

**MARC Train Service Expansion
(HB 1236, Chapter 30, Acts of 2020)**

**A Report to the Senate Budget and Taxation
Committee, the House Appropriations Committee,
and the House Environment and Transportation
Committee**

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Maryland Department of Transportation
Maryland Transit Administration

The Maryland Department of Transportation Maryland Transit Administration (MDOT MTA) offers this report in response to language contained in House Bill 1236, Chapter 30, Acts of 2020. The language states:

SECTION 1. On or before December 1 of each year, the Maryland Transit Administration shall submit a report in accordance with § 2-1257 of the State Government Article to the Senate Budget and Taxation Committee, the House Appropriations Committee, and the House Environment and Transportation Committee. The reports required... shall:

- (1) Summarize the best efforts and discussions undertaken to comply with the requirements of subsection (a) of this section;*
- (2) Identify solutions to any impediments to establishing Maryland Area Regional Commuter train service between Union Station in the District of Columbia and Alexandria Station in the Commonwealth of Virginia;*
- (3) If necessary, list the statutory changes necessary to establish Maryland Area Regional Commuter train service between Union Station in the District of Columbia and Alexandria Station in the Commonwealth of Virginia;*
- (4) Provide any other information that the Maryland Transit Administration considers necessary for successful run-through service.*

SECTION 2. On or before December 1 of each year, the Maryland Transit Administration shall submit a report in accordance with § 2-1257 of the State Government Article to the Senate Budget and Taxation Committee, the House Appropriations Committee, and the House Environment and Transportation Committee that:

- (1) Summarizes the best efforts and discussions undertaken to comply with the requirements of subsection (a) of this section;*
- (2) Identifies solutions to any impediments to establishing Maryland Area Regional Commuter train service between Perryville, Maryland and Newark, Delaware; and*
- (3) Provides any other information that the Maryland Transit Administration considers necessary for successful run-through service.*

SECTION 3. The Maryland Transit Administration shall conduct a study on constructing a rail connection between Penn Station and Camden Station. The study shall explore the feasibility of constructing a rail connection between Penn Station and Camden Station, including design concepts that would:

- (1) enable Penn Line service into downtown Baltimore; and*
- (2) provide access to Riverside Yard for locomotive repair and maintenance;*

On or before December 1, 2021, the Maryland Transit Administration shall submit a report of its findings and recommendations in accordance with § 2-1257 of the State Government Article to the Senate Budget and Taxation Committee, the House Appropriations Committee, and the House Environment and Transportation Committee.

Subsection (a) of Section 1 requires the MDOT MTA to engage in good faith negotiations with the Washington, D.C., Virginia, and the appropriate railroad companies to reach an agreement on a pilot program to establish Maryland Area Regional Commuter train service between Union Station and Alexandria Station. The MDOT MTA is also required to consult with stakeholders to determine the most effective means to establish the train service, including scheduling and funding.

Subsection (a) of Section 2 requires the MDOT MTA to engage in good-faith negotiations with Delaware and the appropriate railroad companies to reach an agreement on a pilot program to establish a Maryland Area Regional Commuter train service between Perryville, Maryland and Newark, Delaware. The MDOT MTA is also required to consult with stakeholders to determine the most effective means to establish the train service, scheduling and funding.

Service Expansion Pilot to Virginia

The MDOT MTA has conducted stakeholder engagement and good-faith negotiations for a MARC pilot service to Virginia, including two morning trains traveling from Union Station through the L'Enfant Plaza Station to the Crystal City Station and ending at Alexandria Station, and two evening trains traveling from Alexandria Station through the Crystal City Station, on to the L'Enfant Plaza Station and ending at Union Station.

Service to Virginia – Previous Efforts

The MARC Cornerstone Plan addresses a 25-year planning period and identifies capital needs required to improve and expand rail service, including expansion into Northern Virginia. The Central Maryland Regional Transit Plan (RTP) recommends studying MARC run-through service into Virginia within the first five years of the RTP's implementation.

