MDOT MTA | CY2025–2034

10-Year Capital Needs Inventory & Prioritization

July 2025

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Light Rail Southern Track Maintenance

Metro Fleet and Train Control Replacement Program

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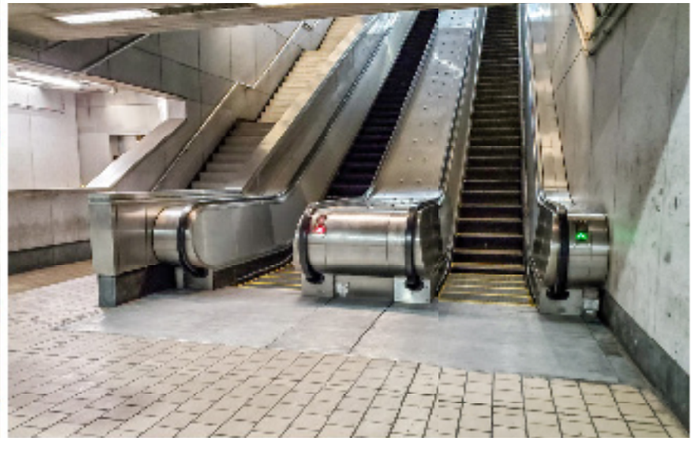


ACRONYMS

ADA – Americans with Disabilities Act
AVL – Automated Vehicle Locator
BWI – Baltimore/Washington International Thurgood Marshall Airport
CFP – Call for Projects
CNI – Capital Needs Inventory
CTP – Consolidated Transportation Program
ENH - Enhancement Needs
FMIS – Financial Management Information System
FTA – Federal Transit Administration
GPS – Global Positioning System
IVR – Interactive Voice Response
LOTS – Locally Operated Transit Systems
MARC – Maryland Area Regional Commuter
MCDA – Multi-Criteria Decision Analysis
MDOT – Maryland Department of Transportation
MDT – Mobile Data Terminal
MTA – Maryland Transit Administration
NEC – Northeast Corridor
PTASP – Public Transportation Agency Safety Plan
RTA – Regional Transportation Agency of Central Maryland
RTP – Regional Transit Plan
RTIS – Real-Time Information System
SGR – State of Good Repair
SME – Subject Matter Expert
STP – Statewide Transit Plan
TAM – Transit Asset Management
TAMP - Transit Asset Management Plan
TERM – Transit Economic Requirements Model
TICC – Transit Information and Contact Center
TMDL – Total Maximum Daily Load
TSP – Transit Signal Priority
USDOT – U.S. Department of Transportation
VRE – Virginia Railway Express
WMATA – Washington Metropolitan Area Transit Authority
YOE – Year of Expenditure
ZEB – Zero-Emissions Buses

EXECUTIVE SUMMARY

This Maryland Department of Transportation (MDOT) Maryland Transit Administration (MTA) Capital Needs Inventory (CNI) report has been produced in accordance with the requirements of §7-309 of the Transportation Article, Maryland Annotated Code. This CNI describes the significant investment into transit that is needed over the next 10 years to reach and maintain a state of good repair for the existing service, complete some priority enhancements to customer experience, and fulfill the contractual obligations associated with the Purple Line and Major MARC projects. Thanks to commitments made in Governor Moore's transportation budget, there is funding in the Consolidated Transportation Program (CTP) to advance these priorities, as well as for over 90% of MTA's State of Good Repair (SGR) needs. Due to major investments in the Governor's budget toward critical SGR projects at MTA, the share of assets outside of a state of good repair is projected to drop next year.

MTA Modes of Transit

- Core Bus (CityLINK, LocalLINK, QuickLINK and Express BusLINK)
- Commuter Bus
- MARC Train
- Metro
- Light Rail
- Mobility

MTA Service and Assets

MTA currently provides transit service through six different modes and connects nine counties across Maryland, along with Washington, D.C. and West Virginia. Annually, MTA provides over 68 million rides and 300 million miles of transportation for its passengers.

MTA owns a total of $14.0 billion in assets (**Figure ES-1 and ES-2**), including vehicles, guideway elements, systems, facilities, and stations. In addition to mode-specific assets, MTA maintains agencywide assets, including those related to police, IT systems, treasury, and operations support.

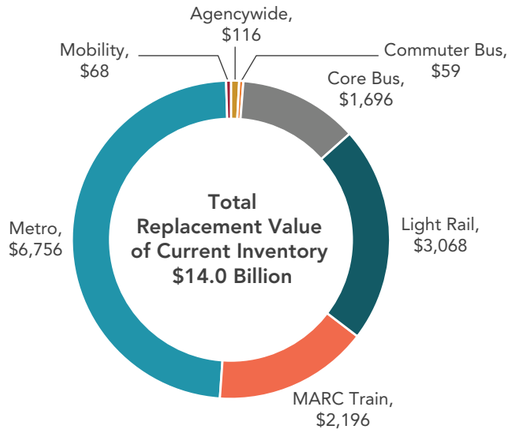


Figure ES-1. Replacement Value of Current Inventory by Mode ($2024, Millions)

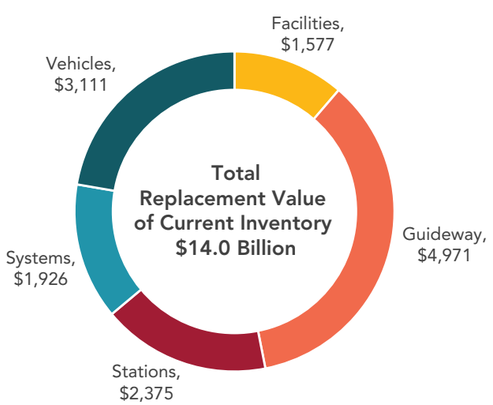


Figure ES-2. Replacement Value of Current Inventory by Asset Category ($2024, Millions)

MTA's State of Good Repair Investment Needs

In order to be considered in a state of good repair, an asset must operate at a full level of performance, not pose unacceptable safety risks, and must complete necessary reinvestment through maintenance and rehabilitiation or full replacement at the end of its life cycle. The investments required to bring all of MTA's existing assets into state of good repair are projected at $6.6 billion. **This does not account for any constraints in terms of funding, capacity to deliver investments, or responsiveness of supply chains.**

In addition to investing in the state of good repair of MTA's current services, MTA also has contractual obligations to support existing and upcoming transit services, including $533 million for MARC Major Project Commitments and $1.4 billion for Purple Line Capital Availability Payments.

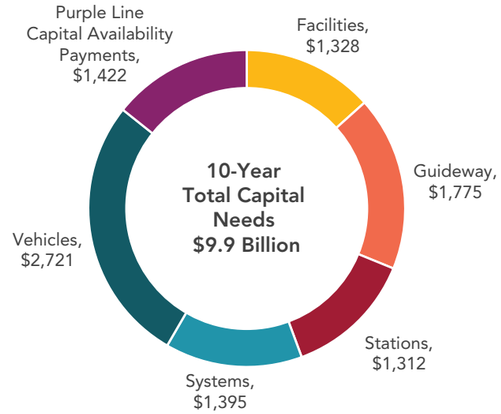


Figure ES-3. Summary of 10-Year Total Needs by Asset Type ($Millions)

As shown in **Figures ES-3** and **ES-4**, vehicles represent the highest investment need ($2.7 billion), followed by Purple Line Capital Availability Payments, systems, stations, guideway, with facilities representing the least ($1.4 billion). In terms of mode, MARC Train has the highest investment need ($2.2 billion), followed by Core Bus ($2.1 billion), Metro ($2.1 billion), Purple Line Capital Availability Payment ($1.4 billion), Light Rail ($1.4 billion), Agencywide ($303 million), Mobility ($228 million). Commuter Bus represents the lowest needs as this mode is operated through a contractual service model ($149 million).

Additional detail on the SGR investments needed to address MTA's $2.8 billion SGR backlog is provided in **Chapter 3** and **Appendix Table A-1**. Detail on prioritized SGR projects, anticipated SGR funding, and funding gaps is provided in **Chapter 5**.

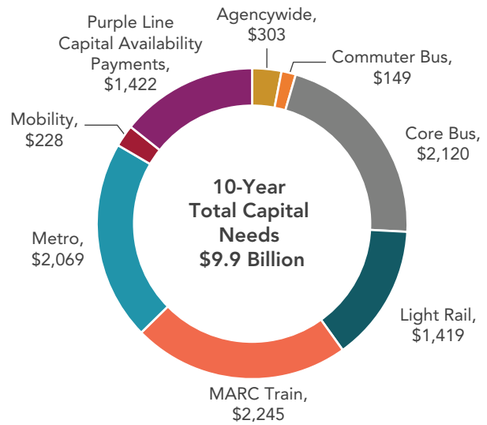


Figure ES-4. Summary of 10-Year Total Needs by Mode ($Millions)

MTA's Total 10-Year Investment Needs and Anticipated Funding

The total 10-year capital investment needs considered in this CNI include SGR investment needs ($6.6 billion), MARC Major Project Commitments ($533 million), Purple Line Capital Availability Payments ($1.4 billion), and identified Enhancement (ENH) investment needs ($1.3 billion). On an annualized basis, which better reflects how capital programs are delivered, this is approximately $995 million.

As shown in **Figure ES-5**, SGR needs comprise 67 percent of the total 10-year investment needs, MARC Major Project Commitments comprise 5%, Purple Line commitments comprise 14%, and ENH investment needs comprise 14%. The total capital investment needs are expected to be $9.9 billion in year of expenditure (YOE) dollars with the inclusion of a 3% inflation rate. These investment needs support maintaining and enhancing current transit services, as well as contributing to major investments in MARC-related Northeast Corridor projects and supporting capital needs for the Purple Line once it opens in 2027.

Nineteen (19.6) percent of MTA's total investment needs will be spent on MARC Major Project Commitments and Purple Line Capital Availability Payments. The other 80.4% will be spent on SGR and ENH projects.

As indicated by the proportion of SGR investments, MTA's near-term focus is addressing deferred maintenance, repair, and replacement needs so that MTA service continues to operate safely and efficiently. As we work to get our transit system back on track, we are building a solid foundation for future transit improvements.

State of Good Repair and Enhancement projects will account for 80.4% of the agency's total investment needs.

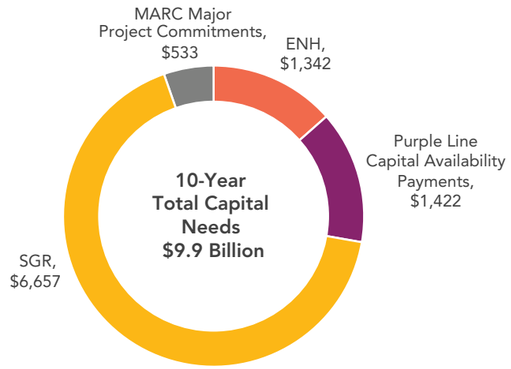


Figure ES-5. Summary of Total 10-Year Capital Needs Service Area (CY2025–2034, $YOE, Millions)

As shown in **ES-6** and **Tables ES-1** and **ES-2**, anticipated funding estimates are based on the adopted 2025-2030 Capital Transportation Program (CTP), excluding Locally Operated Transit Systems (LOTS) and freight funding, and including formula funding available under the Infrastructure Investment and Jobs Act. MTA SGR funding levels for the first five years of this CNI report period are known because they fall within the 2025-2030 CTP. **Thanks to the efforts of the Moore-Miller Administration, the $3.6 billion in total funding provided in the CTP allows MTA to address over 90 percent of its SGR needs through 2030, while also advancing certain enhancement needs and fully funding MARC Major Project and Purple Line commitments.**

From 2026-2030, MTA has $3.6 billion in capital funds dedicated to support CNI needs in the Consolidated Transportation Program (CTP). Beyond the CTP funding years, there is greater uncertainty in the funding that will be available from the Maryland Department of Transportation budget for MTA's CNI needs. Based on a growth rate of 1.5% to 3% annually, projected funding for 2031-2035 has been estimated for the purposes of this report. This yields projected funding available in 2031-2035 (the last five years of this CNI analysis) ranging from $3.8 billion to $4.8 billion. The total funding available over the ten year CNI period, therefore, is $7.4 to $8.4 billion.

