MARYLAND DEPARTMENT OF TRANSPORTATION

MARYLAND TRANSIT ADMINISTRATION

MTA Light Rail Modernization Program

Transit Choices

June 5, 2025

Agenda

- Light Rail Modernization Program Overview
  - Why Modernize the Light Rail System?
  - What LRMP Includes
- Overall Benefits
  - Improved Frequency and Reliability
  - Improved Accessibility and Safety
  - Faster Travel Time
- Schedule
- Next Steps

Why Modernize the Light Rail System?

The current Light Rail operation **has not been modernized since the initial construction** and subsequent expansion of the original system.

Passengers are currently experiencing:

- Long headways when **vehicles are out of service for maintenance** due to aging vehicle needs or emergency repairs after crashes
- Long station dwell times due to **stairs, ramp deployments, and the lack of convenient accessibility** with the current system
- Long signal delays due to Light Rail **signal system** and **Baltimore City traffic pattern and signal optimization** needs

Light Rail Modernization Program Overview

The need to upgrade MTA's current light rail vehicles is **an opportunity to improve the system** that is only presented once every several decades.

- Light Rail Modernization Program (LRMP) is a $1.3 billion program of investments in **light rail vehicles, signal systems, stations, track, and maintenance facilities** for Baltimore's Central Light Rail line.

The 2025 Moore-Miller transportation budget provides **additional revenue that fully funds this program**

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What LRMP Includes

- Replacing 52 vehicles with fully accessible modern low floor vehicles
- Upgrading signal and train contr ol system along the Light Rail track, as well as traction power
- Upgrading maintenance facilities to support new vehicles

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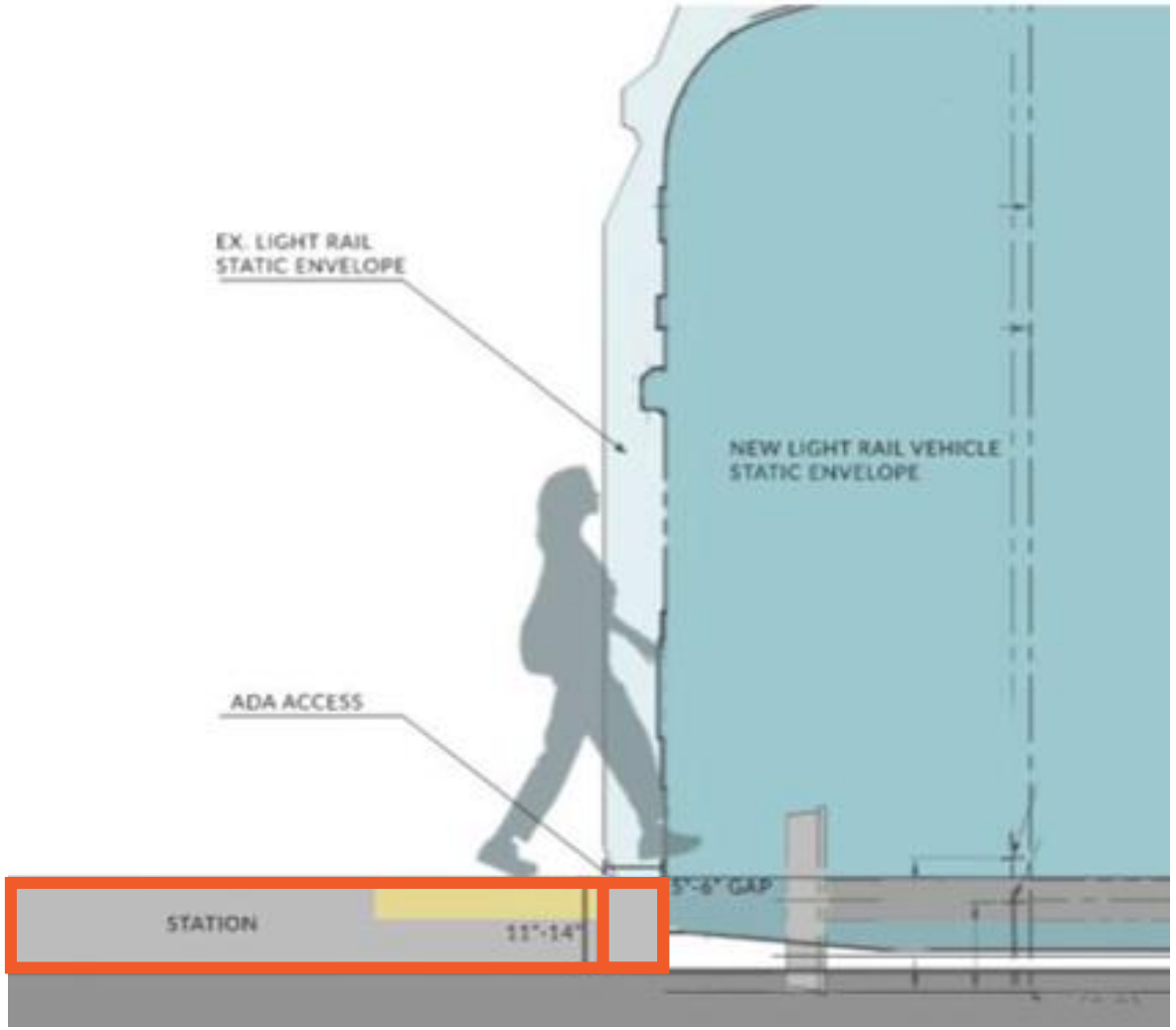
What LRMP Includes