The MDOT MTA provided partial funding and participated in the review for the Market Assessment and Technical Considerations for a Virginia Railway Express (VRE) and MARC Run-Through Service in the National Capital Region by the Transportation Planning Board at the Metropolitan Washington Council of Governments. The study included a market assessment, outlined broad considerations that need to be addressed for run-through implementation, and acknowledged the need for a more in-depth study that will assess potential needs identified by the MDOT MTA, the VRE, and the WMATA.

The MDOT MTA participated in the Greater Washington Partnership's Technical Advisory Committee for the development of a Capital Region Rail Vision, which advocates for a pilot run-through service originating from the Penn Line. The MDOT MTA continues to work with railroad and government partners to discuss potential pilot service and study long-term service scenarios.

Stakeholder Engagement

The MDOT MTA has consulted with various stakeholders, including regional private entities, leading employers, labor representatives, rider advisory committees, and regional planning boards to determine the most effective means to establish MARC pilot service to Virginia. The MDOT MTA participated in five meetings to discuss the pilot service, where an estimated 10-50 individuals attended each meeting.

Stakeholder feedback covered the value of the proposed pilot service, desires for service beyond the pilot, acknowledgement of the required coordination and funding of critical enabling infrastructure projects, desired amenities to create a positive customer experience and facilitate travel, suggestions for marketing and promoting future service, and an emphasis on the economic development opportunities enabled by expanded rail service:

- The proposed pilot service would improve convenience for existing commuters and open workers to a larger number of job opportunities in the multi-state region.
- Long-term commuter rail midday and weekend service are desired for accessing shift work and other job activities occurring outside of peak hours.
- The value of the pilot service also includes access to healthcare, education, tourism, social, and leisure activities.
- Development of the pilot service and long-term service scenarios will benefit from public involvement and continued stakeholder engagement.
- Stakeholders and elected officials asked MDOT MTA how they can best support implementation of the pilot service and requested continued engagement in the process.
- Marketing and branding of the service were identified as critical to success of the pilot.
- Convenient fare payment and commuter benefits across different modes and overlapping commuter rail service would improve the customer experience and facilitate travel.
- The pilot service and potential future service expansion would support planned and potential investments in station improvements and transit-oriented development (TOD).
- Funding to replace the existing B&P Tunnel with the planned Frederick Douglass Tunnel must be considered.
- Stakeholders are interested in updates on the MDOT MTA's coordination with CSXT and Virginia, as well as with other transit providers in the pilot service area.

Good-faith Negotiations

The MDOT MTA identified the following potential parties for engaging in good-faith negotiations to pilot MARC train service to Virginia:

- Virginia Railway Express (VRE)
- Virginia Passenger Rail Authority (VPRA)
- Virginia Department of Rail and Public Transportation (DRPT)
- CSX Transportation, Inc. (CSXT)
- Amtrak, and
- Norfolk Southern Railway

The MDOT MTA outlined the terms of a potential Memorandum of Understanding (MOU), focused on identifying infrastructure and agreements needed for the MARC pilot service and for the purpose of facilitating negotiations. The MDOT MTA met with representatives of DRPT and VPRA in May 2021 and July 2021. Discussions with Virginia began after the state finalized its rail deal and shared use corridor agreement with CSXT, as details of that agreement needed to be finalized before any discussions for pilot service could be held. The MDOT MTA met with representatives of Amtrak in September 2021. The MDOT MTA has not met with the VRE to date, as coordination is going through VPRA, but the VRE could be included in future discussions as appropriate. DPRT and the VPRA outlined requirements for future service in initial discussions. Negotiations are ongoing, and no requirements have been formally agreed upon at the time of the submission of this report.

Pilot Service Considerations

The MDOT MTA is conducting good-faith negotiations with consideration of federal and State statutory requirements and how they impact the schedule and terms of agreement. The below table summarizes considerations for providing any new service and the MDOT MTA’s current understanding based on existing agreements, plans, resources, and negotiations completed to date.