SGR investment needs during the second half of the CNI report period are expected to increase faster than revenue growth, as obligations like the Purple

Line Capital Availability Payments and MARC Major Project Commitments build. As a result, MTA anticipates a funding gap of $1.5 – $2.5 billion.

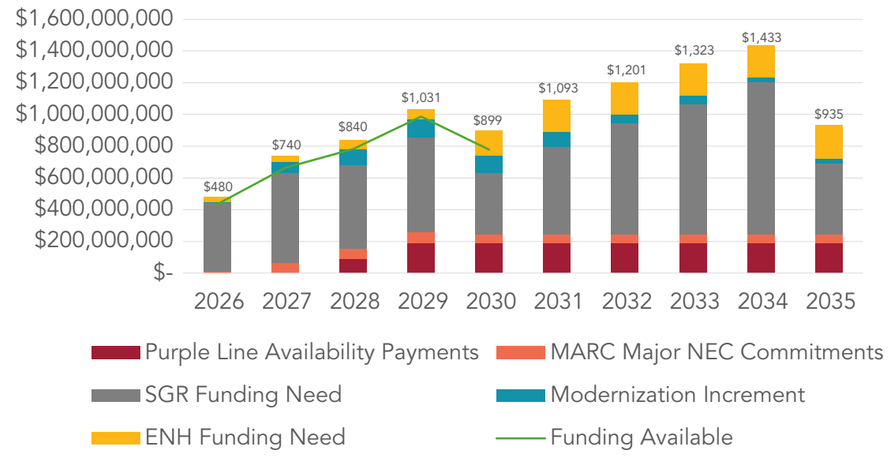


Figure ES-6. Shows the MTA's annual needs and anticipated funding for this 10-year period.

Table ES-1. Provides a summary of 10-year capital investment needs, current CTP funding needs and future funding needs.

	10-Year Investment Needs	Year 1-5 Funding Needs	Year 6-10 Funding Needs
Purple Line Capital Availability Payments	$1.4 B	$471 M	$951 M
MARC Major Project Commitments (SRRB, FDT, BWI, Penn, Aberdeen, New Carrollton)	$533 M	$263 M	$270 M
SGR	$6.6 B	$2.9 B	$3.7 B
ENH	$1.3 B	$347 M	$1.0 B
Total	**$9.9 B**	**$4.0 B**	**$5.9 B**

Table ES-2. Provides a summary of investment needs, available funding, and funding gap

	Investment Needs	Funding Available	Funding Gap
Year 1-5 Funding Needs	$4.0 B	$3.6 B	$347 M
Year 6-10 Funding Needs	$5.9 B	$3.8 - 4.8 B	$1.1 - 2.1 B
Total	**$9.9 B**	**$7.4 - 8.4 B**	**$1.5 - 2.5 B**

Additional detail on prioritized SGR and ENH projects and anticipated funding and funding gaps is provided in **Chapter 5**.

Development of the CNI Report

This CNI is a snapshot of MTA's capital investment needs for the next ten years, based on insights gained from the MTA Transit Asset Management (TAM) Program and internal Call for Projects (CFP) process. The TAM Program is the main way that critical information about MTA's $14 billion in assets is aggregated, updated, and fed into decision-making processes **(Figure ES-7)**,while the CFP utilizes agency subject matter experts (SMEs) to propose projects based on needs observed while operating and maintaining MTA's system.

The core elements of MTA's TAM Program are the Agencywide Asset Inventory, logging of maintenance activities through Maximo, and the outputs of FTA's Transit Economic Requirements Model (TERM Lite). The inventory maintains records on each of MTA's assets' location, age, condition, and technical details as well as data on manufacturers, asset maintenance, rehabilitation, and replacement costs and schedules, using Maximo to support periodic updates. The TERM Lite model uses this data to predict and prioritize SGR needs.

The comprehensive data generated through the TAM Program allows MTA to analyze its assets from a lifecycle perspective: it enables the agency to accurately predict the value, schedule of investments, and funding required for SGR needs, as well as proactively identifying any funding shortfalls. The TAM Program is fundamental to sound decision-making on SGR funding needs and other ENH priorities.

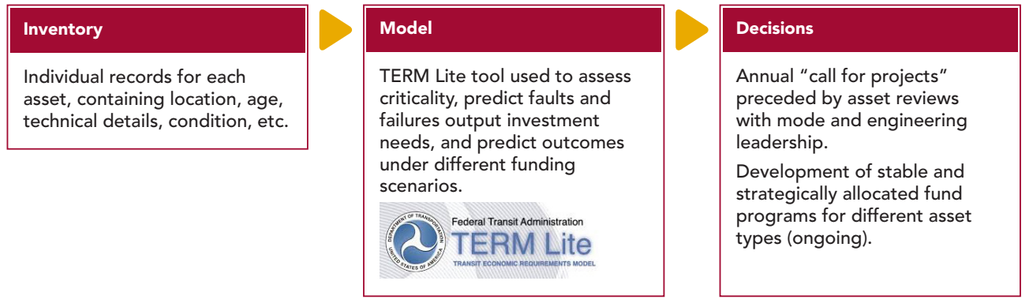


Figure ES-7. TAM Program Impact on Decision-Making

Capital investment needs documented in this CNI have been identified by first projecting unconstrained needs based on TAM Program asset maintenance, rehabilitation, and replacement data. Then, using information from MTA's capital program and the CFP database, projects that accomplish MTA's SGR and ENH goals are selected for prioritization. Progress towards meeting all of MTA's SGR needs and the identified priority ENH needs is then modeled using known and assumed funding levels.

Key asset lifecycle data from the TAM Program is used to help determine upcoming SGR investment needs. ENH needs in this CNI report are aligned to the strategies and actions in the Regional Transit Plan (RTP) and Strategic Plan, and, more specifically, the CFP process. Corridor expansions in planning and development, such as those listed in **Chapter 1.2**, are not included in this CNI report as they are not currently expected to be operational by 2035 and their asset needs are not yet known. Availability payments for the Purple Line are included as part of the 10-year total, as it is scheduled to open in late 2027.

Additional detail on development of the CNI report is provided in **Chapter 2.3.**

Governor Moore's FY25-30 transportation budget included nearly $800 million in additional revenues to support MTA state of good repair needs. The Maryland General Assembly approved this increase, allowing MTA to get key projects back on track and make significant progress toward reducing the SGR backlog in the coming years.

KEY PROJECTS:

- Light Rail Modernization Program
- Light Rail Traction Power Substations
- Elevators Rehabilitation Program
- Escalators Rehabilitation Program
- Metro Platform and Station Repairs
- MARC Locomotive overhauls

What's Changed Since the Previous CNI?

Since the 2022 CNI Report, the proportion of MTA's assets that have fallen into the SGR backlog has increased from 14.5% of total asset value to 20.1% (**Figure ES-8**). This increase in backlog is partially attributed to updated TAM Program data since the last CNI, as well as multiple factors influencing delivery of SGR projects, including supply chain disruptions and slowed vehicle deliveries. Other changes since the 2022 CNI report have included updates to the Asset Inventory with more accurate cost data for guideways, systems, and facilities. Some of these changes, along with new assets coming online since the last CNI, have increased the dollar value of MTA's assets overall. Additionally, several years of inflation has led to increased asset replacement costs.

Another key change since 2022 is the incorporation into MTA's baseline capital needs of contractual commitments to Amtrak projects that will benefit regional, intercity, and commuter rail in Maryland, as well as the initiation of Purple Line Capital Availability Payments to fund the ongoing maintenance of MTA's soon-to-open Purple Line light rail in Montgomery and Prince George's Counties. The Purple Line start of service is more fully known than it was in 2022, allowing accurate forecasting of the availability payment schedule. In 2023, MTA made financial commitments to the Amtrak Northeast Corridor major projects that are included in this document. Altogether, this has resulted in an increase in MTA's baseline monetary commitments, and the capital expenditure needed to reach and maintain a state of good repair.

- Relative size of backlog has increased as inventory data has been improved, and supply chain issues have caused significant delays in project delivery

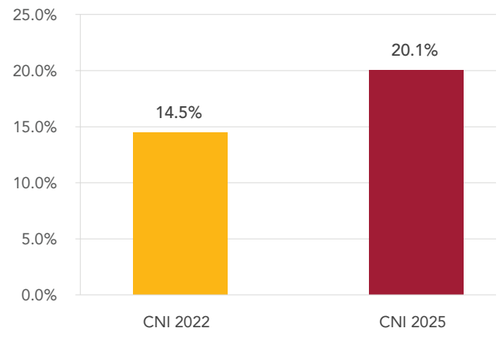


Figure ES-8. Percent of Assets in SGR Backlog

- Funding levels have increased over time, reflecting the increasing portfolio size including the major MARC projects and Purple Line

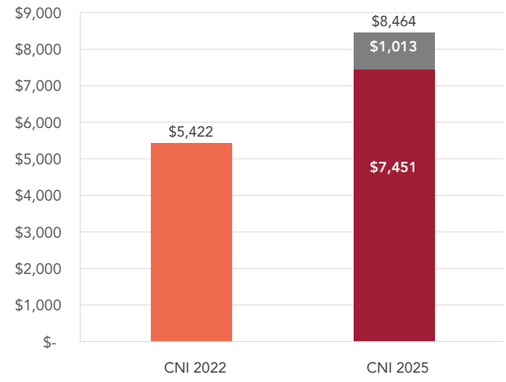


Figure ES-9. Total Anticipated Funding 2022 CNI vs. 2025 CNI, ($Millions YOE)

- Expected funding gap looks to increase but has significant changes in projection depending on future funding years