- Upgrading 33 stations
  - Reconstructing platforms for accessibility with new vehicles
  - Removing boarding “high blocks” currently required for accessible boarding
  - Upgrading power and communications for modern technology features
  - Upgrading amenities supporting rider comfort and safety at some stations

- Replacing light rail track in the CBD



Overall Benefits

- Improved accessibility
- Increased frequency and reliability
- Faster boarding and travel times
- System safety through traffic operations changes
- Enhanced security at transit stations
- Refreshed and modern station design features

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Accessibility and Decreased Dwell Time

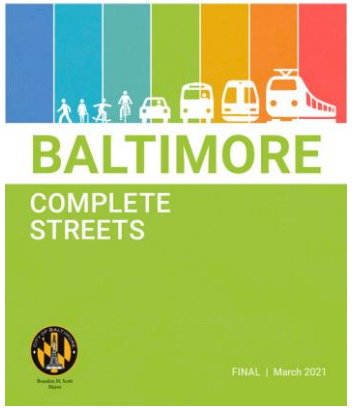
- Low floor/all door boarding vehicles enable shorter dwell times and have safety and accessibility benefits
- Boarding and alighting is more efficient when all doors are available to load and unload passengers
- Low floor vehicles eliminate delay of passengers climbing/descending stairs inside vehicle and operators deploying ramps

Shorter station dwell times could **save 7-8 minutes** along the full system.

Source: RTD Denver - https://www.rtd-denver.com/how-to-ride/accessibility

Decreased Signal Delay and Improved Safety

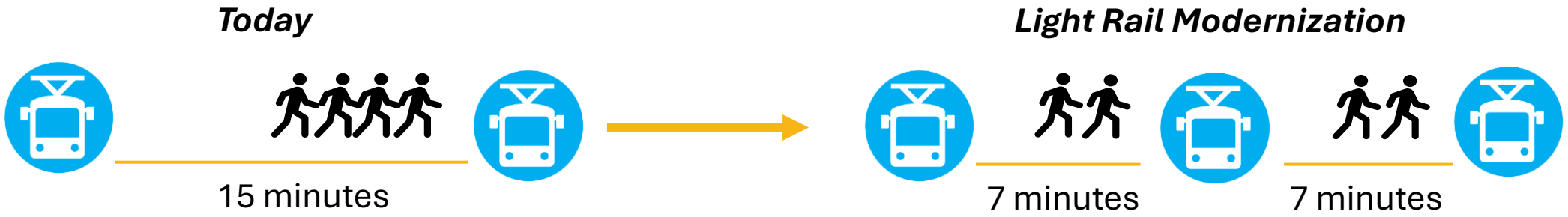
- Signal delay along Howard St. accounts for **28% of total travel time** from Camden Station to Mount Royal or **3-5 minutes waiting at signals** after vehicles already waited at stations
- Removing left turn movements, and optimizing signal operations for transit could provide **1-2 minutes of travel time savings** along Howard St. alone
- Removing left turns across the tracks would also have **safety benefits for trains, drivers, and people** walking or rolling



MTA is working with BCDOT to look for **traffic and signal optimization opportunities.**