Pilot Service Considerations	Current Status
Train Crew Capacity	No additional staff or train crews are needed to provide the pilot service. Efficiencies can be found in sharing crews with overlapping services if agreed to with negotiating parties. Maryland’s State Finance and Procurement Article, Subtitles §12-501 to 12-511, prohibit MDOT MTA from doing business with Keolis, the contracted operator for VRE service. The potential to share train crews across MARC and VRE services would be prohibited, and the reduced flexibility may increase overall operating costs and constrain resources and collaboration between commuter rail operators on the same right-of-way.
Rolling Stock Capacity	No additional locomotives or coaches are needed to provide the pilot service. Existing and planned rolling stock purchases can reasonably serve the pilot.
Storage and Maintenance Capacity	No additional storage or maintenance facilities are needed, and the MDOT MTA is currently constructing or designing facilities that will enable more flexibility and expansion in the future.
Track, Signal, and Positive Train Control Capacity	Infrastructure projects such as Long Bridge, Union Station Sub-Basement, and various improvements to the railroad right-of-way and stations in Virginia are necessary prior to any MARC service to Virginia, due to the lack of available train slots using existing infrastructure. In addition, the

	host railroads may identify additional minor infrastructure and communications system improvements needed before the pilot can be implemented.
Station and Platform Capacity	Union Station and the associated terminal must be analyzed for run-through operations to determine what infrastructure improvements are necessary to support Amtrak, the VRE, and MARC operations into the station and terminal; key stakeholders are beginning discussions on the best approach to complete this analysis.
Access and Operating Approval from Host Railroads (right-of-way owners)	In addition to a new MOU with Virginia for the pilot service on their right-of-way, there is an existing access agreement with Amtrak and an operating agreement(s) with third-party contracted operators that will need to be modified. Creation of a new agreement for the pilot service and modifications to existing access and operating agreements are required. Details are pending ongoing negotiations with host railroads and third-party contracted operators.
Costs and Identification of Funding	Funding is necessary to complete key infrastructure improvements to provide the service safely, efficiently, and reliably. The pilot service and any future service expansion into Virginia is subject to the Passenger Rail Investment and Improvement Act (PRIIA) which sets parameters for how the MDOT MTA's share of operating and capital costs are determined and how they are spent. The MDOT MTA is familiar with the rates charged by CSX to access and operate on CSX-owned right-of-way, but the run-through pilot service will now operate on Virginia-owned right-of-way and the cost of accessing and operating on their tracks in accordance with PRIIA is an ongoing part of negotiations.
Compliance with statutory requirements	There are currently no known statutory requirements that are significantly prohibitive. Clarity on the impact of statutory requirements and potential modifications necessary to provide the pilot service will be pursued as negotiations continue.

Findings and Next Steps

In discussions with various stakeholders and negotiating partners, it has become clear that infrastructure projects such as Long Bridge, Union Station Sub-Basement, and various railroad right-of-way and stations improvements in Virginia are necessary prior to any MARC service to Virginia due to the lack of available train slots using existing infrastructure. The timelines for these projects are not determined by MDOT MTA or clearly defined at this time but based on current construction projections it is anticipated that the infrastructure necessary to support future MARC service likely will not be completed for at least ten years. To reach an agreement on the

terms required by each negotiating partner, the MDOT MTA will submit desired service scenarios to the impacted host railroads and contractors in order to receive informed analysis of operating and infrastructure needs. This may include independent analysis to be conducted by the host railroad or a neutral third party in addition to any analysis conducted by the MDOT MTA.

Future MARC service to Virginia must be analyzed within the Northeast Corridor (NEC) Commission's Connect 2035 (C2035) Plan, which provides a roadmap for completing necessary State of Good Repair projects and capacity improvements on the NEC, the right-of-way that the MARC uses for its Penn Line operations. Many of these projects require careful coordination of train schedules to maintain existing levels of service and reduce customer impacts during construction of improvements, so any additional service will have to be carefully analyzed in the context of the ongoing planning for improved service on the NEC and into Virginia. While the NEC ends in Washington, D.C., infrastructure investment on the NEC affects train operations through Washington, D.C. into Virginia. Therefore, NEC improvements and operational capacity are a key consideration of any run-through service into Virginia.

