





# LETTER FROM THE CHAIR

Forty years ago, then-Chair Richard Ravitch introduced the first-ever MTA Capital Program to save regional transit from the brink of collapse. Investments in new subway cars, rebuilding stations and repairing track paid off – on-time performance improved, ridership doubled, and the region gained 1.3 million jobs and 1.5 million residents. Confidence in the City was restored, proving New York could still do great things.

Today, those subway cars that played such a big role in the system's revival are 40 years old, and it's time to retire them. It's time to move to the next generation of train cars, like the R211, with better accessibility, more passenger amenities, and far fewer failures.

It's also time to invest in other assets that are decades old and in deteriorated condition – things like power substations, pump rooms and maintenance facilities that customers never see but that are absolutely essential to our ability to deliver great service.

That's what the 2025-2029 Capital Plan does. For more than two years, MTA staff have been diligently documenting the condition of our 6 million infrastructure assets and prioritizing the system's needs. This Capital Plan is the result of that work – a strategic package of investments that are the most critical to address in the next five years.

This Capital Plan also includes significant improvements to the system: dozens more accessible stations, more modern signals, more electric buses, and getting started on the most transformational transit project in generations – the Interborough Express (IBX).

I talk a lot about MTA's importance to the region, but it's no exaggeration. For New Yorkers, transit is like air and water – we need it to survive. And as anyone who was around in the 1980s can tell you, better transit is one of the best ways to improve quality of life and economic opportunity in this region. The future rides with us.

Janno Lieber MTA Chair



mta.info/capitalplan

# 2025-2029 CAPITAL PLAN

As proposed to the MTA Board September 25, 2024

#### **Table of Contents**

There's No New York without Transit	6
Capital Plan Goals	16
Provide Frequent and Reliable Service	18
Improve the Customer Experience	20
Take Action on Climate Change	21
Building the Plan	22
Plan Highlights	36
Purchase New Railcars	38
Modernize Signals	40
Upgrade Maintenance Facilities	42
Renew Power Systems	44
Rebuild the Grand Central Artery	46
Repair Critical Structures	50
Start Building the Interborough Express	52
Improve the Station Environment	56
Make More Stations Accessible	60
Install Modern Fare Gates	62
Grow our Zero-Emissions Bus Fleet	64
Defend the Subway from Stormwater Flooding	66
Protect the Hudson Line	68
Agency Plans	70

# THERE'S NO NEW YORK WITHOUT TRANSIT

Our extensive network of trains and buses makes possible the greatest density of people and jobs anywhere in the country. Great public transportation supports some of the nation's most iconic companies, hundreds of thousands of small businesses, world-class universities, hospitals, and cultural institutions. It also makes possible the walkable neighborhoods, local shops, vibrant street life, and great open spaces that make New York the greatest city on earth.

Transit makes New York possible. And with investments like this Capital Plan, we make transit possible.

The future rides with us.

# WHY NEW YORK INVESTS IN TRANSIT

### **Economic growth**

An effective transit system is essential for businesses, large and small, to draw employees and customers from the entire region. And millions of residents of the region depend on trains and buses to get to work and other destinations every day.

The MTA is also an economic engine of its own, the fourth largest employer in the region, directly employing more than 70,000 people and supporting thousands of vendors and manufacturers across the state. The 2020-2024 Capital Plan alone is generating 57,000 jobs.

The MTA contributes to a diverse and inclusive economy. In 2023 alone, \$1.2 billion of the MTA's work went to Minority- and Women-Owned Businesses and Disadvantaged Businesses (MWDBE), more than any other New York State agency or public authority. For the fourth year in a row, the MTA surpassed the State's MWBE goal of 30% participation.

The MTA drives New York's \$2 trillion economy.



# WHY NEW YORK INVESTS IN PUBLIC TRANSPORTATION

#### **Affordability & opportunity**

Our transit system is an engine of equity in an expensive region. For no more than \$34 a week, people of all incomes have access to millions of jobs, education and other opportunities across the five boroughs. Throughout the entire region, it's eight times more expensive to own a car than to take transit.

Thanks to the MTA, New York City households have, on average, the lowest transportation costs in the nation.

### Clean air & environmental sustainability

The MTA is key to New York State's goal of cleaning the air and reducing carbon emissions 85% by 2050. Transit is the best antidote to climate change. MTA subways, buses and trains help avoid over 36 million vehicle miles being driven on an average weekday – about 10.2 billion miles a year. This saves the region more than 20 million metric tons of carbon emissions annually, which is the equivalent to the amount of carbon absorbed by a forest the size of Indiana. Transit also enables dense energy-efficient land use patterns, and NYC has the lowest greenhouse gas emissions per capita of any US city.

Not only is the MTA keeping cars off the road, but we're investing in our own green fleet, including zero-emissions buses, with a special emphasis on rolling out those buses in communities with higher rates of air pollution and asthma.



# A BRIEF HISTORY OF THE MTA CAPITAL PROGRAM

# **Bold investments in transit** made modern New York possible.

The advent of the subway in 1904 unleashed the development of new industries and neighborhoods, and catapulted New York into a global powerhouse. Between 1900 and 1950, the subway system alone grew by 722 miles, and the city's population more than doubled from 3.4 million to 7.9 million.

# Disinvestment brought the MTA – and New York – to the brink of collapse.

The middle of the last century saw a dramatic rise in suburbanization and automobiles, and a lack of investment in transit turned the subways into a national emblem of urban decay. With the implosion of the subways came the desertion of the city.

# Investment lagged again in the 1990s and early 2000s.

After years of progress in the 1980s, investment fell off, culminating in a "Summer of Hell" in 2017. That year, New York's subway had one of the worst on-time performance of any major rapid transit systems in the world, with only 65% of weekday trains reaching their destinations on-time.



1900-1950s

1960-1970s

1980s

1990s-2000s

2017-2024

2025-2029





# The first capital plan saved the MTA and reinvigorated New York.

In 1980, the MTA initiated its first-ever capital plan, spearheaded by Chair Richard Ravitch. The plan comprehensively assessed the system's needs for the first time, and identified funding to purchase new railcars, bring track into good condition, and renovate major stations. While the plan didn't address all the needs, it did improve service, leading to major ridership growth and a boost to the city's economy and residents' quality of life.

# The 2017 Subway Action Plan and the 2020-2024 Capital Plan set us back on the right trajectory.

The Subway Action Plan, followed by the \$55 billion 2020-2024 Capital Plan, dedicated historic levels of funding to revitalize the system. Since then, the MTA has been building at a historic pace and more cost-effectively than ever before. The result? Service performance increased. Today, subways arrive on time 83% of the time, compared to 65% in 2017. The railroads have reached all-time high on-time performance at over 96%.

The 2025-2029
Capital Plan will
keep New York
on the path to
more reliable,
accessible, and
sustainable transit.

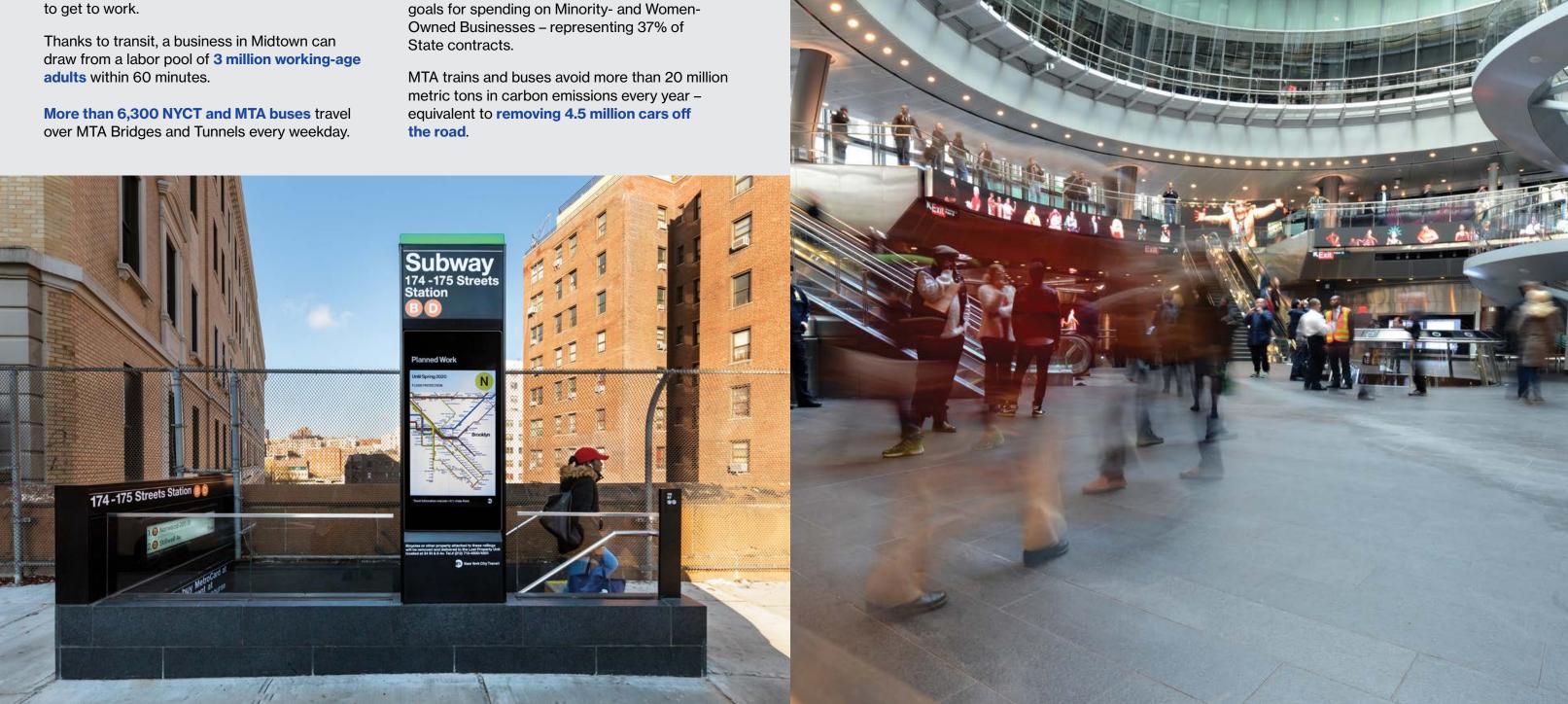
### TRANSIT BY THE NUMBERS

Every weekday, the MTA carries more than 5.5 million transit riders. That's more than 6 times the number of riders on the Washington Metro, the country's second largest system.

**Nearly 9 in 10 people** who commute to Midtown and Lower Manhattan rely on transit to get to work.

More than 80% of personal income tax and 65% of sales tax revenue in New York State are generated in the MTA region.

The MTA directly supports the growth of small businesses in New York State. For four years in a row, the MTA has exceeded New York State's goals for spending on Minority- and Women-Owned Businesses – representing 37% of State contracts.



# GOALS

Through the Capital Program, the MTA maintains and improves close to six million infrastructure assets, valued at \$1.5 trillion. The Capital Program is organized in a series of five-year investment plans that began in 1980.

The 2025-2029 Capital Plan builds on the progress made in the last four decades. By prioritizing new trains and buses, more elevators, new signals, and the hidden infrastructure that underpins the whole system, this plan keeps us on the path to more reliable, accessible, and sustainable transit in New York.

# PROVIDE FREQUENT AND RELIABLE SERVICE

Great service and safety are always our top priorities. The 2025-2029 Capital Plan prioritizes the infrastructure and rolling stock investments that will reduce service delays and lead to more reliable and frequent service. Three-quarters of subway customers will enjoy substantially improved reliability thanks to modernized signaling, 21st-century subway cars, and renewed support infrastructure throughout the system.

With the 2025-2029 Capital Plan, the MTA will:

- Order 2,000 new railcars to reduce delays.
   New cars are six times more reliable than older ones.
- Install at least 75 miles of modern signals on the Broadway N R Q W Line, Liberty Av and Rockaway
   A S Lines, and the Nassau St J Z Line to improve reliability and frequency of service.
- Modernize train shops and yards, including the 100-year old Livonia Shop, to accommodate new rolling stock and accelerate repair times.
- Rebuild or repair more than 80 substations to help eliminate highly disruptive power-related delays.
- Rebuild key infrastructure, including the Grand Central Artery, over 30 railroad bridges and viaducts, and dozens of miles of subway tunnels.
- Paint and waterproof more than 20 miles of elevated subway structure and 40 railroad bridges to prevent more costly repairs, disruptions, or even shutdowns in the future.
- Start building the Interborough Express, a
  project that will connect Brooklyn and Queens,
  and could reduce travel times by up to 30 minutes
  for more than 900,000 New Yorkers who live along
  the corridor.



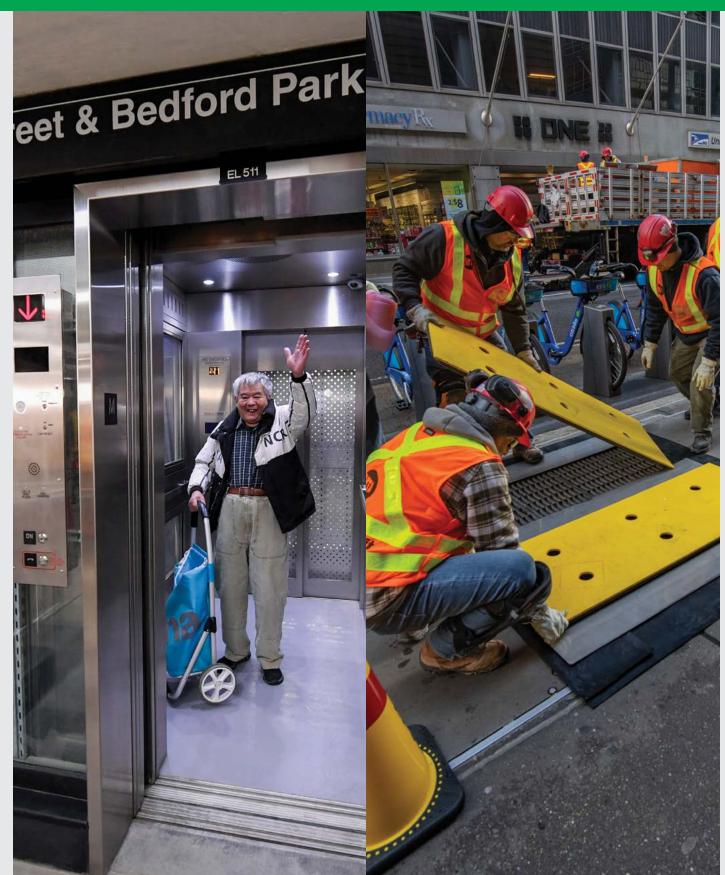
# IMPROVE THE CUSTOMER EXPERIENCE

# TAKE ACTION ON CLIMATE CHANGE

The MTA is making the system safer, more comfortable, and more accessible than ever. With this plan, we'll make major investments toward the customer experience of the future, with new fare gates, new security cameras, and more accessible subway and railroad stations.

With the 2025-2029 Capital Plan, the MTA will:

- Make at least 60 more subway stations accessible, bringing the system to greater than 50% accessibility, and serving nearly 70% of our riders.
- Repair or rehabilitate more than 150 subway stations and more than 25 railroad stations.
- Continue to expand our camera infrastructure in stations, train cars and buses to keep riders safe.
- Install new technology to support real-time customer communication.
- Install new fare gate systems in more than 150 subway stations to increase fare collection and improve accessibility.



Transit is the antidote to climate change. MTA trains and buses keep millions of cars off the road every year, and our investments in zero-emissions vehicles will reduce our own carbon footprint. At the same time, we must prepare our system for the changes we're already experiencing, including storm surge, sea-level rise, intense rain events, and heat waves.

With the 2025-2029 Capital Plan, the MTA will:

- Purchase 500 zero-emissions buses and install charging infrastructure at bus depots, with special emphasis on communities with high air pollution and asthma rates.
- Install new infrastructure to improve stormwater flood protection at our 20 most vulnerable stations and yards.
- Improve ventilation and reduce excessive heat in 20 of the hottest subway stations.
- Protect 20 miles of the Hudson Line that are the most vulnerable to sea-level rise and stormwater runoff.
- Safeguard our vehicular bridges by adding dehumidification systems to bridge cables.

# **BUILDING THE PLAN**

In 2019, the MTA consolidated all capital planning, project development and construction management teams from across the various operating agencies into a unified entity, MTA Construction & Development (C&D). Since then, C&D has been delivering projects better, faster and cheaper than ever.

In parallel, C&D has been developing the next slate of critical transit investments for New York – first by documenting asset condition and needs and then by prioritizing those needs into this 2025-2029 Capital Plan.

# THE PLAN IS THE RESULT OF COMPREHENSIVE ANALYSIS

## What work needs to be done?

Consistent with the recommendations of the 2019 Forensic Performance Audit, the MTA conducted a comprehensive 2025-2044 Needs Assessment to inform the 2025-2029 Capital Plan. The Needs Assessment is a thorough look at the MTA system's needs, unconstrained by cost or operational limits. The Assessment was the product of collaboration between dozens of teams across the MTA, documenting the condition of close to six million assets – a level of detail unprecedented at this scale.

# How much are our industry peers investing in their capital assets?

The MTA evaluated rates of capital investment among our peers in comparable industries in both public and private sectors. These benchmarks, along with data on rates of inflation in the construction industry, provided useful comparison points to contextualize the size and growth of MTA's capital program over time.

## How much work is the MTA able to deliver?

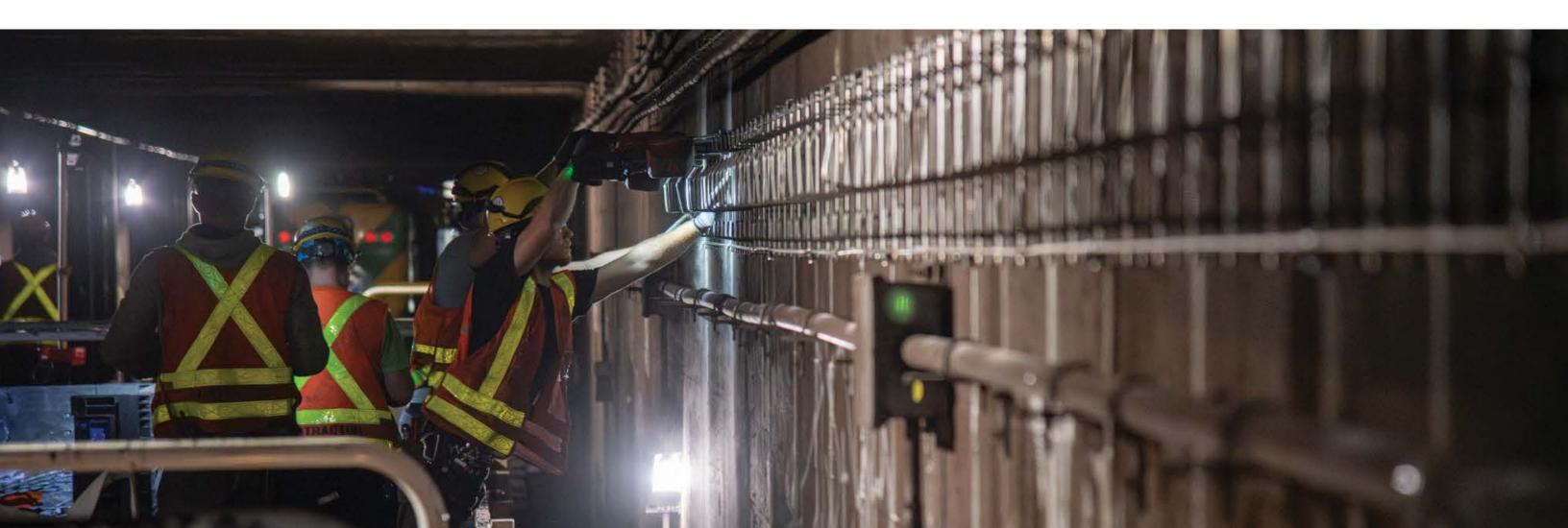
The MTA's new construction delivery methods have allowed us to accelerate the amount of work we're performing without significant service disruptions. Nevertheless, some constraints remain: considering our internal procurement and project management capacity; balancing construction activity with operating 24/7 service; and assessing the volume of work that our private sector industry partners can support. Having reviewed these factors, we're confident that we can deliver the 2025-2029 Capital Plan with our partners in industry.

# How much funding is available?

The MTA's consolidated Construction &

Development agency has reduced the cost
of building thanks to industry-leading projectmanagement and construction practices.

As has been the case for every other five-year
MTA Capital Plan, funding this 2025-2029 plan
will require identifying sufficient funding from city,
regional, state and federal partners to complement
the MTA's own investment.



### A RIGOROUS NEEDS ASSESSMENT INFORMS THE PLAN

Last year, the MTA completed the most rigorous and transparent **20-Year Needs Assessment** in our history. The report evaluated the condition of close to six million assets across the \$1.5 trillion MTA system. It identified and prioritized MTA infrastructure investment needs.

Aging infrastructure is one of the major threats identified in the 20-Year Needs Assessment report, including:

of the subway system uses 100+ years old signaling, leading to delays and breakdowns

New York City Transit power substations are in poor or marginal condition

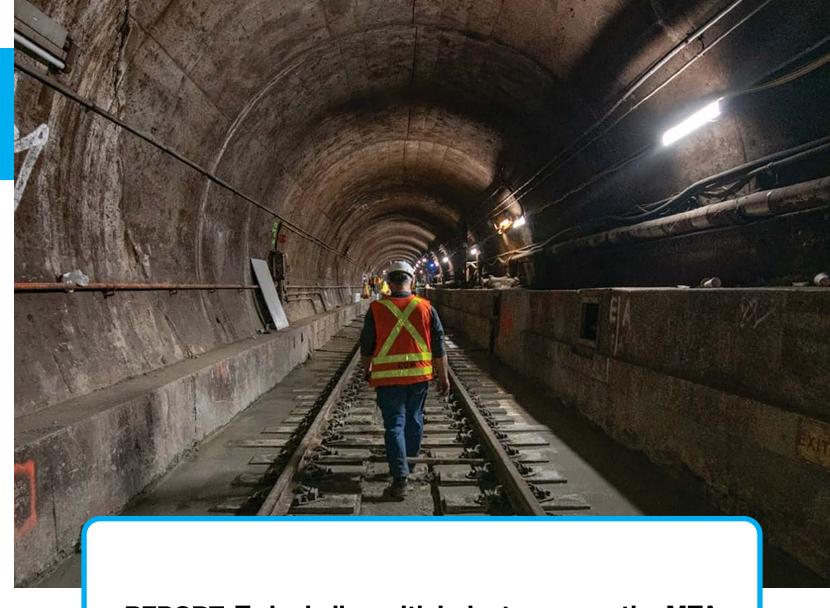
of structure supports and framing of the critical Grand Central Artery are in poor or marginal condition

of stations along Metro-North's Harlem Line have platforms in poor or marginal condition

Long Island Rail Road bridges and viaducts need significant repairs

75% of all Long Island Rail Road tunnels are in poor or marginal condition

The 20-Year Needs Assessment also identified climate change as a growing threat to the system. Coastal flooding, rainstorms, heat waves and other extreme weather events threaten MTA's infrastructure and our ability to provide service safely. Finally, the report made the case that the MTA needs to meet evolving rider needs, including making our stations more accessible and upgrading technology to improve communication and comfort for riders.



# **REPORT:** To be in line with industry peers, the MTA would need to invest \$23 billion a year to maintain our \$1.5 trillion asset base

A 2024 study by J.P. Morgan – one of the largest financial services companies in the world – analyzed how the MTA's peers in sectors like freight, utilities, and logistics maintain and grow their infrastructure assets, and what levels of investment are required. The study found that if MTA were to invest at a rate comparable to these private companies, annual investment levels would have to be \$16 billion. An additional \$7 billion a year would also be required to address MTA's outsized state-of-good repair backlog relative to peers. All in all, J.P. Morgan concluded that the MTA would need to invest \$23 billion annually in its capital assets – more than double our recent pace.

# THE CAPITAL PROGRAM IS AN ECONOMIC DRIVER IN NEW YORK

The MTA's capital program drives growth and creates economic opportunity across the state. By partnering with construction firms, manufacturers and suppliers from Long Island to the Finger Lakes and from the Southern Tier to the North Country, the MTA Capital Program supports thousands of businesses and tens of thousands of jobs. The 2020-2024 Capital Plan alone is responsible for creating 57,000 jobs.

The economic impact of the 2025-2029 Capital Plan is projected to be even greater, surpassing the \$62 billion in statewide economic output generated by the previous 2020-2024 Capital Plan. It is also expected to generate up to \$7.5 billion in contracts for minority-, women-, service-disabled veteran-, and disadvantaged businesses, ensuring that the MTA's investments continue to support an inclusive and equitable economy.



A report by the Partnership for New York and Ernst & Young Infrastructure Advisors estimates that the MTA 2020-2024 Capital Plan is generating \$62 billion in total economic output, with nearly 90% of Capital Program dollars spent in New York State. Indeed, many manufacturers, suppliers, and other businesses that support the MTA Capital Program are based across the state, from Western New York and the Southern Tier, to the North Country and Long Island.

Since 2010, the MTA has contracted with more than 800 firms and thousands of subcontractors across New York State, for a total value of \$54 billion.

NYS-certified
Minority and
Women-Owned
Business
Enterprise
(MWBE)
and/or a
ServiceDisabled
Veteran-Owned
Business
(SDVOB)

### Western New York & Finger Lakes

CORE Environmental
Consultants\*
Buffalo
Environmental consulting

STI-CO Industries\*
Orchard Park

Railcar supplier

New Flyer of America Jamestown

### North Country & Capital Region

**SepsaMedha North America** *Ballston Spa* 

Railcar supplier

**CHA Consulting** 

Albany

Design services

Fuji Semec Plattsburgh Railcar supplier



#### BAE Systems

Endicott
Bus supplier

#### Alstom

#### Transportation

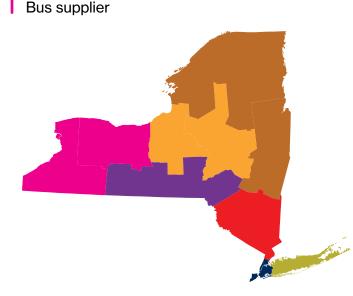
Hornell

Railcar and subway manufacturer

#### **LIN Industries**

Hornell

Railcar supplier



### Central New York & Mohawk Valley

#### Metal Solutions\*

Utica

Bus and railcar supplier

#### **Seifert Graphics**

Oriskany

Bus and railcar supplier

#### **Industry Standard USA\***

Liverpool
Demolition and

Demolition as landscaping

#### **Mid-Hudson**

#### **Halmar International**

Nanuet

Bridge structures and station improvements

#### Kawasaki Rail Car

Yonkers

Subway and railcar manufacturer

#### **OCE Contracting\***

Wallkill

Railroad structural improvements

#### **OCS Industries\***

Poughkeepsie

Building rehabilitation and

construction

#### **New York City**

#### **Queue Electrical Contractors\***

Queens

Electrical services

#### T. Moriarty & Sons

Bronx

Facility improvements

#### John Civetta & Sons

Bronx

Structural rehabilitation

#### Skyview Construction Group\*

Brooklyn

Stair and ramp construction

#### Long Island

#### Citnalta Construction

Bohemia

Station and accessibility improvements

#### L.K. Comstock & Company

East Farmingdale

Signal modernization and power distribution

#### All Aces\*

Patchogue

Station stair repairs

#### Forte Construction

Holbrook

Station and accessibility improvements

### THE MTA IS BUILDING BETTER, FASTER, CHEAPER

MTA Construction & Development is the consolidated agency that plans, rebuilds, improves, and expands the MTA's entire network of subway, bus, commuter rail, bridge and tunnel infrastructure.

Since its creation in 2019, Construction & Development has overhauled the MTA's approach to capital work, maximizing the value of capital investments by emphasizing top-tier project-management practices from conception through completion. Today, C&D is a world-class construction organization capable of getting projects done better, faster, cheaper – averaging over \$9 billion annually in new work and completing \$7 billion of projects in 2023.

Since 2020, contractor bids have come in an average of 6% below professional estimates, saving the MTA \$890 million so far. The MTA has also saved an additional \$395 million on insurance costs and more than \$800 million on in-house support services.

# **REPORT: MTA Construction & Development delivers projects more efficiently today**

A 2024 study by New York Building Congress outlined the progress made by the MTA in planning and delivering capital projects more effectively, even in complex environments. The study highlights MTA's first-ever Public-Private Partnership project, which is saving \$30 million delivering accessibility improvements at eight subway stations.

The report also highlights the 50% savings achieved by the MTA decision to fully replace old signals with modern signals, instead of overlaying new on top of old.





#### **Better**

The MTA is delivering projects with better design and fewer service disruptions by doing more upfront planning, tailoring the project delivery strategy to the particular needs of the project, and aggressively managing projects, especially through close oversight of construction contractors.

#### **CASE STUDY - Modern subway signals**

Today the MTA is building more miles of modern signal projects than any other transit agency in the world. Drawing from our experience installing new signals on the ① 7 and ② 6 0 MR Lines over the last several years, the MTA is constructing the projects currently underway – 82 miles on the ② 6 G G Lines – more efficiently than ever. Thanks to more rigorous upfront planning, as well as cutting-edge technology, we've reduced the amount of equipment installed, saving both time and budget.

#### **CASE STUDY - Park Avenue Viaduct Rehabilitation**

The 130-year-old Park Avenue Viaduct carries 750 Metro-North trains a day to and from Grand Central. The MTA is replacing the Viaduct, segment by segment, by extending gantry systems to remove and replace the existing concrete and steel bridge deck with new prefabricated bridge units, weighing around 190,000 pounds each. This innovative approach allows the MTA to execute this huge project without service impacts for customers, and will save 21 months to the schedule.



### Cheaper

The MTA has reduced construction costs by limiting unnecessary customization, improving planning around service outages, and pursuing reductions on cost drivers like insurance.

#### **CASE STUDY - 42 St Shuttle**

The MTA transformed the 42 St Shuttle into a fully accessible service on time and under budget. We redesigned platforms, added elevators and stairs, improved station circulation, and replaced escalators and stairways. Wider platforms provide more space for riders of all abilities to access trains on either track, and gaps were eliminated between platform edges and trains to facilitate safer boarding. The stations also include new artwork and a free connection between the NRQWS1237 Lines and the BDFM Lines.

#### **CASE STUDY - Third Track on LIRR Main Line**

The expansion of the LIRR Main Line from Floral Park to Hicksville added 10 miles of third track, eliminated eight street-level grade crossings, modified seven rail bridges, replaced and added power substations, improved stations and more. The MTA finished the project on time and \$100 million under budget.

#### **CASE STUDY - Project**

The MTA rehabilitated the train tunnel after Superstorm Sandy three months ahead of schedule, \$100 million under budget, and with limited service disruptions. The project involved complete rehabilitation of the tunnel, including track, lighting, cables and upgraded pumping systems, as well as accessibility and circulation improvements at adjacent stations, and additional substations to allow for more service in the future.

#### **Faster**

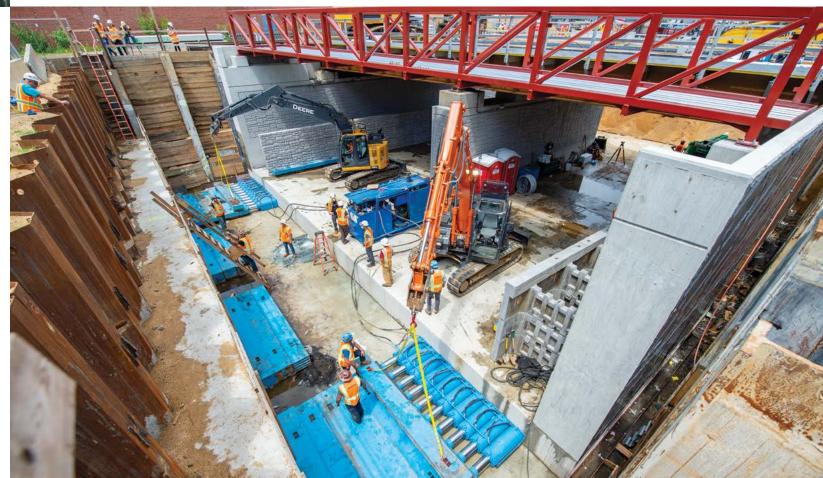
The MTA has accelerated the pace of project delivery by strategically bundling work by geography and project type, providing more incentives for contractors to accelerate project schedules, and better coordinating with labor and utilities.

#### **CASE STUDY - Station Accessibility**

Since 2020, the MTA has made 29 subway stations accessible, and another 37 ADA stations are in construction as of September 2024. The MTA has achieved this incredible pace of construction by bundling similar projects together into larger packages to get more done at the same time. This has paid major dividends: From 2015-2019, MTA awarded 15 contracts to construct 16 stations. Since 2020, we've awarded 12 contracts to construct 52 stations.

#### **CASE STUDY - Eastern Parkway Line Repairs**

The MTA accelerated repair work on the Eastern Parkway Line, which carries **2345** service in Brooklyn, to take advantage of service outages already created for switch replacement work. This accelerated timeline reduced the project's duration to 33 months from 40.



### PROPOSED BUDGET

### **Allocation by Agency**

The proposed 2025-2029 Capital Plan includes \$65.4 billion in investments to be approved by the MTA's Capital Program Review Board, as well as an additional \$3 billion in investment by MTA's Bridges and Tunnels.

Agency	Allocation (in \$ millions)
New York City Transit, Staten Island Railway, MTA Bus	\$47,840
Long Island Rail Road	\$6,005
Metro-North Railroad	\$6,005
Interagency	\$300
Major Projects & Expansion	\$5,250
Total Allocation Subject to CPRB Approval	\$65,400
Bridges and Tunnels	\$3,000
Total 2025-2029 Capital Plan	\$68,400

### **Funding by Source**

MTA Capital Plans have historically been funded with a balanced mix of federal, state, regional, city and MTA sources. The MTA contributes some funding directly, though a mix of bonds and PAYGO capital. The agency aggressively pursues federal funding opportunities. State, city or regional funding, by contrast, requires state legislation.

#### **Federal Formula, Flexible and Competitive Grants**

The Infrastructure Investment and Jobs Act (IIJA), passed in November 2021, establishes federal funding levels for transportation through 2026, including for MTA's capital program. Federal fund availability beyond 2026 will be determined by the reauthorization of the

federal transportation program, as well as future congressional appropriations. In addition, the MTA will aggressively pursue other federal funding opportunities, including competitive grants and loans.

For reference, federal funding for the 2020-2024 Capital Plan is estimated at \$13.1 billion. The 2015-2019 Capital Plan included \$6.8 billion in federal funding.

#### State of New York and City of New York Capital

Both the City of New York and the State of New York have provided direct capital contributions in support of previous MTA capital plans. New York

City's \$3 billion capital contribution to the 2020-2024 Plan represents 8.85% of that plan's NYCT core program; with the State match, over \$6 billion was contributed by the City and State to the 2020-2024 Plan. The State and City provided \$11.7 billion for the 2015-19 Plan, including over \$9 billion from the State.

#### **MTA Bonds**

MTA has provided significant capital to past capital plans by issuing bonds secured by fares and dedicated taxes which otherwise support the operations of the transit and commuter systems.
MTA Bonds provide \$7.4 billion in capital for the 2020-2024 Plan and provided \$9.1 billion for the 2015-2019 Plan. We propose \$10 billion of bonds to be issued by MTA agencies as a funding source for transit and commuter capital projects included in this 2025-2029 Plan.

#### **MTA Capital Lockbox**

The State Legislature created a capital lockbox for the 2020-2024 Capital Plan, in order to provide \$25 billion in funding capacity for the plan. The \$25 billion is made up of \$10 billion in fixed state and city sales tax receipts funded from the internet marketplace provisions, and receipts from a New York City real-estate transfer tax; as well as \$15 billion from congestion pricing revenues (now subject to the Governor's pause of the program). State law also anticipated the lockbox would be used for future capital plans, including the 2025-2029 Plan, subject to additional revenues being dedicated by State legislation.

### Additional Innovative Opportunities for Capital Funding

Cap and Invest: New York State is launching a Cap and Invest Program pursuant to the 2019 Climate

Leadership and Community Protection Act. The Cap and Invest Program is intended to both provide a market-based mechanism to reduce greenhouse gas emissions and provide substantial revenue for investing in carbon-reducing programs, such as the MTA's transit and commuter rail systems and the MTA's investments in sustainability and environmental projects.

