Connecting Our Future
A Regional Transit Plan for Central Maryland

COMMISSION MEETING #4

September 20, 2019
Howard County Miller Library
Ellicott City, MD
WELCOME & OVERVIEW

Mike Kelly, Executive Director
Baltimore Metropolitan Council
COUNTY EXECUTIVE REMARKS

Calvin Ball, County Executive
Howard County
MEETING AGENDA

- June Meeting Minutes Review
- Public Involvement Update
- Introduction and Set Up
- RTP Goals Wrap-Up
- Identifying Transit Needs – Methodology & Analysis Review
- Transit Corridors of Opportunity
- Corridor Prioritization Evaluation
- Public Comment
- Next Steps
JUNE MEETING MINUTES REVIEW

Kirby Fowler, RTP Commission Chair
INTRODUCTION & SET UP

Holly Arnold, Deputy Administrator
Maryland Department of Transportation
Maryland Transit Administration
Plan Development

**ANALYZE**
Review the current system; identify opportunities for improvement.

- **March 2019**
  - Transit 101
- **April 2019**
  - Overview of Trends and Benchmarks
  - Draft Goals and Good Repair
- **June 2019**
  - Review State of Funding and New Mobility

**PROPOSE**
Review system performance and propose improvements.

- **September 2019**
  - Address Service Gaps and Corridors of Need
- **October 2019**
  - Understand the Rider Perspective
- **December 2019**
  - Review Goals and Prioritize Strategies

**PUBLISH**
Present findings and recommendations.

- **April 2020**
  - Review Draft Plan
- **June 2020**
  - Update Draft Plan Based on Feedback
- **September 2020**
  - Review and Publish Final Plan

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Connecting Our Future
A Regional Transit Plan for Central Maryland
Today’s Focus

- Update on public involvement
- Affirm draft Goals for the Regional Transit Plan
- Review and discuss draft corridors
- Identify any missing corridors
- Discuss what data or other factors support these additional gaps, needs, and potential corridors

The project team will use your feedback, in conjunction with our other work, to further refine the list of potential corridors.
PUBLIC INVOLVEMENT

Teddy Krolik, Chief of Engagement
Maryland Department of Transportation
Maryland Transit Administration
### Summer Pop-Up Events | June – August

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Event/Location</th>
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<tbody>
<tr>
<td>Anne Arundel County</td>
<td>Fiesta Latina</td>
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<td>Harbor Market McKeldin Square</td>
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<td>Veterans Administration Hospital</td>
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<td>West Baltimore MARC Station</td>
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<td>GWP/GBC Event at AVAM</td>
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<td>Druid Hill Park Farmers Market</td>
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<td>SE Anchor Library</td>
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<td>MICA Resource Fair</td>
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<td>Baltimore City</td>
<td>Essex Branch Library</td>
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<td></td>
<td>Halethorpe MARC Station</td>
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<td>Towson University Orientation</td>
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<td>Havre de Grace First Fridays</td>
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<tr>
<td>Harford County</td>
<td>Ellicott City Farmers Market</td>
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<td></td>
<td>Elkridge Branch Library</td>
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<td>Howard County</td>
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**Connecting Our Future**
A Regional Transit Plan for Central Maryland
Interactive Strategies Board

- Members of the public share their strategies, projects, and priorities that fit within each goal
- Staff available to discuss ideas and suggestions
October Locations:

- 10/21 Howard County
  Elkridge Library

- 10/22 Baltimore County
  Towson Library

- 10/24 Baltimore City
  Mondawmin Mall

- 10/28 Harford County
  Edgewood Rec. & Community Center

- 10/29 Anne Arundel County
  Severna Park Community Center
RTP Goals Wrap-Up

Kimiya Darrell
RTP Project Team
Goal Development Timeline

**ANALYZE**
Review the current system; identify opportunities for improvement.

- Kick-off goals/themes activity
- Discussion and input on preliminary draft goals

**PROPOSE**
Review system performance and propose improvements.

- Facilitated goals workshop
- Small-group mtgs to review refined goals and supporting statements

- First public survey (priorities and goals)
- Second public survey (goal refinement and strategies)
Revised RTP Goals

- Improve connectivity and integration of existing and future transit services
- Optimize existing transit services
- Enhance fiscal sustainability
Revised RTP Goals

