Central Maryland Regional Transit Plan Commission Meeting
Howard County Miller Library
September 20, 2019
9:00 AM – 12:00 PM
Meeting Notes

Commission Members in attendance:

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<tr>
<th>Name</th>
<th>Title</th>
<th>Role</th>
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<tr>
<td>Ramond Robinson</td>
<td>Director of Transportation, Anne Arundel County</td>
<td>Anne Arundel County Executive’s designee</td>
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<td>Theo Ngongang</td>
<td>Planning Director, Department of Transportation, Baltimore City</td>
<td>Baltimore City Mayor’s designee</td>
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<td>Elisabeth Sachs</td>
<td>Director of Government Reform &amp; Strategic Initiatives, Baltimore County</td>
<td>Baltimore County Executive’s designee</td>
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<td>Bradley Killian</td>
<td>Director of Planning &amp; Zoning, Harford County</td>
<td>Harford County Executive’s designee</td>
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<td>Sameer Sidh</td>
<td>Chief of Staff, Howard County</td>
<td>Howard County Executive’s designee</td>
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<td>Jim Shea</td>
<td>Chairman Emeritus, Venable LLP</td>
<td>Senate President’s appointee</td>
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<td>Kirby Fowler</td>
<td>President, Downtown Partnership</td>
<td>Speaker of the House’s appointee</td>
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<td>Gina Stewart</td>
<td>Executive Director, BWI Partnership</td>
<td>Governor’s appointee</td>
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<td>J.C. Hendrickson</td>
<td>Member, MDOT MTA MARC Riders Council</td>
<td>Governor’s appointee</td>
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<td>Katie Collins-Ihrke</td>
<td>Executive Director, Accessible Resources for Independence</td>
<td>Governor’s appointee</td>
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OPENING

Michael Kelly, Executive Director of the Baltimore Metropolitan Council, opened the fourth Regional Transit Plan for Central Maryland (RTP) Commission meeting. Mr. Kelly
introduced Calvin Ball, the Howard County Executive, who delivered introductory remarks.

COUNTY EXECUTIVE’S WELCOME

Dr. Calvin Ball, County Executive for Howard County, commended the Regional Transit Plan team for spending six months studying the region and developing a vision and goals to guide the future of transit in Central Maryland. He noted that he appreciates the team’s efforts to improve connectivity, integrate and optimize future transit service, and enhance fiscal sustainability in Howard County and the region. Dr. Ball emphasized the importance of looking at the entire region’s interconnectivity, which will in turn enhance economic competitiveness.

The region has successfully cooperated in areas such as workforce development, health and human services, and emergency management; the Regional Transit Plan will now help to propel cooperation between the jurisdictions on transportation. In Howard County, transportation is a top priority because of its role in attracting and retaining residents and businesses. Sixty percent of commuters in Central Maryland commute across county borders and Howard County has the highest rate of commuters in the region. While Howard County has a growing and vibrant economy, the existing transit system does not do a good enough job of connecting the county to the region or providing the level of regional transit service that other jurisdictions enjoy.

Howard County’s local transit service is the Regional Transit Agency (RTA) of Central Maryland, which operates in Howard County, Laurel, and parts of Prince George’s and Anne Arundel Counties. RTA provides 16 percent of locally-operated fixed-route trips in the region, with nearly a million passenger trips in 2018. RTA also provides 13 percent of all paratransit trips in the region. After years of declining ridership and reliability, Howard County is committed to improving the system by providing more service and replacing the bus fleet. RTA’s May service change restructured bus routes and increased service hours by five percent, including expanded Sunday service.

Howard County is working hard to create policies and allocate funding to improve the quality of transit, bicycle, and pedestrian infrastructure. A Complete Streets ordinance is currently before the County Council and the County has secured a record amount of funding for bicycle and pedestrian projects. The County is also investing in a mobile ticketing and fare payment system for the RTA system next year, procuring five new transit vans for increased ADA and GPT service, and expanding bus service on several routes. Dr. Ball noted that the State recently cut funding for Howard County’s Bus Rapid Transit (BRT) efforts but emphasized the importance of reinstating funding for the project. He also stressed the importance of advocating for additional Statewide Transit Innovation Grant (STIG) funding.
Dr. Ball introduced Maryland State Senator Clarence Lam, Chair of the Howard County Delegation, who provided additional remarks about the importance of advocating for transit funding in Maryland. He recognized Delegate Brooke Lierman as a champion for the RTP. Mr. Lam noted that the reduction in Consolidated Transportation Program (CTP) funding for transit is a significant concern. MDOT’s projected revenues are insufficient to meet the needs of the region, which will impact the ability to deliver transportation improvements. The RTP plays a significant role in crafting recommendations to advance the cause for transit.

JUNE MINUTES REVIEW

Kirby Fowler presented the June RTP Commission meeting minutes. Mr. Fowler proposed one edit to the minutes on page 2, paragraph 6, to revise the statement “no majority runoff between the top two” to “with a majority runoff between the top two.” No further changes were proposed. The Commission unanimously approved the June minutes with this change.

MEETING SET-UP

Holly Arnold, MDOT MTA Deputy Administrator, explained the purpose and focus of this Commission meeting [see slide deck]. Ms. Arnold explained that the RTP Project Team is entering the “Propose” phase of the planning process. The team met with jurisdictions over the summer to verify the data and analysis, and is now proposing corridors and transit network improvements. The Commission will review and discuss draft corridors, identify missing corridors, and discuss which data or other evaluation measures are needed to prioritize the corridors. The maps presented at this Commission meeting are drafts and are still open to comments.

The team will focus on the customer journey at the October Commission meeting.

PUBLIC INVOLVEMENT

Teddy Krolik, MDOT MTA Chief of Engagement, presented the public outreach process that the RTP Project Team has completed to date [see slide deck]. The project team conducted outreach throughout the region to communicate with the public about the RTP and gain input on goals, strategies, projects and priorities. Several outreach locations were suggested by Commission members for previous outreach events and the project team welcomes additional Commissioner recommendations for future outreach locations. The Project Team will conduct five open houses in October to continue to communicate with the public about the project and solicit input.
RTP GOALS WRAP-UP

Kimiya Darrell, RTP Project Team, provided an overview of the goals development process and outcomes [see slide deck]. Ms. Darrell presented the three goals and supporting bullets. No additional comments or input was provided, and the Commission voted and approved these goals as written.

IDENTIFYING TRANSIT NEEDS: METHODOLOGY AND ANALYSIS REVIEW

David Miller, RTP Project Team, presented the methodology and analysis that the team used to identify transit corridors for the RTP [see slide deck]. The methodology consisted of a market analysis, service and travel flow analysis, and stakeholder outreach and existing plans. Each of these categories include several factors that identify transit needs, such as how much demand exists for transit service, where and when people have access to transit service, and what service qualities are important to the public.

Mr. Shea: These are good inputs, but the analysis is missing commute times.

Mr. Miller noted that the Project Team has looked at commute time data but has not yet presented the analysis. The commute time analysis looks at where need and demand for transit exist, where existing transit service provides connections to these areas, how much time and how many connections are required for these trips, and where the gaps are.

Mr. Shea: Job density is comparatively high around the light rail and Metro lines. Is this a result of transit being available or was the job density high before these rail lines were developed?

Mr. Shea requested an analysis of job density around Metro and light rail to determine whether the rail lines led to development or responded to job density.

Mr. Miller responded that the Project Team will look at historical BMC data to identify how employment density changed over time on these corridors.

Mr. Sidh: Is the list of projected job and population growth is organized in a particular order?

Mr. Miller: The list is ranked by projected growth, which includes growth in several sub-areas and is thus challenging to quantify.