Railcar and bus acquisition financing strategies: Replacing the MTA's aging fleet of subways. railcars and buses is a priority of the 2025-2029 Capital Plan. The level of investment proposed in this five-year plan is \$14.5 billion, and the needs beyond this plan will likely be of similar size. Rolling stock investments are not only critical for MTA customers but also have significant economic development benefits for New York State. A focused, long-term strategy for procuring and financing rolling stock would increase supplier competition, lower prices, provide sustainable employment opportunities in New York State, and create a new alternative financing mechanism to supplement otherwise limited traditional bonding capacity.

#### **Bridges and Tunnels Bonds**

The Bridge and Tunnels portion of the Capital Program is completely self-funded through the issuance of Triborough Bridge and Tunnel Authority (TBTA) bonds to be repaid from toll revenues. TBTA funds may also be used directly for capital purposes to the extent available. This approach for the 2025-2029 Capital Plan is consistent with prior capital plans. We propose issuing TBTA bonds secured by toll revenues to fully fund TBTA capital projects included in this plan.

# **PLAN HIGHLIGHTS**

The 2025-2029 Capital Plan includes several projects to expand and improve the MTA system, including purchasing new railcars, modernizing signals, building more elevators, and getting started on the Interborough Express.

But a major emphasis of this plan is to keep the MTA's \$1.5 trillion worth of physical assets in good working condition. By investing in power substations, pump rooms, railcar maintenance shops and other assets our customers never see, we can improve the service we provide to them every day.

### PURCHASE NEW RAILCARS

**Budget:** \$10.9 billion

New railcars not only feature better amenities for passengers, they also break down far less often than older railcars. In the 2025-2029 Capital Plan, the MTA will order 1,500 subway cars and 500 railroad cars, replacing thousands of cars that were purchased in the 1980s and have reached the end of their useful life.

### Nearly 2,000 railcars are reaching the end of their useful life, at 40+ years old.

In the early 1980s, the MTA ordered hundreds of subway and railroad cars to replace the dilapidated fleet from the late 1940s, helping to usher in a new era of better service and higher customer confidence. But these cars are now nearing the end of their useful life and need replacing.

The oldest subway train cars in our fleet fail about six times more often than newer cars. Older subway cars also can't operate on lines with Communications-Based Train Control (CBTC), the modern signal system that makes our service more reliable, safer, and potentially more frequent.

# With the 2025-2029 Capital Plan, the MTA will order 1,500 subway cars, replacing about 22% of the entire fleet.

Starting in this Capital Plan and continuing into the next one, the MTA will replace the fleet first purchased in the 1980s. The new subway cars will feature wider entrance doors, brighter lighting, more digital signage, and security cameras. They will also be compatible with modern signaling technology.

With these new subway cars, the MTA can start retiring R62 cars from 1984, which now mainly operate on the 1 3 and 6. We'll also replace all the remaining R68 cars from 1986, which primarily operate on the 1 0 N and W.

# The plan also advances the purchase of more than 500 new railcars for Metro-North and LIRR.

The new railroad cars will be fully ADA accessible and feature new amenities such as wider seats and electrical outlets. With these new passenger cars, Metro-North and LIRR can retire all remaining M3 cars as well as Metro-North's passenger coaches first procured in the mid-1980s.

LIRR and Metro-North will also continue purchasing new "dual-mode" electric/diesel locomotives to improve air quality, reduce greenhouse gas emissions, and improve service reliability.





### MODERNIZE SIGNALS

#### **Budget:** \$5.4 billion

#### Much of the subway network still depends on archaic signaling technology.

Fixed-block signals, still used on more than two-thirds of the subway system, only detect the approximate location of trains – requiring the trains to run farther apart and at slower speeds to maintain a safe distance.

In addition, fixed-block signals rely on outdated infrastructure that is expensive to maintain and requires disruptive work in the right-of-way.

These disruptions – some planned, some unplanned – occur even more frequently as this equipment ages, with some of the oldest equipment in the system now more than 50 years old.

# Modern signaling technology allows for faster, more frequent and more reliable service.

The sections of the subway network with CBTC (full and service, Reservice on the Queens Boulevard Line, and service on the Culver Line) have significantly more reliable service. On-time performance on the Line rose from 68% to 91% following the introduction of CBTC.

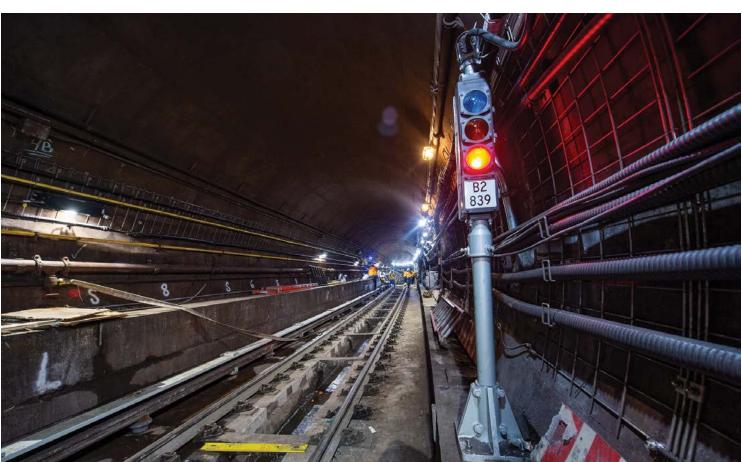
CBTC technology optimizes train movements by knowing the exact location of all trains.

This means trains can safely run closer together, increasing speeds, service frequency and overall capacity. CBTC also allows for more consistent headways between trains, which means more reliable service for customers.

This Capital Plan will bring CBTC to the Broadway N Q R W Line, Liberty Av A Line, Rockaway A S Lines, and the Nassau St 1 Line.

- The Broadway N Q R W Line is 48 miles long, from Ditmars Blvd to DeKalb Av. The line serves more than 1.2 million daily riders in Queens, Manhattan, and Brooklyn. The MTA will replace 50-year-old signaling equipment and alleviate major bottlenecks on the Manhattan Bridge and in the 60 St Tunnel.
- Liberty Av and Rockaways (A) S Lines run 36 miles, from Euclid Av to Ozone Park-Lefferts Blvd and the Rockaway Peninsula. The MTA will replace 80-year-old signals, some of the oldest in the system.
- The Nassau Line is 9 miles long from Essex St to Broad St. The MTA will replace signals that are more than 50 years old and help improve service on one of the most poorly performing lines in the system.





# UPGRADE MAINTENANCE FACILITIES

**Budget: \$2 billion** 

The MTA's 93 shops and 70 yards maintain and repair subways and railroad trains. While some of these are new, many have not been rehabilitated in decades, and are not configured to be able to service new railcars. The 2025-2029 Capital Plan invests in a range of train maintenance facilities, including the Livonia Shop and the 240 St Shop.

Many MTA shops – where trains are maintained and repaired – are in a state of disrepair. In some cases, they are so outdated they cannot accommodate modern railcars.

The MTA operates 43 maintenance and overhaul shops, 50 support shops, and 70 railyards to conduct regular inspections and repairs, and to store trains when they are not in service.

Many shops haven't been rehabilitated in decades, with leaky roofs and crumbling facades. Many are also located in flood-prone areas. Eight of the subways' 17 maintenance and overhaul shops operate with more than 50% of their major components in poor or marginal condition. When so many assets are in bad working condition, train repairs get delayed and service is affected.

Two subway shops are in particular need of investment: the Livonia Shop and 240 St Shop, which maintain the R62/62A fleets that run on the 42 St (a), (1) and (a) Lines. The R62/62As are past their 40-year useful life and will be replaced, starting in this Capital Plan. Livonia and 240 St, in their current form, are not able to accommodate the new rolling stock and will need to be reconfigured.

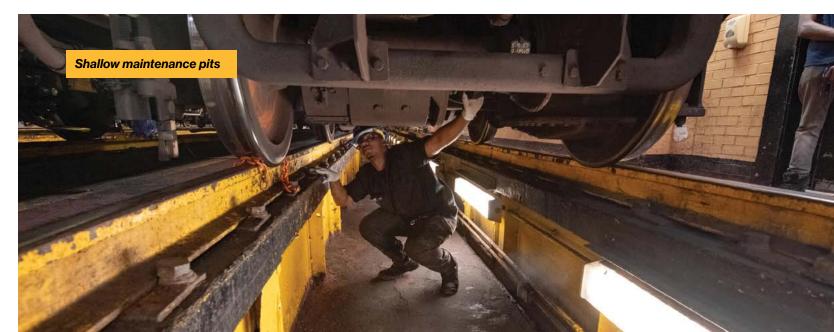
In this Capital Plan, the MTA will rehabilitate the shops and yards most in need of investment, including the reconstruction of the Livonia Shop.

The Livonia Shop will be rebuilt to feature updated equipment and meet modern building standards, including more spacing between tracks and higher ceiling heights to accommodate the maintenance of new roof-mounted air conditioners. The MTA will initiate the redesign of 240 St Shop, and rehabilitate other shops and yards, prioritizing those with the most assets in poor and marginal condition, and those most at risk of flooding.

The MTA will also repair key Metro-North and LIRR facilities, including Brewster Yard and Hillside Maintenance Facility.







# RENEW POWER SYSTEMS

**Budget: \$4 billion** 

All our subways and much of our railroads run on electric power. The infrastructure required to support this extensive transit network is vast, complex and often precariously outdated. The 2025-2029 Capital Plan invests in power substations and other key power infrastructure to help prevent service disruptions.

### Power incidents are infrequent but cause major service problems when they occur.

Power incidents are the most disruptive cause of long delays on the subway system, sometimes causing delays for more than 200 trains at a time. While our power system is designed with redundancy, when multiple elements fail at the same time, service disruptions do occur.

Years of underinvestment have resulted in a significant portion of the power infrastructure being past its useful life. Power substations, which deliver electricity from utility providers to the third rail, are a particular vulnerability: 88% Metro-North, 46% LIRR, and 40% subway substations have major components in poor or marginal condition. And more substation components continue to age out of their useful life every year.

Power system failures can be catastrophic, as evidenced by the disruptions experienced by NJ Transit and Amtrak customers in Summer 2024.

# The 2025-2029 Capital Plan includes major investments in the power system – a major step in the effort to stabilize it for the next generation.

Substations are a major focus of this plan, with 21 NYCT, six LIRR and five Metro-North substations slated for full renewal or new construction.

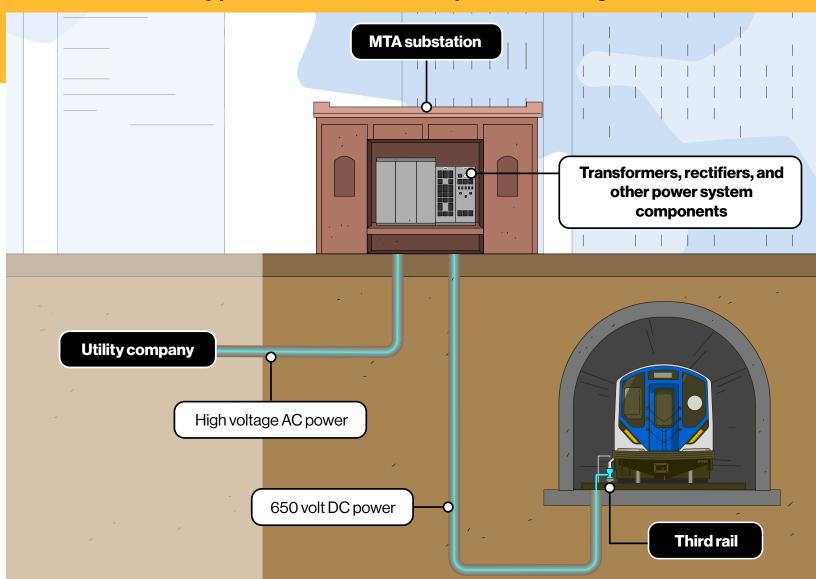
More than 55 other substations will have priority components replaced, including transformers, rectifiers, and switchgear. The plan also includes upgrading steel third rail with higher-performing aluminum, as well as replacing deficient power cables and deteriorating circuit breaker houses.

These investments will improve redundancy in the power system, particularly in high-ridership areas, and mitigate the risk of a catastrophic failure. They will also enable us to incorporate new, highly energy-efficient technologies like wayside energy storage, regenerative braking, and power load management.

Lastly, the MTA will upgrade the Subways Operations Control Center, which helps to manage our network of 224 substations, as well as the connecting infrastructure that connects the OCC to those substations.

Each power failure causes an average of 34 trains to be delayed, more than any other type of failure.

### MTA substations convert high-voltage AC power from utility providers into 650-volt DC power for moving trains





# REBUILD THE GRAND CENTRAL ARTERY

**Budget: \$1.7 billion** 

The Grand Central Artery, a four-mile stretch that includes the Terminal itself, the Train Shed, the Park Avenue Tunnel and the Park Avenue Viaduct, carries 98% of all Metro-North service, and it is in desperate need of repair. The MTA will rehabilitate key elements of the Grand Central Artery without significantly disrupting service.

### Much of the Grand Central Artery is 100 years old and rapidly deteriorating.

Grand Central Terminal underwent a transformative rehabilitation in the 1990s, focusing on what customers see every day, but the terminal's utility systems were not fully updated, and are in need of repair today.

The Train Shed is the structure below Park Av from 42 St to 57 St, where trains entering the Terminal are sorted to passenger platforms. Decades of water, chemical and salt infiltration from streets above have significantly deteriorated concrete, steel beams and other elements of the Train Shed structure. The MTA has been conducting targeted emergency repairs and limited replacements, but deterioration continues to increase, and a comprehensive program to replace the Train Shed structure is needed.

After leaving the Train Shed, trains pass through the Park Avenue Tunnel, a two-mile stretch from 57 St to 97 St. One hundred percent of the Tunnel's structural framing is in poor or marginal condition, and many life safety systems (emergency egress, ventilation, etc.) need upgrading.

Finally, the elevated Park Avenue Viaduct carries trains from 97 St up to the Harlem River.

A comprehensive reconstruction of major sections of the viaduct is underway in the 2020-2024 Capital Plan to help prevent catastrophic failure and Metro-North service suspension.

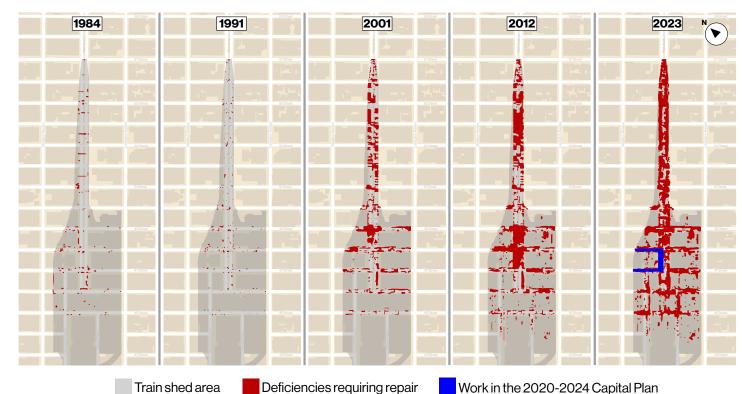
# The 2025-2029 Capital Plan will fund major renovations to the Grand Central Artery, making sure it is in good condition for the next century.

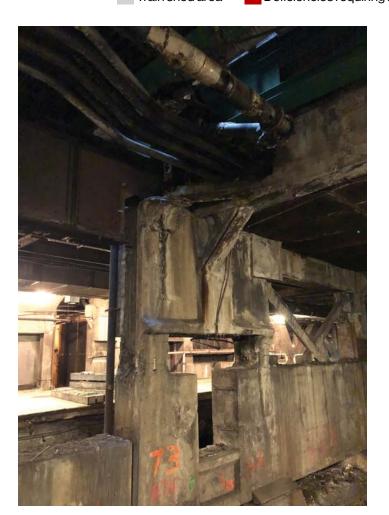
In Grand Central Terminal, the MTA will upgrade aging utility systems, including HVAC, electrical, water, steam, sanitary, safety and security systems. We'll also update stairs and ramps, as well as elevators and escalators. We'll improve structural supports, roofs, passenger platforms, and employee facilities to keep the building in good condition for years to come.

The MTA has already begun working to repair and replace the concrete and steel elements of the Train Shed that have deteriorated, but acceleration of the effort is needed. With this Capital Plan, the MTA will address additional structural deficiencies, and replace significant portions of Train Shed's roof to reduce water infiltration and the corrosion that comes from it.

In the Park Avenue Tunnel, we will upgrade fire-life-safety components and make priority structural repairs.

#### TRAIN SHED STRUCTURAL DEFICIENCIES

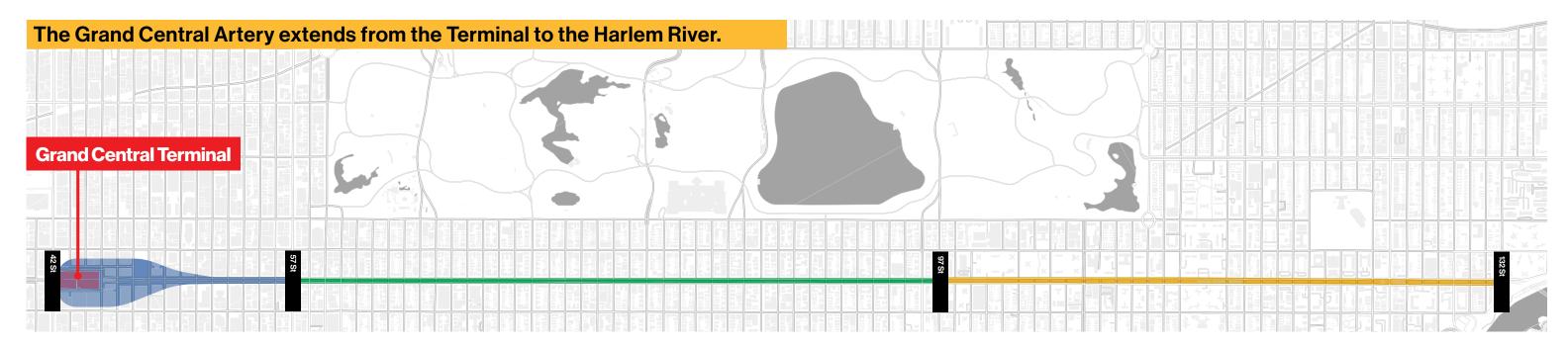


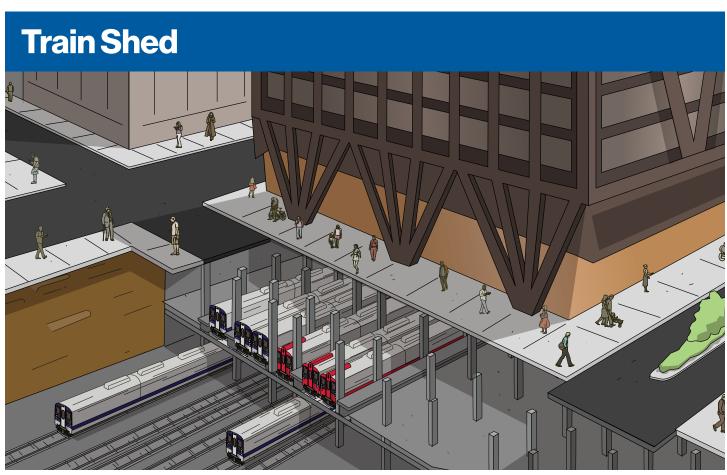




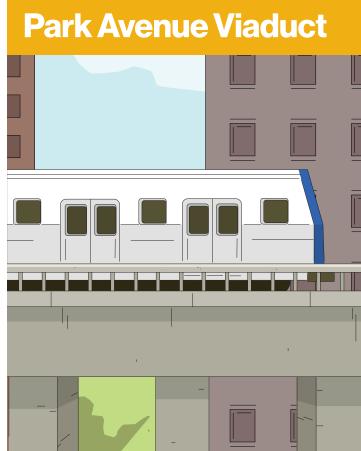
Before After

# REBUILD THE GRAND CENTRAL ARTERY









### REPAIR CRITICAL STRUCTURES

**Budget:** \$9 billion

Structurally deficient bridges and tunnels – whether they carry vehicles, subways, or trains – threaten our ability to provide dependable service, and conducting emergency repairs is disruptive and costly. In this Capital Plan, the MTA will paint, rehabilitate, or otherwise improve vehicular and transit structures – many more than 100 years old – to extend their useful life and keep them in good condition for years to come.



### Decades of underinvestment have left us with hundreds of deteriorating infrastructure assets.

The MTA owns and maintains more than 1,000 railroad bridges, 167 miles of tunnels, and 61 miles of elevated subway structures. Unfortunately, many of them are more than 100 years old and urgently need repair.

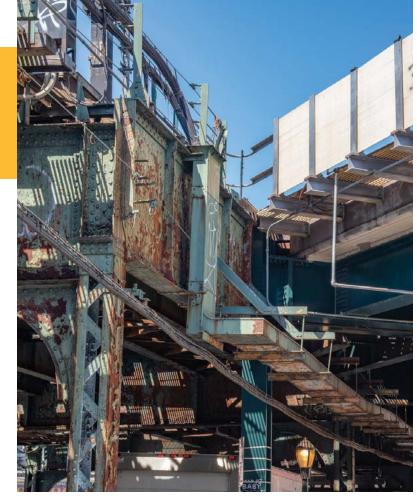
In addition to the Grand Central Artery, 46% of Metro-North undergrade bridges, 23% of overhead bridges, and 65% of culverts are in poor and marginal condition and face additional threats due to extreme weather events.

Seventy-five LIRR bridges, 7 viaducts and 3 tunnels are at a critical point of deterioration and need repair or rehabilitation. Major segments of the Atlantic Ave Tunnel, the spine of LIRR service into Brooklyn, have not undergone significant structural rehabilitation since the Tunnel's construction more than a century ago.

### Preventative measures are a cost-effective way to keep our structures safe.

As homeowners know, painting and regular maintenance are the best way to help prevent structures from falling into a state of disrepair. Currently, about 50% of subway elevated structures need painting, while 78% of LIRR bridges need weather protection, waterproofing, or painting.

In contrast, steady capital investment, complemented by consistent and extensive maintenance work, have kept the MTA's seven vehicular bridges and two vehicular tunnels in good condition.







**After** 

# As part of the 2025-2029 Capital Plan, the MTA will repair and rehabilitate key bridge and tunnel structures in the transit system.

To prevent further deterioration on our elevated railroad structures, the MTA will paint and/or waterproof more than 45 bridges and viaducts to protect them from corrosion.

The MTA will rehabilitate major segments of the LIRR's Atlantic Ave Tunnel. The work will include repairing or replacing deteriorated concrete and steel structures, improving drainage, and improving lighting, safety and security systems.

On subways, we must double the pace of our efforts to repair tunnels and paint more than 20 miles of elevated structures – more than any recent capital program. Our innovative painting methods will double the lifespan of paint on steel structures, from 15 years between costly paint jobs, to 30 years.

# On vehicular bridges and tunnels, the MTA is using innovative technology to strengthen and safeguard infrastructure.

We will undertake cable dehumidification of the Bronx Whitestone and Throgs Neck Bridges. This innovative and cost-effective approach protects individual cable wires from corrosion by controlling humidity within the cable, thereby extending their useful life.

We will equip the Hugh L. Carey Tunnel and the Queens Midtown Tunnel with modern fire suppression technology to improve driver safety and emergency access.

# BUILD THE INTERBOROUGH EXPRESS

**Budget:** \$2.75 billion

The Interborough Express (IBX) is a generational opportunity to provide transformative new rapid transit service between Brooklyn and Queens. In this Capital Plan, the MTA will complete design and get shovels in the ground to start construction on this vital new link.

The subway system was designed to get people to and from Manhattan. It does not adequately serve the increasing number of New Yorkers who commute between Brooklyn and Queens.

More than 60% of the nearly 1 million people who live within walking distance of the proposed IBX corridor, commute to jobs located in Brooklyn and Queens – not Manhattan.

It's an area that needs better transit access. More than 50% of corridor residents don't have a car and about 30% percent earn less than 150% of the federal poverty line.

The IBX will transform a lightly used freight railway into a light-rail line serving almost 1 million nearby residents and connecting 17 subway lines, more than 50 bus routes and Long Island Rail Road.

The IBX line would provide direct, fast transit service for dozens of communities from Bay Ridge to Jackson Heights and neighborhoods in between, while preserving the existing freight service along the corridor.

IBX will significantly cut travel times between Brooklyn and Queens destination – by 30% between Bushwick and Brooklyn Army Terminal, for example, or 35% between Flushing and Brooklyn College. It will dramatically increase transit options in historically underserved lowincome communities – including communities farther away from the subway and LIRR system like East Flatbush and Maspeth – and give them better access to jobs, school and other opportunities.

In this Capital Plan, the MTA will complete environmental review, design, and preliminary engineering for the project, and begin construction.

Building on the 2023 planning study and extensive public outreach, the MTA will carry the IBX project through the federal environmental process. We will also complete design and preliminary engineering work and undertake early utility and other site preparation work.

This Plan includes an allocation of \$2.75 billion for IBX, approximately half of the overall projected cost. This represents a substantial down payment as we aggressively pursue federal financing and funding that will enable us to start construction.

### The MTA is ready to deliver the project efficiently, on time and on budget.

We've already advanced conceptual engineering studies to reduce the project's cost – for example, minimizing bridge reconstruction and reducing the size of stations. Further value engineering will be pursued during the upcoming project design phase.



# BUILD THE INTERBOROUGH EXPRESS



# IMPROVE THE STATION ENVIRONMENT

**Budget: \$7.8 billion** 

Moving passengers may be the primary purpose of public transportation, but it's also important for our customers to feel comfortable and safe as they wait for the train. With this Capital Plan, the MTA wlll repair infrastructure elements, add new safety features, improve customer communications, and invest in other measures to enhance the customer experience in subway and railroad stations.

Many of the MTA's 704 stations are experiencing significant infrastructure deterioration, and most rely on outdated technology.

Platforms, columns, stairs, tiling, and other station elements need regular repair, but many are decades old and have structural issues that need to be addressed for the safety and comfort of our customers and employees. On Metro-North's Harlem Line, most stations have not seen major investment in decades. A particular area of focus is platforms, which were built in the 1980s in pre-cast, pre-stressed concrete planks with a hollow core, making them prone to deterioration that is exacerbated by salt use and freeze-thaw cycles. The MTA has installed temporary wooden structure to shore up the platforms, but more permanent rehabilitation is needed.





Much of the technology that underpins the customer experience in a station, such as customer communications, cameras, fare collection, and emergency systems, is decades old and inadequate to serve current needs or safety goals.

The 2025-2029 Capital Plan makes strategic investments in a range of station elements to increase the comfort and safety of our customers and employees.

The MTA will repair or replace deteriorating elements at more than 150 subway stations, and fully renovate 10 stations with many elements in poor condition. We'll add new safety features like platform fencing at 100 stations, and accessibility features like elevators or ramps at over 60 subway stations. We'll also add or improve flood-protection equipment in the most critical locations.

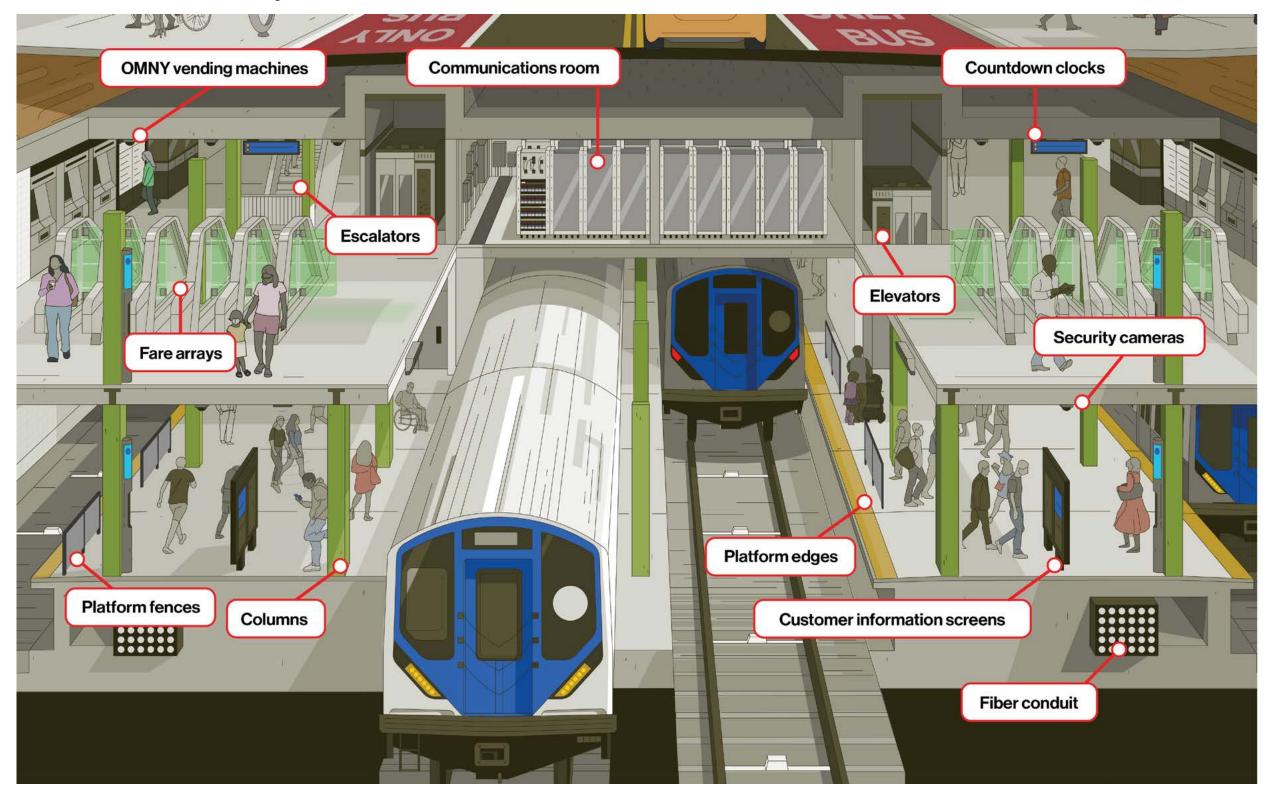
This Capital Plan will give special emphasis to those Metro-North Harlem Line stations that need more extensive rehabilitation.

This Capital Plan also makes significant investments in technology in stations, including new cameras and the supporting infrastructure needed for real-time, remote monitoring of stations. We will also upgrade or replace public communications at over 200 subway stations, provide in-cab elevator communication for the hearing impaired, and replace fire alarm systems.

We will replace more than 100 miles of the subway's fiber network, first installed in the 1990s, to carry the data to safely run trains. When we install 21st-century fiber, we will have enough bandwidth to ensure the stability of the nervous system that connects our Help Points, public address systems, countdown clocks, radios, and other emergency communications.

# IMPROVE THE STATION ENVIRONMENT

#### **Station Elements to Be Improved**



### MAKE MORE STATIONS ACCESSIBLE

**Budget:** \$7.1 billion

The MTA has made 46 stations ADA-accessible since 2020, and another 43 stations are currently under construction. The 2025-2029 Capital Plan continues at this ambitious pace, with at least 60 subway stations and at least six railroad stations slated for ADA improvements. With these investments, approximately 70% of all subway rides will take place to or from accessible stations – and we'll stay on track to make 95% of subway stations accessible by 2055.

New Yorkers of all physical abilities benefit from easy access to transit, but today less than one-third of subway stations are ADA accessible.

The MTA is committed to improving transit access for everyone, including customers with disabilities, people traveling with children in strollers, seniors, and others who benefit from elevators, ramps and other features that make it easier to navigate the subway.

But retrofitting stations to include elevators can be challenging. Elevators require finding space in or around the station for multiple elevator shafts, which isn't always easy in a dense city like New York. Existing utilities like sewage pipes, water mains and electricity lines need to be diverted. And all this new infrastructure needs to be built while keeping the station open for customers. The MTA has delivered more ADA stations in the last five years than in the previous 10 years combined. And we've done it better, faster and cheaper.

The MTA has achieved this rapid pace thanks to innovative project delivery methods like bundling several similar stations into one construction contract to make the most of outages, and by adopting design-build delivery tools to save time and money.

We're also looking at other ways to deliver accessibility more quickly and cost-effectively, by installing ramps instead of elevators where feasible, or by constructing elevators directly from the street and to the platform rather than two elevators (one from street to mezzanine and one from mezzanine-to-platform.) Better coordination with the City of New York and Con Edison has also proven to save time and money when building ADA projects.



### With this Capital Plan, the MTA will make at least 60 more subway stations accessible.

When determining which stations to target, we consider geographic coverage, demographics, ridership, transfers, important local destinations, constructability, and cost. We also consult with riders and disability advocates.

The Capital Plan also includes funding to replace 45 subway station elevators to minimize disruptions for our customers.

### The MTA will also make at least six railroad stations accessible.

The majority of MTA railroad stations are already ADA accessible today. With at least six more stations being added in this Capital Plan, including Bellerose, Douglaston, and Cold Spring Harbor on LIRR and Ludlow and Wakefield on Metro-North – 90% of all full-service railroad stations will be accessible.

### INSTALL MODERN FARE GATES

#### **Budget: \$1.1 billion**

The MTA has been piloting new fare gates to improve fare compliance, system accessibility and passenger flow. In the 2025-2029 Capital Plan, the MTA will scale up the installation of new fare gates throughout the subway system, prioritizing major hubs and stations with high ridership.

Today's subway fare arrays – turnstiles with an exit gate nearby – make it too easy to evade the fare. They're also inconvenient to those who need more accessible entry into the subway system.

Fare evasion has been growing steadily in the last five years, and now poses an existential threat to the financial viability of the MTA. In 2023 alone, fare evasion on the subway cost the agency more than \$300 million. More than 50% of this evasion happens by walking through the exit gate.

Existing turnstiles are not accessible to all customers. People of limited mobility, and those pushing strollers or carrying luggage, must wait to enter or exit through the exit gate.

Modern fare gates will bolster fare compliance, improve accessibility, and provide other features that improve the customer experience.

New generation fare gates will feature wide paneled doors and sensor technology to deter fare evasion while making it easy for people – including those with accessibility needs - to pass through.

Modern fare gates include features that can improve passenger flow and alleviate crowding during rush hours.

The MTA has begun piloting new fare gates, including at Sutphin Boulevard-Archer Av-JFK Airport, demonstrating that modern gates can increase ridership and provide greater accessibility. The MTA is refining design of future gates to enhance their functionality and make them more resistant to fare evasion.

### The MTA will replace fare gates at more than 150 subway stations.

The MTA will roll out new fare gates at 150 stations in all five boroughs. These stations will be selected based on ridership, fare evasion rates, accessibility needs, and whether they are a major transit hub.

With the level of investment proposed in this Capital Plan, stations serving 75% of riders will be equipped with modern fare gates.



### GROW OUR ZERO-EMISSIONS BUS FLEET

#### **Budget: \$1.4 billion**

Buses already offer among the greenest travel options available – and a zero-emissions bus fleet will make it even greener. This initiative is the largest component of the MTA's goal to reduce agency wide operating emissions 85% by 2040. By the end of this Capital Plan, 18% of our buses will be electric. We'll also be purchasing another 2,000 conventional buses.

### More than 40% of the MTA's bus fleet is up for replacement in the next five years.

Older buses are not as reliable, leading to service disruptions and higher maintenance costs. On average, older buses need repair every 8,000 miles while newer buses can reach nearly double that mileage before failing.

The vast majority of the MTA's bus fleet today still runs on fossil fuels. While taking the bus is much greener than driving, our current bus fleet emits more than 450,000 metric tons of greenhouse gas emissions every year.

# As the MTA continues to replace older buses, we are gradually increasing the number of zero-emissions buses with the goal of being 100% green by 2040.

Zero-emissions buses not only are better for the environment, they're also quieter than conventional buses, meaning a more pleasant and comfortable ride for customers and New Yorkers in general.

The MTA is transitioning to a zero-emissions fleet gradually, as electric buses require more

upfront investment and the number of qualified manufacturers is still limited. Retrofitting bus depots and improving the power grid are also costly investments. Until this transition is complete, the MTA will also continue to buy conventional buses.

# With this Capital Plan, the MTA is purchasing 500 zero-emissions buses and installing charging infrastructure at bus depots.

These new buses will avoid 32,500 metric tons of carbon emissions every year.

New charging infrastructure and other upgrades will support electric bus and non-revenue vehicle charging, including greater electrical capacity, structural reinforcements, and enhanced cooling systems. We're prioritizing zero-emissions infrastructure upgrades at bus depots in communities disproportionately impacted by poor air quality.