The major infrastructure investments needed before pilot service is viable are outside of Maryland; however, the MDOT MTA will continue to engage with stakeholders to understand opportunities, timeframes, and to advocate for securing the potential for future run-through service. Continued support from elected officials and rail partners is necessary, including support letters for federal grant applications, to complete design and construction of associated infrastructure projects and to supplement state funding for the pilot once costs are known.

Service Expansion Pilot to Delaware

The MDOT MTA has conducted stakeholder engagement and good-faith negotiations for a MARC pilot service to Delaware, including two morning trains traveling from Perryville, Maryland to Newark, Delaware and two evening trains traveling from Newark, Delaware to Perryville, Maryland.

Service to Delaware – Previous Efforts

The MARC Cornerstone plan identifies a MARC connection to Southeastern Pennsylvania Transportation Authority (SEPTA), which serves points as far south as Newark, Delaware, as a long-term service strategy. The RTP recommends studying a MARC connection to SEPTA in the first five years of plan implementation.

The MDOT MTA is currently modeling ridership projections by station, which will provide inputs for the recommended study of operations and infrastructure needs for short- and long-range service scenarios. Service scenarios assume extension of MARC service from Perryville, Maryland to Newark, Delaware. The MDOT MTA met with local, regional, and State agencies in February 2021 to continue discussions about model methodology and collect data inputs. Additional station area plans and regional transit studies have been carried out by the MDOT MTA and other local and regional agencies. The MDOT MTA continues to work with railroad and government partners to discuss potential pilot service and study long-term service scenarios.

Stakeholder Engagement

The MDOT MTA consulted with various regional stakeholders, including leading employers, labor representatives, rider advisory committees, and regional planning boards to determine the most effective means to establish MARC pilot service to Delaware. The MDOT MTA participated in eight meetings to discuss the pilot service, where it is estimated that approximately 10-50 individuals attended each meeting.

Stakeholder feedback covered the value of the proposed pilot service, desires for service beyond the pilot, acknowledgement of the required coordination and funding of critical enabling infrastructure projects, desired amenities to create a positive customer experience and facilitate travel, suggestions for marketing and promoting future service, and an emphasis on the economic development opportunities enabled by expanded rail service:

- The proposed pilot service would improve convenience for existing commuters and open workers to a larger number of job opportunities in the multi-state region.
- There are a growing number of economic opportunities within Cecil County and Delaware that would be served by this pilot.
- The pilot service would allow individuals to live in affordable communities while accessing an increasing number of jobs and other opportunities.
- After the pilot service has gained ridership, a stop in Elkton, Maryland is desired by elected officials.
- Long-term commuter rail for midday and weekend service are desired outside of peak hours to allow for the access of shift work and other job activities.
- With a college, as well as business and industrial center, Newark, Delaware will benefit from off-peak trips.
- Off-peak and weekend trips would also support tourism.
- The value of the pilot service also includes access to healthcare, education, tourism, social, and leisure activities.
- Stakeholders and elected officials asked MDOT MTA how they can best support implementation of the pilot service and requested continued engagement in the process.
- Marketing and branding of the service were identified as critical to success of the pilot.
- Convenient fare payment and commuter benefits across different modes and overlapping commuter rail service will improve the customer experience and facilitate travel.
- The pilot service and potential future service expansion would support planned and potential investments in station improvements and transit-oriented development (TOD).
- Stakeholders are interested in updates on the MDOT MTA's coordination with Amtrak and other rail partners.