Mr. Shea: Does this growth projection represent percent growth or total number of jobs?

Mr. Miller: This analysis looks at total number of trips, not percent increase.
Mr. Sidh: Is this analysis focused on localized growth or commuter growth outside of the jurisdiction?

Mr. Miller: The analysis represents origin-destination pairs from both within and outside the county.

Ms. Sachs: Does the analysis consider only employment, or does it also consider other reasons for travel, such as education and recreation?

Todd Lang, BMC: The analysis focused on commute trips and does not reflect other reasons for travel.

Mr. Kelly, BMC: It includes anything that generates a commute trip - residents, jobs, and other factors that would draw someone to a place via transit.

Mr. Sidh: Does this analysis reflect peak hour or other demand for service?

Mr. Miller: The model provides both all-day and peak flows.

Mr. Ngongang: Could the data underlying this analysis be provided to the Commission?

Ms. Stewart: Is the list of projected job and population growth areas in order of importance?

Mr. Miller: Some have the same amount of growth in trips, but they are ranked in order.

Ms. Stewart: I am surprised that Fort Meade’s growth is towards the bottom of the list.

Mr. Kelly: Fort Meade’s baseline of commute trips is higher, so the growth in trips is lower than the other projected growth areas.

Mr. Robinson: The Commission would like to see the percentage growth in trips.

Mr. Fowler: Are all RTP proposed corridors reflected in this list?

Ms. Arnold: We overlaid the proposed corridors on this map and all corridors hit one of these growth areas.

Mr. Shea: It would be helpful to see where we currently have transit-supportive land uses.

**TRANSIT CORRIDORS OF OPPORTUNITY – JURISDICTIONAL PRIORITIES – COMMISSION MEMBERS**

The Commission Members each presented their jurisdictions’ priorities for transit corridors.

Anne Arundel County – Ramond Robinson
In identifying priority corridors, Anne Arundel County focused on the major corridors included in the county’s priority letter and the transportation functional master plan, Move Anne Arundel. Anne Arundel’s major corridors are numbers 2 and 3 on the corridor map. These corridors currently have limited and fragmented transit but need transit connections because they are areas where the development plan is taking place and adequate infrastructure on these corridors is needed to manage congestion.

Light rail and regional rail stations are also important nodes of regional connectivity in the county, and the County is looking at transit-oriented development possibilities in coordination with the State of Maryland. A lot of intercounty travel takes place in Anne Arundel County and contributes to the trip volumes we will see. The availability of high-capacity transit is important. The County advocates for regional transit and is interested in seeing the practicalities of putting it in place.

**Baltimore City – Theo Ngongang**

Baltimore City remains the biggest job creator in the region and this should be a central element of this plan. Baltimore City will continue to collaborate with MDOT MTA, which is the City’s best ally for transit. Baltimore City has worked with MDOT MTA to implement dedicated bus lane corridors, which has helped to prioritize transit over cars. It is a priority for MDOT MTA to get more funding for capital needs. The Consolidated Transit Program (CTP) is providing less funding to MDOT MTA this year for capital investment and we need to focus on advocating for more investment in transit. MDOT MTA provides important regional connections, such as the MARC, which links Baltimore City to many job areas within the Central Maryland region and Washington, DC.

We need to connect residents to job centers with reduced commute times. The City also seeks a better connection with county partners on its borders and looks to collaborate on land use policies.

**Baltimore County – Elisabeth Sachs**

Baltimore County’s new County Executive is focused on transit and transportation and appreciates the opportunity to put transit needs on the map through this process. A corridor focus is necessary, and many of the origins and destinations on the map link to Baltimore County. East-west connectivity is missing across the jurisdiction and is not provided on any clear existing corridors. We need to figure out how to incorporate the east-west connection into the plan. One of the County Executive’s priorities is closing the first- and last-mile gaps to get people to jobs. Because much of Baltimore County is suburban, transit does not get people to job centers and home directly. Baltimore County looks to expand County Ride and hope that this can happen with the support of MDOT MTA to connect to the regional transit network. Connections to job locations are the top priority, but there are also areas for the Commission to make new connections over other needed routes and corridors.
Mr. Fowler: Looking at the I-695/Towson area, the proposed new list of corridors shows many north-south connections, rather than east-west. Will the east-west connection be sponsored by Baltimore County?

Ms. Sachs: There has been some progress in making east-west connections from the center of Baltimore City out to the east and west, but no continuous connection to get people on the west side to job centers such as Tradepoint Atlantic on the east side. We also need to look at a transit option on I-695.

**Harford County – Bradley Killian**

The RTP Project Team has demonstrated thorough knowledge of Harford County in selecting preliminary corridors. Harford County has unique geography and does not have high population or job density, which makes it challenging to support transit. Harford County has seen growth along the I-95 and Route 40 corridors, which are intra-county corridors. The jurisdiction is split along the I-95 corridor. People live on the west and north sides of this corridor and most jobs are on the east or south sides. We need to be able to transport our residents to the county line and to destinations beyond by improving connectivity between the counties. Getting into the county and away from the county remains a sticking point and we want to make it smoother.

**Howard County – Sameer Sidh**

Howard County recognizes the need for a connected region. Howard County is sandwiched between two major metropolitan areas and two major transit systems. Anything to connect Howard County to MDOT MTA transit and other major transit systems is important. East-west transit is an important focus and connecting Route 40 to Route 29 and Route 1 is a priority. There is an opportunity to expand east-west on Routes 40 and 29. Looking at growth corridors, Columbia is on the top of the list. Route 29 runs right through Columbia and it is disappointing to see that BRT funding for Route 29 was cut. Howard and Anne Arundel Counties are forgotten connection points in the region, as evidenced by low Locally-Operated Transit Systems (LOTS) support compared to Montgomery County. Howard County will have a growing need for transit funding for RTA as the Columbia development comes online.

Howard County also supports state of good repair (SGR) investments for MDOT MTA to maintain the existing transit system. One of Howard County’s greatest needs is additional investment in RTA’s paratransit system due to the increase in paratransit ridership.
TRANSIT CORRIDORS OF OPPORTUNITY

Mr. Miller presented the potential corridors and service improvements identified by the RTP Project Team [see slide deck]. The RTP legislation requires that the RTP identify corridors for new transportation assets and improvements to existing assets. The Project Team defined the features of transit corridors and other transit network improvements. Regional transit corridors serve major job and activity centers and have demand for additional infrastructure investment(s) and all-day service. Other transit network improvements address other transit demands; for example, local circulation, commuter service and first/last mile access would fall under this category.

These corridors that will be included in the RTP do not include specific routes or termini. Specific routes will be determined after further studies are conducted. The discussion in this Commission meeting will inform corridors to add to or take out of the plan. The RTP Project Team provided two maps: one shows existing transit corridors and the other shows both existing and potential transit corridors.

Mr. Fowler: Could you add ways to improve existing rail infrastructure?

Mr. Miller: Yes, next meeting will cover connecting rail stations, improvements to rail service, and supporting TOD and pedestrian connections.

Mr. Robinson: The inter-connectivity of regional rail is important. If you do this right, people could get to Virginia and West Virginia. We should consider super-regional connectivity.

Mr. Shea: I am glad to see three new corridors going east-west (Corridors 16, 17, and 19), but they appear to be bus routes. The pattern of these routes looks like they would have to be bus routes, not rail, because they have 90 degree turns. We also might have too many corridors.