Improve connectivity and integration of existing and future transit services

*Connecting Our Future* should…

a. Reduce or eliminate gaps in current transit services
b. Prioritize connection to economic opportunities and services
c. Prioritize existing and emerging transit-supportive corridors and nodes for new or enhanced services
d. Increase regional collaboration
Revised RTP Goals

**Optimize existing transit services**

*Connecting Our Future* should…

a. Advance equitable access to jobs, education, and services

b. Promote travel choice, affordability, reduce delay, and reduce emissions

c. Improve service quality, customer experience, and safety on existing services

d. Ensure the region meaningfully integrates new transit innovations and technology
Enhance fiscal sustainability

*Connecting Our Future* should…

a. Identify transit needs

b. Identify funding and financing opportunities and innovations to deliver this Plan

c. Improve cost efficiency of transit services

d. Maintain assets at defined condition targets
IDENTIFYING TRANSIT NEEDS: Methodology & Analysis Review

David Miller
RTP Project Staff
What analysis goes into transit planning?

**Market Analysis:**
- Where is there demand for transit service?
- How much demand is there?
- What time of day is the demand?
- Where do people want to go?

**Service & Travel Flow Analysis:**
- Where and when do people have access to transit service?
- What quality of service is provided (span, frequency)?
- Where are the linkages?
- How does it perform (ridership, reliability)?
- What is the cost of service?

**Stakeholder Outreach & Existing Plans**
- Where do people want to go?
- What issues or gaps have the public and stakeholders identified?
- What service qualities are important?
- How and where should investment take place?
- Where have regional plans identified as priorities?
Jobs are densely populated in these areas:
1. Downtown Baltimore
2. Arundel Mills/BWI
3. Fort Meade
4. Hunt Valley/Lutherville
5. Downtown Towson
6. Downtown Columbia
7. Columbia Gateway
8. Parole / Annapolis
9. US 1 Corridor
10. White Marsh
11. John Hopkins/East Baltimore
12. Owings Mills
13. Reisterstown Plaza
14. Downtown Belair
15. Amazon / Port of Baltimore
Transit propensity analysis is a national best practice to assess transit needs.
Transit propensity assesses probability that individual locations or sub-areas have demand for transit.

Based on:
- Transit-Oriented Populations Origins
- Activity Destinations
- Commuter Population Origins
- Employment Destinations

Combined to identify:
- All Day Service Needs
- Peak Service Needs
- High all-day propensity is broadly distributed across Baltimore City
- Moderate all-day propensity is present throughout Baltimore County suburbs
- Sparrows Point is High due to the large number of jobs
Highest percent of commute trips are within each county’s boundaries.

### Percent of Commuter Trips from County to County

<table>
<thead>
<tr>
<th>To County</th>
<th>Howard</th>
<th>Carroll</th>
<th>Anne Arundel</th>
<th>Baltimore City</th>
<th>Baltimore County</th>
<th>Harford</th>
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<tbody>
<tr>
<td>Howard</td>
<td>42%</td>
<td>10%</td>
<td>7%</td>
<td>4%</td>
<td>6%</td>
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<td>0%</td>
<td>1%</td>
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<tr>
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<td>6%</td>
<td>60%</td>
<td>6%</td>
<td>6%</td>
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<td>7%</td>
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<td>17%</td>
<td>4%</td>
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<td>51%</td>
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<tr>
<td>Harford</td>
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<td>22%</td>
<td>5%</td>
<td>5%</td>
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</table>

Data: US Census ACS CTPP data, 2016
Projected job and population growth suggest commuter trips will increase in several areas:

- Columbia
- US 1 Corridor
- Elkridge
- Downtown Baltimore/Port Covington
- White Marsh/Crossroads (MD43)
- Edgewood
- Aberdeen/APG
- Owings Mills
- Sparrows Point
- Fort Meade
- Towson
The type and amount of land use directly impacts transit use.

As development increases and diversifies, more transit and more types of transit can be justified.

Many agencies produce guidelines that align transit to land use for planning purposes.

MDOT partners with local jurisdictions for TOD opportunities.

Read more about Transit Supportive Densities: reconnectingamerica.org/resource-center/transit-supportive-density
- Baltimore Regional Transportation Board Maximize2045
- Local comprehensive plans
- Priority Letters
- Jurisdictional growth areas
- Local transit development plans
The Plan will be developed in three phases, with public and stakeholder involvement during each phase.

**Stakeholders:**
- Meetings with local government planning and economic development staff, and local transit operators are part of stakeholders engagement efforts and validated analysis findings.

