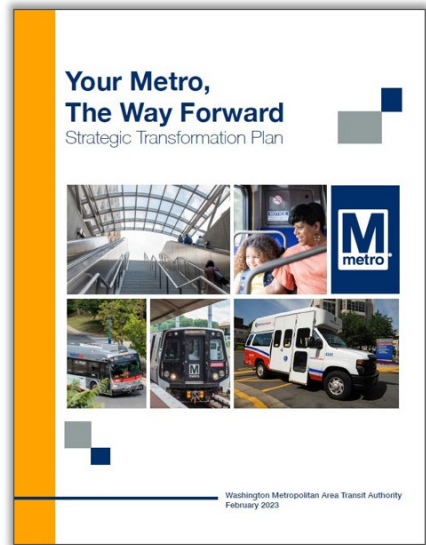


# Capital Program Update

Finance and Capital Committee



# Strategic Transformation Plan: Guides long term strategy and day-to-day decision making of Metro over the next five + years



Guiding



## Day-to-day decisions

- Customer interactions
- Service schedules
- Communications



## Long-term strategy

- Budget allocation
- Capital improvements
- Priority projects



## Goals — Our priorities to achieve the vision

Service Excellence

Talented Teams

Regional Opportunity and Partnership

Sustainability

# Metro and Region are Approaching a Time of Low Capital Reinvestment – Previously Led to Failures, Incidents and Performance Declines

Capital Program Update

## 2000 – 2010

- **Underinvestment** in replacement, rehabilitation and maintenance
- Reliability and service suffered
- Assets failures, incidents, delays

**Federal and Regional Commitment:  
PRIIA Authorization in 2008 (+\$300M)**

## 2010-2017

- Some increased investment in lifecycle programs; **continued underinvestment and growing unmet needs**
- Reliability and service suffered
- Asset failures, delays, safety incidents rise

**Regional Commitment: Dedicated  
Funding Approved (+\$500M)**

## 2018-2025

- New funding supported formalized lifecycle reinvestment programs
  - Reduced state of good repair backlog
  - Increase in reliability and safety

**Regional Acknowledgement:  
PRIIA & Dedicated Funding Were Not  
Indexed and Value is Eroding with Inflation**

## 2026 – 2031

- State of good repair funding rapidly declining
- Major Lifecycle maintenance and rehabilitation reinvestment programs ending
- Performance and reliability and eventually safety will **deteriorate**

**Regional Initiative: DMVMoves**

# State of Good Repair Progress

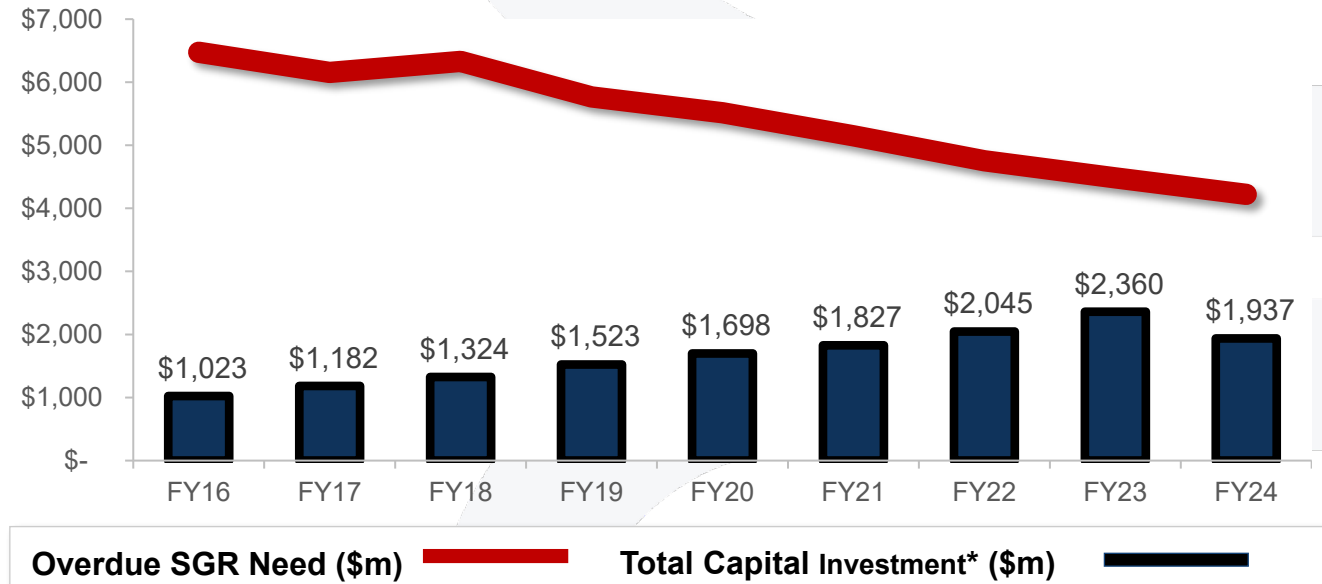
Capital Program Update

Since 2018:

- Increasing reliability and performance of the system
- State of Good Repair backlog reduced from \$7 billion to \$4 billion
- Lifecycle investments prevented additional backlog growth