Mr. Miller: We are being mode-agnostic right now. These locations warrant additional investment in transit. That could be higher frequency or longer span, bus priority treatments. We are not assigning a mode to these corridors. All these corridors would need to undergo alternatives analysis before we could identify a mode. We can’t say that they would not support a rail line

Mr. Fowler: Would these corridor improvements mean no transfers?

Mr. Miller: We wouldn’t be able to determine this until an alternatives analysis is conducted.

Mr. Hendrickson: What drove the development of these lines on the map?

Mr. Miller: We looked at the transit propensity- where there is need now, travel demand flows of where people are moving now and in the future – and compared them with
existing service and identified gaps. This included months of workshops with people throughout the region and that’s how we developed the actual lines on the map that show where we are serving this market demand, type of service, model flow now and in the future.

Mr. Shea: I am not sure where we go from here. This map has areas of troublesome space. In East and West Baltimore, where we have very large populations and very high unemployment, our routes are sparser. There needs to be a focus on how to connect East and West Baltimore to Fort Meade and other job centers.

Mr. Miller: It is always going to be difficult to serve individual origins and destinations. What we have here is a network. It is usable to get between many origins and destinations within a reasonable amount of time.

Mr. Shea: Regardless of the number of connections, the network will not be useful if it has too many transfers. We tend to route everything through downtown Baltimore, which is the densest area, rather than arcing north of the downtown business district to get past the downtown bottleneck.

Mr. Miller: Corridors 20 and 22 do arc over Baltimore and we have spokes that feed into these routes.

Ms. Arnold: The overlapping corridors might lead to confusion. Is it more helpful to show these as just one corridor?

Mr. Shea: No, I understand the map a little better now. We still have some ways to go before we get to a complete regional transit plan.

Mr. Robinson: We are establishing the bones here; these are not the actual applications or solutions. From Anne Arundel County’s perspective, these are the bones that we need to connect from a transit perspective, but this doesn’t tell us exactly what kind of transit we should put there.

Mr. Fowler: In terms of gaps, would we have more circular routes if we didn’t have the Chesapeake Bay? We should look at how to use ferry service to complete the service to places like Sparrow’s Point.

Mr. Miller: Potential commuter service is also not reflected and there is potential for peripheral express buses connecting to the outlying areas without going through the Central Business District (CBD). Water transit follows a lot of little corridors that wouldn’t need high frequency all day.

Mr. Shea: I would still like to see the commuter times in the existing transit systems as an overlay on the map.
Ms. Sachs: In Baltimore County, one concern is the lack of transit service in off-peak times. We should factor this in when talking about improvements.

Mr. Miller: We also will need to think about how people will connect from transit to their final destinations - will they walk or take another mode? Multiple levels of improvement are needed to make trips possible across the region.

Mr. Sidh: The time of day that trips are occurring is an additional layer that should be added to the map.

Mr. Hendrickson: Is the list of corridors in a particular order?

Ms. Arnold: The list is not prioritized or ranked.

Mr. Fowler: Another transit gap is in Harford County. Thirty-five percent of commuters’ travel to Baltimore County and Baltimore City, but there is not a strong connection to Bel Air and White Marsh. There is a commuter bus to Bel Air, but this connection missing. It is hard to get from Bel Air to Downtown.

Mr. Miller: This is not shown as a corridor because demand is limited to peak period.

Mr. Fowler: Bel Air has retail jobs that Baltimore City residents can benefit from. The reverse commute should be considered.

Mr. Miller: We looked at an all-day express to connect Harford and Baltimore City.

Mr. Killian: We discussed this in the small group meeting. One thing to be cognizant of is that we cannot try to solve all problems at once. Existing densities do not support transit between Fallston and White Marsh and Route 1. A reverse commute route was previously in place, but it was discontinued because of low ridership. We should be realistic in what we can improve. An east-west connection from Bel Air to Hunt Valley should be on the 25-year horizon and may be considered in the plan update in five years.

Ms. Sachs: We could think about the UMBC area more. We flagged that connection in our small group to think more about improvements because of potential growth there.

Mr. Killian: We also discussed the outer ring in the small group.

Mr. Sidh: There is a donut hole between Howard and Anne Arundel Counties that forms a gap between the two corridors in Howard County. East-west travel from Columbia is an important gap on Route 100.

Mr. Robinson: Route 100 is also identified as a corridor in the long-range transportation plan, but it doesn’t specify transit.

Ms. Arnold: We identified that as a highway expansion corridor but can look at it again.
Mr. Robinson: It didn’t identify a mode. There is an MDOT MTA study from years ago that looked at the connection between Dorsey and Arundel Mills. This should be identified as a corridor in the RTP.

Ms. Arnold: We’re looking in plans for corridors specifically identified as transit corridors. We did look at that corridor in the process and the transit propensity wasn’t showing up as significant.

Mr. Shea: Tentatively, there could be a gap in West and East Baltimore within the region and both of those areas out to job centers.

Mr. Hendrickson: In the small group meeting, we discussed connecting the BWI and Dorsey rail stations.

Mr. Miller: This is in the list of potential network improvements.

Mr. Killian: When will we see the analysis to determine which the corridors do connect people to the job center?

Ms. Arnold: That will be future feasibility studies. [RTP Project Team passed out handouts summarizing high-level next steps in the planning process following the RTP]. It is an extensive process to identify which corridor is best. For example, connecting east Baltimore to jobs at Tradepoint Atlantic could go on several alignments, and we are not there yet. We are trying to understand now if these are the right locations to connect. These corridors would be advanced through a prioritization process for future feasibility studies.

Ms. Sachs: Are feasibility studies included in this process?

Ms. Arnold: We envision prioritizing the corridors and those that are ranked highest will move forward to feasibility studies.

Mr. Shea: Is that a political process or through jurisdictional DOTs?

Ms. Arnold: We will prioritize the corridors. Some corridors still need work to be a better candidate for transit service.

Ms. Sachs: Will the RTP include detail about what localities should do to be ready for these improvements to happen?

Ms. Arnold: Yes, these will be included in the plan, ranging from sidewalks to zoning.

Ms. Stewart: Some people who work at Fort Meade live around Pasadena and Marley Mall. This connection is not shown on the map.

Mr. Robinson: The County’s plan identified that connection. We must consider adequate infrastructure to allow the trip to take place and what kind of frequency will allow the
connection. Some corridors need improvement before others, but this doesn’t negate the plan in its entirety. The plan should never put itself into a box and should be implementable when we find funding to implement it. Priority can sometimes be a limiting term.

Ms. Arnold: I agree that we don’t want to give up on lower-priority items, but we are required by legislation to prioritize the corridors. Each corridor would have an associated action item and prioritization can give us an idea of where to start.

Robinson: We should add Route 75 to Route 100 from Ellicott City all the way down to Glen Burnie. Also, the corridor from Annapolis to BWI is important.

CORRIDOR PRIORITIZATION EVALUATION

Alvaro Sifuentes, RTP Project Team, presented the draft corridor prioritization methodology for the Commission’s input [see slide deck]. The legislature calls for the corridors to be prioritized.

Mr. Shea: I don’t think that “Crossing Jurisdictional Boundary” is a good evaluation measure and should be removed.

Ms. Arnold: I do not feel strongly about keeping this evaluation measure. What do the other commission members think?

The commission voted and approved to remove “Crosses Jurisdictional Boundary” from the evaluation measures.

Mr. Shea: I believe that the methodology on the previous page does not work. The measures are not all equal. Many would say that some measures are more important than others, yet we are assigning the same value to all of these. The problem with the methodology is that it takes subjective judgements and turns them into a numbered system as if a higher number is a higher priority than another. This doesn’t consider overlapping measures, which double-counts some factors. I am against taking these data and moving them into a number system.

