

# MTA Capital Program 2015–2019

**Renew. Enhance. Expand.**



**CAPITAL  
PROGRAM**

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Amendment No. 3  
As Proposed to the MTA Board April 25, 2018



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# New York City Subways – \$15.2 billion

This program will continue the revitalization of our subway system by modernizing signal systems and interlockings, replacing track, upgrading stations, purchasing new subway cars, and making other critical investments. Signal improvements—including Communications-Based Train Control—will boost capacity and reliability. Station repairs and enhancements will improve customer comfort and safety throughout the system, while new elevators make more stations fully accessible under the Americans with Disabilities Act. New cars will improve customer communication with electronic strip maps, automated announcements, and two-way customer intercoms. The main changes within the program are the incorporation of investments to support the Subway Action Plan, consolidation of funds in stations to coordinate with the City of New York’s redevelopment initiatives, savings experienced from the R-211 purchase, and adjustments to various projects to address new cost estimates.

## NYC Transit Subway Capital Program Overview 2015–2019

Category	Budget	Highlights	Category	Budget	Highlights
<b>Subway Cars</b>	\$1,482m	Purchase 440 R-211 subway cars to replace R-46 cars - \$1,423m	<b>Track</b>	\$1,891m	Replace 72 miles of track and 127 switches, including work under the Subway Action Plan
		Purchase 20 Open Gangway Prototype Cars - \$59m	<b>Stations</b>	\$4,608m	New elevators at 22 stations for ADA accessibility and to coordinate with City of New York initiatives - \$1,356m
<b>Signals &amp; Communications</b>	\$3,053m	Install advanced CBTC signals on the Queens Blvd., Culver and 8th Avenue lines - \$926m			Replace 42 elevators and 27 escalators - \$479m
		Modernize five signal interlockings on two lines - \$710m			Renewal work at 15 stations on six lines - \$493m
		Upgrade and modernize signal technology - \$161m			Component repair and replacement at stations system-wide - \$426m
		Signal improvements under the Subway Action Plan - \$287m			Enhanced Station Initiative at 19 stations - \$838m
		Improve and repair conventional signals and other components - \$246m			Planning and designing the Renewal/Overhaul of Mets-Willets Point Station - \$50m
		Upgrade the communications networks, including telecommunications equipment, cabling, and radios - \$331m			Reconfigure areas of Grand Central and Times Square to improve passenger circulation - \$104m
		Complete the rollout of Help Points to all subway stations to bolster customer communications and safety - \$168m			Reconfigure stations to coordinate with City of New York initiatives - \$100m
		Upgrade rail traffic system - \$92m			New Fare Payment System investments - \$519m
		Beacon train arrival system on the B Division - \$78m			
		Test and deploy platform and trackway safety systems - \$54m			



Category	Budget	Highlights	Category	Budget	Highlights
<b>Line Equipment</b>	\$277m	Rehab one vent plant, and repair fan plant controls and components, which remove smoke and heat in the case of fire - \$ 211m	<b>Traction Power</b>	\$886m	Modernize and repair power facilities like substations and other equipment - \$197m
		Rehabilitate pumping systems to remove water from the system - \$35m			Repair power cable, control systems, and circuit breaker houses - \$210m
		Replace tunnel lighting on various lines - \$30m			Add or upgrade power facilities for service using advanced CBTC signals - \$479m
<b>Line Structures</b>	\$907m	Rehabilitate segments and repair structural components on various elevated and subway lines - \$596m	<b>Service Vehicles</b>	\$246m	Purchase heavy-duty rail and road vehicles to support construction and operations, including work under the Subway Action Plan - \$246m
		Paint elevated structures on six lines - \$273m	<b>Staten Island Railway</b>	\$480m	Replace 75 cars in the SIR fleet - \$257m
		Rehabilitate emergency exits - \$38m			Build three new power substations - \$83m
<b>Shops &amp; Yards</b>	\$373m	Make priority repairs at various car maintenance shops - \$280m			Upgrade and repair track, stations, structures, facilities and radio systems - \$132m
		Replace or upgrade 1.2 miles of track and 20 switches, and improve lighting, and fencing in train storage yards - \$68m			Enhanced Station Initiative at one station - \$8m
		Construction of new railcar receiving facility - \$25m	<b>Misc.</b>	\$988m	Progress designs, project scopes, engineering studies and services, and management information systems - \$561m
					Install fire safety systems and remediate hazardous materials - \$51m
					Repair and upgrade employee facilities, administrative and operations buildings, police facilities, and security systems - \$376m

# New York City Buses – \$1.9 billion

The bus program reflects the MTA’s continued commitment to realizing the full potential of a system that carries more than 2.5 million customers each day. The program continues to purchase clean diesel, hybrid-electric, compressed natural gas, and electric buses, make priority repairs to maintenance facilities, and enable the expansion of Select Bus Service. The main changes in the program include increasing the number of zero-emission all-electric buses to be purchased and aligning funding with the projected construction schedule of the new Jamaica Depot.

NYC Transit Bus Capital Program Overview 2015–2019						\$1,551m
Category	Budget	Highlights	Category	Budget	Highlights	
<b>Buses</b>	\$1,185m	Purchase 1,381 new buses for local and express service - \$1,067m  Purchase 60 electric buses - \$83m	<b>Depots</b>	\$367m	Design and initial work to reconstruct the Jamaica Depot - \$58m  Make priority repairs at various bus maintenance shops - \$165m  Purchase equipment to support additional Select Bus Service and begin design for dedicated BRT on the North Shore of Staten Island - \$33m  Replace bus depot equipment, such as bus washers, storage tanks and paint booths - \$71m  Property acquisition for a new depot - \$40m	

MTA Bus Capital Program Overview 2015–2019						\$376m
Category	Budget	Highlights	Category	Budget	Highlights	
<b>Buses</b>	\$263m	Purchase 335 new buses for local and express service - \$263m	<b>Depots &amp; Facilities</b>	\$113m	Make priority repairs at five depots - \$31m  Bus signage and automatic passenger counting - \$9m  Replace bus depot equipment, such as paint booths, service vehicles and chassis washers - \$16m  Complete joint project with New York City Transit for a new bus radio system - \$35m  Provide engineering support, design, construction management and contingency - \$23m	



# Long Island Rail Road – \$2.9 billion

The 2015–2019 Capital Program will allow the LIRR to complete the construction of the full Mainline Double Track, as well as the installation of the Positive Train Control system. The LIRR program will continue to make crucial investments in rolling stock, stations, and infrastructure as the railroad looks to maintain and improve state of good repair, safety, reliability, on-time performance, and customer satisfaction. To be ready for East Side Access—when the LIRR will begin operating trains directly to Grand Central Terminal—the LIRR will continue expanding capacity in Jamaica and will add train storage and track capacity at key locations throughout its system. The railroad will purchase M-9 electric cars to complete replacing its aging M-3 fleet, and to expand service.

## Long Island Rail Road Capital Program Overview 2015–2019

Category	Budget	Highlights	Category	Budget	Highlights
<b>Rolling Stock</b>	\$369m	Purchase 88 M-9 cars to complete the replacement of the M-3 fleet and 22 additional M-9 cars for service expansion and growth - \$369m	<b>Communications &amp; Signals</b>	\$370m	Complete Positive Train Control implementation - \$166m
<b>Stations</b>	\$679m	<p>Rehabilitation of Nostrand Ave station and construction of elevators at Murray Hill station providing new ADA access - \$40m</p> <p>Construction of new East Yaphank station - \$20m</p> <p>Pre-construction activities for station and platform improvements at Babylon, Port Washington and Hunterspoint stations, and new Elmhurst, Republic, and Mets-Willets Point stations - \$27m</p> <p>Improve the customer experience at Penn Station and contribute to development of the new Moynihan Train Hall - \$346m</p> <p>Enhanced Station Initiative at 17 stations - \$154m</p> <p>Replacement of deficient station components system-wide - \$40m</p> <p>New Fare Payment System investments - \$9m</p> <p>Parking rehabilitation and facility development - \$5m</p>			<p>Replace or upgrade obsolete communications fiber optic network equipment - \$34m</p> <p>Begin to replace or upgrade the station public address system - \$5m</p> <p>Normal replacement of signal components system-wide, including renewal of the Babylon interlocking - \$70m</p> <p>Investment in new signal system from Babylon to Patchogue - \$55m</p> <p>Complete Jamaica Theater construction advancing the Centralized Train Control initiative - \$10m</p>



Category	Budget	Highlights	Category	Budget	Highlights
<b>Line Structures</b>	\$126m	Rehabilitate or replace railroad bridge and viaduct structures at priority locations - \$52m	<b>Power</b>	\$155m	Replace aging traction power substations - \$59m
		Component renewal of Post Avenue Bridge on the Main Line - \$16m			Traction power substation component work system-wide - \$39m
<b>Track</b>	\$776m	Structural painting and waterproofing of railroad bridges at priority locations - \$12m	<b>Shops &amp; Yards</b>	\$228m	Design for new power substation in Queens to support ESA operations - \$5m
		Continue annual track program investments system-wide - \$345m			Replace and upgrade third rail system components - \$27m
		Right-of-way improvements, including retaining walls and fencing - \$14m			Upgrade tunnel lighting in the Atlantic Avenue Tunnel - \$5m
		Amtrak-coordinated state of good repair investments - \$68m			Reliability Centered Maintenance - \$16m
		Design the second phase of Jamaica infrastructure work to improve capacity - \$42m			Construct new Mid Suffolk electric yard and progress efforts to build a new Huntington/Port Jefferson Branch electric yard - \$55m
		Complete Double Track, adding a second track between Farmingdale and Ronkonkoma - \$294m			Diesel locomotive maintenance facility improvements - \$102m
			<b>Misc.</b>	\$157m	Component improvements at key shops, yards, and facilities - \$15m
					Advance employee facility consolidation centralizing material storage, engineering operations, and transportation support - \$20m
					Insurance, independent engineers, and other program management - \$129m

# Metro-North Railroad – \$2.5 billion

The 2015–2019 Program will allow Metro-North to complete the installation of the Positive Train Control system. Communications and signals projects on the Hudson, Harlem and Port Jervis lines supporting this important safety initiative are also a priority. Most of Metro-North’s 2015–2019 Program is slated for projects that bring assets to a state of good repair or protect investments that have already been made, including replacement of the Harmon Shop electric repair facility and aging rolling stock. Station investments, as well as customer information technology upgrades and modernization including providing for real-time customer information, will improve customer comfort, safety, and communications. Early design efforts continue for a new midpoint yard to support West of Hudson service and ridership.

## Metro-North Railroad Capital Program Overview 2015–2019

Category	Budget	Highlights	Category	Budget	Highlights
<b>Rolling Stock</b>	\$394m	Begin replacement of Genesis locomotive fleet - \$236m	<b>Stations &amp; Parking/ Strategic Facilities</b>	\$372m	Enhanced Station Initiative at five stations - \$136m
		Expand the New Haven Line’s M-8 fleet by 60 cars, jointly with Connecticut - \$92m			Component-based priority repair work at stations on the Upper Harlem Line - \$64m
		Develop specs for procurement of M-3 replacement cars - \$7m			Improve real-time customer information at stations east of the Hudson River - \$94m
<b>GCT</b>	\$165m	Continue priority infrastructure work on the GCT Trainshed - \$68m			Make repairs and customer improvements at Beacon & Southeast stations - \$24m
		Fire protection, utility and safety assessments and work in GCT and the Park Avenue Tunnel - \$21m			New Fare Payment System investments - \$6m
		Replace communications equipment, improving delivery of real-time customer information - \$60m			Continue investments in parking and strategic facilities - \$17m
<b>Communications &amp; Signals</b>	\$310m	Complete Positive Train Control implementation - \$110m			Complete replacement of the Harmon Shop electric repair facility - \$432m
		Continue Positive Train Control-related investments including completing replacement of Upper Hudson Line and Harlem Line communication cabling and installation of new West of Hudson signal system - \$149m			
		Replace or upgrade obsolete communications network equipment - \$43m			
		Replace critical components, including track relays and grade crossings - \$9m			



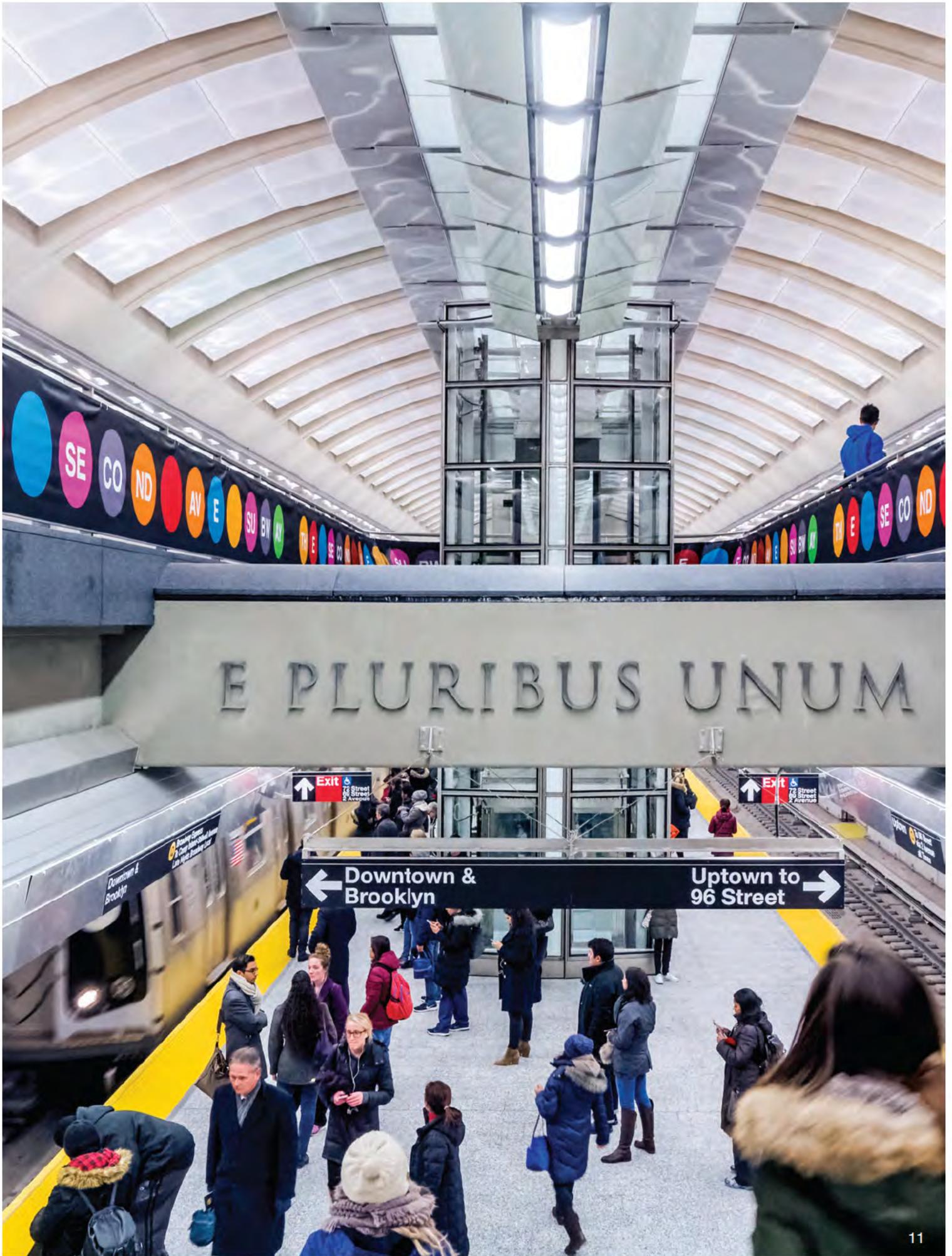
Category	Budget	Highlights	Category	Budget	Highlights
<b>East of Hudson Track &amp; Structures</b>	\$381m	Continue cyclical track program - \$73m	<b>Shops &amp; Yards</b>	\$470m	Complete replacement of the Harmon Shop electric repair facility - \$432m
		Continue track switch replacements system-wide, some using high-speed equipment at critical locations - \$82m			Begin environmental and design work for a West of Hudson midpoint yard on the Port Jervis Line - \$24m
		Drainage improvements and rock slope remediation system-wide - \$21m	<b>Power</b>	\$112m	Harlem and Hudson Line power rehabilitation and improvements - \$46m
Purchase equipment for track program - \$22m	Continue to replace or rehabilitate critical components, including transformers, switchgear, tunnel alarms and lighting, motor alternators and third rail, including in the Park Ave Tunnel - \$51m				
Replace or repair undergrade bridges - \$62m	<b>West of Hudson Track &amp; Structures</b>	\$56m			Design of eight substation replacements - \$15m
Improve overhead bridges system-wide - \$66m			<b>Misc.</b>	\$202m	Insurance, independent engineers, and other program management - \$100m
Continue cyclical track program, including rock slope remediation at select locations - \$24m					Replace or repair undergrade bridges at priority locations - \$15m
		Continue priority repairs to the Moodna and Woodbury viaducts - \$14m			

# Network Expansion – \$7.7 billion

MTA Capital Construction’s mission is to plan, design, and construct major network expansions for MTA operating agencies. These expansion projects will ease regional congestion and create additional capacity for future growth. The 2015–2019 Capital Program allows for the advancement of three new expansion projects: Penn Station Access, phase two of Second Avenue Subway, and the LIRR Expansion Project. MTACC’s program also continues to support the ongoing East Side Access project and associated Regional Investments as East Side Access progresses towards a December 2022 revenue service date. With this amendment both East Side Access and Regional Investments are increasing in the 2015–2019 Capital Program. Select scope items are being reprogrammed from the 2010–2014 Capital Program and available funding reallocated in the 2015–2019 Capital Program to support current estimates of ongoing and upcoming work through the remainder of the current capital program.

## MTACC Capital Program Investment Overview 2015–2019

Category	Budget	Highlights	Category	Budget	Highlights
<b>East Side Access</b>	\$2,710m	Construction of the Manhattan Caverns - \$712m	<b>Full Length Second Ave Subway</b>	\$1,735m	Preliminary Engineering, Design and Environmental Studies - \$135m
		Two new program wide contingencies established from project deferrals to support ongoing and upcoming work - \$507m			Construction Management, Project Support and Real Estate - \$130m
		Construction of the Mid-Day Storage Yard Facility in Queens - \$307m			Early Construction and project reserves - \$770m
<b>Regional Investments</b>	\$203m	Systems and Finishes packages - \$276m	<b>LIRR Main Line Expansion Project</b>	\$2,050m	Third Party Design-Build and Early Activities - \$1,669m
		A new program wide contingency established from project deferrals to support ongoing and upcoming work - \$153m			LIRR design, construction and project support - \$261m
		West Bound Bypass - \$9m			Non-LIRR Project and Program Management and Miscellaneous - \$104m
<b>ESA Risk Reserve</b>	\$131m	An executive reserve established outside of the East Side Access program as a risk contingency - \$131m			Project Reserve - \$16m
<b>Penn Station Access</b>	\$695m	Pre-Design and Design - \$139m	<b>MTACC Admin. &amp; Misc.</b>	\$128m	To provide MTACC administrative, independent engineering services, and other support throughout the 2015-2019 program period - \$128m
		Construction Management and Program Management - \$40m			
		Track and Structures work on the existing Right of Way - \$186m			
		Power, Stations and Shops & Yards investments - \$274m			
		Communication and Signals investments - \$56m			



# Bridges and Tunnels – \$2.9 billion

B&T’s program focuses on significant investments in deck replacements, structural rehabilitation at various bridges, and on maintaining the overall structural integrity of MTA bridges and tunnels to ensure safety and reliability. The program also includes our recently installed toll collection system—Open Road Tolling. These investments will improve travel across the region and ensure the continued flow of toll revenue that helps support nearly nine million daily customers across the MTA system. This amendment does not require Capital Program Review Board approval.

## Bridges and Tunnels Capital Program Overview 2015–2019

Category	Budget	Highlights	Category	Budget	Highlights
<b>Agency Wide</b>	\$325m	Deploy Cashless Open Road Tolling - \$134m Physical Barrier Installation - \$20m	<b>Rockaway Crossings (Cross Bay and Marine Parkway Bridges)</b>	\$95m	Deploy Cashless Open Road Tolling - \$46m Rehabilitate or repair underwater structure - \$49m
<b>Bronx-Whitestone Bridge</b>	\$176m	Deploy Cashless Open Road Tolling - \$48m Install electronic monitoring and detection systems - \$36m Paint tower interior structures - \$31m Fender Protection around Towers Piers - \$26m	<b>Hugh L. Carey Tunnel</b>	\$137m	Deploy Cashless Open Road Tolling - \$26m Rehabilitate ventilation systems - \$85m
<b>Henry Hudson Bridge</b>	\$265m	Deploy Cashless Open Road Tolling - \$8m Retrofit structural arch supports - \$100m Reconstruct toll plazas and southbound approach - \$96m Structural Rehabilitation - \$24m	<b>Queens Mid-town Tunnel</b>	\$92m	Deploy Cashless Open Road Tolling - \$38m Rehabilitate controls and communication systems - \$42m



Category	Budget	Highlights	Category	Budget	Highlights
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**Robert F. Kennedy Bridge**      \$613m

- Deploy Cashless Open Road Tolling - \$79m
- Construct new ramp onto northbound Harlem River Drive - \$135m
- Rehabilitate miscellaneous structures - \$94m
- Retrofit structure against seismic and wind effects (Phase 1) - \$63m
- Install Electronic Monitoring & Detection Systems - \$52m
- Replace Manhattan toll plaza structure and ramps - \$39m
- Paint Suspended Span/Bronx Truss Steel - \$32m
- Electrical and Mechanical Rehabilitation of the Harlem River Lift Span - \$31m

**Throgs Neck Bridge**      \$681m

- Deploy Cashless Open Road Tolling - \$54m
- Replace suspended span deck panels - \$366m
- Rehabilitate approach viaducts - \$162m
- Anchorage dehumidification - \$44m
- Painting of Suspended Span - \$24m

**Verrazano-Narrows Bridge**      \$553m

- Deploy Cashless Open Road Tolling - \$70m
- Reconstruct approach ramps (Phase I) - \$250m
- Rehabilitate and seal anchorage and piers - \$49m
- Painting Suspended Span for the Upper and Lower Levels - \$41m
- Reconfigure Brooklyn approach - \$31m

# Funding the Capital Program

Program Funding Plan	2015–2019
<b>Total Program Costs - \$ in millions</b>	<b>\$ 33,270</b>
<i>Funding Currently Projected:</i>	
Federal	7,301
City of New York	2,666
MTA/TBTA Bonds	10,353
State of New York	8,640
Other MTA Sources	4,310
<b>Total Available Funds</b>	<b>\$ 33,270</b>

The funding envelope for the proposed 2015–2019 Capital Program amendment increases by \$813 million. This includes the addition of \$348 million from the State of New York and the City of New York in support of the Subway Action Plan, and \$48 million for Connecticut Department of Transportation funded assets. The funding envelope also reflects a \$125 million adjustment to Pay-as-you-go Capital (offset by an increase in MTA Bonds), the transfer of \$414 million from the 2010–2014 plan, and the administrative swap of federal funds and MTA Bonds between capital programs.

## Moving forward with a Capital Program that moves *New York* forward.

Thanks to the Capital Program, we’ve been able to maintain and improve a truly indispensable transit network, with subways that offer both express and local service all day, every day. When combined with the two most heavily-used commuter railroads in the nation—and nearly 5,700 buses serving more than 300 routes—we have more transfer points, more stations, more flexibility, and more redundancy than any other transit network in the world.

We’re incredibly fortunate to have this robust, interconnected transportation network as a foundation. Now, we have to take good care of it to make certain that it meets the changing needs of riders and the region’s economy. That’s easier said than done, but if we want to maintain our global competitiveness—if we want to continue growing our \$1.7 trillion regional economy, second in the world only to Tokyo—we need to keep investing in our transit network.





# **MTA Capital Program 2015-2019**

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# MTA Capital Program 2015-2019 Overview





The proposed MTA 2015-2019 Capital Program amendment encompasses \$33.3 billion of investments that renew, enhance, and expand the MTA network. The majority of the program focuses on renewing the system to promote safe and reliable service. Enhancements are targeted toward improving system capabilities and the customer experience. Expansion projects extend the reach of the network to address evolving regional mobility needs. The MTA Capital Program Review Board (CPRB) program amendment is subdivided into “core” investments that renew and enhance, and “expansion” investments that extend the MTA network.

Since the May 2017 amendment to the 2015-2019 Capital Program, the MTA has incorporated various changes to the program. Program changes include updates to timing and cost estimates of existing projects, identified new needs at the agencies, and budget reallocations of the East Side Access and Regional Investment programs. Bridges and Tunnels (which does not require CPRB approval) is proposing changes including updates to the timing and cost estimates of existing projects and a transfer of funding to the 2010-2014 Capital Program to address needs in that program. As a result of these and other changes, the total program has increased from \$32.5 billion to \$33.3 billion. Changes to the program are summarized in Table 1 below and discussed thereafter.

**Table 1**  
**MTA 2015-2019 Capital Program Amendment All Agency Summary (\$ in millions)**

	Approved Program	Proposed Program	Change
<b>CPRB Core Capital Program</b>			
New York City Transit	\$16,315	\$16,742	\$427
Long Island Rail Road	2,956	2,859	(97)
Metro-North Railroad	2,414	2,462	48
MTA Bus	376	376	0
MTA Interagency	321	243	(78)
<b>CPRB Core Subtotal</b>	<b>\$22,382</b>	<b>\$22,682</b>	<b>\$300</b>
Network Expansion	7,135	7,652	517
<b>CPRB Program Total</b>	<b>\$29,517</b>	<b>\$30,334</b>	<b>\$817</b>
Bridges and Tunnels	2,940	2,936	(4)
<b>Total MTA Capital Program</b>	<b>\$32,457</b>	<b>\$33,270</b>	<b>\$813</b>

*Numbers may not total due to rounding*

## Program Evolution and Proposed Changes

The original \$32.046 billion MTA 2015-2019 Capital Program, which included \$28.990 billion for CPRB agencies and \$3.056 billion for the self-funded B&T program, was approved by the MTA Board in September 2014. The \$28.990 billion program was subsequently submitted to the CPRB in October 2014. That program was vetoed by the CPRB without prejudice in October 2014. In preparation for its resubmission, the MTA and agency staff responded to Governor Cuomo's challenge to reduce the program's cost by 6 to 8 percent.

A refocused 2015-2019 Capital Program that included \$28.956 billion for the MTA's 2015-2019 Capital Program, of which \$2.856 billion was self-funded by B&T and \$26.100 billion of which required review and approval of the CPRB, was approved by the MTA Board in October 2015. Discussions, which continued into the State budget process, were immediately undertaken with stakeholders, including the Legislature, to ensure the revised program met their concerns.

The revised 2015-2019 Capital Program included \$500 million in proposed New Starts funding for Second Avenue Subway's Phase 2, increasing the project's funding allocation in the capital program to \$1.035 billion. The revised program also included changes to advance station enhancement work and MTA work at the Long Island Rail Road's (LIRR) Mets-Willets station in support of regional mobility initiatives. These limited changes did not affect agency overall allocations approved by the MTA Board in October 2015. No other changes were made to the program. On April 20, 2016, the Board approved the proposed \$29.456 billion capital program, including \$2.856 billion for B&T. The CPRB approved the \$26.600 billion CPRB portion on May 23, 2016.

In February 2017, the MTA Board approved an amendment (amendment #1) to this capital program adding \$399 million in station investments. Only the New York City Transit (NYCT) and LIRR portions of the program were affected with no change to the overall NYCT program and a \$119 million increase to the LIRR portion of the program. The \$119 million increase was funded by surpluses in prior capital programs that had been set aside to progress regional mobility. The net balance of the \$399 million was funded through adjustments within the NYCT and LIRR programs. This amendment was approved by the CPRB in March of 2017 with the CPRB portion of the program increasing to \$26.719 billion and the full program value increasing from \$29.456 billion to \$29.575 billion.

In May 2017, the MTA Board approved an amendment (amendment #2) to increase the total capital program from \$29.575 billion to \$32.457 billion. The CPRB portion of the program increased from \$26.719 billion to \$29.517 billion. Changes to the program included the following: (a) updates to agency core programs to include critical priority projects such as station enhancement work, bus fleet amenities, train arrival information, and investments at Penn Station, as well as adjustments to update project budgets and schedules; (b) the inclusion of a new regional mobility project to expand the LIRR's Main Line; (c) additional required funding to meet needs for Second Avenue Subway's Phase 2; and (d) a new Open Road Tolling program of projects at B&T with corresponding program rebalances to accommodate this new direction. The CPRB portion was deemed approved in July 2017.

# Investment Summary

## Proposed Capital Program Amendment

The MTA proposes an amendment (amendment #3) to increase its total 2015-2019 Capital Program from \$32.457 billion to \$33.270 billion. The CPRB portion of the program increases from \$29.517 billion to \$30.334 billion and B&T's program is reduced from \$2.940 billion to \$2.936 billion. Changes to the program include: (a) updated project assumptions to reflect the cost estimates and timing of ongoing projects; (b) consolidation of City of New York sponsored stations budgets in the NYCT program; (c) reflection of emerging new needs across the agencies; (d) reallocating funds within the East Side Access and Regional Investment programs; (e) updates to B&T's capital program; and (f) identification of capital program elements with 10% issues that require CPRB approval to progress work.

## Highlights of Proposed Program Changes

**Updated project assumptions to reflect the cost estimates and timing of ongoing projects.** In this proposed 2015-2019 program amendment, adjustments are made for ongoing and future work. These adjustments include updates for projects' estimates at completion and schedule assumptions. Cost adjustments primarily reflect the following: refinements during the design phases, the impacts of bid openings and the incorporation of changing market conditions. The amendment reprograms select scope or project phases to future capital programs to keep the 2015-2019 program balanced. The amendment also reflects the budget at award for the LIRR Expansion Project which required a transfer of \$100 million from the LIRR, approved by the MTA Board in December 2017. The transfer derived from LIRR projects with scopes of work similar to specific elements of the LIRR Expansion project.

**Consolidation of City of New York sponsored stations budgets in NYCT.** The approved 2015-2019 Capital Program includes \$300 million, currently allocated between the NYCT program (\$220 million) and the MTA Interagency program (\$80 million), to undertake station accessibility and circulation improvements at locations sponsored by the city of New York. In this amendment, all \$300 million is consolidated in the Passenger Stations category of the NYCT program.

**Reflection of emerging new needs across the agencies.** This amendment includes the addition of new projects. Since the last amendment a select number of new needs have been identified. These include NYCT's critical Subway Action Plan which was incorporated into the program pursuant to MTA Board approval in December 2017. In addition, a number of new projects have been created that reflect the administrative split-outs of scope and budget into new projects to allow for improved transparency and budget control.