## Dedicated Funding Allowed State of Good Repair Investment to Rise

Overdue State of Good Repair Need (\$m) & Total Capital Investment

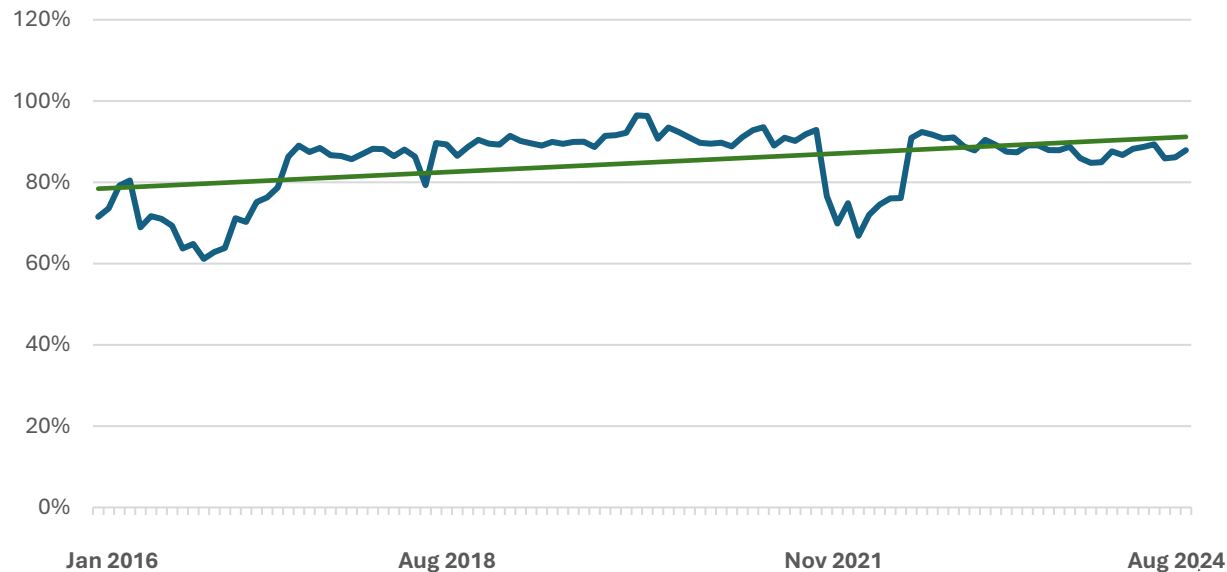


# Capital Investment Improves Performance & Safety

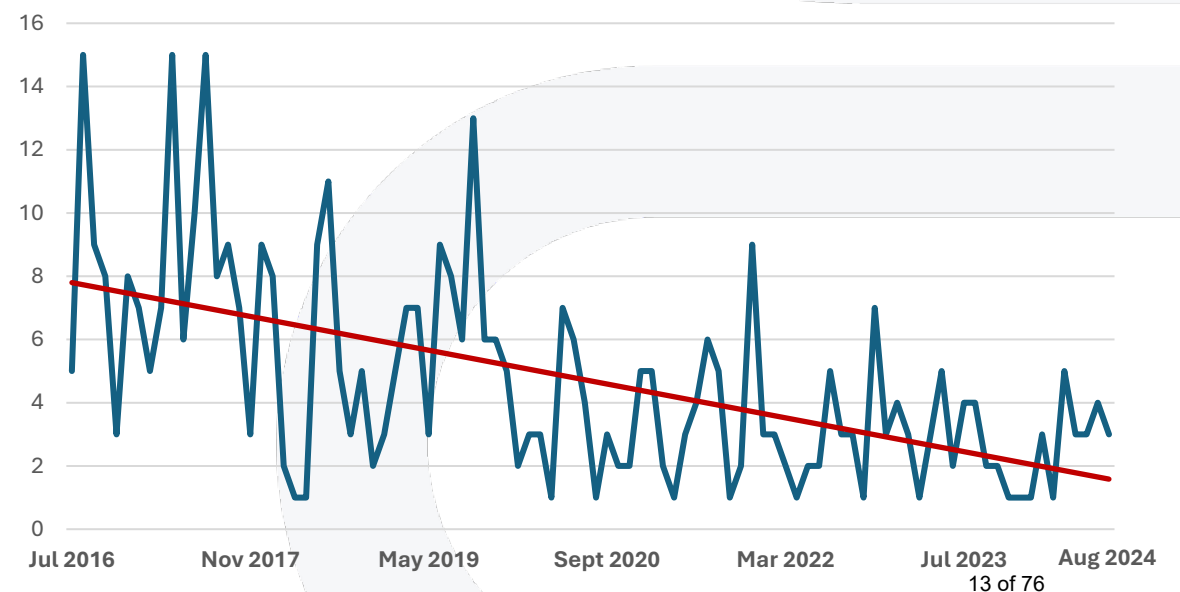
Capital Program Update

- Highest customer satisfaction levels in years:
  - **90% rail satisfaction**
  - **79% bus satisfaction**
  - **84% MetroAccess satisfaction**
- Consistently **88-90%** of customer rail trips on-time thanks to fewer disruptions
- Ridership grew **21%** in FY24 over FY23
- Escalator availability met target - **94.5%**
- Railcar reliability grew **21%** over FY23, tripled since FY18
- **70%** decrease in smoke and fire incidents since FY17

On Time Performance



Smoke and Fire Incidents

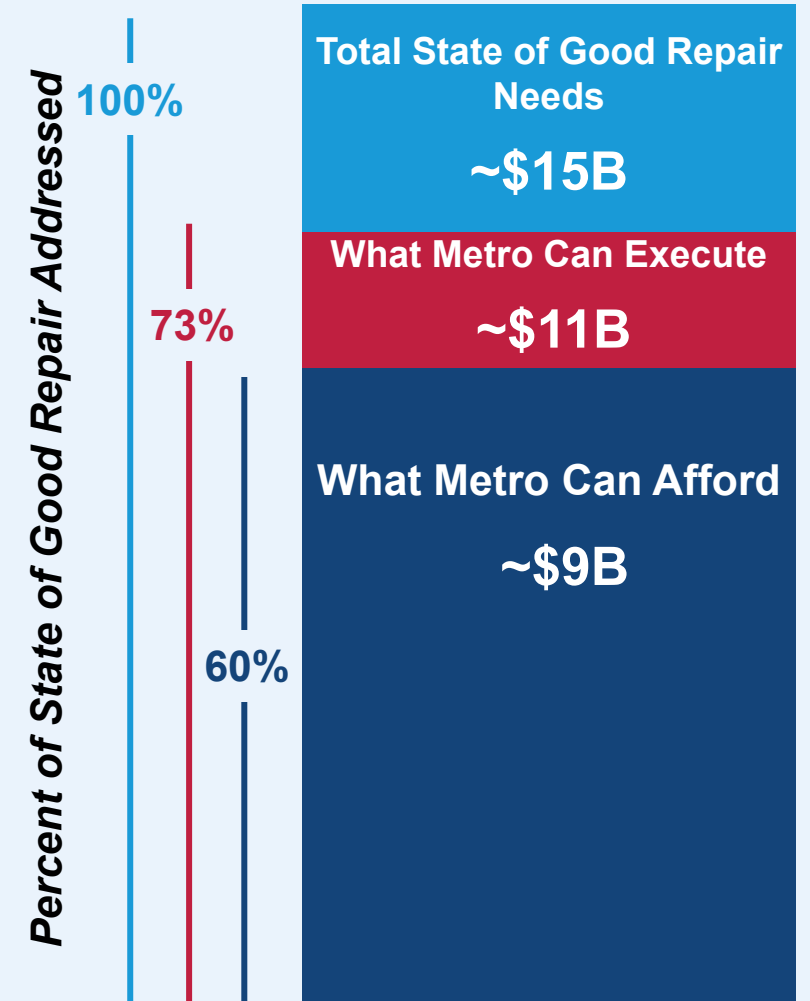


\* From FY2024 Q4 Service Excellence Report

# What is Needed to Maintain State of Good Repair?

- Metro's State of Good Repair forecasting model indicates \$15B should be invested into current assets between FY2026-FY2031
- Current forecast: \$6 billion of unfunded state of good repair needs through FY2031
- Metro's ideal scenario, only constrained by execution, could address ~73% of the state of good repair needs identified
  - *Consists of a mix of underway programs, projects and the next batches of asset rehabilitations and replacements*

## FY2026 - FY2031 Draft Capital Program\*



\*State of good repair investment only – excludes modernization and expansion

# Capital Funding Buying Power & Debt Capacity Decreasing

Capital Program Update

## Buying Power Erodes Over Time

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- PRIIA and Dedicated Funding not indexed to inflation
  - Additional \$340M in FY2028 would restore purchasing power

## Debt Issuances Support the Capital Program

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- As of FY2025, Metro has issued ~\$3.6 billion in bonds
- Metro estimates exhausting bonding capacity in about FY2028

## Metro and Region Face Capital Program Deficits

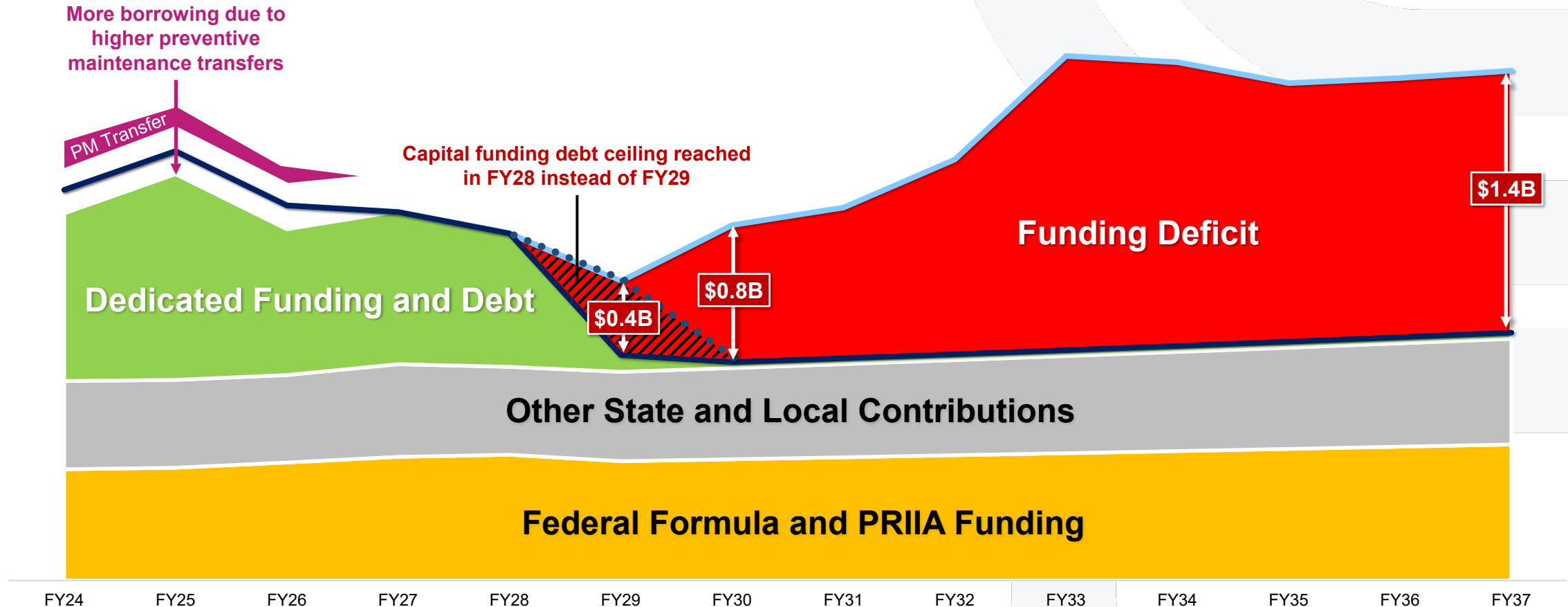
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- Program assumes continuation of existing regional commitments and federal funding
- New capital funding needed to address ongoing system safety, renewal and modernization needs
- State of good repair backlog progress diminishes, while performance and reliability decrease and safety risk increases