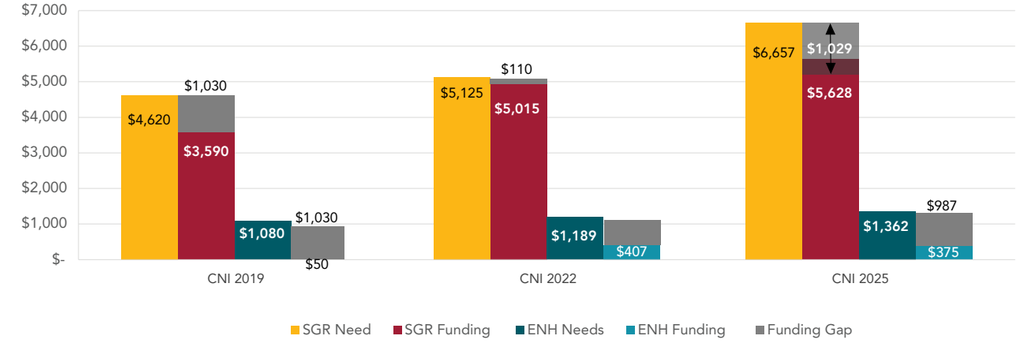


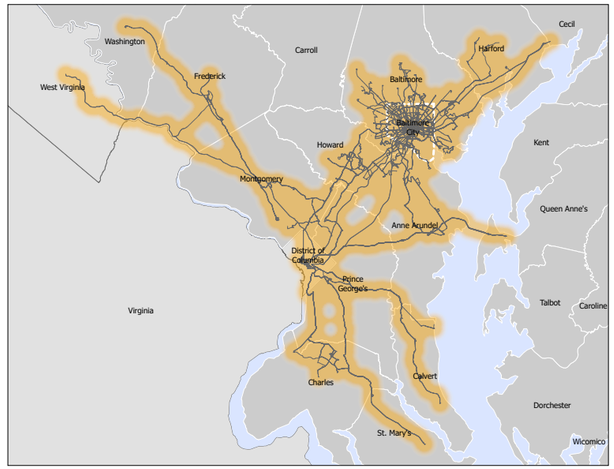
Figure ES-10. SGR Funding Gap and Anticipated Funding Gap 2019 CNI vs. 2025 CNI, ($Millions YOE)

Thanks to the increased funding made available in the 2025-2030 CTP and continued focus on completing major projects and prioritizing SGR needs, MTA's SGR backlog is on track to drop by over 45% in the next five years, shrinking to $1.5 billion. Additionally, key SGR investments are on the cusp of completion, notably the complete replacement of the Metro fleet and train control system, which will begin service this summer.

1. MTA SERVICE AND ASSETS

As the 13th largest transit system in the United States, providing six modes of service and maintaining $14 billion in assets, MTA provides essential transportation services to a service area with over seven million residents. The transit system is key to Maryland's economy, offering access to nearly 800,000 jobs, more than 200 employment centers, over 220 schools and universities, 180 grocery stores, and 25 hospitals across thirteen counties and into Washington, D.C. During peak service, MTA operates over 1,700 vehicles via the modes described below in **Chapter 1.1.**

MTA's ridership has been consistently growing since 2021, up 52 percent in 2024 from 2021 (**Figure 1-1**). Overall growth has been strongest on MTA's Local Bus services, but since 2023 has been growing more strongly on Metro and Light Rail. as well as MARC. Despite a 37 percent service reduction on Commuter Bus implemented July 1, 2024, ridership is averaging eight percent lower than before the reduction, and in March 2025 was 50% highter than in March 2024 per average day. Trends indicate that transit usage has shifted away from peak-hour work commutes toward shift-work commutes and non-work trips.



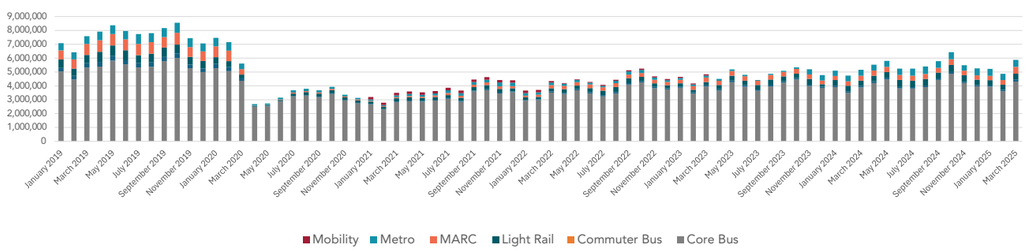


Figure 1-1. Total MTA Ridership by Year

1.1 EXISTING MTA SERVICE

Core Bus

CityLink, LocalLink, Express BusLink

167,000 Average Weekday Ridership

69% of MDOT MTA Total Passenger Trips

MTA core bus service network includes 66 routes throughout Baltimore City and parts of Baltimore County, Howard County, and Anne Arundel County. Total ridership of the Core Bus service has increased since the last CNI. Ridership of core bus service continues to be the most resilient and outperform the other modes. MTA's core bus fleet consists of 800+ vehicles, including seven Zero Emissions Buses (ZEB).

Commuter Bus

Baltimore, Central Maryland, Washington, D.C.

7,700 Average Weekday Ridership

3% of MDOT MTA Total Passenger Trips

MTA's Commuter Bus program uses private contractors to operate long-distance, work-based trips primarily from suburban park-and-rides to the central business districts of Baltimore and Washington, DC, where they also connect with Core Bus and rail systems. Commuter Bus operates 36 routes, providing 381 trips per day. Most service is scheduled Monday through Friday during morning and afternoon peak periods, with select higher-demand routes offering some mid-day trips. Additionally, one route offers service 7 days per week.

MARC Train

Penn Line, Camden Line, Brunswick Line

21,000 Average Weekday Ridership

9% of MDOT MTA Total Passenger Trips

MARC Train provides daily commuter rail service, connecting the Baltimore and Washington, D.C. regions via three lines. The Penn Line operates on the southern-most segment of Amtrak's Northeast Corridor (NEC), linking Washington Union Station with Baltimore Penn Station, and continuing north to Perryville. The parallel Camden Line, operating between Washington Union Station and Baltimore Camden Station, and Brunswick Line radiating west from Washington Union Station to Frederick and Brunswick, with some trains continuing to Martinsburg, WV, both operate over CSX Transportation tracks. The Penn Line carries the largest share of MARC Train passengers throughout the system with 76 percent of the total of about 4,187,552 annual passengers in 2024. The Brunswick Line carries 14 percent of all MARC Train passengers and the Camden Line carries ten percent. The Penn Line operates daily service in both directions. The Camden Line operates weekday peak service in both directions. The Brunswick Line operates weekday peak hour, peak direction service. MTA owns the MARC fleet of 48 locomotives and 186 passenger rail cars. MARC Train also connects to local transit services, including:

- Virginia Railway Express (VRE)
- Washington Metropolitan Area Transit Authority (WMATA)
- Montgomery County's Ride On
- Prince George's County's The Bus
- Harford County Transit LINK
- Frederick County's TransIT
- Cecil County's Cecil Transit
- Regional Transit Agency of Central Maryland (RTA)
- Shuttle-UM (University of Maryland)
- (Future) Purple Line

Metro Subway

Owings Mills-Downtown Baltimore-John Hopkins Hospital

17,000 Average Weekday Ridership

7% of MDOT MTA Total Passenger Trips

MTA currently operates a single Metro Subway line, which runs from Owings Mills to Johns Hopkins Hospital, passing through the core of downtown Baltimore. Metro Subway service runs from 5:00 AM to midnight every weekday and from 6 AM to midnight on weekends and holidays. The total scheduled travel time from end-to-end is approximately 30 minutes. The current Metro fleet includes 86 vehicles.

Light Rail

Hunt Valley-Downtown Baltimore-BWI/Glen Burnie

15,700 Average Weekday Ridership

7% of MDOT MTA Total Passenger Trips

Light Rail runs from Hunt Valley through downtown Baltimore and terminates at BWI Airport or Cromwell Station in Glen Burnie. Light Rail connects to core bus and MARC Train through Baltimore Penn Station and Camden Station. The system includes four overlapping patterns, or variations, of train origin and destination along a common line:

- Hunt Valley to BWI Airport
- Timonium to Glen Burnie
- Penn Station to Camden Station (Penn-Camden Shuttle)

Typically, during special events (e.g., Orioles games, Ravens games, etc.) peak-level service is provided with additional train cars to manage the higher ridership volumes. Light Rail service is provided through the agency's 52 Light Rail Vehicles.

Mobility

Shared-ride access within ¾ mile of Core Bus stops and other stations

12,000 Average Weekday Ridership

5% of MDOT MTA Total Passenger Trip

MTA's Mobility paratransit service operates over 360 square miles in Baltimore City and Baltimore County, with limited service to parts of Anne Arundel and Howard Counties. Mobility offers persons with disabilities shared ride access anywhere within ¾ of a mile of MTA's Core Bus, Light Rail, and Metro Subway stops and stations. Mobility also provides connections with other systems, including Baltimore County CountyRide, the RTA, and Annapolis Transit.

MTA manages Mobility as a contracted service and also manages Call-a-Ride Services. MTA owns the Mobility vehicles (557 in total) and staffs the call center for booking trips. The daily scheduling and operations, as well as vehicle maintenance, however, are performed by several service providers under contract with MTA. All Mobility trips are dispatched through a centralized control center.

1.2 Ongoing Plans and Studies

While MTA's near-term investments prioritize SGR needs to strengthen the system's foundation, we continue to plan, develop, implement, and maintain projects that will expand our existing system and provide customers with new transit options that will create a more equitable and sustainable future.

Of the anticipated future services described below, the Purple Line is the only project included in this CNI report's total 10-year needs.

The capital renewal cost for these assets is currently funded through a public-private partnership contract, and in 2027 as the Purple Line opens, MTA will begin paying approximately $190 million annually in Capital Availability Payments, per the agreement. The Capital Availability Payments are included in this report to capture MTA's commitment to maintaining the Purple Line once it is operational. (Note that these payments do not include construction costs)

1.2.1 PURPLE LINE (UNDER CONSTRUCTION)

The Purple Line is a 16-mile double-track Light Rail line with 21 stations that will operate between Bethesda in Montgomery County and New Carrollton in Prince George's County. The line will include direct connections to WMATA's Metrorail in four locations, all three MARC Train lines, and Amtrak. The project includes track, stations, railcars, and two operations and maintenance facilities. These assets will be included in inventory for assessment of SGR needs when they become operational. The capital renewal cost for these assets is currently funded through a public-private partnership contract, and in 2027 as the Purple Line opens, MTA will begin paying approximately $190 million annually per the agreement. The capital availability payments are included in this document to capture MTA's commitment to maintaining the Purple Line once it is operational.

1.2.2 RED LINE

The Red Line will provide an east-west connection through the Baltimore region, from the Centers for Medicare and Medicaid Services on the west side and Bayview Medical Center on the east side. This project will provide key investments in equitable transit to communities that were previously underserved in transit. MTA recognizes that a significant investment will be needed to accomplish this project and meet this service need. The Red Line Project will seek federal funding to support a portion of the investment costs needed for this project. This project is an expansion project that is not included in the total needs documented in this CNI.

1.2.3 CENTRAL MARYLAND REGIONAL TRANSIT PLAN (RTP) UPDATE

MTA is currently updating the Central Maryland Regional Transit Plan. The RTP Update will identify corridors most ready for additional transit investment, along with other actions that will maintain and support transit throughout the region. The RTP update will be submitted to the Baltimore Regional Transit Commission (BRTC) for approval as required by Maryland law.

1.2.4 BMORE BUS

BMORE BUS is a transit plan that presents MTA's vision for improved bus service in the Baltimore region. The plan recommends service improvements and complementary new services that MTA could implement once our transit system's infrastructure is "back on track" in SGR and resources are available for construction of a new, fifth bus division. The strategic improvements in BMORE BUS would complement MTA's other modes and Locally Operated Transit Services, expand Baltimore's Frequent Transit Network of routes that run every 15 minutes or less, enhance connections within Central Maryland, and generate economic growth and opportunity in the region.