**Reallocating funds within the East Side Access and Regional Investments programs.** To address revised estimate at completion needs in both the East Side Access and Regional Investments programs, \$418 million is shifted from the 2010-2014 Capital Program to the 2015-2019 Capital Program. This consolidation also includes reallocating 2015-2019 budgets within the East Side Access project and rescheduling work to a future capital program to reflect updated commitment schedules. Any changes in the overall East Side Access and Regional Investments envelope (\$10.9 billion combined) will be addressed in future capital programs.

**Bridges and Tunnels updates.** The B&T program is revised to reflect updated cost estimates for ongoing and upcoming work and to also reflect current schedule assumptions. Two new safety projects are added to the program. In addition, \$4 million of surplus funds from the 2015-2019 Capital Program is being transferred to the

2010-2014 Capital Program to address needs in that program.

**Element increases exceeding 10%.** Pursuant to the Public Authorities Law, increases to capital program elements greater than 10% require approval of the CPRB in order to be progressed (except changes to B&T projects, which are not subject to CPRB approval). The amendment lists elements that grow by greater than 10% of the amounts set forth in the most recent capital program amendment approved by the CPRB in July 2017. CPRB approval will be required to progress the work at the proposed new levels.

## Program Funding

Funds currently projected to be available for the proposed 2015-2019 Capital Program amendment total \$33.3 billion (Table 2) and are described in the following narrative.

**Table 2**  
**MTA 2015-2019 Capital Program Amendment Funding Plan (\$ in millions)**

Program Funding Plan	Approved Program	Proposed Program	Change
Federal Formula, Flexible/CMAQ, Misc.	\$6,956	\$6,701	\$(255)
Federal Core Capacity	100	100	-
Federal New Starts	500	500	-
MTA Bonds	7,558	7,968	410
Pay-as-you-go Capital (PAYGO)	2,270	2,145	(125)
State of New York Capital	8,466	8,640	174
City of New York Capital	2,492	2,666	174
Asset Sales / Leases	600	1,018	418
Other MTA Sources	575	595	20
<b>Total CPRB Program</b>	<b>\$29,517</b>	<b>\$30,334</b>	<b>\$817</b>
Bridges and Tunnels Bonds (\$2,385) & PAYGO/Cash (\$551)	2,940	2,936	(4)
<b>Total 2015-2019 Program</b>	<b>\$32,457</b>	<b>\$33,270</b>	<b>\$813</b>

*Numbers may not total due to rounding*

### Federal Formula, Flexible, and Miscellaneous

**(\$255 million)**

The MTA Federal formula and CMAQ funding allocations are reduced by \$120 million and \$165 million, respectively, to reflect the reprogramming of grants to projects in the 2010-2014 Capital Program. In addition, \$30 million in new funding from the FTA Bus and Bus Facilities Infrastructure Investment Program has been made available to NYCT and MTA Bus Company projects budgeted in the 2015-2019 Capital Program. These adjustments are offset

by an equal amount of MTA local funding transferred from the 2010-2014 Capital Program. See the MTA Bonds funding category, below.

### **Federal Core Capacity**

**No funding change**

The Core Capacity assumption for the Canarsie Line Power and Station Improvement project remains unchanged.

### **Federal New Starts**

**No funding change**

The New Starts assumption for Second Avenue Subway Phase 2 remains unchanged.

### **MTA Bonds**

**\$410 billion**

The proposed amendment adds \$285 million in MTA bonds transferred from the 2010-2014 Capital Program as part of the exchange of federal formula/flexible funding, as noted above. This amendment further adds \$125 million to offset the reduction in anticipated Pay-as-you-go funds available to the 2015-2019 Capital Program. See the PAYGO funding category, below.

### **Pay-as-you-go Capital (PAYGO)**

**(\$125 million)**

The proposed amendment reduces the planned PAYGO by \$125 million to reflect updated expectations of operating expense savings. This decrease is offset by a corresponding increase in MTA Bonds for the program, as noted above.

### **State of New York Capital**

**\$174 million**

An additional \$174 million of new capital funding to support the NYCT Subway Action Plan.

### **City of New York Capital**

**\$174 million**

An additional \$174 million of new capital funding to support the NYCT Subway Action Plan.

### **Asset Sales / Leases**

**\$418 million**

The proposed amendment adds \$418 million in planned asset sale proceeds transferred from the 2010-2014 Capital Program to reflect reprogramming of a portion of East Side Access needs between the prior program and the 2015-2019 Capital Program.

### **Other MTA Sources**

**\$20 million**

The proposed amendment reflects a net increase of \$20 million. The additions include \$48 million in Connecticut DOT capital funding to Metro-North for administrative asset upgrades on the New Haven Line and \$3 million for a New York State grant earmarked for LIRR's Wyandanch station. These are offset by a reduction of \$30 million due to the receipt of unplanned FTA grant funds noted above for NYC Transit and MTA Bus Company bus-related projects.

### **Bridges and Tunnels Program Funding**

**(\$4 million)**

The proposed amendment adds \$23 million in bond funds transferred from the 2010-2014 Capital Program, in exchange for \$23 million in B&T dedicated cash funds to fund the Bruckner Ramp project in the 2010-2014 Capital Program. In addition, \$4 million in planned Triborough Bridge and Tunnel Authority (TBTA) bond funds are transferred to the 2010-2014 Capital Program to support on-going projects nearing completion.



# MTA Capital Program 2015-2019

## New York City Transit



# Asset Base – New York City Transit

**Table 3**  
Selected New York City Transit Assets

Category	Assets
Subway Cars	6,418 Rail Cars
Buses	4,475 Buses
Passenger Stations	472 Stations
Track	641 Miles of Mainline Track 1,767 Switches
Line Equipment	435 Miles of Tunnel Lighting 205 Ventilation Plants 238 Pump Rooms
Line Structures	140 Miles of Subway Structure 70 Miles of Elevated Structure 22 Miles of At-Grade Lines
Signals and Communications	730 Miles of Mainline Signal Equipment 472 Miles of Fiber Optic Cable
Power	226 Substations
Shops & Yards	42 Shops 24 Yards
Depots	23 Bus Depots
Service Vehicles	640 Work Vehicles 496 Work Trains
Staten Island Railway	64 Rail Cars

*Assets based on 2015-2034 Twenty Year Needs Assessment  
Assets added for of 34<sup>th</sup> St Hudson Yards and Second Avenue Subway.*

## Overview – New York City Transit

This proposed amendment adjusts the content of New York City Transit's 2015-2019 Capital Program. The total value of the revised program is \$16.742 billion, a net increase of \$427 million from the approved program. This reflects several changes, including additional funding for the Subway Action Plan, the transfer from the MTA Interagency program as part of the consolidation of existing capital funding for station improvements to be coordinated with the city of New York, and the transfer from NYCT's program to support the new construction management contract for the MTA Small Business Development Program.

In December 2017, the MTA Board approved the addition of work for near-term steps to stabilize and improve the system and lay the foundation for modernizing the New York City Subway. The strategy is to target personnel and equipment on the critical components of the system determined to have the highest incidence of failure. Through capital investments and complementary initiatives via the operating budget, the Subway Action Plan (SAP) will jump start improvements, and then maintain that level of effort going forward. The Board's approval of the SAP reflected the addition of projects in the Subway Cars, Track, Signals and Communications, and Service Vehicles categories. The subway cars work is now rededicated to support additional signal technology upgrades.

The approved 2015-2019 Capital Program includes \$300 million to undertake critical station improvements at key locations sponsored by the city of New York. These projects will seek to address station accessibility, crowding, and other stations issues and support the economic development and affordable housing strategy of the city of New York. Planned activities include studies, planning, design and construction. The city has identified priority locations. The 2015-2019 Capital Program currently allocates the \$300 million as follows: \$220 million in the NYCT program and \$80 million in the MTA Interagency program. In this amendment, all \$300 million is consolidated in the Passenger Stations category of the NYCT program.

The number of stations expected to be made accessible in this program increases from 19 stations to 22. This increase reflects the work to be done at city of New York-sponsored locations and the transfer of funds from the Enhanced Station Initiative (ESI) program to a new accessibility project at Westchester Square.

Adjustments for the remaining work in the program reflect refined project scopes and cost estimates, bid experiences, schedule changes, and market conditions since the last update to the Board. Of particular note is \$267 million in savings due to the favorable bid for the NYCT and SIR R211 railcars. To better align project budgets with implementation schedules and priorities, this amendment also moves some projects to future capital programs. The amendment also reflects changes to the selection of some projects for SBDP.

As originally approved by the Board in April 2016, the 2015-2019 Capital Program assumed program savings to be realized via more efficient design and construction of certain types of projects. Previous amendments reflected NYCT's progress in this effort. In this amendment, all remaining savings are now reflected.

This amendment also includes the addition of some new projects to address emerging needs. A number of projects are newly listed as a result of administrative transfers of scope from existing projects or programmatic reserves as a means of better budget control and transparency. Specifically, projects have been split out to identify scopes and/or locations under the mainline track and switch programs, the line structure component repair program, and scope that is being implemented under the SBDP. It is expected that additional administrative split-outs of SBDP projects will occur in the future.

Table 4 summarizes the proposed changes by category and the following narrative highlights the major changes in each of NYCT's program categories.

**Table 4**  
**New York City Transit 2015-2019 Capital Program by Investment Category (\$ in millions)**

Category	Approved Program	Proposed Program	Change
Subway Cars	\$1,728.2	\$1,482.1	\$(246.1)
Buses	1,216.0	1,184.6	(31.5)
Passenger Stations	4,000.8	4,607.9	607.1
Track	1,845.2	1,891.3	46.1
Line Equipment	285.0	276.6	(8.4)
Line Structures	988.3	907.3	(81.0)
Signals and Communications	2,728.0	3,052.6	324.6
Traction Power	884.0	886.1	2.0
Shops and Yards	371.9	373.1	1.2
Depots	597.3	366.8	(230.5)
Service Vehicles	250.3	246.1	(4.2)
Miscellaneous	941.7	987.7	46.1
Staten Island Railway	478.7	480.0	1.3
<b>Total New York City Transit Program</b>	<b>\$16,315.4</b>	<b>\$16,742.0</b>	<b>\$426.6</b>

*Numbers may not total due to rounding*

# New York City Transit Subway Cars Category T-701

(\$246 million)

As a result of good bid savings in the R211 railcar purchase, this category is being reduced by \$246 million. The project as planned was to be phased with 450 closed-end B-Division cars and one 10-car open-gangway (OG) prototype train to be funded as a base order in the 2015-2019 Capital Program. The remaining cars of the order are to be purchased via an option funded in the future 2020-2024 Capital Program.

This amendment reflects an adjustment of the mix of car types to 440 closed-end B-Division cars and 20 open-gangway cars. The increase in the open-gangway test cars will enable multiple tests to be conducted in a parallel timeline thereby expediting the testing of the OG cars. In anticipation of successful testing, option cars could be delivered in an OG configuration. Savings were realized at award for both the closed-end (\$245 million) and open-gangway (\$1 million) cars.

The MTA Board-approved Subway Action Plan included a project to upgrade 220 existing R142A A-Division cars to the newer standards of the R188 cars. The subway cars work is now rededicated to support additional signal technology upgrades.

# New York City Transit

## Buses

### Category T-703

(\$31 million)

The net decrease of \$31 million in this category reflects the need for further study of a depot technology initiative, reprioritization of fare collection equipment needs, and several administrative project split-outs. These changes include an increase in the number of all-electric buses to be purchased from 50 to 60.

The project for a depot bus location system (\$6 million) is being studied and will be re-evaluated for inclusion in a future capital program. The budget to replace integrated farebox unit components is reduced (\$4 million), reflecting reduced quantities.

Two projects involving the purchase of alternative propulsion buses are being repackaged in this amendment. The projects were for 190 articulated buses (including 10 hybrid-electric articulated buses and 180 diesel articulated buses) and for 50 standard electric buses and associated depot charging equipment. Their planned combined budget of \$265 million is reduced by a total of \$15 million to reflect updated project estimates and repackaging. The repackaging reflects splitting out the 180 diesel articulated buses into two projects, one for 72 buses (\$66 million) and the other for 108 buses (\$99 million), to correspond with how the work was awarded to two manufacturers. The remainder of the project is reconfigured to purchase 15 articulated electric buses (up from 10, and fully electric rather than hybrid-electric) and depot chargers (\$29 million). The project for 50 buses and chargers is also repackaged into two projects, one for the purchase of 45 standard electric buses (\$55 million), and one for an electric bus charger (\$2 million). As a result, NYCT plans to purchase a total of 60 all-electric buses.

Last, the project to purchase 618 diesel and 10 hybrid-electric standard buses is split into separate projects to reflect how the work has been awarded to two manufacturers, and reflects an overall savings (\$6 million). One project is for 251 standard diesel buses (\$161 million) and the other is for 367 diesel and 10 hybrid-electric standard buses (\$236 million).

# New York City Transit Passenger Stations Category T-704

\$607 million

This category has the largest increase of any NYCT category in this amendment (\$607 million), which primarily reflects two factors. The first is the consolidation of funding from other areas of the NYCT and MTA Interagency programs to support improvements at City of New York-sponsored stations. The second is updated estimates for accessibility, renewal, elevator, and component projects.

As part of the consolidation of budgets for City of New York-sponsored station improvements, \$255 million is transferred from the Miscellaneous (T716) category and the MTA Interagency (N711) program and added to the \$45 million already budgeted in the stations category. Of the \$300 million total, \$200 million is allocated for accessibility enhancements and \$100 million for station circulation enhancements. The specific locations may include Broadway Junction, Flushing-Main St., Livonia Ave., Queensboro Plaza, 170th St.-Jerome Ave., and/or other locations.

The Disabled Accessibility element has a net increase (\$390 million). This includes the transfer of \$185 million for city-sponsored stations described above. The other \$205 million reflects scope and estimate changes in various projects. Notably, there is a \$40 million increase in the 149<sup>th</sup> St.–Grand Concourse complex project due to refinement of the preliminary design scheme based on a recent feasibility study. The Woodhaven Blvd. on the Jamaica line project increases (\$11 million) based on similar prior project cost experience. The increases at Chambers St. on the Nassau line (\$25 million) and Eastern Pkwy.–Brooklyn Museum (\$12 million) reflect a modification in project approach. Additional scope related to site-specific complexities, such as additional structural or circulation elements, account for increases at Gun Hill Rd. on the Dyre Ave. line (\$15 million), Astoria Blvd. (\$15 million), Greenpoint Ave. (\$10 million), 59<sup>th</sup> St. (\$15 million) and 86<sup>th</sup> St. (\$3 million), both on the Fourth Ave. line. The Court Square (Stairs Phase) project increases by \$1 million based on the actual cost for design and bid. In addition, using remaining funds from the ESI program, a new accessibility project is proposed at Westchester Square on the Pelham line (\$90 million). This project, plus the locations from the city-sponsored stations initiative, are expected to increase to 22 the number of stations to be made accessible under this program.

Offsetting reductions in several accessibility projects include the Bedford Ave. and 1<sup>st</sup> Ave. projects on the Canarsie line (\$14 million), which are being addressed in concert with the Superstorm Sandy repair of the Canarsie Tube. The changes in these budgets reflect better apportioning of shared costs. The 57<sup>th</sup> St. on the Broadway line (\$5 million) and Bedford Park Blvd. (\$8 million) projects decrease due to estimate refinements at the time of award. Last are decreases totaling \$8 million for the projects at Rockaway Parkway, Times Square Complex, Phase 3, and 68<sup>th</sup> St.–Hunter College, reflecting administrative transfers to the Owner-Controlled Insurance Program (OCIP).

The Station Work element focuses on projects for station renewals, Enhanced Station Initiative, and component repair, and has a net increase of \$67 million. A large part of the increase is attributed to an additional need of \$182 million for station renewal projects. Notably, these include five station renewals on the Flushing line (\$74 million) and four on the Jamaica line (\$53 million). These increases are due to additional steel rehabilitation work, that is anticipated based on conditions observed during design, as well as prior project cost experience with renewal projects at elevated stations. The Astoria Blvd. renewal project increases (\$20 million) due to further refinement of the estimates to raise the station mezzanine and perform additional canopy work. The \$14 million increase in the Ditmars Blvd. renewal primarily reflects the need to replace the platform and mezzanine canopies. The combined ADA and renewal project at 95<sup>th</sup> St. is being separated split into two projects, with \$15 million added to this element

for the renewal work. The 138 St.-Grand Concourse renewal increase (\$7 million) is due to additional architectural work, waterproofing, and ventilator reconstruction.

Station component projects in the Station Work element decrease (\$32 million), reflecting a net increase (\$108 million) to projects remaining in the plan offset by the rescheduling of several projects to a future plan (\$140 million). Various reasons account for the increases. Increases based on prior project cost experience are shown for platform components repair projects at ten locations on the Broadway-7<sup>th</sup> Ave. line (\$15 million) and four locations on the Queens Blvd. and Archer Ave. lines (\$12 million), and also for the Station Ventilator program (\$6 million). Structural conditions, such as deteriorated steel replacement, platform panels, and tiles, contributed to increases of the platform component project at two locations on the Jerome Ave. line (\$18 million) and in the platform component repair at two locations on the Fourth Ave. line. (\$6 million). Several platform component projects increase due to estimate refinement, including at three locations on the Nostrand line (\$12 million), at Longwood Ave. on the Pelham line (\$9 million), and at two locations on the Lenox line (\$6 million). Several other projects have increases of less than \$5 million each. In addition, a net increase of \$3 million is attributed to the splitting out of projects into smaller packages for award under the SBDP. In addition, a new project (\$6 million) is proposed to install mechanical closure devices (MCDs) beneath the ventilation gratings at the 3<sup>rd</sup> Ave.–138<sup>th</sup> St. station on the Pelham line to alleviate water infiltration into the subway caused by flash flood rain. Offsetting these increases, several platform component projects are rescheduled to a future capital program (\$137 million), primarily to align funding with projected construction schedules. Incidental to this is a \$3 million reduction to the 2019 Station Painting at Component Locations project. Design for these projects remains funded in the plan.

The total budget for the ESI program is reduced from \$936 million to \$846 million, including \$838 million for the NYCT portion of ESI and \$8 million for the Staten Island Railway portion. The reduction reflects the transfer of remaining funds to the new accessibility project discussed above. Additionally, location-specific ESI projects and ventilator projects at ESI stations have been split out as the program has progressed. Though 33 stations were originally planned, the program is addressing a total of 20 stations as the work at these stations has involved more extensive repair work than originally anticipated.

The Station Elevators/Escalators element has a \$52 million net increase, reflecting revised estimates and scope, as well as the rescheduling of some locations to a future capital program. The 8 Traction- and 6 Traction Elevator Replacement projects increase by \$19 million and \$12 million, respectively, due to scope and estimate refinements that occurred during design. The 12 Traction Elevator Replacement project is increasing by \$6 million to fund added emergency exit repair work, and lobby reconfiguration to improve customer circulation. The \$17 million net increase in hydraulic elevator projects is anticipated based on prior project cost experience, and includes \$10 million for the project to replace one hydraulic elevator at Grand Central–42<sup>nd</sup> St. on the Flushing line. The \$19 million increase in four of the element's six escalator projects is also anticipated based on prior project cost experience. The increases to this element are offset by a reduction of \$22 million in two escalator replacement projects. Two escalators at Smith–9<sup>th</sup> Sts. station on the Sixth Ave. line (\$8 million) and three escalators at the Broadway Junction complex (\$14 million) are rescheduled to future programs to avoid schedule conflicts with other work.

The Other Station Improvements element grows by \$93 million, mainly reflecting the transfer of \$70 million for city-sponsored stations described above. Also, to alleviate congestion, two new projects on the Jamaica line are added, one for enhanced stair capacity and platform widening at Marcy Ave. (\$13 million) and one for mezzanine expansion and additional stairs at Broadway Junction (\$10 million). This work is being advanced to support operations while the Canarsie Tube is closed for repair. Other small changes reflect updated estimates or administrative split-outs.

The \$5 million net increase to the Fare Collection element is attributed to the AFC Low Turnstile Procurement project. The size of the procurement has increased from 176 turnstiles to 352 turnstiles, and from 35 to 70 end

cabinets, which are needed to accommodate station fare control area reconfiguration, as well as outside entities (such as private developers) making improvements in stations. In addition, budgets for the Fare Control Area Improvements project and the New Fare Payment System, Phase 2 project have been combined into one project.

## **New York City Transit Track Category T-705**

**\$46 million**

The net increase of \$46 million in this category reflects several changes. The largest addition is a new project for additional Continuous Welded Rail (CWR) to support the Subway Action Plan initiative (\$53 million). The proposed work will increase the production capacity and pace over the remainder of the capital program to provide more welded rail in place of bolted rail, and to reduce track-related breakdowns and wear and tear on fleets. Another increase (\$15 million) for the non-Sandy 2016 Canarsie Tube track replacement project reflects the cost to award the work, which is being done in conjunction with the overall Canarsie Tube repair. Offsetting these increases is a reduction in the 2019 track replacement annual reserve (\$20 million, also discussed in the Staten Island Railway section) to support additional track needs on the Staten Island Railway. There is also a net decrease (\$2 million, also discussed in the Shops and Yards section) in the Mainline Track and Switch program due to reallocation of funds to the Yard Track and Switch program. The amendment also reflects the split-out of additional location-specific projects for 2017 and 2018, and funding has been transferred into those projects from the annual programmatic reserves. This will allow for better planning, oversight, and evaluation.

## **New York City Transit Line Equipment Category T-706**

**(\$8 million)**

The net decrease of \$8 million in this category reflects several changes. Projects to rehabilitate pump rooms at various locations (\$10 million) and the Forsyth Street ventilation plant (\$6 million) are increased based on updated cost estimates. There is also a net increase in the project to replace ventilation facility supervisory controls at various locations (\$1 million) reflecting a refined cost estimate and the transfer of select locations to a future capital program due to track access scheduling conflicts. These increases are offset by reductions due to favorable bid results for projects to replace ventilation facility motor controls at various locations (\$3 million) as well as supervisory controls at two locations on the Canarsie line (\$3 million). Last, the project to replace ventilation facility dampers is reduced (\$20 million) to reflect locations which have track access scheduling concerns and/or favorable field conditions at several locations; the damper locations that do not proceed will be evaluated for inclusion in a future capital program.

## New York City Transit Line Structures Category T-707

(\$81 million)

The category's \$81 million decrease largely reflects the rescheduling of component repair and painting work to a future capital program due to scheduling issues.

Costs for two overcoat painting projects – 72nd St.-104th St. on the Flushing line and 17 Bridges/E 180th St. Flyover on the Dyre line – are increased to reflect recent market conditions (\$33 million). Several other projects have experienced minor cost changes, including two projects with unfavorable bid experience (\$4 million) and two projects with increased cost estimates (\$3 million).

Offsetting these increases, the overcoat painting of the East New York Yard leads and loops (\$27 million) and one structure component repair project (\$78 million) are being moved to a future capital program due to scheduling conflicts. In addition, the two projects along the Myrtle line – replacement of the Bushwick viaduct and replacement of the bridge over the New York and Atlantic Railway – have anticipated savings now that they are in construction (\$14 million).

Last, other changes to the component repair program reflect administrative split-out of funds to location-specific projects for repairs along the Concourse line and the Canarsie line, and also for design work for several other locations.

# New York City Transit Signals and Communications Category T-708

\$325 million

The Signals element increases by \$297 million and the Communications element increases by \$27 million.

The amendment reflects the addition of Subway Action Plan signal improvement projects (\$287 million). The work will increase service reliability of signals and reduce maintenance on obsolete signal cables and equipment. Related to this is a new project to upgrade signal technology in selected areas system-wide (\$161 million). Other increases include updated estimates for the replacement of signal cable on the Broadway-7<sup>th</sup> Avenue line (\$22 million) and select equipment in various signal rooms (\$9 million). The increases to the signals element are partially offset by a number of reductions, including refined estimates for implementing CBTC and the modernization of Ditmas and Avenue X interlockings on the Culver line (\$3 million), and signal line relay upgrades on the Crosstown line (\$4 million). A project to replace cable messenger brackets on the Brighton line is reduced (\$5 million) due to anticipated contracting efficiencies with a project that is planned for a future capital program. An administrative reduction (\$9 million) was applied to the 30<sup>th</sup> St. and 42<sup>nd</sup> St. interlocking modernization project to reflect that project's contribution to the Owner-Controlled Insurance Program (OCIP). Finally, to improve schedule coordination of work on the Queens Blvd. line, the modernization of Parsons Boulevard interlocking is rescheduled (\$161 million) to a future capital program.

There is a net increase of \$27 million in the Communications element. The largest increase (\$20 million) is additional funding for the phased rollout of Connection-Oriented Ethernet (COE), which will update NYCT fiber network to a more advanced standard including faster bandwidth for security video transmission. The Platform Safety Technology Rollout project receives additional funding (\$9 million) for a pilot of platform door technology on the Canarsie line. There are also cost increases in the second phase of the Beacon Train Arrival System (\$8 million) and in the UHF T-Band Radio Replacement project (\$8 million) based on refined estimates.

Partially offsetting the above increases are savings based on actual bids in the Upgrade ASYNC Network to SONET project (\$7 million), and the PBX Upgrade project (\$4 million). There are also savings in the project to enhance coverage of the Police Radio System (\$7 million), based on the final design estimate and cost-sharing agreement.

The amendment also reflects changes in the budgets and project for Help Point subprojects, though there is no net impact on the overall Help Point program budget or total locations. Likewise, there is an administrative split-out in the Antenna Cable program, with essentially no net budget change.

## New York City Transit Traction Power Category T-709

\$2 million

The net increase of \$2 million in this category reflects estimate updates, good bid savings, scope adjustments, and rescheduling of certain work to future capital programs.

There are cost increases for several traction power improvement projects that support higher train throughput made possible by Communications Based Train Control (CBTC). Updated estimates are driving increases for projects to construct two new substations on the 8th Avenue line (\$12 million). The increase (\$23 million) for the new Avenue B substation on the Canarsie line reflects the cost to award the work, which is being done as part of the overall Canarsie Tube repair. The costs have increased (\$56 million) for two projects to improve power distribution on the Queens Blvd. line (QBL) – installation of low resistance contact rail and the installation of supplemental negative cables. The increases reflect scope adjustments during design and the need to better align the work with the schedule of the ongoing CBTC project on the QBL.

Offsetting these increases are reductions to a number of project budgets. These include 13 projects with good bid savings (\$23 million) and five projects with updated estimates (\$3 million). In addition, certain work is being rescheduled to avoid inefficient overlap with other work or to take advantage of expected efficiencies. Replacement of negative cables on the 4th Avenue line is now planned for a future program since similar work on an adjacent section of the line is underway (\$32 million). Replacement of cables and ducts on the 6th Avenue line will be done later to take advantage of anticipated cost efficiencies (\$13 million). Last, a project to replace substation switchgear is reduced to allow the work to be done in phases between this and the next capital program (\$20 million).

# New York City Transit Shops and Yards Category T-710

\$1 million

The net increase in this category reflects scope and estimate growth among various shop component, facility repair, and equipment purchase projects, and a proposed new project for receiving new railcars, offset nearly equally by schedule changes for two projects and savings due to scope and estimate updates for several facility projects.

The increase to the multi-phase shop component repair program mainly reflects updated estimates and scope adjustments. In Phase 1, the increase (\$1 million) includes enhanced HVAC needs at the Coney Island and Pelham Shops. In Phase 2, the increase (\$12 million) is needed in order to improve drainage and upgrade manholes at Concourse Yard, and to replace rooftop HVAC units at East New York Annex. In Phase 4, the increase (\$7 million) is needed to address repairs to the radiators, windows, and other architectural elements, along with asbestos remediation.

Estimate updates drive increases in several other projects. Updated estimates for high-priority heavy shop equipment purchases result in an increase (\$5 million). These purchases include equipment for the Coney Island Overhaul Shop and other facilities, and are being coordinated with similar remaining purchases funded in the 2010-2014 program. The net increase (\$1 million) to upgrade the Woodside Central Electronics Shop reflects scope changes including a larger expansion of the facility to meet increasing shop needs. A related small-business mentoring project is no longer needed. Also, the budget of a yard lighting project at 207<sup>th</sup> St. Yard is increased (\$2 million) to reflect an updated estimate. There is also a net increase (\$2 million) in the Yard Track and Switch Replacement program due to reallocation of funds from the Mainline Track and Switch program.

A new project is proposed to construct improved facilities for the intake and testing of new railcars (\$25 million). The facility is needed to improve NYCT's ability to more quickly process the high volume of railcars to be delivered in coming years.

Several project decreases generally reflect refined scopes. The 207<sup>th</sup> St. Overhaul and Maintenance Shop roof and component repair project is reduced (\$3 million), due in part to decisions to limit or eliminate scope items pertaining to the exhaust system, instrumentation & controls, and skylights. In the project to rehabilitate the HVAC shop at the 207<sup>th</sup> St. Overhaul Shop, high-priority work at that location and several other Car Equipment Division facilities was administratively split out into a number of subprojects, and savings resulted from the deletion of unneeded scope items (\$26 million). Savings at award have enabled a reduction (\$1 million) in the budget for the East 180<sup>th</sup> St. Maintenance Shop structural remediation and retaining wall project. Rehabilitation of the Livonia Shop is reduced (\$10 million) because NYCT is pursuing an infrared heating solution, suggested by the New York Power Authority (NYPA), which allows for deletion of HVAC work that is no longer needed; HVAC work to be done by NYPA is split out into a related project.

Last, other reductions reflect rescheduling of work to the 2020-2024 Capital Program. NYCT is exploring options for upgrading or relocating the current cable shop facilities; construction is removed (\$12 million) but design is retained in the current program. Similarly, construction for the rehabilitation of car cleaning facilities is rescheduled (\$1 million) though design remains funded.

# New York City Transit Depots Category T-712

(\$230 million)

The reduction in this category is due primarily to schedule changes in the project to replace the Jamaica Bus Depot. Real estate discussions and project phasing remain in progress, shifting much of the work to construct the depot to the 2020-2024 Capital Program (\$210 million).

Bid savings at award were realized in the projects to replace the roof at Gun Hill Depot (\$4 million), to upgrade the shoreline at Kingsbridge Depot (\$2 million), and to replace portable bus lifts (\$2 million). Unfavorable bids drive the increase in the project to upgrade elevators at various depots (\$6 million).

Various approaches have been considered for the projects to upgrade depot storage tanks. Some existing underground fuel oil tanks are able to be repurposed to hold diesel fuel, while code requirements call for the construction of some new above-ground tanks. This amendment reflects savings in the awarded project at Jackie Gleason and Castleton Depots (\$2 million) and the project in design at East New York and Gun Hill Depots (\$7 million).

The budget for property acquisition for a potential new bus depot in the vicinity of Mets-Willets Point station is decreased (\$10 million) based on planning to date.