Ms. Arnold: All these factors have a data point associated with them, so they are objective measures. One option is to weight the measures.

Mr. Shea: We couldn’t weight the measures because each of us thinks the measures have various levels of importance. We should take these measures into account and describe how each corridor performs on them but should not come up with an overall score. The overall score might say that Corridor B is better than Corridor A, but some don’t agree with that.
Ms. Arnold: The legislation requires us to develop a methodology for prioritizing the corridors.

Mr. Shea: This creates artificial objectivity and it is misleading.

Ms. Arnold: Should we run the corridors through this methodology and see how they perform to illustrate how it would work?

Mr. Shea: You can do that, but I will object. To make this methodology perfect, we would have to weight the measures and people would have to agree. It cannot be done in any practical sense, but you will come up with a number that appears to be objective. Commissioners must exercise judgment and vote on the measures' weights. How much more important is jobs than the fact that the corridor is in existing plans?

Ms. Sachs: After visiting the jurisdictions and receiving input, will there be an opportunity to come back with input from Planning, Economic Development, and Transportation from each jurisdiction to see if there is accuracy in what is proposed?

Mr. Sidh: You could apply a weight to it, but weighting is different based on the values of the person who is doing the weighting.

Ms. Arnold: Is your suggestion that you vote on which are first, second?

Mr. Shea: You should show the results of each of the corridors. Some will be clearly ahead on jobs.

Ms. Arnold: We can use the data and score, show it to the Commission and the Commission can move up or down based on the results. You can vote to move it up or down. We will share all data that goes behind it.

Mr. Miller: This scoring is not meant to be sole arbitrator of what comes out of the plan. It is only meant to be an input. We still need public, stakeholder, and Commission input. Without a data-driven process, we risk a plan that is not defensible to the public or legislature.

Mr. Shea: We should have data-driven analysis, but a simple number ranking obfuscates that.

Ms. Arnold: Are we all in agreement that we can start putting together an analysis?

Mr. Shea: I object to putting numbers to corridors.

Ms. Killian: We can evaluate MDOT MTA's evaluation. We need a place to start.

Mr. Miller: Another option is to report the results of the evaluation measures and we can see which corridor is higher or lower based on the data. We will share the background data.
Ms. Collins-Ihrke: I am curious to know how these are operationally defined and where the numbers are coming from. For example, people with disabilities are defined in different ways. We want to know the sources and methodology.

Ms. Arnold: We will have small group meetings in November and will present and discuss the results there.

Mr. Sidh: The evaluation measure for existing transit routes creates a bias towards areas that already have existing transit.

Mr. Miller: This measure tells us the network value of the new transit connection.

Mr. Robinson: We'll just have the data, but the evaluation measures and ranking need to be refined.

Mr. Ngongang: We won't be able to shy away from objectivity. I want to ensure we're including equity. We can't look at an evaluation without embracing the fact that there has been a lack of equity in transportation.

Ms. Stewart: I agree that data is important because we all know our parts of the region well, but it is important to look at the whole region. Data is important, and we can figure out the evaluation from there.

Ms. Collins-Ihrke: How do other areas of the country rank their corridors?

Mr. Miller: Each region develops their own evaluation measures based on their goals.

The RTP Project Team and Commission agreed that the data would be compiled for each corridor and discuss further at the November small group meetings.

PUBLIC COMMENT

The public comment session was facilitated by Simon Taylor, RTP Project Team. Members of the public were given three minutes to testify; those representing an organization were given five minutes.

A. Brian O’Malley, Central Maryland Transportation Alliance, Member of Get Maryland Moving Coalition: Mr. O’Malley applauded the RTP Project Team and Commission for having substantive conversations about the corridors and how to prioritize them so early in the RTP process. The Get Maryland Moving Coalition will provide comments on the draft corridors and prioritization methodology and looks forward to seeing the public’s reaction as well.

Pollution from transportation is the top source of climate change pollution in the United States and in Maryland. VMT is at an all-time high in Maryland and
revenues from fuel sales are up from last year, but the draft CTP is reducing investment in MDOT MTA. This summer’s capital needs inventory shows a $2 billion funding gap to bring MDOT MTA to a state of good repair. Mr. O’Malley encouraged the Commissioners to attend the upcoming road shows taking place in each Maryland jurisdiction to emphasize the importance that local governments play in the success of transit.

Mr. O’Malley recognized Howard County for providing a model for public input on its Priority Letter and Baltimore County for identifying in its recently-released Priority Letter that funding for regional public transportation is critical. Jurisdictions can do several things to support transit, including providing transit-supportive land use around existing transit stops. Mr. O’Malley applauded the transit-oriented development (TOD) in Owings Mills, the Circulator in Towson, the TOD around the Aberdeen MARC station, and Columbia’s walkable and transit-friendly development. However, he noted that there are other places with existing light rail and MARC stations that are not walkable or accessible. Mr. O’Malley noted that there are tools, such as VDOT’s access tool, for evaluating access to residences, transfer routes, and jobs that capture the network effect.

B. Marlene Hendler; private citizen, Chair of Howard County Transit and Pedestrian Advisory Group Chair of Citizens Advisory Council for Accessible Transportation (CACAT): Ms. Hendler explained that she is a transit user who frequently travels between Howard County and Baltimore City. She emphasized the need for a better connection between these counties without having to travel up to Anne Arundel County to make the connection. On fixed-route transit, this journey takes up to three hours, and without Express BusLink 150, it takes four to five hours each way. While there is a corridor that goes from Ellicott City to Route 40, there is no other connection besides the 150 and it does not run all day or every day.

Ms. Hendler noted that one of the reasons she moved to Howard County is because she had fixed-route choices. She would like it to be even easier to make this corridor connection and stressed the importance of continuing to talk about this corridor in the RTP.

C. Anna Ellis, Member of Get Maryland Moving Coalition: Ms. Ellis encouraged the RTP Project Team to include some improvements that will benefit riders in the short term. Transit from Baltimore City to Annapolis is time-consuming and the only express buses run in the morning and afternoon. The only other way to get to Annapolis is to take the light rail and then transfer to the bus, which can take two hours. Ms. Ellis suggested that express buses run both ways in the morning and afternoon and increase the frequency of Route 70.
Reliability is key and choice riders will not use transit unless it is reliable. Ms. Ellis noted that enhancements such as transit-signal priority (TSP) and bus priority lanes can speed buses. Getting people out of cars is essential to meeting our environmental goals and short-term improvements can help while larger projects are in the works.

D. Ted Cochran: Mr. Cochran explained that he spent his career performing multi-dimensional, semi-objective evaluations. He suggested that the Project Team ensure that the dimensions they use to rate these options are not correlated; otherwise, they will be double-counted. For example, if there are two measures of cost and one measure of equity, cost would override equity. Mr. Cochran suggested that the Project Team have the Commissioners rate the importance of these measures ahead of time if they want to weight them. He also suggested that additional measures such as reducing traffic congestion be considered.

E. Ed Cohen, CACAT: Mr. Cohen expressed concern about the discussion he heard today about where the region needs transit. He suggested that the first thing MDOT MTA must deal with is that it does not have enough buses to take people where they need to go. Mr. Cohen noted that the RTP Project Team is looking at other systems but should not compare the Central Maryland region to Denver or Seattle because it struggles with more congestion, substandard lane widths, short blocks. He said that replacing rail with BRT will not work and that the bus lane on Pratt works, but the one on Fayette does not because of geometries.

Mr. Cohen said that transfers undermine transit and are an obstacle to a system's success, suggesting MDOT MTA needs to make sure that as many transit lines are connected as possible. Instead of trying to make routes shorter, MTA needs to make routes longer, so they connect to more routes, so riders require fewer transfers. Mr. Cohen emphasized that transit mode matters a lot, as evidenced by the fact that Metro is three times faster than Light Rail.