# Metro and Region Face Capital Program Deficits

Capital Program Update

Dedicated capital funding borrowing capacity projected to be exhausted in about FY2028 and new capital funding will be needed to address ongoing system safety, renewal and modernization needs



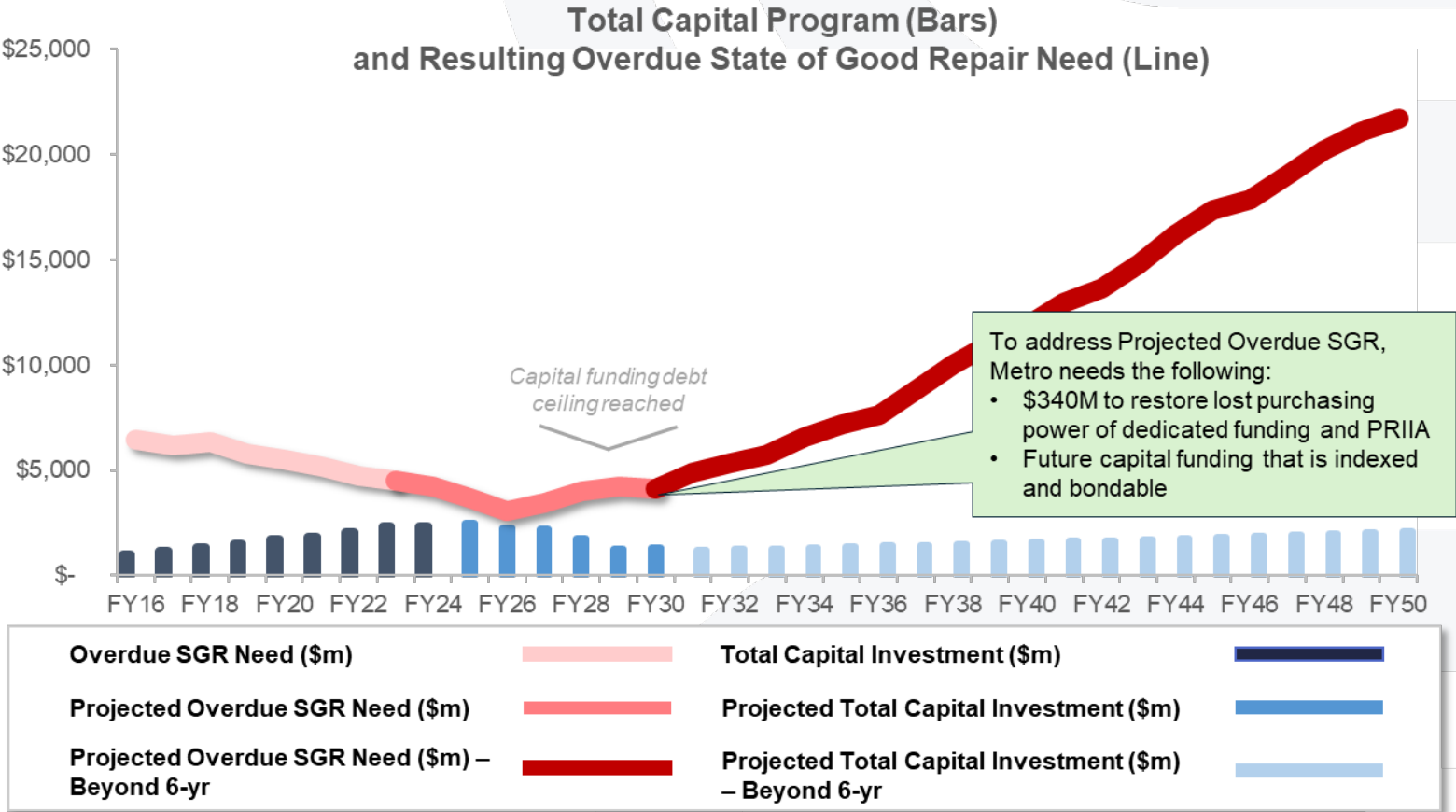
\* Based on FY2025 Budget; assumes reauthorization of IIJA

Investment Needed

Total Funding Available for Investment

# Deficit Threatens Progress Made on State of Good Repair at Metro

- Causes of Metro’s deficit:
  - PRIIA and Dedicated Funding were not indexed to inflation
  - Unusually high inflation has reduced Metro’s purchasing power
  - Capital funds are being used for preventive maintenance operating costs
- As backlog SOGR grows, performance and reliability decrease and risk increases
- Inadequate funding will result in declining reliability, worsening customer experience, and increased safety risk



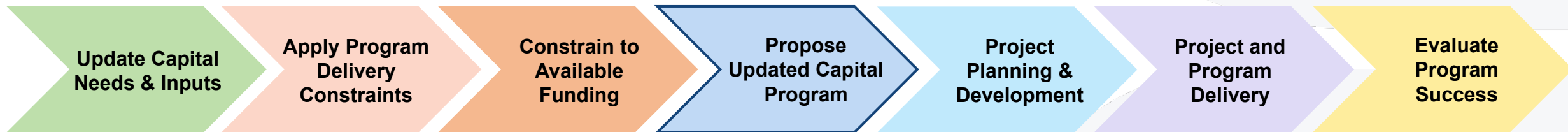
# Capital Program Lifecycle

*Ongoing process to manage, develop and monitor the capital program*

Capital Program Update

- **One-year budget, six-year capital improvement program and long-range capital plan**
- Projects and programs to restore, sustain, and modernize the system
- Capital program performance measured at project and programmatic levels

## SUMMARY OF CAPITAL PROGRAM DEVELOPMENT



- **Constrained funding:**
  - Limits capacity for state of good repair and modernization investments
  - Shifts from proactive to primarily reactive maintenance practices, replacing assets after failure
  - Precludes system enhancement and expansion

# Investing in Metro's Infrastructure

Capital Program Update

## State of Good Repair

Repairing and replacing assets to make them safer and more reliable, or to improve efficiency

## Modernizing and Expanding the System

**Modernization:** Making existing structures and systems work better, achieving cost efficiencies, reducing environmental impacts, and improving the customer experience

**Expansion:** Expanding the size, reach, access, and/or capacity of a system

## How Investments are Prioritized

**Intra-agency coordination** to prioritize assets based on condition and risk. Federally compliant asset management methodology that guides prioritization of state of good repair needs.

**Regional decisions** - coordinated efforts to determine how to grow ridership, increase service capacity and access, maximize efficiency, and modernize the network.