There are several administrative project split-outs throughout the Depots category with no net impact on the overall budget. These include the articulated modifications project at East New York Depot, for which subprojects are created for windows and façade work and for construction of modular office space, and the split-out of roof work at Queens Village Depot. The articulated modifications project at Jackie Gleason Depot was split into subprojects for the articulated maintenance bays and the chassis wash, with a small net savings (<\$1 million).

The 2015-2019 Select Bus Service (SBS) initiative formerly had a subproject to advance 240 MetroCard Fare Collector machines (\$6 million). That subproject has been rolled back into the primary SBS project, with no net budget change. Another SBS subproject for the second phase rollout of traffic signal priority technology has experienced savings in procurement (\$1 million).

## **New York City Transit Service Vehicles Category T-713**

**(\$4 million)**

The net reduction in this category primarily reflects two changes. The project to purchase two signal supply cars (\$12 million) is no longer a priority for the agency and will be evaluated for inclusion in a future capital program. The amendment also includes the addition of a project to purchase 59 non-revenue vehicles (\$8 million) to more effectively support Subway Action Plan initiatives system-wide.

## New York City Transit Miscellaneous Category T-716

\$46 million

The net increase in this category is due to adjustments in a number of reserves and contracts that provide broad support for the capital program, along with changes in the passenger security, employee facility, and fare collection areas.

An Owner-Controlled Insurance Program was established for a number of capital projects throughout the MTA. NYCT's share of the program is reflected here (\$91 million), sourced by transfers from various covered projects across NYCT's capital program. This amendment also expands program contingency (\$80 million) to support potential needs as the program progresses.

The main change in the Engineering Services element is the transfer of the \$175 million to the Passenger Stations category as part of the consolidation of funding that will be used to undertake station improvements sponsored by the city of New York. Other changes include the use of design reserve funds (\$3 million), an increase in the MTA Independent Engineering Consultant contract (\$4 million), and additional funding to assist in the development of project packages to be implemented under the small-business development program (\$7 million).

The schedules of the current contracts for asbestos abatement and underground storage tank (UST) remediation allow for the rescheduling of follow-on contracts for those services (\$20 million) to a future capital program.

There are various changes in the Employee Facilities element. Site challenges, ventilation improvements, and enhancements to several other systems at the New York City Police Department (NYPD) District Office # 4 facility in the 14th St.-Union Square complex have increased the estimated cost of its rehabilitation (\$7 million). The scope of the project to refurbish Keene vacuum systems for bus fare collection at depots has been modified to include additional locations and equipment (\$4 million). The passenger security systems initiative is repackaged and reflects an increase of \$9 million. Elements are split out into separate projects for the wrap-up of electronic security system construction at four locations (\$65 million). The initiative also funds design for the Under-river Tubes (URT) Phase 3 project (\$6 million). There is also a new project for passenger identification equipment (\$10 million). Other new projects include replacement of the severely deteriorated roof at Tiffany Central Warehouse (\$17 million) and employee facility projects to repair the Rapid Transit Operations facility at 3<sup>rd</sup> Avenue-138<sup>th</sup> St. station (\$5 million), to construct a facility for the Electronics Maintenance Division at Hoyt-Schermerhorn Sts. station (\$5 million), to expand the elevator and escalator training facility (\$15 million), and to repair emerging component defects at other station employee facilities (\$15 million). An alternate site was identified by the NYPD for the Special Victims Facility, and accordingly, that project has been removed (\$5 million). Last, the Rail Control Center Annex project is reduced (\$20 million) to allow for third-party coordination.

# Staten Island Railway

## SIR

### Category S-707

\$1 million

The net increase to this category reflects several offsetting changes. Five projects are reduced due to favorable bid results. Of particular note is the SIR portion of the R211 railcar purchase (\$21 million). Other projects with good bid savings include construction of new traction power substations at New Dorp (\$8 million) and Clifton (\$2 million), the ESI project at Richmond Valley Station (\$8 million), and the relocation of the SIR headquarters to the new Clifton Shop (\$1 million) that is being reconstructed as part of the Superstorm Sandy repair and resiliency program. These reductions are offset by project increases due to updated estimates for the SIR mainline track replacement project (\$17 million) and the rehabilitation of Amboy Road Bridge (\$2 million) as well as unfavorable bid results for the construction of a new traction power substation at Tottenville (\$2 million). Last, the amendment adds a project to replace track and switches at Clifton Yard (\$20 million) to coordinate with the reconstruction of the Clifton Shop project noted above.

## Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 5 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

**Table 5**  
New York City Transit Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Station Elevators/Escalators	\$427.2	\$479.0	\$51.8
Disabled Accessibility	965.9	1,355.5	389.7
Other Station Improvements	329.5	422.6	93.2
Signal Modernization	2,032.2	2,329.7	297.4
Miscellaneous	52.2	223.1	170.9
Employee Facilities	312.7	375.7	62.9

*Numbers may not total due to rounding*

# MTA Capital Program 2015-2019

## Long Island Rail Road



# Asset Base – Long Island Rail Road

**Table 6**  
Selected Long Island Rail Road Assets

Category	Assets
Rolling Stock	1,006 Electric Cars
	45 Locomotives
	134 Bi-Level Coaches
Passenger Stations	124 Stations
Track	515 Miles of Mainline Track
	537 Mainline Switches
Line Structures	515 Overhead Bridges
	8 Undergrade Bridges
	29 Viaducts
Communications and Signals	440 Track Miles of Mainline Signal Equipment
Power	105 Substations
	5 Breaker Houses
	328 Track Miles of Third Rail Power
Shops and Yards	25 Shops and Yards

## Overview – Long Island Rail Road

This proposed program amendment adjusts the amount and content of the Long Island Rail Road (LIRR)'s 2015-2019 Capital Program.

The total value of the revised program is \$2.859 billion, which is a net decrease of \$97 million from the most recently approved program amendment (\$2.956 billion). This envelope decrease for LIRR reflects the transfer of \$100 million from the LIRR's program to MTA Capital Construction (MTACC)'s Program, as a contribution towards the LIRR Expansion Project, which is being managed by MTACC. The \$100 million budget transfer is derived from LIRR projects with scopes of work similar to specific elements of the LIRR Expansion project including: a new parking facility and power substation replacement, as well as investments in track, bridge, signal and communications pole and Right of Way improvements. LIRR Expansion will be undertaking work within the Main Line Corridor supporting LIRR infrastructure replacement efforts accruing benefit to the LIRR. Also as part of this proposed amendment, a total of \$3 million is added to the LIRR's program, to reflect outside grant funding from the Empire State Development Corporation and the New York State Department of Transportation, in support of a new Wyandanch Station Building. These state funds allow the LIRR to progress a key aspect of the Wyandanch Rising redevelopment plan, which is major economic development initiative.

Major program adjustments in the proposed program amendment include additional funding for purchase of M-9 cars, as well as additional scope for the Annual Track Program, Double Track Phase 2 and Positive Train Control. These funding needs are largely offset by adjustments to the Mets-Willets Point Station and Jamaica Capacity Phase 2 project budgets.

A number of projects in the Stations, Line Structures, and Shops & Yards categories are split out from existing projects by administrative transfers to achieve better budget control and transparency, as well as to reflect anticipated contract packaging. Though now listed as independent projects, such work was already contemplated and budgeted within the previously approved program.

Table 7 summarizes the proposed changes by category and the following narrative highlights the major changes in each of LIRR's program categories.

**Table 7**  
**Long Island Rail Road 2015-2019 Capital Program by Investment Category (\$ in millions)**

Category	Approved Program	Proposed Program	Change
Rolling Stock	\$349.5	\$368.8	\$19.3
Stations	766.8	678.6	(88.2)
Track	745.7	775.7	30.0
Line Structures	146.8	126.2	(20.6)
Communications and Signals	345.7	369.6	23.9
Shops and Yards	226.7	227.9	1.2
Power	227.0	155.1	(71.9)
Miscellaneous	147.9	157.0	9.1
<b>Total Long Island Rail Road Program</b>	<b>\$2,956.1</b>	<b>\$2,859</b>	<b>(\$97.1)</b>

*Numbers may not total due to rounding*

# Long Island Rail Road Rolling Stock Category L-701

\$19 million

The budget for the M-9 Procurement project is increasing by \$19 million in order to address additional project costs.

This project continues the new M-9 electric cars purchase, which began under the 2010-2014 Capital Program, allowing for the full replacement of the LIRR's remaining M-3 electric fleet (88 cars). The aging M-3 fleet continues to face a number of service reliability and technology obsolescence challenges. The project also will purchase an additional 22 M-9 cars to support future LIRR service to Grand Central Terminal.

# Long Island Rail Road Stations Category L-702

(\$88 million)

The Stations category is being decreased by \$88 million in the proposed program amendment largely to address priority needs in other areas of the LIRR's program.

Budgets for both the Station Components (\$3 million) and the Enhanced Station Initiatives (ESI) projects (\$4 million) have been increased, reflecting additional station renewal work and increased estimated cost to complete enhancement efforts. The additional ESI budget includes a transfer from the Mentor Allowance – Stations project, as elements of this initiative will be performed as part of the Small Business Development Program (SBDP). The budget for the Mets-Willets Point Station project has been reduced (\$60 million), reflecting the current pace of the effort, with Preliminary Design and Environmental Review currently progressing and construction on course for the 2020 – 2024 Capital Program. The available budget from this reduction is being shifted to the Track and Signals categories to address increased costs for two high priority projects - Double Track and Positive Train Control.

The project budget for Murray Hill Station – New Elevators was reduced (\$3 million) to reflect favorable bids, while project allocations for Port Washington Station Improvements, Babylon Station Platform Replacement, Hunterspoint Avenue Station Renewal, and Elmhurst Station – New Station were reduced (\$18 million), based upon the current sequencing of investments and the need to coordinate planned project construction schedules. The revised budgets provide funding for planning and early engineering efforts, in support of these station initiatives.

The New Fare Payment System budget was increased (\$4 million), in order to support the coordinated MTA-wide effort that is underway to roll-out a new generation of fare payment technology.

The amendment reflects a number of project split outs, which allow for more targeted management of project budgets. This includes a newly established project for Laurelton and Locust Manor Station Improvements, as well as the split out of a number of Enhanced Station Initiative efforts, including Stewart Manor and Port Jefferson, from the original Enhanced Station Initiatives project. These newly created projects also were in part split out from the Mentor Allowance – Stations project.

The Brookhaven National Lab Station project has been renamed East Yaphank Station, to better describe the proposed new station's potential location. The project budget remains the same.

The full scope and budget (\$25 million) of the Parking Facility Development project in the Parking element were transferred to MTACC as part of the \$100 million transfer for the LIRR Expansion project to support like work. Within the Penn Station element, the project budget for Empire State Development Corporation has been increased (\$6 million) for customer enhancement work within the West End Concourse. Budgets for the Penn Station Elevator/Escalator Replacement and the Penn Station Customer Facilities projects have been reduced (\$10 million) to reflect bid savings, as well as current construction sequencing in Penn Station and the need to align work with other ongoing Penn Station initiatives. Reflecting costs for LIRR operational facilities, including the Stations Department and MTA Police, within the new Moynihan Station, the project budget for the Moynihan Train Hall has been increased (\$14 million). Finally, the Penn Station Complex Improvements project budget was increased slightly (\$2 million) for additional design and preliminary engineering work in support of Penn Station improvements.

# Long Island Rail Road Track Category L-703

\$30 million

Overall, there is a \$30 million increase to the Track category as part of this proposed program amendment.

The Annual Track Program is increased (\$12 million) reflecting increased track component renewal and concrete tie installation on the Main Line to better coordinate construction efforts and maximize the use of track outages. This builds upon the aggressive schedule for installation of wood and concrete ties (mechanized), rail, wood switches, concrete switches, field welds, surfacing, drainage, rail profiling and grade crossing investments. The Annual Track Program will utilize available track time and workforces to maximize the track investments undertaken in this program,

Much of the Annual Track Program increase is offset by reductions in other Track category investments. These reductions include Construction Equipment (\$3 million), Right of Way Fencing (\$1 million), and Retaining Walls / Right of Way projects (\$2 million). New fencing and retaining walls are still being installed throughout the system, with a particular focus on locations along the Main Line.

The Double Track Phase 2 project timeline is being accelerated to complete the project later this year to address critical service reliability and on-time performance improvements. The project also now includes infrastructure upgrades to address power needs in this corridor, as well as Wyandanch and Pinelawn station improvements. As a result, the budget for this high priority regional initiative is being increased (\$44 million).

The budget has been aligned with the schedule for Jamaica Capacity Improvements Phase 2 resulting in a reduction (\$30 million). The work being done in the 2015-2019 Capital Program includes design of a new track layout and a new signal system for Jamaica. This design effort supports future higher speed switches and the creation of more streamlined track routings.

Based on the schedule of LIRR's Baseline Capital Contribution to the Northeast Corridor pursuant to the Passenger Rail Investment and Improvement Act (PRIIA) and LIRR's contributions towards the total track replacement in East River Tunnel Lines 3 and 4, the Amtrak Territory Improvements project is increasing (\$10 million.)

# Long Island Rail Road Line Structures Category L-704

(\$21 million)

Revisions to this category reflect the administrative split-out of some location-specific line structure projects and an overall decrease of \$21 million.

The Bridge Program – Structural Renewals project title is changed to Bridge Program - Buckram Road and the Main Line Bridge Component Renewals project is changed to Main Line Bridge – Post Ave as Buckram Road and Post Avenue are the only locations remaining in these projects. All other bridges were previously split out as separate projects, accounting for a reduction (\$4 million) from Bridge Program but with corresponding increases in the split out projects. Additionally, both Buckram Road and Post Avenue bridges achieved savings at award (\$4 million each).

The budget for the Bridge Waterproofing project has been reduced (\$5 million), allowing other high priority investments to progress.

For the Webster Avenue Bridge project, scope has been refined and the budget correspondingly reduced (\$8 million), to advance only design in this program. Construction will be progressed in the 2020-2024 program. A project budget decrease for the Springfield Boulevard and Union Turnpike bridge rehabilitations (\$1 million) also reflects a scope refinement.

Two new projects have been created, Cabin M Bridge Demolition Design and Montauk Cut-Off Demolition Design (\$2 million), for design work to demolish deteriorated, unused bridges, one of which the Coast Guard is requiring be removed. Design will be undertaken in this program for demolition in the 2020-2024 program. Location-specific Small Business Development Program (SBDP) projects have been split out from associated projects in the Line Structures category including Atlantic Avenue Hatchways [SBDP], ROW Improvements: Franklin Ave & Murray Hill [SBDP], and Lynbrook & Rockville Centre Renewals [SBDP]. These split-out projects will progress the SBDP construction efforts with the parent projects carrying out associated project management, design, and construction support by LIRR forces.

# Long Island Rail Road Communications and Signals Category L-705

\$24 million

The Communications Improvements element of this category decreased by \$5 million, while the Signals Improvements element increased by \$29 million netting an overall increase of \$24 million in the category.

The decrease to Communications (\$5 million) includes the Communications Pole Line project reduction (\$2 million), which is part of the LIRR contribution to the MTACC LIRR Expansion project, which will advance similar work. The Atlantic Avenue Tunnel Security Improvements project (\$3 million) is being deferred in order to better sequence this effort with ongoing Atlantic Branch construction taking place in this program, including the structural renewal of the tunnel hatchways. Completion of the structural investments will allow this security initiative to progress under the 2020-2024 Capital Program.

In the Signals element, the project budget of the Signal Normal Replacement Program has decreased (\$10 million), again reflecting a contribution to the MTACC LIRR Expansion project in which similar work is supporting replacement and modernization of the LIRR's signal infrastructure.

The 2015-2019 budget for Positive Train Control has increased (\$40 million), reflecting additional costs associated with implementing this Federal Railroad Administration-mandated safety overlay system.

Finally, the Ronkonkoma to Yaphank Signalization budget has decreased (\$1 million) aligning with the planning and design efforts which will take place later in this program.

# Long Island Rail Road Shops and Yards Category L-706

\$1 million

In the proposed program amendment, the overall Shops and Yards asset category increases by \$1 million.

In the Shops Element, the Diesel Locomotive Shop Improvements project budget has been reduced (\$6 million), reflecting favorable bids.

A budget increase in the Rolling Stock Support Equipment project (\$6 million) reflects change orders and additional costs associated with the replacement of a Wheel Truing machine in West Side Yard in Manhattan. Budget for insurance in the Mid Suffolk Yard Improvements project (\$4 million) was transferred administratively to the OCIP project, in the Miscellaneous category, to pay for insurance during the yard's construction.

The budget for the New Huntington/Port Jeff Branch Electric Yard project has been slightly reduced (\$1 million), better reflecting the Planning, Environmental Review and early Engineering work to be undertaken.

The Fire Protection Improvements project budget has been reduced (\$5 million), in order to better reflect the timing of the effort and the coordination of fire protection system upgrades being progressed with both Operating and Capital funds.

Rehabilitation of Employee Facilities is being decreased (\$9 million) to support a newly created project, Employee Facility Consolidation (\$20 million). The purpose of this project is to create a centralized employee facility where material storage, engineering operations, and transportation support efforts, including a backup location for Centralized Train Control, will all be co-located. A location for this future facility will be determined as the planning progresses. The initial budget is to support design efforts, property costs, and early construction work for this new facility.

In order to more efficiently manage the various renewal efforts being undertaken at Employee Facilities, this program amendment creates a number of new projects in which the scope and budget have been split out from the Mentor Allowance – Shops & Yards, the Rehabilitation of Employee Facilities, and the Hillside Facility/Upper Holban Improvements projects. The newly created projects include Huntington Station HVAC Replacement (SBDP), Ronkonkoma Yard Asphalt Restoration (SBDP), Rehab of Employee Facilities – H (5 Locs) (SBDP) and Sewer & Facility Improvements – C (3 Locs) (SBDP).

# Long Island Rail Road Power Category L-707

(\$72 million)

The majority of the \$72 million net decrease in this category reflects reductions in the Substation Replacements and Substation Renewals projects (\$55 million) with budget then transferred from the LIRR's program to the MTACC program, for the LIRR Expansion Project to support like work. Scope of work for the LIRR Expansion project includes the replacement of seven LIRR substations along the Main Line in Nassau County, thus advancing the LIRR's efforts to replace and upgrade substations which are beyond their useful life.

The \$55 million decrease eliminates the Substations Renewals project (\$39 million) from this Capital Program and decreases the Substation Replacements project by the balance (\$16 million). An additional decrease to the Substation Replacements project (\$6 million) and another decrease (\$3 million) in the Substation Component Renewal project allows other priority investments elsewhere in the LIRR's program to be addressed. Adjustments in this Proposed Program Amendment concentrate resources on full replacement of substations, rather than on targeted substation component renewals. Under the 2015-2019 Capital Program, the following substations are targeted for replacement: Meadowbrook, Ocean Avenue, Bellmore, Queens Breaker House, Rosedale and Murray Hill. Should funding allow, design efforts will be progressed for replacement of Jamaica, Winfield and Forest Hills substations, supporting construction of these substations in the 2020-2024 Capital Program.

Budgets for 3rd Rail – Composite Rail (\$1 million) and Atlantic Avenue Tunnel Lighting (\$7 million) have been reduced, in support of substation replacement efforts, and reflecting competing infrastructure investments on the Atlantic Branch in Brooklyn and Queens. This allows installation of tunnel lighting to continue during this program, with the final phase of tunnel lighting replacement targeted for the 2020-2024 Capital Program.

## Long Island Rail Road Miscellaneous Category L-709

\$9 million

The Miscellaneous category's overall budget is increasing by \$9 million. A newly created project, OCIP, (\$9 million) provides for insurance in support of major third party construction efforts. The budget for this project comes in part from a transfer from the Insurance project (\$2 million) within the category and in part from Station and Yard projects that require insurance coverage.

In order to address an emerging environmental clean-up need, a new project has been created. The PCB Clean-Up - Penn Station Tracks project provides for LIRR's contribution to Amtrak's work doing environmental clean-up of polychlorinated biphenyl at the track level of Penn Station (\$1 million).

## Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 8 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

**Table 8**  
Long Island Rail Road Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Signals	\$282.9	\$311.9	\$29.0
Employee Facilities	49.0	55.0	6.0

*Numbers may not total due to rounding*



# MTA Capital Program 2015-2019

## Metro-North Railroad



# Asset Base – Metro-North Railroad

Table 9  
Selected Metro-North Railroad Assets

Category	Assets
Rolling Stock	881 Electric Cars
	278 Push-pull Coaches
	67 Locomotives
	14 Buses
Passenger Stations	86 Stations
Track	552 Miles of Mainline Track
	573 Mainline Switches
Structures	325 Overhead Bridges
	434 Undergrade Bridges
Communications and Signals	481 Track Miles of Mainline Signal Equipment
Power	59 Substations
	254 Track Miles of Third Rail Power
Shops & Yards	11 Shops and Yards

## Overview – Metro-North Railroad

This proposed amendment adjusts Metro-North's 2015-2019 Capital Program from \$2.414 billion (the level approved by the MTA Board in May 2017) to \$2.462 billion. This \$48 million increase reflects the addition of Connecticut Department of Transportation Administrative Asset (CTDOT AA) funding for qualifying projects, including the Customer Service Initiative (CSI) (\$30 million), purchase of maintenance of way equipment (\$8 million), and various systems projects (\$10 million). The proposed amendment also adjusts project budgets to reflect updated scopes and cost estimates, bid experiences, schedule changes, resource availability, and market conditions. Projects progressing in the 2015-2019 Capital Program reflect these refinements, including schedule updates which phase some scope into the next capital program to implement projects more efficiently. These impacts can be seen in the categories below.

Changes to the Metro-North 2015-2019 Capital Program as described below preserve Metro-North's commitment to address state of good repair needs. Communications and Signals projects on the Hudson, Harlem, and Port Jervis Lines in support of the federally-mandated Positive Train Control safety initiative remain a priority in the 2015-2019 program. Customer initiatives also remain a key element of the program. For Stations, State of Good Repair (SGR) work has been re-sequenced to target critical infrastructure needs and the initial packages for the phased multi-program Customer Service Initiatives (CSI) effort to improve customer communications in Grand Central Terminal and at outlying passenger stations were awarded. The Enhanced Stations project to improve comfort and convenience at select stations was also awarded.

Projects have been refined to reflect priority needs, availability of work windows, resources, and timing of implementation. As a result, some projects will be phased with the next capital program, including right-of-way catenary painting and drainage improvements. Updated schedules for power substation construction activities also phase some work into the next program to reflect timing of implementation and resources.

Table 10 and the discussion that follows summarize the proposed changes to Metro-North's 2015-2019 Capital Program by investment category.

**Table 10**  
**Metro-North Railroad Proposed 2015-2019 Capital Program by Category (\$ in millions)**

Category	Approved Program	Proposed Program	Change
Rolling Stock	\$531.6	\$394.0	(\$137.6)
GCT, Stations and Parking	434.4	536.5	102.1
Track and Structures	431.8	437.1	5.3
Communications and Signals	266.7	310.3	43.6
Power	113.6	111.8	(1.7)
Shops and Yards	472.0	470.0	(2.0)
Miscellaneous	163.7	201.9	38.1
<b>Total Metro-North Railroad Program</b>	<b>\$2,413.9</b>	<b>\$2,461.7</b>	<b>\$47.8</b>

*Numbers may not total due to rounding*

# Metro-North Railroad

## Rolling Stock

### Category M-701

(\$138 million)

There is a net decrease in the Rolling Stock category of \$138 million.

In 2015-2019, Metro-North continues to progress investments to address its fleet needs. To meet growth on the New Haven Line, in November 2016 the MTA Board approved Metro-North's purchase of 60 additional M-8 cars in partnership with the Connecticut Department of Transportation. The remainder of the Rolling Stock Category has been revised to reflect updates to Metro-North's fleet strategy. The EMU Spec Development project has been established for Metro-North's participation in the development of the LIRR M-9A specification for procurement of M-3 replacements in the next capital program. Also, to address reliability challenges in the Genesis locomotive fleet, Metro-North will begin procurement efforts for the phased replacement of these units as they reach the end of their useful lives over multiple capital programs. The timing of these investments was refined to reflect completion of specifications. As a result, a portion of the funds remain for fleet support activities (\$59 million) with the balance re-allocated within Metro-North's 2015-2019 Capital Program for customer enhancements and priority infrastructure needs (\$138 million).

# Metro-North Railroad Stations Category M-702

\$102 million

Overall, the Stations category is increasing by \$102 million.

In the Grand Central Terminal (GCT) element as part of the multi-program Customer Communications initiative, the project to replace the GCT Public Address and Visual Information System increased reflecting the project cost at award (\$22 million including \$13 million CTDOT AAs) . The estimate to complete also was refined for the GCT Trainshed repairs, the GCT/Park Avenue Tunnel Fire and Life Safety assessments, and the platform edge repairs in GCT (\$7 million).

In the Outlying Stations element the Enhanced Station Initiative was revised to reflect project cost at award (\$21 million), as was the Customer Communications initiative (\$34 million, including \$4 million CTDOT AAs). The project for the Customer Communications construction management was also moved to the Miscellaneous Category (\$8 million) to align with other program management efforts. Now underway, these initiatives combine to make select component repairs, as well as improve customer information, station aesthetics and customer experience. A new project has also been added to improve aesthetics and enhance the customer experience at Southeast and Beacon (\$24 million). There were some other changes in this element, as well. An assessment to define priority structural repair needs at select stations on East of Hudson Lines in New York State included platforms, stairways, piers, and underpasses. The project identified structural priority repairs needed to address deteriorating elements of the station platforms and prioritized investment needs for the current and future capital programs. As a result, the Harlem Line Station Improvements project will include platform replacements at Hartsdale and Scarsdale, as well as access improvements at Purdy's station. Some construction under the Lower Harlem Station Improvements and Upper Hudson Station Improvements projects will move to a future program, with priority repairs for expansion joints at select stations being repackaged with platform repairs at Rye and Larchmont on the New Haven Line into a new project supporting Small Business Development contracts for East of Hudson Priority Repairs. The net increase resulting from these moves is \$4 million. The estimate to complete was also refined to reflect higher anticipated cost to complete for the 2015-2019 Metro-North contributions to the MTA-wide New Fare Payment system and the West of Hudson Station repairs (\$3 million).

Finally, the Strategic Facilities project in the Parking element was refined to reflect the timing of investments with \$6 million re-allocated within the program.

All other project budgets in this category remain the same.

# Metro-North Railroad Track and Structures Category M-703

\$5 million

There is net increase in the Track and Structures category of \$5 million.

The Metro-North Track and West of Hudson Infrastructure elements have a combined net reduction (\$11 million). Metro-North maximized resources and track outages, re-sequencing work to align capital and maintenance work resulting in a reduction to the 2015-2019 Cyclical Track Program (\$4 million). Additionally, a portion of the system-wide drainage project was phased to a future capital program as a part of this effort (\$5 million) with both the East and West of Hudson Rock Slope Remediation projects benefitting from favorable bids (\$2 million).

The Overhead Bridge Program – East of Hudson increased to reflect the higher cost to complete bridge replacements in the city of Mount Vernon previously initiated in the 2010-2014 Capital Program (\$19 million). Together, the 2010-2014 and 2015-2019 Capital Programs will design 5 overhead bridges and construct 4, pending \$3.2 million from the city of Mount Vernon needed to advance the 3<sup>rd</sup> Avenue Bridge. The increase is partially offset by the elimination of force account repairs on select overhead bridges system-wide (\$5 million). The Undergrade Bridge Program – East of Hudson was also refined to include additional priority assessment of the Park Avenue Viaduct and revised cost to complete the Willet Avenue Bridge in Port Chester (\$5 million). The Hudson Line Tunnels Inspection and Catenary painting projects have been partially reduced to reflect the updated schedule (\$5 million). Finally, the allocation for Small Business Development Program projects in the Power Element was moved to Structures (\$3 million). All other project budgets in this category remain the same.

# Metro-North Railroad Communications and Signals Category M-704

\$44 million

There is an overall increase in the Communication and Signals category of \$44 million to support Positive Train Control (PTC).

More than 80% of the investments in this category support PTC implementation. This includes an increased estimate to complete the Metro-North PTC project (\$16 million) and higher revised costs to complete based on bids for the Upper Hudson Line cabling and Harlem Line wayside cabling (\$15 million). All three of these projects are needed to enable rollout of PTC. In addition, CTDOT AAs were added for the Network Infrastructure Replacement and PBX equipment projects (\$11 million).

All other project budgets in this category remain the same.

# Metro-North Railroad

## Power

### Category M-705

(\$2 million)

This category is decreasing in the amendment by \$2 million.

Metro-North evaluated investments in this category to update project schedules, refine implementation strategies, and reflect current estimated costs to complete. As a result, the Harlem and Hudson Power Improvements project to construct a new substation on the Harlem Line between Chappaqua and Mount Kisco stations increased (\$4 million), while the Transformer Rehabilitation project decreased (\$2 million). The project to replace substations at Pelham, Mount Vernon and Bronxville was refined to reflect timing and needs. Design for all three substations, as well as three Upper Harlem substations, will be advanced in this program in preparation for construction award in the 2020-2024 Capital Program, resulting in a net decrease (\$6 million). The cost to complete the project to replace motor alternators in signal substations was revised, including the addition of CTDOT AAs (\$6 million). An administrative adjustment is also made for implementation efficiencies, combining third rail component work with other planned power investments in the Park Avenue Tunnel into one project.

Lastly, the allocation for Small Business Development Program projects in the Power Element was moved to Structures (\$3 million).

## **Metro-North Railroad Shops and Yards Category M-706**

(\$2 million)

The Shops and Yards category is decreasing in the amendment by \$2 million.

Metro-North Shops and Yards projects in the 2015-2019 Capital Program are progressing as planned. These include the replacement of outdated facilities at the Croton-Harmon Shop, planning and design efforts for West of Hudson Yard Improvements, and other shop and yard improvements at various locations targeted to support system-wide fleet demands. The only adjustment is to move a portion of the Small Business Development Program allocation to the Stations category (\$2 million).

## **Metro-North Railroad Miscellaneous Category M-708**

**\$38 million**

The Miscellaneous category is increasing by \$38 million including a large administrative transfer into the category.

In the Miscellaneous category, the budget for Metro-North's share of the Owner Controlled Insurance Program (OCIP) project was increased, reflecting MTA Risk Management OCIP insurance coverage needs (\$13 million). The projected cost to complete for GCT/ESA Investments increased (\$4 million), and \$5 million was added for Harlem River Lift Bridge and Systemwide Security Initiatives. Finally, to align with other program management efforts, the project for the Customer Communications construction management was also moved to the Miscellaneous Category, including CTDOT AAs (\$16 million).

All other project budgets in this category remain the same.

## Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 11 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress all work in these elements, to the extent element amounts have increased by greater than 10%.