NEXT STEPS

Holly Arnold presented an overview of next steps:

- The next RTP Commission meeting will be in Baltimore County at Community College of Baltimore County (CCBC) on October 29 from 9 a.m. to 12 p.m. The meeting will focus on the rider experience and transit readiness.
- Because Mr. Fowler will not be able to attend the meeting, Elisabeth Sachs was selected to be the Commission Chair for this meeting. The Commission approved this.
Ms. Arnold challenged the Commission to take transit once or twice before the next meeting to help inform the conversation.
Chicago Transit Authority

LOOP LINK

**MODE**

BUS RAPID TRANSIT “LITE”

**OPENING YEAR**

2015

**PROJECT COST (APPROX.)**

$32.5M

**LENGTH**

2 Miles

**WHY THIS MODE**

- BRT and Streetcar were both considered as modes for Chicago’s premium transit service.
- The BRT concept began with 2040 MPO Long Range Transportation Plan (LRTP) Go To 2040 recommending BRT as the only cost-effective way to build new lines.
- LRTP update Go To 2050 continued to recommend BRT for system expansion.
- Loop Link moved forward as a cost-effective option to address slow-moving bus congestion through downtown.
- Project included dedicated lanes and upgraded transit shelters, but never operated the proposed BRT service with dedicated lane infrastructure.
- The BRT Lite service made use of 7 queue jumps, and local bus routes also use the lanes. Service does not have off board fare collection.

**FUNDING SOURCES**

Loop Link funded at 80/20 using Federal Highway Administration, rather than FTA funds:
- $24.6 M FHWA Congestion Mitigation and Air Quality (CMAQ) grant
- $7.3 M Local Tax Increment Financing (TIF)

Additional info:
- TNC Fees - a per-ride charge from ride-hailing passengers. The City of Chicago and the Chicago Transit Authority (CTA) have earmarked an increase so that $0.15 of the $0.67 fee will directly fund transit, including CTA.
- The 2019 TNC fee is expected to raise approximately $30M in 2019 before an additional $0.05 increase comes into effect. The fee will pay for long-deferred rail system maintenance, including upgrades to the track, structure, signal, and power systems to reduce commute times and improve the overall reliability of the ‘L’.
- Transit-Tax Increment Financing - is also being used for the rail Red/Purple Modernization. Rail corridor (RPM) Transit TIF can be used only for specified Chicago transit projects – including RPM. It provides a local match for federal funding.

PEER REVIEW: RECENT TRANSIT CAPITAL PROJECT MODE AND FUNDING
Cleveland/RTA

HEALTHLINE

MODE
BUS RAPID TRANSIT

OPENING YEAR
2008

PROJECT COST
$200M

LENGTH
7 Miles

WHY THIS MODE
• City had been working on this project (as either LRT or BRT) for approximately 20 years.
• Significant economic investment was occurring along the Route 6 bus line. Development was happening in a pattern unsupportive of transit; transportation was to help development be more compact and walkable.
• LRT was the original desire (due to LRT’s redevelopment success in Portland, OR).
• LRT cost estimate was $700-800 M and found to be cost prohibitive and too slow to meet redevelopment opportunity due to time needed to get approvals.
• FTA noted in the mid-90s that BRT was a more affordable option to explore than LRT. Service design inspiration came from BRT in Curitiba, Brazil.
• By the time the project was ready to start, the funding split was 50/50, not 80/20, meaning that the local contribution would be much higher than expected. Project’s anticipated value to the city increased funding support.
• Economic development revenue along the corridor has been 2x more than expected.

FUNDING SOURCES
Full Funding Grant Agreement (FFGA):
• $82.2 M - FTA New Starts Grant
• $0.6 M - FTA Rail Modernization Funds
• $50 M - Ohio DOT / TRAC Funds
• $17.6 M - RTA / Local Funds
• $10.0 M - NOACA (MPO)
• $8 M - City of Cleveland

Non-FFGA funding below helped to improve the competitiveness of the project’s FTA application:
• $25 M - ODOT
• $3.75 M - RTA
• $2.85 M - Cleveland Clinic added to the project elements serving that section of the corridor

PEER REVIEW: RECENT TRANSIT CAPITAL PROJECT MODE AND FUNDING
Transit officials from around the world visit Cleveland to see RTA’s HealthLine, a state-of-the-art bus rapid transit line that connects downtown with the MetroHealth Main Campus and the MetroHealth Line Endpoint. Formed in 1975, the award-winning RTA is the largest transit provider in the state of Ohio. RTA’s mission is to enhance the quality of life in Greater Cleveland. Its motto is simple: Quality Service – Every Customer, Every Day.

All are equipped to accommodate bicycles, and all offer air-conditioning. RTA provides service throughout Cuyahoga County, with extensive coverage. RTA’s fleet of vehicles is also thoroughly maintained to meet the highest standards. All RTA vehicles operate on low-sulfur diesel fuel, electricity, and compressed natural gas.

To make your RTA trip easier, keep these tips in mind:

- Have your pass, farecard or exact fare ready before boarding.
- Allow passengers to exit before you board.
- Use earphones with audio devices.
- Place trash in receptacles at all stations and stops.
- Place your bags, packages and bikes on the floor, not in the aisle.
- Allow room for boarding, keep aisles clear.
- Follow all posted safety and restriction signage.
- Use designated spaces for wheelchairs, strollers, and bicycles.
- Use the center clip for better balance and safety when standing.
- Speak softly on cell phones.
- Have the name of your destination and the number of stops to your destination ready.
- Have your farecard ready before boarding.
- Do not leave your farecard or pass on the bus.
- Know your route and farecard or pass when you board.
- Have the correct fare ready when you board.
- Look out for your stop.
- Have your transfer card ready when you board.
- Have the route number and farecard or pass ready before boarding.
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**Los Angeles County Metro Crenshaw Line**

**Mode**
- **Light Rail Transit**

**Opening Year**
- 2020

**Project Cost**
- $2.1B

**Length**
- 8.5 Miles

### Why This Mode
- LRT, heavy rail, commuter rail, and BRT modes considered:
  - Heavy rail / commuter rail / passenger rail options sharing existing freight rail (used by BNSF but owned by Metro) track considered initially but all were eliminated
  - Not enough residential / employment density
  - Required track rehabilitation and upgrades to systems
  - BRT operating within freight rail ROW cited as an option, if designed to allow for freight rail service to continue.

- BRT and LRT perceived compatible with existing and future modes.

- Mode evaluation criteria: Regional Connectivity; Environmental Effects; Economic Development/Land Use; Community Support; Capital and Operating Costs; Cost-Effectiveness; Financial Capability; Federal New Starts Funding Criteria; Ridership; and Travel Time Savings.