We're also buying another 2,000 conventional buses with wider doors, brighter lighting, mobile-device charging stations, and other rider amenities.





# DEFEND THE SUBWAY FROM STORMWATER FLOODING

**Budget: \$700 million** 

Torrential rainstorms are becoming a regular occurrence in New York, causing flooding in the subway when the city's sewer infrastructure is overwhelmed. Stormwater flooding can cause prolonged service delays and significant damage to equipment, and is unsafe for customers and employees. The 2025-2029 Capital Plan begins to address this vulnerability through street-level mitigations and improvements to underground infrastructure.

# Severe rainfall events, fueled by climate change, overwhelm urban infrastructure, including the subway.

The maze of physical infrastructure built and maintained by the City of New York, including storm drains, catch basins and sewer pipes, was designed to handle up to 1.75 inches of rain per hour.

But increasingly heavier rainfalls are exceeding the city's sewer system capacity and backing up water into underground subway stations and tunnels, including the subway. Over the 20 past years, 34 torrential rainfall events exceeded the city's sewer capacity, flooding the subway and disrupting service for millions of commuters.

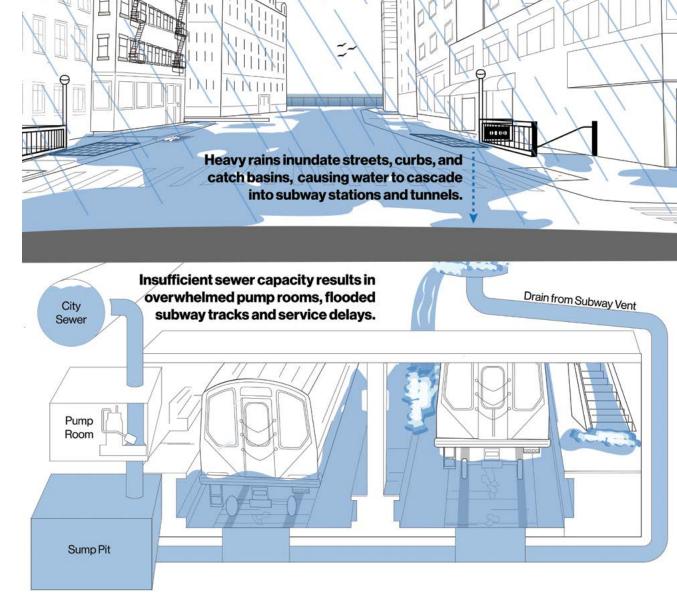
# In the past 15 years, the MTA has made considerable advancements in preparing for torrential rainfall and preventing major service disruptions.

We have implemented more flood protection devices at vulnerable street-level openings (stairs, vents, etc.) and developed procedures to install emergency vent covers when a storm is approaching. During Tropical Storm Ophelia in September 2023, 45% of subway trips still ran on time. But there's still more to do to shore up our infrastructure and ensure even fewer customers are affected by torrential rainfall.

In this Capital Plan, we're accelerating capital investments to keep stormwater out of the system – and remove more quickly the water that does enter.

Elevating stairs and vents at street level and repairing leaking tunnels will reduce stormwater entering underground stations and tunnels.

The MTA will rehabilitate more than a dozen pump rooms that pump excess water out of the system, expand capacity at undersized pump rooms, and replace broken or undersized drainage infrastructure.





### PROTECT THE HUDSON LINE

#### **Budget:** \$800 million

The Hudson Line is a critical passenger and freight rail link for New York, carrying millions of passengers every year. But the Hudson Line's proximity to the Hudson River on the west and steep slopes on the east makes it vulnerable to flooding and landslides caused by heavy rain. This Capital Plan invests in climate resilience upgrades to better protect critical Hudson Line infrastructure from sea-level rise and intense rainstorms.

# The Hudson Line is particularly vulnerable to the stormwater and coastal flooding exacerbated by climate change.

Sandwiched between steep slopes and the Hudson River, more than half of the 74-mile Hudson Line is vulnerable to coastal flooding from storms today. For the 10 million annual Hudson Line customers, that means more service disruptions as storms and flooding worsen in the coming decades. It also impacts Amtrak riders and CSX freight deliveries, as both services rely on the Hudson Line.

Currently, a network of culverts, bridges, retaining walls, and shoreline reinforcements, some more than 100 years old, protect the Hudson Line from flooding. While some of these critical structures have been fortified in the past years, many are still in need of repairs and cannot withstand the effects of climate change.

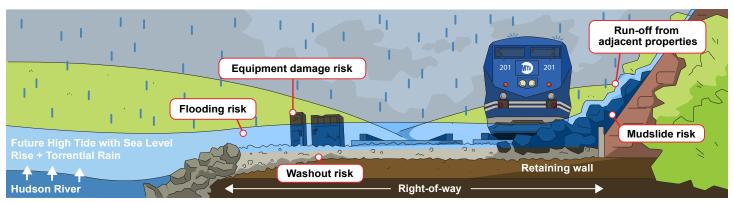
We've seen how severe storms can impact Hudson Line infrastructure – for example, heavy rain from Tropical Storm Ida in 2021 washed out a 110-year-old culvert north of Dobbs Ferry Station, disrupting service. The same storm caused a catastrophic retaining wall collapse along the steep Warburton slope in Yonkers.

# Climate resilience investments in this Capital Plan will protect Hudson Line service for decades to come.

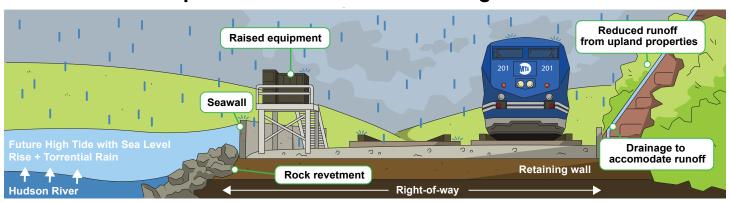
In this plan, the MTA will rehabilitate shoreline structures, address erosion hot spots, stabilize upland slopes, and upgrade drainage in the most vulnerable and highest-ridership segments of the Hudson Line. These investments will be guided by a comprehensive engineering blueprint to adapt the Hudson Line to chronic climate risks.

In conjunction with this adaptation work, the MTA will also address critical infrastructure needs on the Hudson Line – infrastructure that has reached the end of its useful life and requires state-of-good-repair investment.

#### Torrential rain and tidal flood threats on the Hudson Line



#### Climate resilience protections will reduce flooding threats





### **AGENCY PLANS**

### HOW TO READ AGENCY PLANS

#### **Capital Program Background**

The MTA Capital Program is organized in a series of five-year capital investment plans. This 2025-2029 Capital Plan, the ninth in the agency's history, describes the projects necessary over the coming five-year period to put us on a path toward getting the MTA's physical assets into a State of Good Repair, and to advance the MTA's goals of providing frequent and reliable transit, improving the customer experience, and taking action on climate change.

The 2025-2029 Capital Plan is first submitted to the MTA Board. Upon MTA Board approval and in accordance with New York State Public Authorities Law, the MTA is required to submit the 2025-2029 Capital Plan to the MTA Capital Program Review Board (CPRB) by October 1, 2024. The CPRB has four voting members appointed by the New York State Governor, including one recommended by the New York State Senate Majority Leader, one recommended by the New York State Assembly Speaker, and one recommended by the New York City Mayor. CPRB approval is needed before we can implement the Plan. A notable exception to this process is that the Capital Plan for MTA Bridges and Tunnels is not subject to CPRB approval.

Implementing this proposal will require outside funding sources. As we work with our partners to fully fund the Plan, we anticipate support from federal and local partners, and we plan to utilize MTA resources including bonds and PAYGO capital.

This document assumes that the 2020-2024 Capital Plan will be fully funded and implemented. This document also assumes that all projects listed in the 2020-2024 Capital Plan-including those delayed due to the temporary pause in implementation of the Central Business District Tolling Program-will be fully funded and implemented as part of the 2020-2024 Capital Plan.

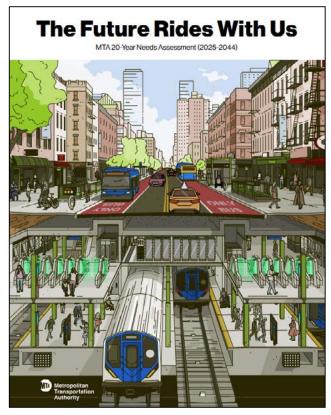
#### 2025-2029 Capital Plan Development Process



#### **The 20-Year Needs Assessment**

The 2025-2029 Capital Plan is derived from the comprehensive 20-Year Needs Assessment released by MTA in 2023. Expert staff across all MTA agencies examined and rated all of the MTA's \$1.5 trillion worth of assets to create an extensive snapshot of the state of our system.

The 20-Year Needs Assessment documented which assets were in poor or marginal condition and described the level of investment that would be needed over the next 20 years to rebuild and improve the transit system and to get our assets into a State of Good Repair.



https://future.mta.info/

In the 20-Year Needs Assessment, we documented the condition of assets in our system using a 5-point scale:

- 1. Poor (Deteriorated): Critically damaged or in need of immediate repair, well past useful life
- 2. Marginal (Deficient): Deteriorated, in need of replacement, and may have exceeded useful life
- 3. Adequate (Acceptable): Moderately deteriorated, but has not exceeded its useful life
- 4. Good: No longer new, but in good condition, and still within its useful life
- 5. Excellent (Modernized): No visible defects, new or near new condition, and may still be under warranty

#### What does State of Good Repair mean?

The Federal Transit Administration considers a capital asset to be in a State of Good Repair if it "is in a condition for the asset to operate at a full level of performance." In the context of our 20-Year Needs Assessment asset ratings, we consider any asset that is in Adequate, Good, or Excellent condition to be in a State of Good Repair. We strive to achieve a systemwide State of Good Repair in which all of our assets are in good working condition.

#### Formulating the Capital Plan

The Capital Plan outlines the capital investments we are proposing to initiate over the next five years. To develop the Capital Plan, we selected investments that address the most urgent system needs identified in the 20-Year Needs Assessment, weighing these needs against major constraints such as cost, funding availability, and capacity to complete projects. The asset condition ratings that were documented in the 20-Year Needs Assessment help us begin to prioritize specific assets for investment. Depending on the asset category, we also consider a variety of additional metrics, including: age, maintenance history, failure rates, accessibility, technology advancements, capacity needs, climate risk, and system criticality.

#### **Next Steps**

After the CPRB has reviewed and approved the 2025-2029 Capital Plan, and funding has been secured, the MTA can begin implementing it. This will include identifying projects that can potentially be undertaken together as one "bundle," for optimal use of resources and track outages. It will also entail strategic scope development, procurement and project management to deliver these investments better, faster and cheaper than ever before.

#### **How to Read the Agency Plans**

The remainder of this document includes two main sections:

**Agency Plans:** Detailed descriptions of investment needs and proposed investments in each asset,

by agency and category.

**Budget Tables:** A list of the proposed capital investments, with the proposed budget, to be initiated

as part of this plan, provided in tabular form for each agency, category, element,

and project.

#### **Capital Investment Organization**

MTA organizes, describes, and codes our capital investments according to an ACEP hierarchy: Agency, Category, Element, Project.

**Agency**: MTA agency identified with the project budget

Example: New York City Transit

Category: Agency subset, typically focused on an asset type

Example: Stations, within New York City Transit

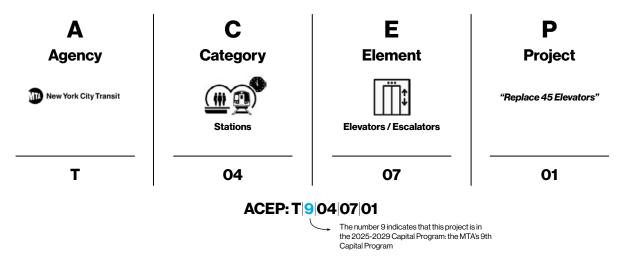
**Element**: Category subset containing related projects

Example: Station Elevators / Escalators, within the Stations category

**Project**: Basic unit of the Capital Program, reflecting an anticipated scope, when known

Example: Replace 45 Elevators, within the Station Escalators / Elevators element

In general, the Agency, Category, and Element attributes remain consistent across different capital plans. By assigning unique keys to these attributes, both MTA and outside stakeholders can compile, analyze, and report historical data on specific areas of investment. We also assign a key to the specific five-year capital plan in which the investment is proposed.



The Capital Investments listed for MTA Bridges and Tunnels follow a slightly different organization format and do not utilize the same Element and Project logic as the other MTA agencies.

As was the case with the 2020-2024 Capital Plan, many projects in the 2025-2029 Capital Plan are budgeted as reserve funds, which are intended to provide funding for multiple projects. Once contracts are identified and prepared for implementation, we will split these reserve funds out into discrete projects listed in the Capital Program Dashboard.

#### **Reading the Data Highlight**

The Agency Plans describe the specific investments proposed in each asset category, organized by agency. The Long Island Rail Road example below explains all of the information that is included in a typical summary.

- 1) The Agency name
- **2)** The **Category** name
- **3)** The Agency "**L**," Capital Plan "**9**," and Category "**07**" portions of the ACEP code
- 4) The Asset
  Profile describes
  the asset and its
  importance to the
  system
- 5) The Investment Needs describes investment needs identified in the 20-Year Needs Assessment
- 6) The Data
  Highlight
  provides a closer
  look at a specific
  subset of assets
  within the overall
  category.

Long Island Rail Road 1
Power

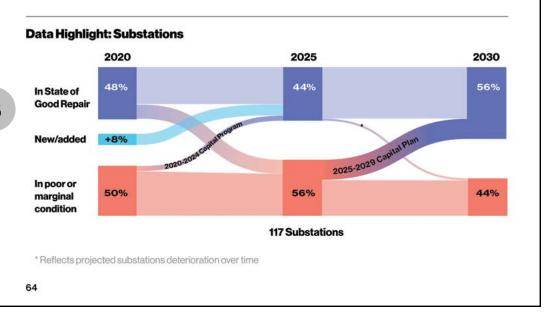
#### **Asset Profile**

Category L-907

LIRR's power infrastructure consists of 117 substations that draw high-voltage AC electricity from local utilities, convert it to DC, and typically supply it directly to the third rail. In 4 locations, substations feed a circuit breaker house before reaching the third rail. The power system also includes more than 300 miles of third rail system, a high-tension power network that includes poles and power lines, station and facility electrical and lighting systems, and emergency generators. This system is a service-critical asset. When power-related incidents occur, they are very disruptive to service.

#### **Investment Needs**

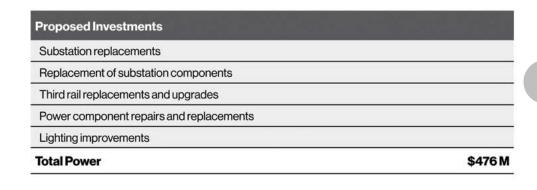
The LIRR power system is at increasing risk of failure and requires investment. Most substations have been in service for over 50 years and approximately half of them have at least one critical component in poor or marginal condition. The primary driver of power investment priorities is ensuring power substations continue to provide reliable service, which is achieved through either full substation replacement or by addressing critical substation components. It is most important to address substations that are in critical locations, such as high traffic areas, or substations that are in areas that do not have adequate redundancy. In addition, because many substations that are adjacent to each other were constructed at the same time, their components tend to wear out at similar times. One of our strategies to manage this is to target component



replacements at alternating substations. There is also a need to upgrade power components to make our power system more efficient, which will help us better manage the growth in power demand from recent system expansions. In addition, continued cyclical replacement of third rail systems and facility lighting and electrical systems will ensure that they operate efficiently and meet current standards.

#### In the 2025-2029 Capital Plan, we will:

- Keep service safe and reliable by:
  - Renewing key components at 10 substations.
  - Fully replacing 6 of the most critical substations.
  - Replacing approximately 65,000 linear feet of conventional third rail with higher-performing, energysaving aluminum third rail. Converting wooden protection board to fiberglass.
  - Replacing approximately 10 third rail negative reactors.
  - Further improving the capacity of our traction power system by replacing disconnect switches, short tie extension brackets, and third rail feeder cables.
- · Replace lighting in the Atlantic Avenue Tunnel and at select station platforms.
- · Continue replacement of deteriorated power lines, power poles, signal transformers and power switches.



7) This section describes some of the specific projects that we plan to initiate in the next five years

8) The Projects
table summarizes
key investment
areas and total
spend for the
given category

65

#### **Reading the Data Highlight**

Agency Plans include Data Highlights, which provide more detailed information about the assets described. Data Highlights come in different formats, depending on the information.

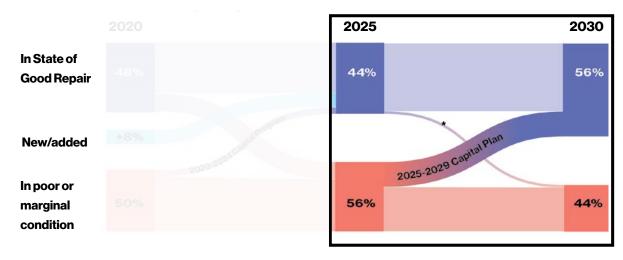
#### **The Sankey Diagram**

Sankey Diagrams help to illustrate the condition of assets over time -- both as the Capital Plan allows the MTA to invest in renewing these assets, and as older assets deteriorate out of State of Good Repair. Sankey Diagrams are useful to understand whether the level of investment is significant enough to avoid losing ground on the overall condition of the asset category.

Using power substations as an example, a substation that is currently in poor condition but will be renewed over the next five years would move from the *In poor or marginal condition* category to the *In state of good repair* category. At the same time, some substations that were previously in a state of good repair will deteriorate over time as they age and experience additional wear.

#### **Example below:**

Right side of the graph shows projected changes in asset conditions, 2025-2030



117 Substations

In the example above, 44% of power substations are in a state of good repair (following completion of substation investments made in the 2020-2024 Capital Plan). By 2030, some of these have deteriorated to being in poor or marginal condition; however, we expect to be able to renew more substations than will have deteriorated during the same time period. As a result, we project that the percentage of substations in a state of good repair will increase to 56% by the completion of the 2025-2029 Capital Plan.

It should be noted that our predictions of deterioration over time (2025-2029) are only as good as our best estimate, based on the age of the asset and MTA expertise. It is quite possible that by the time we publish the next 20-Year Needs Assessment in 2028, certain assets may have deteriorated at a different rate than what we are currently projecting. In addition, to ensure asset condition data is derived from a common source, asset condition shown in the chart for 2025 is from the 2025-2044 20-Year Needs Assessment.

#### **The Doughnut Chart**

Doughnut charts are a simple way to show the share of assets within a particular asset category that are in poor or marginal condition, and whether they are being invested in as part of this Capital Plan. These charts show:



In red, the portion of assets that are currently in poor or marginal condition. The solid red portion of the graph represents the percent of assets that we have not proposed to address in the 2025-2029 Capital Plan



In white with red stripes, the portion of assets that are in poor or marginal condition and which we are proposing to bring into good repair with the 2025-2029 Capital Plan



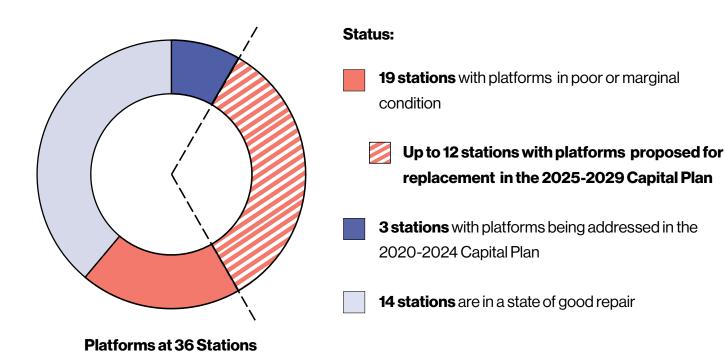
In dark blue, the portion of assets that were previously in poor or marginal condition but that are or were, or will be, addressed by the 2020-2024 Capital Plan



In light blue, the portion of assets that are in a state of good repair (adequate or better condition)

#### **Example:**

#### **Harlem Line Station Platforms**



<sup>\*</sup> Reflects projected substations deterioration over time

### **NEW YORK CITY TRANSIT**

#### **Overview**

New York City Transit (NYCT), together with Staten Island Railway (SIR) and MTA Bus, operate the busiest and most extensive subway and bus systems in the United States. The NYCT system is the core of the MTA's regional network, and, in New York City, a majority of households do not own a car. In 2023, 1.58 billion rides were taken on NYCT services. Much of the system is over 100 years old and operates 24 hours a day, 365 days a year. Our trains, buses, stations, and supporting infrastructure—like track, signals, power systems, rail yards, and bus depots—are the foundation of our network. These assets require substantial and sustained capital investment to address historical underinvestment and to allow us to deliver the frequent and reliable service our riders expect.

### Proposed 2025-2029 Capital Plan - \$47.8 billion

Category	<b>Proposed Budget</b>	Percent	
	(\$ in millions)		
Subway Cars	\$7,617	16%	
Buses	\$3,293	7%	
Passenger Stations, including Accessibility	\$11,931	25%	
Track	\$3,717	8%	
Line Equipment	\$732	2%	
Line Structures	\$5,636	12%	
Signals and Communications	\$6,907	15%	
Traction Power	\$2,996	6%	
Shops and Yards	\$1,647	3%	
Bus Depots	\$370	1%	
Service Vehicles	\$613	1%	
Miscellaneous (Facilities and Program Support)	\$1,583	3%	
Staten Island Railway	\$344	1%	
Subtotal NYCT & SIR	\$47,386	100%	
MTA Bus	\$454		
Total	\$47,840		

All counts include NYCT, SIR, and MTA Bus assets		
	6,787	Subway Cars
	5,840	Buses
<del></del>	38	Bus Depots & Facilities
	493	Stations
<b>□</b> .	326	Elevators
Ш	231	Escalators
	266	Miles of Line Structures
	694	Miles of Mainline Track
A	794	Miles of Signal Equipment
P	217	Signal Interlockings
	233	Substations
	75	Shops and Yards
•	209	Fan Plants
<del></del>	679	Work Train Cars

### New York City Transit: Plan Goals and Investment Highlights

#### **Provide Frequent and Reliable Service**

- Order 1,495 new subway cars to improve reliability, upgrade the customer experience, and provide compatibility with modern signal systems.
- Continue to improve subway on-time performance and address a leading cause of subway service delays by modernizing more than 75 signal miles.
- Ensure service continuity by replacing over-age equipment at 66 power substation locations and by renewing power cabling and circuit breaker houses.
- Ensure structural soundness of our right-of-way by rebuilding approximately 60 miles of track, replacing 250 track switches, and repairing thousands of defects in subway tunnels.
- Renew the protective steel structure paint systems on 24 miles of elevated structures.
- Continue regular replacement of buses as they reach their 12 years of useful life, replacing about 2,500 buses. (Details on capital investments for buses can be found in both NYCT Buses and MTA Bus Company sections.)

#### **Improve the Customer Experience**

- Renovate approximately one-third of stations via full station renewals or targeted component repairs that address platforms, stairways, canopies, and other station elements.
- Install new fare gates in at least 150 stations to improve station accessibility and reduce fare evasion.
- Replace 45 elevators and 43 escalators that have reached the end of their useful lives.
- Add new elevators or ramps to at least 60 more stations to progress toward the MTA's goal of making 95% of subway stations accessible by 2055.
- Continue to replace the oldest communication cables, including fiber optic cables, to increase the reliability and capacity of NYCT's telecommunications backbone.
- Replace the old and outdated customer information signs and install modern public address and digital information screens.

#### **Take Action on Climate Change**

- Reduce impact of future storms by rehabilitating more than a dozen pump rooms that pump excess water out of the system.
- Reduce stormwater intrusion by elevating street stairs and vents and repairing tunnels.
- Order 500 zero-emission buses.
- Purchase and install electric charging infrastructure at bus depots with zero-emission buses and at facilities with light-duty non-revenue fleets.
- Boost air circulation and ventilation to reduce accumulation of hot, humid air on subway platforms.



# **New York City Transit Subway Cars**

**Category T-901** 

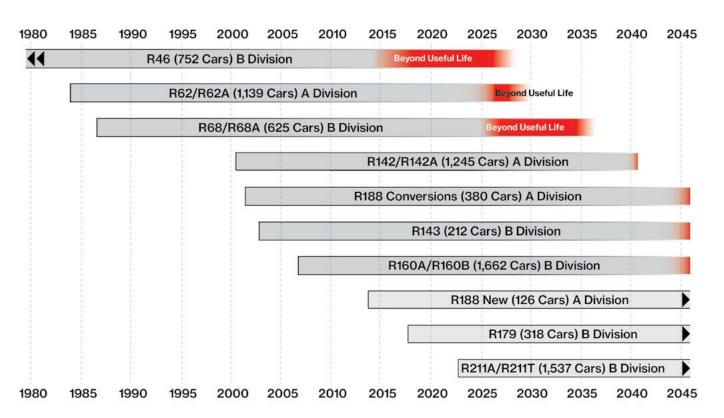
#### **Asset Profile**

Our fleet of 6,712 passenger railcars carries over 4 million passengers on a busy weekday. The current subway fleet has 2,890 railcars in the A Division (numbered lines) and 3,822 railcars in the B Division (lettered lines). The cars are of various models, with some dating back to the 1970s. The oldest cars are the R46s, which entered service from 1975-1978, and the newest are the R211s, which are currently being delivered to replace the R46 fleet and a portion of the R68/68A fleet. The fleet's overall quantity will fluctuate as new railcars are delivered and old ones are retired.

#### **Investment Needs**

Subway car models that will be at or beyond their 40-year useful lives within the next Capital Plan period include the R68/68A models (625 cars), which went into service between 1986 and 1989, the R62/62A models (1,139 cars), which went into service between 1984 and 1987. The next oldest are the R142/142A models (1,245 cars), which went into service between 2000 and 2005.

#### **Subway Car Classes - Planned Lifecycle**



Investing in regular railcar replacement is crucial to keeping subway service reliable. Older railcars are more prone to breakdowns, require more frequent and costly maintenance to keep in service, and are less comfortable for our passengers due to worn interiors. These older models travel an average of about 43,000 miles between breakdowns—meaning they break down nearly six times as frequently as our newest models, which travel 240,000 miles between breakdowns—and newer railcars are compatible with modern CBTC signaling, which allows us to run trains more frequently and reliably.

#### In the 2025-2029 Capital Plan, we will:

Make subway service more reliable and accessible by moving forward with car purchases that will replace 1,495 of the oldest subway cars:

- Purchase 355 new B Division cars to replace the remaining R68/R68A cars. With this order, the B
  Division fleet will be fully compatible with modern CBTC-signaling and will be entirely made up of cars that
  are 60 feet long. With uniform car lengths, door spacing on subway platforms will be standardized and
  maintenance will be streamlined.
- Purchase new A Division cars. These new cars will equip the A Division with CBTC-compatible trains and
  enable further implementation of modern CBTC-signaling. The railcar manufacturing industry is limited
  in its capacity and by the small number of domestic manufacturers. In order to provide a greater level of
  predictability to our industry partners, this Plan will initiate a large car order to be paid for over multiple
  Capital Plans. The budget proposed in the 2025-2029 Capital Plan will fund the intial portion of the order.
  Given the long lead time needed for the design and manufacture of railcars, this will better align our Capital
  Plan with the timeline for production and delivery.

Proposed Investments	
Purchase 355 new B Division cars	
Purchase new A Division cars	
Rolling stock support	
Total Subway Cars	\$7,617 M

## **New York City Transit Buses**

**Category T-903** 

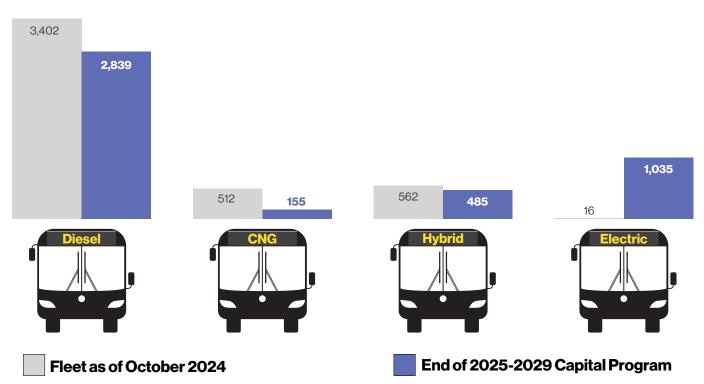
#### **Asset Profile**

NYCT operates the largest public bus system in the US, using approximately 4,600 buses to carry 2 million riders each weekday. The NYCT fleet consists of approximately 3,100 standard-length buses; 1,000 higher-capacity articulated buses that are used on high-frequency, high-ridership routes; and 500 coach-style express buses that are used on routes connecting more distant areas of the city with Manhattan business districts. Approximately 26% of the buses in the current fleet have an alternative fuel propulsion system. This includes 684 hybrid buses, 512 compressed natural gas (CNG) buses, and 16 battery electric buses, with more arriving and replacing conventional buses each month.

#### **Investment Needs**

With the goal of ensuring reliable service, buses are normally replaced every 12 years, meaning we must replace a significant portion of our fleet every 5 years. Concurrent with these normal replacements, we are also working to transition the fleet to a 100% zero-emission bus fleet by 2040: a central component of our

#### **Data Highlight: NYCT Bus Fleet By Fuel Type**



agencywide goal to reduce our greenhouse gas emissions 85% by 2040. When complete, the zero-emission bus transition will reduce greenhouse gas emissions by 540,000 tons annually compared to a 2015 baseline. The transition will also eliminate carbon monoxide and nitrogen oxide emissions and significantly reduce particulate matter compared to the current bus fleet. We have begun a phased-in approach to replacing diesel buses and, beginning in 2029, we anticipate that all new bus purchases will be zero-emission. The phased approach will provide an opportunity to apply lessons learned while undergoing this transformation and build out supporting infrastructure.

#### In the 2025-2029 Capital Plan, we will:

- Keep buses reliable and enhance customer experience by purchasing 1,761 conventional buses for the normal replacement of buses that have reached their useful life. All new standard and articulated buses will be more comfortable and accessible for our customers with improved features and amenities including wider doors, brighter lighting, charging stations, flexible seating, and customer information screens.
- Reduce greenhouse gas and local air emissions by purchasing approximately 500 zero-emission buses to replace existing buses at the end of their useful lives.
- Purchase and install electric charging infrastructure for zero-emission bus and light duty non-revenue fleets.

Proposed Investments	
Purchase 500 Standard Zero-Emissions Buses	
Purchase 855 Standard Buses	
Purchase 556 Articulated Buses	
Purchase 350 Express Buses	
Bus Charging	
Bus Technology	
Total Buses: 2,261 new buses	\$3,293 M

Please also see MTA Bus page, which covers the remainder of our buses.

# **New York City Transit Passenger Stations**

**Category T-904** 

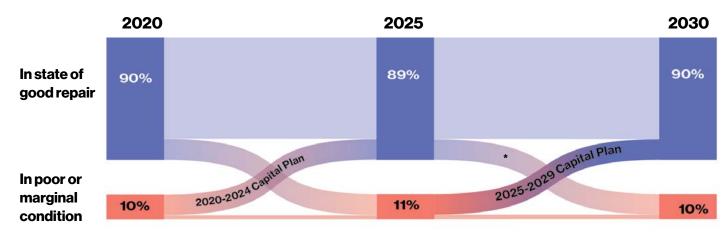
#### **Asset Profile**

With 472 stations, NYCT has more stations than any other subway network in the world. Our stations contain nearly 16,000 key components, including over 5,000 stairways, 500 elevators and escalators, over 1,100 platform edges, over 4,000 turnstiles, and over 1,500 exit gates. Nearly all of our stations were designed and built in the early 20th century, and demands on them—both physically and from customers—have evolved over time. Changing ridership, changing expectations about customer experience, and, most recently, changing climate vulnerabilities mean that our stations must continue to adapt.

#### **Investment Needs**

With millions of daily customers and exposure to the elements, stations deteriorate over time. As such, they require regular repair or rehabilitation, either through targeted component repair or through full station renewals. A full renewal is a more comprehensive, top-to-bottom renovation, and we pursue this type of work in cases where component needs are acute and numerous. We must also build new mitigations to address stormwater intrusion and severe heat, which are becoming more frequent as the effects of climate change intensify.

#### **Data Highlight: Station Components**



15,846 Station Components

Our current turnstiles and exit gates are not up to modern design standards for accessibility or for ensuring fare compliance. Investments in new fare and exit gates will both improve accessibility and discourage fare evasion.

#### In the 2025-2029 Capital Plan, we will:

- Keep stations safe and enhance the passenger experience by:
  - Replacing worn or poor condition station components at approximately one-third of stations, including 43 escalators and 45 elevator replacements.
  - Renewing at 10 stations with high concentrations of deficient components to bring these locations into a state of good repair.
  - Installing protections to prevent stormwater from entering stations via street stairs and vents.
  - Addressing poor condition station utilities, such as electrical distribution rooms and other behindthe-scenes equipment.
- Improve station accessibility and enhance the customer experience by:
  - Upgrading fare gates and exit gates that accommodate mobility assistance devices, strollers, and luggage, and which are designed to deter fare evasion.
  - Installing platform fans at priority locations, advancing circulation and ventilation improvements, and exploring implementation of station cooling measures.

Note: Passenger Stations budget table on next page.

<sup>\*</sup> Reflects projected stations deterioration over time

### **New York City Transit Accessibility**

**Category T-904** 

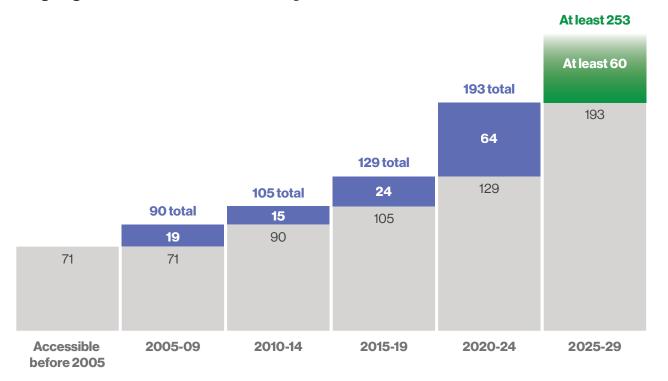
#### **Asset Profile**

Most of our stations were not originally built to be accessible, but we are committed to achieving a subway system that is over 95% accessible by 2055. We have accelerated our progress toward that goal in recent years; today, nearly 140 NYCT stations are fully accessible.

#### **Investment Needs**

With over half of our stations not yet accessible, we must continue to improve access by constructing new elevators and ramps at stations, and by making other ADA improvements. Also, to ensure continued accessibility, we must continue to regularly replace existing elevators at the end of their 20-year useful life.

#### **Data Highlight: Accessible Stations by 5-Year Period**



Station counts above show period in which accessibility projects were programmed. Counts include stations made accessible by developers or as part of initial construction, and exclude stations only partially accessible.

#### In the 2025-2029 Capital Plan, we will:

- Improve station accessibility by:
  - Adding new elevators or ramps at at least 60 stations. This plan lists 30 stations that will be advanced
    for accessibility improvements; at least another 30 will be named in the future after additional public
    engagement. Stations are selected for accessibility improvements based on the following factors:
    geographic coverage, important destinations, ridership, demographics including population of
    seniors and people with disabilities, key transfer points including connections to bus and commuter
    rail lines, and constructability and cost.
  - Upgrading our public address and customer information screens at hundreds of locations so that all customers can see and hear the same reliable service information. (See NYCT Communications page for more details.)

#### **Proposed Investments- Passenger Stations and Accessibility**

Station component repair projects

Full station renewals at 10 locations

Other station work (including Small Business Mentoring Program) and climate resilience

Replace 45 elevators

Replace 43 escalators

Next-generation fare gates

Make at least 60 stations fully accessible by building elevators or ramps

#### **Total Passenger Stations**

\$11,931 M

### **New York City Transit Track**

**Category T-905** 

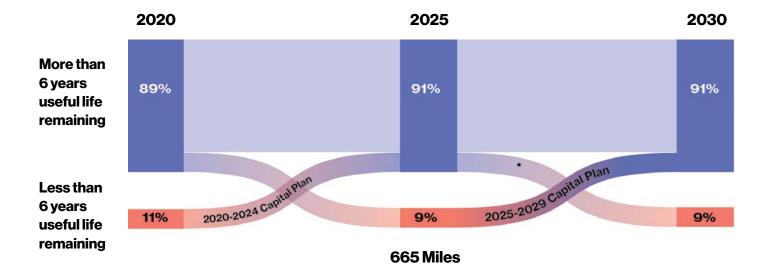
#### **Asset Profile**

Track is one of the most critical assets for safe, efficient, and reliable train service. Maintaining track in good repair is necessary to ensure safety, prevent derailments, and ensure that trains can run at optimal speed. Our subway system contains 665 miles of mainline track and 1,770 mainline switches, all of which must be regularly replaced as they wear. The useful life of track and switches varies greatly, from 25 to 65 years, depending on traffic volume, track type, geometry, and exposure to weather and other environmental conditions. Through regular inspections and investments, we have kept track and switches near or at 100% good repair since the 1990s.