1.2.5 MARC GROWTH AND TRANSFORMATION PLAN

The MARC Growth and Transformation Plan is a major update to the 2019 MARC Cornerstone Plan, which provided strategic priorities for the system and needed capital investments. The plan evaluates previous MTA plans, policies, reports, and legislative requirements. It identifies objectives and priorities that reflect current travel patterns, and conceptual service plans, capital improvements and implementation strategies based on market analysis, and public input. The MARC Growth and Transformation Plan includes MARC's three existing three lines (Penn, Camden, and Brunswick) and potential extensions into Virginia, Delaware, and Western Maryland. 1.2.5

1.2.6 SOUTHERN MARYLAND RAPID TRANSIT (SMRT)

The SMRT study is evaluating a potential rapid transit line to southern Maryland, connecting communities along the MD 5 (Branch Avenue)/ US 301 (Crain Highway) corridor between Branch Avenue Metrorail Station in Prince George's County and the Waldorf-White Plains area in Charles County. SMRT evaluates previously identified and new potential transit solutions for the corridor based on current and planned development and growth in the area. Possible solutions include Bus Rapid Transit (BRT), Light Rail Transit (LRT) and other transit alternatives such those that include dedicated transit-only right-of-way and mixed-traffic operations.

1.3 Current Asset Base

MTA owns $14 billion in transit assets and is the primary transit agency in the state. In addition to assets owned outright, MTA operates MARC service primarily on railroads owned by CSX and Amtrak and pays those host railroads for both the use and contributions to the upkeep of those assets. When the Purple Line, owned by MTA, opens its Light Rail in 2027, MTA will begin paying annual capital availability payments to the P3 concessionaire. It is not currently included in MTA's asset base since it is still under construction, but will be added once it is operational. MTA assets can be organized by mode (Core Bus, Commuter Bus, MARC Train, Metro Subway, Light Rail, and Mobility) or asset category:

- **Vehicles:** revenue fleets (bus, railcar, and van) and non-revenue fleets (trucks, steel wheel vehicles, sedans, etc.)
- **Guideways:** track and structures (bridges, tunnels, viaducts, fencing, retaining walls, etc.)
- **Systems:** electrification (traction power and distribution), train control, utilities (drainage, lighting, and ventilation), fare collection, fire and life safety, communications, and security systems
- **Facilities:** maintenance facilities (e.g., major shops, storage yards) and administrative facilities
- **Stations:** passenger stations, parking lots and garages, and major transfer centers or bus loops

In addition to mode-specific assets, MTA maintains agencywide assets, including those related to police, systems technology, treasury, and operations support.

In terms of mode, Metro Subway represents the highest replacement value ($6.8 billion), followed by Light Rail, MARC Train, and Core Bus, with Commuter Bus representing the least ($59 million) **(Figure 1-2)**. In terms of asset category, guideway elements represent the highest replacement value ($4.9 billion), followed by stations, systems, with facilities representing the least ($1.6 billion) **(Figure 1-3)**. 83.8 percent of the asset base serves core service, and the remaining 16.2 percent supports statewide service.

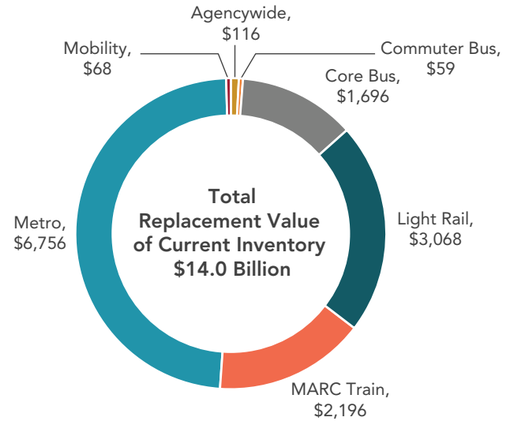


Figure 1-2. Replacement Value of Current Inventory by Mode ($2024, Millions)

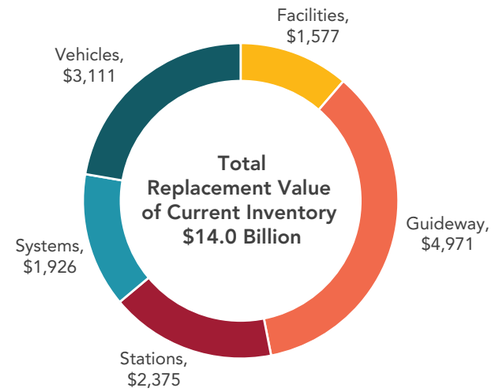


Figure 1-3. Replacement Value of Current Inventory by Asset Category ($2024, Millions)

All asset base values in this CNI report are presented in 2024 dollars and represent full replacement costs, which include applicable soft costs such as labor for design, installation, construction inspection, and project management. Assets related to the Purple Line, LOTS, and freight rail are not included in this analysis.

2. TRANSIT ASSET MANAGEMENT PROGRAM AND DEVELOPMENT OF THE CNI REPORT

This CNI report is a snapshot of MTA's capital investment needs for the next ten years, based on insights gained from the MTA Transit Asset Management (TAM) Program and internal Call for Projects (CFP) process.

2.1 MTA's Transit Asset Management Program

The TAM Program is the main way that critical information about MTA's $14 billion in assets is aggregated, updated, and fed into decision-making processes. MTA began the program in 2012 with a simple goal: to use data to invest funds more wisely and efficiently, to prevent rider disruption, and get the best dollar-for dollar- outcomes. Since its inception, the program has evolved from a foundation for asset data collection to a robust generator of analyzed data that is essential to the agency's capital programming strategy for SGR projects **(Figure 2-1)**.

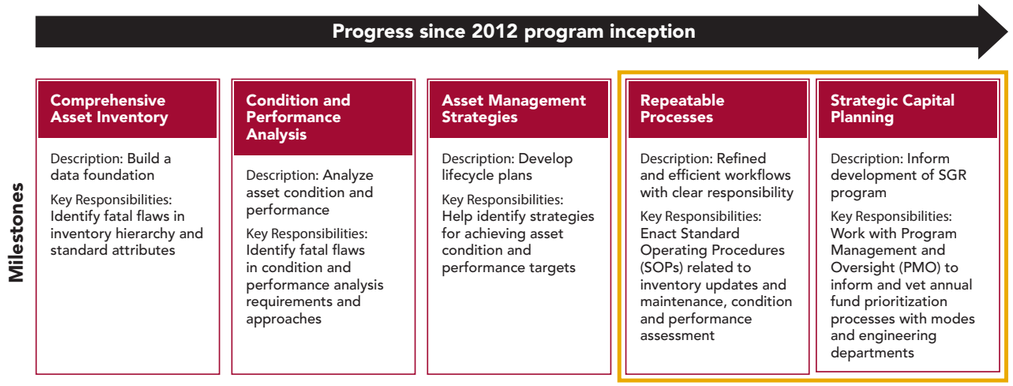


Figure 2-1. Evolution of MTA's Transit Asset Management (TAM) Program

The core elements of TAM Program are the Agencywide Asset Inventory, Maximo, and the data modelling tool, TERM Lite. The inventory maintains records on each of MTA's assets' location, age, condition, and technical details, as well as data on manufacturers, asset maintenance, rehabilitation, and replacement costs and schedules. The inventory is updated throughout the year by the Asset Management Group—composed of MTA project managers and subject matter experts (SME)— to reflect new, changed, or completed capital projects.

Data aggregated in the Agencywide Asset Inventory is analyzed via Transit Economic Requirements Model (TERM) Lite software, a modelling tool designed by the Federal Transit Administration (FTA) to help transit agencies understand asset condition and criticality, anticipate faults and failures, identify and schedule SGR investment needs, and predict outcomes under different funding scenarios.

Each year, the quality of the data in the TAM Program improves as the data within the inventory is refined to more comprehensively represent the agency's assets. The intelligence gathered through the TAM Program's high-quality data allows for a lifecycle view of our transit assets, enabling us to extend our assets' lifespans through strategic SGR investments. MTA plans for cohesive investments that minimize complexity and operations and maintenance costs (O&M), while maximizing benefits for our riders. In all, the TAM Program enables MTA to enact a strong capital program based on sound business decisions **(Figure 2-2)**.

2.2 MTA's Annual Call for Projects

MTA's annual Call for Projects (CFP) process is part of MTA's capital programming process, the agency holds workshops within mode groups to review priority capital projects and leadership within each mode submit projects for inclusion in the six-year Consolidated Transportation Program (CTP). SGR project requests as well as requests for projects that enhance the system to meet growing demands (ENH) are both included in the CFP database. Projects are added to the CFP database by project managers/SMEs in consultation with their department leadership and are assessed for funding based on known SGR needs, known public/stakeholder priorities, as well as alignment with MTA's Regional Transit Plan, Strategic Plan, and any new legislation or regulatory changes.

Figure 2-2. Benefits of Using TAM Program Data

2.3 Development of the CNI Report

The total capital investments presented in this CNI include investments that are required to maintain MTA's transit services in safe and reliable working order including enhancing the services to better meet customer needs over the next ten years. The CNI includes payments for Purple Line once it is operational, and MTA's commitments to major Northeast Corridor projects that are needed to maintain MARC service. The CNI does not cover investment needs for expansion of service in projects like Red Line, nor does it include freight, LOTS, overhead, planning, or administrative needs.

Capital investment needs documented in this CNI have been identified by first projecting unconstrained needs based on TAM Program asset maintenance, rehabilitation, and replacement data. Then, using the CFP database, projects that accomplish MTA's SGR and ENH goals are selected for prioritization in this CNI.

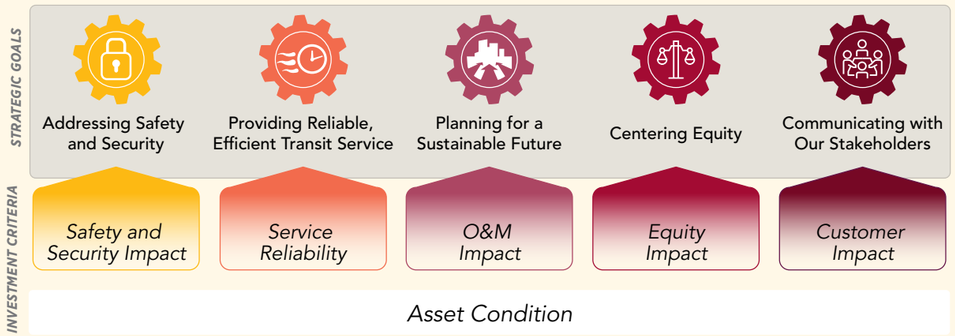
Using a multi-criteria decision analysis, the SGR and ENH projects are each given a priority score based on criteria such as: safety and security, service reliability, operations and maintenance (O&M) impact, customer impact, and equity impact. Scores for each criterion are aggregated to an overall priority score using a weighted average. With the aggregated scores for the criteria, the highest baseline score is 100.

MDOT MTA Prioritization Criteria

MDOT MTA prioritizes capital needs in alignment with the agency's vision, providing a direct link between its strategic actions and its investments to preserve and enhance the system. Each prioritization criteria supports a specific goal.