## Investment Examples

- Lifecycle state of good repair investments
- Rehabilitation of roofs across system
- Drainage pumping station rehabilitations
- Rehabilitation of ventilation and egress shafts
- Rehabilitation of station power rooms and structures
- Traction power infrastructure rehabilitation

- Regional bus priority and bus rapid transit
- Zero emission bus transition
- Advanced signaling system implementation
- Expanding rail and bus fleet to provide service
- Additional station entrances to improve access and circulation
- Core and east-west capacity and reliability improvements
- Maximize existing system with new infill stations

# Capital Program Approach Absent New Investment

- Capital program has **limited capacity for new investments** due to constrained fiscal environment and ongoing commitments to previously approved investments
- Financial **pressures will continue to build** without additional regional investment, threatening progress to date
- To relieve pressures, Metro is **repurposing infrastructure** to modernize operations and maintenance practices
  - Adapting existing facilities and assets to align with priorities (*i.e.*, training, fleet management, efficiency efforts)

## FY2026 CAPITAL PROGRAM STRATEGY

Identify Cost Savings to Create Capacity	Continue State of Good Repair Investments	Complete Major Modernization Underway	Project Development for Reactive Strategy
<ul style="list-style-type: none"><li>• Continue to reduce administrative and consulting overhead costs</li><li>• Modernize standards and practices to reduce costs</li></ul>	<ul style="list-style-type: none"><li>• Revert to reactive capital program due to funding constraints</li><li>• Large proactive state of good repair programs unfunded beyond early years</li></ul>	<ul style="list-style-type: none"><li>• Initial phases of Zero Emission Bus Conversions and vehicle purchases</li><li>• Improve efficiency of maintenance programs</li><li>• Railcars to support rail service capacity and frequency</li></ul>	<ul style="list-style-type: none"><li>• Enhance Operational and Safety Training for our workforce</li><li>• Partially mitigate near term railcar maintenance facility constraints</li><li>• Development of advanced signaling system and platform screen door pilot</li></ul>

# \$275 Million of Capital Program Cost Savings

- Metro has identified **\$175M of Capital Program administrative savings\***
- Metro has identified over **\$100M through project reviews** of opportunities for structural recurring savings by simplifying standards, requirements and practices, and reducing customization
- Capital program cost reductions **preserve funding capacity** for future state of good repair program investments

## EXAMPLES OF COST SAVINGS – NO IMPACT TO INVESTMENT OUTCOME

### Bus Shelters

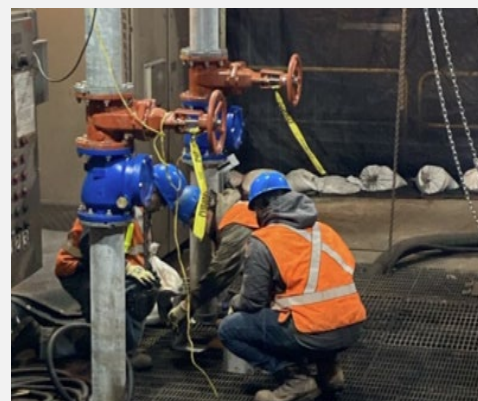
Reducing per shelter cost by ~50%



*Rhode Island Ave-Brentwood Station*

### Drainage Pumping Stations

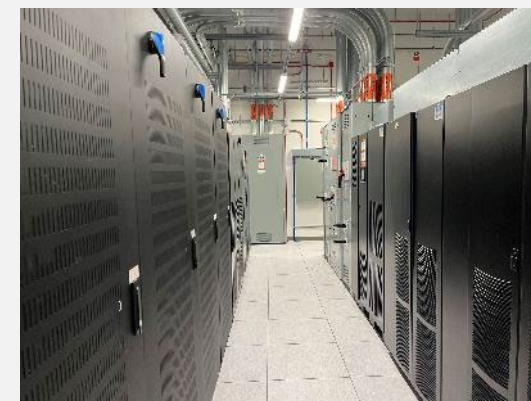
Reducing project cost by ~\$5M\*\*



*Drainage Pumping Station Work*

### Digital Modernization

Reducing system support cost by ~\$17M



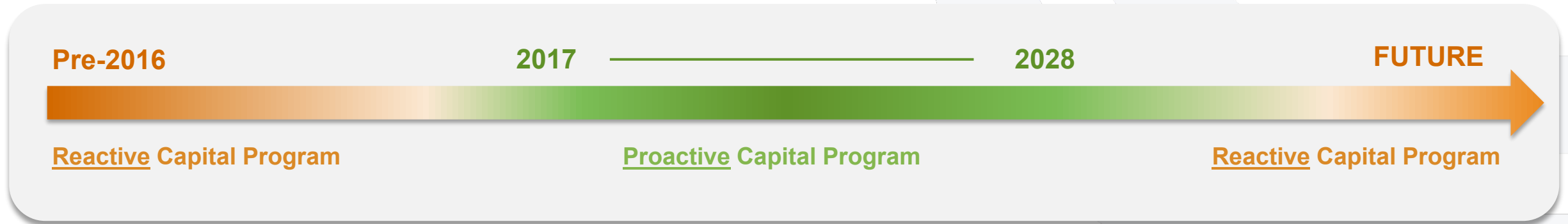
*IT Infrastructure at Eisenhower Ave Office*

\*FY2025-FY2031

\*\*Estimated savings

# Funding Constraints Will Reverse Recent Progress

Capital Program Update



- Metro experienced a decade of underinvestment from 2005 – 2015, resulting in a primarily reactive capital program
- Increased funding levels allowed for a primarily proactive approach to plan for asset replacement before failure
  - Customers experienced tangible improvements in safety and reliability as Metro invested in the system
- Looking forward, funding constraints will force a return to a primarily reactive approach, addressing assets as they fail and heavily relying on corrective maintenance actions

# Reactive Capital Program Forces Assets to Operate Past Useful Life

Capital Program Update

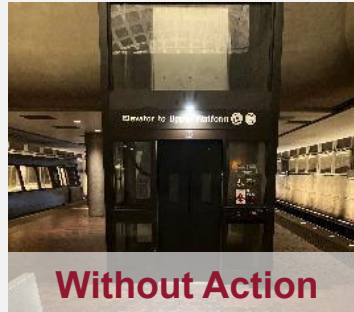
*Metro will be unable to proactively address asset lifecycles leading to a state of disrepair and assets that remain in service until failure*

## EXAMPLES OF PROACTIVE ASSET REPLACEMENT THAT **CANNOT CONTINUE** IN A REACTIVE STATE

### Rail Tunnels



### Elevators



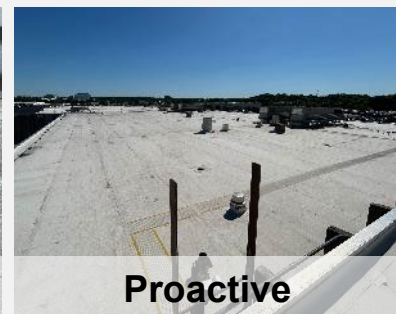
### Drainage Pumping Stations



### Escalators



### Roofs



### Station Platforms



# Draft FY2026-2031 Capital Program Continues State of Good Repair Projects Underway

~\$10B

Six-Year Investment  
Draft FY2026 – FY2031

- |  |   |
|--|---|
| • Bus Vehicle Replacement and Rehabilitation   | • Critical structural and bridge rehabilitation                 |
| • Bladensburg & Northern Bus Division Replacements and Zero Emission Conversion            | • Track rehabilitation  |
| • Zero emission bus conversion at Cinder Bed   | • Fare systems modernization                                    |
| • Metro Training Center  | • Radio replacement and fiber installations                     |
| • MetroAccess vehicle replacement  | • Water leak mitigation on Red Line                             |
| • 8000 Series Railcars (legacy vehicle replacement)  | • Enterprise Resource Planning System Modernization (MetroSync) |
| • State of good repair investments in signaling system                                     | • Railcar Fleet Management Facility                             |
| • Planning, engineering and pilots for advanced signaling system and platform screen doors |   |