#### **Investment Needs**

We assess all track segments and switches for their remaining useful life approximately every four years. Based on these assessments, track replacement and renewal projects are prioritized for locations where there are switches or track segments rated as having less than 6 years of useful life remaining. We must continue this investment in track to ensure that all track remains in good repair and to minimize safety risks.

#### **Data Highlight: Track**



<sup>\*</sup> Reflects projected deterioration over time

#### In the 2025-2029 Capital Plan, we will:

- Maintain safe and reliable service by:
  - Replacing approximately 60 miles of mainline track.
  - Replacing 250 mainline switches.
- Enhance service reliability by enabling the next-generation train signaling system. A portion of the planned track replacement will be coordinated and packaged with work on Signals (CBTC) and Stations projects.

# Proposed Investments Mainline track replacement Switch replacement Total Track \$3,717 M

# **New York City Transit Line Equipment**

**Category T-906** 

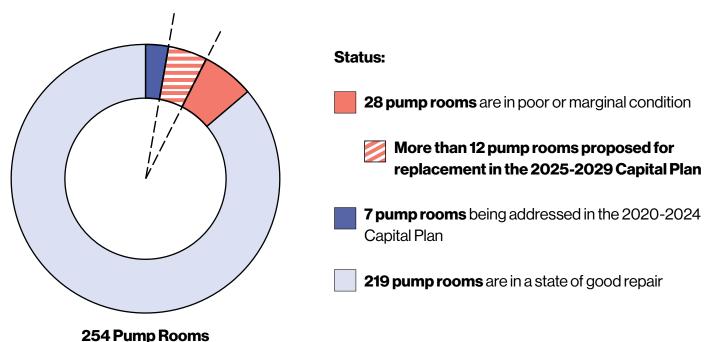
#### **Asset Profile**

Line equipment supports the safety and integrity of the subway's tunnel infrastructure. These assets include 440 miles of tunnel lighting, 209 fan plants, 254 pump rooms, 23 deep wells, and drain lines that convey water from the subway system into the New York City sewer system. Fan plants are critical for tunnel air circulation for passenger and employee safety, especially in the case of a smoke condition. Right-of-way pumping facilities are essential for routine removal of water entering the system, as well as for managing the influx of water during extreme weather events. Even on days with no precipitation, we must pump out roughly 10 million gallons of primarily groundwater. Tunnel lighting provides for worker and passenger safety in the event of an emergency evacuation.

#### **Investment Needs**

Nearly a third of fan plants and about one in ten pump rooms are in poor or marginal condition and must have components replaced. When replacing equipment, we upgrade to equipment that is more efficient and sized for the needs of the future. Because climate change is bringing more frequent and intense rain events, pumping capacity needs to be augmented in tunnel areas prone to rainwater flooding. As described in the recently released MTA Climate Resilience Roadmap, at least 200 subway stations have been impacted by one or more torrential rainfall events since 2007.

#### **Data Highlight: Pump Rooms**



#### In the 2025-2029 Capital Plan, we will:

- Keep the system safe and reliable by:
  - Repairing or replacing more than a dozen pump rooms and making improvements to sump pump capacity where warranted and feasible, which can reduce service delays and operational expenses during torrential rainfall events.

\$732 M

- Investing in fan plant components systemwide.
- Enhance energy efficiency by replacing older tunnel lighting with more energy-efficient LED lighting in tandem with planned signal modernization work.

#### **Proposed Investments**

Repairs at more than 12 pump room locations

Fan plant replacements and repairs systemwide

Tunnel lighting upgrades

Total Line Equipment

## **New York City Transit Line Structures**

**Category T-907** 

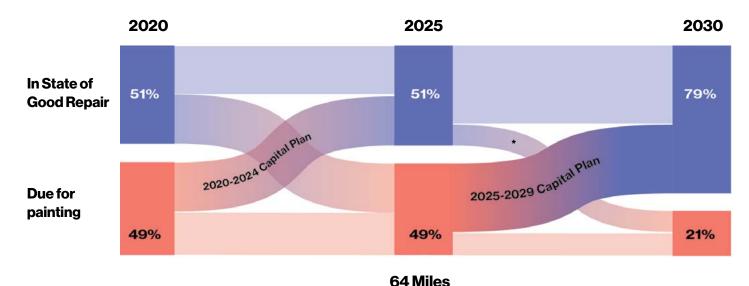
#### **Asset Profile**

Line structures provide a safe right-of-way for subway trains above and below ground. NYCT's network has approximately 251 miles of line structures, including 155 miles of subway structures, 70 miles of elevated structures and viaducts, and 26 miles of open cut and embankment alignments. Though these assets have a long life span, all line structures require periodic investment to preserve their integrity against water damage, corrosion, and normal wear-and-tear. Without proper upkeep, spalling concrete, corroding steel, and other defects could potentially impact safe operations or require us to mandate slow train speeds through problem areas.

#### **Investment Needs**

Line structure assets have not received adequate investment in past Capital Plans. As a result, the rate of deterioration is now accelerating, underscoring the urgent need for investment. This is of particular focus given the age of many of our structures. We increased our investment in line structures in the 2020-2024 Capital Plan, but accelerating investment even further is needed. Over time, exposure to the elements and to salt and chemicals deployed at the street level, as well as heavy usage, results in structural defects to concrete and steel. We identify these through periodic inspections. These defects are then classified and prioritized for repair according to a defect's severity or concentration of defects in an area. We have rated approximately

#### **Data Highlight: Painting Condition of Elevated Steel Structures**



<sup>\*</sup> Reflects projected structures' painting deterioration over time

50 miles of subway tunnel, 5 miles of elevated structure, and 5 miles of viaduct structure as having a high concentration of defects. Work on tunnels is prioritized by severity and concentration of defects. In addition to tackling the areas with the greatest defect concentration, we seek to package defect repairs with other types of right-of-way work across the system to maximize efficiency. We must significantly increase the pace of subway tunnel rehabilitation to address increasing tunnel deterioration and keep our system safe. We must also take action to prevent deterioration of exposed elevated steel structures by repainting elevated structures that have paint and protective coating reaching the end of their useful lives. Our new, more comprehensive approach to painting means we will only need to repaint structures every 30 years instead of the previous 15-year standard.

#### In the 2025-2029 Capital Plan, we will:

Keep the system safe and reliable by:

- Making targeted defect repairs to subway tunnels with high concentrations of defects, such as the Fulton
   Lines in Brooklyn, and repair other non-elevated segments with significant defect concentration.
- Protecting and fortifying the elevated steel structures from corrosion by painting and repairing defects.
   Over 20 miles of structures will be repainted and have defects repaired.

#### **Proposed Investments**

Paint and repair defects on elevated structures

Repair priority defects in underground subway structures

Rehabilitate ancillary and special structures, including ducts, emergency exits, etc.

Total Line Structures \$5,636 M

# **New York City Transit Signals**

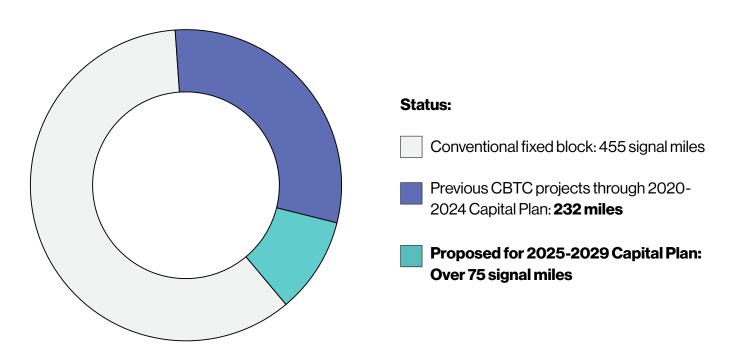
**Category T-908** 

#### **Asset Profile**

Signals ensure that trains operate at safe speeds and maintain safe distances from other trains. The NYCT system includes over 750 miles of signals and 183 mainline interlockings – complex signaling areas with interconnected arrangements of switches and signals where tracks cross, merge, or diverge. Routes covering about 529 miles of our subway network still utilize legacy fixed-block signaling. NYCT is in the process of upgrading conventional fixed-block signals to a state-of-the-art Communications-Based Train Control (CBTC) system. CBTC provides increased levels of safety and lets us run trains closer together, recover from delays faster, monitor train service from a centralized control center, and provide accurate real-time train information to customers.

CBTC has been installed on the Canarsie ①, Flushing ⑦, and Queens Boulevard West ② ⑥ ⑥ Lines. It is currently being installed on the Culver ⑤, 8th Avenue ② ⑥ ⑥, Queens Boulevard East ⑤ ⑥, and Crosstown ⑥ Lines. Signal modernization projects on the Fulton ② ⑥, 6th Avenue ⑥ ⑥ ⑥ M, and 63rd Street ⑥ Lines are included in the 2020-2024 Capital Plan.

#### **Data Highlight: Signal Modernization**



#### **Investment Needs**

We also need to legacy signals because they are well beyond their expected useful life and require additional maintenance. Some segments of the legacy signaling system have signals that are 80 years old. As signals age, the risk of signal equipment failures rises, and signal age is therefore is one of the factors that strongly influences decision-making related to which lines should be modernized.

It is critical to maintain the modernized signal systems we have in place. The Canarsie ① CBTC system, which was installed starting in 2003, is now approaching the end of its 25-year useful life and must be replaced. We must also upgrade or replace the ATS-A legacy signaling system that controls service on A Division (numbered) lines to keep the system operational and to begin preparations to convert those lines to CBTC in the future.

#### In the 2025-2029 Capital Plan, we will:

- Increase service reliability by:
  - Modernizing over 75 signal miles of conventional fixed-block mainline signals and interlockings on the B Division (lettered) lines. Candidate corridors for modernization include: Broadway N Q R W, Rockaways A S, Liberty Av A, and Nassau St 12.
  - Installing CBTC equipment needed to operate new subway cars on modernized lines.
- Keep the system safe and reliable by:
  - Making normal replacement cycle upgrades to the CBTC signaling system on the Canarsie ( ) Line.
  - Replacing the old Automatic Train Supervision (ATS-A) system in preparation to upgrade the A Division (numbered) lines for CBTC upgrades.

Note: Signals budget table on next page.

## **New York City Transit Communications**

**Category T-908** 

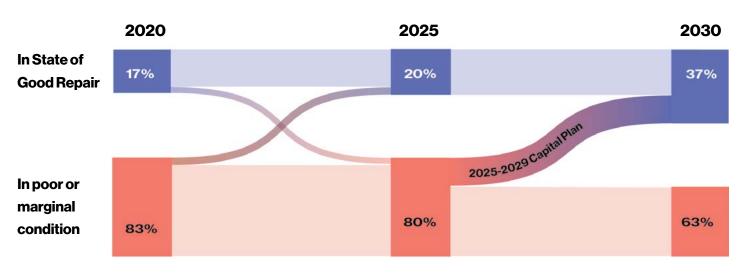
#### **Asset Profile**

Our communication infrastructure is the 'nervous system' of transit. It enables us to share timely updates with riders, support safety measures, and allow for our operations and management teams to communicate with one another effectively. It supports our customer-facing communications equipment, cameras, fare collection, train operations, elevator status, emergency response, power operations, fan plants, Help Points, and pump rooms.

#### **Investment Needs**

Telecommunication technologies become obsolete faster than other assets and require continuous innovation. Most communication assets tend to have a relatively short lifespan of 10 to 15 years. Additionally, over the years, more and more critical operations have become dependent on the telecommunications network, straining the capacity of the technology to carry this volume of information. The capacity of the NYCT information system needs to be substantially increased. Our fiber optic network and cable infrastructure need accelerated upgrades to support the myriad of systems that depend on it, including safety and train operation systems. Key to improving our customer communication in stations, we must also upgrade our public address and customer information screens at hundreds of locations so that all customers can see and hear the same reliable service information.

#### **Data Highlight: Fiber Cable**



896 Miles of Fiber

#### In the 2025-2029 Capital Plan, we will:

- Improve the customer experience and enhance safety, security and operational functions by investing in communications systems, including:
  - Increasing the capacity of the fiber cable network and addressing obsolete equipment.
  - Providing clear, reliable customer communications by upgrading or replacing public address and digital information screens at over 200 stations.

#### **Proposed Investments - Signals and Communications**

Signal modernization of various B Division corridors

ATS-A System Replacement

Signal System Component Replacement (e.g., Canarsie Line CBTC)

CBTC On-Board Equipment for Rolling Stock

Fiber Optic, Copper, and Antenna cable replacement and upgrades

Public address and digital information screen replacements or upgrades

Communications Network upgrades and electronic security systems

#### **Total Signals and Communications**

\$6,907 M

### **New York City Transit Traction Power**

**Category T-909** 

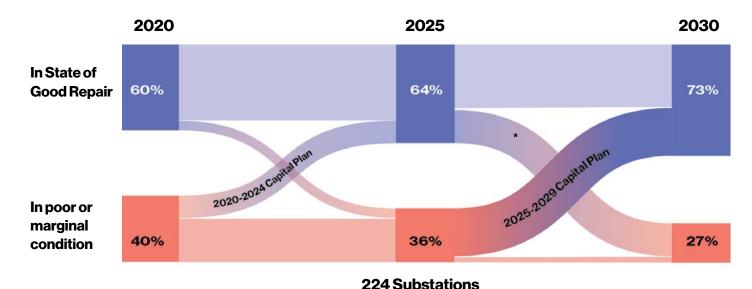
#### **Asset Profile**

Our traction power system delivers electricity that powers our trains. The system includes 224 substations, 317 circuit breaker houses, thousands of cables, and hundreds of miles of third rail. Substations receive high voltage AC power from Con Edison via high-tension feeders and then convert it to 600-volt DC power. This DC power is then delivered to the third rail by our extensive power distribution system, which is comprised of cables and circuit breaker houses. The traction power system is centrally monitored and controlled by our Supervisory Control and Data Acquisition (SCADA) system at our Power Control Center. When power-related incidents do occur, they are very disruptive to service, delaying the greatest average number of trains of any type of incident.

#### **Investment Needs**

Our traction power system has a sizeable backlog of equipment in poor or marginal condition, which creates a huge risk of major service delays. Without bold action, this problem will only get worse, as a significant proportion of components installed in the 1980s will soon reach the end of their useful lives. In recognition of these conditions and an anticipated major growth of capital needs, we doubled the investment in traction power system components in 2020-2024 versus the investment level in 2015-2019, allowing us to double the rehabilitation rate of substations and circuit breaker houses as well as replace and upgrade most of the

#### **Data Highlight: Power Substations**



<sup>\*</sup> Reflects projected substations deterioration over time

SCADA system. Despite these recent investments, we remain behind on addressing power system needs and need to triple the pace of investment in substations and circuit breaker houses in 2025-2029 to ensure continued reliability.

#### In the 2025-2029 Capital Plan, we will:

- Improve service reliability and reduce delays by:
  - Fully overhauling some substations and making targeted component replacements at others, reaching over 60 locations in total and targeting vulnerable areas of the system.
  - Rehabilitating approximately 30 circuit breaker houses and replacing poorly rated cables and ducts where feasible.
- Enhance safety and control system capabilities by upgrading SCADA control zone equipment, and replacing obsolete emergency alarms and telephones.
- Increase energy efficiency by exploring new technologies like wayside energy storage, low-resistance third rail, and power load management systems.

#### **Proposed Investments**

Substation full renewal projects, targeted component replacement

Circuit breaker house renewal and repairs, renewal of distribution infrastructure, completion of SCADA system upgrade

Improvements to boost capacity, improve reliability, and increase efficiency

Total Traction Power \$2,996 M

# **New York City Transit Shops and Yards**

**Category T-910** 

#### **Asset Profile**

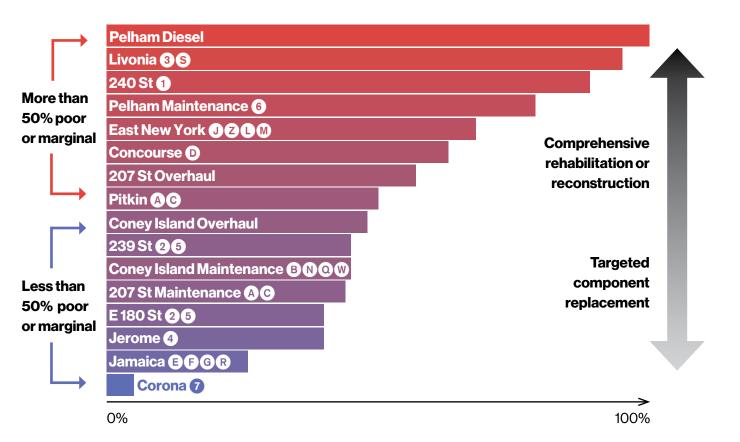
Our 14 railcar maintenance and 2 overhaul shops are essential to keeping our subway railcars in good working order. At these facilities, we perform regular inspections, component replacements and overhauls, repairs, and cleaning tasks. We also have 29 support shops where railroad infrastructure such as signals, track, and electronics equipment is fabricated or maintained.

Our 24 yards are large properties that we use for the storage of passenger railcars when they are not in service and where we do car cleaning and washing of railcar exteriors. Yard components include approximately 102 miles of yard tracks and 874 yard switches, plus signaling, yard traction power, yard lighting, perimeter fencing, and other infrastructure.

#### **Investment Needs**

Subway maintenance shops are one of the asset areas with the greatest relative investment need throughout the NYCT system. Two of our maintenance shops require full rehabilitation due to decades of deferred

#### **Data Highlight: Condition of Shop Components**



investment, and there are pressing needs at many more. 8 out of our 16 maintenance and overhaul shops have most of their components in poor or marginal condition. In addition to being in poor condition, some shops, including the Livonia and 240th Street Shops, need to be updated and reconfigured to be able to service newer railcars and to meet modern standards.

Failures of yard components such as switches can lead to major delays, especially when they happen as trains are leaving the yards before the morning rush. Nearly 1 in 5 yard switches are in poor or marginal condition.

As we make shop and yard component replacements, we will incorporate climate resilience measures in anticipation of coastal surge, torrential rain, and tidal floods.

#### In the 2025-2029 Capital Plan, we will:

- Improve railcar maintenance, efficiency of work, and employee working conditions by:
  - Rehabilitating several railcar maintenance shop and support shop buildings that have multiple components in poor condition.
  - Strategically enhancing a component rehabilitation program to address the key maintenance shop, support shop, and yard components that are in poor or marginal condition across several facilities such as roofs and HVAC systems. While in the process of replacing components, we will upgrade some facilities with sustainable energy assets such as solar photovoltaics and energy storage capability, where feasible.
- Enable the next generation of railcars by advancing reconfiguration or reconstruction of Livonia and 240th Street Maintenance Shops. Reconfigured or reconstructed shops will allow servicing of roof-mounted air conditioning units on the new car fleet and will provide working aisle widths between shop tracks that meet industry standards and best practices.
- Ensure reliable service by replacing poor-condition yard components.
- Enhance subway service reliability and advance climate resilience measures at facilities facing flooding
  risks by rehabilitating pump rooms, installing drainage and coastal surge protections, taking steps to
  improve stormwater detention, and by elevating equipment in yards.

#### **Proposed Investments**

Advance rehabilitation and reconstruction of Livonia and 240 St Maintenance Shops

Maintenance shop and support shop component rehabilitation and renewable energy upgrades

Yard component rehabilitation, including yard track, switches, and lighting

**Total Shops and Yards** 

\$1,647 M

# **New York City Transit Bus Depots**

**Category T-912** 

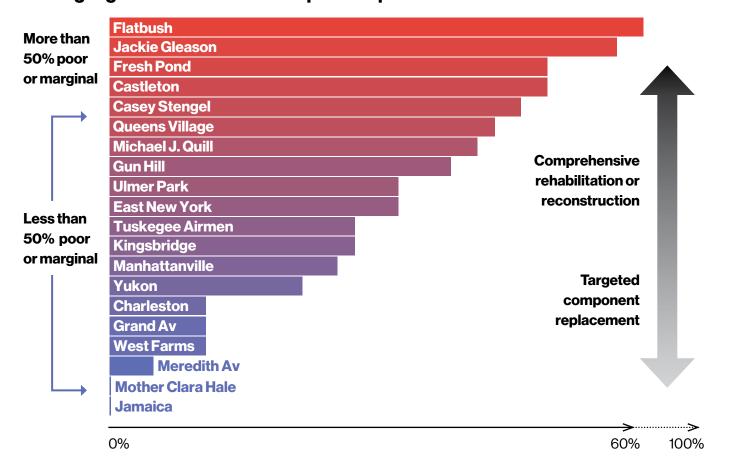
#### **Asset Profile**

Our 20 bus depots fuel, service, and maintain approximatey 4,500 buses. As a result of their varied age and design, our depots feature a wide variety of structure types and sizes, equipment and machinery, bus types, and work capabilities. For example, some bus depots are equipped to service compressed natural gas (CNG) buses, while other depots have been modified for articulated buses. Two base shops and several smaller support shops support maintenance functions at the depots by handling heavier work, such as major bus chassis and engine repairs.

#### **Investment Needs**

Hundreds of bus depot components (approximately one-third of all major components) are currently in poor or marginal condition. Simultaneously, the expansion of the zero-emission bus fleet requires major investments in charging infrastructure and power supplies to increase the electrical capacity needed at

#### **Data Highlight: Condition of Bus Depot Components**



the depots for electric buses. The addition of charging infrastructure and power supplies also necessitates facility HVAC modifications, structural modifications, data and communication infrastructure, and enhanced fire suppression. High priority depot component repairs are made based on condition. In addition to that, as depots are selected for zero-emission bus fleet deployments, zero-emission upgrades will be made in tandem with depot component upgrades and building repairs.

#### In the 2025-2029 Capital Plan, we will:

- Continue component investment at depots and replacing components and equipment that are in poor or marginal condition, including roofs, facades, and systems.
- Build climate resilience through stormwater and coastal flood mitigation measures.
- Coordinate depot projects to optimize investments in state-of-good-repair and zero-emission charging infrastructure.
- Explore low-emission HVAC and renewable energy generation solutions such as solar photovoltaics and energy storage at facilities targeted for capital investment.

#### **Proposed Investments**

High-priority depot component repairs driven by condition

Implementation of zero-emission infrastructure and depot upgrades (buses and non-revenue vehicles)

Major investments slated for depot and non-revenue shop reconfiguration, including investments that address sustainability and resilience needs

Total Depots \$370 M

### **New York City Transit Service Vehicles**

**Category T-913** 

#### **Asset Profile**

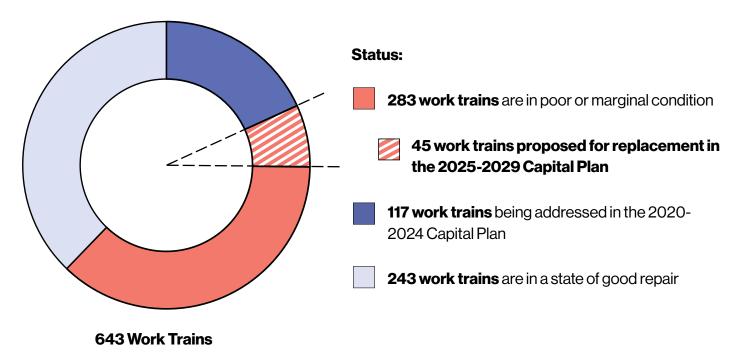
Maintenance and construction activities within the NYCT system rely on a service fleet of over 600 specialized railcars for work trains and 600 heavy-duty road vehicles such as trucks and vans. These fleets support routine maintenance activities as well as the execution of capital construction work. As NYCT looks to accelerate the pace at which we address our capital needs, it is vital that these support fleets are reliable enough to get the job done.

#### **Investment Needs**

Approximately 44% of the work train fleet is beyond its useful life and is due for replacement. We must also grow the work train fleet with new locomotives, construction support cars, and inspection cars to grow our maintenance capacity to meet rising demand. As we introduce modern CBTC signaling to more of the subway system, we must invest in new equipment to make our work train fleet compatible with CBTC.

We must continue the steady replacement of rubber tire service vehicles. Road vehicle replacement will remove vehicles that are in poor or marginal condition from service while helping us to achieve our emission reduction goals.

#### **Data Highlight: Work Trains**



#### In the 2025-2029 Capital Plan, we will:

- Keep the system safe and reliable by:
  - Purchasing up to 45 locomotives to replace overaged locomotives and grow the work train fleet. New locomotives will be battery/diesel hybrid models designed to improve air quality in the tunnels for workers and passengers.
  - Purchasing various Rubber Tire Vehicles.
  - Upgrading and replacing the work train fleet.

Proposed Investments	
Purchase 45 new hybrid locomotives	
Purchase various rubber tire vehicles	
Purchase and upgrade work train fleet	
Total Service Vehicles	\$613 M

# New York City Transit Miscellaneous (Facilities & Program Support)

**Category T-916** 

#### **Asset Profile**

Control centers, support, and training facilities house critical operations and support elements of the NYCT network. Over 3,000 employee facility rooms throughout the subway system ensure that our employees can do their jobs and keep the system running. This category also contains investments to support the implementation of the capital program.

#### **Investment Needs**

To continue providing safe, reliable service, we must continue to invest in improvements to essential employee, administrative, and police facilities, including the Operations Control Center and Power Control Center. The Power Control Center has major space constraints, and its configuration does not meet modern operations control center standards.

We must also invest in resources to support the implementation of the capital program, including funding for environmental remediation, consultant support services, insurance, and future projects' scope development and design.

This category also includes investments in critical assets that include information technology and fire safety systems.

#### In the 2025-2029 Capital Plan, we will:

- Support the continued functioning of the system by:
  - Investing in the Rail Control Center and Power Control Center systems and building components to improve these key facilities, the heartbeat of entire subway system, to ensure they are able to function.
  - Investing in subway employee facility rooms that are in poor condition.
- Support the continued implementation of the Capital Program by:
  - Investing in funding for environmental remediation, consultant support services, and insurance.
  - Investing in funding for scope development and design for future projects.

Proposed Investments	
Repair or rehabilitate employee facilities	
Repair or rehabilitate control centers	
Environmental remediation	
Support services	
Insurance	
Total Miscellaneous (Facilities and Program Support)	\$1,583 M

### **Staten Island Railway**

**Category S-907** 

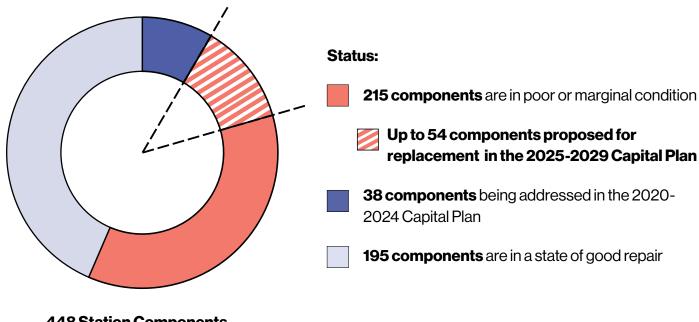
#### **Asset Profile**

Staten Island Railway (SIR) provides 24-hour service serving 21 stations between Tottenville, at the southern end of the island, and St. George Terminal at the northern end. SIR currently operates and maintains a fleet of 61 legacy R44 passenger railcars, which are being replaced by 75 new R211 cars. SIR's other assets include 29 miles of mainline track, 28 bridge structures, 54 mainline switches, nine power substations, and two support and maintenance shops.

#### **Investment Needs**

To continue providing reliable service, we must invest in a variety of assets, including track, power, and bridge rehabilitation. We must also continue to invest in station accessibility to reach the MTA's commitment of 95% of New York City stations being accessible by 2055. Finally, Staten Island is increasingly vulnerable to coastal storm surge, torrential rainfall, and sea level rise due to climate change. This increased vulnerability presents additional risk to SIR operations that must be monitored and assessed.

#### **Data Highlight: SIR Station Components**



#### **448 Station Components**

#### In the 2025-2029 Capital Plan, we will:

- Keep stations in good condition by replacing deteriorated station components, and improve accessibility by making more SIR stations fully accessible.
- Make service more reliable by:
  - Replacing traction power switchgear at two locations and make substation component repairs.
  - Rehabilitating track that is in poor condition, replacing switches, rehabilitating bridge structures, and paint and repair bridges.
- Improve security by beginning the upgrade and expansion of the CCTV system.

Projects	Proposed Investments
Station component repairs	
Station accessibility	
Substation repairs and switchgear replacement	
Track	
Switches	
Bridges	
Work cars and rubber tire vehicles	
Security and communications	
Employee facilities	
Total Staten Island Railway	\$344 M

### **MTA Bus Company**

#### Category U-903

#### **Asset Profile**

MTA Bus Company operates 44 local routes in the Bronx, Brooklyn, and Queens, 43 express bus routes between Manhattan and the Bronx, Brooklyn, or Queens, and 3 Select Bus Service routes in Queens. The agency was created in September 2004, taking over operations of seven bus companies that operated under franchises granted by the New York City Department of Transportation.

MTA Bus operates approximately 1,300 total buses, including 599 standard-length buses; 141 higher-capacity articulated buses that are used on high-frequency high ridership routes; and 513 coach-style express buses that are used on routes connecting more distant areas of the city with Manhattan business districts. It is a much cleaner fleet than in prior years, with a third of all buses featuring an alternative fuel propulsion system. This includes 161 hybrid buses and 220 compressed natural gas (CNG) buses. MTA Bus's eight bus depots in the Bronx, Queens, Brooklyn, and Yonkers support the fleet by fueling, servicing, maintaining, and storing buses. Two depots—College Point in Queens and Spring Creek in Brooklyn—are equipped to service and fuel buses that run on CNG.

#### **Investment Needs**

Currently, the average fleet age is nearly 10 years old. With bus useful life generally being 12 years, 243 MTA Bus buses will need replacement in the 2025-2029 Capital Program to maintain reliability and improve customer experience. With an average depot age of 58 years, there are also building component and equipment rehabilitations necessary to maintain these essential facilities. Our depots' most critical needs include investments in fire suppression, paving and drainage in bus storage areas, fluid management, and electrical distribution systems.

#### In the 2025-2029 Capital Plan, we will:

- Ensure continued service reliability by replacing 153 standard buses and 90 articulated buses.
- Ensure bus servicing and maintenance facilities can continue to operate by modernizing and repairing depot components across four MTA Bus depots. Perform design and site work for Base Shop expansion.
- Incorporate climate resilience and sustainability measures through stormwater and coastal flood
  mitigations. Explore low-emission HVAC and renewable energy generation solutions, such as solar
  photovoltaics and energy storage at facilities targeted for capital investment.

Projects	Total All Years
Purchase 153 standard buses	
Purchase 90 articulated buses	
Depot improvements and equipment	
Project design, engineering, and admin	
Bus technology	
Rubber tire vehicles	
Total MTA Bus	\$454M

### LONG ISLAND RAIL ROAD

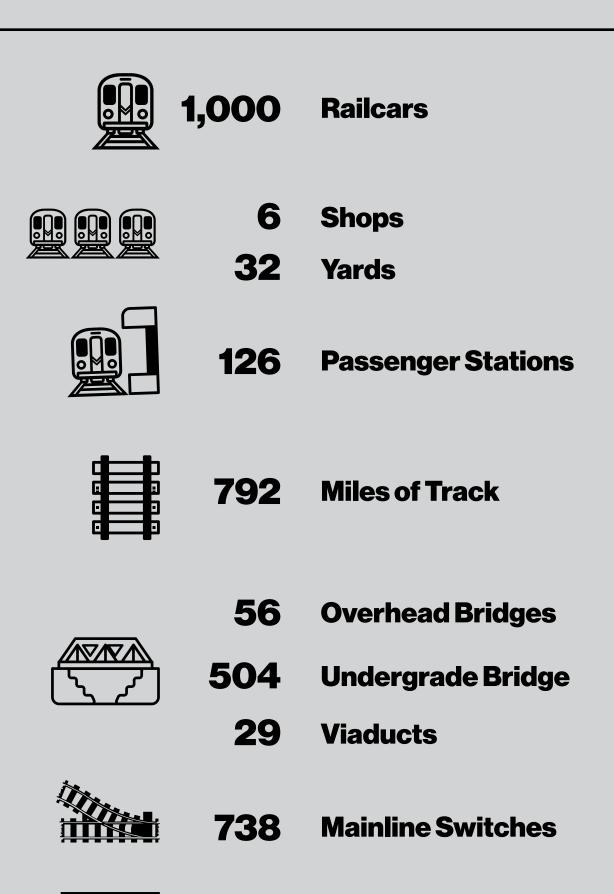
#### **Overview**

The Long Island Rail Road (LIRR) is the largest, busiest, and oldest continuously operating commuter railroad in the US. In 2023, 65.2 million riders used the LIRR, which stretches nearly 120 miles from Penn Station and Grand Central Madison in Manhattan to Montauk, on the eastern tip of Long Island.

Recent network expansion projects including the opening of Grand Central Madison and the addition of a third track between Floral Park and Hicksville have been a major emphasis of recent capital plans. There are a range of potential expansion projects being looked at, but in the meantime, we must turn our attention to cyclical repairs and rehabilitations and on clearing a backlog of investment needs. We have significant work to do to rebuild and rehabilitate aging assets such as our signals, bridges, viaducts, tunnels, and traction power system so we can boost reliability and continue to provide our community with world-class service.

#### Proposed 2025-2029 Capital Plan - \$6.0 billion

Category	Proposed Budget (\$ in millions)	Percent
Rolling Stock	\$1,573	26%
Stations	\$1,201	20%
Track	\$1,110	18%
Line Structures	\$601	10%
Communications and Signals	\$505	8%
Shops and Yards	\$168	3%
Power	\$476	8%
Miscellaneous (Program Support)	\$372	6%
Total	\$6,005	100%



129

**Power Substations** 

### Long Island Rail Road: Plan Goals and Investment Highlights

#### **Provide Frequent and Reliable Service**

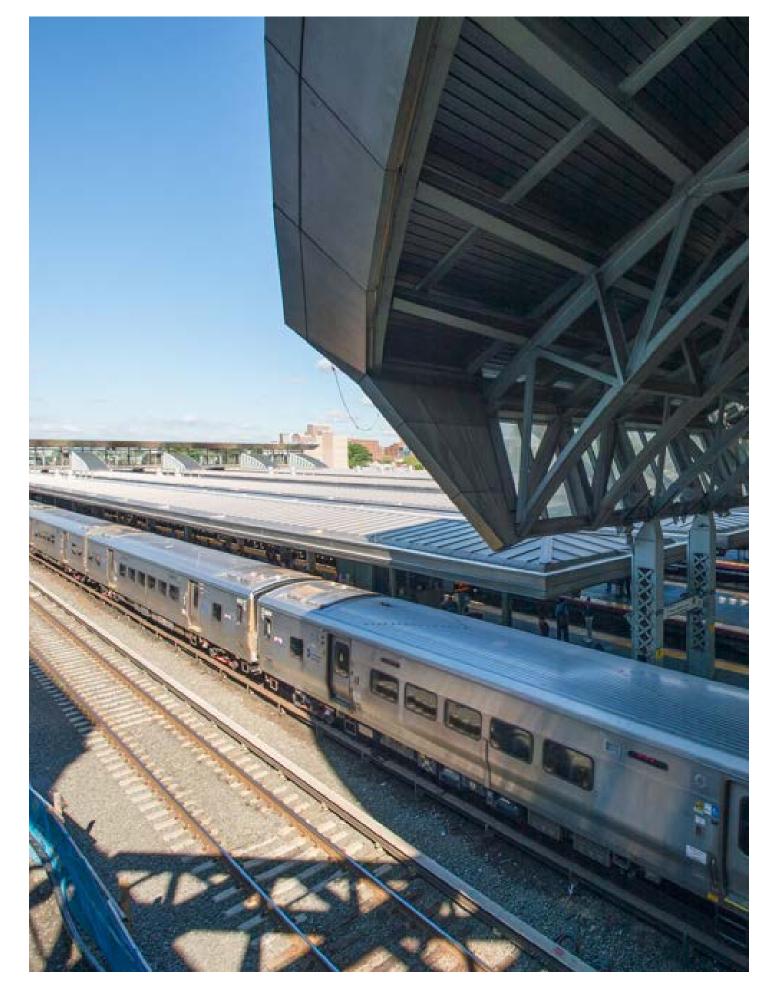
- · Purchase additional railcars to expand the fleet.
- Modernize approximately 29 miles of signal systems and replace aging components with latestgeneration technology to provide a more reliable signal system.
- Replace or renew 16 substations to ensure reliable traction power throughout electrified territory.
- Perform structural rehabilitation in the Atlantic Avenue Tunnel to ensure continued reliability.
- Replace or rehabilitate 11 bridges and viaducts.

