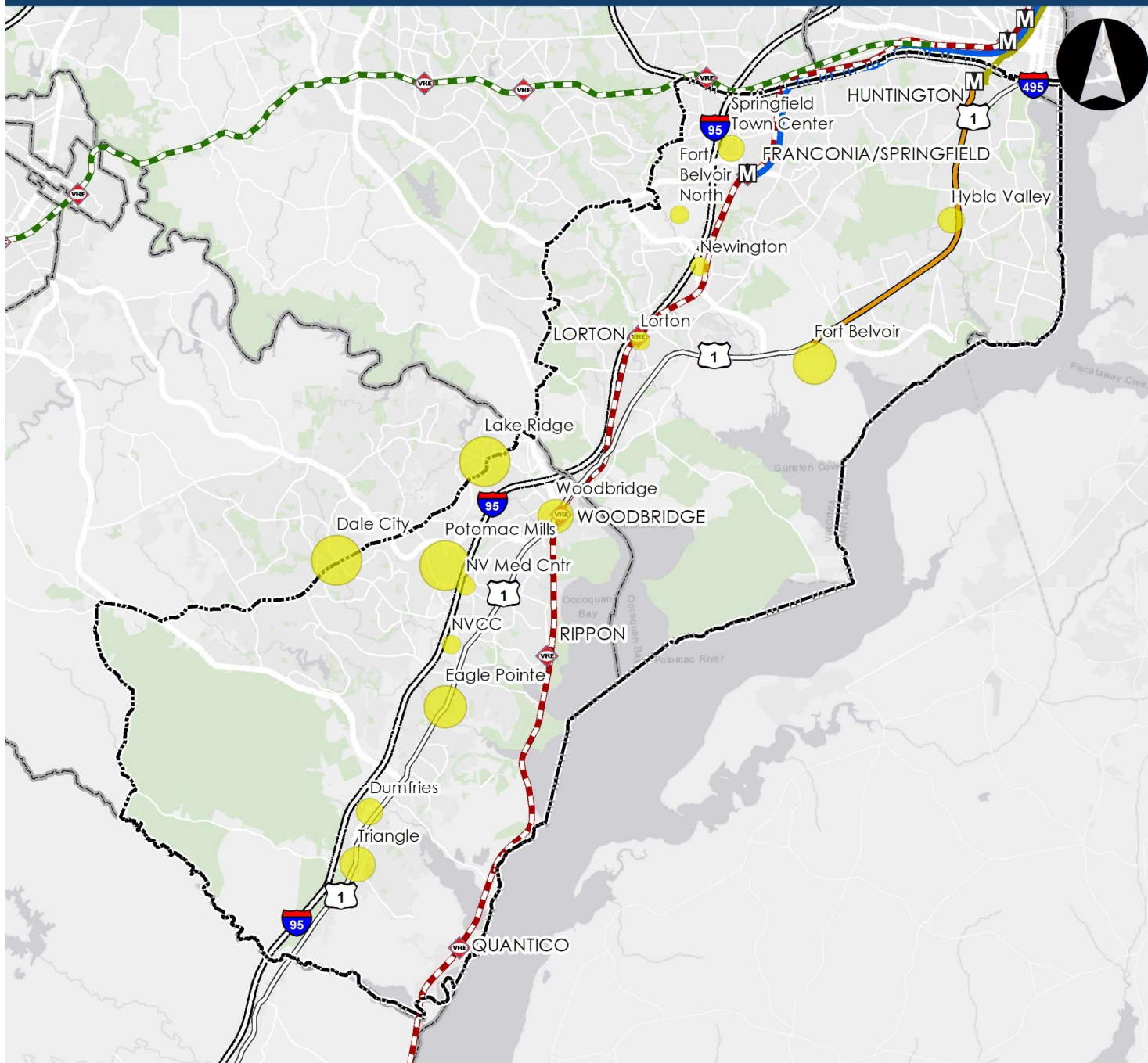
# Key Connections

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Thinking about developing transit alternatives to be tested in this study

- What are the key activity centers that should be served by enhanced transit?
- What are the factors used to select the most important centers to serve?
- Are there some centers that can only be served by specific modes?