As MDOT MTA is committed to being a good steward of the region's investment in transit, Asset Condition is considered to be foundational to all of the goals of the agency.

MDOT MTA has always considered Equity in the planning process, and now includes it as a measure for investment to ensure accountability in capital investment decisions.



Chapter 3 describes the SGR investment needs, **Chapter 4** describes the ENH investment needs, and **Chapter 5** describes the total needs, including Purple Line capital availability payments, for the next 10 years.

2.3.1 FORECASTING CAPITAL INVESTMENT NEEDS

Key asset lifecycle data from the TAM Program is used to help determine upcoming SGR investment needs. Three main lifecycle investment needs can be combined to show a complete picture of an asset's investment needs:

- **Replacement:** value associated with the full replacement of the asset, typically at the end of its life
- **Rehabilitation:** value associated with a scheduled replacement of key asset components, typically a portion of the total value of the asset, replaced on a cyclical schedule
- **Annual Capital Maintenance:** value of the investments needed each year to keep an asset in SGR, including cleaning, small component replacement, calibration, etc.

ENH needs are forecast based on MTA's plans for responding to customer needs. ENH needs in the CNI are aligned to the strategies and actions in the Regional Transit Plan (RTP) and Strategic Plan. Corridor expansions that are not scheduled to be operational by 2035, such as those listed in **Chapter 1.2**, are not included in this CNI as they are not operational and their asset needs are not yet known. Availability payments for the Purple Line are included as part of the 10-year total, as it is scheduled to open in 2027.

All investment needs are presented in dollars (YOE) using a three percent annual cost of inflation.

2.3.2 FORECASTING AVAILABLE FUNDING

With the additional funding for MTA state of good repair needs that was proposed by the Moore-Miller Administration and approved by the Maryland General Assembly in 2025, MTA has $3.6 billion in capital funds dedicated to support CNI needs in the Consolidated Transportation Program (CTP). Beyond the CTP funding years, there is greater uncertainty in the funding that will be available from the Maryland Department of Transportation budget for MTA's CNI needs. For the purposes of this analysis, a range of reasonable funding levels is estimated based on a growth rate of 1.5% to 3% annually. This yields projected funding available in 2031-2035 (the last five years of this CNI analysis) ranging from $3.8 billion to $4.8 billion. The total funding available over the ten year CNI period, therefore, is $7.4 - $8.4 billion.

3. STATE OF GOOD REPAIR INVESTMENT NEEDS

The 10-year investments required to bring all of MDOT MTA's assets into SGR are projected with no constraints in terms of funding, capacity to deliver investments, or responsiveness of supply chains.

3.1 SGR Backlog

Per FTA, an asset must safely perform its function, not pose unacceptable safety risks, and meet or recover its lifecycle to be considered in SGR. SGR investments typically include asset replacement, rehabilitation, repair, or annual capital maintenance. As of Fall 2024, an estimated $6.6 billion in SGR needs have been identified; this includes $5.9 billion to bring all of MTA's assets into SGR, plus an additional $670 million in modernization investments (see section 3.2). The estimated $6.6 billion in funding is essential to keep the existing MTA assets operating at a full level of performance and safety, which is MTA's first priority.

A backlog of SGR needs is created when an agency defers SGR investments to subsequent years. This typically happens due to an agency's need to allocate funding toward regulatory upgrades, limitations in available funding, or delays in the agency's capacity to address capital needs due to factors like manufacturing, supply chain, or labor. The SGR backlog is the cumulative dollar value of deferred investment, including the maintenance, rehabilitation and full replacement of an asset. In addition to the value of these deferred investments, inflation contributes to SGR Backlog. The Federal Transit Administration found that inflation accounted for 48% of the national SGR backlog increase.

Currently, MTA's estimated SGR backlog is $2.8 billion, including $900 million in vehicle investment needs, $770 million in systems, $626 million in stations, $282 million in facilities, and $216 million in guideways (**Figure 3-1**). Major investments to reduce the SGR backlog are currently underway. This includes the $400 million replacement of Metro railcars and train control system, which are expected to go into revenue service this year, as well as replacement light rail vehicles, traction power substations, 40 elevators and 81 escalators that were fully funded in the recently approved budget. Additionally, deliveries and Mobility and non-revenue vehicles were delayed due to supply chain disruptions following the COVID pandemic. Those vehicle contracts are now seeing deliveries and recovering to full state of good repair in those vehicle fleets. Due to these investments, the SGR backlog is expected to drop by over $554 million next year alone.

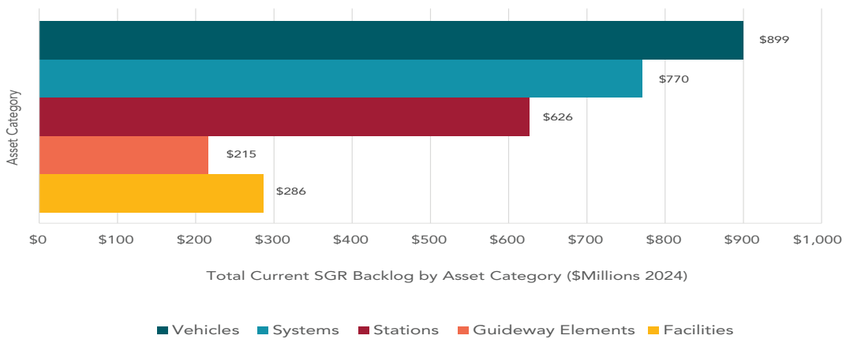


Figure 3-1. Total Current SGR Backlog by Asset Category ($Millions 2024)

3.2 Modernization as a Component of SGR Investments

When making SGR investments in legacy transit systems, there are sometimes additional investment costs beyond the cost of replacement in-kind that come with modernizing the system.

This category includes costs associated with making MTA's transit systems compatible with modern technology when making an SGR investment to replace an obsolete technology. The primary example is the Light Rail Modernization Program included in the CTP, which addresses the SGR backlog value associated with the aging rail cars, but also requires significant investment in stations, train control systems, power and communication systems, and maintenance facilities in order to successfully operate modern low-floor light rail vehicles. The additional investments, above base SGR costs, that are needed to support the modern rail cars are captured as Modernization costs.

Modernization investments do not mean system expansion, but instead are investment that is necessary to maintain safe and reliable MTA service, but does not reduce the SGR backlog.

Of the $6.6 billion in investments to bring assets into SGR, $670 M accounts for modernization investments. In this CNI report, the modernization investment is included in the total 10-year SGR needs, but note that it does not lead to a 1-to-1 reduction in the SGR backlog.

SGR Project needs that include modernization investments have been listed in the table below:

Modernization Project	Modernization Costs
Light Rail Modernization - Replacing the light rail vehicles and train control system are critical SGR needs. The modernization portion of the program includes investments in stations and maintenance facilities that are required to accommodate modern, low-floor vehicles	$633,850,000
Zero Emission Bus - Replacing diesel or hybrid buses with zero emission buses carries additional costs for charging infrastructure and technology needed to manage and deploy the ZEBs. To date, MTA has 7 ZEBs and others will be delivered in the next few years. Further expanding the ZEB fleet is expected in 2032, and costs will be updated in the next CNI report.	$31,277,000
Fare Systems Next Generation - MTA's legacy fare collection system needs replacement. Modern fare technology brings many new features that riders expect, such as open payment. These modern features can be incorporated as obsolete systems are replaced.	$4,873,000

3.3 10-Year SGR Investment Needs

A total of $6.6 billion in SGR capital investments have been identified over the next ten years. This includes $5.9 billion to bring all of MTA's assets into SGR plus an additional $670 billion in modernization investments. The total $6.6 billion required for SGR needs includes $2.7 billion for vehicles, $1.3 billion for systems, $1.06 billion for stations, $829 million for guideway, and $731 million for facilities. **Figure 3-2** compares the total SGR investment needs by asset category and **Figure 3-3** compares the total SGR investment needs by mode. The largest SGR investment is the critical replacement of Light Rail vehicles and the ongoing replacement of Metro Subway vehicles.

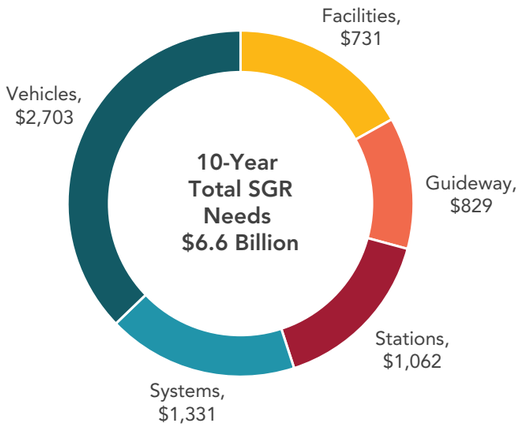


Figure 3-2. Summary of 10-Year SGR Needs by Asset Category *Does not include purple line Capital Availability Payment Needs

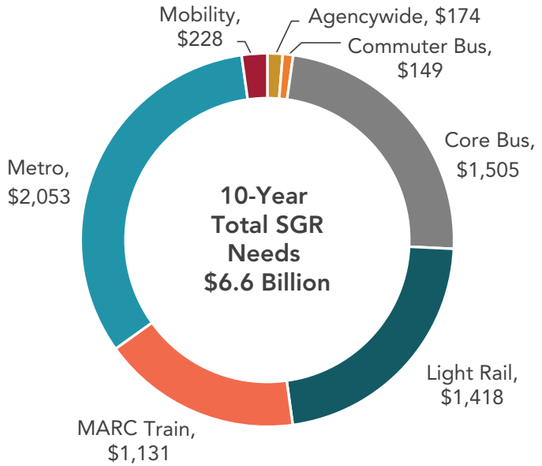


Figure 3-3. Summary of 10-Year SGR Needs by Mode *Does not include Purple Line Capital Availability Payment Needs

In addition to SGR needs ($6.6 billion), the agency will fulfill a total of $1.9 billion in committed funds to Purple Line Capital Availability Payments ($1.4 billion) and MARC Major NEC Projects ($533 million). These are contractual commitments that will contribute to the agency's total needs over the next 10 years. See **Chapter 5** for details on the agency's Total Needs.

Descriptions of SGR needs by asset type, as well as the costliest associated projects, are as follows:

- **Vehicles:** The largest asset category (42 percent) to bring into SGR over the next 10 years is vehicles. Key projects include:
  - The Light Rail Modernization Program replaces aging Light Rail vehicles while providing key accessibility upgrades that make it safer and more equitable for Light Rail riders to board the train. The ongoing fleet transition requires over $743 million over the next six years.
  - Over $424 million for aging bus replacements is programmed over the next six years
  - The replacement of MARC MP36 locomotives and mid-life overhauls of MARC II Railcars, requires just under $137 million.
- **Systems:** The second largest asset category (20 percent) to bring into SGR is systems. This includes electrification and catenary, train control, underground utilities, and fire protection equipment. The Light Rail Modernization Program includes replacement of the train control system that is obsolete and due for replacement.
- **Stations:** Station improvements make up 15 percent of SGR investments over the next ten years. The investments support Light Rail station improvements; Metro investments such as Mondawmin Hub, platform rehabilitation and snow melt system; and agencywide elevator and escalator improvements, among others.
- **Guideways:** Guideway element investment (14.0 percent) includes Light Rail and Metro Track maintenance. This includes the replacement of rail, ties, and other guideway components as needed. Additionally, significant investment in Light Rail locations that have observed damage or deterioration, such as Howard Street or key wayside structures and bridges, are included in this need. Similar investments are needed for Metro guideway elements for replacement or rehabilitation of interlockings like Reisterstown Plaza, aerial pier rehabilitation, drainage structure replacements, and tunnel preservation investments. Some of this investment also performs significant agencywide guideway investment, including maintenance of way and Track & Structure replacement and rehabilitation efforts.
- **Facilities:** 9 percent of SGR investment over the next ten years is comprised of major facility investments such as the Cromwell Light Rail Maintenance Facility Improvement project, Metro Wabash Vehicle Wash Upgrade, Bus Phillips Building Improvements, and agencywide electric system investments.