# Zero-Emission Bus Overview

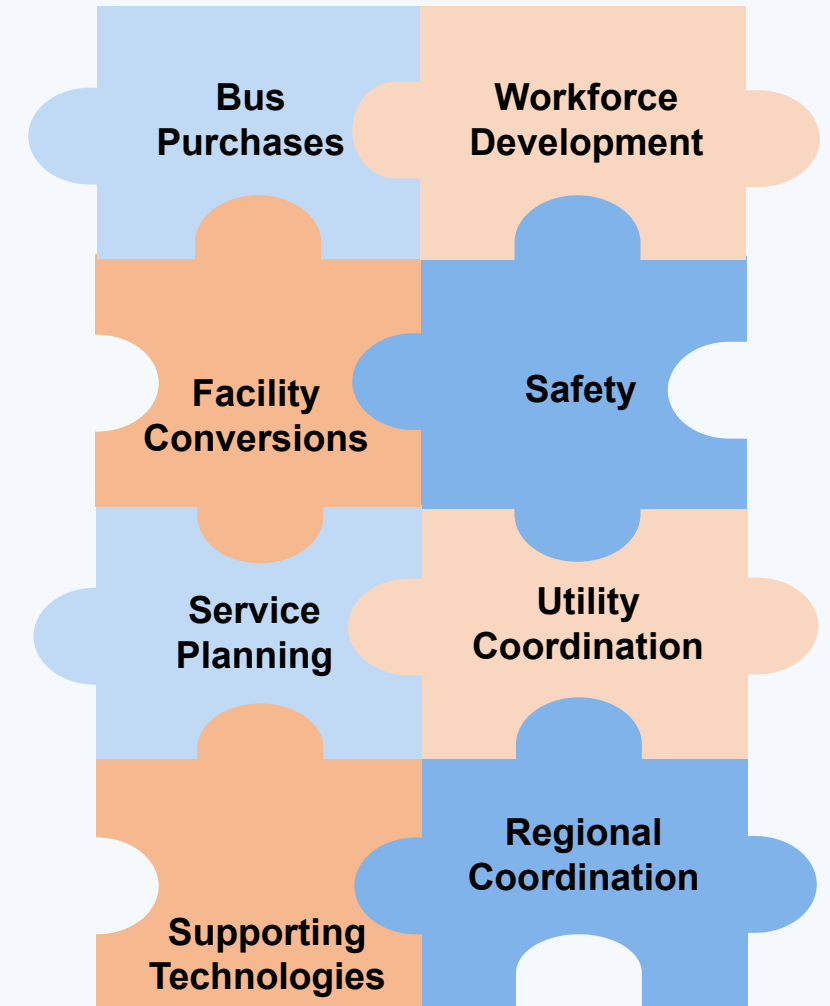
## GOAL - BOARD ADOPTED IN 2023

- 100% zero-emission bus purchases by 2027
- 100% zero-emission bus fleet by 2042

## PROGRESS TO DATE

- Zero-Emission Bus Transition Plan completed
- Ongoing fleet and facilities projects support ~25% of the transition
  - **Further transition activities remain unfunded**
- Electrification projects underway at three bus garages: Northern, Bladensburg, and Cinder Bed
- Battery-electric bus procurement underway

## Zero-Emission Bus Transition Plan



# Challenges in Pursuing Zero-Emission Bus Transition

Capital Program Update

## External market conditions & funding limitations put Metro's zero-emission bus transition goals at risk

- Limited domestic bus manufacturing capacity
- Actively participating in national conversation (APTA, FTA, White House) addressing bus manufacturing challenges
- No funding available for conversion of remaining ~75% of bus fleet and associated facilities

Metro will continue to assess market and technology conditions and will continually update our zero-emission strategy

### FUTURE STRATEGIES

**Zero-emission buses are only part of the strategy to support environmental goals**

- ☐ Continue initial phases of funded & underway investments
- ☐ Increase reliability of current bus service to incentivize public transit
- ☐ Assess other low- and zero-emission technologies

## Absent market shifts and increased funding, Metro will not be able to further advance the zero-emission bus transition

- Frequent transit service drives ridership and contributes to regional emission reductions regardless of propulsion type
- Metro and the region should not sacrifice safe, frequent, and reliable service
- Metro cannot afford to convert additional facilities to charge buses or the incremental cost increase of the vehicles
- Metro will continue use of conventional hybrid and/or compressed natural gas (CNG) buses to maintain service

# 8000 Series Railcars

## NEED

- New railcars maintain the fleet in a state of good repair, supporting safety and reliability
- Replace legacy railcars
- Improved customer features - modern technology and open gangways

## CONSIDERATIONS

- Delivery of first increment of 256 vehicles replaces legacy fleet railcars beginning in 2028
- Option for second increment of 104 vehicles
  - Capital investment funded in program; additional operating resources required for increased rail service to support growing ridership
- Additional increments would enable future service and capacity improvements
  - Capital and operating needs not funded



## FY2026 ACTIVITY

- Metro is completing preliminary design phase and plans to transition to final design phase in Winter 2025
- Manufacturing facility construction complete; production begins

# Capital Program Update

Capital Program Update

## Next Steps

### Fall:

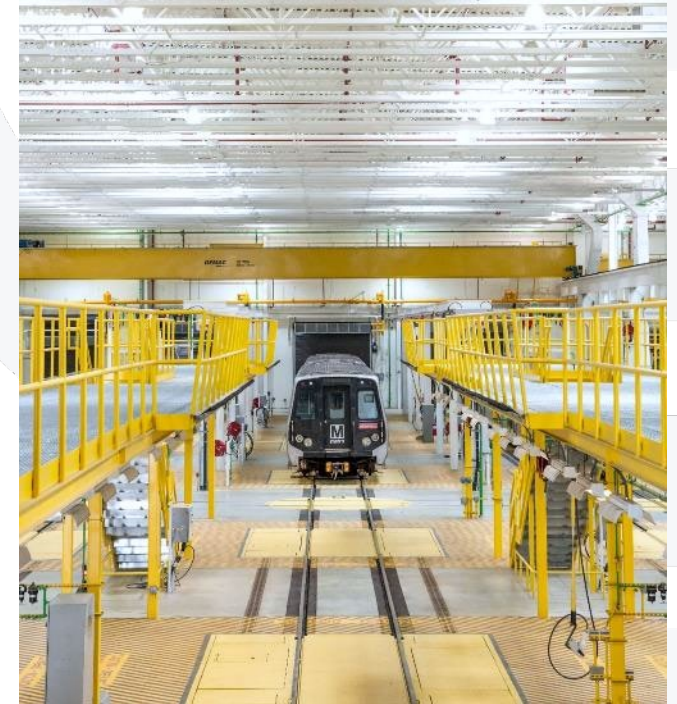
- GM/CEO FY2026 Proposed Budget, Six-Year CIP
- Publish Updated Long Range Capital Needs & Plan