# ACTIVITY CENTERS

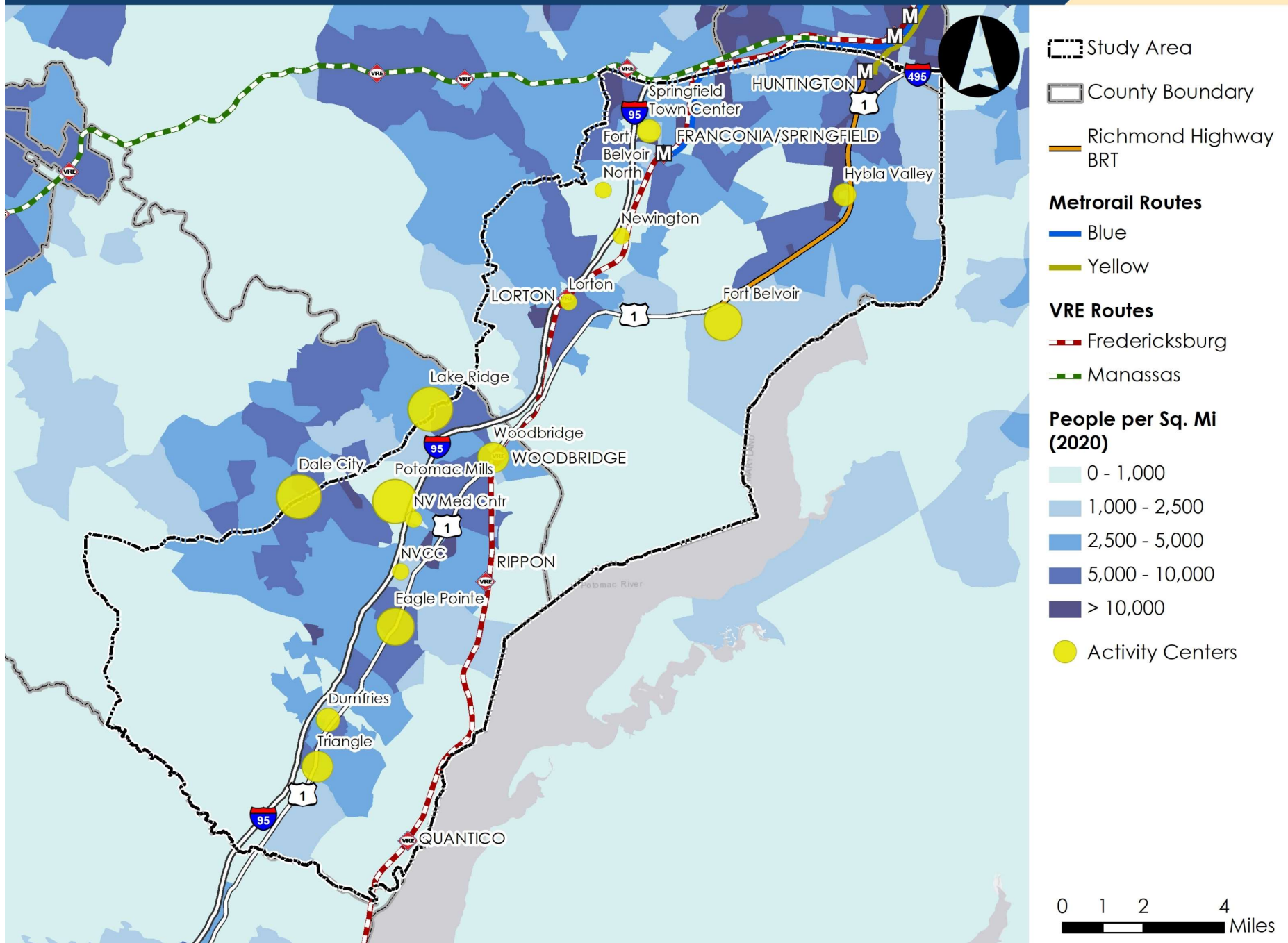


- Study Area
- County Boundary
- Richmond Highway BRT
- Metrorail Routes**
  - Blue
  - Yellow
- VRE Routes**
  - Fredericksburg
  - Manassas
- Activity Centers