- LRT was selected over BRT due to:
  - Travel time reliability
  - Accommodates future capacity and growth
  - Community support

### Funding Sources
- Local dedicated funding sources:
  - Local sales tax: Measure R, the ½-cent sales tax approved by Los Angeles County voters in 2008 (82% of budget).
  - Los Angeles County Proposition A and Proposition C Countywide Transportation Sales Tax
  - Los Angeles County local cities and county contributions

- TIFIA loan from Federal Government, repaid with sales tax revenue
- Caltrans’ Environmental Justice: Context-Sensitive Planning Grant.
- State Proposition 1B Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA)
**New Orleans/RTA**

**LOYOLA AVE/RAMPART ST CLAUDE STREETCAR**

**MODE**

STREETCAR

**OPENING YEAR**

2016

**PROJECT COST**

$42.2M

**LENGTH**

1.6 Miles

**WHY THIS MODE**

- The North Rampart Street and St Claude Avenue project was a planned extension of a connection between Amtrak’s Union Passenger Terminal (UPT) across the existing Canal Street Line past the French Quarter to areas redeveloping post-Hurricane Katrina.
- As the extension of an existing route, the Loyola Avenue line completed in 2013 and funded with federal TIGER funds, an alternative mode was not considered.
- The initial intent of the completed route was to leverage the tourism-based areas of New Orleans to attract investment; streetcar was the only transit mode considered and evaluated.
- The initial decision to invest in streetcar was based more on its aesthetic and placemaking value with strong support from streetcar advocates, developer and business interests to support revitalization adjacent to popular tourist destinations and new development within the Central Business District.
- Another planned extension of this line that was to begin design has been shelved due to concerns that it reduced RTA resources for the region’s long commutes by residents who rely on transit, particularly those in the service and tourism sectors.

**FUNDING SOURCES**

- Locally funded through a Series 2010 Sales Tax Revenue Bond for $40.6 M.
- The first phase of the line, the 1.5-mile Loyola Avenue to UPT segment, was built for $60 M and funded through a combination of private sector investment and a $45 M Federal Transportation Investment Generating Economic Recovery (TIGER) Program Grant.

**PEER REVIEW: RECENT TRANSIT CAPITAL PROJECT MODE AND FUNDING**
New Orleans/RTA
LOYOLA AVE/RAMPART ST CLAUDE STREETCAR

STREETCAR EXTENSION OPENED IN 2016
Phoenix/Valley Metro
LIGHT RAIL NW PHASE 1

MODE
LIGHT RAIL TRANSIT

OPENING YEAR
2016

PROJECT COST
$327M

LENGTH
3.2 Miles

WHY THIS MODE
- Extension of the original 20-mile LRT line. Project included three stations, a 415-space park-and-ride, underground infrastructure replacement, widened sidewalks, public art, and business assistance.
- LRT was selected over BRT due to:
  - Use of existing LRV fleet and O&M facility
  - Lower long-term life cycle costs
  - Higher predicted ridership
  - Passenger carrying capacity - up to 5x higher
  - Reduced passenger travel times
  - Greater economic development opportunities
  - Improved air quality due to electric rather than fossil fuel propulsion
  - Future enhancement of regional transit connections; opportunity for a larger regional park-and-ride facility

FUNDING SOURCES
- Local dedicated funding sources. Several voter-approved initiatives to dedicate a share of sales tax increases to transportation and transit:
  - City of Phoenix T2000 – voter approved tax (0.5% sales tax) dedicated to public transit - $85 M
  - City of Phoenix, part of Proposition 104, a 0.7 % sales tax to implement the Transportation 2050 Plan - $60 M
  - Proposition 400 funds collected from a voter-approved regional transportation tax; a 0.5 cent sales tax for transportation projects in Maricopa County- $182 M

PEER REVIEW: RECENT TRANSIT CAPITAL PROJECT MODE AND FUNDING
The Northwest Light Rail Extension brings new energy into an active community that relies on transit to connect to jobs, schools, neighborhoods, local businesses and shopping. Travelers in the area will enjoy an updated streetscape with wider sidewalks and new landscaping between Montebello and Dunlap avenues. Construction of the extension also included the replacement of underground city infrastructure. This extension will continue with Northwest Phase II to Metrocenter Mall area, which will soon be advanced with the passage of Phoenix’s Transportation 2050.

**Project Overview**

- **Number of miles:** 3.2
- **Number of stations:** 3; Glendale, Northern and Dunlap avenues
- **Park-and-ride:** 415 spaces at the southwest corner of 19th and Dunlap avenues
- **Community relations:** 252 businesses supported by assistance programs; 164 community meetings and events
- **Ridership estimate:** 5,000 riders per day
- **Estimate to operate:** $4 million annually from fares and City of Phoenix
- **Construction start:** January 2013
- **Opening:** March 19, 2016

**Public Art**
The commissioned artists immersed themselves into the Northwest Phoenix community creating two themes that capture the essence of 19th Avenue: community and beauty of the natural world. They also considered additional shade, vibrant and rich palettes and an appreciation for the area’s plant and animal life.

**Funding**

- **Regional Funds - PTF 56%**
- **City of Phoenix - T2000  26%**
- **City of Phoenix Advance  18%**

**Total Funding:** $327M

**Construction Facts**

- **1,000,000 labor hours**
- **603 jobs generated annually during peak construction**
- **400,000 feet electrical pipes installed**
- **18,000 cubic yards track concrete poured**
- **16,433 feet sewer main installed**
- **35,000 feet water main installed**
- **33,800 feet track placed**

**Route Map**

Note: Dates indicate anticipated calendar year openings

**Legend**

- Valley Metro Rail
- Northwest Light Rail Extension Phase I
- Transit Center
- Park-and-Ride
### Phoenix/Valley Metro

**CENTRAL MESA EXTENSION**

**MODE**
- **LIGHT RAIL TRANSIT**

**OPENING YEAR**
- 2015

**PROJECT COST**
- $199M

**LENGTH**
- 3.1 Miles

### WHY THIS MODE

- Considered LRT and BRT modes (BRT would operate in mixed traffic as a limited stop express service).
- Mode evaluation criteria compared ridership potential, capital costs, land use and economic development impacts, traffic issues, major environmental factors, conceptual engineering, community goals, and public input.
- Mesa’s planning process involved developers - Mesa held a summit prior to construction to allow developers’ input on how to revitalize Downtown.

- LRT was chosen despite identified disadvantages versus BRT:
  - Decreased auto capacity downtown that could result in congestion
  - Longer construction time than BRT
  - A new transit mode and loss of two through travel lanes would impact the existing character of Downtown Mesa

### FUNDING SOURCES

- Federal 5309, Small Starts $75 M
- Federal Congestion Management Air Quality (CMAQ) $53 M
- Proposition 400 funds collected from a voter-approved regional transportation tax; a 0.5 cent sales tax for transportation projects in Maricopa County $71 M

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**PEER REVIEW: RECENT TRANSIT CAPITAL PROJECT MODE AND FUNDING**
The Central Mesa Light Rail Extension serves the growing transit demand in the region. It connects to the downtown Mesa business, arts and entertainment district, Mesa City Plaza, Phoenix Sky Harbor International Airport and special events and activities in adjacent downtown Tempe and Phoenix.

**LEGEND**
- Central Mesa Light Rail Extension
- Valley Metro Rail Line
- Valley Metro Rail Station
- Transit Center
- Park-and-Ride

**PROJECT OVERVIEW**
- Number of miles: 3.1
- Number of stations: Four stations at Alma School Road, Country Club Drive, Center Street and Mesa Drive
- Park-and-ride: 445 spaces at the northeast corner of Main Street and Mesa Drive
- Ridership estimate: 5,000 riders per day
- Estimate to operate: $4 million annually from fares and city of Mesa
- Construction start: July 2012
- Opening: August 22, 2015

**BUSINESS ASSISTANCE**
Prior to and during construction, Valley Metro encourages businesses to join the METRO Max Rewards program. Valley Metro promotes the program on the website, social media sites, train wrap, weekly emails to subscribers and at events.