**Public:**
- October 2019 Open Houses are scheduled for all jurisdictions to share corridors and other service improvement areas.
TRANSIT CORRIDORS OF OPPORTUNITY
Jurisdictional Priorities
Commission Members
BREAK
TRANSIT CORRIDORS OF OPPORTUNITY

Discussion

David Miller, RTP Project Team
Regional Transit Corridors & Service Improvement Areas

- Project team has identified *potential* corridors and service improvement areas for future investment

- We are at the start of this process, the corridors and service improvement areas on the following slides are not final

- Potential corridors are draft and specific routes will not be determined until further studies are conducted

Potential corridors and service improvement areas identified using several inputs:

- Analysis of current and expected travel demand
- Analysis of current and expected land uses
- Analysis of transit propensities
- Analysis of existing transit services
- Stakeholder discussions and meetings with local jurisdictions
- Today’s discussion
What is a Regional Transit Corridor?

Available Modes
- Limited Stop or Express Bus
- Bus Rapid Transit (BRT)
- Light Rail
- Heavy Rail
- Commuter Bus
- Commuter Rail

Transit Priority
- Varying use of dedicated roadway/right-of-way space
  and/or coordinated traffic signals

Frequency
- At least every 15 minutes peak
- At least every 20 to 60 minutes off-peak

Operating Hours
- 14 to 24 hours per day seven days a week

Stops
- Limited suburban stops
- More frequent urban stops

Other Characteristics
- Onboard and offboard fare payment
- Stops with shelters, wayfinding, and lighting
Current MDOT MTA Regional Transit Corridors:

- Dedicated Bus Lanes
- Light RailLink
- Metro SubwayLink
- MARC (Commuter Rail)
Cleveland Healthline: Fully separated guideway BRT connecting the region’s largest employment sites (downtown, medical, educational, cultural)

- **Service**: 24 hours, 7 days per week
- **Frequency**: 10 minutes peak, 10-15 off-peak
- **Priority**: Fully separated bus guideway
- **Stations**: 36 stations
- **Results**: Reduced travel time 30% and increased ridership, employment, and investment
- **Length**: 6.8 miles
- **Cost**: $200M (Capital) $8.2M (Op.)
Regional Transit Corridors Service Example

Seattle RapidRide: Six limited-stop routes that offer frequent service and many BRT features connecting residential areas with job centers using major corridors:

- **Stations**: 1/2-mile stations
- **Service**: All time periods except late night, 7 days per week
- **Frequency**: 5-10 minutes peak, 15 off-peak (15/30 on weekends)
- **Priority**: Peak period bus lanes, Transit Signal Priority, queue jumps
- **Results**: Travel time decreased, ridership increased, on-time performance improved to 84%
- **Length**: 6 routes; 62 total miles
- **Cost**: $20M-$43M (Capital); $33.9M (Op.)
Regional Transit Corridors serve major job and activity centers and have demand for:

- Additional infrastructure investment(s)
- All-day service

Other Transit Network Improvements address other transit demands. Examples include:

- Local circulation
- Commuter service
- First/last mile access
Other Transit Network Improvements:

- **Local Bus Improvements**
  Local buses with new connections, improved frequencies and longer operating hours, stops every 1/4 to 1/2 mile, and onboard fare payment

- **Regional Bus Improvements**
  Commuter buses with new connections, improved frequencies and longer operating hours where there is increasing off-peak commuting demand, limited stops, and both onboard and offboard fare payment

- **Water Transportation Improvements**
  Water taxis or ferries with new connections, improved frequencies and longer operating hours, limited stops, and both onboard and offboard fare payment

- **Shared Mobility**
  Microtransit, micromobility, and on-demand connections with limited stops and offboard (app-based) fare payment
Corridors were identified through multiple inputs

- Analysis of current and expected travel demand
- Analysis of current and expected land uses
- Analysis of transit propensities (demand)
- Analysis of existing transit services
- Stakeholder discussions & existing plans
Potential Transit Corridors

Legend

- Existing Frequent Transit Network
- Regional Transit Corridors
- How More Corridors Detailed?