Detail on prioritized SGR projects, anticipated ENH funding, and funding gaps is provided in **Chapter 5** and **Appendix Table A-1**.

The Moore-Miller Administration's FY25-30 transportation budget fully funds the Light Rail Modernization Program (LRMP). This critical SGR program will replace the aging railcars with modern low-floor rail vehicles. The program includes modernizing the train control system to implement an advanced train-to-wayside radio-based communication system, and upgrades Light Rail Stations and Maintenance Facilities to accommodate the new vehicles.

THE LRMP SCOPE DELIVERS:

- Reliability – Ending cut service when trains aren't available or break down on the line
- Accessibility – Walk/roll on and off with level boarding; no more high-blocks limiting where wheelchair users can board
- Safety – Modern train control will give Operations Control Center view of all trains in CBD for the first time and support train signals in the CBD
- Frequency – Enables 7-minute headways, in concert with traction power projects currently underway

4. ENHANCEMENT INVESTMENT NEEDS

In addition to keeping transit assets in SGR, MTA envisions future system enhancements (ENH) that could allow MTA to meet service demands and new safety, security, mobility, or environmental requirements. ENH investments could also improve customer experience, service efficiency, and energy efficiency.

4.1 10-Year ENH Needs Estimates

An estimated $1.3 billion in additional ENH needs have been identified over the next ten years. These needs represent MTA's efforts to enhance current service to meet demands for the future in alignment with the RTP and Strategic Plan. These additional investments also address compliance-driven needs. Projects that invest in mobility upgrades like Americans with Disabilities Act (ADA) compliance or environmental improvements like Total Maximum Daily Load (TMDL) improvements are also inlcuded. Penn-Camden Connector is one enhancement project included in these ENH needs, and will provide operational efficiencies for MARC service through connecting the Penn and Camden MARC lines.

Figure 4-1 compares the total ENH investment needs by asset category and **Figure 4-2** compares the total ENH investment needs by mode. The largest portion of ENH needs is attributed to Facilities ($598 million), due to major ENH projects such as a Fifth Bus Division, and an Agencywide Retro-Commissioning Program. Other ENH needs include guideway, stations, systems, and vehicles investments (totaling $745 million), including MARC Martin State Airport Improvements and agencywide access and wayfinding improvements.

The ENH needs forecasted in this CNI report do not include major expansion projects, which are beyond the scope of the CNI analysis.

Detail on prioritized ENH projects, anticipated ENH funding, and funding gaps is provided in **Chapter 5** and **Appendix Table A-2**.

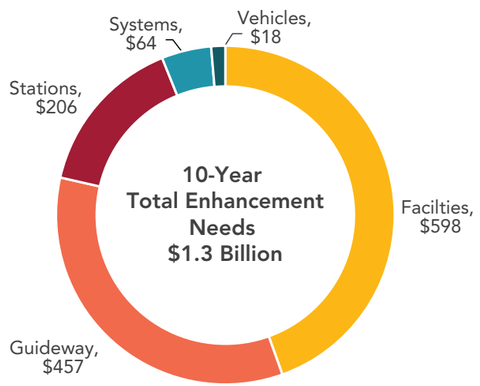


Figure 4-1. Summary of 10-Year Enhancement Needs by Asset Category (CY2025–2034, ($YOE, in Millions))

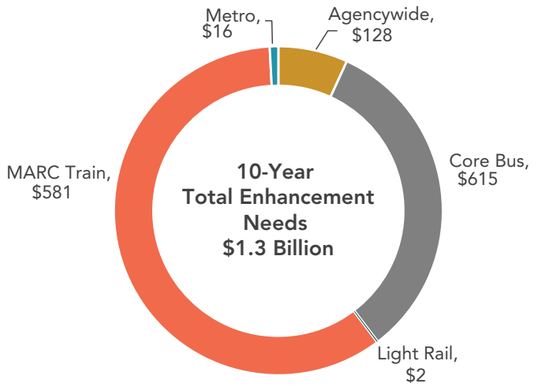


Figure 4-2. Summary of 10-Year Enhancement Needs by Mode (CY2025–2034, ($YOE, in Millions))

5. TOTAL 10-YEAR INVESTMENT NEEDS

The total unconstrained investment needs as an agency over the next 10 years is $9.9 billion. This total includes capital investment needs— $6.6 billion for bringing assets into SGR, $533 million in MARC contributions, plus $1.3 billion for ENH investment needs— and $1.4 billion for Purple Line contractual commitments between 2025 and 2035. This requires an average annual investment amount of $995 million.

Between 2026 and 2035, MTA's total capital needs are estimated at $9.9 billion. SGR needs, including modernization elements, drive 67 percent of total needs, while MARC major project commitments and Purple Line capital payments represent 20 percent, and Enhancement needs are the remaining 13 percent. Enhancements are currently allocated about 5 percent of the FY25-30 CTP, reflecting the prioritization of SGR needs. As shown in **Figure 5-1**, the largest percentage of total 10-year capital investment needs (SGR plus ENH) by asset category are associated with vehicles (37 percent), followed by systems equipment (18 percent).

Figure 5-2 shows total 10-year investment needs by mode, with MARC Train requiring the largest portion of total investments ($2.2 billion), which includes SGR and ENH MARC needs as well as MARC Major Project Commitments. **Figure 5-3** summarizes the total 10-year capital needs by service area.

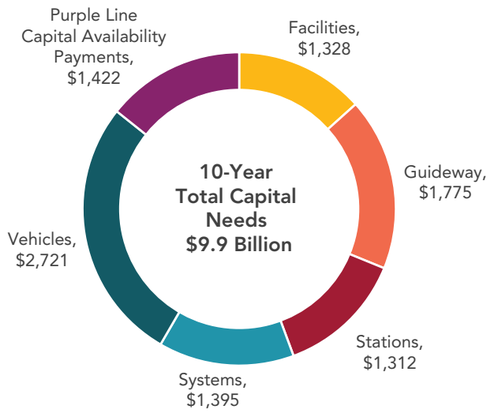


Figure 5-1. 10-Year Total Capital Needs by Asset Category ($YOE)

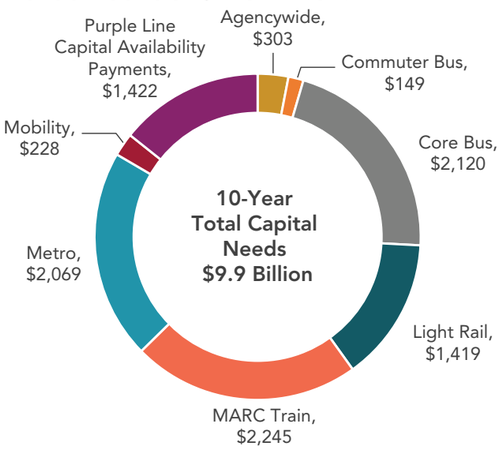


Figure 5-2. Total 10-Year Capital Needs by Mode (CY2025–2034, $YOE)

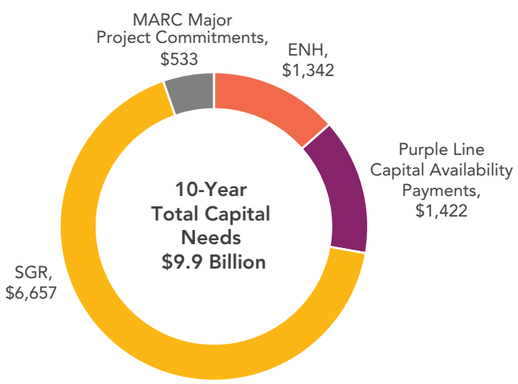


Table 5-3. Summary of Total 10-Year Capital Needs by Service Area (CY2025–2034, $YOE)

5.1 Prioritized 10-Year Projects

Each year, project managers submit both SGR and ENH investment needs through the CFP process. Project submissions are prioritized using the criteria described in **Chapter 2.3**, as well as location and scope information from the TAM Program.

Using a multi-criteria decision analysis, the SGR projects are each given a priority score based on the following criteria: equity, safety and security, service reliability, operations and maintenance (O&M) impact, and customer impact. Scores for each criterion are aggregated to an overall priority score using a weighted average. In addition to the aggregated scores for the six criteria, for which the highest baseline score is 100, projects can receive additional points if they have been awarded a discretionary grant or are legislatively required compliance projects. See **Chapter 2.3** or the **2022 CNI report** for additional detail on prioritization criteria.

5.1.1 PRIORITIZED SGR PROJECTS

All of the top priority SGR projects are either partially of fully funded. With available funds, MTA is advancing these projects to reduce the SGR backlog and improve the reliability and quality of transit services.

Table 5-1 shows the top 15 highest scored SGR projects. A full list of prioritized SGR projects can be found in **Appendix Table A-1**.

Table 5-1. Top 15 Prioritized SGR Investment Needs

Project Name All projects in this table are either partially or fully funded.	Total Cost ($YOE, Millions)	Priority Score
Light Rail Fleet Replacement	$1,306.4	103
MARC Safety Control Systems	$4.4	100
Light Rail and Metro Track Maintenance & Emergency Response	$89.3	100
Metro Fleet Systems Overhaul	$4.1	79
Bus Replacements	$952.9	75
Metro Train Control Replacement	$496.8	68
MARC Vehicle Overhaul	$5.5	68
MARC Vehicle Overhaul	$82.0	67
MARC III Coach Minor Vehicle Overhaul (63 Railcars)	$5.2	67
Metro Interlocking Improvements	$15.1	66
Metro TC&C Room Power Distribution	$3.1	65
Light Rail Infrastructure Replacement - Howard St	$39.1	64
MARC Vehicle Overhaul	$103.9	63
Mobility Vehicle Procurement	$112.1	62
Metro Interlocking Improvements	$1.4	62

5.1.2 PRIORITIZED ENHANCEMENT INVESTMENT NEEDS

MTA has been aggressively pursuing discretionary grant funding for high priority projects, and has successfully secured several large awards such as a $213 Million dollar award from the Rail Vehicle Replacement program to assist in the light rail modernization program, and two RAISE construction grants, for the East-West Corridor Priority Project ($22M), and the Mondawmin Transit Hub ($20M)

Table 5-2 shows the top 15 ENH projects. A full list of prioritized ENH projects can be found in **Appendix Table A-2**.