- 161 METRO Max Rewards businesses
- 199 businesses utilized signage/banner program
- 248 community meetings and events held

**FUNDING ($M)**
- TOTAL $199M
  - $71.2M
  - $75.0M
  - $52.8M

**CONSTRUCTION FACTS**
- Linear feet of sewer main replaced: 3,850
- Linear feet of water main installed: 14,390
- Linear feet of track placed: 31,226
- Cubic yards of track concrete poured: 20,000
- Linear feet of electrical pipes installed: 425,000
- Labor hours: 755,000
- Jobs generated annually during peak construction: 700
# Seattle/King County Metro

## RAPIDRIDE FREQUENT TRANSIT NETWORK G LINE

### Mode

**Bus Rapid Transit**

**Limited Stop Service**

**Opening Year**

2022

**Project Cost (Approx.)**

$121M

## Why This Mode

BRT was selected over LRT and streetcar due to:

- Lower capital costs and ability for targeted and phased-in investment
- Opportunity to include bike/ped facilities
- Buses shorter than LRVs; allowing for shorter platforms and increased flexibility for platform placement and street integration
- BRT has fewer disruptive / newly introduced impacts on existing traffic. Integration of BRT signal systems and streets is simpler and cheaper than for LRT
- Simplified construction and operating characteristics, possibility of providing off-guideway service; faster construction with fewer noise and vibration impacts

## Mode Evaluation Criteria:

- Community, Economy, Environment and Human Health, Social Equity, and Efficiency factors
- Corridors evaluated for speed and reliability, viability for high-capacity transit (e.g., grade, availability of ROW), and overlap with current and planned light rail or other major transit investments

## Priority Given to Routes That:

- Have high ridership and unmet demand
- Serve major regional destinations
- Can be improved to increase travel speeds
- Have partner jurisdictions willing to help with roadway improvements, permitting, or regulatory changes

## Funding Sources

- $60 M - FTA CIG small starts funding
- $9.7 M - FhWA Congestion Mitigation Air Quality Grant
- State: $2.6 M - Connecting Washington grant
- Local:
  - $28.50 M - Sound Transit Sales and Use Tax, Motor Vehicle Excise Tax, Property Tax and Rental Car Tax Revenues and Bonds
  - $15.7 M - Levy to Move Seattle Property Tax Revenues
  - $3.5 M - King County Local Sales Tax Revenues
  - $1.6 M - City of Seattle Real Estate Excise Tax, Vehicle Licensing Fee, Development Mitigation Fee and Other Transportation Revenues
- Local dedicated funding sources:
  - The ‘Levy to Move Seattle,’ a 9-year transportation improvement program approved by Seattle voters in 2015.
  - Local taxes and fees (from King County and City of Seattle), including property, sales, parking, and business and occupation taxes; vehicle license fees; and private funds through partnerships.
  - Regional sources, including Sound Transit State sources, including Washington State Department of Transportation (WSDOT) programs and other state appropriations
- Federal sources through the Puget Sound Regional Council (PSRC) and nationwide discretionary sources
Transportation Project Prioritization and Decision-Making

During the Central Maryland Regional Transit Plan’s (CMRTP) fourth Commission meeting, members expressed interest in learning about how other agencies or jurisdictions evaluate and prioritize transportation projects. This document will summarize a few examples from across the United States.

The Transportation Research Board (TRB) recently held a “Conference on Performance and Data in Transportation Decision-Making,” which included presentations by several agencies. This document discusses only two examples from the conference (ATL and VDOT), but the full program and presentations can be found on the link below:

http://onlinepubs.trb.org/onlinepubs/Conferences/2019/PerformanceData/program.pdf

1. Atlanta-Region Transit Link Authority (ATL) – Regional Transit Plan
   - Regional Transit Plan with a 6-year and 20-year time horizons
   - Included all projects to be funded through the new HB930 sales tax
   - Prioritization process was based on governing principles
   - Measures were created based on the following four prioritization criteria:
     - Performance impacts
     - Market potential
     - Deliverability
     - Cost effectiveness
   - Projects were scored on each measure with a total maximum score of 100, but with different weighting based on the type of project (Expansion, Enhancement or SGR) (Figure 1).

Multi-Criteria Prioritization Model

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<th>Performance Measure Category</th>
<th>Project-Level Performance Measures</th>
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<th>Enhancement</th>
<th>SGR</th>
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<td>Transit Reliability</td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Increased Useful Life</td>
<td>15</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Elements to Improve Safety/Security/Environment</td>
<td>0</td>
<td>10</td>
<td>25</td>
</tr>
<tr>
<td>Deliverability</td>
<td>Financial Plan</td>
<td>28</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>Documented Project Support</td>
<td>15</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Project Readiness - Schedule, Environmental Impacts</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Regional Integration / Connectivity</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Cost-Effectiveness</td>
<td>Cost per Point</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

Figure 1: ATL Multi-Criteria Prioritization Model – Maximum Points by Measure and Project Type
2. Virginia Department of Transportation (VDOT) – SMART SCALE
   - Developed the SMART SCALE methodology to score and evaluate transportation projects funded in Virginia’s six-year improvement program (SYIP)
   - Projects submitted for evaluation by local governments, MPOs/PDCs and transit organizations
   - Measures developed to work for both urban and rural areas and for all modes of transportation based on the following goals:
     - Safety
     - Congestion
     - Accessibility
     - Economic Development
     - Environmental Quality
     - Land Use
   - Projects are scored on either five or six goals and weighted using one of four typologies based on the location of the project (Figure 2).

![Area Type Weighting](image)

Figure 2: Virginia SMART SCALE – Area Type Weighting
3. Baltimore Metropolitan Council – Maximize 2045
   - Regional long-range transportation plan by the area’s Metropolitan Planning Organization (MPO)
   - Regional goals and strategies were developed by the Baltimore Region Transportation Board (BRTB)
   - Local jurisdictions, in consultation with MDOT, submitted projects for consideration in Maximize2045
   - Projects could receive a maximum of 90 points based on a combined Technical Score and Policy Score (Figure 3)
     - BMC scored each project on technical merit, with a maximum score of 50 points
     - Each submitting jurisdiction and agency provided a policy score, based on the relative priority to the jurisdiction or agency and demonstrated financial support, with a maximum score of 40 points

![Figure 3: BMC Maximize2045 – Technical Score and Policy Score](image-url)
4. VIA Metropolitan Transit – Vision 2040
   - Long-range plan for transit in the Greater San Antonio Region
   - Identified network of potential high-capacity transit projects
   - Corridor were scored based on measures of the following priorities:
     - Ridership
     - Congestion effect
     - Productivity
     - Site potential
     - Access
   - Scores were categorized as High, Med/High, Med/Low, and Low (Figure 4)

<table>
<thead>
<tr>
<th>NAME</th>
<th>RIDERSHIP</th>
<th>CONGESTION EFFECT</th>
<th>PRODUCTIVITY</th>
<th>SITE POTENTIAL</th>
<th>ACCESS</th>
<th>OVERALL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fredericksburg</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
</tr>
<tr>
<td>Zarzamora</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Commerce-Houston</td>
<td>MED/HIGH</td>
<td>MED/HIGH</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>San Pedro</td>
<td>MED/HIGH</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>New Braunfels Ave</td>
<td>MED/HIGH</td>
<td>MED/HIGH</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Looper Premium (incl. SW M/L)</td>
<td>HIGH</td>
<td>HIGH</td>
<td>LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Austin Highway</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>General McMullen-Babcock</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>HIGH</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Rockport/Roosevelt</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Bandera</td>
<td>LOW</td>
<td>LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
</tr>
<tr>
<td>Huebner-Grissom</td>
<td>LOW</td>
<td>LOW</td>
<td>MED/LOW</td>
<td>MED/LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
<tr>
<td>FM 78</td>
<td>LOW</td>
<td>LOW</td>
<td>LOW</td>
<td>MED/LOW</td>
<td>LOW</td>
<td>LOW</td>
</tr>
</tbody>
</table>