World's Regional Transit Corridors

Chesapeake Bay
Potential Regional Transit Corridors:

1. Morgan State Univ. to Port Covington via Johns Hopkins Univ. and Penn Station
2. Glen Burnie to Port Covington via Brooklyn Park and the Centre at Glen Burnie
3. Glen Burnie to Annapolis via Pasadena and Severna Park
4. Glen Burnie to Crofton via Millersville
5. Convention Center to Middle River via Harbor East and Canton
6. Towson to UM Transit Center via Belvedere Square and Waverly
7. Towson to Hunt Valley via Lutherville-Timonium and Cockeysville
8. Towson to Port Covington via Hillendale and Penn Station
9. North Plaza to UM Transit Center via Hamilton and Courthouse Square
10. White Marsh to Johns Hopkins Hosp. via Overlea and Berea
11. Fallston to Aberdeen Proving Ground via Belair, Churchville, and Aberdeen
12. Mondawmin to Port Covington via UM Medical Ctr. and Greyhound/Horseshoe
13. Rogers Avenue to City Hall via Walbrook Junction
14. Mondawmin to Reisterstown via Pimlico and Pikesville
15. Mondawmin to Northwest Hospital via Lochearn and Rockdale
16. Ellicott City to Convention Center via Catonsville, West Baltimore, and Inner Harbor
17. West Baltimore to Hopkins Bayview via Charles Center and Washington Hill
18. Sparrows Point to Hopkins Bayview via Dundalk
19. State Center to Hopkins Bayview via Johns Hopkins Hospital and Orangeville
20. Walbrook Junction to Berea via Coppin State University and Station North
21. Laurel to Halethorpe via Elkridge and the Maryland Food Center
22. Mondawmin to Hopkins Bayview via Johns Hopkins University and Orangeville
23. Halethorpe to UM Transit Center via UMBC and CCBC Catonsville
24. BWI Airport to Laurel via Arundel Mills and Annapolis Junction
25. BWI Airport to Columbia Towncenter via Arundel Mills, Jessup, and Snowden River
26. Odenton to Clarksville via Fort Meade, Savage, and Broken Land
27. Ellicott City to Silver Spring via Columbia Mall and Burtonsville
28. Annapolis to Union Station via Purrle and Davidsonville
29. Bel Air to Edgewood via Emmorton and Box Hill
Potential Regional Transit Corridors Discussion

- Do these corridors cover the areas you expected?
- Do any seem unjustified?
- Are there missing corridors? Why do you think they should be added?
CORRIDOR
PRIORITIZATION
EVALUATION

Alvaro Sifuentes
RTP Project Staff
Prioritizing Corridors: Methodology

- Legislation requires the plan to “prioritize corridors for planning of new public transportation assets”
- Plan will prioritize corridors by using evaluation measures tied to the goals

<table>
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<tr>
<th>GOALS</th>
<th>Corridor A</th>
<th>Corridor B</th>
<th>Corridor C</th>
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<tr>
<td>Evaluation Measure # 1</td>
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<td>Third</td>
<td>Second</td>
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SHORT, MID, LONG TERM CORRIDOR STRATEGIES
Goal-Based Corridor Prioritization

- Improve connectivity and integration of existing and future transit services
- Optimize existing transit services
- Enhance fiscal sustainability
# Prioritizing Corridors | Evaluation Measures

- Does this corridor address a current or future transit gap?
- How many existing jobs are accessible to the corridor?
- How many future jobs are accessible to the corridor?
- Is land use/zoning transit supportive?
- Is the corridor within a growth area?
- Does the corridor extend beyond a jurisdictional boundary?
- How many transit routes can you transfer to?
- Is the corridor in existing plans?
<table>
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<tr>
<th>Evaluation Measure</th>
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<tr>
<td>Does corridor improve existing service?</td>
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<td>Does corridor serve areas with long commuting times?</td>
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<tr>
<td>Percentage of minority population within the corridor?</td>
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<td>Percentage of low-income population within the corridor?</td>
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<td>Percentage of zero car ownership within the corridor?</td>
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<td>Percentage of seniors within the corridor?</td>
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<td>Percentage of people with disabilities within the corridor?</td>
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<tr>
<td>Number of residences accessible to the corridor?</td>
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PUBLIC COMMENT
NEXT STEPS

Holly Arnold, Deputy Administrator
Maryland Department of Transportation
Maryland Transit Administration
Schedule Look-Ahead

**ANALYZE**
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Next: **IMPLEMENT**

*Connecting Our Future*
A Regional Transit Plan for Central Maryland
Next Commission Meeting

October 29, 2019
9 AM – 12 PM

Community College of Baltimore County (CCBC)
10300 Grand Central Avenue
Room 509 A&B
Owings Mills, MD
CLOSE

Mike Kelly, Executive Director
Baltimore Metropolitan Council