Good-faith Negotiations

The MDOT MTA has identified the following parties for engaging in good-faith negotiations to extend MARC train service to Delaware:

- Delaware Department of Transportation (DelDOT)
- Southeastern Pennsylvania Transportation Authority (SEPTA)

- Pennsylvania Department of Transportation (PennDOT)
- Amtrak

The MDOT MTA outlined the terms of a potential MOU focused on identifying infrastructure and agreements needed for the pilot service in order to facilitate negotiations. The MDOT MTA met with representatives of SEPTA in July 2021, DeIDOT in August 2021, and Amtrak in September 2021. After meeting with Amtrak, the MDOT MTA plans to advance discussions with other key stakeholders based on what agreements are necessary for future service. The MDOT MTA will be seeking a meeting with PennDOT.

Pilot Service Considerations

The MDOT MTA is conducting good-faith negotiations with consideration of federal and State statutory requirements and how they impact the schedule and terms of agreement. The below table summarizes considerations for providing any new service and the MDOT MTA’s current understanding based on existing agreements, plans, resources, and negotiations completed to date.

Pilot Service Considerations	Current Status
Train Crew Capacity	No additional staff or train crews are needed to provide the pilot service. Efficiencies can be found in sharing crews with overlapping services if agreed to with negotiating parties.
Rolling Stock Capacity	No additional locomotives or coaches are needed to provide the pilot service; existing and planned rolling stock purchases can reasonably serve the pilot.
Storage and Maintenance Capacity	No additional storage/maintenance facilities are needed, and the MDOT MTA is currently constructing or designing facilities that will enable more flexibility and expansion in the future.
Track, Signal, and Positive Train Control Capacity	The MDOT MTA will need to coordinate with Norfolk Southern and Amtrak to ensure its Positive Train Control (PTC) agreement with Norfolk Southern and the connection to Amtrak’s PTC system through the Norfolk Southern system. No significant track capacity issues exist, excluding ongoing or planned track, signal, and station improvements that may constrain all rail operations on the corridor. In addition, the host railroads may identify additional minor infrastructure improvements to construct before the pilot can be implemented.
Station and Platform Capacity	Based on discussions with various stakeholders and negotiating partners, infrastructure projects, such as DeIDOT’s ongoing construction of the Newark Regional Transportation Center, must be completed before service is extended to Newark, Delaware. The station in Newark currently sits on the edge of one outer track, serving

	Amtrak and SEPTA which share one platform for both directions. The project is designed to facilitate service by Amtrak, SEPTA, and eventually MARC by reconfiguring the station to sit between two tracks, creating two platforms. The new transportation center is expected to be open by 2024. Existing Amtrak and SEPTA service will be difficult to provide during construction, and partners may not be amenable to adding MARC trains during that time.
Access and Operating Approval from Host Railroads (right-of-way owners)	In addition to a new MOU with partners in Delaware and Pennsylvania for the pilot service, there is an existing access agreement with Amtrak and an operating agreement(s) with third-party contracted operators that will need to be modified. Creation of a new agreement for the pilot service and modifications to existing access and operating agreements are required. Details are pending ongoing negotiations with host railroads and third-party contracted operators.
Costs and Identification of Funding	Funding is needed to complete necessary infrastructure improvements to provide the service safely, efficiently, and reliably. The pilot service and any future service expansion is subject to PRIIA which sets parameters for how the MDOT MTA's share of operating and capital costs are determined and how they are spent.
Compliance with statutory requirements	There are currently no known statutory requirements that are significantly prohibitive. Clarity on the impact of statutory requirements, and potential modifications necessary, to provide the pilot service will be pursued as negotiations continue.

Findings and Next Steps

The MDOT MTA will continue to work collaboratively with all stakeholders to advance the pilot service and any long-term service into Delaware. The MDOT MTA can explore providing the pilot service by extending existing scheduled trains from Perryville, Maryland to Wilmington, Delaware, until the Newark Regional Transportation Center is completed and ready for MARC service. Costs and operating agreements to serve Newark and/or Wilmington, Delaware are being negotiated with existing and new rail partners. To reach an agreement on the terms required by each negotiating partner, the MDOT MTA will submit desired service scenarios to the impacted host railroads and contractors so they can respond with an informed analysis of operating and infrastructure needs. This may include independent analysis to be conducted by the host railroad or a neutral third party in addition to any analysis conducted by the MDOT MTA.