*Figure 4: VIA Vision 2040 – Project Scoring*
<table>
<thead>
<tr>
<th>Transit Readiness Factor</th>
<th>Common Issues Associated with this Factor</th>
<th>Strategies for Addressing this Issue</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major destination or the district to be served by transit is difficult to reach from proposed route</td>
<td>Use MDOT MTA’s Transit Priority Toolbox to select methods to efficiently move service from corridor through destination or district streets</td>
<td>Engage major employer(s), jurisdiction, transit operator, and/or mobility companies to plan shared-mobility or microtransit options at transit stops or stations and destinations</td>
</tr>
<tr>
<td>Route has destinations only at one or each end (beyond termini, corridor is rural or very low density to warrant more stops)</td>
<td>Conduct a corridor study to determine corridor locations conducive to new development or re-development, assess their market options, and establish regulatory support for transit-friendly patterns (dense/clustered/mixed use/walkable)</td>
<td>Provide express service to build ridership for future envisioned corridor-based service</td>
</tr>
<tr>
<td>Existing rail stations serve low density location(s) or park-and-ride(s)</td>
<td>Pursue Maryland’s Transit Oriented Development (TOD) Designation</td>
<td>Assess site opportunities and plan station area(s), regardless of designation, with support from MDOT MTA’s TOD Guide, market, design, and strategic planning expertise</td>
</tr>
<tr>
<td>Single-use (employment) areas have little or no activity after business hours</td>
<td>Change zoning and/or incentives to mix land uses (e.g.: ensure mixed use zoning in station areas; add retail/housing to industrial employment zone, etc.)</td>
<td>Coordinate transit service with the start and end of the workday (e.g.: shift-focused service frequency and span)</td>
</tr>
<tr>
<td>Uniform low to medium density is spread along many miles of a corridor</td>
<td>Vary allowed density via zoning code to create “transit nodes” along corridor as parcels redevelop</td>
<td>Promote infill development at strategic locations through active marketing and incentive program strategies</td>
</tr>
<tr>
<td>Large surface parking lots impede density of land use</td>
<td>Reduce minimum parking requirements near transit stations/stops jurisdiction-wide</td>
<td>Establish regulations, governance, and incentives to allow for and encourage shared parking arrangements near transit stations/stops</td>
</tr>
<tr>
<td>Properties are proximate to existing transit under- or un-developed and unable to produce requisite transit demand</td>
<td>Prepare community-based planning studies to identify “soft” and catalytic sites and investigate redevelopment options</td>
<td>As part of planning studies, conduct area market analysis to determine area-based opportunities for redevelopment</td>
</tr>
<tr>
<td>A barrier, such as major roadway, track bed, and grade separation, cut off access to transit stop or station on one or more sides</td>
<td>Prioritize program funds for projects that increase and ameliorate access to transit stops or stations</td>
<td>Prioritize transit access in ADA improvement programming</td>
</tr>
<tr>
<td>Large-scale development creates barriers for pedestrians and does not plan for multimodal circulation through the site and/or along its periphery to connect neighboring parcels and transit stops</td>
<td>Require connectivity plans with all master plans that build internal and through-site connections for comfortable pedestrian access to daily destinations like schools, shopping, parks, transit stops, nearby employment, and neighborhoods</td>
<td>Adjust signal/crossing spacing guidance to allow for more frequent intersections and fewer driveways (off-arterial property access) for areas near major transit stops/stations</td>
</tr>
<tr>
<td>Meandering street network makes destinations inconvenient to reach by pedestrians and transit vehicles</td>
<td>Develop plan to connect streets identifying pedestrian and bicycle paths or new street opportunities</td>
<td>Ensure interchange/intersection design guidance reduces right-turn radii and turning speeds to increase pedestrian crossing safety and motorist compliance with low speeds at conflict points</td>
</tr>
<tr>
<td>Lack of sidewalk, sidewalk gaps, and dedicated road space for bicycles, scooter, etc. make it difficult to access destinations from transit stop or station</td>
<td>Require sidewalk construction along with parcel development (consider off-site improvements)</td>
<td>Identify routes for separated facility or dedicated roadway space for bicycles and scooter access to stops/stations</td>
</tr>
</tbody>
</table>
| Include transit access needs and prioritization for complete streets design and funding programs in planning | Include transit access needs and prioritization for complete streets design and funding programs in planning | }
## Transit Readiness Factors, Common Issues, and Strategies to Address

<table>
<thead>
<tr>
<th>Comfortable, Inviting Environment</th>
<th>Large building setbacks, blank walls, and/or unused/uninviting public space (both public and privately owned) exists</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Use design guidelines for pedestrian-friendly places (e.g. building orientation, fenestration, streetscape elements, etc) to influence private and public project designs and plan review</td>
</tr>
<tr>
<td></td>
<td>Identify high-impact parcels/buildings that are suppressing pedestrian comfort and prioritize redevelopment or partner with parcel owners or tenants to redesign facade, landscaping, and site layout</td>
</tr>
<tr>
<td></td>
<td>Temporarily activate underused spaces near important transit stops using low-cost interventions such as kiosks, murals, and pop-up style space programming</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Surface parking and excess supply increase the distances between destinations and reduce the appeal of transit</th>
<th>Reduce minimum parking requirements near transit stations/stops jurisdiction-wide</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Facilitate shared parking arrangements near transit stations/stops</td>
</tr>
<tr>
<td></td>
<td>Establish parking districts to manage parking supply</td>
</tr>
</tbody>
</table>

| [Jurisdiction or institution] Supply shared structured parking in central locations to minimize separate surface lots |

<table>
<thead>
<tr>
<th>Projects are developed incrementally without the ability to contribute to dense walkable places that are able to support transit and pedestrian comfort and convenience</th>
<th>Use planning processes to engage major land owners and affected neighbors to prepare a unified vision that establishes transit-supportive development densities, patterns, and connectivity plans and enables coordinated actions that are necessary to build transit-friendly places</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Establish infrastructure investment strategy to support the planning, design, funding, and construction of complete path and street networks to connect destinations in transit investment zones</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transit Prioritized on the Route's Street/Guideway</th>
<th>Major on-street transit route is slowed by congestion and causes bus bunching, which impacts service quality and on-time performance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Determine cause of delay, and consult MTA’s Transit Priority Toolkit to develop appropriate solution</td>
</tr>
<tr>
<td></td>
<td>Redesign streets to enable transit priority that is compatible with other street functions and priority users</td>
</tr>
</tbody>
</table>

|                                                                                           | Evaluate and adjust access management policies to promote side-street and cross-easement access |

| State tax incentive and grant based funding support have little correlation with existing areas of high transit service | Provide additional points or set asides for transit accessible places in ranking criteria for tax incentive and grant based funding support |

| Development/business location and design miss opportunities to leverage existing transit service investment | Establish a Fast Action Response Team to convene and engage with partners; respond to development opportunities; and expedite agency planning, design, and permitting decisions as well as any necessary cross-agency coordination |

| Engage with major institutions to share marketing and support employee program set-up, such as Live Near Your Work |
| Establishment of an employer or area based Transportation Management Association to encourage, monitor, and report on transit-based marketing |

<table>
<thead>
<tr>
<th>Programs and incentives for transit use and site location</th>
<th>Business’s location decisions do not include transit accessibility; businesses request service once they have located, and employees find that they can not reach jobs they have been hired to do because service is unavailable or prohibitively inconvenient</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provide information to economic development staff and planning staff to support the business location and transit oriented design of new facilities</td>
</tr>
</tbody>
</table>