#### **Improve the Customer Experience**

- Make 98% of stations fully accessible and rehabilitate or replace deteriorating station components such as platforms, canopies, and station buildings.
- Install new digital signage and upgrade the control systems for all station communications to improve customer communications and security.
- Make improvements to Penn Station staircases and platforms, and fix critical back-of-house systems, such as the air handlers for the HVAC system.

#### **Take Action on Climate Change**

- Replace old diesel locomotives with new, highly efficient dual mode locomotives to reduce greenhouse gas emissions and improve air quality.
- Improve energy efficiency by investing in more efficient lighting, HVAC, and electrical systems at stations.
- Reinforce locations impacted by stormwater floods, particularly along the Port Washington and Port Jefferson branches, and monitor sea level rise risks threatening the Long Beach and Far Rockaway branches.



# **Long Island Rail Road Rolling Stock**

**Category L-901** 

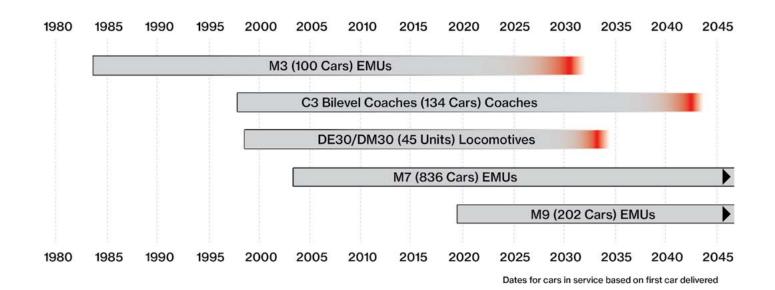
#### **Asset Profile**

LIRR's rolling stock consists of two types of passenger railcars and three types of locomotives. The passenger railcars include electric multiple units (EMU), which are self-propelled via the third rail, and bi-level coaches, which are hauled by locomotives. The locomotives include diesel units (which can't enter the East River tunnels), dual-mode units (which can provide the potential for one-seat rides between Penn Station and non-electrified areas), and diesel work locomotives used for maintenance activities and to support construction during capital projects.

#### **Investment Needs**

100 M3 EMUs are beyond their 35-year useful life and must be replaced. The bi-level coach fleet is also nearing the end of its useful life and must soon be replaced. The passenger locomotive fleet is both beyond its useful life and needs to be expanded to meet current and future service demands. In order to meet future service plans, increase operational flexibility, and reduce the use of diesel fuel, the passenger locomotive fleet needs to replaced and expanded with an all dual-mode fleet. Our outdated work locomotives need to be replaced with new low-emission engines.

#### **Railcar Fleet - Planned Lifecycle**



#### In the 2025-2029 Capital Plan, we will:

- Improve reliability of train service and increase operational flexibility by:
  - Completing the purchase of new M9A railcars, building on the procurement initiated during the 2020-2024 Capital Plan and facilitating the retirement of the remaining 39-year-old M3 railcars.
  - Initiating the procurement of new bi-level coaches.
- Reduce emissions and improve air quality by:

**Total Rolling Stock** 

- Continuing the replacement of passenger locomotives with new dual-mode locomotives, reducing greenhouse gas emissions and improving air quality.
- Continuing the replacement of the work locomotive fleet by purchasing work locomotives that meet EPA Tier IV emission efficiency standards.

# Proposed Investments Complete purchase of M9A EMUs Order dual-mode passenger locomotives Order bi-level passenger coaches Order work locomotives with latest EPA standard engines

\$1,573 M

### **Long Island Rail Road Stations**

Category L-902

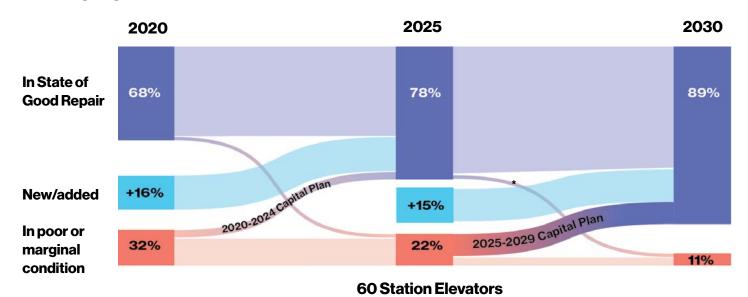
#### **Asset Profile**

LIRR has 126 passenger stations across the network, which range from a single two-car platform to the massive underground complex of Penn Station. We have made significant progress toward bringing ADA accessibility to stations, with 114 of 126 stations currently accessible and additional ADA station projects under construction. Our stations' major components include station buildings and platforms as well as other components like building interiors, elevators, escalators, and sidewalks and parking lots. The two major Manhattan commuter hubs, Penn Station and Grand Central Madison, both contain more extensive platform-level structural and architectural elements, building systems, including electrical and mechanical systems, as well as communications systems and other passenger amenities.

#### **Investment Needs**

Approximately 1 in 5 stations have platforms that are in need of structural rehabilitation. When we undertake these relatively major projects, it is prudent to simultaneously address related components that are in poor or marginal condition at those locations, such as overpasses, platform lighting, signage, security systems, and station building components. When investing in assets that are in poor condition, where feasible, we will improve energy efficiency by investing in more efficient lighting, HVAC, and electrical systems.

#### **Data Highlight: Station Elevators**



<sup>\*</sup> Reflects projected elevators deterioration over time

We will also make ADA improvements, such as replacing elevators and escalators that are beyond their useful life. Installing new elevators, ramps, and other infrastructure will allow us to make 98% stations accessible by the end of the 2025-2029 Capital Plan.

At Penn Station, numerous platform-level structural and architectural elements and building systems are in poor or marginal condition and require investment.

#### In the 2025-2029 Capital Plan, we will:

- · Keep stations open, safe, and accessible by:
  - Replacing deteriorated platforms and using platform replacement projects as opportunities to address related components, such as canopies, overpasses, lighting, and customer communications systems at selected stations.
  - Making targeted component renewals of roofs, restrooms, doors, windows, HVAC systems, and security equipment focusing on locations with the greatest need.
  - At Penn Station, replacing or rehabilitating various components such as mechanical, electrical, and plumbing systems.
- Keep stations accessible by replacing up to 15 older elevators and escalators.
- Expand ADA accessibility with the installation of new ramps and elevators. The 2025-2029 Capital Plan
  proposes investments to make four LIRR stations newly ADA-accessible, resulting in 98% of all LIRR
  stations being ADA-accessible.

#### **Proposed Investments**

Comprehensive station renewals including at least 2 new ADA-accessible stations

Station component projects including 2 new ADA-accessible stations

Jamaica Station vertical circulation improvements

Penn Station and Grand Central Madison component projects

Station parking improvements

Total Stations \$1,201 M

## **Long Island Rail Road Track**

**Category L-903** 

#### **Asset Profile**

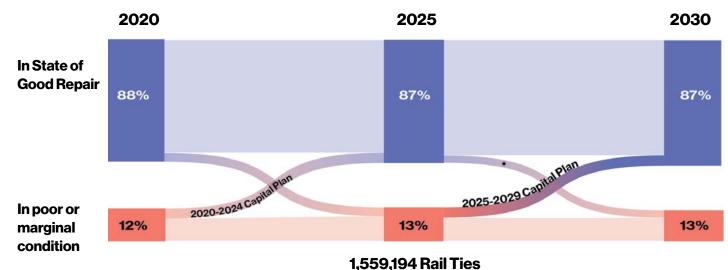
LIRR's track network covers more than 500 revenue miles and consists of over 1,000 miles of rail, roughly one and a half million ties, 738 switches, 400 crossings, and various other equipment necessary to keep the system safe and reliable. As maintaining track in good condition is absolutely critical for safe rail service, we routinely inspect track assets and make capital investments according to an established replacement cycle. Our Track asset category also includes construction equipment that we use to maintain and reconstruct track components.

#### **Investment Needs**

In order to maintain track in a state of good repair, our ongoing track maintenance program is focused on continually replacing old or worn wood ties, steel rail, ballast, switches, and grade crossings. Replacing wood ties with longer lasting concrete ties will minimize the need for disruptive outages well into the future.

There is also the need to invest in upgrades to the track network itself. The area surrounding Jamaica Station is one of the busiest and most complex parts of our network, with 163 signals, 151 switches, and 20 miles of track. Continued investment in the Jamaica Capacity Improvements multi-capital plan mega-project to reconfigure complex interlockings and address various state of good repair needs will enhance reliability and the passenger experience.

#### **Data Highlight: Track Ties**



\* Reflects projected deterioration over time

#### In the 2025-2029 Capital Plan, we will:

- Keep service safe and reliable by:
  - Replacing 175,000 wood/half ties, 80 rail miles of continuous welded rail, 58 mainline switches, and up to 54 grade crossings.
  - Replacing track construction equipment, such as ballast cars, cranes, ballast tampers, and other equipment.
  - Rehabilitating track assets at LIRR yards, including ties, switches, and rail. Performing capital maintenance, such as drainage and surfacing improvements.
  - Constructing or renewing right-of-way retaining walls, install additional right-of-way security fencing, and improve drainage to protect tracks from coastal flooding and torrential rain.
- Improve operations and enhance reliability by continuing to invest in Jamaica Capacity Improvements with reconfigured interlockings, new switches, and signal improvements.

#### **Proposed Investments**

Cyclical replacement and rehabilitation of track infrastructure (ties, ballast, rail, switches, grade crossings)

Yard track improvements

Purchase of construction equipment

Construct or renew retaining walls, fencing, and drainage

Jamaica Capacity Improvements

Amtrak contribution

Total Track \$1,110 M

### **Long Island Rail Road Line Structures**

**Category L-904** 

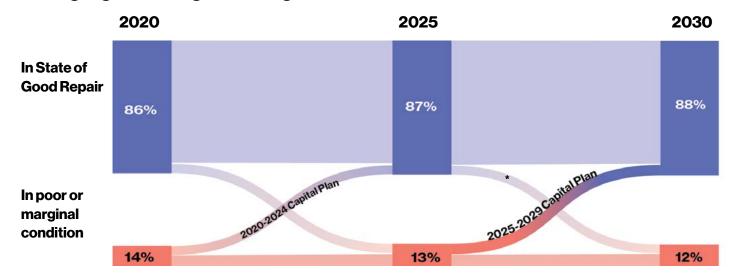
#### **Asset Profile**

The Line Structures category consists of undergrade and overgrade bridges, viaducts, tunnels, and culverts. To maintain their structural integrity, they need considerable and regular investments in maintenance, rehabilitation, or replacement. This includes maintaining bridges and viaducts by repainting structural steel and applying deck waterproofing.

#### **Investment Needs**

We routinely assess and then take action to rehabilitate structural elements of bridges, viaducts, and tunnels to prevent them from deteriorating further to the point where more costly replacement would be needed. Of our nearly 600 bridges and viaducts, 14% are in either poor or marginal condition. A comprehensive assessment that considers factors such as train frequency, load rating, and bridge strikes is used to determine the most pressing rehabilitation or replacement priorities. For structures that are in acceptable condition, more than half should be repainted or waterproofed to reduce future capital costs and to protect against water damage and reduce corrosion that would accelerate their deterioration. Finally, the Atlantic Avenue tunnels, which are over 100 years old and have not had significant structural investment since their construction, now require comprehensive rehabilitation.

#### **Data Highlight: Undergrade Bridges**



465 Undergrade Bridges

#### In the 2025-2029 Capital Plan, we will:

- Keep service safe and reliable by increasing the annual pace of structural rehabilitation of bridges.
- Ensure longevity of structures by waterproofing bridge decks and repainting structural steel on approximately 45 bridges and viaducts.
- Maintain frequent and reliable service in Brooklyn by rehabilitating deteriorated steel, concrete, drainage, and other elements of the tunnels under Atlantic Avenue.

#### **Proposed Investments**

Structural rehabilitation or replacement of bridges with significant structural deterioration

Painting and waterproofing of bridges and viaducts

Atlantic Avenue tunnels structural rehabilitation

Total Line Structures \$601 M

<sup>\*</sup> Reflects projected bridges deterioration over time

# Long Island Rail Road Communications and Signals

Category L-905

#### **Asset Profile**

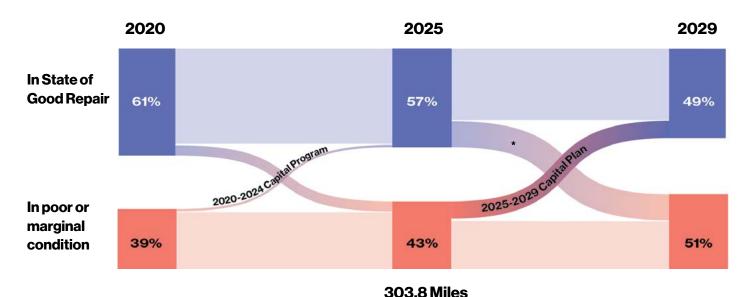
Our communications infrastructure enables us to share vital service updates with customers and also allows for our operations and management teams to communicate with one another effectively. Key communications infrastructure includes the fiber optic and cable networks, radio equipment, wooden poles, public address systems, and customer information displays. Our signal system enables safe movement of trains through the system. Key signal infrastructure includes track relays, batteries, switch machines, cases, huts, signal heads, and grade crossing mechanisms. Due to legacy infrastructure and the continuously evolving nature of this technology, LIRR communications and signal networks are made up of various systems ranging from state-of-the-art to obsolete.

#### **Investment Needs**

A significant portion of the communications poles, fiber optic network, and other components that serve as the backbone for LIRR communications are either past their useful lives or are approaching the age where normal replacement is warranted. Further investments in customer facing technology such as display screens, PA systems, and Help Points will also improve customer communication and the dissemination of information.

Obsolete, legacy signal systems from the 1960s need to be modernized and other signal components are at the age where normal replacement is warranted.

#### **Data Highlight: Signals**



<sup>\*</sup> Reflects projected signals deterioration over time

#### In the 2025-2029 Capital Plan, we will:

- Maintain clear and timely communication between train operators, control centers, and field personnel; reduce signal delays by modernizing signal infrastructure; and ensure public address announcements and train arrival/departure information are clearly provided to our customers by:
  - Upgrading approximately 12 miles of signals on the Port Jefferson Branch and approximately 17 miles of signals on the Montauk Branch where over half of the signal components are rated in poor or marginal condition.
  - Continuing normal replacement of communication and signal assets: wooden poles, huts, batteries, relays, cables, switch machines, and signals
  - Achieving centralized train control (CTC), eliminating obsolete signal towers, creating an emergency-backup CTC Center for improved redundancy, and continuing implementation of federal Positive Train Control (PTC) mandates.
  - Modernizing signal interlockings.
- Improve safety and customer communication by:
  - Completing implementation of the fiber optic network and introducing new communications system technology, such as grade crossing cameras and new signage installation.

#### **Proposed Investments**

Signal replacement and interlocking upgrades

Signal system renewals and other signal investments

Communications poles and components

#### **Total Communications and Signals**

\$505 M

# **Long Island Rail Road Shops and Yards**

**Category L-906** 

#### **Asset Profile**

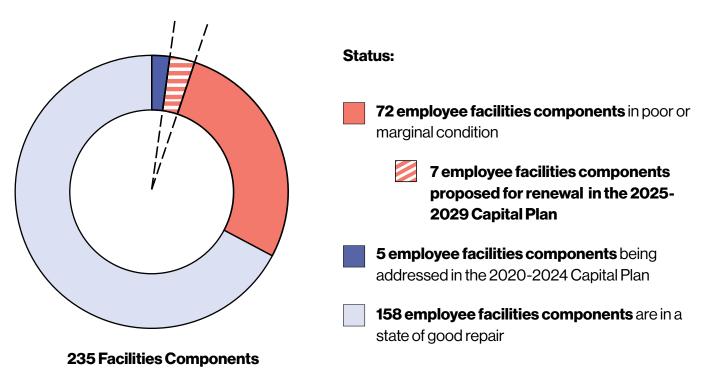
Maintenance shops and storage yards are the backbone of our operations. Shops and yards are equipped with everything needed for inspections, cleaning, repairs, component replacements, upgrades, and overhauls of our passenger railcars and maintenance equipment. Across our shops and yards, we house more than 1,100 specialized machines and equipment necessary for keeping railcars in good condition. Most of these critical assets are concentrated at our Hillside Maintenance Facility.

In addition to shops and yards, other employee facilities support various administrative and operational activities.

#### **Investment Needs**

Several shops, yards, and employee facilities have components in poor condition and require investments to enhance safety, improve worker productivity, and ensure compliance with industry standards. Shop equipment—such as wheel truers and cranes—that are not in at least adequate condition must be replaced to facilitate safe and efficient operations.

#### **Data Highlight: Employee Facilities Components**



#### In the 2025-2029 Capital Plan, we will:

- Support effective railcar maintenance and keep service reliable by:
  - Replacing poor or marginal condition components at shops.
  - Making improvements to shops and yards at various locations, such as replacing the Holban Yard Fueling Facility.
  - Replacing aging shop equipment.

**Total Shops and Yards** 

- Rehabilitating employee facilities that are in poor or marginal condition.

Proposed Investments
Rolling stock support equipment
Shop and yard improvements
Employee facilities

\$168 M

## **Long Island Rail Road Power**

**Category L-907** 

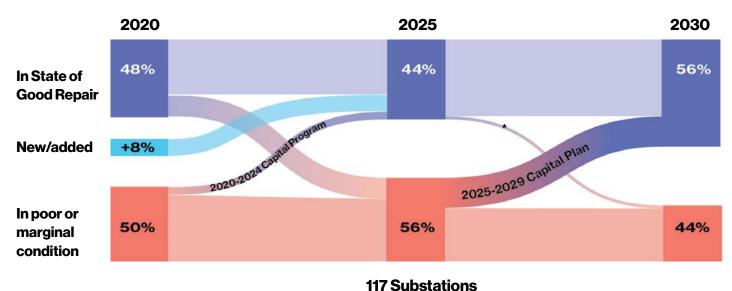
#### **Asset Profile**

LIRR's power infrastructure consists of 117 substations that draw high-voltage AC electricity from local utilities, convert it to DC, and typically supply it directly to the third rail. In 4 locations, substations feed a circuit breaker house before reaching the third rail. The power system also includes more than 300 miles of third rail system, a high-tension power network that includes poles and power lines, station and facility electrical and lighting systems, and emergency generators. This system is a service-critical asset. When power-related incidents occur, they are very disruptive to service.

#### **Investment Needs**

The LIRR power system is at increasing risk of failure and requires investment. Most substations have been in service for over 50 years and approximately half of them have at least one critical component in poor or marginal condition. The primary driver of power investment priorities is ensuring power substations continue to provide reliable service, which is achieved through either full substation replacement or by addressing critical substation components. It is most important to address substations that are in critical locations, such as high traffic areas, or substations that are in areas that do not have adequate redundancy. In addition, because many substations that are adjacent to each other were constructed at the same time, their components tend to wear out at similar times. One of our strategies to manage this is to target component

#### **Data Highlight: Substations**



<sup>\*</sup> Reflects projected substations deterioration over time

replacements at alternating substations. There is also a need to upgrade power components to make our power system more efficient, which will help us better manage the growth in power demand from recent system expansions. In addition, continued cyclical replacement of third rail systems and facility lighting and electrical systems will ensure that they operate efficiently and meet current standards.

#### In the 2025-2029 Capital Plan, we will:

- Keep service safe and reliable by:
  - Renewing key components at 10 substations.
  - Fully replacing 6 of the most critical substations.
  - Replacing approximately 65,000 linear feet of conventional third rail with higher-performing, energy-saving aluminum third rail. Converting wooden protection board to fiberglass.
  - Replacing approximately 10 third rail negative reactors.
  - Further improving the capacity of our traction power system by replacing disconnect switches, short tie extension brackets, and third rail feeder cables.
- Replace lighting in the Atlantic Avenue Tunnel and at select station platforms.
- Continue replacement of deteriorated power lines, power poles, signal transformers and power switches.

Proposed Investments
Substation replacements
Replacement of substation components
Third rail replacements and upgrades
Power component repairs and replacements
Lighting improvements

Total Power \$476 M

### Long Island Rail Road Miscellaneous (Program Support)

**Category L-909** 

#### **Asset Profile**

Capital investments that are not otherwise addressed under a specific asset category are funded in the Miscellaneous (Program Support) category. This typically includes systemwide security enhancements, environmental remediation projects, studies, and other costs to support future capital projects, and other required administrative costs.

#### **Investment Needs**

Priority investment needs include security normal replacement and upgrades, selected environmental remediation programs, and administrative costs including insurance and Small Business Mentor Program (SBMP) support. Additionally, funding is required for sustainability efforts to reduce vehicle and facility emissions.

#### In the 2025-2029 Capital Plan, we will:

- Improve security by:
  - Replacing CCTV components and making security improvements.
  - Upgrading security systems through perimeter hardening, Security Center upgrades, and cybersecurity protection.
- Support the continued implementation of the capital program by undertaking studies, surveys, and preliminary engineering.
- Reduce emissions by installing charging infrastructure to support zero-emission non-revenue fleets, updating building systems with low-emission and highly efficient options, and pursuing renewable energy generation where feasible.

#### **Proposed Improvements**

Security improvements

Plans, surveys, studies, environmental remediation

Sustainability initiatives

#### **Total Miscellaneous (Program Support)**

\$372 M

### **METRO-NORTH RAILROAD**

#### **Overview**

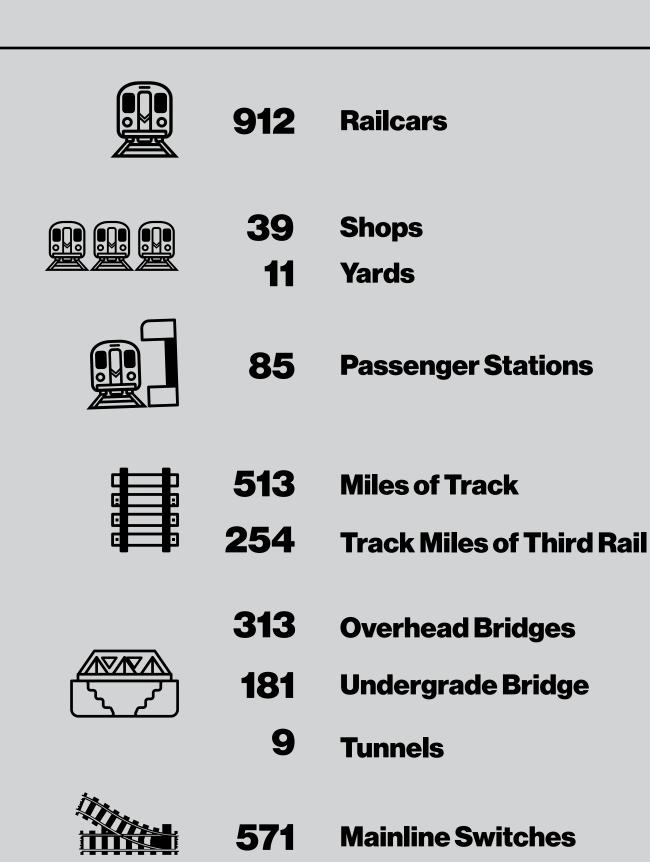
Metro-North is the second largest commuter railroad in the country (after MTA LIRR), with 2023 ridership of over 60 million trips. This includes service into and out of Grand Central Terminal in New York City on our Hudson, Harlem, and New Haven lines, which extend as far north as Dutchess County in New York and as far east as Fairfield and New Haven counties in Connecticut, forming our East-of-Hudson service territory. West of the Hudson River, riders travel on our Port Jervis and Pascack Valley lines. This West-of-Hudson service—provided under an agreement with NJ Transit—serves Rockland and Orange counties in New York.\*

It is critical to invest in and properly maintain the aging Metro-North infrastructure so it can successfully support current and future operations. Targeted investments over decades dramatically increased the system's reliability, with on-time performance rising from 80% in 1983 to 98% through June, 2024. To maintain this reliable service and meet our growing and changing customer demands, we must continue to invest in our aging infrastructure. As revealed in the 20-Year Needs Assessment, there is a significant amount of Metro-North assets in poor or marginal condition, found across almost every asset category. Metro-North needs to increase its pace of investment and bring more assets into a state of good repair.

#### Proposed 2025-2029 Capital Plan - \$6.0 billion

Category	Proposed Budget (\$ in millions)	Percent
Rolling Stock	\$1,696	28%
Outlying Stations	\$959	16%
Track and Structures	\$1,722	29%
Communications and Signals	\$598	10%
Power	\$520	9%
Shops and Yards	\$225	4%
Miscellaneous (Program Support)	\$286	5%
Total	\$6,005	100%

<sup>\*</sup>This plan reflects Metro-North's New York State assets. The New Haven Line assets operated by Metro-North in Connecticut are the responsibility of Connecticut Department of Transportation and certain assets of the Port Jervis and Pascack Valley Lines are the responsibility of NJ Transit.



67

**Power Substations** 

### Metro-North Railroad Plan Goals and Investment Highlights

#### **Provide Frequent and Reliable Service**

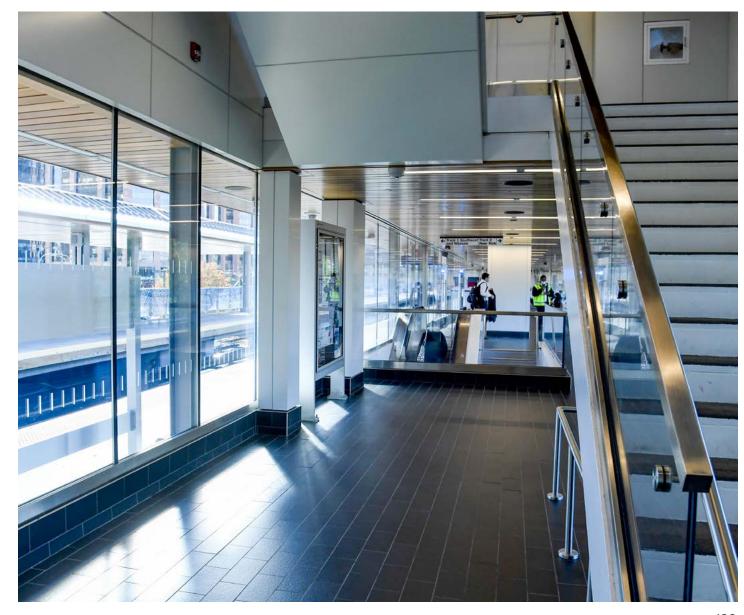
- Complete the replacement of the 40-year-old M3 railcars with new, fully accessible M9A EMUs for use on the Harlem and Hudson Lines.
- Advance the purchase of new coaches for East of Hudson service to replace older coaches from 1982 that are beyond useful life expectancy.
- Continue a multi-plan project to expand and reconfigure Brewster Yard so that it can accommodate the future M9A railcars.
- Purchase new locomotives that meet EPA Tier IV emission efficiency standards, replacing aged units for West of Hudson service.
- Accelerate the pace of the cyclical track replacement program as well as replacement or rehabilitation of structures along the right-of-way, such as undergrade bridges and retaining walls.
- Complete the replacement of 2 temporary mobile substations to fixed, permanent substations, and add 2 new substations.
- Improve traction power efficiency and reliability by commencing a program to replace existing steel third rail with more efficient aluminum third rail, and replacing aging transmission lines and poles.
- Replace aging signal and communications systems that are past their useful life.

#### **Improve the Customer Experience**

- Replace and rehabilitate deteriorating station platforms and other major station components, especially at Harlem Line stations with decaying "hollow-core" platforms that urgently require replacement.
- Repair and replace station assets focusing on stairs, ramps, overpasses, underpasses, and other components, including older station elevators that need to be rehabilitated.
- Add elevators, ramps, or other components to make more Metro-North stations accessible.

#### **Take Action on Climate Change**

- Make coordinated investments at the most vulnerable locations on the Hudson and Harlem Lines including bridges, culverts, retaining walls, and shoreline structures to reduce service disruptions and equipment damage caused by extreme weather.
- Improve drainage at Mott Haven Yard to reduce the risk of flooding that threatens railroad operations.
- Address slope stability and right-of-way drainage system challenges by making prioritized investments to
  protect railroad assets from growing climate impacts.



# Metro-North Railroad Rolling Stock

**Category M-901** 

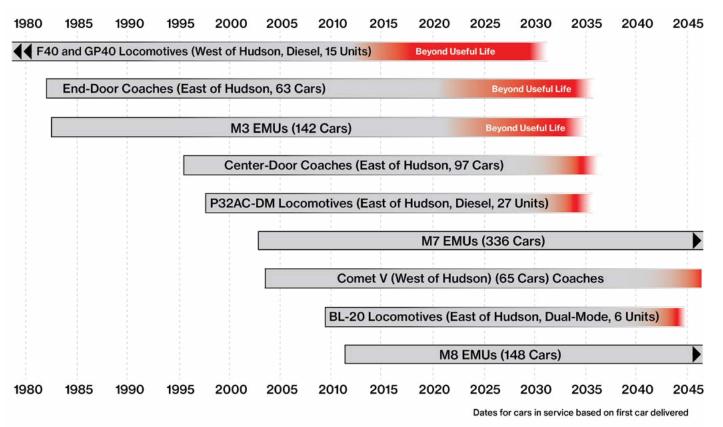
#### **Asset Profile**

Metro-North's current revenue fleet has 912 total railcars. For East of Hudson service, the fleet consists of 636 self-propelled electric multiple units (EMUs), 163 push-pull coaches, and 33 diesel and dual-mode (electric and diesel) locomotives used to power the coach fleet in non-electrified territory. For its West of Hudson territory, Metro-North's fleet consists of 15 diesel locomotives and 65 coaches operated by NJ Transit under a service agreement.

#### **Investment Needs**

Key railcar investments are needed to keep service reliable and provide adequate passenger capacity levels. As railcars age, their reliability decreases and more extensive and costly maintenance is needed to keep them in service. In 2023 the M8 EMUs, the youngest railcars in Metro-North's fleet, had an average mean distance between failure (MDBF) rate of approximately 870,000 miles, more than six times better than that of the M3 EMUs. The M3 EMUs, the majority of which arrived in 1984 and are now the oldest in the fleet, are now due for replacement.

#### Railcar Fleet - Planned Lifecycle



We plan to continue our program to replace M3 EMUs with new M9A EMUs, a next-generation railcar that provides better performance and reliability, meets ADA requirements for accessibility, and is equipped with additional amenities including wider seats and electrical outlets. The current East of Hudson passenger coach fleet is also nearing the end of its useful life, and we plan to replace these cars with a new, modern, uniform, and more accessible coach fleet. West of Hudson, the locomotive fleet is beyond its useful life expectancy, and we are planning to replace it with more reliable and efficient locomotives that will reduce greenhouse gas emissions and local air pollutants.

#### In the 2025-2029 Capital Plan, we will:

- Improve railcar reliability, accessibility, and passenger comfort by:
  - Completing the replacement of the M3 EMUs, providing Metro-North with over 150 new, fully accessible M9A EMUs for service on the Harlem and Hudson Lines, building on the procurement initiated during the 2020-2024 Capital Plan.
  - Advance the purchase of new coaches for East of Hudson service by replacing coaches in the fleet that are beyond useful life expectancy and do not meet current accessibility standards.
- Improve reliability and reduce emissions by purchasing new locomotives that meet EPA Tier IV
  emission efficiency standards. These will be used for West of Hudson service on the Pascack Valley
  and Port Jervis lines.

# Proposed Investments New M9A EMU railcars to replace M3 railcars New locomotives for West of Hudson service New coach railcars to replace older coaches in the fleet Total Rolling Stock \$1,696 M

# **Metro-North Railroad Stations**

Category M-902

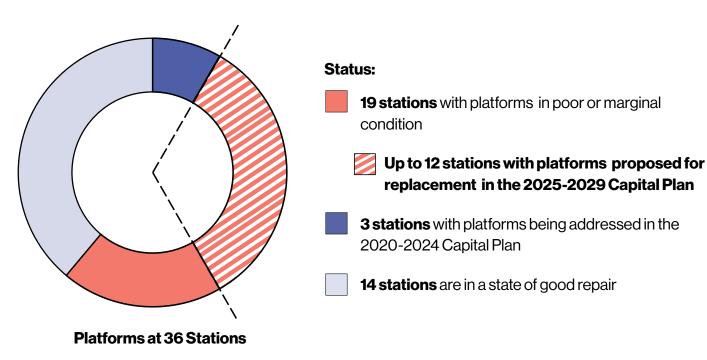
### **Asset Profile**

Metro-North has 85 passenger stations in New York State, including Grand Central Terminal, with 74 stations east of the Hudson River and 11 stations west of the Hudson River. Additionally, Metro-North is responsible for 26 station buildings, many of which are considered historic structures. Metro-North strives to enhance the customer environment and improve safety and accessibility across its network of stations. Over three quarters of full-service Metro-North stations will be accessible at the completion of the 2020-2024 Capital Plan. Metro-North will continue to add elevators, ramps, and create accessible routes between platforms to make full-service stations in Metro-North-operated territory fully accessible, where feasible, working toward the MTA's goal of 95% of full-service regional rail stations being accessible by 2045. MTA and Metro-North are also responsible for approximately 16,000 parking spaces for customers.

### **Investment Needs**

Many Metro-North passenger stations need significant investment to replace or rehabilitate aging components, such as platforms, elevators, canopies, overpasses and stairs, as well as to install new elevators and ramps to improve accessibility. Stations on the Harlem Line are a priority area for investment in the 2025-2029 Capital Plan to address many significantly deteriorated station platforms, including a stretch of seven stations with "hollow-core" designed platforms in urgent need of replacement to avoid partial or full platform

### Data Highlight: Harlem Line Station Platforms



closures. Another significant area of need is station elevators, with a substantial majority of elevators having reached the end of their useful lives. To ensure the highest priority condition-based needs are addressed in a timely manner, an engineering assessment will be conducted to prioritize station renewals and component-based repairs across Metro-North's network, which will repair or replace stairs, ramps, canopies, shelters, and overpasses.

### In the 2025-2029 Capital Plan, we will:

**Total Stations** 

- Keep stations safe and accessible by replacing and rehabilitating degrading station platforms and other major station components, especially at the Harlem Line stations with deteriorating "hollow-core" platforms.
- Improve system accessibility by adding elevators, ramps, or other components to make more Metro-North stations ADA-accessible.
- Maintain system access and enhance the passenger experience by repairing and replacing station assets focusing on stairs, ramps, overpasses, underpasses, parking lots, and other components, including older station elevators that need to be rehabilitated.

# Proposed Investments Station rehabilitation New ADA access Systemwide station component replacement Parking improvements

\$959 M

# Metro-North Railroad Track and Structures

**Category M-903** 

### **Asset Profile**

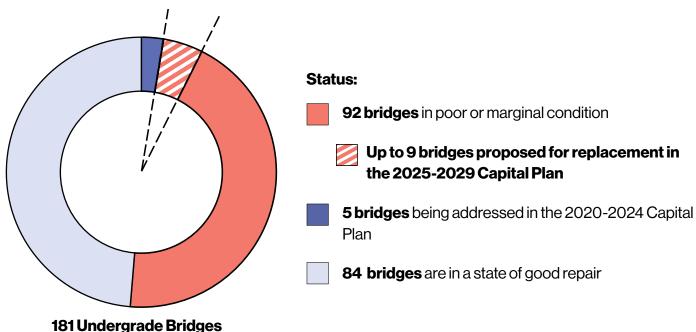
Metro-North has 513 mainline track miles in New York State, 254 mainline track miles of third rail power, and 571 mainline switches. The ongoing renewal of track assets is essential to providing customers with a safe, reliable, and comfortable ride. Tracks are monitored for age, structural, and operating conditions regularly and replaced on a cyclical basis when they meet the end of their useful life.