**Table 11**  
Metro-North Railroad Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
Grand Central Terminal	\$135.0	\$164.9	\$29.9
Outlying Stations	276.7	354.5	77.8
Structures	156.6	173.3	16.8
Communications and Signals	266.7	310.3	43.6
Miscellaneous	163.7	201.9	38.1

*Numbers may not total due to rounding*

# MTA Capital Program 2015-2019

## MTA Bus Company



# Asset Base – MTA Bus Company

Table 12  
Selected MTA Bus Company Assets

Category	Assets
Buses	646 Standard
	72 Articulated
	497 Express Coaches
Depots	8 Depots
	14 Bus Washers
	3 Paint Booths

## Overview - MTA Bus Company

This proposed amendment adjusts the content of MTA Bus Company's 2015-2019 Capital Program. The total value of MTA Bus's program remains unchanged at \$376 million. This amendment reduces funding for a depot bus location system, reflects administrative split-outs, and establishes a project for the 2015-2019 accrued savings in the program. All bus purchases in the program will incorporate state-of-the-art technology that will dramatically enhance the overall customer experience – including USB charging ports, Wi-Fi hotspots, and digital information screens – as well as new systems to improve passenger and pedestrian safety.

This decrease is offset by an increase to 2015-2019 accrued savings in the program.

Table 13 summarizes the proposed changes by category and the following narrative highlights the major changes in the MTA Bus Company's program.

**Table 13**  
**MTA Bus Company 2015-2019 Capital Program by Investment Category (\$ in millions)**

Category	Approved Program	Proposed Program	Change
MTA Bus Company Projects	\$376.0	\$376.0	\$0.0
<b>Total MTA Bus Company Program</b>	<b>\$376.0</b>	<b>\$376.0</b>	<b>\$0.0</b>

*Numbers may not total due to rounding*

# MTA Bus Company Bus Company Projects Category U-703

\$0 million

There is no net budget change in the total budget of the MTA Bus Company program. The project for a depot bus location system is being studied and will be evaluated for inclusion in a future capital program; funding has been transferred to 2015-2019 accrued savings (\$5 million). The amendment also reflects the administrative split-out of depot windows replacement projects to reflect contract packaging under the SBDP.

The MTA Bus Company program element does not have an increase greater than 10% as a result of this amendment.

# MTA Capital Program 2015-2019

## Interagency





## Overview – MTA Interagency

The proposed amendment decreases the Interagency portion of the 2015-2019 Capital Program from \$320.9 million to \$242.8 million (Table 14). MTA Mentoring Program Administration increases by \$1.9 million due to a higher estimate for the program's construction management program. The MTA Police Department portion of the MTA Interagency program remains unchanged. MTA Planning Initiatives are reduced by \$80 million to reflect a transfer of city of New York sponsored stations budget from Interagency to the Stations portion of the NYCT core program.

**Table 14**  
MTA Interagency 2015-2019 Capital Program by Investment Category (\$ in millions)

Category	Approved Program	Proposed Program	Change
MTA Mentoring Program Administration	\$57.4	\$59.3	\$1.9
MTA Police Department	38.5	38.5	0.0
MTA Planning Initiatives	225.0	155.0	(80.0)
<b>Total MTA Interagency Program</b>	<b>\$320.9</b>	<b>\$242.8</b>	<b>(\$78.1)</b>

*Numbers may not total due to rounding*

# **MTA Interagency MTA Mentoring Program Administration Category N-700**

**\$2 million**

In 2010, the MTA Small Business Development Program was established in the 2010-2014 Capital Program to increase the pool of qualified small businesses in the construction trades by providing opportunities for smaller sized contractors to bid on MTA work and by providing assistance to these companies in meeting all regulatory requirements. The program includes construction management and other administrative costs associated with mentoring the new businesses. In the originally approved 2015-2019 Capital Program, each agency established a project for its share of these costs. To facilitate MTA program management, these 2015-2019 shares were consolidated in a new MTA Interagency category as part of the May 2017 Capital Program amendment.

This category increases by \$1.9 million due to a higher estimate at completion for the mentoring program's construction management. \$1.9 million is transferred from the NYCT program to accommodate this need. The action was previously approved as a separate action by the MTA Board in February 2018.

# MTA Interagency MTA Police Department Category N-710

\$0 million

The MTA Police Department's 2015-2019 Capital Program includes projects to invest in facilities, vehicles and communication systems to allow the MTA Police Department to effectively protect our customers and the overall transportation system. The \$39 million MTA Police Department program includes the following projects:

- Public Safety Radio - Phase 3 - \$29 million
- Poughkeepsie Facility - \$2 million
- Other facility, vehicle and administrative projects - \$8 million

None of these projects' budgets change as part of this capital program amendment.

# MTA Interagency MTA Planning Initiatives Category N-711

(\$80 million)

The 2015-2019 Capital Program includes funds for research and analysis to sustain various planning initiatives. The planning initiatives support the MTA Long Range Planning Framework, which identifies long-term transportation needs and capital solutions to address those needs. The \$145 million MTA Planning Initiatives category includes the following initiatives:

- Core Planning Support - \$10 million
- Corridor Planning Support - \$10 million
- Capital Program Support - \$125 million

None of the above projects change as part of this amendment.

Previously, an allocation of \$80 million was budgeted as the Urban Core Infrastructure Reserve to support City of New York sponsored stations work for NYCT. As a part of this amendment, that \$80 million budget is transferred to the Stations portion of the NYCT core program to consolidate the \$300 million total City of New York sponsored stations work.

# MTA Capital Program 2015-2019 Network Expansion





## Overview – Network Expansion

In the proposed 2015-2019 Capital Program amendment, the MTA Capital Construction (MTACC) program of projects increases by \$518 million. The proposed changes to the 2015-2019 program include a reallocation of \$157 million from Regional Investments (RI) to East Side Access (ESA) to support ongoing projects and support costs. The reallocation is supported by rescheduling select work budgets for both ESA and RI and shifting budgets from the 2010-2014 program to the 2015-2019 program with a total increase in the 2015-2019 program of \$418 million. The combined overall ESA and RI budget remains unchanged across the approved capital programs. Rescheduled work will be addressed as part of a future 2020-2024 program. In addition, a transfer of \$100 million to LIRR Expansion Project from the LIRR’s core program is included in this amendment. Finally, in the MTACC Miscellaneous/Administration category, approximately \$29 million is reallocated from MTACC Program Support to a new project line to support the Second Avenue Subway Phase 1 closeout. All MTACC project changes are summarized in Table 15.

**Table 15**  
**Capital Construction Proposed 2015-2019 Capital Program by Category (\$ in millions)**

Category	Approved Program	Proposed Program	Change
East Side Access	\$2,302.2	\$2,709.8	\$407.6
Second Avenue Subway Phase 2	1,735.0	1,735.0	0.0
Penn Station Access	695.0	695.0	0.0
LIRR Expansion Project	1,950.0	2,050.0	100.0
Regional Investments	193.0	203.1	10.2
ESA Risk Reserve	131.0	131.0	0.0
Miscellaneous/Administration	128.5	128.5	0.0
<b>Total MTA Capital Construction Program</b>	<b>\$7,134.6</b>	<b>\$7,652.4</b>	<b>\$517.8</b>

*Numbers may not total due to rounding*

# Capital Construction Company

## East Side Access

### Category G-709

\$408 million

The total budget of \$10.178 billion has been allocated in the MTA's 1995-1999, 2000-2004, 2005-2009, 2010-2014, and 2015-2019 capital programs. In order to fund ongoing projects and support costs as well as replenish ESA project contingency, ESA will be rescheduling \$350 million in scope within the project as well as reallocating into ESA \$157 million from Regional Investments (RI).

The \$350 million in budget is from both the 2010-2014 and 2015-2019 Capital Programs and will be consolidated in 2015-2019. In addition, \$157 million in budget from RI will be reallocated to ESA and consolidated in the 2015-2019 program. As a result of this amendment, the 2015-2019 program budget is being increased by \$408 million and the 2010-2014 program budget is being reduced by \$250 million, for a net increase of \$157 million, as noted above. Two new ESA program support reserves of \$350 million and \$157 million have been created to support ongoing and upcoming work remaining in the 2015-2019 program.

Rescheduled scope from the 2010-2014 program being shifted to future programs includes Rolling Stock reserves, Real Estate reserves and construction of the 48th Street Entrance. The combined value of this scope of work is \$250 million.

Additional reallocated budget from within the 2015-2019 program is proposed in this amendment. Rescheduled work includes Harold Interlocking Force Account, Force Account Systems Testing, Utilities reserves, Construction Management, Arts for Transit, the 48th Street Entrance, Caverns and Concourse Detailing, Materials Warranties, training reserves and Test Trains which will be shifted to future capital programs. The additional funding and associated scope for the rescheduled work are anticipated to be included in future capital programs.

As a result of these transfers, the new total funding across all capital programs is \$10.335 billion.

# Capital Construction Company Second Avenue Subway Category G-710

\$0 million

The overall project budget remains unchanged in this capital program amendment.

The funding in the 2015-2019 Capital Program to commence Second Avenue Subway Phase 2 remains \$1.735 billion. The balance of the construction work necessary for operation is to be funded in future capital programs. Initial funding in this capital program will address environmental, design, real estate, and project support to undertake preliminary construction work, such as utility relocation, and contains reserves to support major construction activities and the initial 30% local match required for the future full funding grant agreement (FFGA) that will be requested.

# Capital Construction Company

## Penn Station Access

### Category G-711

\$0 million

The overall project budget remains unchanged in this capital program amendment.

Penn Station Access (PSA) was initiated in the original approved 2015-2019 Capital Program and remains unchanged at \$695 million. However, funds will be reallocated to support ongoing conceptual engineering, program management, and design activities.

PSA is currently in the Planning/Technical Analysis Phase. MTACC will manage the design and will implement the various Hell Gate Line improvements including work on track and structures, communications and signals, and power. Additionally, four stations will be constructed in the Bronx and fleet specifications will be developed. As necessary, modifications will be made to PSA service-related areas of Penn Station.

# Capital Construction Company

## LIRR Expansion Project

### Category G-713

\$100 million

The LIRR Expansion Project was originally added to the 2015-2019 Capital Program as a part of the May 2017 program amendment with a \$1.950 billion budget. The budget for this project was later increased by \$100 million to a total of \$2.050 billion pursuant to a MTA Board action in December 2017. The \$100 million budget transfer derived from LIRR projects with scopes of work similar to specific elements of the LIRR Expansion project including: a new parking facility and power substation replacement, as well as investments in track, bridge, signal and communications pole and Right of Way improvements.

# Capital Construction Company

## Regional Investments

### Category G-714

\$10 million

The total Regional Investments (RI) budget of \$758 million was allocated between the 2010-2014 and the 2015-2019 Capital Programs. In order to fund ongoing projects and support costs as well as replenish RI and ESA project contingencies, RI will be reallocating \$343 million of its budget, of which \$157 million in funding will be reallocated to ESA to support ESA program needs.

The \$343 million in reallocated budget is from both the 2010-2014 and 2015-2019 programs and will be consolidated in the 2015-2019 program. As a result of this program amendment, the 2015-2019 program budget is being increased by \$10 million and the 2010-2014 program budget is being reduced by \$167 million, for a net reduction of \$157 million to the overall RI budget, as noted above. A new \$153 million project support reserve has been created in RI to support ongoing and upcoming work remaining in the 2015-2019 program.

Reallocated budget from the 2010-2014 program being consolidated in 2015-2019 program includes the budget for Westbound Bypass and Eastbound Re-route Force Account, the Eastbound Re-route, Loop & T Interlocking work and Rolling Stock reserves.

Additional reallocated budget from the 2015-2019 program includes funding for the Westbound Bypass and Eastbound Re-route Force Account, the Eastbound Re-route, Westbound Bypass Remaining Work, Loop & T Interlocking work, Amtrak Car Washer and the Sunnyside Station. The additional funding and associated scope from rescheduled work are anticipated to be included in future capital programs.

As a result of these transfers, the updated total funding across both capital programs is \$601 million.

# Capital Construction Company

## ESA Risk Reserve

### Category G-715

\$0 million

The ESA Risk Reserve of \$131 million remains unchanged. This reserve's purpose is to mitigate overall ESA project risk and it is not part of the ESA budget itself.

# Capital Construction Company

## Miscellaneous

### Category G-716

\$0 million

The overall project budget remains unchanged in this capital program amendment.

A key objective of the MTACC is to utilize a cost-efficient program management structure to oversee and manage the MTA system expansion projects. To accomplish this, MTACC established an organization of core management personnel. Project support for planning, design and construction management is also provided by staff matrixed from the sponsor operating agencies and MTA Headquarters. MTACC established consistent procedures, standards and guidelines that are applied to all the projects under its management.

Per approval of the MTA Board in October 2017, \$29 million was reallocated from MTACC Program Support to a new reserve project to support Second Avenue Subway Phase 1 closeout effort. The administrative project will be replenished by the 2020-2024 Capital Program, if needed.

## Elements Exceeding 10 Percent of the Approved Program

Pursuant to the Public Authorities Law, changes to elements that are greater than 10% require approval of the Capital Program Review Board (CPRB) in order to be progressed. Table 16 shows those elements of the program that have grown by greater than 10% versus the approved program. CPRB approval is necessary to progress these work elements, to the extent element amounts have increased by greater than 10%.

**Table 16**  
Capital Construction Elements with Increases Exceeding 10 Percent (\$ in millions)

Element	Approved Program	Proposed Program	Change
East Side Access	\$2,302.2	\$2,709.8	\$407.6

*Numbers may not total due to rounding*



# MTA Capital Program 2015-2019

## Bridges and Tunnels



## Asset Base – Bridges and Tunnels

Table 17  
Bridges and Tunnels Facilities

Facility	Year Opened	Type of Structure	Length (Feet)
Bronx-Whitestone Bridge (BWB)	1939	Suspension Span	3,842
		Viaducts/Approaches	3,061
Cross Bay Bridge (CBB)	1970	High Level Fixed Bridge	3,023
		Viaducts/Approaches	2,472
Henry Hudson Bridge (HHB)	1936	Steel Arch Bridge	2,193
Hugh L. Carey Tunnel (HCT)	1950	Vehicular Tunnel	9,137
Marine Parkway Bridge (MPB)	1937	Lift Bridge	3,985
Queens Midtown Tunnel (QMT)	1940	Vehicular Tunnel	6,414
Robert F. Kennedy Bridge (RFK)	1936	Suspension Span	2,624
		Harlem River Lift Span	772
		Bronx Crossing Truss Span	1,600
		Viaducts/Approaches	11,742
		Ramps	10,935
Throgs Neck Bridge (TNB)	1961	Suspension Span	2,910
		Viaducts/Approaches	8,022
Verrazano-Narrows Bridge (VNB)	1964	Suspension Span	6,690
		Viaducts/Approaches	2,910
		Ramps	12,504

## Overview – Bridges and Tunnels

With this proposed amendment, B&T's 2015-2019 Capital Program totals \$2.936 billion. In light of the completion of Open Road Tolling (ORT) implementation, the proposed amendment is a result of a review and reprioritization of agency needs and the inclusion of new, priority initiatives primarily addressing safety and customer service. B&T's program decreases by a net \$4.1 million, consisting of \$4.1 million transferred to the 2010-2014 Capital Program to support ongoing projects nearing completion.

The 2015-2019 Capital Program has a stronger emphasis on supporting ORT. However, the overall investment strategy for traditional state of good repair and normal replacement needs has not changed and B&T is ensuring that critical work progresses in the 2015-2019 program timeframe. The timing for implementation of some projects was refreshed for better definition of timelines for major inter-agency coordination, more optimal sequencing of certain multi-phased projects, and ensuring that the most critical needs will be addressed. In addition, this amendment reflects the dynamic nature of B&T's facility master plans for each bridge and tunnel, resulting in estimate adjustments in certain areas. Since the last program submission, ongoing inspections at B&T's facilities were conducted and project designs have advanced, resulting in better cost estimate information. Table 18 outlines B&T's updated 2015-2019 program needs by category; details are shown in the following sections.

**Table 18**  
**Bridges and Tunnels 2015-2019 Capital Program by Category**  
 (\$ in millions)

Category	Approved Program	Proposed Program	Change
Structures	\$751.6	\$752.7	\$1.1
Roadways & Decks	827.6	859.3	31.7
Toll Plazas & Traffic Mgmt.	625.4	621.8	(3.6)
Utilities	404.6	436.4	31.8
Buildings & Sites	88.7	40.8	(47.9)
Miscellaneous	66.6	65.2	(1.3)
Structural Painting	176.0	160.0	(16.0)
<b>Total</b>	<b>\$2,940.4</b>	<b>\$2,936.3</b>	<b>(\$4.1)</b>

*Numbers may not total due to rounding*

## **Bridges and Tunnels Structures Category D-701**

**\$1 million**

Structural improvements on Bridges and Tunnels' facilities focus on maintaining the structural integrity of the facilities, while ensuring safety and minimizing customer inconvenience. The projects address either the components of the bridge superstructure, i.e., that part of the bridge above the foundation, such as the suspension system and roadway deck supporting system, or the substructure, i.e., those elements that support the superstructure, such as anchorages, piers, abutments and the foundations themselves.

The \$1 million increase in this category takes into account the acceleration of a critical safety and customer service project on the Verrazano-Narrows Bridge (\$20 million), revised design-build estimates at the Bronx-Whitestone (\$6.5 million) and Verrazano-Narrows (\$2.5 million) bridges, and a revised estimate to complete the anchorage study at the Robert F. Kennedy Bridge (\$0.2 million). These increases are offset by reductions at the Robert F. Kennedy Bridge (\$8.8 million) due to a favorable bid and Verrazano-Narrows Bridge (\$12 million) due to a favorable design-build award, and other efficiencies at the Bronx-Whitestone (\$1.5 million) and the Robert F. Kennedy (\$5.4 million) bridges.

## **Bridges and Tunnels Roadways and Decks Category D-702**

**\$32 million**

Deck replacement and rehabilitation work focuses on preserving primary bridge elements, upgrading to modern design standards, and enhancing regional mobility through improved traffic capacity and access to facilities. The rehabilitation of roadways, decks, approaches and drainage systems range from large-scale resurfacing, to total replacement of the roadway deck, or construction of new access ramps.

The \$32 million increase primarily takes into account the revised construction estimates at four facilities.

The Throgs Neck Bridge replacement of the suspended span deck (\$60 million) and the Robert F. Kennedy Bridge Manhattan ramp project have increased (\$4 million) to reflect revised construction estimates for these projects. The remaining \$4 million construction increase is addressing the replacement of the Morris Street Pedestrian Bridge over the Hugh Carey Tunnel entryway. These increases are offset by a reduction in the construction estimate, based on the advancement of the conceptual design, at the Verrazano-Narrows Bridge (\$36 million).

## **Bridges and Tunnels Toll Plazas & Traffic Management/Safety Systems Category D-703**

(\$4 million)

Projects in this category focus on the B&T toll/revenue collection system, through the rehabilitation, replacement, installation, and maintenance of elements such as overhead gantries, toll collection equipment, lighting, utilities, and the toll plazas. Advanced traffic management systems (ATMS) and Intelligent Transportation Systems (ITS) projects encompass electronic messaging, information gathering, processing, communications, and control systems.

The \$4 million net reduction in this category primarily reflects the reduction at the Henry Hudson Bridge toll plaza / southbound approach reconstruction project (\$5 million).

Toll collection investments for the full deployment of ORT remain the same (\$502 million). In 2017, B&T constructed ORT gantries at all crossings, and installed and integrated the next generation of tolling technology to ensure the accuracy of the tolling system. Toll booths at all facilities have been removed as well. This project addressed priority needs and allows for all necessary utility relocation and additional power and communication links at all B&T crossings. This project also modernized tolling sub-systems and equipment at all facilities. As a part of this amendment, the ORT budget is reorganized across the subprojects with no net change to the overall budget.

## **Bridges and Tunnels Utilities Category D-704**

**\$32 million**

Investments in this category address replacing, rehabilitating or upgrading mechanical, electrical and power distribution systems, including tunnel ventilation equipment, and replacing lighting systems.

This category's \$32 million net increase primarily reflects the inclusion of a new project for the installation of an integrated over height vehicle detection system (OHVD) at the Queens Midtown and Hugh L. Carey Tunnels (\$12 million), funded by a transfer of work and budget (\$10 million) from the related Operations Command Center in the Buildings & Sites program. The new facility-wide electronic monitoring and detection systems at Bronx-Whitestone and Robert F. Kennedy Bridges increased by (\$16 million), reflecting the design-build contract value at award. The Robert F. Kennedy Harlem River lift span project also increases (\$9 million). The revised design-build estimate increased for the installation of smoke detection and alarm systems at the Queens Midtown Tunnel (\$1 million). Savings include revised design-build estimates at the Hugh L. Carey Tunnel, Bronx Whitestone and Robert F. Kennedy bridges (\$12 million).

## **Bridges and Tunnels Buildings and Sites Category D-705**

(\$48 million)

Investments in this category address assets such as service buildings, ventilation buildings, and garages, while also removing hazardous materials.

The \$48 million reduction in this category stems mainly from the deferral of work at the Robert F. Kennedy bridge ancillary facilities project (\$38 million). The project will perform priority work under this program. The Operations Command Center project reduction (\$10 million) reflects the transfer into the related over height vehicle detection system (OHVD) at the Queens Midtown and Hugh L. Carey tunnels in the Utilities program.

## **Bridges and Tunnels Miscellaneous Category D-706**

(\$1 million)

Projects in this category provide for costs associated with the support and management of the capital program, and include protective liability / insurance coverage, independent engineer services, value engineering services, scope development, New York City traffic enforcement agent support, and the MTA-wide Enterprise Asset Management System.

This category's \$1 million reduction takes into account the revised estimates to complete for various administrative projects.

## **Bridges and Tunnels Structural Painting Category D-707**

(\$16 million)

Projects in this category primarily focus on replacement of paint systems for various bridge elements to provide vital corrosion protection and maintain the structural integrity of all facilities.

The \$16 million reduction in this category in large part reflects savings in agency-wide painting estimates (\$10 million). This project provides for unplanned painting needs that may arise from ongoing biennial inspections. It also includes painting the Hugh L. Carey tunnel and Queens Midtown tunnel ventilation buildings and facility buildings, and emergency lead paint removal. A decrease in the estimate to complete work at the Bronx-Whitestone Bridge to paint the suspended span and tower interior base cells and struts (\$2 million) is reflected. The final design estimate for painting of the suspended span deck of the Throgs Neck Bridge reflects a reduction of (\$3 million).

**MTA Capital Program 2015-2019**  
**Project Listings**



# Project Listings

Here are some helpful tips for navigating the project listings that follow.

## Organization

Capital investments are organized and coded according to an Agency / Category / Element / Project (ACEP) hierarchy:

- Agency: MTA Agency responsible for project delivery (e.g., “NYCT”);
- Category: Agency subset, typically focused on a particular asset type (e.g., “Stations” or “Track”);
- Element: Category subset containing related projects (e.g., “Signal Modernization” element in “Signals & Communications” category);
- Project: Basic unit of the Capital Program, reflecting a specific scope, schedule, needs code, and budget.

For example, the first project listing page is identified in the upper-left corner as Agency “NYCT,” and in the upper-right corner as Category “Subway Cars.” Below that, “T - 701” represents the Agency (“T” for NYCT) and the category code (“701” for subway cars). Further down the page, “01 Subway Cars” refers to the element, which in this case happens to have the same name as the parent category. Finally, this element has a single project with identifier code “01,” to “Purchase 440 B-Division Cars.” Combining all of the codes, the unique ACEP for this project is T7010101.

## Needs Codes

The focus of each project is indicated by its needs code:

- State of Good Repair (SGR) projects renew assets that have surpassed their useful life, to achieve SGR.
- Normal Replacement (NR) projects renew assets that are nearing the end of their useful life, to preserve SGR.
- System Improvement (SI) projects enhance the network, providing new capabilities and a better customer experience.
- Network Expansion (NE) projects extend the reach of the MTA network, expanding the service offering.
- Administrative projects (e.g., insurance, scope development) are generally not assigned needs codes.

## Commitments

Columns indicate the share of the project budget that is planned to be committed (i.e., started) in each year of the 2015-2019 Capital Program period, along with the total for all years.



# New York City Transit

## SUBWAY CARS

### T - 701

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 SUBWAY CARS</b>							
01 Purchase 440 B-Division Cars	NR	0.0	0.0	3.9	1,418.7	0.0	1,422.6
02 Purchase 20 Open Gangway Prototype Cars	SI	0.0	0.0	55.7	3.8	0.0	59.5
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$59.6</b>	<b>\$1,422.5</b>	<b>\$0.0</b>	<b>\$1,482.1</b>
<b>Category Total 701</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$59.6</b>	<b>\$1,422.5</b>	<b>\$0.0</b>	<b>\$1,482.1</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## BUSES T - 703

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 BUS REPLACEMENT</b>							
01 Purchase 618 Diesel & 10 Hybrid Standard Buses DES	SGR	0.0	0.3	0.0	0.0	0.0	0.3
02 Purchase 138 Standard CNG Buses	NR	0.2	84.1	0.8	9.2	0.0	94.3
03 Purchase 275 Standard Hybrid Buses	NR	0.0	0.0	0.0	0.3	265.4	265.7
05 Purchase 15 Artic Electric Buses & Depot Chargers	NR	0.0	0.2	0.0	0.5	28.0	28.7
06 Purchase 50 Express Buses	NR	0.0	0.0	0.0	0.3	38.5	38.8
13 Automatic Passenger Counting - Phase 1 Rollout	SI	0.0	0.0	5.6	0.0	0.0	5.6
14 Purchase 110 Articulated CNG Buses	NR	0.0	0.3	104.2	1.9	0.0	106.4
15 AVL for Paratransit Vehicles	NR	0.0	0.0	0.2	0.0	18.8	19.0
16 Purchase 45 Standard Electric Buses	SI	0.0	0.0	0.0	0.9	53.6	54.5
17 Replace Integrated Farebox Unit (IFU) Components	NR	0.0	0.0	0.0	7.8	0.0	7.8
18 Purchase 251 Standard Diesel Buses	SGR	0.0	0.0	161.0	0.0	0.0	161.0
19 Purchase 367 Diesel and 10 Hybrid Standard Buses	SGR	0.0	0.0	235.7	0.0	0.0	235.7
20 Purchase 72 Articulated Buses (Nova)	NR	0.0	0.0	0.0	65.8	0.0	65.8
21 Purchase 108 Articulated Buses (New Flyer)	NR	0.0	0.0	98.8	0.0	0.0	98.8
22 Purchase Electric Bus Opportunity Charger	SI	0.0	0.0	0.0	2.0	0.0	2.0
<b>Element Total 02</b>		<b>\$0.2</b>	<b>\$84.9</b>	<b>\$606.4</b>	<b>\$88.8</b>	<b>\$404.3</b>	<b>\$1,184.6</b>
<b>Category Total 703</b>		<b>\$0.2</b>	<b>\$84.9</b>	<b>\$606.4</b>	<b>\$88.8</b>	<b>\$404.3</b>	<b>\$1,184.6</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## PASSENGER STATIONS

### T - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>04 FARE COLLECTION</b>							
01 New Fare Payment System, Phase 2	SI	0.0	0.0	463.2	55.4	0.0	518.6
02 AFC Low Turnstile Procurement	SI	0.0	0.0	11.6	0.0	0.0	11.6
03 AFC Replacement, Phase 2: Electronic Boards	NR	0.0	0.0	1.4	12.5	0.0	13.9
<b>Element Total 04</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$476.2</b>	<b>\$67.9</b>	<b>\$0.0</b>	<b>\$544.1</b>
<b>07 STATION ESCALATORS / ELEVATORS</b>							
01 Replace 11 Hydraulic Elevators / Various	SGR	1.7	0.0	3.0	0.0	46.4	51.1
02 Replace 12 Traction Elevators BW7	NR	2.1	0.0	1.7	94.5	0.0	98.3
03 Replace 8 Traction Elevators / Various	NR	1.6	0.0	1.3	0.0	58.8	61.7
04 Replace 6 Traction Elevators 8AV	NR	0.8	0.0	1.4	48.4	0.0	50.6
05 Replace 2 Hydraulic Elevators: Borough Hall CLK	SGR	0.0	1.0	0.1	0.4	15.1	16.5
06 Replace 2 Escalators: Grand Central-42 St LEX	SGR	0.7	0.8	0.0	21.8	0.0	23.3
07 Replace 7 Escalators / Various (Bx/M)	SGR	0.0	0.0	0.7	1.4	40.2	42.2
08 Replace 2 Escalators: Pelham Pkwy WPR	SGR	0.0	0.0	0.3	0.4	14.6	15.3
09 Replace 6 Escalators / Various	SGR	0.0	1.0	0.2	1.5	30.0	32.7
10 Escalator Relocation: Jay St-MetroTech FUL	NR	0.0	1.4	0.0	13.6	0.0	15.0
11 Replace 2 Hydraulic Elevators: Franklin Av FRK	SGR	0.0	0.0	0.0	0.5	14.6	15.1
12 Replace 3 Escalators: Main St FLS	SGR	0.0	0.0	0.4	1.0	18.9	20.3
13 Replace 5 Escalators / Various (Bk/M)	SGR	0.0	0.0	1.2	0.1	25.0	26.3
14 Replace 1 Hydraulic Elevator: Grand Central FLS	SGR	0.0	0.0	0.0	0.5	10.0	10.6
<b>Element Total 07</b>		<b>\$6.8</b>	<b>\$4.2</b>	<b>\$10.3</b>	<b>\$184.0</b>	<b>\$273.7</b>	<b>\$479.0</b>