### Winter:

- Board Committee work sessions & public hearings

### Spring:

- Board adoption of CIP & Capital Budget

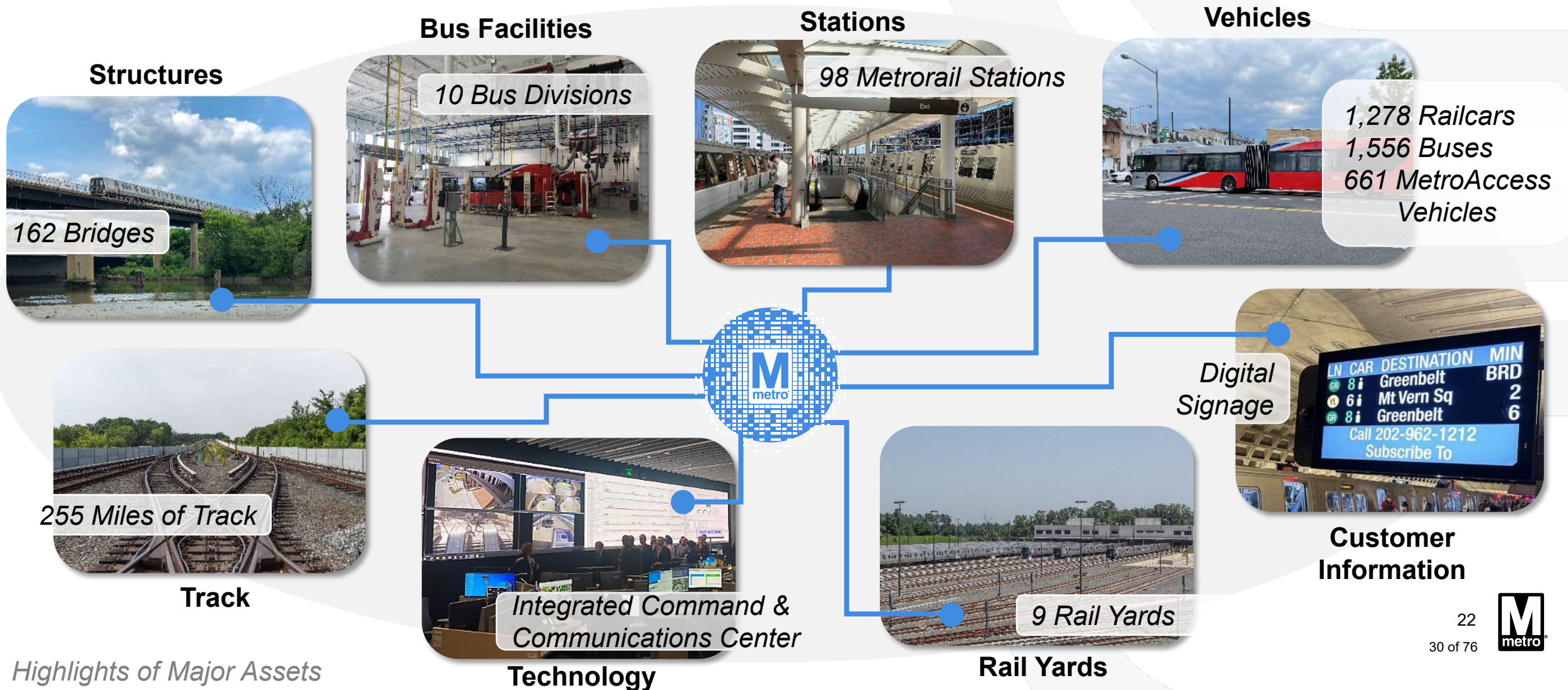


# Appendix

# Reinvesting in our Regional Transit System

Capital Program Update

Sustaining a safe and reliable public transit system requires continuous maintenance, rehabilitation and replacement and modernization of system assets



# Reinvesting in our Regional Transit System

Capital Program Update

Sustaining a safe and reliable public transit system requires continuous maintenance, rehabilitation and replacement and modernization of system assets

## Signals



50,000+ Signaling  
Room Components

## Power



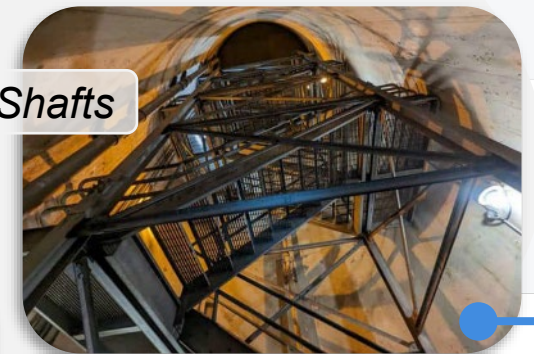
400+ Major Station Power Components  
600+ Major Traction Power Components

## Tunnels



54 Miles of  
Underground Rail

## Shafts



300+ Shafts

## Bus Shelters



2,500+ Bus Shelters

## Elevators & Escalators



800+ Elevators and Escalators

## Parking Facilities



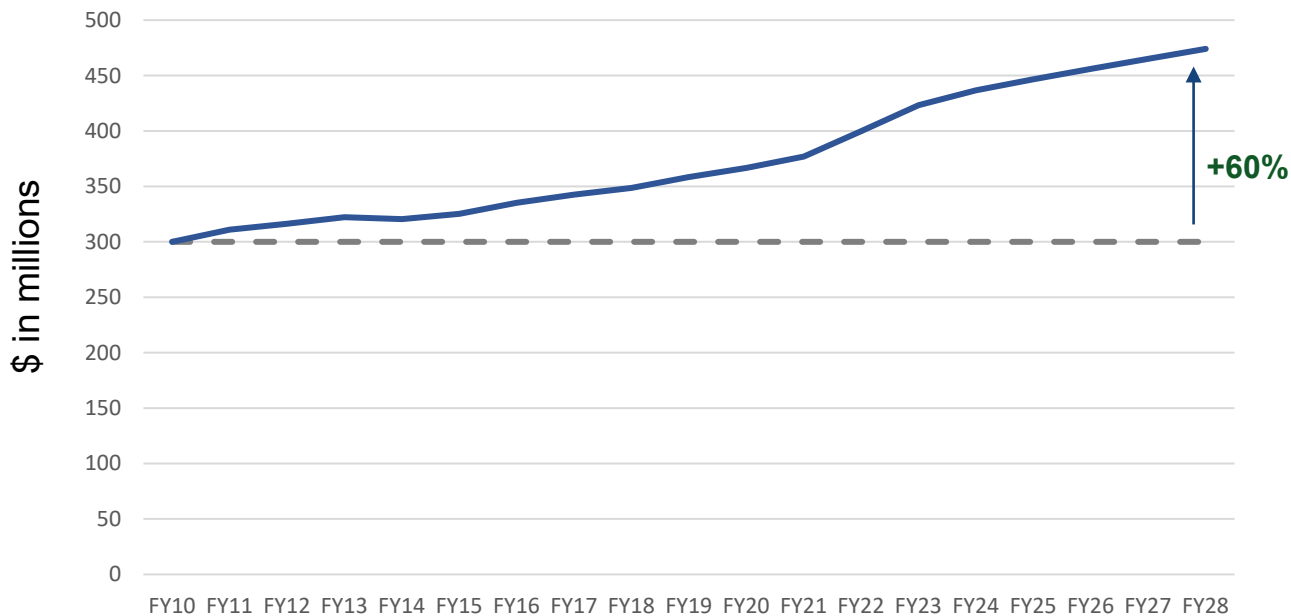
60+ Garages &  
Surface Lots

Highlights of Major Assets

# Buying Power of Metro's Funding Has Eroded Over Time

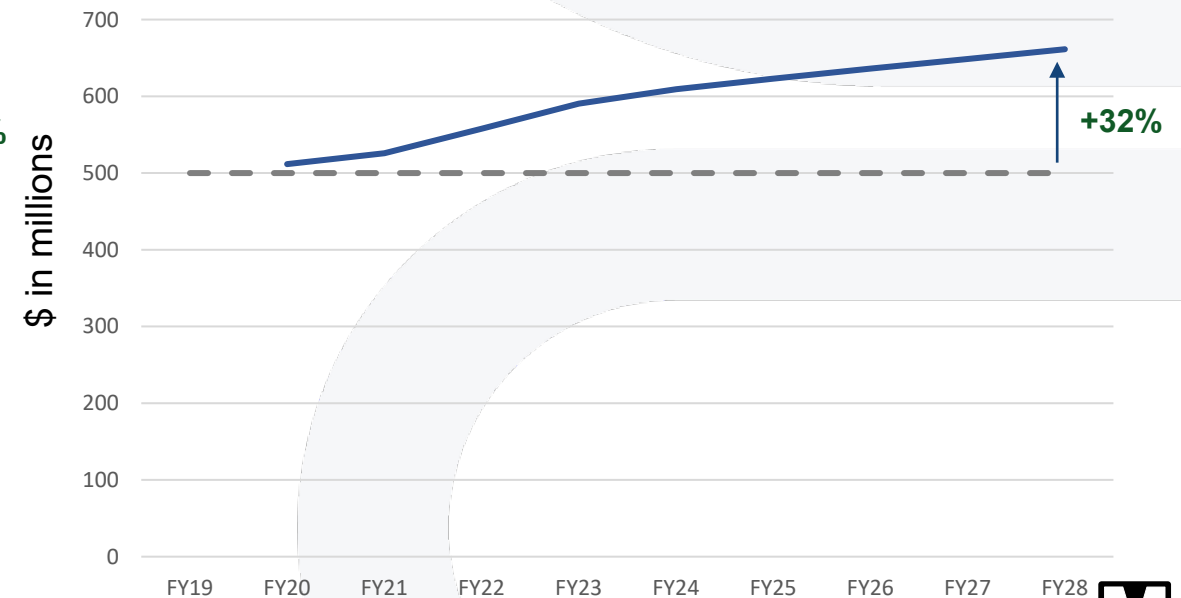
***Additional \$340M in FY2028 would restore purchasing power of PRIIA & Dedicated funding;  
Indexing all capital funding sources would maintain future purchasing power***