Improved Frequency and Reliability

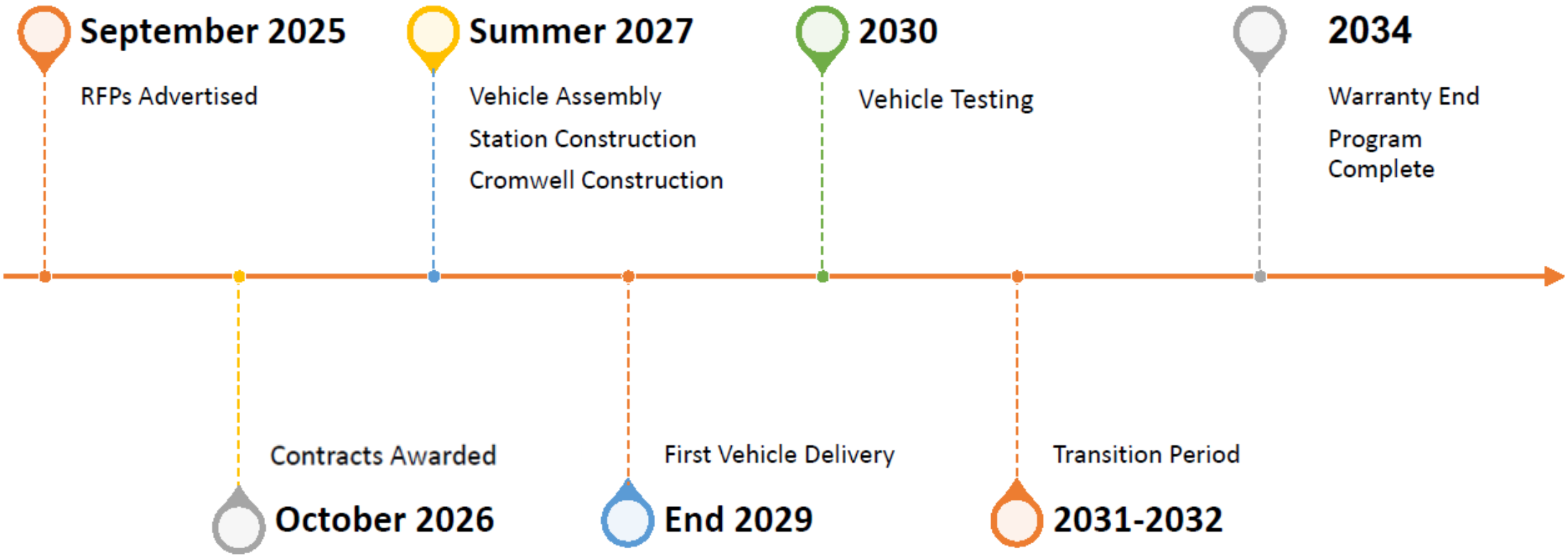
- Increased vehicle availability and system upgrades will support **7-minute headways** instead of the current 15-minute
- 7-minute headways will save approximately **3-4 minutes of travel time** per passenger
- The project will also reduce maintenance-related service cuts, increasing **reliability**



"**Long wait times and unreliable travel times** of public transportation services are the **two most important factors** that negatively affect transit users' confidence in public transportation and ridership rate."

- National Center for Transit Research, University of South Florida, Tampa, FL. Perk, V., Flynn, J., and Volinski, J. (2008).

Anticipated Schedule: Vehicles



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Station Construction

Phase 1	2028			2029			2030	
	Summer	Fall	Winter	Spring	Summer	Fall	Winter	Spring
Station Retrofit								
CBD Station Retrofit								

Phase 2	2032/33	
	Winter	Spring
High Block Removal		

MTA will work with BCDOT and the Progressive Design Builder to **meet schedule and reduce service disruption** during construction.

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Next Steps

- This Year
  - Develop performance requirements for all program elements and initiate procurements for all contracts
  - Work with BCDOT, counties, and key stakeholders on potential traffic, signal and roadway changes

- Next Year
  - Select contractors to design and deliver modernization program
  - Refine scope and project approval procedures

Station design will occur in 2027 by the Progressive Design Builder. Before then, our focus is **readiness for a swift and efficient design process.**

Feedback and Discussion

- Are there aspects of the current light rail stations or vehicles you would like us to preserve?
- What potential features in the new vehicles, stations and service are most important to you as a rider?
- Any other questions or feedback?