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# New York City Transit

## PASSENGER STATIONS

### T - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>12 STATION WORK</b>							
01 Water Remediation - Renewal: Borough Hall LEX	SGR	1.9	0.0	0.0	0.0	41.5	43.4
02 Renewal: 138 St-Grand Concourse JER	SGR	0.5	0.0	2.0	26.6	0.0	29.1
03 Renewal: Astoria-Ditmars Blvd AST	SGR	1.0	0.6	21.8	0.4	0.0	23.7
04 Renewal: Astoria Blvd AST	SGR	1.2	0.5	0.0	61.3	0.0	63.0
05 Renewal: 30 Av AST DES	SGR	1.2	0.0	0.0	0.0	0.0	1.2
06 Renewal: Broadway AST DES	SGR	1.0	0.0	0.0	0.0	0.0	1.0
07 Renewal: 36 Av AST DES	SGR	1.1	0.0	0.0	0.0	0.0	1.1
08 Renewal: 39 Av AST DES	SGR	0.5	0.0	0.0	0.5	0.0	1.0
09 Renewal: Mets-Willets Point FLS - Phase 1	SGR	0.0	6.4	0.0	0.0	43.6	50.0
10 Renewal: 111 St FLS	SGR	0.0	0.5	0.1	0.0	34.5	35.0
11 Renewal: 103 St-Corona Plaza FLS	SGR	0.0	0.5	0.1	0.0	24.4	25.0
12 Renewal: 82 St-Jackson Heights FLS	SGR	0.0	0.5	0.1	0.8	22.9	24.3
13 Renewal: Woodhaven Blvd JAM	SGR	0.0	0.0	0.5	0.7	43.9	45.0
14 Renewal: 85 St-Forest Parkway JAM	SGR	0.0	0.0	0.5	0.0	24.5	25.0
15 Renewal: 75 St-Elderts Lane JAM	SGR	0.0	0.0	0.5	0.0	24.6	25.0
16 Renewal: Cypress Hills JAM	SGR	0.0	0.0	0.5	0.0	24.5	25.0
17 Renewal: 69 St FLS	SGR	0.0	0.5	0.1	0.0	24.4	25.0
18 Renewal: 61 St-Woodside FLS	SGR	0.0	0.6	0.1	0.0	49.3	50.0
19 Renewal: 52 St FLS	SGR	0.0	0.6	0.1	0.0	34.3	35.0
21 Station Ventilators: Various Locs (2015)	SGR	0.0	0.0	0.0	7.7	0.0	7.7
22 Platform Components: 2 Locs 4AV	SGR	1.3	0.3	9.7	0.0	0.0	11.4
23 Platform Components: Kingston-Throop FUL DES	SGR	0.0	0.3	0.0	0.0	0.0	0.3
24 Platform Components: 2 Locs JER	SGR	0.0	0.1	1.2	0.0	18.6	19.9
25 Platform Components: Pelham Pkwy DYR DES	SGR	0.0	0.0	0.0	0.0	0.0	0.0*
26 Elev Street Stairs: 2 Locs BW7 [SBDP] DES	SGR	0.0	0.0	0.0	0.1	0.0	0.1
29 Subway Street Stairs: 2 Locs / Various	SGR	0.0	0.0	0.0	3.0	0.0	3.0
31 Station Lighting: 6 Locs / Various M/Bx [SBDP]	SGR	0.0	0.0	0.0	0.6	4.8	5.4
32 Station Ventilators: Various Locs (2016)	SGR	0.0	0.0	0.0	8.1	0.0	8.1
34 Platform Components: 167 St BXC DES	SGR	0.3	0.0	0.0	0.0	0.0	0.3
35 Platform Components: Bedford-Nostrand XTN	SGR	0.0	0.4	0.0	12.7	0.0	13.0
36 Platform Components: Longwood Ave PEL	SGR	0.0	0.2	0.0	9.7	0.0	9.9
37 Platform Components: 2 Locs LEN	SGR	0.0	0.2	0.1	10.9	0.0	11.2
38 Platform Components: 2 Locations FLS	SGR	0.0	0.0	0.0	0.5	11.3	11.9
40 Elevated Int Stairs: Junction Blvd FLS	SGR	0.0	0.0	0.2	1.3	0.0	1.4
41 Subway Int Stairs: 14 St-Union Sq LEX [SBDP]	SGR	0.0	0.0	0.0	1.0	0.0	1.0
42 Elev Street Stairs: 2 Locs WPR [SBDP]	SGR	0.0	0.0	0.1	1.1	0.0	1.2
43 Subway Street Stairs: 4 Locs / Var 2017 [SBDP]	SGR	0.0	0.1	0.0	2.7	0.0	2.9
44 Mezz Columns: Atlantic Av CNR [SBDP]	SGR	0.0	0.0	0.0	0.2	5.5	5.7
45 Mezz Ceiling Finish: 2 Locs ARC, FLS	SGR	0.0	0.0	0.3	4.2	0.0	4.6
46 Platform Components: 4 Locs QBL, ARC	SGR	0.0	0.7	0.5	1.3	32.1	34.6

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# New York City Transit

## PASSENGER STATIONS

**T - 704**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>12 STATION WORK</b>							
47 Stn Lighting: 6 Locs / Various M/Bx/Bk [SBDP]	SGR	0.0	0.0	0.2	0.9	0.0	1.2
48 Station Ventilators: Various Locs (2017)	SGR	0.0	0.0	0.0	0.7	7.7	8.4
50 Platform Components: 2 Locs NAS DES	SGR	0.0	0.0	0.0	0.5	0.7	1.1
51 Platform Components: 5 Locs CNR	SGR	0.0	0.6	0.6	24.8	0.0	26.0
52 Platform Components: 3 Locs EPK, CLK	SGR	0.0	0.3	0.0	14.6	0.0	14.9
53 2017 Station Painting at Components Locs	SGR	0.0	0.0	0.0	7.2	0.0	7.2
56 Elev Street Stairs: Atlantic Av CNR [SBDP]	SGR	0.0	0.0	0.1	0.7	0.0	0.8
57 Subway Street Stairs: 9 Locs / Var 2018 [SBDP]	SGR	0.0	0.0	0.5	7.0	0.0	7.5
58 Mezz Components: Nevins St EPK [SBDP]	SGR	0.0	0.0	0.0	0.2	6.4	6.5
59 Mezz Wall Finishes: Bowery NAS [SBDP]	SGR	0.0	0.0	0.1	1.0	0.0	1.1
60 Platform Components: 2 Locs QBL DES	SGR	0.0	0.0	0.0	1.1	0.0	1.1
61 Platform Edges: 2 Locs QBL-Hillside DES	SGR	0.0	0.0	0.0	1.9	0.0	1.9
62 Station Lighting: 7 Locs / Various [SBDP]	SGR	0.0	0.0	0.4	2.5	0.0	2.9
63 Platform Components: 3 Locs NOS	SGR	0.0	0.2	0.6	25.1	0.0	25.9
64 Station Ventilators: Various Locs (2018)	SGR	0.0	0.0	0.0	0.7	8.0	8.7
65 Platform Components: 2 Locations BRT DES	SGR	0.0	0.0	0.0	1.3	0.0	1.3
66 Platform Components: 8 Locs 8AV DES	SGR	0.0	0.0	0.0	1.3	1.9	3.2
67 Platform Components: 10 Locs BW7	SGR	0.0	0.4	0.5	3.8	45.4	50.1
68 2018 Station Painting at Components Locs	SGR	0.0	0.0	0.0	4.5	0.0	4.5
70 Subway Interior Stairs: 5 Locs 8AV, BW7 [SBDP]	SGR	0.0	0.0	0.0	1.1	11.7	12.8
71 Elevated Street Stairs: 2 Locs BRT [SBDP]	SGR	0.0	0.0	0.2	2.0	0.0	2.1
72 Subway Street Stairs: 4 Locs 8AV, BW7 [SBDP]	SGR	0.0	0.0	0.3	0.0	0.0	0.3
73 Mezz Components: 3 Locs 8AV, LEX [SBDP]	SGR	0.0	0.0	0.0	0.3	1.6	2.0
74 Station Lighting: 9 Locs / Various [SBDP]	SGR	0.0	0.0	0.0	0.7	7.0	7.7
75 Station Ventilators: Various Locs (2019)	SGR	0.0	0.0	0.0	0.7	9.0	9.7
76 Platform Components: 4 Locs 6AV, E63 DES	SGR	0.0	0.0	0.0	0.6	0.8	1.4
77 Platform Components: 6 Locs LEX DES	SGR	0.0	0.0	0.0	0.8	1.1	1.9
78 Platform Edges: Freeman St WPR	SGR	0.0	0.0	0.1	1.4	0.0	1.5
79 2019 Station Painting at Components Locs	SGR	0.0	0.0	0.0	0.0	3.0	3.0
80 Elevated Interior Stairs: 4 Av-9 St 6AV [SBDP]	SGR	0.0	0.0	0.1	0.5	0.0	0.5
81 Subway Interior Stairs: 5 Locs 8AV [SBDP]	SGR	0.0	0.0	0.0	1.4	6.3	7.7
82 Elevated Street Stairs: 3 Locs WPR [SBDP]	SGR	0.0	0.0	0.2	2.4	0.0	2.6
83 Subway Street Stairs: 50 St 8AV [SBDP]	SGR	0.0	0.0	0.3	0.0	1.5	1.8
84 Mezz Components: 149 St-Grand Conc WPR [SBDP]	SGR	0.0	0.0	0.0	0.5	3.7	4.2
85 Mezz Floors: 23 St 8AV DES	SGR	0.0	0.0	0.2	0.0	0.0	0.2
86 Station Lighting: 6 Locs 8AV, WPR [SBDP]	SGR	0.0	0.0	0.0	0.5	5.0	5.5
87 Station Components: 3 Locs 8AV	SGR	0.0	0.0	0.0	0.8	0.0	0.8
88 Subway Interior Stairs: 59 St 4AV	SGR	0.0	0.0	0.0	1.7	0.0	1.7
90 Enhanced Station Initiative: Design and Support	NR	0.0	11.1	5.8	7.7	0.0	24.6
91 Subway Interior Stairs: Canal St BWY [SBDP]	SGR	0.0	0.3	0.0	3.4	0.0	3.7

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# New York City Transit

## PASSENGER STATIONS

**T - 704**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>12 STATION WORK</b>							
92 Enhanced Station Initiative: Pkg 4 - 34 St BW7	NR	0.0	0.0	2.7	27.3	0.0	30.0
93 Enhanced Station Initiative: Pkg 2 - Broadway AST	NR	0.0	0.0	48.7	0.5	0.0	49.1
94 Enhanced Station Initiative: Pkg 2 - 30 Ave AST	NR	0.0	0.0	64.4	1.1	0.0	65.5
95 Enhanced Station Initiative: Pkg 2 - 36 Ave AST	NR	0.0	0.0	63.8	0.6	0.0	64.4
96 Enhanced Station Initiative: Pkg 2 - 39 Ave AST	NR	0.0	0.0	47.4	1.4	0.0	48.8
97 Enhanced Stn Initiative: Pkg 1 - Bay Ridge Ave 4AV	NR	0.0	35.0	5.6	0.4	0.0	40.9
98 Enhanced Stn Initiative: Pkg 1 - Prospect Ave 4AV	NR	0.0	33.1	5.2	0.1	0.0	38.4
99 Enhanced Station Initiative: Pkg 1 - 53 St 4AV	NR	0.0	34.9	5.6	0.4	0.0	40.9
A1 Elev Street Stairs 238 St S1 [SBDP]	SGR	0.0	0.0	0.0	1.3	0.0	1.3
A2 Elev Street Stairs 215 St S2/S4 [SBDP]	SGR	0.0	0.0	2.2	0.1	0.0	2.3
A3 Elev Street Stairs 215 St S1/S3 [SBDP]	SGR	0.0	0.0	2.1	0.1	0.0	2.1
A4 Elev Street Stairs 238 St S2/S3 [SBDP]	SGR	0.0	0.0	2.2	0.0	0.0	2.2
A6 Platform Components: 125 St BW7	SGR	0.0	0.0	0.0	0.0	4.5	4.5
A9 Sub St Stairs: 34 St BWY (S4/M4, S8/M8) [SBDP]	SGR	0.0	0.0	0.0	1.9	0.0	1.9
B1 Subway Street Stairs: 34 St BWY (S2/M1) [SBDP]	SGR	0.0	0.0	0.5	0.0	0.0	0.5
B2 Subway Street Stairs: 34 St BWY (S7/M7) [SBDP]	SGR	0.0	0.0	0.9	0.0	0.0	0.9
B3 Subway Street Stairs: 59 St 4AV (S1/M1) [SBDP]	SGR	0.0	0.0	0.6	0.0	0.0	0.6
B4 Enhanced Stn Init: Vents - 163 St 8AV	NR	0.0	1.2	0.0	0.0	0.0	1.2
B5 Enhanced Stn Init: Vents - 23 St 6AV	NR	0.0	1.5	0.0	0.0	0.0	1.5
B6 Enhanced Stn Init: Vents -Clinton & Washington FUL	NR	0.0	1.1	0.0	0.0	0.0	1.1
B7 Enhanced Stn Init: Vents - Van Siclen Ave FUL	NR	0.0	1.6	0.0	0.0	0.0	1.6
B8 Enhanced Stn Init: Vents - Classon Ave BCT	NR	0.0	1.3	0.0	0.0	0.0	1.3
B9 Enhanced Stn Init: Vents - Hunts Point Ave PEL	NR	0.0	0.9	0.0	0.0	0.0	0.9
C1 Enhanced Stn Init: Vents - 167 St BXC	NR	0.0	0.0	1.9	0.0	0.0	1.9
C2 Enhanced Stn Init: Pkg 3 - 163St -Amsterdam Av 8AV	NR	0.0	0.0	40.9	1.2	0.0	42.1
C3 Enhanced Stn Init: Pkg 3 - Cathedral Pkwy 8AV	NR	0.0	0.0	39.2	1.1	0.0	40.3
C4 Enhanced Stn Init: Pkg 3 - 86 St 8AV	NR	0.0	0.0	38.1	1.1	0.0	39.2
C5 Enhanced Stn Init: Pkg 3 - 72 St 8AV	NR	0.0	0.0	34.8	1.0	0.0	35.8
C6 Enhanced Stn Init: Vents - 138 St PEL	NR	0.0	4.1	0.0	0.0	0.0	4.1
C9 Enhanced Station Initiative: Pkg 4 - 57 St 6AV	NR	0.0	0.5	0.1	49.5	0.0	50.0
D1 Enhanced Station Initiative: Pkg 4 - 23 St 6AV	NR	0.0	0.7	0.1	29.5	0.0	30.3
D2 Enhanced Station Initiative: Pkg 4 - 28 St LEX	NR	0.0	0.4	0.1	32.2	0.0	32.6
D3 Enhanced Station Initiative: Pkg 4 - 34 St 8AV	NR	0.0	0.0	0.1	26.5	0.0	26.6
E8 Enhanced Stn Init: Pkg 8 - 174-175 Sts BXC	NR	0.0	0.0	0.0	41.1	0.0	41.1
E9 Enhanced Stn Init: Pkg 8 - 167 St BXC	NR	0.0	0.0	0.0	44.2	0.0	44.2
F1 Enhanced Stn Init: Pkg 8 - 145 St LNX	NR	0.0	0.0	0.0	39.5	0.0	39.5
F2 Vent Water Remed: 3 Av-138 St PEL	SGR	0.0	0.0	0.2	0.5	5.7	6.3
G5 3 Stairs: 155th St 8AV (S3,S4,S5) [SBDP]	SGR	0.0	0.0	0.0	1.5	0.0	1.5
G6 1 Stair: Franklin St BW7 (S2A/B-P2A/B) [SBDP]	SGR	0.0	0.0	0.0	1.0	0.0	1.0
G7 1 Stair: 14 St BW7 (S8) [SBDP]	SGR	0.0	0.0	0.0	0.9	0.0	0.9

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# New York City Transit

## PASSENGER STATIONS

### T - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	Commitments (\$ in millions)					Total All Years
		2015	2016	2017	2018	2019	
<b>12 STATION WORK</b>							
G8 1 Stair: 79 St BW7 (S2/P2) [SBDP]	SGR	0.0	0.0	0.0	0.8	0.0	0.8
G9 Renewal: 95th St 4AV	SGR	0.0	0.0	0.0	15.0	0.0	15.0
<b>Element Total 12</b>		<b>\$10.1</b>	<b>\$142.0</b>	<b>\$455.8</b>	<b>\$603.0</b>	<b>\$595.6</b>	<b>\$1,806.6</b>
<b>13 DISABLED ACCESSIBILITY</b>							
01 ADA: Bedford Av CNR	SI	1.2	1.0	68.0	7.3	0.0	77.6
02 ADA: Astoria Blvd AST	SI	2.0	1.9	0.1	45.9	0.0	49.9
03 ADA: Bedford Pk Blvd BXC	SI	2.0	0.9	1.0	30.0	0.0	33.9
04 ADA: 86 St 4AV	SI	1.9	0.1	29.7	0.6	0.0	32.3
05 ADA: Gun Hill Road DYR	SI	3.1	1.5	0.9	51.4	0.0	56.9
06 ADA: Eastern Pkwy-Bklyn Museum EPK	SI	0.0	1.8	1.2	51.7	0.0	54.7
07 ADA: Times Square Complex, Ph 3 - Shuttle	SI	4.1	0.1	4.5	228.4	0.0	237.1
08 ADA: Chambers St NAS	SI	0.0	1.7	1.8	53.6	0.0	57.1
09 ADA: Greenpoint Av XTN	SI	0.0	1.3	1.9	41.6	0.0	44.9
10 ADA: 59 St 4AV	SI	0.0	1.3	2.2	59.8	0.0	63.3
11 ADA: Rockaway Parkway CNR	SI	0.0	0.5	0.2	10.2	0.0	10.8
12 ADA: 1 Av CNR	SI	0.1	1.1	31.9	11.7	0.0	44.9
14 ADA: Court Square XTN (Elevator Phase)	SI	0.0	0.0	0.0	1.1	15.5	16.6
15 ADA: 149 Street-Grand Concourse Complex	SI	0.0	0.0	0.0	1.6	83.4	85.0
16 ADA: Woodhaven Boulevard JAM	SI	0.0	0.0	0.0	2.4	32.6	35.0
17 ADA: Systemwide Study	SI	0.0	0.0	0.9	9.1	0.0	10.0
18 Visual Identification of ADA Boarding Areas PILOT	SI	0.0	0.0	0.0	0.0	0.2	0.2
20 ADA: Court Square XTN (Stairs Phase)	SI	0.0	0.7	12.1	0.2	0.0	13.1
21 ADA and Renewal: 77 St 4AV DESIGN/PREP	SI	0.0	0.0	0.0	0.0	5.0	5.0
22 ADA: 95 St 4AV	SI	0.0	0.0	0.0	0.0	35.0	35.0
23 ADA: 57 Street BWY Additional Support Costs	SI	0.0	0.0	43.9	5.4	0.0	49.2
24 ADA: 68 St-Hunter Col LEX Additional Support Costs	SI	0.0	0.0	0.0	48.0	0.0	48.0
26 ADA: Times Square Complex, Ph 3 - Shuttle [SBDP]	SI	0.0	0.0	0.0	5.0	0.0	5.0
27 ADA & Station Improvements: Westchester Sq PEL	SI	0.0	0.0	0.0	90.0	0.0	90.0
28 ADA Enhancements at Various Locations	SI	0.0	0.0	0.0	0.0	200.0	200.0
<b>Element Total 13</b>		<b>\$14.5</b>	<b>\$14.0</b>	<b>\$200.4</b>	<b>\$755.0</b>	<b>\$371.7</b>	<b>\$1,355.5</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## PASSENGER STATIONS

### T - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>14 OTHER STATION IMPROVEMENTS</b>							
01 Station Signage Improvements	NR	1.1	9.7	0.0	0.0	0.0	10.8
02 Access Improvements: Grand Central, Phase 2	SI	0.0	0.4	18.2	56.4	0.0	75.0
03 Reopen Station Entrance: 8 Av SEA	SI	0.0	1.4	14.3	0.6	0.0	16.3
04 Reconstruction: Times Sq Complex, Ph3 - Shuttle	SGR	1.1	0.0	0.9	27.4	0.0	29.4
05 2015 Water Condition Remedy	SGR	3.6	4.3	0.3	0.0	0.0	8.1
06 Station Railings	SGR	0.3	0.0	0.0	3.5	0.0	3.8
07 Station Condition Survey Update	NR	0.0	0.0	8.8	0.1	0.0	8.9
08 2017 Water Condition Remedy	SGR	0.0	0.0	0.2	5.0	0.0	5.2
09 Reconstruct Cortlandt St Station BW7	SGR	23.4	2.3	25.7	20.4	0.0	71.8
10 Church St Corridor Improvements	NR	0.0	0.0	14.9	15.1	0.0	30.0
11 New Street Stairs: 2 Locs CNR	SI	0.6	2.0	4.6	0.0	0.0	7.2
15 Station Capacity Enhancements at Various Locs	SI	0.0	0.0	0.5	6.1	0.0	6.6
16 Circulation Improvements: Union Square CNR	SI	0.0	0.0	2.2	12.8	0.0	15.0
17 Sutphin Blvd ARC Plan/Eng	NR	0.0	0.0	0.0	10.0	0.0	10.0
18 Stn Cap Enhancements: Metropolitan Av XTN	SI	0.0	0.0	0.2	1.2	0.0	1.4
19 Station Capacity Enhancements: Broadway Jct JAM	SI	0.0	0.0	0.8	0.0	9.4	10.2
20 Station Capacity Enhancements: Marcy Avenue JAM	SI	0.0	0.1	1.3	0.0	11.6	12.9
21 Station Circulation Enhancements at Various Locs	SI	0.0	0.0	0.0	0.0	100.0	100.0
<b>Element Total 14</b>		<b>\$30.0</b>	<b>\$20.2</b>	<b>\$92.9</b>	<b>\$158.6</b>	<b>\$121.0</b>	<b>\$422.6</b>
<b>Category Total 704</b>		<b>\$61.5</b>	<b>\$180.4</b>	<b>\$1,235.5</b>	<b>\$1,768.5</b>	<b>\$1,361.9</b>	<b>\$4,607.9</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## TRACK T - 705

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 MAINLINE TRACK REHABILITATION</b>							
01 2015 Mainline Track Repl: Design/Support	NR	0.5	0.7	2.9	2.5	0.0	6.6
02 2016 Mainline Track Repl: Design/Support	NR	0.0	5.4	0.0	4.3	0.0	9.7
03 2017 Mainline Track Repl: Design/Support	NR	0.0	1.2	3.6	1.1	0.0	5.8
04 2018 Mainline Track Repl: Design/Support	NR	0.0	0.0	2.2	5.4	0.0	7.6
05 2019 Mainline Track Replacement	NR	0.0	0.0	0.0	2.2	152.1	154.3
06 2020 Mainline Track Replacement DES	NR	0.0	0.0	0.0	0.0	2.1	2.1
07 2015 CWR: Queens Blvd	NR	0.0	19.6	0.0	0.0	0.0	19.6
08 2016 CWR: Queens Blvd	NR	0.0	27.4	0.0	0.0	0.0	27.4
10 2018 Continuous Welded Rail	NR	0.0	0.0	0.0	12.9	0.0	12.9
11 2019 Continuous Welded Rail	NR	0.0	0.0	0.0	0.0	35.9	35.9
12 2015 Track Force Account	NR	35.0	0.0	0.0	0.0	0.0	35.0
13 2016 Track Force Account	NR	0.0	35.0	0.0	0.0	0.0	35.0
14 2017 Track Force Account	NR	0.0	0.0	35.0	0.0	0.0	35.0
15 2018 Track Force Account	NR	0.0	0.0	0.0	35.0	0.0	35.0
16 2019 Track Force Account	NR	0.0	0.0	0.0	0.0	35.0	35.0
17 2015 Mainline Track Repl: Brighton	NR	0.0	16.0	0.0	0.0	0.0	16.0
18 2015 Mainline Track Repl: Queens Blvd	NR	0.0	78.6	0.0	0.0	0.0	78.6
19 2015 Mainline Track Repl: West End	NR	0.0	7.0	0.0	0.0	0.0	7.0
20 2015 Mainline Track Repl: Flushing	NR	0.0	26.9	0.0	0.0	0.0	26.9
21 2015 Mainline Track Repl: 8th Avenue	NR	0.0	60.4	0.0	0.0	0.0	60.4
22 2015 Mainline Track Repl: Jerome	NR	0.0	6.4	0.0	0.0	0.0	6.4
23 2015 Mainline Track Repl: Pelham	NR	0.3	3.2	0.0	0.0	0.0	3.5
24 2015 Mainline Track Repl: Lexington	NR	0.0	7.5	0.0	0.0	0.0	7.5
25 2015 Mainline Track Repl: Liberty	NR	0.2	2.0	0.0	0.0	0.0	2.2
26 2015 Mainline Track Repl: Lenox-White Plains Rd	NR	0.0	7.9	0.0	0.0	0.0	7.9
28 2015 CWR: 8th Avenue	NR	0.0	44.5	0.0	0.0	0.0	44.5
29 2015 Mainline Track Repl: BWY-7AV (n/o Lawrence)	NR	0.0	2.2	0.0	0.0	0.0	2.2
30 2016 Mainline Track Repl: Brighton	NR	0.0	22.4	0.0	0.0	0.0	22.4
31 2016 Mainline Track Repl: Jamaica	NR	0.0	18.7	0.0	0.0	0.0	18.7
32 2016 Mainline Track Repl: Queens Blvd	NR	0.0	46.8	0.0	0.0	0.0	46.8
33 2016 Mainline Track Repl: Dyre	NR	0.0	13.8	0.0	0.0	0.0	13.8
34 2016 Mainline Track Repl: 6th Ave/Culver	NR	0.0	6.6	0.0	0.0	0.0	6.6
36 2016 CWR: 8th Avenue	NR	0.0	61.5	0.0	0.0	0.0	61.5
37 2016 Mainline Track Repl: Pelham	NR	0.0	7.1	0.0	0.0	0.0	7.1
38 2016 Mainline Track Repl: White Plains Rd	NR	0.0	6.3	0.0	0.0	0.0	6.3
39 2016 Mainline Track Repl: Bushwick Cut	NR	0.0	10.1	0.0	0.0	0.0	10.2
40 2016 Mainline Track Repl: Canarsie Tube	NR	0.0	0.6	59.9	4.3	0.0	64.8
41 2015 Mainline Track Repl: Canarsie	NR	15.4	0.0	0.0	0.0	0.0	15.4
42 2015 Mainline Track Repl: Broadway-7th Avenue	NR	12.4	2.0	0.0	0.0	0.0	14.4
43 2015 Mainline Track Repl: Dyre	NR	4.1	0.0	0.0	0.0	0.0	4.1

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# New York City Transit

## TRACK T - 705

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 MAINLINE TRACK REHABILITATION</b>							
44	2016 Mainline Track Repl: West End	NR	0.0	3.5	0.0	0.0	3.5
45	2016 Mainline Track Repl: Flushing	NR	0.0	7.7	0.0	0.0	7.7
46	2016 Mainline Track Repl: 8th Avenue	NR	0.0	55.8	0.0	0.0	55.8
47	2016 Mainline Track Repl: Lenox-White Plains Rd	NR	0.0	1.1	0.0	0.0	1.1
48	2016 Mainline Track Repl: 63rd St	NR	0.0	26.1	0.0	0.3	26.4
49	2016 Mainline Track Repl: Bowling Gr - LEX	NR	0.0	0.0	4.4	0.0	4.4
50	2016 Mainline Track Repl: Jerome	NR	0.0	0.0	17.9	0.0	17.9
51	2017 Mainline Track Repl: Brighton	NR	0.0	0.0	6.8	0.0	6.8
52	2017 Mainline Track Repl: Sea Beach	NR	0.0	0.0	3.8	0.0	3.8
53	2017 Mainline Track Repl: Broadway	NR	0.0	0.0	5.5	0.0	5.5
54	2017 Mainline Track Repl: 4th Avenue	NR	0.0	0.0	2.7	0.0	2.7
55	2017 Mainline Track Repl: Canarsie	NR	0.0	0.0	13.5	0.0	13.5
56	2017 Mainline Track Repl: Crosstown	NR	0.0	0.0	19.2	0.0	19.2
57	2017 Mainline Track Repl: Culver	NR	0.0	0.0	4.1	0.0	4.1
58	2017 Mainline Track Repl: Eastern Parkway	NR	0.0	0.0	23.6	0.0	23.6
59	2017 Mainline Track Repl: Jerome	NR	0.0	0.0	23.8	0.0	23.8
60	2017 Mainline Track Repl: Lexington	NR	0.0	0.0	9.3	0.0	9.3
61	2017 Mainline Track Repl: Pelham	NR	0.0	0.0	8.4	0.0	8.4
62	2017 Mainline Track Repl: 7th Avenue	NR	0.0	0.0	5.6	0.0	5.6
63	2017 Mainline Track Repl: Broadway-7th Avenue	NR	0.0	0.0	8.9	0.0	8.9
64	2017 Mainline Track Repl: Concourse	NR	0.0	0.0	27.3	0.0	27.3
65	2017 Mainline Track Repl: Liberty	NR	0.0	0.0	3.2	0.0	3.2
66	2017 Mainline Track Repl: Flushing	NR	0.0	0.0	28.7	0.0	28.7
67	2017 Mainline Track Repl: Myrtle	NR	0.0	0.0	14.3	0.0	14.3
68	2017 Mainline Track Repl: White Plains Rd	NR	0.0	0.0	8.0	0.0	8.0
69	Continuous Welded Rail (SAP)	NR	0.0	0.0	0.0	53.0	53.0
70	2018 Mainline Track Repl: Astoria	NR	0.0	0.0	0.0	13.5	13.5
71	2018 Mainline Track Repl: Flushing	NR	0.0	0.0	0.0	22.8	22.8
72	2018 Mainline Track Repl: Jamaica	NR	0.0	0.0	0.0	32.7	32.7
73	2018 Mainline Track Repl: Brighton	NR	0.0	0.0	0.0	1.3	1.3
74	2018 Mainline Track Repl: Dyre	NR	0.0	0.0	0.0	1.7	1.7
75	2018 Mainline Track Repl: Pelham	NR	0.0	0.0	0.0	9.1	9.1
76	2018 Mainline Track Repl: Eastern Parkway	NR	0.0	0.0	0.0	11.3	11.3
77	2018 Mainline Track Repl: Broadway-7th Avenue	NR	0.0	0.0	0.0	9.7	9.7
78	2018 Mainline Track Repl: Canarsie	NR	0.0	0.0	0.0	8.6	8.6
79	2018 Mainline Track Repl: Concourse	NR	0.0	0.0	0.0	13.1	13.1
80	2018 Mainline Track Repl: 6th Ave/Culver	NR	0.0	0.0	0.0	25.0	25.0
81	2018 Mainline Track Repl: West End	NR	0.0	0.0	0.0	2.0	2.0
82	2018 Mainline Track Repl: Lexington	NR	0.0	0.0	0.0	2.2	2.2
83	2018 Mainline Track Repl: Archer Ave	NR	0.0	0.0	0.0	10.0	10.0