Table 5-2. Top 15 ENH Investment Needs

Project Name (*) projects that are either partially or fully funded are denoted with asterisk	Total Cost ($YOE, Millions)
Fifth Bus Division*	$550.0
MARC Penn-Camden Connector*	$345.9
MARC Brunswick Line Improvements*	$95.0
Real Time/Information Sign Program*	$30.0
Bus Shelter and ADA Improvements*	$27.0
Martins Yard Electrification	$22.2
Downtown Transit Hub	$20.6
Patapsco Ave Pedestrian/Bicycle Bridge*	$23.9
MARC Brunswick Facility Improvements	$20.0
MARC BWI Station 4th Track Improvements	$20.0
MTA Police Facility Renovations	$19.9
Tracking Non Revenue Vehicles	$18.0
Transit Priority Initiatives*	$17.5
Bus Stop Improvements*	$15.0
Baltimore Penn Station Multimodal Access Investments*	$14.7

5.2 Anticipated Funding and Funding Gaps

5.2.1 TOTAL CAPITAL FUNDING AND FUNDING GAPS

An estimated $9.9 billion is needed over the next 10 years to meet contractual obligations, maintain assets in SGR, and provide the necessary enhancements to meet service demands. With an estimated $7.4 - $8.4 billion in funding over the next 10 years, a total funding gap of $1.5 to $2.5 billion remains. This funding gap grows primarily in years 2031-2035, when all types of needs contribute to growth at a faster rate than projected funding is expected to be available.

Purple Line capital payments and MARC major project commitments are annual payments to which MTA is committed fully funding each year. With remaining funds available, MTA prioritizes SGR while pursuing discretionary grants and remaining responsive to riders and stakeholders with investments in system enhancements when funding allows.

Of the identified $6.6 billion in SGR Needs, it is estimated that $5.1 to $6.1 billion in funding will be available (about $3.6 billion of which is committed through 2030). This expected level of funding will allow MTA to reduce the backlog by over 45% in the next five years. This indicates an SGR funding gap of $500 million to $1.5 billion over the 10-year period, depending on the funding available to MTA beyond the CTP period.

Of the identified $1.3 billion in Enhancement Needs, it is estimated that $375 million will be available over the next 10 years as MTA continues to prioritize SGR. This indicates a funding gap for Enhancement needs of $1.0 million over the 10-year period. **Figure 5-4** shows the total investment needs and funding gaps. Based on the anticipated funding ranges over the next 10 years, the SGR funding gap is estimated to be between $0.5 and $1.5 billion, and the ENH funding gap is estimated to be at $1.0 billion. **Figure 5-5** shows the annual SGR reinvestment needed over 10 years. This does not include the committed annual funding for Purple Line Availability Payments and MARC Major NEC Project Commitments, or funding for enhancement needs.

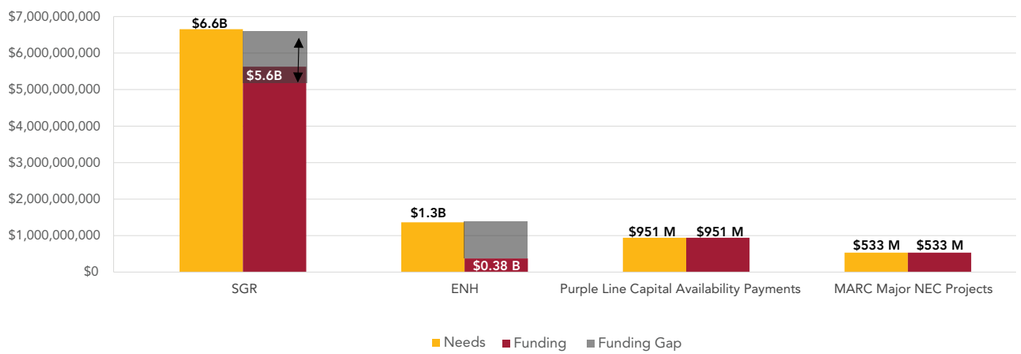


Figure 5-4. 10-Year Total Capital Needs vs. Total Capital Funding Forecast (2025 to 2034, ($YOE, in Millions))

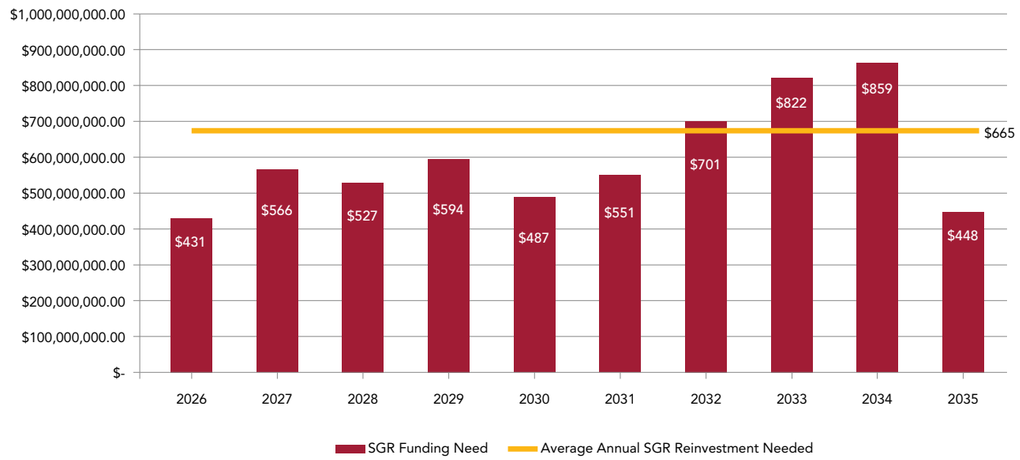


Figure 5-5. 10-Year SGR Needs vs. Average Annual SGR Reinvestment Need

Major investments to reduce the SGR backlog are currently underway. This includes the $400 million replacement of Metro railcars and train control system, which are expected to go into revenue service this year, as well as replacement light rail vehicles, traction power substations, 40 elevators and 81 escalators that were fully funded in the recently approved budget. Additionally, deliveries of Mobility and non-revenue vehicles were delayed due to supply chain disruptions following the COVID pandemic. Those vehicle contracts are now seeing deliveries and recovering to full state of good repair in those vehicle fleets. Due to these investments, the SGR backlog is expected to drop by over $554 million next year alone.

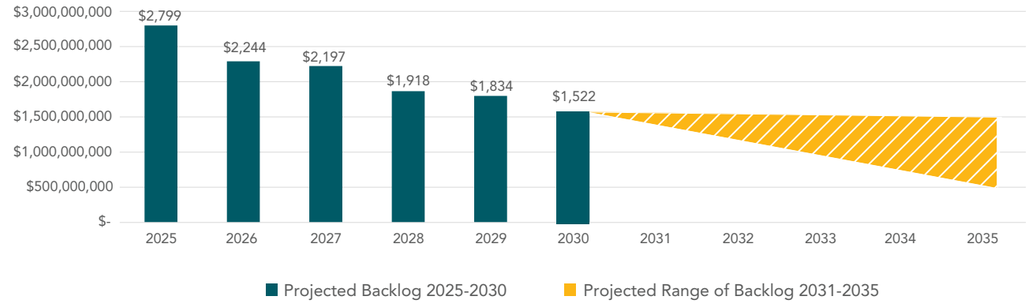


Figure 5-6. Constrained SGR Backlog and Backlog Projection

With the increased funding made available in the 2025-2030 CTP and associated focus on prioritizing SGR needs, MTA's SGR backlog is on track to drop by over 45 percent in the next five years to $1.5 billion. If funding available beyond 2030 follows the high end of the estimated range, the backlog could drop to $500 million in 2035, meaning 97 percent of MTA assets would be in a state of good repair. Alternatively, if funding is available beyond 2030 follows the low end of the estimated range, the backlog is expected to the backlog is expected to stay at a similar level from 2030 and remain around $1.5 billion in 2035. In **Figure 5-7** below, the 2035 projection is showing a possible range depending on future funding values. With Purple Line starting service in 2027, the value of the system is considered in the backlog projection in **Figure 5-7** for years 2030 and 2035.

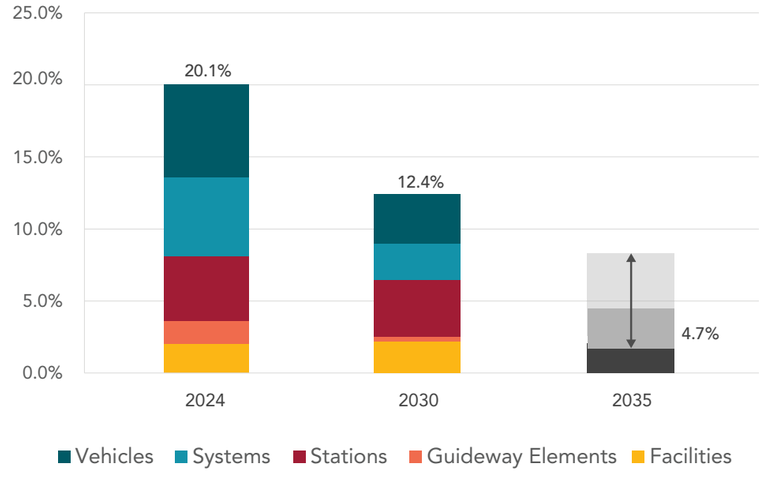


Figure 5-7. Percent of Assets in SGR Backlog from 2024 to 2035

6. CONCLUSION

This CNI report provides an overview of MTA's current assets, describes how MTA makes strategic capital programming decisions, and presents our most critical investment needs for the next ten years. A total of $6.6 billion is required through 2035 to address deferred maintenance, repair, and replacement needs and bring assets into SGR. An additional $1.3 billion is required to enhance system efficiency, meet new requirements, and improve customer experience. These needs along with MTA's contractual commitments, such as to the Purple Line Availability Payment and Major MARC Projects, add up to a total MTA 10-year need of $9.9 billion.

MDOT has committed $3.6 billion in the FY2025-FY2030 CTP for MTA capital investments. This funding allows MTA to continue making critical investments in our system, including the Light Rail Modernization Program, MARC vehicle overhauls, and bus replacements. **Thanks to the passage of the Moore-Miller Administration's recent transportation budget, MTA will be able to address over 90 percent of its SGR needs through 2030**, while also advancing certain enhancement needs and fully funding MARC Major Project and Purple Line commitments. Funding levels for years outside of the current budget will determine the percentage of MTA's SGR backlog that can be addressed in this report's 10-year period.

APPENDIX: DETAILED PROJECT TABLES

The tables below include all SGR and Enhancement needs that have been submitted for funding consideration, disaggregated into individual line items. Ten-year total costs are listed in YOE dollars based on expected cash flows of expenditures.