A substantial number of bridges and other structures cross and carry Metro-North's right-of-way in New York State, including 313 overhead bridges, 189 culverts, 181 undergrade bridges, and nine tunnels outside of the Grand Central Artery. Metro-North has an established process for monitoring, rating, and prioritizing bridge condition and corrective actions, using a bridge management system to catalog asset inventory, load, and condition data to maintain the integrity of the railroad right-of-way.

### **Investment Needs**

Metro-North has substantial outstanding track investment needs and we must accelerate the pace of our track replacement schedule. Close to half of switches, rail, grade crossings, and ties are in poor or marginal condition. We need to increase the pace of rehabilitating and replacing rail, ties and switches, and other right-of-way investments such as drainage improvements, and rock slope remediation. We also have aging and obsolete work equipment that must be replaced with new machines to conduct right-of-way work more efficiently.

### **Data Highlight: Undergrade Bridges**



Metro-North has a significant number of structures in poor and marginal condition, with many that are beyond their useful lives. In addition, we need to implement resilience measures that will protect Metro-North lines against increasingly frequent extreme weather events and other climate change impacts: worsening torrential rainfall, higher mean sea levels, increased flooding, and rising temperatures. The Hudson Line, due to its location along steep slopes and the shoreline, is particularly vulnerable. Many right-of-way slopes and drainage systems, including retaining walls and culverts, are undersized or insufficient for the increased risk of erosion and landslides, and many power and communications assets are in low-lying areas and are increasingly vulnerable to flooding. A blueprint for Hudson Line climate resilience will guide all upcoming Hudson Line investments.

### In the 2025-2029 Capital Plan, we will:

- Keep service safe and reliable by:
  - Accelerating the pace of the cyclical track replacement program and pairing track work with projects to improve drainage and stabilize slopes along the right-of-way.
  - Increasing the pace of replacing and rehabilitating aging, deficient structures along the right-of-way.
  - Preserving bridge structures by proactively repainting bridges and replacing bridge timbers.
  - Repairing bridges and replacing track on the Port Jervis Line.
- Enhance climate resilience by:
  - Reducing service disruptions and equipment damage caused by extreme weather by making coordinated investments at the most vulnerable locations. Target assets include culverts, bridges, retaining walls, drainage, and shoreline structures. Projects will apply design criteria that anticipate climate change impacts.
  - Designing and implementing drainage improvements at Mott Haven Yard to reduce the risk of flooding that greatly threatens railroad operations.

### **Proposed Investments**

Track and resilience – cyclical track and switch replacement programs for east and west of Hudson lines; resilience projects at target locations

Structures resilience – replace or rehabilitate bridges, culverts, and retaining walls; target vulnerable areas for comprehensive investment

Structures – aging and deteriorating structures on East and West of Hudson lines

Mott Haven – improve drainage at yard to reduce flooding risk and service disruptions

### **Total Track and Structures**

\$1,722 M

# Metro-North Railroad Communications and Signals

**Category M-904** 

### **Asset Profile**

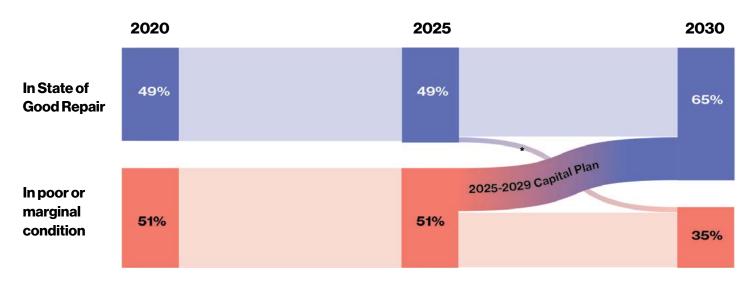
Communications and signals assets are essential elements of rail infrastructure and among the most safety-critical systems. Their role in the delivery of rail service is fundamental to meeting Metro-North's safety and on-time performance goals. There are 231 signalized miles in the Metro-North system in New York State, including 60 miles on the Port Jervis Line west of the Hudson River in New York.

Communication assets support Metro-North's signal and power control and supervisory systems, customer service applications (e.g., public address systems and visual information displays), closed circuit television, elevator/escalator monitoring, fare collection, customer communication intercoms, and numerous other functions. Together, these technologies support train operations, provide key service updates to passengers, increase security within stations, and promote efficient fare collection.

### **Investment Needs**

Most of Metro-North's signal systems were installed more than 30 years ago. Repairing aging communications and signals assets is often challenging and can be difficult to source replacement parts from manufacturers. Metro-North's aging signal and communication systems—both wayside and at the operations control center—have critical obsolescence issues and are incompatible with future needs.

### **Data Highlight: Signalized Miles**



231 Miles

We must continue to replace signals that are in poor or marginal condition. Similarly, on the communications side, we must continue to expand and upgrade the ethernet-based system needed to replace the obsolete communications technology that supports safe train movement throughout the network, including our signals, security, radio communications, and public display systems.

### In the 2025-2029 Capital Plan, we will:

- Improve service reliability, train service supervision, customer communications, and security by:
  - Continuing a multi-phase program to replace aging signal systems on the Hudson Line, continuing a multi-phase program with design of signal systems on the Harlem Line, continuing end-oflife replacements of other signal assets (Centralized Train Control and SCADA systems), and carrying out systemwide signal field infrastructure component upgrades.
  - Continuing the multi-program project to replace aging and obsolete communication systems, including completing migration to a more modern network infrastructure and radio control system.
  - Making systemwide improvements to PBX telephone and voice recorder systems, and fiber and copper communication cables.
- Improving safety and service reliability while ensuring regulatory compliance by making safety improvements at grade crossings and ensuring Positive Train Control meets the latest codes and standards.

### **Proposed Investments**

Signal system replacements and upgrades to Operations Control Center, Signal CTC, and SCADA systems; systemwide signal field infrastructure upgrades

Communications network infrastructure and related customer information systems and radio system improvements

Upgrades to PBX telephone/voice recorder systems, fiber/copper communication cables

Grade crossing improvements and Positive Train Control regulatory compliance work

### **Total Communications and Signals**

\$598 M

<sup>\*</sup> Reflects projected signalized miles deterioration over time

# Metro-North Railroad Power

**Category M-905** 

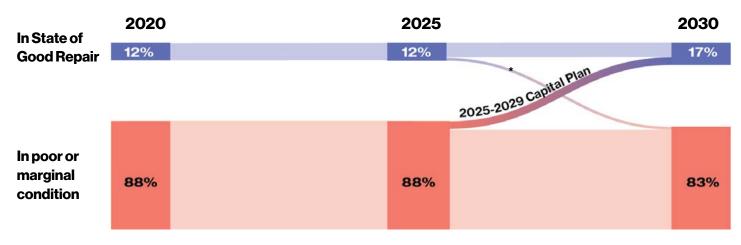
### **Asset Profile**

Metro-North's power network is a service-critical asset that provides the traction power that propels our electric railcars. Metro-North also has several other power systems that provide power to train signals, stations, and moveable bridges. Power is delivered through a complex network of infrastructure and power assets, including substations that convert electricity from the power grid to the appropriate voltage for train service, distribution systems for yard power, and the direct current (DC) third rail and overhead alternating current (AC) catenary wire where trains draw power. 55 DC substations, 6 AC substations, and three yard distribution systems supply traction power to the Metro-North system in New York State. In total, Metro-North's New York territory encompasses 254 mainline track miles of DC third rail power and 36 mainline track miles of AC catenary power in New York State.

#### **Investment Needs**

Metro-North's power supply system is in dire need of investment. Many of the components of Metro-North's power supply system are approaching or have passed the end of their useful lives and require replacement. Over 80% of substations are in poor or marginal condition, and we are, in some cases, relying on temporary mobile substations. Because of this, both the construction of new substations and the replacement of existing substations are needed. Similarly, the steel DC third rail has not been renewed since its original installation in the 1980s and 100% of the steel third rail is in poor or marginal condition.

### **Data Highlight: Substations**



67 Substations

Metro-North needs to make other investments to its power system to address deteriorating assets that pose a challenge to service reliability. These include replacing contact wire and catenary components on the New Haven Line within New York State, which are nearing the end of their expected useful life, installing new motor alternators in signal substations, and replacing cables at substation feeders and trolleys.

### In the 2025-2029 Capital Plan, we will:

- Improve service reliability by:
  - Completing the replacement of 2 temporary mobile substations with fixed, permanent substations, and adding 2 new substations.
  - Replacing major components in existing traction power substations, in aging power substation feeder distribution systems between substations, and in signal power substations.
  - Commencing a program to replace existing steel third rail with more efficient aluminum third rail, including replacing third rail components such as sectionalizing switches and fiberglass third rail brackets.
  - Improving power transmission service reliability by replacing deteriorating Harlem Line transmission wood poles, as well as aerial transmission lines on the Hudson Line and the yard power distribution system at North White Plains.
  - Replacing contact wire and catenary components on the New York portion of the New Haven Line and replacing tunnel and passenger station lighting systems.

### **Proposed Investments**

Substation replacements and component renewals

New substations on the Harlem Line

Third rail replacement and component improvements

Transmission, cable, and catenary asset renewals and tunnel and station lighting improvements

Total Power \$520 M

<sup>\*</sup> Reflects projected substations deterioration over time

# Metro-North Railroad Shops and Yards

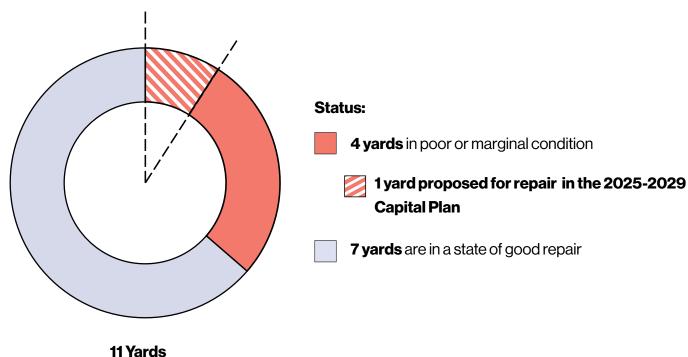
**Category M-906** 

### **Asset Profile**

Shops and yards facilities are essential to keeping our railcars reliable. These facilities are where we maintain, inspect, and store the fleet, as well as where equipment and materials needed for maintaining the rail system are stored. The approach towards planning for shops and yards is to ensure facilities are properly upgraded and adequately sized to accommodate future fleet, equipment, and employee needs for supporting the reliability of Metro-North's operations and ensuring passengers have a safe and comfortable ride.

Metro-North operates 11 shop & yard facilities system-wide, including 3 yards for diesel and electric revenue vehicles, 2 diesel yards East of Hudson, 2 diesel yards West of Hudson, 1 electric yard at North White Plains, Grand Central Terminal, and 2 yards for non-revenue equipment. Several shops and yards are inadequate for future needs. Our ADA-compliant railcars have fewer seats than outdated, non-compliant cars. To ensure our riders have the same space we provide today, more railcars are needed, and we must construct additional yard space to maintain, clean and store larger fleets. In addition, several system maintenance activities are housed in older facilites that are either outdated or lack sufficient space, which means some of our workforce currently must work out of temporary structures.

### **Data Highlight: Yards**



#### **Investment Needs**

Metro-North's planned investments over the next five years include upgrading, reconfiguring and expanding facilities to allow for the arrival of new M9A EMU cars, new coaches to replace the existing coaches, and new dual-mode locomotives. Expanding and reconfiguring yards at key locations will allow us to meet growing fleet needs and improve service operations. Other initiatives could include rehabilitating or repairing outdated, deteriorated, or temporary facilities that are needed throughout the system for the ongoing maintenance of the railroad with new, permanent facilities, and replacing the train washing facility at Croton-Harmon Yard.

### In the 2025-2029 Capital Plan, we will:

- · Increase work efficiency and service reliability by:
  - Expanding and reconfiguring Brewster Yard so that that it can accommodate the future M9A railcars.
  - Rehabilitating and expanding employee and materials facilities at various locations.
  - Replacing the existing car wash facility at Croton-Harmon Yard that has reached the end of its expected useful life, installing new diesel exhaust fluid facilities for the locomotive fleet, and completing fueling system upgrades needed for Metro-North's automotive support fleet.

### **Proposed Investments**

Brewster Yard expansion and configuration

Rehabilitate and expand employee and materials facilities at various locations

Replace existing car wash at Harmon Yard

New diesel exhaust facilties for locomotives and automotive fueling system upgrades

### **Total Shops and Yards**

\$225 M

# Metro-North Railroad Miscellaneous (Program Support)

**Category M-908** 

### **Asset Profile**

Capital investments that are not otherwise addressed under a specific asset category are covered by the Miscellaneous (Program Support) Category. This category typically provides for costs associated with the support and management of the Capital Program and projects with program-wide applicability, such as system-wide environmental remediation, protective liability coverage, independent engineer services, value engineering services, and security.

### **Investment Needs**

To implement the capital plan, the agency requires capital program administrative support, including for the MTA Small Business Development Program and for the MTA-wide Enterprise Asset Management initiative. The MTA managed insurance coverage for Railroad Protective Liability insurance and Owner Controlled Insurance is also needed. Funds are needed to to cover environmental remediation and abatement costs, particularly around the removal of lead from structures and buildings on the railroad. Upgrades to security systems are also critical to the operation. Finally, the funding is required for sustainability efforts to reduce vehicle and facility emissions.

### In the 2025-2029 Capital Plan, we will:

- Support the continued implementation of the capital program by:
  - Covering remediation, protective liability, and insurance costs.
  - Supporting the continued implementation of the capital program by undertaking studies, surveys, and preliminary engineering.
- Implement systemwide improvements to security office and field equipment.
- Reduce emissions by installing charging infrastructure to support zero emission non-revenue fleets, updating building systems with low-emission and highly efficient options, and pursuing renewable energy generation where feasible.

# Proposed Investments Program administration, scope development and EAM

Owner controlled insurance, protective liability

Security

Environmental remediation/abatement

**Total Miscellaneous (Program Support)** 

\$286 M

# **MTA INTERAGENCY**

### **Overview**

MTA Interagency describes proposed investments for the MTA Police Department (MTAPD) and for MTA Construction & Development initiatives.

### Proposed 2025-2029 Capital Plan - \$300 million

MTAPD will build on the 2020-2024 Capital Program's investments in existing facilities, vehicles, and communications systems.

MTA Construction & Development initiatives support research, analysis, and planning related to longer-term, strategic investments in the transit system.

Category	Proposed Budget (\$ in millions)	Percent
MTA Police Department	\$45	15%
MTA Construction & Development	\$255	85%
Total	\$300	100%

# MTA Interagency MTAPD

**Category N-910** 

### **Asset Profile**

MTAPD is responsible for ensuring the safety and security of MTA's customers, employees, and facilities throughout the MTA service area. The service area encompasses over 4,400 square miles covering 14 counties in New York and Connecticut. On January 1, 1998, the MTA consolidated the LIRR and Metro-North police forces under the jurisdiction of the MTAPD. Subsequently, the Staten Island Rapid Transit Police was added to MTAPD on June 1, 2005. Prior to the merger, capital needs at these operating agencies were addressed as part of the respective agency's capital programs.

MTAPD operates from over 30 facilities spread across 12 New York counties and has a significant number of vehicles and communication systems assets to accomplish its mission of providing safety and security throughout the MTA network.

Building upon the work begun with the 2005-2009 Capital Plan and continued in the 2010-2014, 2015-2019, and 2020-2024 Capital Plans, the MTAPD's 2025-2029 Capital Program includes projects to invest in facilities, vehicles, and communication systems to allow the MTAPD to effectively protect our customers, employees and the overall transportation system.

### **Investment Needs**

MTAPD will continue to rehabilitate or replace assets at the end of their useful lives while modernizing communications equipment, increasing the department's ability to respond to emergencies and enforce safety. MTAPD's main investment needs remain consistent with previous capital programs by maintaining and upgrading existing facilities, vehicles, and communication systems.

### In the 2025-2029 Capital Plan, we will:

- Make improvements to various District Offices.
- Replace communications equipment and systems as they reach the end of their useful lives.
- Rehabilitate facilities based on their requirements, replace large vehicles, and continue with program administration.

# Proposed Investments District Office repairs and replacement Communication infrastructure/systems Vehicle purchases and administrative support

Total MTAPD \$45 M

# MTA Interagency Construction & Development

### **Category N-911**

Not all investments required to support the MTA Capital Plan fit within individual agency envelopes. Thus, allocations for activities that are better addressed by a centralized capital program category have consistently been a part of the MTA's 5-year capital programs. The 2025-2029 Capital Plan includes provisions for long term planning; immediate overall capital program support, and an administrative budget for MTA Construction & Development.

### **MTA Planning Initiatives**

The 2025-2029 Capital Plan includes funding for research, analysis, and planning initiatives that will result in strategic investment plans over multiple future capital programs. These investment plans will enable the MTA's services to keep pace with the changes in New York's economy and population, as well as adapt to emerging trends: helping to transform the network into a world-class, 21st-century transit system. These plans may include the adoption to new technologies, innovations to make our system more resilient and sustainable, or potential expansions that can address challenges and opportunities in the future. In the 2025-2045 20-Year Needs Assessment, the MTA developed its first-ever Comparative Evaluation of proposed transit improvements. The Comparative Evaluation was a rigorous assessment of potential expansion projects that evaluated costs and benefits. All projects were evaluated against a consistent set of criteria, including ridership, time savings, network resiliency and sustainability, capacity, equity, network leverage, geographic distribution, and cost. This framework of evaluating expansion projects will continue.

Future investments in our system should be guided by a robust and timely understanding of a variety of factors that include:

- Changing customer needs and expectations
- Aging infrastructure
- Climate change
- Technological advances
- Population and employment trends
- New policies, or other developments, that affect investment strategies

To support effective investments and network improvements, it is important for MTA to develop and maintain up-to-date planning tools and analyses. This involves efforts that identify and plan for new technologies to address aging infrastructure, develop concepts to evaluate future network investments and leverage the existing system, update regional travel and demographic data and forecasting tools, and conduct planning studies responding to potential policy changes.

### **Capital Program Support**

The Capital Program Support services project is proposed as a resource for MTA Construction & Development to support the overall Capital Program and the need for continuous investment to support the MTA's transportation network. This investment is a critical element in maintaining New York's status as a preeminent global economic center. Specific investments might include:

- Initiatives that lead to new, innovative directions for investing in New York's future.
- Improvements to Capital Program development and delivery with emphasis on new strategies and systems
- Efforts to further Capital Program reform and innovation in alignment with the Crowe Audit's recommendations
- Facilitate initiatives designed to enhance operational safety MTA-wide for customers and employees
- Development of pilot studies in support of these and additional strategic initiatives.

### **Construction & Development Administration**

The MTA's Capital Program staff and departments began reorganization under MTA Construction & Development in 2020. At the inception of the 2020-2024 Capital Program, an administrative budget had not yet been established to reflect the budgetary needs of this new agency. In recognition of the need for a centralized administrative budget a new capital program element was created as part of the 2020-2024 Capital Program's Amendment #2 in 2022.

The purpose of this program administration budget is to maintain development and delivery functions in support of the capital program across the agencies through MTA Construction & Development's various business units. Activities may include, but are not limited to:

- Business unit and administrative staffing
- Programmatic consultant support
- Capitally-eligible systems to support development and delivery
- Strategic initiatives to support the overall Capital Program and MTA Construction & Development's mission

### **Proposed Investments**

MTA Planning Initiatives

Capital Program Support

Construction & Development Administration

Total Planning \$255 M

# MAJOR PROJECTS AND EXPANSION

### **Overview**

Major Projects and Expansion describes proposed investments for major projects that will expand our transportation network, keep major and critical regional assets in a state of good repair, and allow us to maximize the potential of our transit network going forward. The Interborough Express will serve a corridor between Brooklyn and Queens that is home to 900,000 people and 260,000 jobs. The Grand Central Artery project is critical for the continued viability of this regional transportation hub and all of Metro-North service.

For proposed investments that would expand upon the existing system, we evaluated the costs and benefits of a wide range of potential expansion projects against a consistent set of criteria: ridership impact, travel time savings, network resiliency and sustainability, ridership capacity, equity, existing network leverage, geographic distribution, and cost.

### Proposed 2025-2029 Capital Plan - \$5.25 billion

In the 2025-2029 Capital Plan, two major projects are proposed, as well as funding that encompasses investments that expand opportunities to leverage our regional transit system for the future.

Category	Proposed Budget (\$ in millions)	Percent
Interborough Express	\$2,750	52%
Grand Central Artery	\$1,700	32%
Other Regional Investments	\$800	15%
Total	\$5,250	100%

# Major Projects and Expansion Interborough Express

**Category G-908** 

### **Asset Profile**

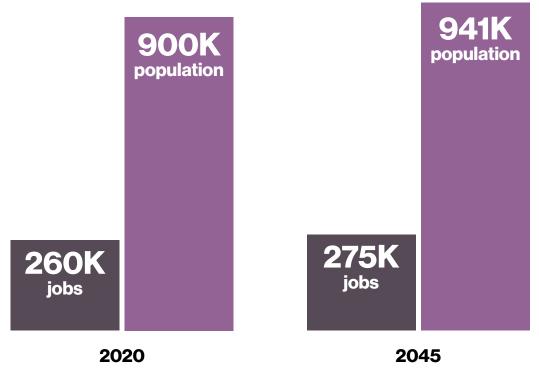
Hidden in plain sight, a rail corridor runs through Brooklyn and Queens. Today, this corridor provides a freight rail link, little used through New York City, but in the late 19th and early 20th century, it also hosted passenger rail service. This corridor is comprised of the LIRR Bay Ridge Branch and the CSX Fremont Secondary, and it provides an opportunity to better connect some of Brooklyn's and Queens' most densely populated and diverse neighborhoods—including areas without easy access to subways or commuter rail. The area surrounding the corridor is home to more than 900,000 people and 260,000 jobs.

### **Investment Needs**

The Interborough Express (IBX) will take advantage of the opportunity to connect population concentrations to better transit service. It would add light rail passenger service to the corridor to improve access and connections to and among communities and job centers that are currently underserved by subway or other transit services. And IBX will provide transfers to 17 subway lines, 50 bus routes, and the LIRR.

Although the right-of-way already exists, this project is not as simple as laying down track and starting service. Substantial reconstruction of the corridor will be necessary in order to make the IBX possible while preserving vital freight connections.

### **Data Highlight: IBX Corridor Projected Growth**



Areas of focus along the corridor include over 85 overhead and undergrade bridges, more than half of which will need to be reconstructed in order to accommodate this new light rail service, as well as a 125-year-old tunnel in East New York that will require rehabilitation. Another challenge is siting support facilities for vehicle maintenance and storage, as well as for power distribution, ancillary facilities, and stations within or near the narrow right-of-way.

These investments will result in major benefits: IBX will cut travel time significantly for many riders traveling within or between Brooklyn and Queens. Along with its benefits for individual riders, the IBX will enhance entire neighborhoods, make the existing transit network more resilient, redirect travelers from cars to transit, and strengthen the economies of Brooklyn and Queens. By creating new connections to job centers like the Brooklyn Army Terminal and Broadway Junction and educational institutions like Brooklyn College, the IBX will open up new economic possibilities for New Yorkers all across the city.

### In the 2025-2029 Capital Plan, we will:

- Move to make the Interborough Express a reality by:
  - Advancing project design and environmental review, as well as early utility work and real estate acquisition.
  - Developing the construction plan and schedule.
  - Aggressively pursuing federal support for implementation, including entering the pipeline for Federal Transit Administration's Capital Investment Grant program and advancing a Railroad Rehabilitation & Investment Financing application.

### **Proposed Investments**

**Project Development** 

**Total Interborough Express** 

\$2,750 M

# **Major Projects and Expansion Grand Central Artery**

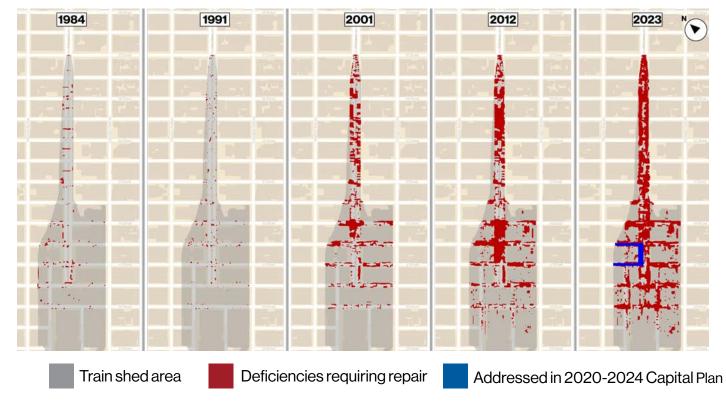
**Category G-912** 

### **Asset Profile**

Grand Central Terminal, one of New York's most iconic buildings, is the southern terminus of the Harlem, Hudson, and New Haven Lines on Metro-North Railroad. The Grand Central Artery extends from Grand Central Terminal north to the Harlem River Lift Bridge at East 132nd Street and is comprised of four distinct structures:

- Grand Central Terminal: Over 200,000 weekday passengers on 750 trains travel to or from the Terminal via the Grand Central Artery;
- Grand Central Train Shed: a 75-acre, multi-level subsurface complex with 44 operating tracks, 47 platforms, and a myriad of utilities and other systems. Two platform levels constitute the Train Shed, with the upper level roof structure supporting Park Avenue and adjoining side streets;
- Park Avenue Tunnel: extending under 40 blocks of Park Avenue, from 57 Street to 97 Street;
- Park Avenue Viaduct: Metro-North's two-mile, elevated Manhattan gateway from 97 St to the Harlem River Lift Bridge.

### Data Highlight: Growth of Train Shed Deficiencies Over Time



### **Investment Needs**

The Grand Central Terminal building and each of the Artery's three other structures are over 100 years old and must be rebuilt, improved, or significantly repaired to keep Metro-North service safe and reliable. Inside the Grand Central Terminal building, utility systems such as electrical, water, steam, sanitary, and fire-life-safety systems each have at least a quarter of their components rated in poor or marginal condition. The Terminal also requires comprehensive preservation work, including repairing platforms and leak remediation. In addition, passenger facility area upgrades are needed, such as the rehabilitation of elevators and escalators in the Grand Central Terminal building.

The Train Shed has advanced deterioration and structural deficiencies caused by decades of water, salt, and chemical infiltration. This has caused increasing areas of the Train Shed's roof and structural framing to be weakened with corroding steel and crumbling concrete. A significant majority of the Train Shed's structural supports and roof slabs are in poor or marginal condition, necessitating a comprehensive program to replace the Train Shed roof. Without substantial intervention, over time the Train Shed will lose its ability to support Park Avenue and side streets above. Other Train Shed needs include a new fire standpipe system for the upper-level platforms, as well as utility, ventilation, and fire-life-safety improvements.

Park Avenue Tunnel requires fire-life-safety systems improvements and repairs to maintain structural integrity. The Park Avenue Viaduct has numerous structural deficiencies and fatigue-related defects in the steel girders. Viaduct replacement commenced in the 2020-2024 Capital Plan; planning required to continue progress toward full rehabilitation of the Park Avenue Viaduct will continue in this Plan.

### In the 2025-2029 Capital Plan, we will:

- Ensure Metro-North service to and from Grand Central Terminal can continue to operate safely by:
  - Making necessary utility and structural improvements to the GCT building; making repairs to terminal platforms and track area; preventing leak infiltration, repairing historic architectural features of the terminal building; and improving or upgrading other assets, such elevators, and escalators.
  - Continuing the replacement of the Train Shed roof; leveraging public-private partnerships where possible to help fund and expedite the work, and upgrading ventilation infrastructure in the Train Shed.
  - Making priority structural repairs and upgrading fire-life-safety components of the Park Avenue Tunnel.
  - Planning for Phase 3 of the Park Avenue Viaduct replacement and rehabilitation between East 123 and East 127 Streets and the Harlem-125 Street Station.

### **Proposed Investments**

Grand Central Terminal Building Improvements

Train shed roof replacement and Park Avenue Tunnel

Planning for Phase 3 of Park Avenue Viaduct replacement and rehabilitation

### **Total Grand Central Artery**

\$1,700 M

# Major Projects and Expansion Other Regional Investments

**Category G-917** 

### **Overview**

To meet the demands of a changing region, we advance projects that help create additional capacity, connect with underserved communities, and respond to changing populations and land-use patterns. The Regional Investments category encompasses investments that expand opportunities to leverage the regional transit system for the future, including, but not limited to:

### The Regional Investments Project

Harold Interlocking is the nation's busiest railway junction along the nation's busiest passenger rail corridor, serving the LIRR, Amtrak, NJ Transit, and soon Metro-North via the Penn Station Access project. The completion of the East Side Access project has only increased the usage of this already-congested interlocking. Harold Interlocking provides critical operational flexibility for the railroads to meet their long-term service plans. This Plan will continue to support ongoing projects to help reduce conflicts and ensure efficient service through Harold Interlocking.

### **Regional Rail Network**

We will undertake a focused and in-depth analysis of the needs, constraints, and opportunities of our existing commuter rail infrastructure and look for opportunities to implement improvements. This comprehensive examination of the Regional Rail Network will help us to develop long-term strategies to enhance regional mobility, improve service reliability, add passenger capacity, and otherwise formulate cost-effective service and capital infrastructure improvements. Our work, including any selected implementation, will be guided by recent market dynamics, opportunities for additional passenger capacity, and cost-effectiveness. Funds dedicated to this analysis could also be used to implement some of the recommended improvements.

Projects that will be analyzed or developed include electrification of the LIRR Main Line to Yaphank, improvements to the Port Jefferson and Montauk Branches, adding a third track to the Metro-North Harlem Line, and connecting Hudson Line service to Penn Station.

### **Promising Expansion Projects**

In the 2025-2044 20-Year Needs Assessment, the MTA undertook its first ever Comparative Evaluation, examining approximately two dozen proposals for network expansion. As a continuation of that work, we will advance evaluation and the development of promising improvement and expansion projects, including the Ridgewood Busway, Staten Island North Shore Bus Rapid Transit proposals, and potential future phases of the Second Avenue Subway. In addition, as new promising ideas for network expansion arise, we will conduct preliminary baseline analysis of additional promising opportunities.

### **Proposed Investments**

Expansion and major-project development

**Total Other Regional Investments** 

\$800 M

# **BRIDGES AND TUNNELS**

### **Overview**

MTA Bridges and Tunnels was established in 1933 as the Triborough Bridge Authority. Today, Bridges and Tunnels is among the largest of the nation's bridge and tunnel tolling authorities in terms of revenue and traffic volume, operating seven bridges and two tunnels in New York City and connecting the boroughs of Manhattan, Brooklyn, Queens, the Bronx, and Staten Island. In 2023, Bridges and Tunnels collected more than \$2.42 billion in revenue. With over 60% of this toll revenue dedicated to the MTA's mass transit operations, Bridges and Tunnels performs a unique and vital function in support of regional mobility

Bridges and Tunnels' Master Plans are the foundation of the plan development process and are shaped by planning studies as well as detailed analyses of long-term needs and inspection reports for bridge or tunnel elements. Projects are selected based on goals such as maintaining a state of good repair, improving resiliency, meeting current codes, and enhancing regional mobility and accessibility.

### Proposed 2025-2029 Capital Plan by Facility - \$3.00 B

Category	Proposed Budget (\$ in millions)	Percent
Bronx-Whitestone Bridge (BWB)	\$260	9%
Cross Bay Veterans Memorial Bridge (CBB)	\$67	2%
Henry Hudson Bridge (HHB)	\$72	2%
Hugh L. Carey Tunnel (HCT)	\$240	8%
Marine Parkway - Gil Hodges Memorial Bridge	\$50	2%
Queens Midtown Tunnel (QMT)	\$217	7%
Robert F. Kennedy Bridge (RFK)	\$665	22%
Throgs Neck Bridge (TNB)	\$602	20%
Verrazzano- Narrows Bridge (VNB)	\$223	8%
Agency-Wide (AW)	\$603	20%
Total	\$3,000	100%

Crossing	Year Opened	Type of Structure	Length (feet)
Bronx-Whitestone Bridge (BWB)	1939	Suspension Span	3,770
		Viaducts/Approaches	3,362
Cross Bay Veterans Memorial	1970	High-Level Fixed Bridge	3,000
Bridge (CBB)		Viaducts/Approaches	2,472
Henry Hudson Bridge (HHB)	1936	Steel Arch Bridge	2,029
Hugh L. Carey Tunnel (HCT)	1950	Vehicular Tunnel	9,117
Marine Parkway - Gil Hodges Memorial Bridge (MPB)	1937	Lift Bridge	3,840
Queens Midtown Tunnel (QMT)	1940	Vehicular Tunnel	6,414
Robert F. Kennedy Bridge (RFK)	1936	Suspension Span	2,724
		Harlem River Lift Span	705
		Bronx Crossing Truss Span	1,530
		Viaducts/Approaches	11,742
		Ramps	11,759
Throgs Neck Bridge (TNB)	1961	Suspension Span	2,910
		Viaduct/Approaches	8,154
Verrazzano-Narrows Bridge (VNB)	1964	Suspension Span	6,690
()		Viaduct/Approaches	3,175
		Ramps	12,504

# **Bridges and Tunnels Structures**

**Category D-901** 

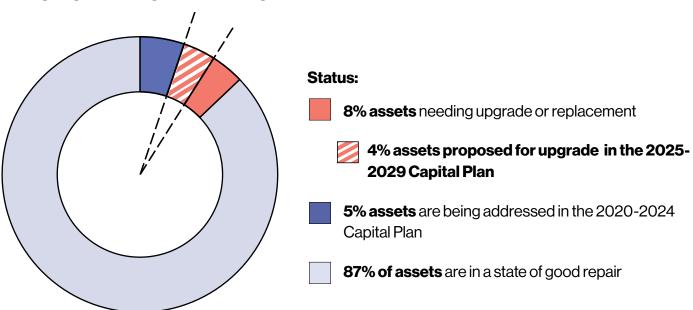
### **Asset Profile**

Structural improvements to Bridges and Tunnels' facilities focus on maintaining the structural integrity of those facilities while ensuring safety and minimizing customer inconvenience. These projects address either the bridge's superstructure or substructure. The superstructure is the portion of the bridge that directly receives the load from the traffic. Components include the roadway deck and supporting steel. The substructure is the portion of the bridge that supports the superstructure. Components include anchorages and piers. As bridge components deteriorate over time, these components—whether superstructure or substructure—must be rehabilitated or replaced. Otherwise, the bridge will require much more extensive and more costly capital investments in the future.

### **Investment Needs**

Projects planned in the 2025-2029 Capital Plan under the Structures category represent the greatest share of investments, comprising 37% of the total 5-year plan. As always, the suspension bridges will be a major area of investment. At the Throgs Neck Bridge, the rehabilitation of the concrete piers and superstructure steel on the approach viaducts will continue the work started under the 2015-2019 Capital Plan. Anchorage rehabilitation projects at the Throgs Neck Bridge and the Bronx-Whitestone Bridge will restore the concrete and prevent future water infiltration. In addition, the main cables on both bridges will be dehumidified to

### **Data Highlight: Throgs Neck Bridge Structures**



preserve their remaining strength. The installation of a dehumidification system on the main cables is the only known way to arrest their ongoing deterioration and preserve the remaining strength of the main cables thereby ensuring they remain in a state of good repair.

At the Robert F. Kennedy Bridge, additional retrofits will be performed on the suspended span superstructure steel to address structural fatigue issues caused by overweight trucks. Additional rehabilitation of the former Manhattan Plaza will be performed to extend its life. In addition, cyclical structural rehabilitation projects are planned at each facility to ensure the remaining are in a state of good repair.

### In the 2025-2029 Capital Plan, we will:

- · Maintain crossings in a state of good repair.
- Preserve the remaining strength of the Throgs Neck Bridge & Bronx-Whitestone Bridge main cables.