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# New York City Transit

# TRACK T - 705

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 MAINLINE TRACK REHABILITATION</b>							
84 2018 Mainline Track Repl: Lenox-White Plains Rd	NR	0.0	0.0	0.0	13.1	0.0	13.1
85 2018 Mainline Track Repl: Myrtle	NR	0.0	0.0	0.0	2.8	0.0	2.8
<b>Element Total 02</b>		<b>\$68.0</b>	<b>\$642.0</b>	<b>\$342.6</b>	<b>\$300.0</b>	<b>\$225.0</b>	<b>\$1,577.7</b>
<b>03 MAINLINE SWITCH REPLACEMENT</b>							
01 2015 Mainline Switch Repl: Design/Support	NR	3.3	0.1	0.0	0.0	0.0	3.4
02 2016 Mainline Switch Repl: Design/Support	NR	0.0	9.5	0.0	0.0	0.0	9.5
03 2017 Mainline Switch Repl: Design/Support	NR	0.0	2.0	5.8	0.9	0.0	8.7
04 2018 Mainline Switch Repl: Design/Support	NR	0.0	0.0	3.3	6.3	0.0	9.5
05 2019 Mainline Switch Replacement	NR	0.0	0.0	0.0	3.3	54.1	57.3
06 2020 Mainline Switch Replacement DES	NR	0.0	0.0	0.0	0.0	3.4	3.4
07 2015 Mainline Switch Repl: Brighton	NR	1.0	2.3	0.0	0.0	0.0	3.4
08 2015 Mainline Switch Repl: Queens Blvd	NR	1.1	4.3	0.0	0.0	0.0	5.4
09 2015 Mainline Switch Repl: 8th Avenue	NR	0.4	2.5	0.0	0.0	0.0	2.9
10 2015 Mainline Switch Repl: Broadway-7th Avenue	NR	0.0	10.3	0.0	0.0	0.0	10.3
11 2015 Mainline Switch Repl: Dyre	NR	1.1	6.5	0.0	0.0	0.0	7.6
12 2016 Mainline Switch Repl: Jamaica	NR	0.0	5.3	0.0	0.0	0.0	5.3
13 2016 Mainline Switch Repl: 6th Avenue	NR	0.0	10.1	0.0	0.0	0.0	10.1
14 2016 Mainline Switch Repl: Pelham	NR	0.0	3.4	0.0	0.0	0.0	3.4
15 2016 Mainline Switch Repl: Dyre	NR	0.0	0.0	4.9	0.0	0.0	4.9
16 2016 Mainline Switch Repl: Queens Blvd	NR	0.0	18.4	0.0	0.0	0.0	18.4
17 2015 Mainline Switch Repl: 6th Avenue	NR	8.9	0.0	0.0	0.0	0.0	8.9
18 2016 Mainline Switch Repl: 8th Avenue	NR	0.0	6.8	0.0	0.0	0.0	6.8
19 2016 Mainline Switch Repl: Broadway-7th Avenue	NR	0.0	8.9	0.0	0.0	0.0	8.9
20 2016 Mainline Switch Repl: Flushing	NR	0.0	0.0	0.0	7.5	0.0	7.5
21 2017 Mainline Switch Repl: Brighton	NR	0.0	0.0	4.6	0.0	0.0	4.6
22 2017 Mainline Switch Repl: Astoria	NR	0.0	0.0	15.5	0.0	0.0	15.5
23 2017 Mainline Switch Repl: Eastern Parkway	NR	0.0	0.0	5.5	0.0	0.0	5.5
24 2017 Mainline Switch Repl: 7th Avenue	NR	0.0	0.0	9.8	0.0	0.0	9.8
25 2017 Mainline Switch Repl: Broadway-7th Avenue	NR	0.0	0.0	9.3	0.0	0.0	9.3
26 2017 Mainline Switch Repl: Lenox-White Plains Rd	NR	0.0	0.0	11.1	0.0	0.0	11.1
27 2018 Mainline Switch Repl: Jamaica	NR	0.0	0.0	0.0	18.0	0.0	18.0
28 2018 Mainline Switch Repl: Astoria	NR	0.0	0.0	0.0	8.5	0.0	8.5
29 2018 Mainline Switch Repl: Canarsie	NR	0.0	0.0	0.0	10.3	0.0	10.3
30 2018 Mainline Switch Repl: 6th Ave/Culver	NR	0.0	0.0	0.0	9.3	0.0	9.3
31 2018 Mainline Switch Repl: Lenox-White Plains Rd	NR	0.0	0.0	0.0	8.8	0.0	8.8
32 2018 Mainline Switch Repl: White Plains Rd	NR	0.0	0.0	0.0	7.4	0.0	7.4
<b>Element Total 03</b>		<b>\$15.9</b>	<b>\$90.3</b>	<b>\$69.8</b>	<b>\$80.2</b>	<b>\$57.5</b>	<b>\$313.6</b>
<b>Category Total 705</b>		<b>\$83.9</b>	<b>\$732.3</b>	<b>\$412.4</b>	<b>\$380.2</b>	<b>\$282.5</b>	<b>\$1,891.3</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## LINE EQUIPMENT

### T - 706

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	Commitments (\$ in millions)					Total All Years
		2015	2016	2017	2018	2019	
<b>05 LINE EQUIPMENT</b>							
01 Tun Lighting: Various Locations	SGR	20.3	0.1	0.1	0.0	10.0	30.5
02 Replace Vent Plant Motor Control Sys Var Locs	SGR	0.7	0.6	9.8	0.1	0.0	11.2
03 Replace Supervisory Vent Controls - Var Locs	SGR	1.2	0.0	0.7	33.8	0.6	36.2
04 New Vent Plant: Grand Central LEX DES	SGR	0.0	0.0	0.0	0.0	5.0	5.0
05 Rehab Vent Plant Damper System - Var Locs	SGR	0.0	2.7	0.1	3.1	36.9	42.8
06 Rehab Forsyth St Vent Plant	SGR	0.0	3.2	4.2	98.3	0.0	105.6
07 Ventilation System Strategy Study	SGR	0.0	0.0	1.7	0.0	3.3	5.0
08 Rehab Pump Rooms: Various Locations	SGR	0.0	0.0	0.0	1.6	33.4	35.0
09 Repl Supervisory Vent Controls - 2 Locs / CNR	SGR	0.0	0.0	2.3	0.0	0.0	2.3
10 Head End Fan Control at BCC	SI	0.0	0.0	0.0	0.0	3.0	3.0
<b>Element Total 05</b>		<b>\$22.2</b>	<b>\$6.6</b>	<b>\$18.7</b>	<b>\$136.9</b>	<b>\$92.1</b>	<b>\$276.6</b>
<b>Category Total 706</b>		<b>\$22.2</b>	<b>\$6.6</b>	<b>\$18.7</b>	<b>\$136.9</b>	<b>\$92.1</b>	<b>\$276.6</b>

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# New York City Transit

## LINE STRUCTURES

### T - 707

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>03 LINE STRUCTURE REHABILITATION</b>							
01 Struct Rehab: Boston Rd - E 180 St Abut WPR	NR	0.9	0.0	0.0	0.0	19.4	20.3
02 Struct Replacement: Bridge over Atlantic RR MYT	NR	1.1	20.6	0.3	0.1	0.0	22.0
03 Struct Rehab: Livonia Yard Overpass & Retain Wall	NR	0.0	1.4	0.0	12.6	0.0	14.0
04 Struct Replacement: Viaduct and Deck MYT	NR	1.2	112.9	6.6	9.9	0.0	130.7
05 Struct Repair: Over land Section RKY	NR	0.0	0.0	0.0	2.0	18.0	20.0
06 Rehab Emergency Exits (ICC) - Various Locs DES	NR	0.0	0.1	0.0	0.0	0.0	0.1
07 Rehab Emergency Exits (ICC) - Various Locs	NR	0.0	0.0	17.0	0.0	0.0	17.0
08 Rehab Emergency Exits (3rd Party) - Var Loc [SBDP]	NR	0.0	0.0	0.5	4.2	4.7	9.4
10 Overcoat: 17 Bridges & Flyover at E 180 St DYR	SGR	2.0	0.0	0.0	36.5	0.0	38.6
11 Overcoat: Williamsburg Bridge - Myrtle Av JAM DES	SGR	1.0	0.0	0.0	0.0	0.0	1.0
12 Overcoat: 157 St Portal - 164 St JER	SGR	0.8	0.0	10.6	0.3	0.0	11.7
13 Overcoat: 72 St - 104 St FLS	SGR	1.1	0.0	0.0	50.8	0.0	52.0
14 Overcoat: Myrtle Av - DeSales JAM	SGR	0.0	1.0	0.0	0.0	44.8	45.8
15 Overcoat: East New York Leads & Loops DES	SGR	0.0	1.0	0.1	0.0	0.0	1.1
16 Overcoat: Broadway - End of Line MYR	SGR	1.6	0.0	2.8	0.0	38.4	42.8
17 Overcoat: 48 St - 72 St FLS	SGR	0.0	0.0	0.6	0.6	27.4	28.5
19 Line Structure Repair Program	SGR	0.0	0.0	0.0	171.1	0.0	171.1
20 Struct Repair: Ventilators Between Stations	SGR	0.0	0.0	0.7	9.3	0.0	10.0
21 Struct Rehab: 4AV - Ph2	SGR	0.0	0.0	57.9	0.0	0.0	57.9
22 Overcoat: 9 Av Portal to 79 Street WST DES	SGR	0.0	0.0	0.0	1.2	0.0	1.2
23 LSCR: Brooklyn (EPK)	SGR	0.0	0.7	3.7	1.0	0.0	5.4
24 LSCR: Uptown Manhattan & Queens (LEX, QBL, BCT)	SGR	0.0	1.0	1.3	0.0	1.0	3.4
25 LSCR: Brooklyn (CUL, BRT)	SGR	0.0	0.9	0.0	0.2	0.0	1.1
26 LSCR: Brooklyn (4AV)	SGR	0.0	0.7	0.0	0.1	0.0	0.9
27 Rehab Emergency Exits (ICC) - 4 Locs	SGR	0.0	2.8	0.0	0.0	0.0	2.8
28 Rehab Emergency Exits (ICC) - 3 Locs	SGR	0.0	1.8	0.0	0.0	0.0	1.8
29 Repair LIRR Structure - 8 Av SEA	SGR	0.0	0.0	0.1	0.0	0.0	0.1
30 Rehab Emergency Exits (ICC) - 2 Locs	SGR	0.0	7.0	0.0	0.0	0.0	7.0
31 LSCR: Bronx (BXC)	SGR	0.9	0.0	0.9	0.0	74.8	76.6
32 LSCR: Downtown Manhattan (BWY, 8AV)	SGR	0.8	1.3	0.0	0.9	0.0	3.0
33 LSCR: Uptown Manhattan (BW7, 8AV)	SGR	0.7	0.3	1.1	0.2	0.8	3.0
34 Overcoat: King's Hwy - W 8 St CUL	SGR	0.0	0.0	0.0	0.0	21.9	21.9
35 Overcoat: Portal - King's Hwy CUL	SGR	0.0	0.0	0.0	0.0	28.7	28.7
36 Struct Repair: Ventilators Between Stns [SBDP]	SGR	0.0	0.0	0.0	10.0	0.0	10.0
37 LSCR: 1 Av, Bedford Av CNR	SGR	0.0	0.0	1.0	0.0	0.0	1.0
38 LSCR: Hoyt-Schermerhorn Benchwall (BCT)	SGR	0.0	0.0	1.8	0.0	0.0	1.8
39 LSCR: 1 Av-8 Av CNR	SGR	0.0	0.0	1.2	1.5	38.4	41.0
40 Struct Rehab: Livonia Yd Abut/Retain Walls [SBDP]	SGR	0.0	0.0	0.0	2.5	0.0	2.5
<b>Element Total 03</b>		<b>\$12.2</b>	<b>\$153.6</b>	<b>\$108.3</b>	<b>\$315.0</b>	<b>\$318.2</b>	<b>\$907.3</b>
<b>Category Total 707</b>		<b>\$12.2</b>	<b>\$153.6</b>	<b>\$108.3</b>	<b>\$315.0</b>	<b>\$318.2</b>	<b>\$907.3</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## SIGNALS & COMMUNICATIONS

**T - 708**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>03 SIGNAL MODERNIZATION</b>							
01 CBTC: QBL West Ph2 (50 St - Union Tpke)	SGR	7.5	383.7	24.2	8.9	0.0	424.2
02 CBTC Technical Support Contract FLS	NR	0.0	0.0	0.0	0.0	1.0	1.0
04 CBTC: 8AV (59 St - High St)	SGR	0.0	3.3	1.6	9.9	360.1	374.9
06 Install Automatic Signals for Work Trains CNR	SGR	0.7	0.1	3.8	0.0	0.0	4.6
07 Interlocking Modernization: Ditmas CUL	SGR	0.0	1.2	1.3	120.1	0.0	122.5
08 Interlocking Modernization: Kings Highway CUL	SGR	6.1	154.9	5.9	12.2	0.0	179.1
19 Signal Control Line Modifications, Ph6	NR	15.2	0.0	0.0	0.0	17.8	33.0
21 AC to DC Line Relay Upgrade Ph2 - FUL	NR	12.4	1.1	0.0	0.0	0.0	13.5
22 AC to DC Line Relay Upgrade BCT	NR	0.0	0.0	25.2	0.0	0.0	25.2
23 Signal Key-By Modifications, Ph4	NR	0.0	18.4	0.0	0.0	0.0	18.4
24 Code Cable Replacement BW7	NR	0.0	0.0	1.2	1.5	26.3	29.1
25 Signal Room Fire Suppression, Phase 2	SGR	0.1	0.7	0.8	13.5	0.0	15.1
26 Life Cycle Replacement of Code Systems	NR	0.0	0.0	1.0	2.9	31.5	35.4
27 Life Cycle Mod - Speed Enforcement Systems	NR	0.0	0.0	1.5	1.6	51.2	54.2
29 Upgrade 25 Hz AC Main Cable & De-Ion Switches DES	NR	0.0	0.0	0.0	0.0	1.1	1.1
30 Interlocking Modernization: Parsons Blvd QBL DES	SGR	0.0	0.0	0.0	2.6	2.5	5.1
31 Eliminate Single Point of Failure Intrckng Cntrl	SI	0.0	0.0	0.0	0.0	10.0	10.0
32 CBTC: CUL (Church Av to W8 St)	SI	0.0	1.7	2.8	121.1	1.1	126.7
33 Interlocking Modernization: Ave X CUL	SGR	0.0	1.7	1.8	180.8	0.0	184.3
34 Cable Messenger Brackets Replacement BRT	NR	0.0	0.0	0.0	0.0	5.0	5.0
35 Interlocking Modernization: 30 St & 42nd St / 8AV	SGR	0.0	2.7	0.1	4.5	212.1	219.4
37 Signals Improvements (SAP)	SGR	0.0	0.0	22.0	90.0	0.0	112.0
38 Signal Technology Upgrades	SGR	0.0	0.0	0.0	0.0	160.5	160.5
39 Upgrade/Modernization of Signal Technology (SAP)	SGR	0.0	0.0	0.0	175.0	0.0	175.0
<b>Element Total 03</b>		<b>\$42.0</b>	<b>\$569.5</b>	<b>\$93.2</b>	<b>\$744.6</b>	<b>\$880.3</b>	<b>\$2,329.7</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

# SIGNALS & COMMUNICATIONS

**T - 708**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>06 COMMUNICATIONS SYSTEMS</b>							
02 Upgrade Async Network to SONET, Rings A and C	NR	0.0	0.7	29.9	0.8	0.0	31.4
03 PBX Upgrade	NR	0.0	0.0	41.5	0.0	0.0	41.5
04 Fiber Optic Cable Replacement Ph2	SGR	0.0	0.0	0.0	28.7	0.0	28.7
05 Copper Cable Upgrade/Replacement Ph4	SGR	0.9	10.4	0.3	0.4	0.0	12.1
06 Antenna Cable Replacement	SGR	2.5	0.0	9.7	0.0	0.0	12.2
07 UHF T-Band Radio System Replacement	NR	0.5	3.2	0.0	0.5	39.2	43.3
10 Help Point: 64 Stations (Transit Wireless)	SI	34.3	1.9	0.0	0.2	0.0	36.4
11 Help Point: 28 Stations	SI	17.2	0.1	0.0	0.0	0.0	17.3
12 Help Point: Reserve	SI	0.0	0.0	0.0	2.7	0.0	2.7
13 PA/CIS Electronics Replacement CNR	NR	0.0	1.8	0.0	6.6	0.0	8.4
14 ISIM-B Module 3: Rail Traffic Systems	SI	0.0	0.0	0.0	91.7	0.0	91.7
17 LiftNet Transition to Ethernet	NR	0.7	0.0	0.3	0.0	16.8	17.8
18 Platform Safety Technology Rollout	SI	2.1	3.3	11.2	37.6	0.0	54.2
19 Comm Room Upgrade and Expansion Ph2 [SBDP]	SGR	0.0	0.0	1.7	0.8	22.5	25.0
20 Help Point: 49 Stations	SI	4.8	9.4	17.9	5.7	0.0	37.8
21 Help Point: 2 Stations / West End [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
22 Help Point: 2 Stations / Jamaica [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
23 Help Point: 2 Stations / Liberty [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
24 Help Point: 2 Stns / Culver and West End [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
25 Help Point: Simpson St, Prospect Av / WPR [SBDP]	SI	0.0	1.5	0.0	0.0	0.0	1.5
26 Help Point: West 8 St / CIT [SBDP]	SI	0.0	1.0	0.0	0.0	0.0	1.0
27 Help Point: Myrtle-Wyckoff Avs / Myrtle [SBDP]	SI	0.0	0.0	1.1	0.0	0.0	1.1
28 Help Point: 2 Stations / Jerome [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
29 Help Point: 2 Stations / Flushing [SBDP]	SI	0.0	0.0	1.4	0.0	0.0	1.4
30 Help Point: 2 Stations / Flushing & BW7 [SBDP]	SI	0.0	0.0	1.3	0.0	0.0	1.3
31 Help Point: Pelham Pkwy, E Tremont Av / WPR [SBDP]	SI	0.0	1.3	0.0	0.0	0.0	1.3
32 Help Point: 39 Stations (I/H)	SI	0.0	22.0	0.4	0.0	0.0	22.5
33 Help Point: 49 Stations (Transit Wireless)	SI	0.0	21.1	0.6	0.0	0.0	21.7
34 Help Point: Material Purchase	SI	0.0	14.1	0.2	0.0	0.0	14.2
35 Connection-Oriented Ethernet (COE), Core	NR	0.0	1.6	2.1	27.8	0.0	31.6
36 Connection-Oriented Ethernet (COE), Stations	NR	0.0	1.5	8.5	7.6	0.0	17.6
37 Connection-Oriented Ethernet (COE), PSIM	NR	0.0	0.4	2.8	8.6	0.0	11.8
38 Help Point: Ocean Pkwy / BRT [SBDP]	SI	0.0	0.0	0.9	0.0	0.0	0.9
40 B Division Beacon Train Arrival System, Ph2	SI	0.0	0.0	69.3	8.7	0.0	78.0
43 PA/CIS Ph 2 Server System Upgrade - Design / Pilot	NR	0.0	0.0	0.0	1.6	0.0	1.6
44 Police Radio System: Enhance Coverage	SGR	0.0	3.2	1.3	10.9	0.0	15.4
46 Antenna Cable: Next Generation Pilot & Testing	SI	0.0	0.0	0.0	12.9	0.0	12.9
47 Connection-Oriented Ethernet (COE), [SBDP]	NR	0.0	0.0	0.0	0.0	20.0	20.0
<b>Element Total 06</b>		<b>\$63.0</b>	<b>\$105.1</b>	<b>\$202.5</b>	<b>\$253.9</b>	<b>\$98.5</b>	<b>\$723.0</b>
<b>Category Total 708</b>		<b>\$105.0</b>	<b>\$674.6</b>	<b>\$295.8</b>	<b>\$998.5</b>	<b>\$978.8</b>	<b>\$3,052.6</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## TRACTION POWER

### T - 709

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 SUBSTATIONS</b>							
01 Substation Renewal: Burnside Av BXC	SGR	0.0	1.3	1.3	25.7	0.0	28.3
02 Substation Renewal: Av Z CUL	SGR	0.0	1.5	0.9	33.0	0.0	35.4
03 Substation Rnwl & New Rectifier: Centrl SS 6AV	SGR	0.0	0.0	3.7	1.0	45.9	50.6
04 Substation Roof & Encl: Wash Heights 8AV [SBDP]	SGR	0.0	0.0	1.2	0.0	7.8	9.0
05 Replace 25Hz Freq Converters - Various Locs	SGR	0.2	0.4	0.1	19.7	0.0	20.5
06 Replace HT Switchgear - Various Locs	SGR	0.0	1.8	1.6	31.9	0.0	35.4
08 Substation Roof & Enclosure: Jerome-E 162 St	SGR	0.9	6.5	0.1	0.4	0.0	8.0
09 Substation Roof & Encl: Gates-Ridgewood [SBDP]	SGR	1.4	0.0	0.0	4.7	0.0	6.1
10 Install Low-Resistance Contact Rail - CNR Tube	SI	0.7	0.0	28.3	0.0	0.0	28.9
11 Three New Substations CNR DES	SI	5.1	0.1	0.4	0.0	0.0	5.6
15 Supplemental Negative Cables QBL	SI	0.0	0.0	35.9	24.4	0.0	60.2
18 Install Low-Resistance Contact Rail QBL	SI	0.0	0.4	2.2	57.3	0.0	60.0
19 New Substation: Canal St 8AV	SI	0.0	0.0	0.9	2.1	68.0	71.0
20 New Substation: 28 St 8AV	SI	0.0	0.0	1.4	1.4	63.0	65.8
21 New Substation: 14 St-Avenue B CNR	SI	0.0	9.3	56.6	11.2	0.0	77.0
22 New Substation: Maspeth Av-Humboldt St CNR	SI	0.0	0.0	51.0	0.5	0.0	51.5
23 New Substation: Harrison Pl CNR	SI	0.0	0.0	58.0	0.8	0.0	58.8
24 Substation Roof & Enclosure: Stanton St [SBDP]	SGR	0.0	0.0	3.7	0.2	0.0	3.9
<b>Element Total 02</b>		<b>\$8.3</b>	<b>\$21.4</b>	<b>\$247.3</b>	<b>\$214.4</b>	<b>\$184.7</b>	<b>\$676.0</b>
<b>04 POWER DISTRIBUTION</b>							
01 Rehab CBH # 586 - 18 Av CUL	SGR	0.0	0.9	1.0	14.4	0.0	16.2
03 Rehab CBH # 210 - 239 St WPR	SGR	1.1	1.1	20.2	0.2	0.0	22.6
04 Rehab CBH # 86 - Wilson Av CNR	SGR	0.9	0.0	4.8	0.2	0.0	5.9
06 Rehab CBH # 85 & New Ducts: Bedfrd-N 6 St SS CNR	SGR	0.9	0.6	11.7	0.6	0.0	13.9
07 Rehab CBH # 5 - 53 St BWY	SGR	0.0	0.7	0.9	13.5	0.0	15.1
10 Rehab Various CBH Enclosures	SGR	0.0	0.0	0.0	1.0	9.0	10.0
11 Rehab Ducts: Stanton St. Substation	NR	0.7	0.6	0.0	0.0	0.0	1.3
12 Replace Negative Cables 4AV Ph 3 DES	SGR	0.0	0.0	1.6	0.0	0.0	1.6
13 Upgrade SCADA System	SGR	0.0	0.0	2.3	0.3	37.5	40.0
14 Repl Control & Bat Cables: Substation CZs	SGR	0.0	1.1	0.3	27.4	0.0	28.8
15 Reconstruct CBH # 392 Flushing River Bridge FLS	SGR	0.0	0.0	0.8	0.1	7.7	8.5
16 Rebuild Ducts: Central Substation	SGR	0.0	0.0	0.0	10.0	0.0	10.0
17 Replace Negative Cables 4AV Ph 2	NR	0.0	15.7	0.2	0.2	0.0	16.1
18 Protection of Cables DYR	SGR	0.0	0.0	0.0	0.0	9.0	9.0
19 Emergency Alarms (EAs), Phase 1	NR	0.0	0.0	0.0	0.0	11.0	11.0
<b>Element Total 04</b>		<b>\$3.5</b>	<b>\$20.8</b>	<b>\$43.7</b>	<b>\$67.8</b>	<b>\$74.1</b>	<b>\$210.0</b>
<b>Category Total 709</b>		<b>\$11.8</b>	<b>\$42.2</b>	<b>\$291.0</b>	<b>\$282.2</b>	<b>\$258.8</b>	<b>\$886.1</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## SHOPS AND YARDS

**T - 710**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>04 SHOPS AND YARDS</b>							
01 DCE Shop Components Ph 1: 180 St, CI, PEL	SGR	1.2	0.0	1.3	0.0	24.5	27.0
02 207 St Maint. and OH Shop Roof & Component Repl	SGR	1.0	0.0	1.5	63.7	0.0	66.3
03 DCE Shop Components Ph 2: 239 St, Concourse, ENY	SGR	0.0	1.3	1.5	40.0	0.0	42.8
04 DCE Shop Components Ph 3: Jerome	SGR	0.0	0.0	0.5	0.3	3.0	3.8
05 DCE Shop Components Ph 4: 207 St Admin	SGR	0.0	0.0	0.6	0.8	17.8	19.1
06 Rehab Livonia Maintenance Shop, Ph 1	SGR	0.0	1.8	0.0	2.0	51.0	54.8
07 Upgrade Central Electronics Shop: Woodside	SGR	1.1	0.0	1.3	13.8	0.0	16.2
08 Upgrade Cable Shop, Ph 1 DES	SI	0.0	0.0	0.0	3.0	2.0	5.0
09 Heavy Shop Equipment	NR	1.2	0.0	0.0	13.5	0.0	14.7
10 2015 Yard Track Replacement	SGR	0.2	0.0	0.8	0.0	0.0	1.0
11 2016 Yard Track Replacement	SGR	0.0	3.1	0.0	0.0	0.0	3.1
12 2017 Yard Track Replacement	SGR	0.0	0.0	3.3	0.0	0.0	3.3
13 2018 Yard Track Replacement	SGR	0.0	0.0	0.0	3.5	0.0	3.5
14 2019 Yard Track Replacement	SGR	0.0	0.0	0.0	0.0	2.3	2.3
15 2020 Yard Track Replacement DES	SGR	0.0	0.0	0.0	0.0	0.1	0.1
16 2015 Yard Switch Replacement	SGR	2.0	0.0	0.0	0.0	0.0	2.0
17 2016 Yard Switch Replacement	SGR	0.0	4.7	0.0	0.0	0.0	4.7
18 2017 Yard Switch Replacement	SGR	0.0	0.1	3.4	0.0	0.0	3.5
19 2018 Yard Switch Replacement	SGR	0.0	0.0	0.1	3.5	0.0	3.6
20 2019 Yard Switch Replacement	SGR	0.0	0.0	0.0	0.1	3.7	3.8
21 2020 Yard Switch Replacement DES	SGR	0.0	0.0	0.0	0.0	0.1	0.1
22 Yard Lighting: 207th St Yard	SGR	2.1	0.0	22.9	0.0	0.0	25.0
23 Yard Lighting: CI Yard Design and Ph 1 Site Prep	SGR	0.0	0.4	0.0	0.0	0.0	0.4
24 Yard Fencing: 2 Locations (38 St and Linden Yard)	NR	11.0	0.0	0.0	0.0	0.0	11.0
28 Car Cleaning Facility Component Repairs DES	NR	0.6	0.0	0.0	0.0	0.0	0.6
29 Struc. Remed. at E 180 St Maint. Fac. & Ret Wall	SGR	0.1	0.0	4.8	0.0	0.0	5.0
30 DCE Shops Industrial Engineering Study	SI	0.0	0.0	0.0	3.0	0.0	3.0
31 Rehab Livonia Maintenance Shop, Ph 1 [SBDP]	SGR	0.0	0.0	0.0	0.0	10.0	10.0
32 207th Street Overhaul Shop: Rehabilitate HVAC Shop	SGR	0.0	0.0	0.0	3.8	0.0	3.8
34 Purchase Oil-Water Separators at DCE Facilities	SGR	0.0	0.0	0.0	0.0	0.3	0.3
35 Purchase 10 Hot Water Pressure Washers at DCE Fac	SGR	0.0	0.0	0.0	0.9	0.0	0.9
36 Purchase Closed Loop Filtration Systems at DCE Fac	SGR	0.0	0.0	0.0	0.0	0.7	0.7
37 Installation of 600 VDC Feed & Equip: 207 St Shop	SGR	0.0	0.0	0.0	0.0	1.7	1.7
38 Installation of Utilities & Equip: 207 St Shop	SGR	0.0	0.0	0.0	0.0	2.3	2.3
39 Windows Replacement: 207 St OH Shop	SGR	0.0	0.0	0.0	2.2	0.0	2.2
40 Rehab Livonia Maintenance Shop, Ph 1 HVAC [NYPA]	SGR	0.0	0.0	0.0	0.9	0.0	0.9
41 New Railcar Receiving Improvements	SI	0.0	0.0	0.0	0.0	25.0	25.0
<b>Element Total 04</b>		<b>\$20.5</b>	<b>\$11.3</b>	<b>\$42.1</b>	<b>\$154.9</b>	<b>\$144.3</b>	<b>\$373.1</b>
<b>Category Total 710</b>		<b>\$20.5</b>	<b>\$11.3</b>	<b>\$42.1</b>	<b>\$154.9</b>	<b>\$144.3</b>	<b>\$373.1</b>

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# New York City Transit

## DEPOTS T - 712

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>03 DEPOT REHAB AND RECONSTRUCTION</b>							
01 Artic Modification: ENY Depot	SI	0.0	1.1	2.6	0.0	13.2	16.9
02 Roof: Gun Hill Depot	NR	0.4	0.5	11.3	0.0	0.0	12.3
03 Roof, HVAC: Queens Village Depot	NR	1.4	0.0	0.0	15.6	0.0	17.1
04 Chassis Wash: Grand Ave Depot [SBDP]	SI	0.0	0.2	0.0	1.4	0.0	1.6
05 Windows, HVAC: Casey Stengel Depot	NR	0.9	0.0	0.0	9.9	0.0	10.8
06 Generator: Yukon Depot	NR	0.0	0.0	0.0	10.0	0.0	10.0
07 Roof, Office, HVAC: Fresh Pond Depot	NR	0.0	0.0	1.4	23.6	0.0	25.0
08 Paving: Manhattanville Depot [SBDP]	NR	0.0	0.3	0.8	4.0	0.0	5.1
10 New Depot: Jamaica	NR	0.0	0.1	0.0	7.6	40.0	47.7
11 Office Upgrade: Zerega Consolid Maint Fac [SBDP]	NR	1.5	0.4	0.0	3.1	0.0	5.0
12 Chassis Wash: Gun Hill Depot [SBDP]	NR	0.0	0.0	0.0	1.6	0.0	1.6
13 Artic Modification: Jackie Gleason Depot [SBDP]	SI	0.0	0.0	0.0	1.1	0.0	1.1
14 HVAC: Manhattanville Depot	NR	0.0	0.0	0.0	16.5	0.0	16.5
15 HVAC: Zerega Consolidated Maintenance Facility	NR	0.0	0.0	0.0	5.0	0.0	5.0
16 Roof Topping & Expansion Joints: Kingsbridge Depot	NR	0.0	0.0	0.4	4.9	0.0	5.3
17 Roof Topping & Expansion Joints: MJ Quill Depot	NR	0.0	0.0	0.3	3.5	0.0	3.8
18 New Depot: Jamaica [SBDP]	NR	0.0	0.0	0.0	0.0	10.0	10.0
19 Roof: Queens Village Depot	NR	0.0	0.0	0.0	0.0	11.7	11.7
20 Artic Maint Bays: Jackie Gleason Depot [SBDP]	SI	0.0	0.0	0.0	1.1	0.0	1.1
21 Artic Modification Windows/Façade: ENY Depot	SI	0.0	0.0	0.0	10.4	0.0	10.4
22 Modular Office: ENY Depot [SBFP]	SI	0.0	0.0	0.0	0.0	4.6	4.6
<b>Element Total 03</b>		<b>\$4.2</b>	<b>\$2.6</b>	<b>\$16.8</b>	<b>\$119.5</b>	<b>\$79.4</b>	<b>\$222.5</b>