Future MARC service to Delaware must be analyzed within the NEC's C2035 Plan. Many of these projects require careful coordination of train schedules to maintain existing levels of service and reduce customer impacts during construction of improvements, so any additional

service and related infrastructure improvements will have to be carefully analyzed to determine any potential conflicts with the NEC's C2035 Plan.

Continued support from elected officials will be needed, including support letters for federal grant applications, to complete design and construction of associated infrastructure projects and to supplement state funding for the pilot once costs are known.

Penn-Camden Connector

The PCC consists of a rail connection between the MARC Penn Line, which operates on the Amtrak's NEC, and the MARC Camden Line which operates on the CSXT owned Capital Subdivision. The only location where trains can currently transfer between the Penn Line and the Camden Line is at Union Station in Washington, D.C. The PCC will provide a second location for the transfer between the two lines.

The PCC also includes acquisition of the Mt. Clare Yard, an existing freight storage yard, to provide storage and servicing capabilities to support the MARC fleet of locomotives and coaches. MARC Penn Line trainsets are currently stored overnight at Baltimore Penn Station, and the PCC would provide alternate storage at Mt. Clare Yard for MARC Penn Line trainsets, which is a critical enabling component for Amtrak's redevelopment of Baltimore Penn Station. In addition, the acquisition of Mt. Clare Yard will allow storage of longer and additional trains to accommodate future growth in MARC ridership and expansion of service frequencies. The rail link will also leverage the capital investment in the Riverside Heavy Maintenance Building, facilitating more efficient access for MARC Penn Line trains to MARC's primary heavy repair and maintenance facility at Riverside. PCC also creates the opportunity for potential future extension of Penn Line service into downtown Baltimore. These efficiencies and storage capacity are important components of enabling future MARC service expansion and reduction in traffic and harmful emissions due to increased reliance on passenger service.

The MDOT MTA has studied the feasibility of PCC to enable feasibility of Penn Line service extension into downtown Baltimore and provide access to Riverside Yard for locomotive repair and maintenance. The current concept for PCC built upon previous studies and designs while considering the current operations of MARC and its host railroads.

Penn-Camden Connector—Previous Work

The PCC is identified as a critical investment within the 2025-2035 timeframe of the MARC Cornerstone Plan because of the service efficiencies and train storage capacity it provides. The concept for the project has always been to secure access from MARC's rail partners existing rights-of-way for the construction of the PCC. Although the project scope has changed somewhat, the Environmental Assessment that ultimately led to the issuance of a Finding of No Significant Impact (FONSI) in 1999 provides a useful baseline for the design and operations proposals going forward.

The MDOT MTA applied for a Consolidated Rail Infrastructure and Safety Improvements (CRISI) grant in 2018 to complete the National Environmental Policy Act (NEPA) process and design plans for PCC but was not awarded funds.

Study Approach

The MDOT MTA produced 5 percent design concept that addresses the above-mentioned elements, a rough order of magnitude construction cost estimate, conceptual phases and estimated construction timeline considerations, and a proposed alignment and geographic limits of the connection. This design concept builds upon previous studies and designs, while considering the current operations of MARC and its host railroads. Due to changes in operations of freight, intercity, and commuter rail operations since the original project conception, and the implementation of federally mandated PTC, there have been scope changes that will increase the estimated cost of the project from the estimates provided based on earlier proposals. MARC has adjusted some of the design elements to enhance cooperation from its rail partners and looks forward to discussing the necessary property acquisitions and operating issues at the appropriate time with those partners.

The MDOT MTA has begun the NEPA process, which involves review of potential environmental and public impacts, and is applicable when there is an award and use of federal funding to construct a project. Certain NEPA requirements must be met to begin negotiations with property owners to secure property for the project, and the MDOT MTA is working with the Federal Transit Administration (FTA) to determine the applicable NEPA requirements for this project.