### **Proposed Investments**

Miscellaneous structural rehabilitation — Throgs Neck Bridge

Main cable dehumidification and related improvements — Bronx-Whitestone Bridge

Main cable dehumidification and related improvements — Throgs Neck Bridge

Superstructure upgrades on suspended spans — Robert F. Kennedy Bridge

Others

Total Structures \$1,124 M

# **Bridges and Tunnels Roadways and Decks**

**Category D-902** 

### **Asset Profile**

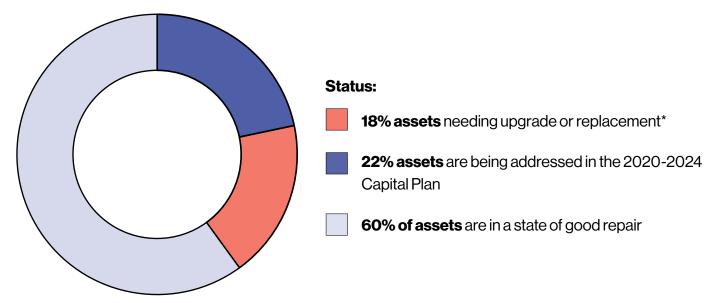
Deck replacement and rehabilitation work at Bridges and Tunnels' facilities focuses on preserving primary bridge elements, upgrading them to modern design standards, and enhancing regional mobility through improved traffic capacity and access. The rehabilitation of roadways, decks, approaches, and drainage systems ranges from large-scale resurfacing to the total replacement of the roadway deck or the construction of new access ramps. Drainage system projects convey the runoff of heavy rains away from the supporting structures. These investments not only help ensure a safer trip for Bridges and Tunnels' customers, but forestall the need for more extensive roadway work in the future.

### **Investment Needs**

The majority of the bridge decks have been replaced under previous plans or are currently being replaced under the 2020-2024 Capital Plan. Deck replacement and rehabilitation work comprises only 7% of the 5-year plan. This plan focuses on the preliminary designs for two major deck replacement projects: the replacement of the Manhattan Plaza structure at the Robert F. Kennedy Bridge and the replacement of the suspended span lower-level decks on the Verrazzano-Narrows Bridge.

In addition to these critical design projects, there are several deck rehabilitation and traffic safety improvement projects planned for 2025-2029. At the Robert F. Kennedy Bridge, additional rehabilitation

### Data Highlight: Verrazzano-Narrows Bridge Roadways and Decks



<sup>\*</sup> Preliminary Design for these assets is included in the 2025-2029 Capital Plan

of the former Manhattan Plaza deck will be performed to extend the life of the roadway until full replacement can commence in a future plan. Signage upgrades will be performed at the Marine Parkway Bridge, the Cross Bay Bridge, and the Henry Hudson Bridge. Also, at the Henry Hudson Bridge, drainage improvements will be performed on the Henry Hudson Parkway. At the Throgs Neck Bridge, preliminary design will begin for the reconfiguration of the Cross Island Ramps to address off-property flooding conditions that impede traffic flow and safety.

### Over the next 5 years, we plan to:

- Maintain existing decks in state of good repair.
- Prepare for the replacement of remaining older areas of the bridge decks in future programs.
- Improve traffic safety.

### **Proposed Investments**

Replacement of Manhattan Plaza structure, including associated ramps (preliminary design) — Robert F. Kennedy Bridge

Replacement of the suspended span lower decks (prelim design— Verrazzano-Narrows Bridge

Others

### **Total Roadways and Decks**

\$207 M

# **Bridges and Tunnels TSMO**

Category D-903

### **Asset Profile**

Projects in this category focus on Transportation Systems Management Operations (TSMO) initiatives. With the end of cash collection at Bridges and Tunnels crossings nearly a decade ago, the Authority has shifted completely towards a TSMO paradigm. TSMO programs, as defined by the Federal Highway Administration, are "a set of integrated strategies to optimize the performance of operations on existing infrastructure through implementation of multimodal, cross-jurisdictional systems, services, and projects designed to preserve capacity and improve security, safety, and reliability of a transportation system."

The goal is to get the most performance out of the transportation facilities the region already has in place. This requires strategies and techniques to implement comprehensive solutions that can be quickly installed at relatively low cost, which could enable transportation agencies to "stretch" their existing funding to benefit more areas and customers. TSMO also helps agencies balance supply and demand and provide flexible solutions to match changing conditions.

### **Investment Needs**

TSMO projects comprise 8% of the total plan. The Authority is expanding its previous investments in Intelligent Transportation Systems (ITS) to include new technologies to prevent operational disruptions from overweight/over-height vehicles and weather events. The 2025-2029 Capital Plan includes investments that implement innovative technologies to support these operations-oriented activities. These investments include upgrades to traffic detection systems, weather information systems, and over-height vehicle detection systems. These investments also include renewal of Bridges and Tunnels' existing Open Road Tolling System with new detection and enforcement systems.

Technology can also help transportation agencies understand the conditions under which their bridges and tunnels operate, including what loads they are carrying. The 2020-2024 Capital Plan included investments to install weigh-in-motion systems at all bridges carrying truck traffic to capture the actual loads that Bridges and Tunnels' facilities are carrying and inform future structural designs. The 2025-2029 Capital Plan includes investments to upgrade these systems to meet enforcement grade requirements upon passage of state legislation allowing the use of automatic weigh-in-motion systems for enforcement of overweight truck restrictions. These new systems will help to protect bridges from the damage caused by illegally overweight vehicles.

### In the 2025-2029 Capital Plan, we will:

- Upgrade the toll collection system to current technology.
- Improve our ability to enforce weight limits for trucks crossing our bridges.
- Optimize operations at our facilities and improve customer communications.

### **Proposed Investments**

Toll collection system rehabilitation/upgrades — Authority wide

Adv. traveler info. systems (ATIS) & VMS upgrades — Authority wide

ATMS enhancements and upgrades/OCCC system of systems/smart city initiatives — Authority wide

Traffic detection/incident management systems — Authority wide

Others

Total TSMO \$232 M

# **Bridges and Tunnels Utilities**

**Category D-904** 

### **Asset Profile**

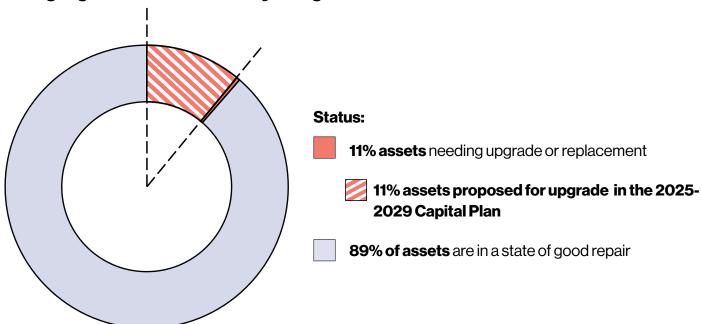
All the Authority's facilities are heavily dependent on functioning utility systems. Investments in utilities ensure conformance with current codes and standards with respect to tunnel life-safety systems, power distribution systems, and security systems to the greatest extent possible. Investments in this category include replacing, rehabilitating or upgrading mechanical, electrical and power distribution systems, and security systems. In addition, this category addresses installation of fire suppression systems within the tunnels to improve life safety, upgrades to fueling systems at the facilities, and upgrades to anchorage dehumidification systems at the suspension bridges.

The inclusion of the new fire suppression systems at the two tunnels and several major substation upgrades as well as the security system upgrade at the Verrazzano-Narrows Bridge in this program resulted in this category being the second largest category in this plan.

### **Investment Needs**

Projects planned in this program under the utilities category comprise 26% of the total 5-year plan. At the Hugh L. Carey Tunnel, the Authority recently installed a proto-type fixed fire suppression system in a portion of the tunnel to further enhance fire-fighting capabilities. Under the 2025-2029 Capital Plan, the Authority

### **Data Highlight: Robert F. Kennedy Bridge Utilities**



will complete the installation of a fixed fire suppression system in both the balance of the Hugh L. Carey Tunnel and the entire Queens Midtown Tunnel. This system significantly reduces smoke, blocks radiant heat, cools the tunnel structure, and improves the level of safety during a fire incident for both first responders and motorists.

Three additional projects will upgrade/relocate critical substations at the Throgs Neck and Robert F. Kennedy Bridges, with projects at the latter completed in preparation for the future replacement of the former toll plaza deck. Projects at both locations will ensure the resiliency of the power supply at these two crossings. We will also upgrade and expand Electronic Security Systems (ESS) at the Verrazzano-Narrows Bridge, increasing security coverage and reducing identified risks at the Verrazzano-Narrows Bridge.

### In the 2025-2029 Capital Plan, we will:

- Maintain utilities that support bridge and tunnel operation in a state of good repair.
- Ensure customer and employee life-safety.
- Protect Authority facilities from unauthorized entry/activities.

### **Proposed Investments**

Installation of fire suppression system – Hugh L. Carey Tunnel

Installation of fire suppression system – Queens Midtown Tunnel

Power redundancy and resiliency – Throgs Neck Bridge

Replace/relocate 13KV substation – Robert F. Kennedy Bridge

Anchorage substation/electrical resiliency upgrades — Robert F. Kennedy Bridge

Overhaul and replace facility monitoring and safety systems and physical key access control system — Verrazzano-Narrows Bridge

Others

Total Utilities \$797 M

# **Bridges and Tunnels Buildings and Sites**

**Category D-905** 

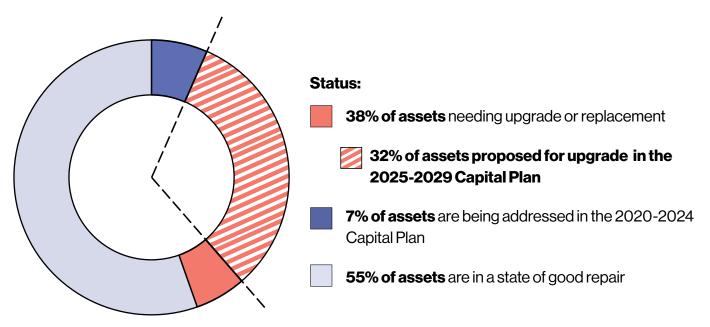
### **Asset Profile**

These assets include service buildings, ventilation buildings, and garages. Investments in this category of work address normal replacement cycles for building components and increase operational efficiency by improving working conditions for operations staff through enhancements and modernization of employee facilities. In addition, this category includes the removal of hazardous materials and carrying out hazardous material abatement work as needed. This category of work comprises a small share of the program total but often involves code-related work at Authority buildings, many of which have been serving the Authority for decades.

#### **Investment Needs**

Buildings & Sites work comprises only 10% of the 5-year plan. At the tunnels, the ventilation buildings will be repaired and rehabilitated to maintain them in a state of good repair and address code-related needs. Design for these projects was completed under an earlier capital plan and construction is now planned for the proposed 2025-2029 Capital Plan. State-of-good-repair needs will also be addressed at various support buildings at the Throgs Neck Bridge, the Robert F. Kennedy Bridge, and the Verrazzano-Narrows Bridge. Also, at the Robert F. Kennedy Bridge, we will construct a mezzanine level in the existing Central Maintenance Building to provide consolidated office space for staff associated with managing the toll collection systems.

### **Data Highlight: Queens Midtown Tunnel Buildings & Sites**



In addition, critical Agency Operations/IT functions will be relocated out from underneath an old ramp slated for reconstruction to new locations at the Robert F. Kennedy Bridge and the Henry Hudson Bridge, improving operational flexibility for the Authority and facilitating future capital work.

### In the 2025-2029 Capital Plan, we will:

- Maintain existing buildings in a state of good repair.
- Relocate existing functions to new locations to prepare for deck replacement work in future programs.
- Meet current codes and standards.

### **Proposed Investments**

Rehabilitation of HCT ventilation buildings – Hugh L. Carey Tunnel

Rehabilitation of GIVB and BVB facade – Hugh L. Carey Tunnel

Rehabilitation of QMT ventilation buildings – Queens Midtown Tunnel

Internal security department hub relocation – Robert F. Kennedy Bridge

Backup operations command & control – Henry Hudson Bridge

Others

### **Total Buildings & Sites**

\$295 M

# **Bridges and Tunnels Miscellaneous**

**Category D-906** 

### **Asset Profile**

Projects in this category provide for costs associated with the support and management of the capital program. The proposed 2025-2029 Capital Plan includes projects with program-wide applicability such as protective liability coverage, independent engineer services, value engineering services, small business mentoring, scope development, preliminary design reserve, NYC Traffic Enforcement Agent support, and the MTA-wide Enterprise Asset Management System.

### **Investment Needs**

Miscellaneous projects comprise 4% of the total plan. These projects are funding sources that support the management and further development of the overall capital plan.

### In the 2025-2029 Capital Plan, we will:

- Support the development of future capital programs.
- Support the Small Business Mentoring Program.
- Provide overall program support.

Proposed Investments	
Others	
Total Miscellaneous	\$118 M

# **Bridges and Tunnels Structural Painting**

**Category D-907** 

### **Asset Profile**

Structural paint protects the Bridges and Tunnels crossings' steel elements from corrosion. Modern coating systems consist of an inorganic zinc-rich primer, an epoxy midcoat, and a urethane topcoat. The zinc provides galvanic protection to the underlying steel against corrosion and these modern coating systems can last 20-30 years before requiring an overcoating to extend the paint life. Projects in this category traditionally involved the removal of existing lead paint and repainting the bridge structures with new high-performance coatings.

### **Investment Needs**

The Painting program has been a significant focus in recent capital plans, with continued emphasis in the 2020-2024 Capital Plan. The completion of projects currently ongoing will result in the removal of all lead-based coatings on the bridge exteriors: a major environmental achievement. Continued investment is necessary to ensure existing coatings reach their maximum service life.

Painting projects comprise 8% of the total 2025-2029 Capital Plan. The focus of structural painting work in the proposed capital plan is now on the renewal of coatings for various bridge elements to extend the service life of the coating systems providing vital corrosion protection to maintain the structural integrity of all facilities.

These investments will extend the life of the underlying assets which are comprised primarily of steel structures. We will have painting projects at most Bridges and Tunnels' steel crossings to address coating renewal. Most of this work is bundled with structural projects to achieve efficiencies in both procurement and construction staging (e.g. lane closures, access platforms, etc.).

### In the 2025-2029 Capital Plan, we will:

**Total Structural Painting** 

- Extend the service life of coating systems in place on the structures.
- Avoid future capital investments for structural steel due to corrosion or water infiltration.

# Proposed Investments Facility-wide painting program—Robert F. Kennedy Bridge Facility-wide painting program—Throgs Neck Bridge Facility-wide painting program—Bronx-Whitestone Bridge Anchorage waterproofing — Bronx-Whitestone and Throgs Neck Bridges Others

\$228 M

# **MTA INTERAGENCY**

The Budget Tables are the complete list of capital investment projects to be initiated over the next 5 years, provided in tabular format. The New York City Transit example below explains all of the information that is included in a typical budget table.

- 1 The **Agency** name
- 2 The Category name
- The Agency (T), Capital Plan (9), and Category (09) portions of the ACEP code

New York City Transit				2	TR	ACTION	I POW
							T - 9
		nmitments n millions)	7				
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	To All Yea
02 Substatoins							
01 Substation Renewals: Various Locations	SGR	479.6	143.5	617.1	0.0	0.0	1,240
02 Substation Components: Various Locations	SGR	189.2	0.0	109.1	107.5	352.7	758
Element Total 02		\$668.8	\$143.5	\$726.2	\$107.5	\$352.7	\$1,998
04 Power Distribution							
01 Rehab CBHs/ Enclosures: Various Locs	SGR	148.7	0.0	58.7	301.5	109.4	618
02 Upgrade SCADA Systems (IND)	SGR	0.0	219.2	0.0	0.0	0.0	219
03 Other Power Distribution Work	SGR	0.0	91.5	0.0	0.0	68.1	159
Element Total 04		\$148.7	\$310.8	\$58.7	\$301.5	\$177.5	\$997
Category Total 909		\$817.6	\$454.2	\$784.9	\$409.1	\$530.2	\$2.996

- 4 The **Element** name and Element portion of the ACEP code
- 5 The **Project** description and Project portion of the ACEP code
- 6 The **Needs Code**. Separate from the ACEP Code, the Needs Code indicates the focus of each project:

State of Good Repair (SGR) projects achieve a state of good repair by renewing assets that have surpassed their useful lives

Normal Replacement (NR) projects *preserve a state of good repair* by renewing assets that are near the end of their useful lives

System Improvement (SI) projects *enhance the network* by providing both new capabilities and better customer experience

Network Expansion (NE) projects *extend the reach* of the MTA network by expanding the service offering

Various (VAR) projects include multiple needs codes in one project

7 The **Commitments** columns indicate the share of the project budget that is planned to be committed in each year of the 2025-2029 five-year period

### **New York City Transit**

SUBWAY CARS T - 901

Commitments

			(\$ in millio	ons)				
ELEMENT DESCRIPTION/PROJECT		NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 901		\$2,219.7	\$2,850.0	\$889.5	\$1,194.7	\$463.0	\$7,617.0
01	SUBWAY CARS		\$2,219.7	\$2,850.0	\$889.5	\$1,194.7	\$463.0	\$7,617.0
01	Purchase 355 New B-Division Cars	NR						1,775.0
02	Purchase 1,140 New A-Division Cars, Phase 1	NR						3,950.0
03	Additional Rolling Stock Support	NR						1,892.0

Numbers may not add due to rounding

New York City Transit

BUSES
T - 903

### **New York City Transit**

### PASSENGER STATIONS T - 904

			Commitmer (\$ in million					
ELEMENT DESCRIPTION/PROJECT		NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 903		\$972.4	\$277.6	\$1,092.9	\$455.4	\$494.8	\$3,293.2
02	BUS REPLACEMENT		\$972.4	\$277.6	\$1,092.9	\$455.4	\$494.8	\$3,293.2
01	Purchase 500 Standard ZEF Buses	VAR						797.1
02	Purchase 855 Standard Buses	NR						849.1
03	Purchase 556 Articulated Buses	NR						719.6
05	Purchase 350 Express Buses	NR						325.9
07	Bus Charging	SI						589.4
80	Bus Technology	SI						12.1

	(\$ in millions)	1				
NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	\$1,412.0	\$836.1	\$3,384.9	\$4,126.2	\$2,171.5	\$11,930.7
	\$0.0	\$0.0	\$0.0	\$300.0	\$300.0	\$600.0
SI						600.0
	\$641.8	\$0.0	\$485.3	\$0.0	\$0.0	\$1,127.1
NR						520.5
NR						606.6
	\$770.1	\$109.4	\$795.7	\$745.8	\$871.5	\$3,292.6
SGR						758.0
SGR						2,158.7
SGR						271.2
VAR						104.6
	SI  NR NR SGR SGR SGR	Sigrature   Sigr	NEEDS   2025   2026     \$1,412.0   \$836.1     \$0.0   \$0.0     SI   \$641.8   \$0.0     NR   NR   NR     SGR   SGR	NEEDS   CODE   2025   2026   2027     \$1,412.0   \$836.1   \$3,384.9     \$0.0   \$0.0   \$0.0     SI   \$641.8   \$0.0   \$485.3     NR	NEEDS   CODE   2025   2026   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2028   2027   2028   2028   2027   2028   2028   2027   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028   2028	NEEDS CODE   2025   2026   2027   2028   2029     \$1,412.0   \$836.1   \$3,384.9   \$4,126.2   \$2,171.5     \$0.0   \$0.0   \$0.0   \$300.0   \$300.0     SI

These candidate station renewals in the STATION WORK element are identified in the 2025-29 program and will be broken out as awarded.

08 181 St / 8 Av (A line) 10 51 St / Lexington Av (6 line) 09 Junction Blvd / Flushing (7 line) 11 Additional Station Renewals TBD

13 ACCESSIBILITY		\$0.0	\$726.7	\$2,104.0	\$3,080.3	\$1,000.0	\$6,911.0
RR ADA Station Investments	SI						6 911 0 0

Note: These candidate ADA stations in the ACCESSIBILITY element are identified in the 2025-29 program for ADA and will be broken out as awarded.

01 Central Park North (110 St) / Lenox (2, 3 lines)

02 23 St / Broadway - 7 Av (1 line)

03 Van Siclen Av / Jamaica (J, Z lines)

04 121 St / Jamaica (J, Z lines)

05 W Farms Sq - E Tremont Av / White Plains Rd (2, 5 lines)

06 Flushing Av / Crosstown (G line)

07 Myrtle-Willoughby Avs / Crosstown (G line)

08 155 St / Eight Avenue (C line)

09 Elder Av / Pelham (6 line)

10 Nostrand Av / Eastern Parkway (3 line)

11 President St / Nostrand (2,5 lines)

12 Elmhurst Av / Queens Boulevard (M, R lines)

13 116 St / Eighth Avenue (B, Clines)

14 Saratoga Av / New Lots (3 line)

15 Sterling St / Nostrand (2, 5 lines)

16 125 St / Lenox (2, 3 lines)

17 Smith - 9th Sts / Sixth Av (F, G lines)

18 Cypress Hills / Jamaica (J line)

19 4 Av - 9 St Complex (2 Stations) (F, G, R lines)

20 Beach 36 St / Far Rockaway (A line)

21 Beach 90 St / Rockaway (A, S lines)

22 Canal St / Broadway - 7 Av (1 line)

23 Canal St Complex (3 Stations, J, N, Q, R, W lines)

24 Prospect Av / White Plains Road (2, 5 lines)

25 Baychester Av / Dyre (5 line)

26 182 - 183 Sts / Concourse (B, D lines)

27 Additional Stations TBD

Numbers may not add due to rounding

Numbers may not add due to rounding

187

New York City Transit	TRACK
	T - 905

(			\$ in millions)						
	ELEMENT DESCRIPTION/PROJECT		2025	2026	2027	202	28	2029	Total All Years
	Category Total 905			\$634.5	\$658.1	\$941.4	\$735.6	\$747.1	\$3,716.8
02	MAINLINE TRACK REHABILITATION			\$485.5	\$497.5	\$721.8	\$522.1	\$535.9	\$2,762.6
01	Mainline Track Replacement	NR							1,949.3
02	Mainline Track Replacement (Stations & Other)	NR							638.3
03	Track Force Account	NR							175.0
03	MAINLINE SWITCH REPLACEMENT			\$149.0	\$160.7	\$219.7	\$213.5	\$211.3	\$954.2
01	Switch Replacement	NR							785.8

NR

02 Switch Replacement (CBTC)

### **New York City Transit**

LINE EQUIPMENT

Commitments (\$ in millions)

	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 906		\$3.0	\$105.3	\$233.2	\$140.2	\$250.0	\$731.7
05	LINE EQUIPMENT			\$3.0	\$105.3	\$233.2	\$140.2	\$250.03
01	Tunnel Lighting: Various Locations	SGR						22.6
02	Fan Plants: Various Locations	SGR						81.7
03	Pump Rooms: Various Locations	SGR						477.4
04	Other Line Equipment Work	VAR						150.0

Numbers may not add due to rounding

168.4

### **New York City Transit**

### LINE STRUCTURES T - 907

		Commitmen (\$ in millions					
ELEMENT DESCRIPTION/PROJECT	NEED CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 907	OODL	\$1,615.5	\$644.2	\$886.6	\$65.0	\$2,425.0	\$5,636.3
03 LINE STRUCTURE REHABILITATION		\$1,615.5	\$644.2	\$886.6	\$65.0	\$2,425.0	\$5,636.3
01 Elevated Structure Paint/Repair: Various Locs	SGR						1,755.8
02 Subway Structure Repairs: Various Locations	SGR						3,780.4
03 Rehabilitate Emergency Exits	SGR						100.0

These candidate elevated structure paint/repair locations in the LINE STRUCTURE element are identified in the 2025-29 program and will be broken out as awarded.

- 04 Rockaway Blvd Hammels Wye. including S. Channel Bridge and High Trestle / Rockaway (A, S lines)
- 05 Sutter Av Portal to End of Line / New Lots (3 Line)
- 06 Sheepshead Bay W 8 St / Brighton (B, Q lines)
- 07 75 St Lefferts Blvd / Liberty Av (A line)
- 08 Bronx Park East 241 St / White Plains Rd (2, 5 lines)
- 09 Portal End of Line / Pelham (6 line)
- 10 162 St to 190 St / Jerome (4 line)
- 11 103 St South Main St Portal / Flushing (7 line)
- 12 215-225 St, 240 St Yard / Broadway-7 Av (1 line)
- 13 Additional Elevated Structure Paint/Repair Locations TBD

These candidate subway structure repair locations in the LINE STRUCTURE element are identified in the 2025-29 program and will be broken out as awarded.

- 14 6 Av (B, D, F, M lines)
- 15 8 Av North (A, B, C, D lines)
- 16 Fulton St (A, C lines)
- 17 Crosstown (G line)
- 18 4 Av Line (D, N, R lines)
- 19 Additional Subway Structure Repairs TBD

### **New York City Transit**

### SIGNALS & COMMUNICATIONS

Commitments (\$ in millions)

	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 908		\$724.4	\$258.6	\$752.7	\$2,040.1	\$3,132.2	\$6,907.0
03	SIGNAL MODERNIZATION		\$694.4	\$75.0	\$386.0	\$1,401.0	\$2,882.4	\$5,438.8
01	CBTC Equipment for Rolling Stock	VAR						183.0
03	ATS-A System Replacement	SGR						325.7
04	Signal System Component Replacement	SGR						295.4
05	Additional CBTC Work	SGR						1,455.0
RR	CBTC: Various Lines	SGR						3,189.6

The following candidate CBTC lines in the SIGNAL MODERNIZATION element are identified in the 2025-29 program and will be broken out as awarded.

06 Rockaway Blvd to Rockaways / Rockaway (A, S lines)

09 Broad St to Essex St / Nassau (J, Z lines)

07 Euclid Av to Lefferts Blvd / Liberty (A line)

10 CBTC Additional Lines TBD

08 Ditmars to DeKalb Av / Bdwy (N,Q, R, W lines)

06 COMMUNICATION SYSTEMS		\$30.0	\$183.6	\$366.7	\$639.1	\$248.8	\$1,468.2
01 Communications Network Upgrades	NR						183.6
05 Electronic Security Systems	SI						99.7
09 Station Comm Room Upgrades: Various Locs (SBMP)	SGR						67.4
10 Subway Radio Equipment Replacement	SGR						30.0
11 Communications Applications	VAR						60.0
12 Communication Cable Replacement: Various Locs	SGR						199.6
13 Station Information Systems	VAR						827.9

Numbers may not add due to rounding

Numbers may not add due to rounding

New York City Transit

<b>TRACTION</b>	<b>POWER</b>
	T - 909

ON POWER	New Y
T - 909	

			Commitments (\$ in millions)					
ELEMENT DESCRIPTIO	N/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Cate	gory Total 909		\$817.6	\$235.0	\$784.9	\$628.3	\$530.2	\$2,996.0
02 SUBST	TATIONS		\$668.8	\$143.5	\$726.2	\$107.5	\$352.7	\$1,998.8
01 Substat	tion Renewals: Various Locations	SGR						1,240.2
02 Substat	tion Components: Various Locations	SGR						758.6

These candidate substation renewals in the SUBSTATIONS element are identified in the 2025-29 program will be broken out as awarded.

03 Jamaica Av - 144 Place / Archer (E, J, Z lines)	09 Hammels Wye / Rockaway (A, S lines)
04 Lenox - 113 St / Lenox (2,3 lines)	10 W 73 St / 8 Av (A, B, C, D lines)
05 Lenox - 141 St / Lenox (2,3 lines)	11 Broadway - 73 St / Broadway - 7 Av (1, 2, 3 lines)
06 W 144 St / 8 Av (A, B, C, D lines)	12 Avenue O / Culver (F line)
07 Stanton St / 6 Av (F line)	13 Additional Substation Renewals TBD
08 Atlantic Av / Fulton (A, C lines)	

04 POWER DISTRIBUTION		\$148.7	\$91.5	\$58.7	\$520.8	\$177.5	\$997.2
01 Rehab CBHs/ Enclosures: Various Locs	SGR						618.3
02 Upgrade SCADA Systems (IND)	SGR						219.2
03 Other Power Distribution Work	SGR						159.7

### **New York City Transit**

07 Yard Track Replacement

08 Yard Switch Replacement

05 Yard Lighting / Improvements: Coney Island Complex

### SHOPS & YARDS T - 910

173.0

154.7

60.1

ELE	MENT	NEEDS	Commitmen (\$ in million					Total
	CCRIPTION/PROJECT	CODE	2025	2026	2027	2028	2029	All Years
	Category Total 910		\$87.9	\$446.1	\$265.5	\$802.5	\$45.3	\$1,647.3
04	SHOPS & YARDS		\$87.9	\$446.1	\$265.5	\$802.5	\$45.3	\$1,647.3
01	Livonia/240 St Shop Facilities Rehab	SGR						800.0
02	Shop Components: Various Locations	SGR						414.1
03	DOS Facility Elevators: Various Locations	NR						45.3

SGR

SGR

SGR

Numbers may not add due to rounding

Numbers may not add due to rounding

### **DEPOTS** T - 912

### **New York City Transit**

# SERVICE VEHICLES

	Commitments (\$ in millions)							
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years	
Category Total 912	0052	\$95.2	\$148.4	\$26.8	\$75.0	\$25.0	\$370.4	
03 DEPOT REHAB & RECONSTRUCTION		\$95.2	\$148.4	\$26.8	\$75.0	\$25.0	\$370.4	
01 Depot Component Repairs: Various Locations	NR						193.6	
02 Non-Revenue Shop Reconfiguration	SI						50.0	
05 Other Depot Work	VAR						126.8	

			(\$ in millions)					
ELEN	MENT	NEEDS						Total
DESC	CRIPTION/PROJECT	CODE	2025	5 2026	2027	2028	2029	All Years
	Category Total 913		\$11.0	\$11.3	\$578.8	\$11.9	\$0.0	\$613.0
02	SERVICE VEHICLES		\$11.0	\$11.3	\$578.8	\$11.9	\$0.0	\$613.0
01 I	Purchase 45 Locomotives	SI						554.9
02 I	Purchase Various Rubber Tire Vehicles	NR						45.8
03 I	Purchase / Upgrade Various Work Train Cars	NR						12.3

Commitments

New York City Transit

MISC./EMERGENCY

T - 916

		Commitments (\$ in millions)					
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 916	CODE	\$185.0	\$253.7	\$373.4	\$523.2	\$274.4	\$1,582.7
02 MISCELLANEOUS		\$105.0	\$105.0	\$128.9	\$105.0	\$5.0	\$448.9
01 Capital Revolving Fund							25.0
02 OCIP and Other Insurance							423.9
04 MANAGEMENT INFORMATION SYSTEMS		\$0.0	\$50.0	\$30.0	\$0.0	\$0.0	\$80.0
01 Enterprise Asset Management (EAM)	SI						30.0
02 Information Systems Upgrades / Resiliency	SI						50.0
05 ENGINEERING SERVICES		\$29.2	\$29.9	\$135.8	\$205.8	\$32.4	\$643.1
01 Engineering Services to Support Capital Program							178.6
02 Small Business Mentoring Program Admin.							32.7
03 Scope Development and Design							366.0
04 GO Support - Traffic Checkers							65.8
07 EMPLOYEE FACILITIES		\$50.8	\$68.8	\$78.7	\$212.4	\$0.0	\$410.7
01 Subway Employee Facility Repairs: Various Locs	NR						235.7
03 Fire Alarms and Sprinklers: Various Locations	NR						100.0
04 PCC/RCC Upgrades	NR						75.0
TOTAL PROGRAM		8,778.2	\$6,724.5	\$9,655.7	\$11,053.7	\$10,830.6	\$47,042.0

### Staten Island Railway

### STATEN ISLAND RAILWAY

ELEMENT	NEEDS	Commitment (\$ in millions	-				Total
DESCRIPTION/PROJECT	CODE	2025	2026	2027	2028	2029	All Years
Category Total 907		\$108.3	\$0.0	\$66.8	\$163.9	\$5.0	\$344.0
01 SIR: MISCELLANEOUS		\$108.3	\$0.0	\$66.8	\$163.9	\$5.0	\$344.0
01 Station Components: Various Locations	SGR						22.8
02 Track and Switch Replacement	SGR						55.1
03 Structure Repairs: Various Locations	SGR						23.0
04 Paint Bridges: Various Locations	SGR						81.8
05 Employee Facility Repairs	SGR						20.0
06 Power Improvements: Various Locations	SGR						40.0
07 Various Technology / System Improvements	SI						42.3
08 Purchase Various Work Train Cars	SGR						8.0
09 Purchase Various Rubber Tire Vehicles	SGR						1.0
10 ADA: Staten Island Railway	SI						50.0

The following candidate ADA Station in the STATEN ISLAND RAILWAY element are identified in the 2025-29 program for ADA and will be broken out as awarded.

#### 11 Prince's Bay

TOTAL PROGRAM	\$108.3	\$0.0	\$66.8	\$163.9	\$5.0	\$344.0

Numbers may not add due to rounding

### **New York City Transit Agency Summary**

### Commitments

AGENO	CY .	2025	2026	2027	2028	2029	Total All Years
TOTAL	New York City Transit	\$ 8,778.2	\$6,724.5	\$9,655.7	\$11,053.1	\$10,830.6	\$47,042.0
TOTAL	Staten Island Railway	\$108.3	\$.0	\$66.8	\$163.9	\$5.0	\$344.0
TOTAL	NEW YORK CITY TRANSIT AGENCY PROGRAM	\$8,886.5	\$6,724.5	\$9,722.4	\$11,217.0	\$10,835.6	\$47,386.0

### Long Island Rail Road

### ROLLING STOCK L - 901

Commitments	
(\$ in millions)	

	EMENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 901		\$1,013.0	\$0.0	\$560.0	\$0.0	\$0.0	\$1,573.0
01	REVENUE EQUIPMENT		\$1,013.0	\$0.0	\$560.0	\$0.0	\$0.0	\$1,573.0
01	Dual-Mode Locomotives	NR						753.0
02	Work Locomotives	SGR						100.0
03	M9A	SI						660.0
04	Diesel-Hauled Coaches	SI						60.0

Numbers may not add due to rounding

Long Island Rail Road STATIONS L - 902

Commitments

		(\$ in millions	)				
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 902		\$232.6	\$332.4	\$436.4	\$127.4	\$72.4	\$1,201.0
04 STATIONS AND BUILDINGS		\$196.6	\$295.6	\$421.6	\$112.6	\$57.6	\$1,084.0
01 Station Components: Various Locations	NR						317.0
02 Station Renewals: Various Locations	SGR						520.0
03 Small Business Mentoring: Stations	NR						20.0
04 Station ADA Improvements: Various Locations	SI						80.0
05 Station Improvements: Various Locations	SI						7.0
06 Jamaica Station - Vertical Circulation	SI						110.0
07 Station Design	NR						30.0

These candidate projects in the STATIONS AND BUILDINGS element are identified in the 2025-29 program for investments and will be broken out as awarded.

08 ADA / Component Repairs: Cold Spring Harbor

09 ADA / Component Repairs: Douglaston

19 ADA / Renewal: Mets - Willets Point

11 ADA / Renewal: Bellerose

13 Renewal: Floral Park

14 Component Repairs: Patchogue

15 Design: Hunterspoint ADA / Renewal Early Work

16 ADA / Renewal: East New York

on
)

05 PARKING		\$3.0	\$25.0	\$3.0	\$3.0	\$3.0	\$37.0
		Ψ0.0	Ψ20.0	Ψ0.0	Ψ0.0	Ψ0.0	
01 Station Parking: Various Locations	NR						37.0
06 PENN STATION		\$30.0	\$8.8	\$8.8	\$8.8	\$8.8	\$65.0
01 Penn Station:Station Components	SGR						65.0
07 GRAND CENTRAL TERMINAL		\$3.0	\$3.0	\$3.0	\$3.0	\$3.0	\$15.0
01 Grand Central Terminal: Station Components	SI						15

Long Island Rail Road

TRACK L - 903

			(\$ in million	s)				
	MENT CCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 903		\$230.0	\$180.0	\$345.0	\$200.0	\$155.0	\$1,110.0
01	ANNUAL TRACK REHAB PROGRAM		\$129.4	\$154.4	\$219.4	\$174.4	\$129.4	\$807.0
01	Annual Track Program	NR						660.0
02	M of W Equipment Purchases	SGR						75.0
03	ROW Culverts, Drainage, Retaining Walls	SGR						32.0
04	ROW Protection - High Security Fencing	SI						10.0
05	Yard Track Rehabilitations	SGR						30.0
04	OTHER TRACK IMPROVEMENTS		\$100.6	\$25.6	\$125.6	\$25.6	\$25.6	\$303.0
01	Amtrak Territory Investments	NR						100.0
02	Jamaica Capacity Improvements - Met Interlocking	SI						100.0
03	Jamaica Capacity Improvements - SGR	SGR						100.0
04	Grade Crossing Renewals	SI						3.0

Commitments

Numbers may not add due to rounding

Numbers may not add due to rounding

Long Island Rail Road LII

LINE STRU	<b>CTURES</b>
	L - 904

			(\$ in millions					
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 904		\$72.7	\$121.0	\$154.7	\$73.0	\$179.2	\$600.5
01	BRIDGES		\$62.7	\$96.0	\$154.7	\$73.0	\$139.2	\$525.5
01	Painting, Drainage, & Waterproofing of Bridges	SGR						175.0
02	Small Business Mentoring - Bridges	SGR						48.5
03	Replacement & Rehabilitation of Bridges	SGR						297.0
04	Miscellaneous Line Structures	SGR						5.0

These candidate projects in the BRIDGES element are identified in the 2025-29 program and will be broken out as awarded.