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# New York City Transit

## DEPOTS T - 712

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>04 DEPOT IMPROVEMENTS</b>							
01 6 Bus Washers: 3 Depots DES	SGR	0.0	0.8	0.0	0.4	0.0	1.2
02 Paint Booth Upgrade [SBDP]	NR	0.0	0.0	2.8	0.0	0.0	2.8
03 Select Bus Service 2015-19	SI	0.0	5.9	9.5	8.6	0.0	24.0
04 SBS: Traffic Signal Priority, Ph 2	SI	0.0	0.0	4.0	0.0	0.0	4.0
05 Storage Tanks: 4 Depots DES	NR	3.6	0.0	0.0	0.0	0.0	3.6
07 Shoreline Upgrade: Kingsbridge Depot	SI	0.5	0.3	3.1	0.0	0.0	3.9
08 Elevator Upgrades: JG,GH,MTV,CS,ENY	NR	1.2	0.0	1.1	20.2	0.0	22.5
10 North Shore BRT: Environmental and Design	SI	0.0	0.0	0.0	5.0	0.0	5.0
11 Oil-Water Separator: Casey Stengel Depot	NR	0.0	0.0	0.0	6.6	0.0	6.6
12 Portable Lift Replacement	NR	0.0	0.4	5.0	0.0	0.0	5.4
13 Bus Washer: Zerega Consolidated Maint Facil [SBDP]	NR	0.0	0.2	1.2	0.0	0.0	1.4
14 Chassis Wash: Casey Stengel Depot [SBDP]	NR	0.0	0.1	0.0	1.1	0.0	1.3
15 2 Bus Washers: Fresh Pond Depot [SBDP]	NR	0.0	3.1	0.0	0.0	0.0	3.1
16 2 Bus Washers: Jackie Gleason Depot [SBDP]	NR	0.0	0.0	0.0	2.7	0.0	2.7
18 Automated Fuel Management System Upgrade	NR	0.0	0.0	0.2	2.4	0.0	2.6
19 Queens Depot Property & Environmental Prep	SI	0.0	0.0	0.0	40.0	0.0	40.0
21 Storage Tanks: ENY and Gun Hill Depots	NR	0.0	0.0	0.0	5.0	0.0	5.0
22 Storage Tanks: Jackie Gleason and Castleton Depots	NR	0.0	0.0	9.2	0.1	0.0	9.3
<b>Element Total 04</b>		<b>\$5.4</b>	<b>\$10.8</b>	<b>\$36.0</b>	<b>\$92.1</b>	<b>\$0.0</b>	<b>\$144.3</b>
<b>Category Total 712</b>		<b>\$9.6</b>	<b>\$13.4</b>	<b>\$52.8</b>	<b>\$211.5</b>	<b>\$79.4</b>	<b>\$366.8</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## SERVICE VEHICLES

### T - 713

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 SERVICE VEHICLES</b>							
06 Purchase 2 Signal Supply Cars DES	SGR	0.0	1.2	0.0	0.0	0.0	1.2
07 Purchase 27 Refuse Flats	NR	2.0	0.0	0.0	22.7	0.0	24.6
08 Purchase 12 3-Ton Crane Cars	NR	2.2	0.0	0.0	0.0	26.3	28.5
10 Track Inspn Car: Platform Meas/Video Recording Sys	SI	0.0	4.5	0.0	0.0	0.0	4.5
11 Purchase Locomotives	SGR	1.9	0.0	0.3	128.3	0.0	130.5
12 Purchase 202 Non-Revenue Vehicles	NR	0.0	0.8	33.0	0.0	0.0	33.8
13 Purchase Various Non-Revenue Vehicles	NR	0.0	0.0	0.0	14.4	0.0	14.4
14 Purchase 59 Non-Revenue Vehicles (SAP)	SI	0.0	0.0	0.0	8.5	0.0	8.5
<b>Element Total 02</b>		<b>\$6.1</b>	<b>\$6.5</b>	<b>\$33.3</b>	<b>\$173.9</b>	<b>\$26.3</b>	<b>\$246.1</b>
<b>Category Total 713</b>		<b>\$6.1</b>	<b>\$6.5</b>	<b>\$33.3</b>	<b>\$173.9</b>	<b>\$26.3</b>	<b>\$246.1</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# New York City Transit

## MISC./EMERGENCY

### T - 716

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 MISCELLANEOUS</b>							
01 All-Agency Liability Insurance & Deductible		0.0	1.3	1.7	3.4	0.0	6.4
02 Property Insurance Self-Insured Retention		0.0	0.0	0.0	10.0	5.0	15.0
03 2015 Capital Revolving Fund		5.0	0.0	0.0	0.0	0.0	5.0
04 2016 Capital Revolving Fund		0.0	5.0	0.0	0.0	0.0	5.0
05 2017 Capital Revolving Fund		0.0	0.0	5.0	0.0	0.0	5.0
06 2018 Capital Revolving Fund		0.0	0.0	0.0	5.0	0.0	5.0
07 2019 Capital Revolving Fund		0.0	0.0	0.0	0.0	5.0	5.0
98 Owner Controlled Insurance Program		0.0	0.0	76.2	15.1	0.0	91.3
99 Authority-Wide Contingency: 2015-2019		0.0	0.0	0.0	85.4	0.0	85.4
<b>Element Total 02</b>		<b>\$5.0</b>	<b>\$6.3</b>	<b>\$82.9</b>	<b>\$118.9</b>	<b>\$10.0</b>	<b>\$223.1</b>
<b>04 MANAGEMENT INFORMATION SYSTEMS</b>							
01 Upgrade Copper Cable: Livingston Plaza	NR	3.5	0.0	0.0	0.1	0.0	3.6
02 Data Storage and Server Enhancements at 2 Bwy/LP	SI	0.0	0.0	5.0	0.0	0.0	5.0
03 HP SAN Hardware for Disaster Recovery: 2 Bwy	NR	0.0	0.0	0.0	1.4	0.0	1.4
05 Replace Superdome Server: 2 Broadway	NR	0.0	0.0	0.0	1.4	0.0	1.4
06 CADD-BIM-DMS Disaster Recovery-Bus. Continuity	SI	0.0	0.0	0.0	1.2	0.0	1.2
08 Enterprise Asset Management (EAM)		0.0	6.9	0.0	34.1	0.0	41.0
<b>Element Total 04</b>		<b>\$3.5</b>	<b>\$6.9</b>	<b>\$5.0</b>	<b>\$38.2</b>	<b>\$0.0</b>	<b>\$53.6</b>
<b>05 ENGINEERING SERVICES</b>							
01 Scope Development		1.5	3.0	9.4	23.6	12.5	50.0
02 Design Reserve		0.0	0.0	0.0	89.2	0.0	89.2
03 Engineering Services		3.2	0.0	6.4	6.2	4.5	20.3
04 MTA Independent Engineering Consultant		0.0	9.7	0.0	4.8	0.0	14.5
05 General Order Support: Traffic Checkers		9.0	9.0	9.0	9.0	9.0	45.0
06 Value Engineering Services		0.0	0.9	0.0	1.7	0.0	2.6
08 Construction Support Services		0.0	0.0	0.0	13.0	0.0	13.0
09 Concrete Batch Plant Inspection		0.0	0.0	0.0	1.6	0.0	1.6
10 Boring Services: Bk/Q/SI	NR	0.0	0.1	1.9	0.0	0.0	2.0
11 Boring Services: M/Bx	NR	0.0	0.1	2.0	0.0	0.0	2.1
12 Test Pits	NR	0.0	0.1	0.0	12.3	0.0	12.4
13 Concrete Cylinder Testing	NR	0.0	0.0	0.0	1.0	0.0	1.0
15 Utica Avenue Subway Extension Study	SI	0.0	0.0	0.0	5.0	0.0	5.0
17 Small Business Mentoring Program	SGR	0.0	0.0	0.0	21.6	0.0	21.6
20 Staten Island West Shore Light Rail Alt Analysis		0.0	0.0	0.0	4.0	0.0	4.0
<b>Element Total 05</b>		<b>\$13.7</b>	<b>\$22.8</b>	<b>\$28.7</b>	<b>\$193.1</b>	<b>\$26.0</b>	<b>\$284.3</b>

\* Represents values less than \$50,000

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# New York City Transit

## MISC./EMERGENCY

### T - 716

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>06 ENVIRONMENTAL AND SAFETY</b>							
01 Fire Alarm System Replacement - 3 Locs	NR	0.6	1.3	0.1	19.1	0.0	21.0
02 Asbestos / Lead Air Monitoring	NR	0.0	0.0	0.0	11.0	0.0	11.0
04 Asbestos Disposal	NR	0.0	0.0	0.0	1.1	0.0	1.1
05 Consultant Services-USTs & Remediation	NR	0.0	0.0	0.0	6.5	0.0	6.5
06 Groundwater and Soil Remediation	NR	0.0	0.0	0.0	11.5	0.0	11.5
<b>Element Total 06</b>		<b>\$0.6</b>	<b>\$1.3</b>	<b>\$0.1</b>	<b>\$49.1</b>	<b>\$0.0</b>	<b>\$51.0</b>
<b>07 EMPLOYEE FACILITIES</b>							
01 Rehab: PD Office 14 St - Union Square	SGR	0.0	1.8	0.0	0.1	33.1	35.0
02 URT Phase 3 DES	SI	0.0	0.0	0.0	6.0	0.0	6.0
03 Emp Fac Consolidation: 2 Av 6AV	SGR	0.0	0.0	0.0	1.4	13.9	15.3
04 Emp Fac Component Repairs: 10 Locs / Manhattan	SGR	3.5	0.5	0.1	5.7	0.0	9.7
05 Emp Fac Component Repairs: 7 Locs / Various	SGR	0.0	1.1	0.0	0.0	3.7	4.9
06 Reconstr Elev & Escal Fac - E Bway 6AV	SGR	0.0	0.0	0.0	0.4	3.7	4.1
07 Emp Fac Line Repairs: 20 Locs 8AV	SGR	0.0	0.0	2.6	2.5	0.0	5.1
08 Emp Fac Reloc: Trk Qtrs 14 St-Union Sq	SGR	0.0	0.0	0.0	0.2	2.4	2.7
14 Livingston Plaza Electrical, Mechanical, Generator	NR	1.2	1.8	0.1	62.6	0.0	65.7
15 Rail Control Center: Annex	SI	0.0	0.0	0.0	5.0	0.0	5.0
16 RCC and PCC Power Upgrade	NR	0.0	0.0	55.0	0.5	0.0	55.5
17 Refurbish Keene Vacuum Systems	NR	0.0	0.0	0.0	9.2	0.0	9.2
18 Consolidated Revenue Fac: Security System Upgrade	NR	0.0	0.0	0.0	0.8	7.5	8.3
21 EDR Rprs: DO #20 - Briarwood-Van Wyck	SGR	0.0	0.9	0.0	5.6	0.0	6.5
23 Tiffany Warehouse Exterior Wall Structural Repair	SGR	0.0	0.0	0.2	4.8	0.0	5.0
25 Emp Fac Rehab: Rest Rooms & Fac Var Locs [SBDP]	SGR	0.0	0.0	0.0	5.0	0.0	5.0
26 IESS Wrap-Up Construction (Penn & TSQ)	SI	0.0	0.0	0.2	40.1	0.0	40.4
27 Roof Replacement: Tiffany Central Warehouse	SGR	0.0	0.0	0.4	16.9	0.0	17.3
28 EMD Facility: Hoyt-Schermerhorn FUL	SGR	0.0	0.0	0.0	5.0	0.0	5.0
29 RTO Facility Repair: 3 Avenue-138 Street PEL	SGR	0.0	0.0	0.0	5.0	0.0	5.0
30 Elevator & Escalator Training Facility Expansion	SI	0.0	0.0	0.0	0.0	15.0	15.0
31 Passenger ID Equipment [SBDP]	SI	0.0	0.0	0.0	0.0	10.0	10.0
32 IESS Wrap-Up Construction (Grand Ctrl & 63 St)	SI	0.0	0.0	0.0	25.0	0.0	25.0
33 Emp Fac Component Repairs at Various Stations	SGR	0.0	0.0	0.0	0.0	15.0	15.0
<b>Element Total 07</b>		<b>\$4.7</b>	<b>\$6.1</b>	<b>\$58.6</b>	<b>\$201.8</b>	<b>\$104.4</b>	<b>\$375.7</b>
<b>Category Total 716</b>		<b>\$27.5</b>	<b>\$43.5</b>	<b>\$175.3</b>	<b>\$601.1</b>	<b>\$140.4</b>	<b>\$987.7</b>
<b>TOTAL PROGRAM</b>		<b>\$360.6</b>	<b>\$1,949.4</b>	<b>\$3,331.0</b>	<b>\$6,533.9</b>	<b>\$4,087.1</b>	<b>\$16,262.0</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Staten Island Railway

# STATEN ISLAND RAILWAY

## S - 707

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 SIR: MISCELLANEOUS</b>							
01 SIR: Replace Car Fleet	NR	0.0	0.0	0.0	257.4	0.0	257.4
02 SIR Station Component Program	SGR	0.0	0.0	0.5	0.3	7.1	7.9
03 SIR Mainline Track Replacement	SGR	0.0	0.0	0.0	0.7	53.9	54.5
04 UHF T-Band Radio System Replacement, SIR	NR	0.3	3.1	0.1	0.1	22.2	25.7
05 New Power Substation: Tottenville	SI	2.3	0.2	25.0	0.1	0.0	27.5
06 New Power Substation: New Dorp	SI	0.2	0.2	21.4	2.5	0.0	24.3
07 New Power Substation: Clifton	SI	0.1	0.2	28.4	2.3	0.0	31.1
08 SIR: Install Customer Information Signs	SI	0.0	1.2	0.0	0.0	0.0	1.2
09 SIR Station Component Program [SBDP]	SGR	0.0	0.0	0.0	0.4	4.6	5.0
10 Rehabilitation of Amboy Rd Bridge	NR	0.0	0.4	0.3	7.0	0.0	7.7
11 Relocate HQ to Clifton Shop	SI	0.0	8.8	0.1	0.3	0.0	9.1
12 Enhanced Stn Init: Richmond Valley SIR [SBDP]	NR	0.0	0.0	0.0	8.1	0.0	8.1
13 SIR Clifton Yard Track and Switch Replacement	SGR	0.0	0.0	0.0	2.4	18.0	20.4
<b>Element Total 01</b>		<b>\$3.0</b>	<b>\$14.0</b>	<b>\$75.8</b>	<b>\$281.6</b>	<b>\$105.6</b>	<b>\$480.0</b>
<b>Category Total 707</b>		<b>\$3.0</b>	<b>\$14.0</b>	<b>\$75.8</b>	<b>\$281.6</b>	<b>\$105.6</b>	<b>\$480.0</b>
<b>TOTAL PROGRAM</b>		<b>\$3.0</b>	<b>\$14.0</b>	<b>\$75.8</b>	<b>\$281.6</b>	<b>\$105.6</b>	<b>\$480.0</b>

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# New York City Transit Agency Summary

Commitments  
(\$ in millions)

AGENCY		2015	2016	2017	2018	2019	Total All Years
TOTAL	New York City Transit	\$360.6	\$1,949.4	\$3,331.0	\$6,533.9	\$4,087.1	\$16,262.0
TOTAL	Staten Island Railway	\$3.0	\$14.0	\$75.8	\$281.6	\$105.6	\$480.0
TOTAL	NEW YORK CITY TRANSIT AGENCY PROGRAM	\$363.6	\$1,963.3	\$3,406.8	\$6,815.5	\$4,192.8	\$16,742.0

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# Long Island Rail Road

## ROLLING STOCK L - 701

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 REVENUE EQUIPMENT</b>							
ME M-9 Procurement	NR	0.0	0.0	295.6	55.5	17.7	368.8
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$295.6</b>	<b>\$55.5</b>	<b>\$17.7</b>	<b>\$368.8</b>
<b>Category Total 701</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$295.6</b>	<b>\$55.5</b>	<b>\$17.7</b>	<b>\$368.8</b>

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# Long Island Rail Road

## STATIONS

### L - 702

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years	
<b>04 STATION AND BUILDINGS</b>								
U8	ESA - Biltmore Room GCT	SI	0.0	0.0	0.0	3.0	0.0	3.0
U9	Jamaica Station - Planning & Engineering	SI	0.0	0.0	6.3	3.7	0.0	10.0
UA	Station Component Replacement	NR	0.0	0.0	0.3	29.1	7.0	36.4
UG	Mets-Willets Point Station DES	SI	0.0	0.0	0.0	15.0	0.0	15.0
UJ	Enhanced Station Initiative: Shared Des & 2 Stns	NR	0.0	4.1	12.4	3.7	0.0	20.2
UM	Murray Hill Station - New Elevators	SI	0.0	0.4	9.7	1.4	0.0	11.5
UN	Nostrand Ave. Station Rehabilitation	NR	0.0	0.3	27.4	0.4	0.0	28.1
UO	East Yaphank Station	SI	0.0	0.0	0.0	20.0	0.0	20.0
UP	Port Washington Station Improvements	NR	0.0	0.0	0.0	0.0	1.0	1.0
UQ	Babylon Station Platform Replacement DES	NR	0.0	0.0	0.0	4.0	0.0	4.0
UU	Mentor Allowance - Stations	NR	0.0	0.0	0.0	6.7	6.6	13.3
UV	New Fare Payment System	SI	0.0	0.0	7.6	1.3	0.0	8.9
UW	GCT/ESA Unified Trash Facility	SI	8.7	1.9	0.0	0.5	0.0	11.1
UX	Hunterspoint Avenue Station Renewal DES	NR	0.0	0.0	0.0	1.0	0.0	1.0
UY	Elmhurst Station - New Station DES	SI	0.0	0.0	0.0	0.0	1.0	1.0
UZ	New Republic Station on Main Line DES	SI	0.0	0.0	0.0	0.0	5.0	5.0
V3	Laurelton & Locust Manor Station Imprvmnts [SBDP]	NR	0.0	0.0	2.2	1.9	0.0	4.1
V5	Enhanced Station Initiative: 8 Stations	NR	0.0	0.0	0.0	93.7	0.0	93.7
V6	Enhanced Station Initiative: Stewart Manor [SBDP]	NR	0.0	0.0	1.2	4.1	0.0	5.3
V7	Enhanced Station Initiative: Port Jefferson	NR	0.0	0.0	3.6	0.3	0.0	3.8
V8	Enhanced Station Initiative: Port Jefferson [SBDP]	NR	0.0	0.0	0.7	2.9	0.0	3.6
V9	Enhanced Station Initiative: 6 Stations	NR	0.0	0.0	0.0	27.4	0.0	27.4
<b>Element Total 04</b>			<b>\$8.7</b>	<b>\$6.7</b>	<b>\$71.5</b>	<b>\$220.0</b>	<b>\$20.6</b>	<b>\$327.4</b>
<b>05 PARKING</b>								
V1	Parking Rehabilitation	NR	0.0	0.0	0.6	4.4	0.0	5.0
<b>Element Total 05</b>			<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.6</b>	<b>\$4.4</b>	<b>\$0.0</b>	<b>\$5.0</b>
<b>06 PENN STATION</b>								
VM	Empire State Development Corp.	SI	0.0	0.0	10.7	0.0	0.0	10.7
VN	Penn Station - 33rd Street Corridor	SI	0.0	0.0	0.0	170.0	0.0	170.0
VP	Penn Sta Elevator/Escalator Renewal	NR	0.0	0.0	8.3	4.2	0.0	12.4
VQ	Penn Station Customer Facilities	NR	0.0	1.7	0.3	26.0	0.0	28.0
VR	Penn Station Complex Improvements	SI	0.0	11.1	0.0	0.5	0.0	11.6
VS	Moynihan Train Hall	SI	0.0	0.0	100.0	13.5	0.0	113.5
<b>Element Total 06</b>			<b>\$0.0</b>	<b>\$12.8</b>	<b>\$119.2</b>	<b>\$214.2</b>	<b>\$0.0</b>	<b>\$346.2</b>
<b>Category Total 702</b>			<b>\$8.7</b>	<b>\$19.4</b>	<b>\$191.3</b>	<b>\$438.6</b>	<b>\$20.6</b>	<b>\$678.6</b>

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# Long Island Rail Road

## TRACK L - 703

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 ANNUAL TRACK REHAB PROGRAM</b>							
WA 2015 Annual Track Program	NR	64.4	0.4	0.0	0.2	0.0	65.0
WB 2016 Annual Track Program	NR	0.0	66.7	0.0	0.0	0.0	66.7
WC 2017 Annual Track Program	NR	0.0	0.0	75.0	0.0	0.0	75.0
WD 2018 Annual Track Program	NR	0.0	0.0	0.0	74.0	0.0	74.0
WE 2019 Annual Track Program	NR	0.0	0.0	0.0	0.0	64.1	64.1
WF Right of Way Fencing	SI	0.0	0.0	2.7	1.0	0.3	4.1
WG Construction Equipment - Phase I	NR	0.0	0.0	0.0	10.1	0.0	10.1
WH Retaining Walls / Right of Way Projects	NR	0.0	6.0	0.0	4.0	0.0	10.0
WJ Construction Equipment - Phase II	NR	0.0	0.0	1.4	1.5	0.0	2.9
<b>Element Total 01</b>		<b>\$64.4</b>	<b>\$73.1</b>	<b>\$79.1</b>	<b>\$90.9</b>	<b>\$64.4</b>	<b>\$371.9</b>
<b>04 OTHER TRACK IMPROVEMENTS</b>							
WU Jamaica Capacity Improvements Ph 2 DES	SI	0.0	0.0	22.5	20.0	0.0	42.5
WV Amtrak Territory Investments	SI	0.0	32.5	0.0	25.0	10.0	67.5
WX Double Track Ph 2	SI	0.0	153.0	82.0	58.8	0.0	293.8
<b>Element Total 04</b>		<b>\$0.0</b>	<b>\$185.5</b>	<b>\$104.5</b>	<b>\$103.8</b>	<b>\$10.0</b>	<b>\$403.8</b>
<b>Category Total 703</b>		<b>\$64.4</b>	<b>\$258.5</b>	<b>\$183.6</b>	<b>\$194.7</b>	<b>\$74.4</b>	<b>\$775.7</b>

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# Long Island Rail Road

## LINE STRUCTURES

### L - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	Commitments (\$ in millions)					Total All Years
		2015	2016	2017	2018	2019	
<b>01 BRIDGES</b>							
BM Wreck Lead Rehabilitation	SGR	0.0	0.0	0.8	1.2	0.0	2.0
BQ Bridge Program - Buckram Road	SGR	0.0	2.2	12.9	3.1	0.0	18.2
BR Main Line Bridge - Post Ave.	SGR	0.0	14.9	1.2	0.1	0.0	16.3
BS Bridge Waterproofing	SGR	0.0	0.7	4.2	2.3	0.9	8.0
BT Removal of Montauk Cut-Off Viaduct	SGR	0.0	0.4	5.3	0.0	0.0	5.7
BU Mentor Allowance - Line Structures	SGR	0.0	0.0	1.5	13.8	2.4	17.7
BV North Main Street & Accabonac Road	SGR	0.0	2.9	5.5	6.6	0.0	15.1
BW Flushing Main Street Bridge	SGR	0.0	0.7	2.0	0.9	0.0	3.5
BX Springfield Blvd & Union Tpke	SGR	0.0	0.0	1.5	5.9	0.0	7.4
BZ Webster Ave Bridge DES	SGR	0.0	0.0	1.1	1.3	0.0	2.4
C3 Lynbrook & Rockville Centre Renewals	SGR	0.0	0.0	3.0	3.0	0.0	6.0
C4 Cherry Valley Road Bridge DES	SGR	0.0	0.0	1.6	1.4	0.0	3.0
C5 Atlantic Ave Hatchways	SGR	0.0	0.0	0.2	0.9	0.0	1.2
C6 Bridge Painting	SGR	0.0	0.0	3.3	0.5	0.0	3.8
C7 Atlantic Ave Hatchways [SBDP]	SGR	0.0	0.0	0.0	0.0	4.6	4.6
C8 ROW Improvements: Franklin Ave & Murray Hill	SGR	0.0	0.0	0.4	0.5	0.0	0.9
C9 ROW Improvements: Franklin Ave & Murray Hill[SBDP]	SGR	0.0	0.0	0.0	0.0	2.8	2.8
D2 Cabin M Bridge Demolition DES	SGR	0.0	0.0	0.0	0.5	0.0	0.5
D3 Montauk Cut-off Demolition DES	SGR	0.0	0.0	0.0	1.2	0.0	1.2
D4 Lynbrook & Rockville Centre Renewals [SBDP]	SGR	0.0	0.0	0.0	0.0	6.0	6.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$21.7</b>	<b>\$44.5</b>	<b>\$43.3</b>	<b>\$16.7</b>	<b>\$126.2</b>
<b>Category Total 704</b>		<b>\$0.0</b>	<b>\$21.7</b>	<b>\$44.5</b>	<b>\$43.3</b>	<b>\$16.7</b>	<b>\$126.2</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Long Island Rail Road

## COMMUNICATIONS AND SIGNALS

**L - 705**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 COMMUNICATIONS IMPROVEMENTS</b>							
SD Fiber Optic Network	NR	0.0	19.4	0.0	15.1	0.0	34.5
SE Comm. Pole Line	NR	0.0	3.2	0.0	1.6	0.9	5.7
SF Improve Radio Coverage Initiatives/FCC Mandate	SI	0.0	0.0	0.0	4.8	0.0	4.8
SJ LIRR Public Address System	NR	0.0	0.0	2.1	2.9	0.0	5.0
SN Penn Sta Radio Retrofit/ERT Antenna	NR	0.0	0.0	6.5	0.0	0.0	6.5
SR Station Platform CCTV Cameras	SI	0.0	0.0	1.0	0.2	0.0	1.2
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$22.6</b>	<b>\$9.6</b>	<b>\$24.6</b>	<b>\$0.9</b>	<b>\$57.7</b>
<b>02 SIGNAL IMPROVEMENTS</b>							
LH Babylon Interlocking Renewal	NR	0.0	1.6	0.2	31.4	7.0	40.2
LJ Signal Normal Replacement Program	NR	0.0	13.2	0.0	14.9	1.9	30.0
LK Positive Train Control (PTC)	SI	42.1	0.0	71.3	52.6	0.0	166.0
LL Ronkonkoma to Yaphank Signalization	SI	0.0	0.0	0.0	0.0	1.0	1.0
LM Hunt to Post DES	NR	0.0	0.0	0.0	0.0	5.0	5.0
LN Babylon to Patchogue	NR	0.0	0.0	0.2	5.4	49.1	54.7
LP Lightning Protection	SI	0.0	0.0	2.4	2.6	0.0	5.0
LQ Centralized Train Control	SI	0.0	0.0	0.0	0.0	10.0	10.0
<b>Element Total 02</b>		<b>\$42.1</b>	<b>\$14.9</b>	<b>\$74.1</b>	<b>\$107.0</b>	<b>\$73.9</b>	<b>\$311.9</b>
<b>Category Total 705</b>		<b>\$42.1</b>	<b>\$37.4</b>	<b>\$83.7</b>	<b>\$131.6</b>	<b>\$74.8</b>	<b>\$369.6</b>

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# Long Island Rail Road

## SHOPS AND YARDS

### L - 706

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 SHOPS AND YARDS</b>							
YG Diesel Locomotive Shop Improvements	NR	0.0	0.0	94.4	6.1	1.8	102.3
YH Rolling Stock Support Equipment	NR	15.0	0.0	0.0	1.0	0.0	16.0
YR Mid Suffolk Yard Improvements	SI	0.0	0.0	41.4	6.2	0.0	47.6
YS New Huntington/PortJeff Branch ElectricYard	SI	0.0	0.0	0.2	0.4	6.4	7.0
<b>Element Total 01</b>		<b>\$15.0</b>	<b>\$0.0</b>	<b>\$136.0</b>	<b>\$13.7</b>	<b>\$8.2</b>	<b>\$172.9</b>
<b>04 EMPLOYEE FACILITIES</b>							
62 Huntington Station HVAC Replacement [SBDP]	NR	0.0	0.0	0.0	1.0	0.0	1.0
63 Employee Facility Consolidation	SI	0.0	0.0	0.0	20.0	0.0	20.0
YJ Mentor Allowance - Shops & Yards	NR	0.0	0.0	0.0	8.6	11.5	20.1
YM Ronkonkoma Yard Asphalt Restoration [SBDP]	NR	0.0	0.0	0.4	0.0	0.0	0.4
YP Rehab of Employee Facilities - H (5 Locs) [SBDP]	NR	0.0	0.0	0.2	0.5	0.0	0.7
YQ Sewer & Facility Improvements - C (3 Locs) [SBDP]	NR	0.0	0.0	0.0	2.0	0.0	2.0
YV Hillside & Other Employee Facility Improvements	NR	0.0	0.0	0.2	3.2	0.0	3.4
YW Rehabilitation of Employee Facilities	NR	0.0	0.0	0.2	0.3	2.0	2.5
YX Fire Protection Improvements	NR	0.0	0.0	0.0	2.5	2.5	5.0
<b>Element Total 04</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.9</b>	<b>\$38.1</b>	<b>\$16.0</b>	<b>\$55.0</b>
<b>Category Total 706</b>		<b>\$15.0</b>	<b>\$0.0</b>	<b>\$136.9</b>	<b>\$51.8</b>	<b>\$24.2</b>	<b>\$227.9</b>

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# Long Island Rail Road

## POWER L - 707

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 POWER</b>							
XA Substation Replacements	NR	0.0	3.8	0.3	18.0	37.0	59.1
XB Substation Components	NR	0.0	6.7	0.0	24.4	7.8	38.9
XC 3rd Rail - 2000 Million Cubic Meter Cable	NR	0.0	1.0	0.0	0.7	0.7	2.4
XD 3rd Rail - Disconnect Switches	NR	0.0	0.8	0.0	0.4	0.5	1.6
XE 3rd Rail - Protection Board	NR	0.0	3.5	0.0	2.7	2.6	8.8
XF 3rd Rail -Composite Rail	NR	0.0	3.3	0.0	4.0	3.9	11.2
XG 3rd Rail - Feeder Cable Upgrade	NR	0.0	1.0	0.0	1.2	1.0	3.2
XH Negative Reactor Upgrade	NR	0.0	1.1	0.0	1.1	1.0	3.2
XJ Substation Battery Replacement	NR	0.0	0.8	0.0	0.0	0.0	0.8
XK Signal PowerMotor Generator Replacement	NR	0.0	3.2	0.0	1.7	1.5	6.4
XL DC Relay Controls Replacement	NR	0.0	1.6	0.0	0.0	0.0	1.6
XM Signal Power Line Replacement	NR	0.0	3.2	0.0	0.0	0.0	3.2
XN Power Pole Replacement	NR	0.0	1.4	0.0	1.8	0.0	3.2
XP Atlantic Avenue Tunnel Lighting	NR	0.0	0.4	4.2	0.5	0.0	5.0
XQ 4,160 Volt Feeders	NR	0.0	1.1	0.0	0.0	0.5	1.6
XR New Substations DES	SI	0.0	2.0	0.0	3.0	0.0	5.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$34.6</b>	<b>\$4.5</b>	<b>\$59.5</b>	<b>\$56.5</b>	<b>\$155.1</b>
<b>Category Total 707</b>		<b>\$0.0</b>	<b>\$34.6</b>	<b>\$4.5</b>	<b>\$59.5</b>	<b>\$56.5</b>	<b>\$155.1</b>