Key Findings

- The State of Maryland does not currently own the rights-of-way along the Penn-Camden Connector alignment. Securing access to the rights-of-way through purchase, lease, or access agreement execution of any necessary agreements with Amtrak for the Penn Line and CSXT for the Camden Line and with respective property owners, is essential to the successful delivery of the Penn-Camden Connector.
- Wilkens Interlocking, which is proposed as part of Amtrak's adjacent Frederick Douglass Tunnel Project, impacts and limits available design options for the Penn-Camden Connector's NEC Wye Connection.
- Improvements to the Carroll Interlocking by CSXT and the MDOT MTA to enhance MARC operations of MARC Camden Line service will need to be addressed. This junction will be accommodated as part of further design to ensure the Penn-Camden Connector's compatibility with the current track configuration.
- CSXT and MARC Train Service have implemented PTC. The latest Penn Camden Connector design considered PTC requirements and identified the need for further coordination with host railroads Amtrak and CSXT to refine the PTC requirements for the project as design is advanced.
- The 5 percent conceptual design identified operational considerations such as dispatching and use of catenary versus diesel propulsion that will require further analysis and consideration as design is advanced.

The study estimates a \$187.4 million cost for construction, which does not include property acquisition, MTA's costs for design, or for providing oversight of the construction. This cost reflects consideration of the additional elements that have been added to the project since its initial conception in the late 1990's, including the acquisition of Mt. Clare Yard and its transformation to a daily servicing storage facility, as well as the construction of additional infrastructure to address CSXT's ongoing operating needs that will be impacted by the use of the Yard for MARC's purposes. The MDOT MTA will examine potential phasing opportunities, refined concept development, and further negotiation regarding use of the rail facilities as the project advances.

Conclusion

Pilot Service to Virginia

Due to the lack of available train slots using existing infrastructure, and prior to any MARC pilot service being initiated, infrastructure projects such as Long Bridge, Union Station re-configuration, and various improvements to stations and railroad right-of-way in Washington, D.C. and Virginia, must be completed. The timelines for these projects are determined by other parties and are not clearly defined at this time, but current construction projections show the infrastructure necessary to support the MARC pilot service likely will not be completed for at least ten years. The MDOT MTA will continue to engage with negotiating partners to explore future opportunities.

Pilot Service to Delaware

Construction of the DelDOT's ongoing Newark Regional Transportation Center must be completed prior to the extension of service. The project is expected to open by 2024 and facilitate service by Amtrak, SEPTA, and, eventually, MARC. The pilot service could be provided by extending existing scheduled trains between Perryville, Maryland and Newark, Delaware. The MDOT MTA will continue engaging with negotiating partners to define specific operating and infrastructure needs, including costs, for the pilot service.

Penn-Camden Connector (PCC)

The MDOT MTA has produced 5 percent conceptual design of the PCC and a train storage yard between the MARC Penn Line and MARC Camden Line. Once fully completed, the project will allow for:

- MARC trains to be moved to Riverside Yard for service without having to make the circuitous trip to Washington then back up the CSXT line to Baltimore;
- MARC trains overnight storage location will change from Baltimore Penn Station to a new location acquired as part of the project;
- Revenue service on the existing Camden and Penn Lines to be improved through the additional storage and maintenance flexibility; and

- Revenue service to be introduced between Penn Station and downtown Baltimore, in the long-term, via the new connection.

The MDOT MTA has begun the NEPA process and certain NEPA requirements must be met to begin negotiations with property owners to secure property for the project. The MDOT MTA is working with the FTA to determine the applicable NEPA requirements for this project.

The PCC will be analyzed within the NEC's C2035 Plan. Careful coordination of train schedules to maintain existing levels of service and reduce customer impacts during construction of improvements, so any additional service or infrastructure will be carefully analyzed to ensure compatibility with the NEC's C2035 Plan.

Continued support from elected officials will be needed, including through support letters, when the MDOT MTA applies for federal grants to complete design and construction. The MDOT MTA applied for a CRISI grant in November 2021. If awarded, the CRISI grant will be used to fund 30 percent design and preliminary NEPA activities.