Appendix Table A-1. SGR, Priority Scores, and Total 10-Year Costs ($YOE, Millions)

Project Name *All projects in this table are either partially or fully funded.*	**Total Cost ($YOE, Millions)**	**Priority Score**
Light Rail Fleet Replacement	$1,306.4	103
MARC Safety Control Systems	$4.4	100
Light Rail and Metro Track Maintenance & Emergency Response	$89.3	100
Metro Fleet Systems Overhaul	$4.1	79
Zero Emission Bus Procurement	$952.9	75
Bus Replacements	$617.3	71
Metro Train Control Replacement	$496.8	68
MARC Vehicle Overhaul	$5.5	68
MARC Vehicle Overhaul	$82.0	67
MARC III Coach Minor Vehicle Overhaul (63 Railcars)	$5.2	67
Metro Interlocking Improvements	$15.1	66
Metro TC&C Room Power Distribution	$3.1	65
Light Rail Infrastructure Replacement - Howard St	$39.1	64
MARC Vehicle Overhaul	$103.9	63
Mobility Vehicle Procurement	$112.1	62
Metro Interlocking Improvements	$1.4	62
Light Rail System Rehabilitation Package	$25.6	62
MARC Vehicle Overhaul	$4.0	61
Elevator Replacement/Modernization	$93.0	60
Light Rail System Rehabilitation Package	$3.2	59
MARC Vehicle Overhaul	$12.4	58
Light Rail Catenary System Rehabilitation	$45.8	58

Project Name *All projects in this table are either partially or fully funded.*	**Total Cost ($YOE, Millions)**	**Priority Score**
Metro Tunnel Cleaning & Preservation Program	$30.4	58
Light Rail Signal Power System Replacement	$9.2	57
Light Rail System Rehabilitation Package	$9.9	57
Light Rail System Rehabilitation Package	$35.0	56
IT Equipment Upgrade/Replacement	$5.4	55
Metro Facility Leak Remediation	$0.3	55
Light Rail Signal System Rehabilitation	$61.8	53
Metro Rail & Switch Heater System Replacement	$19.5	52
Light Rail System Rehabilitation Package	$0.7	52
Metro Aerial Pier Rehabilitation	$0.6	50
IT Equipment Upgrade/Replacement	$28.5	50
Light Rail Switch Heater System Replacement	$15.8	49
Metro Facility Valve Room Rehabilitation	$5.6	47
Metro Above-Ground Station Stairs Rehabilitation	$2.9	47
Metro Aerial Pier Drain Relocation	$10.3	47
MTR Aerial Pier Drain Relocation	$10.3	47
AGY Mandated Cable Testing	$14.2	45
LTR Light Rail Cable Replacement	$2.4	45
LTR Repairs to Bridges and WS Structures	$2.8	45
AGY Electric Systems Upgrade	$84.6	44
MTR Tunnel Vent Shaft Upgrades	$42.4	44
LTR Wide Area Network OTN Replacement	$5.2	44
AGY Fare Systems Next Generation Planning and Implementation	$57.1	43
MTR Dewatering Stations Control & Equipment Replacement	$5.3	43
MTR AC Secondary Breaker Refurbishment	$2.5	42
LTR Traction Power Substation Major Rehabilitation	$162.7	41
MARC BWI Garage Repair	$9.0	41
BUS Lift Contract Bush Division	$1.2	41
MTR Ventilation Fan Noise Mitigation	$1.8	40
LTR Lake Roland Crib Wall Repair	$0.2	38

Project Name *All projects in this table are either partially or fully funded.*	**Total Cost ($YOE, Millions)**	**Priority Score**
Metro/Light Rail Systems and Stations Rehab	$125.0	38
MTR Wabash Systems Maintenance Building Roof Replacement	$2.1	38
LTR Group 5S - Rehabilitation of Light Rail System	$1.1	38
MTR Wabash Main Roof Replacement	$3.8	38
AGY Roof Replacement Milford Mill	$1.4	37
MARC Joint Benefit Projects - CSX	$159.0	37
MTR UPS Battery Replacement	$3.4	37
MARC Northeast Corridor Commission (NECC) Contribution	$374.3	36
MTR Wabash Vehicle Wash Upgrade	$15.4	36
AGY Vehicular and Pedestrian Door Replacement	$4.3	36
MTR 5-Year Truck Overhaul Maintenance Service	$4.8	35
LRFT Stations Improvement	$35.8	34
MTR Tunnel and Station Door Repair/Replacement	$8.0	33
AGY FY22 Non-Revenue Vehicles Procurement	$2.0	33
BUS Eastern Bus Facility	$614.8	33
AGY FY24 Non-Revenue Vehicles Procurement	$2.4	32
MARC Odenton Station Renovation	$2.6	32
BUS 1331 S Monroe St Pavement Reconstruction	$1.8	31
BUS Bush Bldg 5 HVAC Mechanical Equipment Replacement	$3.5	31
LTR LRFT Cromwell Maintenance Facility Improvements	$125.7	30
BUS Washington Blvd Bldg 9 Structural Remediation	$3.7	30
BUS Washington Blvd Bldgs 1-8 Windows	$5.2	30
MTR Wabash Shop Equipment Upgrades	$6.8	29
BUS Shelter Parts Bulk Purchase for Inventory	$1.6	29
MTR Charles Center Leaks	$0.3	28
BUS BaltimoreLink Bus Shelter	$2.2	28
MARC Laurel Platform Replacement	$3.4	27
LTR Cherry Hill Roof Replacement	$1.9	27
BUS Washington Blvd Paint Booth Replacement	$3.5	26
MTR Mondawmin Hub	$34.0	25
BUS Facility - Kirk Bus Division Modernization	$3.1	25
Radio Shop CCTV maintenance	$1.3	24
AGY ITP Switch Replacement 2022	$4.1	24
AGY POL Video Management System Replacement	$8.3	23
BUS Division Equipment	$1.2	23
LTR TMDL Warren Road SWM Repair and Retrofit	$0.2	22
BUS Bush Division Historic Gable Window Replacement	$5.8	20
MTR Platform Rehabilitation & Snow Melt System	$14.6	20
AGY ITP FY2022 CTIPP IT Equipment	$1.8	19
LTR Catenary Surge Protection Device Grounding Replacement	$3.2	19
MTR Tunnel Standpipe Inspection & Repair	$1.4	13
AGY 301 N Calverton Renovation and Remediation	$0.2	13

Appendix Table A-2. Enhancement Needs and Total 10-Year Costs (YOE)

Project Name *(*) projects that are either partially or fully funded are denoted with asterisk*	**Total Cost (YOE, Millions)**
Fifth Bus Division*	$550.0
MARC Penn-Camden Connector*	$345.9
MARC Brunswick Line Improvements*	$95.0
Real Time/Information Sign Program*	$30.0
Bus Shelter and ADA Improvements*	$27.0
Martins Yard Electrification	$22.2
Downtown Transit Hub	$20.6
Patapsco Ave Pedestrian/Bicycle Bridge*	$23.9
MARC Brunswick Facility Improvements	$20.0
MARC BWI Station 4th Track Improvements	$20.0
MTA Police Facility Renovations	$19.9
Tracking Non Revenue Vehicles	$18.0
Transit Priority Initiatives*	$17.5
Bus Stop Improvements*	$15.0

Project Name *(*) projects that are either partially or fully funded are denoted with asterisk*	**Total Cost (YOE, Millions)**
Baltimore Penn Station Multimodal Access Investments*	$14.7
Energy Storage Systems	$12.9
Metro Wayfinding Signage	$8.3
IT Equipment Upgrade/Replacement	$4.9
Metro Track Detection & Alert Systems	$4.3
MTA Sub-Metering Program	$4.2
Retro-Commissioning Program	$3.2
MARC Brunswick Line Silver Spring Turnback Facility Design*	$3.1
MARC Bayview Station Design*	$2.0
Non-Revenue Electric Vehicle Charging Infrastructures	$2.0
Metro RFID Automated Track Inspection	$2.0
Light Rail Train Detection & Worker Warning System	$1.8
Kirk Division Temporary Facility Bus Yard CCTV	$1.5
Metro Underground 4G/5G Cellular Service	$1.2
Kirk Division GPS Repeater	$1.1

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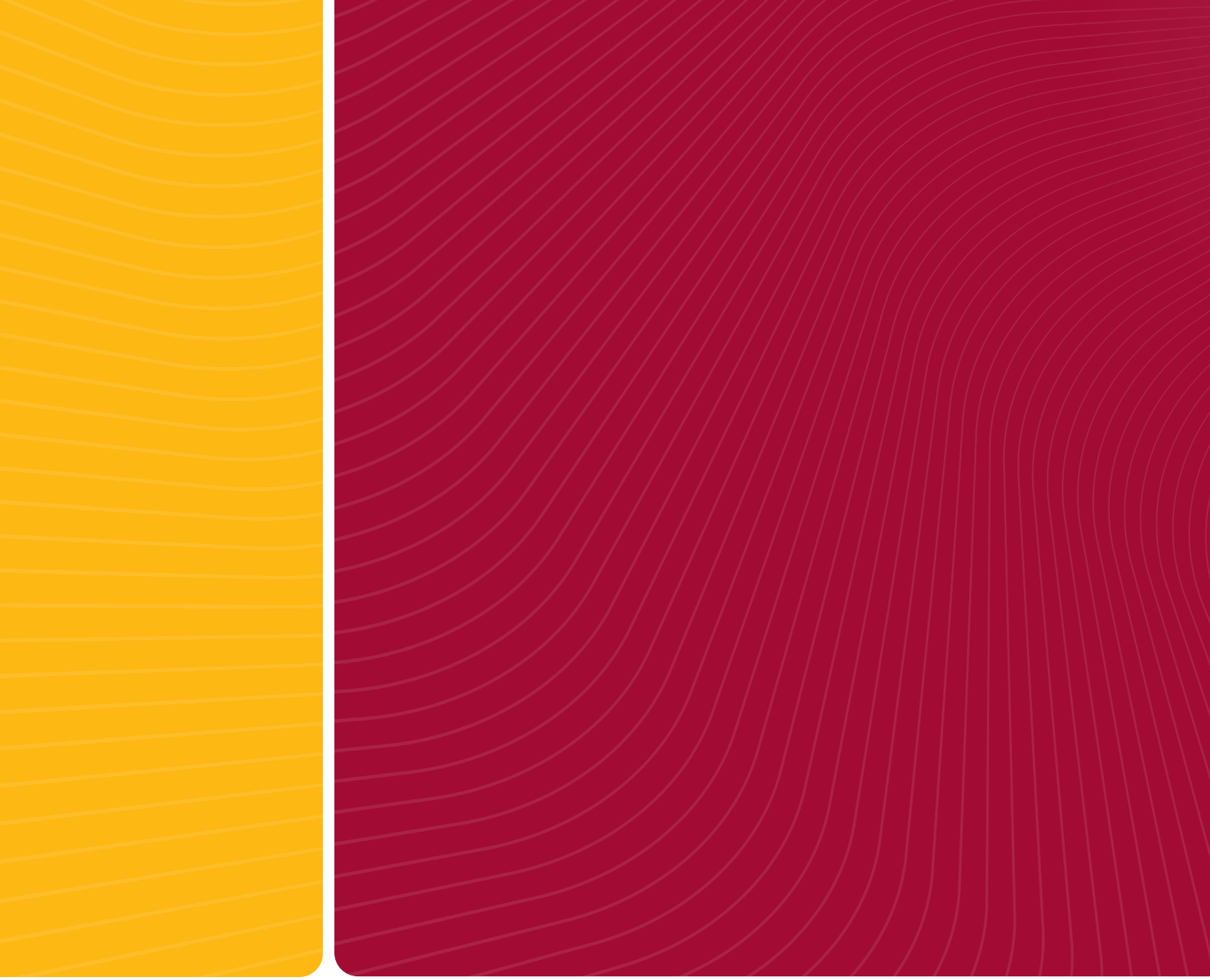

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