05 Beaver Viaduct: Waterproofing

06 Babylon Viaduct: Waterproofing

07 Queens Blvd: Rehab / Replace

08 Wreck: Lead: Rehab / Replace

02 TUNNELS		\$10.0	\$25.0	\$0.0	\$0.0	\$40.0	\$75.0
O1 Atlantic Avenue Tunnel Structural Work	SGR						75.0

### **Long Island Rail Road**

### COMMUNICATIONS & SIGNALS

			(\$ in million	s)				
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 905		\$131.1	\$161.1	\$76.6	\$109.6	\$26.6	\$505.0
01	COMMUNICATION IMPROVEMENTS		\$17.6	\$17.6	\$17.6	\$17.6	\$17.6	\$88.0
01	Communications SGR	SGR						63.0
02	Grade Crossing Cameras	SI						5.0
03	Customer Information Technology Upgrade	SI						20.0
02	SIGNAL IMPROVEMENTS		\$113.5	\$143.5	\$59.0	\$92.0	\$9.0	\$417.0
01	Signal Normal Replacement	NR						45.0
02	Signal System Renewals	SGR						202.0
03	Signal Replacement and Interlocking Upgrades	SI						43.0
04	Centralized Train Control	SI						50.0
05	PTC Federal Mandates	SI						75.0
06	Signal Modernization	SI						2.0

Commitments

These candidate projects in the SIGNALS element are identified in the 2025-29 program and will be .broken out as awarded.

- 14 Hunt to Post Signals Renewal
- 14 Babylon to Patchogue Signals Renewal

Numbers may not add due to rounding

SHOPS AND YARDS L - 906

### Long Island Rail Road

POWER L - 907

			Commitments (\$ in millions)					
	MENT SCRIPTION/PROJECT	2025	2026	2027	2028	2029	Total All Years	
	Category Total 906		\$25.8	\$52.8	\$30.8	\$32.8	\$25.8	\$168.0
01	SHOPS AND YARDS		\$7.0	\$34.0	\$12.0	\$14.0	\$7.0	\$74.0
01	Shop Component Renewals	NR						37.0
02	Small Business Mentoring Program - Shops & Yards	NR						2.0
03	Rolling Stock Support Shop Equipment	NR						25.0
04	New Shop Design & Preliminary Engineering	SI						10.0
04	EMPLOYEE FACILITIES		\$18.8	\$18.8	\$18.8	\$18.8	\$18.8	\$94.0
01	Rehabilitation of Employee Facilities: Various Loc	NR						64.0
02	Small Business Mentoring Program - Employee Facs	NR						30.0

			(\$ in millions	s)				
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 907		\$92.3	\$27.9	\$35.3	\$222.5	\$97.5	\$475.5
01	POWER		\$92.3	\$27.9	\$35.3	\$222.5	\$97.5	\$475.5
01	Substation Replacements	SGR						360.0
02	Substation Component Renewal	NR						28.0
03	Power Component Repairs & Replacements	NR						22.5
04	3rd Rail Replacements & Upgrades	NR						26.0
05	Lighting Improvements	SGR						37.0
06	Power Modernization	SI						2.0

Commitments

These candidate projects in the POWER element are identified in the 2025-29 program and will be broken out as awarded.

07 Winfield Substation10 Murray Hill Substation08 West Hempstead Substation11 Laurelton Substation09 Utica Substation12 Queens Breaker Substation

Long Island Rail Road MISCELLANEOUS L - 909

			Commitmen (\$ in million					
	:MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 909		\$72.2	\$92.2	\$63.2	\$76.9	\$67.7	\$372.0
04	MISCELLANEOUS		\$72.2	\$92.2	\$63.2	\$76.9	\$67.7	\$372.0
01	Security Component Replacement	NR						23.0
02	Security System Improvements	SI						35.0
03	Environmental Remediation	NR						50.0
04	EAM Development	SI						15.0
05	Program Administration							165.0
06	Program Development							15.0
07	Railroad Protective Liability							9.0
80	Independent Engineer							10.0
09	Small Business Mentoring Program - Admin.							10.0
10	OCIP							40.0
	TOTAL PROGRAM		\$1,869.7	\$967.3	\$1,701.9	\$842.1	\$624.1	\$6,005.0

### **Metro-North Railroad**

Category Total 901

01 REVENUE EQUIPMENT

ELEMENT DESCRIPTION/PROJECT

### ROLLING STOCK M - 901

	\$1.080.0	\$0.0	\$155.0	\$460.9	\$0.0	\$1.695.
	\$1,080.0	\$0.0	\$155.0	\$460.9	\$0.0	\$1,695.
NEEDS CODE	2025	2026	2027	2028	2029	Tota All Year
	(\$ in millions	)				

01	M9A Fleet	NR	1,080.0
02	West of Hudson Locomotive Replacement	NR	155.0
03	Coach Replacement	NR	460.9

Commitments

Numbers may not add due to rounding

Numbers may not add due to rounding

**Metro-North Railroad** 

<b>STATIONS</b>
M - 902

			Commitmen (\$ in millions					
ELEMENT DESCRIPTION/PROJECT		NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 902		\$181.0	\$111.0	\$575.8	\$64.0	\$27.0	\$958.8
02	OUTLYING STATIONS		\$177.0	\$107.0	\$557.0	\$57.0	\$27.0	\$925.0
01	Station Rehabilitation	SGR						670.0
02	ADA Accessibility Improvements	SI						100.0
03	Station Component Replacement	SGR						120.0
04	Small Business Mentoring Program - Stations	SGR						35.0

These candidate station ADA projects in the OUTLYING STATIONS element are identified in the 2025-29 program and will be broken out as awarded.

05 Ludlow

06 Wakefield

These candidate station rehabilitation projects in the OUTLYING STATIONS element are identified in the 2025-29 program and will be broken out as awarded.

07 Hartsdale 10 Tuckahoe 08 Scarsdale 11 Bronxville 09 Crestwood 12 Fleetwood

03 PARKING		\$4.0	\$4.0	\$18.8	\$7.0	\$0.0	\$33.8
01 Small Business Mentoring Program - Parking	SGR						20.0
02 Parking Improvements	SGR						13.8

### **Metro-North Railroad**

### **TRACK & STRUCTURES**

			(\$ in million	ns)				
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 903		\$397.5	\$541.5	\$370.0	\$199.0	\$214.0	\$1,722.0
01	TRACK		\$226.0	\$426.5	\$253.5	\$163.5	\$163.5	\$1,233.0
01	Annual Track Program	SGR						450.0
02	Marble Hill Retaining Wall Construction Phase I	SGR						63.0
03	MoW Equipment Purchase	SGR						30.0
04	Slope Remediation	SI						350.0
05	Drainage Improvements	SI						340.0
02	STRUCTURES		\$157.8	\$90.8	\$101.8	\$33.8	\$48.8	\$433.0
01	Undergrade Bridge Program	SI						288.0
02	Tunnel Improvements	SGR						21.0
03	Overhead Bridge Program	SGR						55.0
04	R.O.W Force Account Structures Rehabilitation	SGR						44.0
06	Small Business Mentoring Program - Structures	SGR						25.0

Commitments

These candidate bridge projects with mile markers in the STRUCTURES element are identified in the 2025-29 program and will be .broken out as awarded.

07 HU26.97 between Philipse Manor and Scarborough

08 HU27.45 between Scarborough and Ossining

09 HU32.81 - Croton-Harmon

10 HU39.85 between Cortlandt and Peekskill

03	03 W OF HUDSON INFRASTRUCTURE			\$24.2	\$14.7	\$1.7	\$1.7	\$56.0
01	Small Business Mentoring Program - West of Hudson	SGR						5.0
02	WoH Improvements	SGR						7.5
03	WoH Track Program - Pt Jervis Line	SGR						20.0
04	WoH Undergrade Bridges - Pt Jervis Line	SGR						15.0
05	WoH Stations Improvements	SGR						8.5

Numbers may not add due to rounding

Numbers may not add due to rounding

COMM & SIGNALS M - 904 Metro-North Railroad

**NEEDS** 

**POWER** M - 905

All Years

\$519.5

\$519.5

10.0

390.0

64.5

25.0

30.0

Total

2029

\$51.5

\$51.5

2028

\$35.0

\$35.0

			(\$ in millions)					
	ELEMENT DESCRIPTION/PROJECT		2025	2026	2027	2028	2029	Total All Years
	Category Total 904		\$367.0	\$38.0	\$56.0	\$112.0	\$25.0	\$598.0
01	COMM & SIGNALS		\$367.0	\$38.0	\$56.0	\$112.0	\$25.0	\$598.0
01	Signal System Upgrades	SGR						426.0
02	Network Infrastructure	SGR						40.0
03	PBX Replacement	SGR						11.0
04	PTC Federal Mandates	SI						75.0
05	Grade Crossings	NR						3.0
06	Signal Infrastructure Replacement	SGR						7.0
07	Communication Improvements	SGR						36.0

CODE

SI

SI

SGR

SGR

SI

This candidate signal system project in the COMMS & SIGNALS element are identified in the 2025-29 program and will be broken out as awarded.

08 Harmon to Poughkeepsie Signal System

These candidate substation projects in the POWER element are identified in the 2025-29 program and will be broken out as awarded.

Commitments (\$ in millions)

2025

\$181.5

\$181.5

2026

\$100.0

\$100.0

2027

\$151.5

\$151.5

06 Claremont Substation

**ELEMENT** 

01 POWER

DESCRIPTION/PROJECT

**Category Total 905** 

01 Resiliency - City Water Substation

04 Third Rail/Component Replacement

02 Substations Improvements

03 R.O.W Power Improvements

05 Catenary Improvements

07 Bronxville Substation

Numbers may not add due to rounding

### **Metro-North Railroad**

# MISCELLANEOUS

			Commitmen (\$ in millions					
	ELEMENT DESCRIPTION/PROJECT		2025	2026	2027	2028	2029	Total All Years
	Category Total 906		\$12.0	\$25.0	\$20.0	\$15.0	\$152.9	\$224.9
01	SHOPS & YARDS		\$12.0	\$25.0	\$20.0	\$15.0	\$152.9	\$224.9
01	Small Business Mentoring Program - Shops & Yards	SGR						25.0
02	Shops Improvements	SI						15.0
03	Yard Improvements	SI						149.9
04	Facilities Improvements	SGR						35.0

			(\$ in millions	s)				
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 908		\$71.2	\$46.2	\$66.2	\$46.2	\$56.2	\$286.0
01	MISCELLANEOUS		\$71.2	\$46.2	\$66.2	\$46.2	\$56.2	\$286.0
01	Environmental Remediation	NR						3.0
02	Systemwide Lead/Asbestos Abatement	NR						3.0
03	Railroad Protective Liability							10.0
04	Independent Engineer							10.0
05	Program Administration							70.0
06	Program Scope Development							55.0
07	OCIP Insurance							70.0
80	Systemwide Security Initiatives	SI						60.0
09	EAM Reserve							5.0
	TOTAL PROGRAM		\$2,290.2	\$861.7	\$1,394.4	\$932.1	\$526.6	\$6,005.0

### **Commuter Railroad Agency Summary**

#### Commitments (\$ in millions)

AGENCY	2025	2026	2027	2028	2029	Total All Years
TOTAL Long Island Rail Road	\$1,869.7	\$967.3	\$1,701.9	\$842.1	\$624.1	\$6,005.0
TOTAL Metro-North Railroad	\$2,290.2	\$861.7	\$1,394.4	\$932.1	\$526.6	\$6,005.0
TOTAL COMMUTER RAILROAD AGENCY PROGRAM	\$4,159.8	\$1,828.9	\$3,096.3	\$1,774.2	\$1,150.7	\$12,010.0

### MTA Bus Company

MTA BUS U - 903

			(\$ in millions	s)				
	:MENT SCRIPTION/PROJECT	/PROJECT NEEDS CODE		2026	2027	2028	2029	Tota All Years
	Category Total 903		\$302.1	\$26.9	\$69.5	\$31.9	\$23.3	\$453.7
02	BUS COMPANY PROJECTS		\$302.1	\$26.9	\$69.5	\$31.9	\$23.3	\$453.7
01	Purchase 153 Standard Buses	NR						159.0
03	Purchase 90 Articulated Buses	NR						112.0
05	Base Shop Expansion - Design & Site Prep	SI						25.0
06	Bus Technology	SI						10.0
07	Project Engineering & Program Administration							40.7
80	Purchase Rubber Tire Vehicles	SGR						2.0
09	Depot Improvements & Equipment	SGR						105.0
	TOTAL PROGRAM		\$302.1	\$26.9	\$69.5	\$31.9	\$23.3	\$453.7

Commitments

Numbers may not add due to rounding

Numbers may not add due to rounding

### **MTA Interagency**

### MTA POLICE DEPARTMENT N - 910

### MTA Interagency

### MTA CONSTRUCTION & DEVELOPMENT N - 911

Commitments (\$ in millions) ELEMENT DESCRIPTION/PROJECT **NEEDS** Total CODE 2025 2026 2028 2029 2027 All Years Category Total 910 \$8.0 \$13.0 \$8.1 \$13.1 \$3.1 \$45.3 01 MTA POLICE DEPARTMENT \$8.0 \$13.0 \$8.1 \$13.1 \$3.1 \$45.3 NR 20.0 01 District Office Repairs and Replacement 02 Communication Infrastructure NR 10.0 03 REP-ESU Fleet Vehicle Purchases NR 5.0 04 Other Facility, Vehicle and Admin Support NR 10.3

E1 E	MENT	NEEDS	(\$ in millions)					Total
	SCRIPTION/PROJECT	CODE	2025	2026	2027	2028	2029	All Years
	Category Total 911		\$39.0	\$39.0	\$39.0	\$69.0	\$69.0	\$255.0
01	MTA PLANNING INITIATIVES		\$4.0	\$4.0	\$4.0	\$4.0	\$4.0	\$20.0
01	Core / Corridor Planning Studies	SI						20.0
02	CAPITAL PROGRAM SUPPORT		\$0.0	\$0.0	\$0.0	\$30.0	\$30.0	\$60.0
01	Capital Program Support Services							60.0
03	C&D ADMINISTRATION		\$35.0	\$35.0	\$35.0	\$35.0	\$35.0	\$175.0
01	Program Administration							175.0
ТО	TAL PROGRAM		\$47.0	\$52.0	\$47.1	\$82.1	\$72.1	\$300.3

Commitments

Numbers may not add due to rounding

### **MTA Interagency Summary**

#### Commitments (\$ in millions) Total **AGENCY** 2025 2026 2027 2028 2029 **All Years** TOTAL MTA POLICE DEPARTMENT \$8.0 \$13.0 \$8.1 \$13.1 \$3.1 \$45.3 TOTAL MTA CONSTRUCTION & DEVELOPMENT \$39.0 \$39.0 \$39.0 \$69.0 \$69.0 \$255.0 TOTAL MTA INTERAGENCY \$47.0 \$52.0 \$47.1 \$82.1 \$72.1 \$300.3

### **Major Projects and Expansion**

### INTERBOROUGH EXPRESS

		(\$ in millions)					
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 908		\$100.0	\$0.0	\$200.0	\$0.0	\$2,450.0	\$2,750.0
01 INTERBOROUGH EXPRESS		\$100.0	\$0.0	\$200.0	\$0.0	\$2,450.0	\$2,750.0
01 Project Development	NE						2,750.0

Numbers may not add due to rounding

Numbers may not add due to rounding

### **Major Projects and Expansion**

### GRAND CENTRAL ARTERY G - 912

								G. 0.1
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 912		\$100.0	\$150.0	\$500.0	\$500.0	\$450.0	\$1,700.0
01	GRAND CENTRAL TRAINSHED & PARK AV	/E TUNNEL	\$50.0	\$100.0	\$400.0	\$300.0	\$250.0	\$1,100.0
01	Project Development	SGR						1,100.0
02	GRAND CENTRAL TERMINAL		\$50.0	\$50.0	\$100.0	\$200.0	\$200.0	\$600.0
01	Project Development	SGR						600.0

### **Major Projects and Expansion**

### OTHER NETWORK EXPANSION

		Commitments (\$ in millions)					G - 317
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 917	OODL	\$200.0	\$200.0	\$0.0	\$250.0	\$150.0	\$800.0
01 OTHER NETWORK EXPANSION		\$200.0	\$200.0	\$0.0	\$250.0	\$150.0	\$800.0
01 Project Development	NE						800.0
TOTAL PROGRAM		\$400.0	\$350.0	\$700.0	\$750.0	\$3,050.0	\$5,250.0

Please refer to page 168 in the Agency Plans for more detail

### **CPRB Agency Summary**

Commitments (\$ in millions)

AGENO	CY CY	2025	2026	2027	2028	2029	Total All Years
TOTAL	New York City Transit	\$8,886.5	\$6,724.5	\$9,722.4	\$11,217.0	\$10,835.6	\$47,386.0
TOTAL	Long Island Rail Road	\$1,869.7	\$967.3	\$1,701.9	\$842.1	\$624.1	\$6,005.0
TOTAL	Metro-North Railroad	\$2,290.2	\$861.7	\$1,394.4	\$932.1	\$526.6	\$6,005.0
TOTAL	MTA Bus Company	\$302.1	\$26.9	\$69.5	\$31.9	\$23.3	\$453.7
TOTAL	MTA Interagency	\$47.0	\$52.0	\$47.1	\$82.1	\$72.1	\$300.3
TOTAL	Major Projects & Expansion	\$400.0	\$350.0	\$700.0	\$750.0	\$3,050.0	\$5,250.0
Core Su	ubtotal	\$13,795.5	\$8,982.3	\$13,635.4	\$13,855.2	\$15,131.7	\$65,400.0
TOTAL	2025-2029 CPRB PROGRAM	\$13,795.5	\$8,982.3	\$13,635.4	\$13,855.2	\$15,131.7	\$65,400.0

### **Bridges and Tunnels**

## ROADWAYS AND DECKS

Commitments (\$ in millions)

		(\$ III IIIIIOIIS	,				
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 901		\$316.4	\$167.6	\$100.9	\$353.2	\$185.9	\$1,124.0
AW AGENCY-WIDE		\$54.3	\$48.5	\$0.0	\$0.0	\$19.4	\$122.2
9V STRUCTURAL HEALTH MONITORING	SI						56.3
9Y MISCELLANEOUS SECURITY UPGRADES - RESERVE	SI						66.0
BW BRONX-WHITESTONE BRIDGE		\$4.9	\$88.5	\$0.0	\$107.4	\$20.0	\$220.8
9A MISC. STRUCTURAL REHAB AT THE BWB	NR						27.2
9D ANCHORAGE REHABILITATION	NR						26.9
9K TRAVELER OVERHAUL OR REPLACEMENT	NR						44.8
9Q MAIN CABLE DEHUMID/RELATED IMPROV	SGR						117.9
9X SAFETY FENCE	SI						4.0
CB CROSS BAY BRIDGE		\$0.0	\$5.5	\$0.0	\$30.8	\$3.7	\$40.0
9A MISC. STRUCTURAL REHAB AT THE CBB	NR						40.0
HC HUGH L. CAREY TUNNEL		\$22.5	\$0.0	\$0.0	\$0.0	\$3.0	\$25.5
9A TUNNEL REHABILITATION	NR						16.9
9C GIVB FENDER/PEDESTRIAN FOOTBRIDGE REHAB	NR						8.5
HH HENRY HUDSON BRIDGE		\$2.2	\$0.0	\$20.2	\$0.0	\$2.3	\$24.7
9A MISC. STRUCTURAL REHAB AT THE HHB	NR						24.7
MP MARINE PARKWAY BRIDGE		\$0.0	\$1.6	\$0.0	\$14.4	\$2.6	\$18.7
9A MISC. STRUCTURAL REHAB AT THE MPB	NR						18.7
QM QUEENS MIDTOWN TUNNEL		\$25.1	\$0.0	\$0.0	\$0.0	\$2.7	\$27.8
9A TUNNEL REHABILITATION	NR						27.8
RK ROBERT F. KENNEDY BRIDGE		\$2.9	\$6.6	\$31.4	\$59.9	\$88.8	\$189.5
9A MISC. STRUCTURAL REHAB AT THE RFK	NR						69.4
9I SUBSTRUCTURE RETROFIT - PRELIM DESIGN	NR						8.0
9T BRONX APPROACH. TRUSS/JCT STRUCTURE REHAB	NR						29.8
9Z SUPERSTRUCTURE UPGRADES SUSPENDED SPAN	NR						82.3

Numbers may not add due to rounding

Bridges and Tunnels STRUCTURES D - 901

Commitments (\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
TN THROGS NECK BRIDGE		\$204.4	\$11.4	\$49.2	\$90.5	\$37.7	\$393.2
9A MISCELLANEOUS STRUCTURAL REHABILITATION	NR						213.5
9D ANCHORAGE REHABILITATION	NR						21.7
9H CONCRETE PIER REHAB ON APPROACHES	NR						43.8
9Q MAIN CABLE DEHUMIDIFICATION/RELATED IMPROV.	SGR						99.2
9V LOWER GARAGE REHABILTIATION	NR						11.0
9X SAFETY FENCE	SI						4.0
VN VERRAZZANO-NARROWS BRIDGE		\$0.0	\$5.5	\$0.0	\$50.3	\$5.7	\$61.6
9A MISCELLANEOUS STRUCTURAL REHABILITATION	NR						61.6

### **Bridges and Tunnels**

# ROADWAYS & DECKS

Commitments (\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 902		\$47.9	\$24.8	\$56.2	\$20.6	\$57.2	\$206.7
AW AGENCY-WIDE		\$1.2	\$0.0	\$14.4	\$0.0	\$1.3	\$16.9
9Q AUTHORITY WIDE TRAFFIC SAFETY IMPROVEMENTS	NR						16.9
CB CROSS BAY BRIDGE		\$0.0	\$7.4	\$0.0	\$0.0	\$0.8	\$8.2
9X OPERATIONAL/ACCESSIBILTY IMPROVEMENTS	NR						8.2
HH HENRY HUDSON BRIDGE		\$0.6	\$7.8	\$5.5	\$0.0	\$1.5	\$15.5
9F DECK REHAB AND RESURFACING - UPPER LEVEL	NR						6.8
9M SIGN GANTRY UPGRADE/REPLACMENT	NR						8.7
MP MARINE PARKWAY BRIDGE		\$0.0	\$5.9	\$0.0	\$0.0	\$0.6	\$6.5
9X OPERATIONAL/ACCESSIBILTY IMPROVEMENTS	NR						6.5
RK ROBERT F. KENNEDY BRIDGE		\$44.4	\$0.0	\$23.0	\$19.5	\$9.0	\$95.8
90 REPLCMNT OF MANHATTAN PLZ STR/ASSOC RAMPS	NR						44.1
9U MANHATTAN PLAZA REHABILTATION	NR						28.5
9V RFK DECK REHABILITATION	NR						23.2
TN THROGS NECK BRIDGE		\$1.8	\$3.8	\$0.0	\$0.0	\$0.6	\$6.1
9N REPLCMNT OF CROSS ISL RAMPS-ON/OFF BOUND	NR						6.1
VN VERRAZZANO-NARROWS BRIDGE		\$0.0	\$0.0	\$13.3	\$1.1	\$43.5	\$57.9
91 REPLCMNT OF THE SUSPENDED SPAN LOWER DECK	NR						16.2
9L REPLACEMENT OF VNB SUSPENDED SPAN OVERLAY	NR						41.6

Numbers may not add due to rounding

Bridges and Tunnels

TSMO
D - 903

			(\$ in millions)					
	ELEMENT DESCRIPTION/PROJECT		•		2007		2000	Total
DES	SCRIPTION/PROJECT	CODE	2025	2026	2027	2028	2029	All Years
	Category Total 903		\$3.8	\$0.0	\$91.0	\$0.0	\$136.9	\$231.6
AW	AGENCY-WIDE		\$3.8	\$0.0	\$91.0	\$0.0	\$136.9	\$231.6
9J	WEATHER INFORMATION SYSTEMS	NR						11.0
9K	FIBER OPTIC INFRASTRUCTURE AND INTEGRATION	SI						16.4
9L	TRAFFIC DETECTION/INCIDENT MGMT. SYSTEMS	SI						10.5
9M	ATMS ENHANCEMENTS/UPGRADES AND OCCC	SI						5.5
9N	TOLL COLLECTION SYSTEM REHAB/UPGRADES	NR						104.6
90	OVERHEIGHT VEHICLE DETECTION/MITIGATION	NR						16.9
9R	SCADA SYSTEMS	NR						28.5
98	ADV. TRAVELER INFO. SYSTEMS/VMS UPGRADES	NR						38.3

### **Bridges and Tunnels**

UTILITIES D - 904

	Commitmon	ıte.			L	J - <del>9</del> 04
NEEDS						Total
CODE	2025	2026	2027	2028	2029	All Years
	\$221.1	\$104.8	\$257.3	\$77.8	\$129.8	\$797.4
	\$4.1	\$1.1	\$32.9	\$13.7	\$5.1	\$57.0
NR						40.8
NR						16.2
	\$1.0	\$8.9	\$0.0	\$0.0	\$1.0	\$10.9
NR						10.9
	\$103.8	\$1.1	\$3.8	\$0.0	\$11.6	\$120.3
NR						5.5
SI						114.7
	\$2.2	\$0.0	\$20.5	\$0.0	\$2.5	\$25.2
NR						14.0
NR						11.2
	\$1.1	\$0.0	\$14.6	\$0.0	\$1.0	\$16.7
NR						16.7
	\$107.4	\$1.1	\$42.5	\$0.0	\$15.9	\$166.9
NR						28.2
NR						18.4
NR						5.5
SI						114.7
	\$3.0	\$89.4	\$27.7	\$14.7	\$73.2	\$207.9
NR						18.2
NR						16.7
NR						5.9
NR						8.5
NR						99.1
YNR						59.5
	NR N	NEEDS CODE 2025 \$227.7 \$4.1  NR NR NR SI \$1.0  \$1.0  \$1.0  \$1.1  NR NR SI \$3.0  NR	CODE         2025         2026           \$227.7         \$104.8           NR         \$4.1         \$1.1           NR         \$1.0         \$8.9           NR         \$103.8         \$1.1           NR         \$1.1         \$0.0           NR         \$1.1         \$0.0           NR         \$107.4         \$1.1           NR         NR         NR           NR         NR <td>  NEEDS   2026   2027   2026   2027   2027   2026   2027   2026   2027   2027   2026   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027  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2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027  </td> <td>  NEEDS   CODE   2025   2026   2027   2028   2029   2029   2028   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   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2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027	NEEDS   2025   2026   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   2028   2027   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2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027   2027	NEEDS   CODE   2025   2026   2027   2028   2029   2029   2028   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   2029   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Numbers may not add due to rounding

Bridges and Tunnels	UTILITIES
	D - 904

	MENT	NEEDE	(\$ in millions)	-				Total
ELEMENT DESCRIPTION/PROJECT		NEEDS CODE	2025	2026	2026 2027	2028	2029	All Years
TN	THROGS NECK BRIDGE		\$5.0	\$0.0	\$115.3	\$0.0	\$11.5	\$131.8
9C	ANCHORAGE DEHUMIDIFICATION SYSTEM UPGRADE	NR						11.1
98	POWER REDUNDANCY AND RESILIENCY	NR						113.2
9Z	UPGRADE FIRE STANDPIPE SYSTEM	NR						7.6
VN	VERRAZZANO-NARROWS BRIDGE		\$0.0	\$3.2	\$0.0	\$49.4	\$8.0	\$60.7
9Z	FACILITY MONITORING & SAFETY SYS OVERHAUL	NR						60.7

### **Bridges and Tunnels**

### BUILDINGS & SITES

		Commitment					D - 905	
ELEMENT	NEEDE	(\$ in millions					Tatal	
DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years	
Category Total 905		\$23.2	\$46.7	\$80.2	\$79.0	\$65.6	\$294.6	
AW AGENCY-WIDE		\$2.6	\$2.6	\$9.8	\$9.8	\$9.8	\$34.8	
9B SERVICE BUILDING UPGRADE RESERVE	NR						21.6	
9C HAZ.MATL. ABATEMENT	NR						13.1	
CB CROSS BAY BRIDGE		\$0.0	\$0.6	\$0.0	\$5.1	\$0.6	\$6.3	
9B MPB/CBB SERVICE BLGG REHAB/SITE IMPROV	NR						6.3	
HC HUGH L. CAREY TUNNEL		\$1.6	\$41.8	\$1.5	\$29.2	\$20.6	\$94.6	
9B REHAB HCT VENTILATION BUILDINGS	NR						34.2	
9G MISC STRUCT REHAB AT THE BPG (PHASE VI)	NR						14.6	
90 REHABILITATION OF GIVB AND BVB FAÇADE	NR						45.9	
HH HENRY HUDSON BRIDGE		\$5.8	\$0.0	\$0.0	\$0.0	\$0.6	\$6.5	
9N BACKUP OCC	NR						6.5	
QM QUEENS MIDTOWN TUNNEL		\$1.6	\$0.0	\$0.0	\$19.3	\$1.8	\$22.7	
9B REHAB QMT VENTILATION BUILDINGS	NR						22.7	
RK ROBERT F. KENNEDY BRIDGE		\$3.8	\$0.0	\$51.5	\$0.0	\$27.9	\$83.3	
9B RMB UPGRADES	NR						25.0	
9C CENTRAL MAINT. EXPANSION FOR TOLL COLLECT	SI						23.5	
9G RFK SERVICE/FLEET BUILDING UPGRADES	NR						23.6	
9W ISD HUB RELOCATION	NR						11.2	
TN THROGS NECK BRIDGE		\$6.9	\$1.8	\$0.0	\$15.5	\$2.5	\$26.6	
9B SERVICE BUILDING REHABILITATION	NR						19.0	
9U TN SITE IMPROVEMENTS	SI						7.6	
VN VERRAZZANO-NARROWS BRIDGE		\$0.8	\$0.0	\$17.3	\$0.0	\$1.8	\$19.9	
9B BUILDING UPGRADES/SPACE REALLOCATION	NR						19.9	

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9U SBMP-RESERVE

MISCELLANEOUS D - 906

20.0

		Commitment (\$ in millions					
ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
Category Total 906		\$27.1	\$22.8	\$22.8	\$22.8	\$22.7	\$118.1
AW AGENCY-WIDE		\$27.1	\$22.8	\$22.8	\$22.8	\$22.7	\$118.1
9A EAM-RESERVE	SI						15.0
D MTA INDEPENDENT ENGINEER							4.2
PE PROTECTIVE LIABILITY INSURANCE							12.7
PF PROGRAM ADMINISTRATION							13.1
9G MISCELLANEOUS							17.9
9H SCOPE DEVELOPMENT							14.4
9I PRELIMINARY DESIGN							16.4
9T TEA-RESERVE							4.4

### **Bridges and Tunnels**

### STRUCTURAL PAINTING

			(\$ in million					
	MENT SCRIPTION/PROJECT	NEEDS CODE	2025	2026	2027	2028	2029	Total All Years
	Category Total 907		\$29.7	\$102.2	\$28.7	\$48.9	\$18.0	\$227.5
ΑW	AGENCY-WIDE		\$0.0	\$22.2	\$0.0	\$0.0	\$0.0	\$22.2
9P	PAINTING RESERVE	NR						22.2
BW	BRONX-WHITESTONE BRIDGE		\$1.6	\$14.3	\$8.9	\$0.0	\$2.9	\$27.8
90	ANCHORAGE WATERPROOFING	NR						11.5
9P	BW FACILITY-WIDE PAINTING PROGRAM	NR						16.3
СВ	CROSS BAY BRIDGE		\$0.0	\$0.4	\$0.0	\$11.1	\$1.1	\$12.7
9P	CB FACILITY-WIDE PAINTING PROGRAM	NR						12.7
MP	MARINE PARKWAY BRIDGE		\$0.0	\$0.3	\$6.8	\$0.0	\$0.7	\$7.9
9P	MP FACILITY-WIDE PAINTING PROGRAM	NR						7.9
RK	ROBERT F. KENNEDY BRIDGE		\$0.5	\$64.6	\$0.0	\$17.0	\$6.9	\$89.0
9P	RK FACILITY-WIDE PAINTING PROGRAM	NR						89.0
TN	THROGS NECK BRIDGE		\$27.5	\$0.0	\$13.0	\$0.0	\$4.2	\$44.8
90	ANCHORAGE WATERPROOFING	NR						15.5
9P	TN FACILITY-WIDE PAINTING PROGRAM	NR						29.2
VN	VERRAZZANO-NARROWS BRIDGE		\$0.0	\$0.3	\$0.0	\$20.8	\$2.1	\$23.3
9P	VN FACILITY-WIDE PAINTING PROGRAM	NR						23.3
	TOTAL PROGRAM		\$675.8	\$468.9	\$636.9	\$602.2	\$616.2	\$3,000.0

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# **All Agency Summary**

Commitments

AGENO	<b>CY</b>	2025	2026	2027	2028	2029	Total All Years
TOTAL	New York City Transit	\$8,886.5	\$6,724.5	\$9,722.4	\$11,217.0	\$10,835.6	\$47,386.0
TOTAL	Long Island Rail Road	\$1,869.7	\$967.3	\$1,701.9	\$842.1	\$624.1	\$6,005.0
TOTAL	Metro-North Railroad	\$2,290.2	\$861.7	\$1,394.4	\$932.1	\$526.6	\$6,005.0
TOTAL	MTA Bus Company	\$302.1	\$26.9	\$69.5	\$31.9	\$23.3	\$453.7
TOTAL	MTA Interagency	\$47.0	\$52.0	\$47.1	\$82.1	\$72.1	\$300.3
TOTAL	Major Projects & Expansion	\$400.0	\$350.0	\$700.0	\$750.0	\$3,050.0	\$5,250.0
Core Su	ıbtotal	\$13,795.5	\$8,982.3	\$13,635.4	\$13,855.2	\$15,131.7	\$65,400.0
TOTAL	2025-2029 CPRB PROGRAM	\$13,795.5	\$8,982.3	\$13,635.4	\$13,855.2	\$15,131.7	\$65,400.0
TOTAL	Bridges and Tunnels	\$675.8	\$468.9	\$636.9	\$602.2	\$616.2	\$3,000.0
TOTAL	2025-2029 CAPITAL PROGRAM	\$14,471.3	\$9,451.2	\$14,272.3	\$14,457.4	\$15,747.8	\$68,400.0

### **About the MTA**

The Metropolitan Transportation Authority is North America's largest transportation network, serving a population of 15.3 million people across a 5,000 square-mile travel area surrounding New York City through Long Island, southeastern New York State, and Connecticut. The MTA network comprises the nation's largest bus fleet and more subway and railroad cars than all other U.S. transit systems combined.

The Authority is led by Chair and CEO Janno Lieber, along with a world-class management team. A 23-member board governs the MTA. Voting members are nominated by the Governor, New York City's Mayor, and the County Executives of the counties serving the MTA's service area. Additionally, six rotating, non-voting seats are held by representatives of organized labor and the Permanent Citizens Advisory Committee.

### **MTA Executive Leadership**

#### **Janno Lieber**

Chair and CEO

#### **Lisette Camilo**

Chief Administrative Officer

#### **Demetrius Crichlow**

President, New York City Transit

#### **Rob Free**

President, Long Island Rail Road

#### **Paige Graves**

**General Counsel** 

### **Catherine Rinaldi**

President, Metro-North Railroad

### **Cathy Sheridan**

President, Bridges and Tunnels

#### **Jamie Torres-Springer**

President, Construction & Development

#### **Kevin Willens**

Chief Financial Officer

### **Members of the Board**

**Andrew Albert** 

**Gerard Bringmann** 

**Norman Brown** 

Samuel Chu

**Michael Fleischer** 

**Daniel Garodnick** 

**Randolph Glucksman** 

**Marc Herbst** 

**David R. Jones** 

Meera Joshi

Blanca López

**David Mack** 

**Haeda Milhaltses** 

**John-Ross Rizzo** 

John Samuelsen

**Lisa Sorin** 

Vincent Tessitore Jr.

Midori Valdivia

**Neal Zuckerman** 