**\$300 million of original PRIIA  
would be worth  
\$480M in FY2028 if indexed**



\*Values shown in 2010 dollars

**\$500 million of original Dedicated  
Funding would be worth  
\$660M in FY2028 if indexed**



\*Values shown in 2018 dollars

Source: U.S. Bureau of Labor Statistics, Consumer Price Index for Urban Wage Workers and Clerical Workers (CPI-W)

# Funding Constraints Will Lead to Stoppage of Metro's Successful Lifecycle Reinvestment Programs

Capital Program Update



## Reverting Back to Primarily Reactive Tactics due to Funding Constraints

Addressing infrastructure issues as they arise

### EFFECTS OF A REACTIVE APPROACH

**Over the next six years, Metro's reinvestment and rehabilitation programs will end due to funding constraints. Metro will stop being able to rehabilitate:**

- Roofs
- Drainage Pumping Stations
- Ventilation and egress shafts
- Station power rooms and structures
- Traction power infrastructure

***For many programs – 24+ months for lead time for planning/design, contracts and specialized equipment to restart efforts once stopped***

# Railcar Fleet Management Facility

Capital Program Update

## NEED

- Provide railcar maintenance capacity and prepare for future maintenance needs
- Dedicated space for the railcar scheduled maintenance program (SMP)
- Maintain or increase reliability as measured by service failures
- Previous programmed as Heavy Repair and Overhaul Facility in prior CIP

## CONSIDERATIONS

- Maximize existing infrastructure and minimize cost
- Improvements/additions to Dulles Railyard to support the railcar SMP
- Increase truck shop capacity

## FY2026 ACTIVITY

- Site identified (complete)
- Develop project plan (complete)
- Planning, programming and preliminary design (complete)
- Initiate design

# Advanced Signaling System & Platform Screen Door Pilot

Capital Program Update

## NEED

- Modernize Metro's aging legacy signaling system; existing components are obsolete and unreliable
- Increase safety, reliability, cost efficiency
- Prevent trespassers from entering the right of way, saving lives and minimizing disruptions

## CONSIDERATIONS

- Understand implementation and operation on Metro's system to be prepared when funding becomes available
- Identify and assess real-time impact of platform screen doors and advanced signaling system on safety, operations, and maintenance

## FY2026 ACTIVITY

- Planning, engineering and pilots for advanced signaling system and platform screen doors
- Pilot: Install platform screen doors at Red Line station

# Metro Training Center

Capital Program Update

## NEED

- Facility to consolidate training including operator, maintenance, transit police, safety and emergency management
- Integrated approach to training and establish economies of scale and efficiencies through integrated facility
- Contributes to addressing Corrective Action findings that include training and addresses systemic training shortfalls the agency faces

## CONSIDERATIONS

- Maximize existing infrastructure to minimize costs: Utilize the land/building previously purchased for the Heavy Rail and Overhaul Facility
- Support Talented Teams and employee safety to build the workforce of the future
- Dedicated facility to train first responders and reduce impact of training exercises and new maintenance techniques on the system
- Support regional transit with potential shared services

## FY2026 ACTIVITY

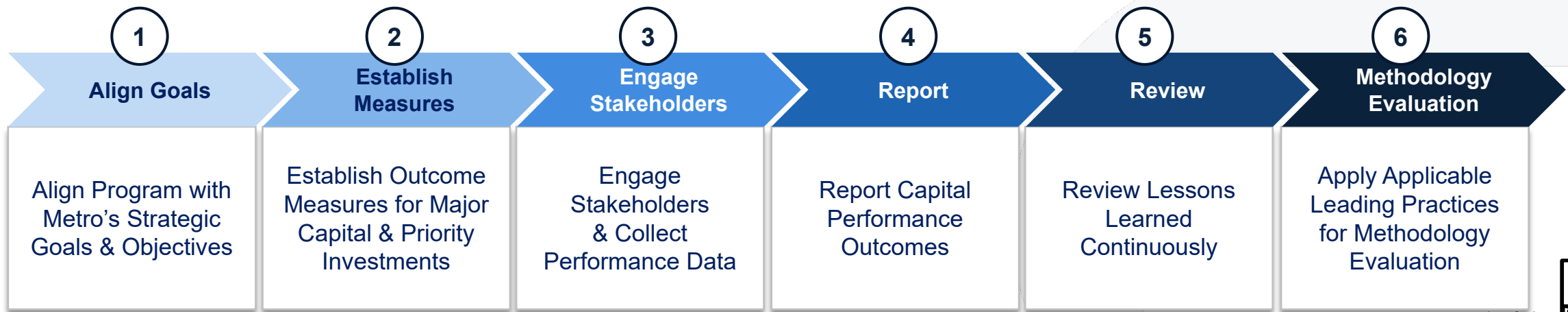
- Site identified (complete)
- Develop Project plan (complete)
- Planning, programming and preliminary design (complete)
- Procurement

# Capital Investment Performance Outcome Measures Program

Capital Program Update

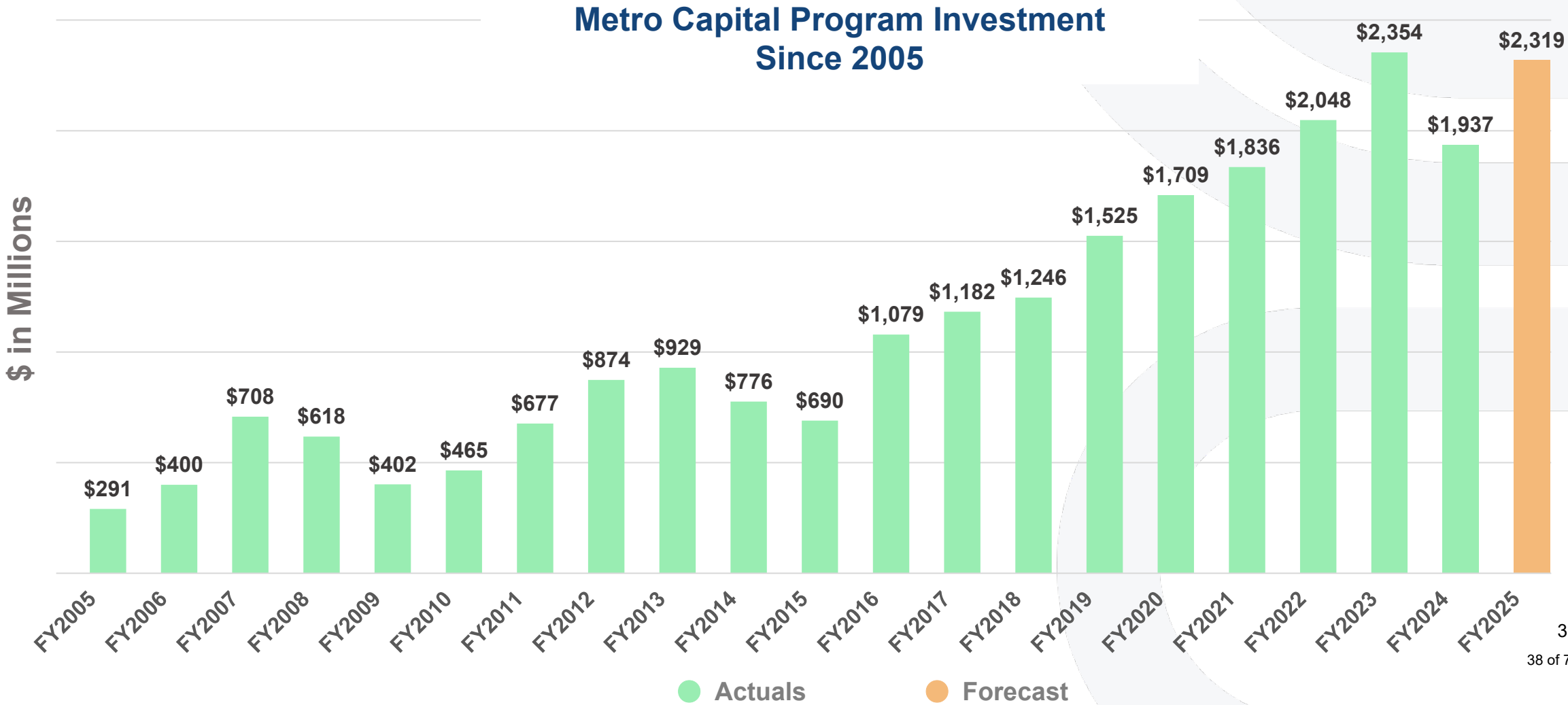
- Metro developed a program to measure performance outcomes of capital investments, assess benefits and impacts, and demonstrate alignment to Metro's Strategic Transformation Plan
- Provides both quantitative and qualitative performance outcomes
- Investment-level details available in the [Approved FY2025-FY2030 Capital Program](#)