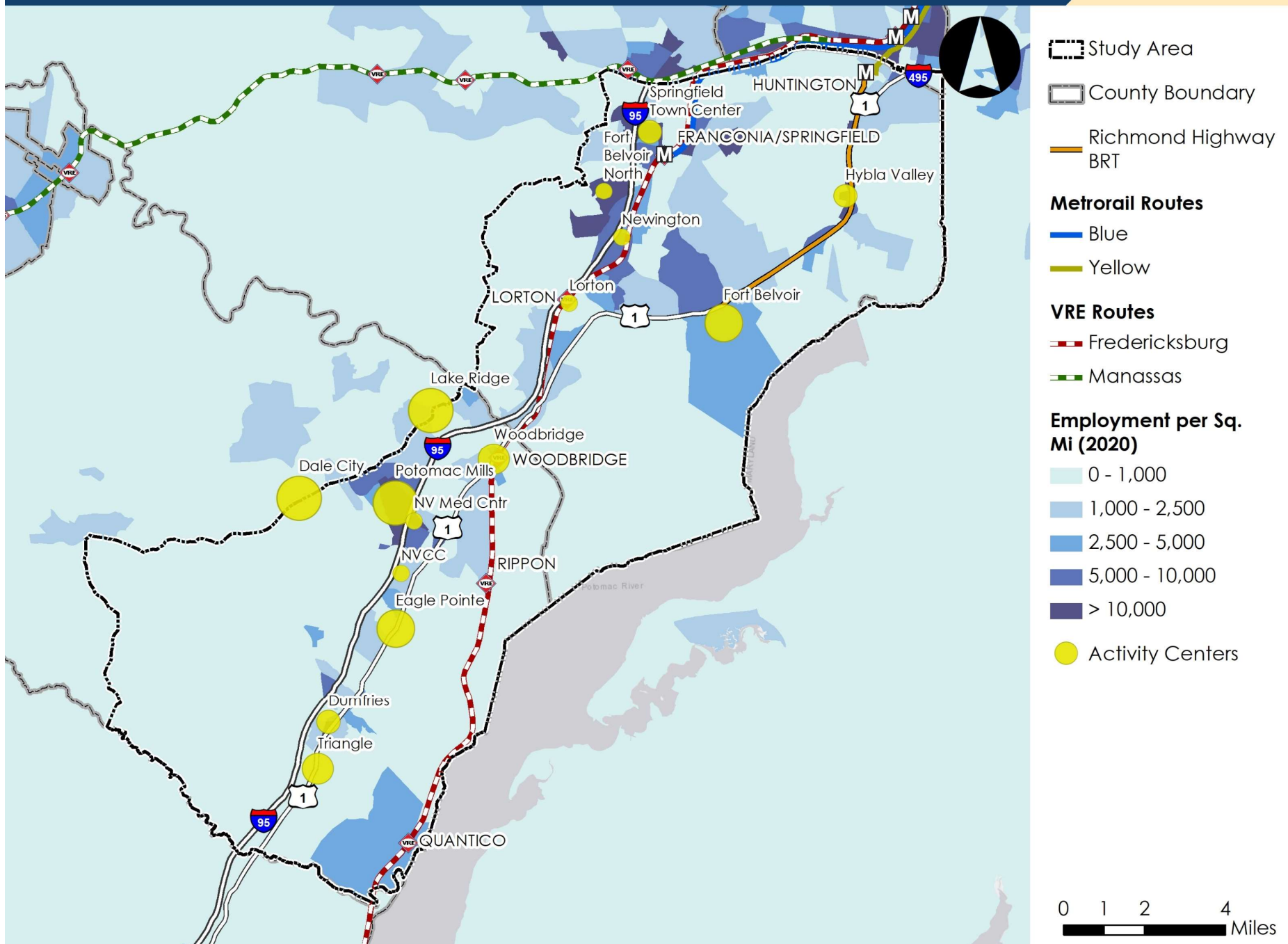




# ACTIVITY CENTERS AND POPULATION DENSITY



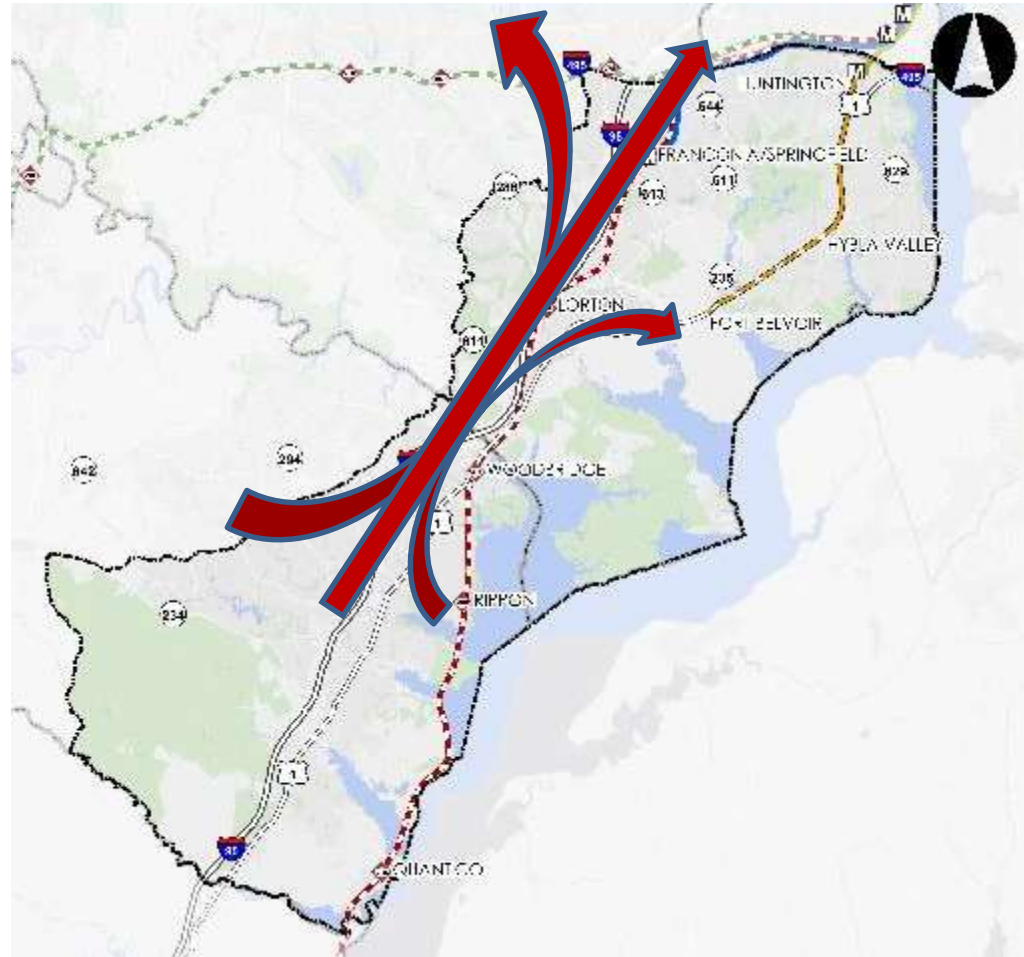
# ACTIVITY CENTERS AND EMPLOYMENT DENSITY





# Express Bus Alternative – Potential Connections

- **Origins**
  - Prince William County Park & Ride lots
- **Destinations**
  - Washington DC
  - Pentagon/Crystal City
  - Tysons
  - Ft. Belvoir
  - Franconia-Springfield Metro Station
  - Others...



# Discussion & Meeting Wrap-Up

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# Schedule for Future TAC Meetings

TAC #	Month	Topics to Be Covered
6	Apr. 2021	<ul style="list-style-type: none"><li>• Finalize Transit Alternatives (Task 7)</li><li>• Land Use – Potential Hubs/Station Areas (Task 13)</li><li>• Overview of Cost Estimation Methodology (Task 10)</li></ul>
7	May 2021	<ul style="list-style-type: none"><li>• Testing of Transit Alternatives – Initial Results (Task 8)</li><li>• Land Use - Existing Conditions at Station Areas (Task 13)</li></ul>
8	Jun. 2021	<ul style="list-style-type: none"><li>• Testing of Alternatives – Refinements and Sensitivity Tests (Task 8)</li><li>• Draft Costs &amp; Legal Considerations (Tasks 9 and 10)</li><li>• Land Use – Draft Scenarios (Task 13)</li></ul>
9	Jul. 2021	<ul style="list-style-type: none"><li>• Summary of Transit Alternatives and Land Use Scenario Evaluation Results (Task 11)</li></ul>
10	Aug.2021	<ul style="list-style-type: none"><li>• Draft Study Findings and Recommendations (Task 12)</li></ul>