Bimonthly Purple Line Construction Status Report (2024 JCR, p. 89)

A Report to the Maryland General Assembly Senate Budget and Taxation Committee and House Appropriations Committee

January 2025

Maryland Department of Transportation Maryland Transit Administration

Introduction:

The Maryland Department of Transportation (MDOT) prepared this report in response to language contained in the 2024 Joint Chairmen's Report (JCR). The language states:

"Given continued challenges and cost overruns associated with completing construction on the Purple Line Light Rail project, the committees request that the Maryland Transit Administration (MTA) submit six bimonthly construction status reports for the Purple Line project to the committees. The status reports shall provide:

- 1) The completion percentages for the project as a whole and for each major category of work;
- 2) The running total amount expended for construction; and
- 3) An explanation of any material change to the total construction cost estimate or construction schedule as set forth in the revised public-private partnership agreement as amended to add Maryland Transit Solutions as the replacement design-build contractor for the project."

The Purple Line is a critical investment in Maryland's transportation system that will provide reliable east-west travel in Montgomery and Prince George's counties, help reduce congestion, improve our environment, increase transit connectivity, create jobs, and drive economic growth.

The Purple Line will transform the region by:

- Advancing the shared mission to improve the quality of life and economic vitality in our communities by creating and sustaining an integrated, convenient, and reliable transportation network;
- Creating several new multimodal connections across the region, linking to three Washington Metropolitan Area Transit Authority (WMATA) Metro lines, three Maryland Area Regional Commuter (MARC) commuter rail lines, Amtrak, and a host of bus services;
- Greatly expanding transit opportunities in Maryland's two most populous and fastest-growing counties in the State;
- Creating convenient, dependable east-west access to jobs, educational centers, shopping, recreation, and attractions;
- Supporting more than 6,000 jobs, with 26% for design services going to small and minority-owned businesses and 22% for construction going to small and minority-owned businesses;
- Relieving automobile congestion on major arteries and local roads in one of the most congested areas in the nation;
- Providing significant environmental benefits through the operation of clean electric energy light rail vehicles and taking thousands of vehicles off the road daily, thereby reducing vehicle emissions caused by single occupancy vehicle drivers;
- Spurring economic growth along the Purple Line alignment in and between Prince George's and Montgomery counties and having a positive impact on property values by improving access and mobility; and
- Revitalizing communities and providing much-needed opportunities for transit-oriented developments, many of which are already under development in anticipation of completion of the Purple Line.

Information Requested:

As requested in the 2024 Joint Chairmen's Report, MTA is providing the most recent information collected and summarized through the end of November 2024.

1. The percent completion for the overall project and for each major category of work.

Purple Line progress continues to advance with 18 stations under construction. More than 56,000 of 193,000 feet of track has been laid overall. Track and systems work continues at the Glenridge Operations and Maintenance Facility (OMF) including the installation of Overhead Catenary System (OCS) poles, track switches, and other systems elements. Delivery of light rail vehicles (LRV) to the OMF is ongoing and seven of the 28 LRVs are now on site. Structural work continues at the secondary OMF, located in Lyttonsville, in Montgomery County, including installation of foundations and walls. Major efforts are underway to complete grade crossings across the alignment and accelerate systems construction, including communications and train control equipment. Of particular note, girders were installed as part of the new bridge on Wayne Avenue over Sligo Creek, preparing the way for track installation at Sligo Creek Parkway. Across the corridor, major construction continues at key locations including Bethesda, Silver Spring Transit Center, Wayne Avenue, University Boulevard, Campus Drive, Riverdale Park, and New Carrollton, as well as at the Capital Crescent Trail.

As of November 30, 2024, the following completion percentages have been achieved:

Completion Category	% Complete (as of 11/30/24)	% Complete (as of 9/30/24)
Overall Project (i)	74.2%	71.9%
Utility Relocations (ii)	94.1%	92.0%
Civil Design (iii)	100%	100%
Systems Design (iv)	84.2%	84.2%
Construction Possession of Property Acquisitions (v)	100%	100%
Civil Construction (vi)	66.5%	59.0%
Rail Installation (vii)	29.2%	28.4%
Systems and Station Construction (viii)	26.0%	21.8%
Glenridge Operations and Maintenance Facility (ix)	95.0%	95.0%
Rail Vehicles Ready to Ship (x)	92.9%	92.9%
Capital Crescent Trail Construction (xi)	51.5%	49.0%

CALCULATION FORMULAS:

i. Overall Project completion is calculated by summing the earned value (EV) for the three P3 project phases (prior Design-Build Contractor, MTA interim, current Design-Build Contractor) and dividing by the sum of the estimates at completion (EAC) for the three P3 project phases.

$$(EV_{priorDB} + EV_{interim} + EV_{currentDB})/(EAC_{priorDB} + EAC_{interim} + EAC_{currentDB})$$