## METHODOLOGY

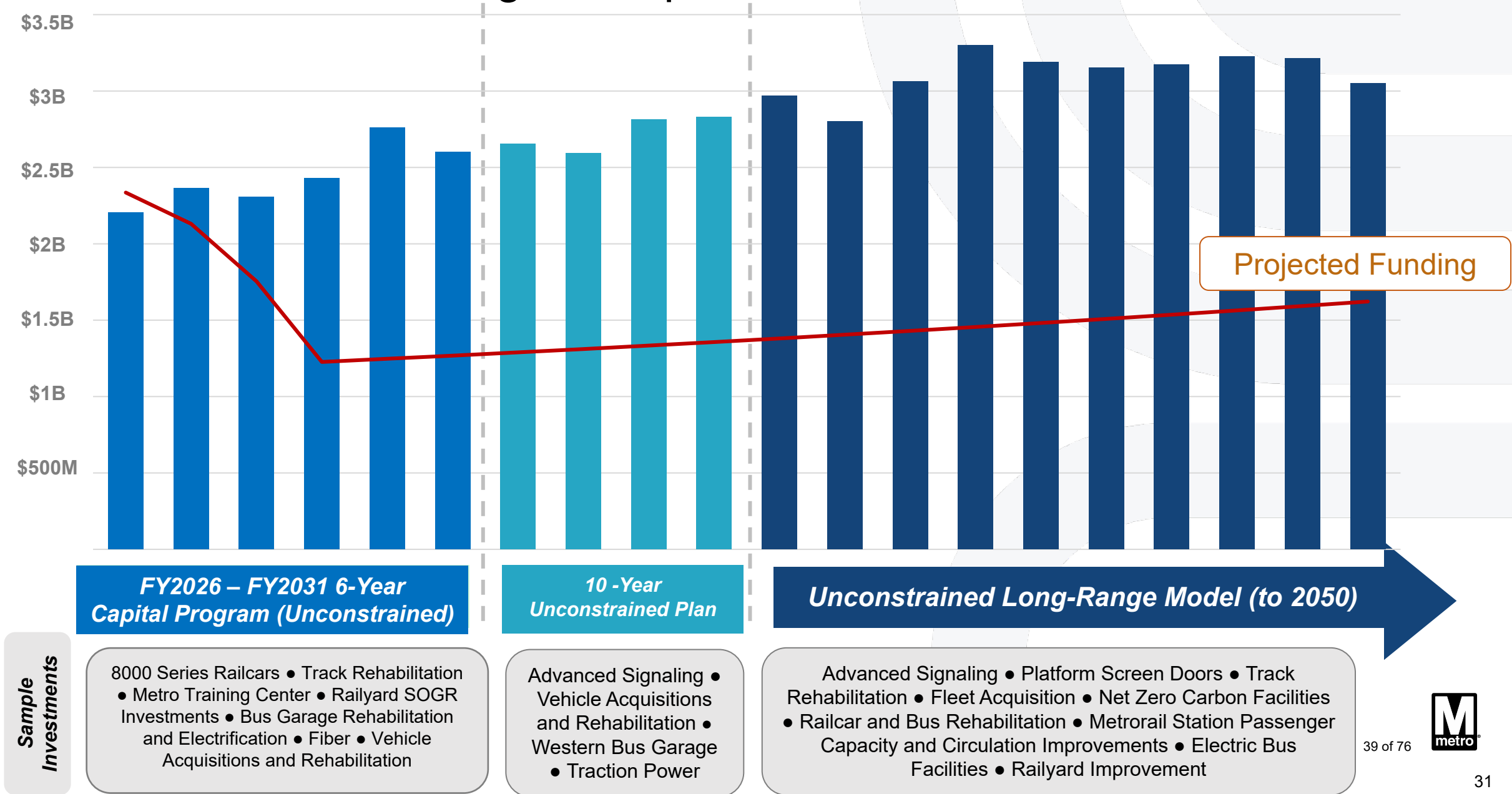


# Substantial Reinvestment in State of Good Repair

*Dedicated funding, PRIIA, federal and regional funding, and significant increases in capital program delivery performance support Metro’s state of good repair programs*



# Estimated Capital Need for State of Good Repair and Modernization with Funding Assumption



# Defining State of Good Repair & Modernization

*While state of good repair and modernization are distinct types of needs, projects often contain both*

## State of Good Repair

Rehabilitation or replacement of assets that perform existing functions to allow the system to continue to operate safely and reliably\*

### Investment Examples

#### BUS GARAGES



- Replace existing structure
- Replace existing systems (i.e., electrical, mechanical, ventilation)
- Refresh spaces (i.e., paint, holes in walls, bulbs)



## Modernization

Improvement to efficiency of service and operations through added functionality or new assets that Metro did not previously own

Create new functionality in bus garages to allow for charging of battery electric buses

#### SIGNALING



Replace existing train control system with updated modern train control system



Installation of platform screen door assets to improve safety and efficiency and reduce unauthorized entry or someone falling on the tracks

# Capital Program Needs/Project Development Model

Capital Program Update

*Executable projects can address both state of good repair and modernization needs*

**A**

**Need Identified,  
Prioritized & Approved**

*Discreet needs with a **single purpose**  
(SOGR OR Modernization)*

**State of Good Repair Needs**

**Modernization Needs**

Rough Order of Magnitude Cost | High Level  
Scope | No Schedule | No Execution Plan

**B**

**Ongoing Development  
of Identified Project**

*A single project can **address multiple needs**  
(both SOGR AND Modernization)\**

**PROJECT 1**



**PROJECT 2**



**PROJECT 3**



Refined Scope, Schedule & Total Project  
Cost | Development of Implementation Plan

**C**

**Project Implementation**

*A **fully executable project** that addresses multiple  
approved needs (both SOGR AND Modernization)*

**PROJECT 1 – FULLY INCLUDED**



**PROJECT 2 - PARTIALLY INCLUDED**



**PROJECT 3 - FULLY INCLUDED**



 *Approved Need After  
Project Development*

Defined Scope | Defined  
Schedule | Total Project Cost