- ii. Progress of Utility Relocations is now calculated using partial progress information for each individual utility relocation package. Of the 260 total utility relocations packages, the following progress is noted:
 - a. 233 packages at 100% Complete
 - b. 7 packages at $90\% \le \text{Complete} < 100\%$
 - c. 5 packages at $50\% \le \text{Complete} < 90\%$
 - d. 6 packages 0% < Complete < 50%
 - e. 9 packages at 0% Complete
- iii. Civil Design progress is based on 199 of 199 civil design packages having a Released for Construction (RFC) status.
- iv. Systems Design progress is based on 16 of 19 systems design packages having an RFC status. Systems design packages are the last packages to complete because equipment location and cable routing must fit into the completed civil design environment.
- v. Construction Possession of Property Acquisitions refers to available access for Purple Line Project construction. The category includes all original (P3A Exhibit 9) and additional (P3A Exhibit 9B) properties required for the project.
- vi. Civil Construction is calculated based on physical construction progress of major civil components (retaining walls, bridges, drainage, paving, and underground structures) across the project alignment.
- vii. Rail Installation is calculated based on measured rail installation as a percentage of all planned rail across the project alignment.
- viii. Systems and Station Construction is calculated based on physical construction progress of major systems components (overhead power, train & traffic signals, communications equipment, substations) and stations across the project alignment. This figure does not include testing and commissioning of project systems prior to achievement of revenue service and start of operations.
- ix. This category measures the progress of just the maintenance facility. Civil, rail, and systems construction within the Glenridge Yard is now tracked and reported under the Civil Construction, Rail Installation, and Systems and Station Construction status.
- x. Of the original fleet of 26 light rail vehicles (LRVs), seven (7) have been shipped and delivered to the Glenridge Operations & Maintenance Facility (OMF) as of the end of November 2024, and the remaining 19 are ready to ship. Two additional LRVs were ordered. Factory assembly of these two LRVs is complete. Both are in factory testing in Elmira, New York, and are expected to be ready for shipment by January 2025.
- xi. Capital Crescent Trail Construction is calculated based on physical construction progress

of major civil components (retaining walls, bridges, drainage, paving, trail connections, and landscaping/fencing) along the Capital Crescent Trail. Portions of the Capital Crescent Trail will be constructed in conjunction with the Purple Line tracks, and therefore the Capital Crescent Trail will open when it is safe to do so in a later stage of the project.

2. The running total amount expended for construction.

Since the execution of the new design-build contract on April 15, 2022, through November 30, 2024, \$1.536 billion has been expended on the design-build contract. Reported expenditures are based on the latest monthly construction progress report prepared by the Concessionaire.

3. An explanation of any material change to the total construction cost estimate or construction schedule as set forth in the revised P3 Agreement as amended to add Maryland Transit Solutions as the replacement design-build contractor for the project.

As of November 30, 2024, there are no material changes to the cost or schedule of the project.

Milestones:

The table below highlights significant remaining anticipated milestones for the Project, including the estimated start date of revenue service.

Milestone	Date
Financial and Commercial Close	April 2022
Resumption of Full-Scale Construction	Summer 2022
Delivery of First Light Rail Vehicle	Spring 2024
Test Track Complete for Local Testing & Operator Training	Winter 2024
Capital Crescent Trail Opens	Spring 2026
Construction Complete, Commence Demonstration Testing & Commissioning Activities	Spring 2027
Revenue Service Availability Begins	Winter 2027

Construction Progress:

Segment 1 (Bethesda - Spring Street):
Bethesda Shaft - Site view of the cavern prep for blasting work. (10.14.24)



Bethesda Station - Site view of the Escalator and Stair work progress. (11.01.24)



Segment 2 (Lyttonsville Yard area):

Lyttonsville Station – Site view of the Station canopy and elevator work progress. (11.07.24)



Lyttonsville OMF - Site view of the Foundation concrete placement work. (11.06.24)



${\bf Segment~3~(Spring~Street~to~Manchester~Road):}$

Embedded Track - Site view of the track no. 2 concrete placement along Bonifant Street (11.25.24)



Dale Drive Station - Site view of the canopy and windscreen frame work progress along Wayne Ave. (11.13.24)



Segment 4 (Manchester Road to Arliss Street / Plymouth Tunnel):

Manchester Place Station – Site view of south platform drainage installation work progress. (11.14.24)



Long Branch Station – Site view of platform canopy and windscreen frame work progress. (11.07.24)



Segment 5 (Arliss Street to Adelphi Road):

Piney Branch Road Station - Site Views of canopy and windscreen framework progress along University Blvd. (11.22.24)

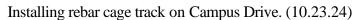


Riggs Road Station - Site Views of platform foundation and wall work progress along University Blvd. (11.06.24)



Segment 6 (Adelphi Road to College Park):
Adelphi Road-UMGC-UMD Station – Site Views of Platform Canopy and Column progress. (10.10.24)







Segment 7 (College Park to Ellin Road):

Site View of the S28 LRT Bridge over the Northeast Branch Anacostia River rail installation work along River Road. (11.12.24)



New Carrollton Station - Site View of the Foundation wall progress along Ellin Road. (11.15.24)



Segment 8 (Glenridge Maintenance Facility):

OCS Pole wiring work progress at the Glenridge Facility. (10.17.24)



Site View of Glenridge Yard looking East at the ballast track and OCS work. (10.25)