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# Long Island Rail Road

## MISCELLANEOUS

### L - 709

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>04 MISCELLANEOUS</b>							
N5 20 Substations Chlordane Remediation - PH 2	NR	0.0	0.0	0.0	2.0	0.0	2.0
NJ Program Development		0.0	0.0	1.0	4.5	2.0	7.5
NK Insurance		0.0	0.1	0.2	4.4	1.6	6.3
NL Independent Engineer		0.0	5.2	0.0	2.8	0.0	7.9
NN OCIP		0.0	0.0	9.3	0.0	0.0	9.3
NP Program Contingency		0.0	0.0	0.0	0.1	0.0	0.1
NQ Program Administration		20.2	21.1	22.9	26.9	24.0	115.0
NR EAM Reserve		0.0	1.3	2.7	4.0	0.0	8.0
NS PCB Clean-Up - Penn Station Tracks	NR	0.0	0.0	0.0	0.9	0.0	0.9
<b>Element Total 04</b>		<b>\$20.2</b>	<b>\$27.6</b>	<b>\$36.1</b>	<b>\$45.6</b>	<b>\$27.6</b>	<b>\$157.0</b>
<b>Category Total 709</b>		<b>\$20.2</b>	<b>\$27.6</b>	<b>\$36.1</b>	<b>\$45.6</b>	<b>\$27.6</b>	<b>\$157.0</b>
<b>TOTAL PROGRAM</b>		<b>\$150.3</b>	<b>\$399.4</b>	<b>\$976.2</b>	<b>\$1,020.5</b>	<b>\$312.5</b>	<b>\$2,859.0</b>

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# Metro-North Railroad

## ROLLING STOCK M - 701

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 REVENUE EQUIPMENT</b>							
01 Locomotive Purchase	NR	0.0	1.0	0.9	0.0	234.3	236.2
02 M-8 Fleet Purchase	SI	0.0	0.0	85.4	2.9	3.7	92.0
03 EMU Spec Development	NR	0.0	0.0	0.0	6.8	0.0	6.8
04 Fleet Support	NR	0.0	0.0	0.0	0.0	59.0	59.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$1.0</b>	<b>\$86.3</b>	<b>\$9.7</b>	<b>\$297.0</b>	<b>\$394.0</b>
<b>Category Total 701</b>		<b>\$0.0</b>	<b>\$1.0</b>	<b>\$86.3</b>	<b>\$9.7</b>	<b>\$297.0</b>	<b>\$394.0</b>

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# Metro-North Railroad

## STATIONS

### M - 702

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 GCT</b>							
01 GCT Trainshed/Tunnel Struct (incl Roof Exp. Jts)	SGR	0.0	5.1	14.6	2.0	46.4	68.0
02 Park Ave Tunnel Fire & Life Safety Improvements	NR	0.0	0.0	0.0	5.0	0.0	5.0
03 GCT Platform Rehabilitation	SGR	0.0	0.0	0.0	2.7	0.0	2.7
04 GCT Fire Protection	NR	11.4	0.0	0.0	0.0	0.0	11.4
05 GCT Utilities	NR	0.0	0.0	0.0	1.8	3.2	5.0
06 GCT Elevator Improvements - Final Phase	NR	0.0	0.0	0.0	1.0	6.2	7.2
07 GCT PA Head End and VIS Systems	NR	0.0	0.0	57.4	1.2	0.9	59.5
08 Mentoring - GCT	NR	0.0	0.0	0.0	3.0	3.0	6.0
<b>Element Total 01</b>		<b>\$11.4</b>	<b>\$5.1</b>	<b>\$72.0</b>	<b>\$16.6</b>	<b>\$59.7</b>	<b>\$164.9</b>
<b>02 OUTLYING STATIONS</b>							
01 Harlem - 125th Street Improvements	NR	0.8	0.3	0.2	0.0	0.0	1.3
03 Upper Hudson Station Improvements	NR	0.0	3.1	0.0	0.0	0.0	3.1
04 Harlem Line Station Improvements	NR	0.0	2.0	0.0	2.0	60.2	64.2
05 West of Hudson Station Improvements	NR	0.0	0.0	0.0	3.3	0.0	3.3
06 Station Building Rehabilitation	NR	0.0	0.0	0.2	0.4	0.0	0.5
07 Customer Communication-Stations	SI	0.0	0.0	71.7	9.1	0.0	80.8
08 New Fare Payment	SI	0.0	0.0	5.0	0.0	1.3	6.3
09 Mentoring Program - Stations	NR	0.0	1.2	1.2	10.6	3.0	16.0
10 Enhanced Station Initiative, 5 Stations	NR	0.0	3.9	6.0	2.9	0.0	12.8
11 Customer Communication-Systems	NR	0.0	0.0	11.7	1.6	0.0	13.4
13 Enhanced Station Initiative	NR	0.0	0.0	89.4	33.4	0.0	122.8
14 East of Hudson Station Priority Repairs	NR	0.0	0.0	0.0	6.1	0.0	6.1
15 Beacon & Southeast Improvements	NR	0.0	0.0	0.0	0.0	24.0	24.0
<b>Element Total 02</b>		<b>\$0.8</b>	<b>\$10.5</b>	<b>\$185.5</b>	<b>\$69.3</b>	<b>\$88.5</b>	<b>\$354.5</b>
<b>03 PARKING</b>							
01 Strategic Facilities	SI	0.0	0.0	0.0	6.3	7.9	14.1
02 Mentoring Program - Strategic Facilities	NR	0.0	0.0	0.0	1.0	2.0	3.0
<b>Element Total 03</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$7.3</b>	<b>\$9.9</b>	<b>\$17.1</b>
<b>Category Total 702</b>		<b>\$12.2</b>	<b>\$15.6</b>	<b>\$257.5</b>	<b>\$93.2</b>	<b>\$158.1</b>	<b>\$536.5</b>

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# Metro-North Railroad

## TRACK & STRUCTURES

### M - 703

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	Commitments (\$ in millions)					Total All Years	
		2015	2016	2017	2018	2019		
<b>01 TRACK</b>								
01	2016 Cyclical Track Program	NR	0.0	21.1	2.4	0.1	0.0	23.6
02	Cyclical Repl. Insulated Joint	NR	0.0	0.8	0.0	0.4	0.8	2.0
03	Rock Slope Remediation	NR	0.0	10.3	0.2	1.4	6.7	18.6
04	Turnouts - Mainline/High Speed	NR	0.0	12.3	5.0	7.9	26.2	51.5
05	GCT Turnouts/Switch Renewal	NR	3.0	4.4	4.6	4.7	8.2	24.9
06	Turnouts - Yards/Sidings	NR	0.0	0.0	0.0	0.0	5.2	5.2
07	Rebuild Retaining Walls	NR	0.0	0.0	1.6	5.9	0.0	7.5
08	Systemwide Drainage	NR	0.0	2.8	0.0	0.0	0.0	2.8
09	Purchase MoW Equipment	NR	0.0	0.8	8.0	4.5	8.8	22.1
10	2017 Cyclical Track Program	NR	0.0	0.0	0.0	3.0	0.0	3.0
11	2018 Cyclical Track Program	NR	0.0	0.0	0.0	21.7	0.0	21.7
12	2019 Cyclical Track Program	NR	0.0	0.0	0.0	0.0	24.7	24.7
<b>Element Total 01</b>			<b>\$3.0</b>	<b>\$52.6</b>	<b>\$21.8</b>	<b>\$49.5</b>	<b>\$80.6</b>	<b>\$207.5</b>
<b>02 STRUCTURES</b>								
01	Overhead Bridge Program - E of H	SGR	0.0	4.3	12.7	1.2	47.9	66.0
02	Bridge Preservation Program	SGR	0.0	0.0	0.0	0.0	0.8	0.8
03	Undergrade Bridge Rehabilitation	SGR	0.0	0.0	0.3	20.4	41.2	61.9
04	Beacon Line Undergrade Bridges	SGR	0.0	0.0	0.0	0.0	7.5	7.5
06	Railtop Culverts	SGR	0.0	1.9	0.0	1.1	0.4	3.4
07	Bridge Walkways	NR	0.0	0.6	0.0	0.6	0.8	2.0
08	Replace Timbers - Undergrade Bridges	SGR	0.0	1.9	1.4	1.3	0.4	5.0
09	Harlem River Lift Bridge	NR	0.0	0.0	0.2	1.2	8.7	10.0
10	Hudson Line Tunnels Inspection	SGR	0.0	0.0	0.0	0.0	0.8	0.8
11	ROW Fencing	SGR	0.0	0.1	0.4	0.0	0.5	1.0
12	Catenary Painting	SGR	0.0	0.0	0.0	0.0	1.0	1.0
13	DC Substation/SignalHse Roof Replacement	NR	0.0	0.0	0.0	0.0	5.0	5.0
14	Employee Welfare & Storage Facilities	NR	0.0	0.0	0.0	0.0	3.0	3.0
15	Mentoring Program - Structures	NR	0.0	0.0	0.0	3.0	3.0	6.0
<b>Element Total 02</b>			<b>\$0.0</b>	<b>\$8.7</b>	<b>\$15.0</b>	<b>\$28.7</b>	<b>\$120.9</b>	<b>\$173.3</b>
<b>03 W OF HUD INFRASTR</b>								
01	Rock Slope Remediation	NR	0.0	6.8	4.1	2.9	0.0	13.8
02	West of Hudson Track Improvements	SGR	2.2	1.0	6.3	0.0	0.5	10.0
03	Undergrade Bridge Rehabilitation	SGR	0.0	0.0	3.3	1.2	10.5	15.0
04	Moodna/Woodbury Viaduct (incl timbers/walkways)	SGR	0.0	0.0	0.0	0.0	14.0	14.0
05	West of Hudson Improvements	SGR	0.7	0.7	0.7	0.7	0.7	3.5
<b>Element Total 03</b>			<b>\$2.9</b>	<b>\$8.5</b>	<b>\$14.4</b>	<b>\$4.8</b>	<b>\$25.7</b>	<b>\$56.3</b>
<b>Category Total 703</b>			<b>\$5.9</b>	<b>\$69.8</b>	<b>\$51.1</b>	<b>\$83.0</b>	<b>\$227.3</b>	<b>\$437.1</b>

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# Metro-North Railroad

## COMM & SIGNALS

### M - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 COMM &amp; SIGNALS</b>							
01 Network Infrastructure Replacement	NR	0.0	0.0	26.7	10.1	6.6	43.5
02 Harmon to Poughkeepsie SignalSystem	NR	0.0	0.0	57.3	5.3	24.6	87.1
03 Positive Train Control	SI	0.0	17.1	32.3	60.2	0.0	109.7
04 Repl Signal OfficeEqpmt/SCADA Office	NR	0.0	0.0	0.0	0.0	3.5	3.5
05 PBX Replacement	NR	0.0	0.0	0.0	0.0	2.0	2.0
06 Upgrade Grade Crossings	NR	0.0	0.0	0.0	0.0	1.5	1.5
07 Replace High Cycle Relays	NR	0.0	0.3	0.2	0.0	0.2	0.8
09 Fire Suppression Systems	NR	0.0	0.0	0.1	0.6	0.1	0.8
11 West of Hudson Signal Improvements	NR	0.0	0.0	21.1	0.0	0.0	21.1
12 Harlem Wayside Comm & Signal Improvements	NR	0.0	0.0	40.4	0.0	0.0	40.4
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$17.5</b>	<b>\$178.0</b>	<b>\$76.3</b>	<b>\$38.5</b>	<b>\$310.3</b>
<b>Category Total 704</b>		<b>\$0.0</b>	<b>\$17.5</b>	<b>\$178.0</b>	<b>\$76.3</b>	<b>\$38.5</b>	<b>\$310.3</b>

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# Metro-North Railroad

## POWER M - 705

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years	
<b>01 POWER</b>								
01	Replace MA's in Signal Substations	NR	0.0	0.0	3.3	17.9	0.0	21.2
02	Transformer Rehabilitation	NR	0.0	0.0	0.0	1.3	1.9	3.2
03	Replace AC Circuit Breaker/Switchgear	NR	0.0	0.0	0.0	0.0	3.9	3.9
04	Harlem & Hudson Power Rehabilitation	NR	0.0	0.0	0.4	11.0	3.6	15.0
05	Harlem and Hudson Power Improvements	NR	0.0	1.5	0.0	19.9	0.0	21.4
06	Three Substation Replacements	NR	0.0	0.0	0.0	12.0	0.0	12.0
08	Replace 3rd Rail Sectionalizing Switches	NR	0.0	0.0	0.0	0.1	0.3	0.4
09	Replace Substations 128 and 178	NR	0.0	0.0	0.0	2.8	0.0	2.8
10	Park Avenue Tunnel Power Initiatives	NR	0.0	0.0	0.0	2.9	19.1	22.0
13	H&H Power (86th St / 110th St)	NR	0.0	0.0	7.3	2.7	0.0	10.0
<b>Element Total 01</b>			<b>\$0.0</b>	<b>\$1.5</b>	<b>\$11.0</b>	<b>\$70.5</b>	<b>\$28.9</b>	<b>\$111.8</b>
<b>Category Total 705</b>			<b>\$0.0</b>	<b>\$1.5</b>	<b>\$11.0</b>	<b>\$70.5</b>	<b>\$28.9</b>	<b>\$111.8</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Metro-North Railroad

## SHOPS & YARDS

### M - 706

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 SHOPS &amp; YARDS</b>							
01 Harmon Shop Replacement - Phase V	SGR	0.0	0.0	1.7	429.9	0.0	431.6
02 Harmon Wheel True Improvements	NR	0.0	0.0	0.0	1.6	0.4	2.0
03 Brewster YD Improvements - Design	SI	0.0	0.0	0.0	4.2	0.0	4.2
04 West of Hudson Capacity Improvements	SI	0.0	0.0	4.5	6.6	13.2	24.2
05 Mentoring Program - Shops and Yards	SGR	0.0	0.0	2.5	3.1	2.4	8.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$8.7</b>	<b>\$445.4</b>	<b>\$15.9</b>	<b>\$470.0</b>
<b>Category Total 706</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$8.7</b>	<b>\$445.4</b>	<b>\$15.9</b>	<b>\$470.0</b>

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# Metro-North Railroad

## MISCELLANEOUS

### M - 708

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 MISCELLANEOUS</b>							
01 Systemwide Lead/Asbestos Abatement	NR	0.0	0.0	0.0	1.0	2.0	3.0
02 Environmental Remediation	NR	0.0	0.3	0.0	0.0	1.8	2.0
03 Railroad Protective Liability		0.0	0.1	0.1	1.4	2.9	4.5
04 Independent Engineer		0.0	3.1	0.0	0.0	4.9	8.0
06 Program Administration		8.1	11.0	11.0	11.0	11.9	53.0
07 Program Scope Development		2.2	1.8	4.2	3.6	8.2	20.0
08 OCIP - Insurance		2.0	0.0	17.8	0.0	14.4	34.2
09 GCT/ESA Investments	SI	11.3	0.0	5.9	1.2	7.5	25.9
10 Systemwide Security Initiatives	SI	0.0	0.0	0.0	1.4	16.0	17.4
11 EAM Reserve		0.0	2.1	0.0	8.0	3.0	13.1
12 Harlem River Lift Bridge Security	SI	0.0	0.0	5.0	0.0	0.0	5.0
13 Customer Communication-CM	NR	0.0	0.0	3.1	12.8	0.0	15.8
<b>Element Total 01</b>		<b>\$23.7</b>	<b>\$18.4</b>	<b>\$47.0</b>	<b>\$40.4</b>	<b>\$72.5</b>	<b>\$201.9</b>
<b>Category Total 708</b>		<b>\$23.7</b>	<b>\$18.4</b>	<b>\$47.0</b>	<b>\$40.4</b>	<b>\$72.5</b>	<b>\$201.9</b>
<b>TOTAL PROGRAM</b>		<b>\$41.7</b>	<b>\$123.7</b>	<b>\$639.6</b>	<b>\$818.4</b>	<b>\$838.1</b>	<b>\$2,461.7</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Commuter Railroad Agency Summary

Commitments  
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL Long Island Rail Road	\$150.3	\$399.4	\$976.2	\$1,020.5	\$312.5	\$2,859.0
TOTAL Metro-North Railroad	\$41.7	\$123.7	\$639.6	\$818.4	\$838.1	\$2,461.7
TOTAL COMMUTER RAILROAD AGENCY PROGRAM	\$192.1	\$523.1	\$1,615.9	\$1,838.9	\$1,150.6	\$5,320.6

\* Represents values less than \$50,000

Numbers may not add due to rounding

# MTA Bus Company

## BUS COMPANY PROJECTS

**U - 703**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>02 BUS COMPANY PROJECTS</b>							
01 Purchase 53 Articulated Buses	NR	0.0	0.0	0.0	53.2	0.0	53.2
02 Purchase 257 Express Buses	NR	0.0	0.0	0.0	0.4	192.2	192.5
05 On-Board Audio Visual Ph 2 - MTA Bus	SI	0.0	0.0	0.0	7.5	0.0	7.5
06 Automated Passenger Counting Pilot & Ph 1	SI	0.0	0.0	1.8	0.0	0.0	1.8
07 Storerooms and Depot Reconfiguration: LaGuardia	SGR	0.0	0.0	0.0	5.4	0.0	5.4
08 Roof Replc [SBFP] and CNG Equip: Spring Creek	NR	0.0	0.0	2.3	5.9	0.0	8.2
09 Rehab and Facility Upgrade: College Point	SGR	0.0	0.0	0.0	0.0	9.5	9.5
10 Paint Booths: Eastchester, College Point	NR	0.0	0.0	0.0	0.0	4.9	4.9
11 Bus Radio System - MTA Bus Share	NR	0.0	34.5	0.0	0.0	0.0	34.5
12 Environmental Remediation	NR	0.0	0.0	0.0	0.0	4.5	4.5
13 Chassis Wash: Eastchester Depot [SBFP]	NR	0.0	0.0	0.0	0.0	2.5	2.5
14 MTA Bus Rubber Tire Service Vehicles 2015-19	NR	0.0	0.0	0.0	3.6	0.0	3.6
15 Project Administration		0.0	0.0	0.0	10.5	0.0	10.5
16 Design/Engineering Management Services		0.0	0.0	0.0	2.6	0.8	3.4
17 Construction Management Services		0.0	0.0	0.0	3.4	0.0	3.4
18 JFK Windows Replacement [SBFP]	NR	0.0	0.0	0.0	0.0	3.0	3.0
19 Purchase 25 Standard Diesel Buses	NR	0.0	0.0	0.0	0.0	16.8	16.8
20 LGA Windows Replacement [SBFP]	NR	0.0	0.0	2.8	0.2	0.0	3.0
21 BP Windows Replacement [SBFP]	NR	0.0	0.0	2.0	0.0	0.0	2.0
22 2015-2019 Accrued Savings		0.0	0.0	0.0	5.8	0.0	5.8
<b>Element Total 02</b>		<b>\$0.0</b>	<b>\$34.5</b>	<b>\$8.9</b>	<b>\$98.4</b>	<b>\$234.1</b>	<b>\$376.0</b>
<b>Category Total 703</b>		<b>\$0.0</b>	<b>\$34.5</b>	<b>\$8.9</b>	<b>\$98.4</b>	<b>\$234.1</b>	<b>\$376.0</b>
<b>TOTAL PROGRAM</b>		<b>\$0.0</b>	<b>\$34.5</b>	<b>\$8.9</b>	<b>\$98.4</b>	<b>\$234.1</b>	<b>\$376.0</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# MTA Interagency

## MTA MENTORING PROGRAM ADMIN N - 700

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 MTA MENTORING PROGRAM ADMIN</b>							
01	MTA SBDP Construction Management (Scope A)	0.0	0.0	6.4	41.2	1.9	49.4
02	MTA SBDP Business Development (Scope B)	0.0	9.9	0.0	0.0	0.0	9.9
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$9.9</b>	<b>\$6.4</b>	<b>\$41.2</b>	<b>\$1.9</b>	<b>\$59.3</b>
<b>Category Total 700</b>		<b>\$0.0</b>	<b>\$9.9</b>	<b>\$6.4</b>	<b>\$41.2</b>	<b>\$1.9</b>	<b>\$59.3</b>

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# MTA Interagency

# MTA POLICE DEPARTMENT N - 710

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 MTA POLICE DEPARTMENT</b>							
01 Public Radio Phase 3	SI	0.0	0.0	11.2	0.0	17.3	28.5
02 Poughkeepsie Facility	NR	0.0	0.0	0.0	2.0	0.0	2.0
03 Other Facilities	NR	0.0	0.0	0.0	0.0	2.3	2.3
04 REP-ESU Fleet	NR	0.0	0.5	0.0	0.2	0.0	0.7
05 Program Management		0.0	1.0	0.0	1.5	2.5	5.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$1.5</b>	<b>\$11.2</b>	<b>\$3.7</b>	<b>\$22.1</b>	<b>\$38.5</b>
<b>Category Total 710</b>		<b>\$0.0</b>	<b>\$1.5</b>	<b>\$11.2</b>	<b>\$3.7</b>	<b>\$22.1</b>	<b>\$38.5</b>

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# MTA Interagency

# MTA PLANNING N - 711

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 MTA PLANNING INITIATIVES</b>							
01 Core Planning Support	SI	0.0	0.0	0.0	2.5	7.5	10.0
02 Corridor Planning Support	SI	0.0	0.0	0.0	2.5	7.5	10.0
03 Capital Program Support	SI	0.0	0.0	0.0	35.0	90.0	125.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$40.0</b>	<b>\$105.0</b>	<b>\$145.0</b>
<b>Category Total 711</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$40.0</b>	<b>\$105.0</b>	<b>\$145.0</b>
<b>TOTAL PROGRAM</b>		<b>\$0.0</b>	<b>\$11.4</b>	<b>\$17.5</b>	<b>\$84.9</b>	<b>\$129.1</b>	<b>\$242.8</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# MTA Interagency Summary

Commitments  
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL MTA MENTORING PROGRAM	\$0.0	\$9.9	\$6.4	\$41.2	\$1.9	\$59.3
TOTAL MTA POLICE DEPARTMENT	\$0.0	\$1.5	\$11.2	\$3.7	\$22.1	\$38.5
TOTAL MTA PLANNING	\$0.0	\$0.0	\$0.0	\$40.0	\$105.0	\$145.0
TOTAL MTA INTERAGENCY	\$0.0	\$11.4	\$17.5	\$84.9	\$129.1	\$242.8

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# Capital Construction Company

## EAST SIDE ACCESS

### G - 709

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 EAST SIDE ACCESS</b>							
01 Program Management	NE	0.0	23.6	0.0	9.0	0.0	32.6
02 Design - GEC	NE	0.0	53.9	0.0	0.0	0.0	53.9
03 MTA Management	NE	0.0	19.1	11.9	6.6	0.0	37.7
05 Manhattan Structures 1- MNR Force Account	NE	0.0	0.0	19.0	0.0	0.0	19.0
11 Owner Controlled Insurance Program (OCIP)	NE	0.0	97.1	0.0	0.0	0.0	97.1
13 Construction Management	NE	16.8	109.3	0.0	31.8	0.0	157.9
15 Vertical Circulation Elements	NE	0.0	3.7	5.1	0.0	0.0	8.7
16 General Conditions	NE	0.0	24.5	0.0	12.0	0.0	36.5
18 Harold Interlocking Force Account	NE	0.0	22.2	8.9	0.0	0.0	31.0
21 Mid-Day Storage Yard Facility	NE	0.0	0.0	306.9	0.0	0.0	306.9
23 Harold Structures EBRR & WBBP	NE	0.0	28.0	0.1	0.0	0.0	28.1
24 B-C Approach	NE	0.0	0.0	3.2	2.3	70.3	75.8
27 FA Systems Testing & Commissioning	NE	0.0	0.8	6.2	8.9	2.9	18.7
32 Management Reserve	NE	0.0	0.0	0.0	12.6	0.0	12.6
34 Protect Locomotives	NE	2.7	2.4	2.3	0.0	0.0	7.5
35 Systems Package 1 - Facilities	NE	0.0	238.5	0.0	0.0	0.0	238.5
36 Systems Package 2 - Tunnel Systems	NE	0.0	0.0	0.0	0.0	37.5	37.5
38 Force Account Warehouse	NE	0.0	3.3	1.0	0.5	0.0	4.7
39 Utilities	NE	0.0	5.3	0.0	0.0	21.0	26.3
40 Construction Management - Other	NE	12.9	1.9	0.6	1.8	4.3	21.5
41 A Tunnel/D Approach Structure	NE	0.0	48.0	13.7	0.0	0.0	61.8
42 GCT Caverns	NE	0.0	712.6	0.0	0.0	0.0	712.6
44 Arts For Transit	NE	0.0	0.0	0.0	0.0	1.0	1.0
45 48th St Entrance at 415 Madison Avenue	NE	0.0	0.0	0.0	0.0	5.0	5.0
47 Building Owner Cost	NE	1.0	0.0	0.0	0.0	0.0	1.0
49 Material Warranties	NE	0.0	0.0	0.0	0.0	0.4	0.4
50 Operational Readiness Training	NE	0.0	0.0	0.0	1.3	0.0	1.3
51 Test Trains	NE	0.0	0.0	0.0	0.7	0.0	0.7
52 Force Account Support	NE	0.0	2.2	0.0	0.0	0.0	2.2
53 Project Management Contingency	NE	0.0	0.0	0.0	0.0	51.9	51.9
54 Cab Simulator	NE	0.0	4.3	0.0	0.0	0.0	4.3
55 Program Contingency	NE	0.0	30.3	29.2	0.0	0.0	59.5
56 Harold Interlocking Stage 2	NE	0.0	13.7	0.0	0.0	0.0	13.7
57 Harold Access and Protection	NE	0.0	8.5	0.0	0.0	0.0	8.5
58 Queens Mentoring Program (SBDP) Projects	NE	0.0	0.0	1.5	0.0	0.0	1.5
59 Harold Track Work Part 3	NE	0.0	0.0	0.0	25.0	0.0	25.0
98 ESA Program Support	NE	0.0	0.0	6.9	11.2	331.5	349.6
99 Additional ESA Program Support	NE	0.0	0.0	0.0	0.0	157.3	157.3
<b>Element Total 01</b>		<b>\$33.4</b>	<b>\$1,453.1</b>	<b>\$416.5</b>	<b>\$123.8</b>	<b>\$683.0</b>	<b>\$2,709.8</b>
<b>Category Total 709</b>		<b>\$33.4</b>	<b>\$1,453.1</b>	<b>\$416.5</b>	<b>\$123.8</b>	<b>\$683.0</b>	<b>\$2,709.8</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Capital Construction Company **FULL LENGTH SECOND AVE SUBWAY**

## G - 710

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 FULL LENGTH SECOND AVE SUBWAY</b>							
01 SAS 2 PE, Design & Environmental	NE	0.0	130.2	0.0	4.8	0.0	135.0
04 SAS 2 Construction Management	NE	0.0	0.0	0.0	50.0	0.0	50.0
05 SAS 2 Project Support	NE	0.0	0.0	10.0	30.0	0.0	40.0
07 SAS 2 Prelim Const/Utilities	NE	0.0	0.0	0.0	0.0	270.0	270.0
98 SAS 2 Real Estate	NE	0.0	0.0	0.6	39.4	0.0	40.0
99 SAS 2 Reserve	NE	0.0	0.0	0.0	0.0	1,200.0	1,200.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$130.2</b>	<b>\$10.7</b>	<b>\$124.2</b>	<b>\$1,470.0</b>	<b>\$1,735.0</b>
<b>Category Total 710</b>		<b>\$0.0</b>	<b>\$130.2</b>	<b>\$10.7</b>	<b>\$124.2</b>	<b>\$1,470.0</b>	<b>\$1,735.0</b>

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# Capital Construction Company

## PENN STATION ACCESS

### G - 711

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 PENN STATION ACCESS</b>							
01 Pre Design	NE	0.0	4.6	5.0	4.5	1.5	15.6
02 Program Management	NE	0.0	0.7	2.2	3.4	3.0	9.3
03 Construction Management	NE	0.0	0.0	0.0	0.0	31.1	31.1
04 Track & Structures	NE	0.0	0.0	0.0	0.0	186.4	186.4
05 Communication and Signals	NE	0.0	0.0	0.0	0.0	56.3	56.3
06 Power	NE	0.0	0.0	0.0	0.0	106.2	106.2
07 Stations	NE	0.0	0.0	0.0	0.0	136.8	136.8
08 Shops & Yards	NE	0.0	0.0	0.0	0.0	30.6	30.6
09 Rolling Stock Specification	NE	0.0	0.0	0.0	0.0	4.9	4.9
10 General Engineering Consultant	NE	0.0	0.0	0.0	102.5	0.0	102.5
11 Design Support	NE	0.0	0.0	0.0	7.7	7.7	15.5
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$5.3</b>	<b>\$7.3</b>	<b>\$118.1</b>	<b>\$564.4</b>	<b>\$695.0</b>
<b>Category Total 711</b>		<b>\$0.0</b>	<b>\$5.3</b>	<b>\$7.3</b>	<b>\$118.1</b>	<b>\$564.4</b>	<b>\$695.0</b>

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# Capital Construction Company

# LIRR EXPANSION PROJECT

## G - 713

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 LIRR EXPANSION PROJECT</b>							
03 D-B Construction Contract Base	NE	0.0	0.0	1,442.6	0.0	0.0	1,442.6
04 D-B Mobilization/Early Payments	NE	0.0	0.0	87.3	100.2	0.0	187.6
05 D-B Construction Contract Option	NE	0.0	0.0	0.0	22.9	0.0	22.9
06 Parking Seed Money	NE	0.0	0.0	0.0	15.8	0.0	15.8
07 Force Account Construction	NE	0.0	0.0	0.0	116.7	0.0	116.7
08 Force Account Materials	NE	0.0	0.0	0.0	1.2	0.0	1.2
09 Force Account Support	NE	0.0	0.0	0.0	66.9	0.0	66.9
10 Busing	NE	0.0	0.0	0.0	6.0	0.0	6.0
11 Force Account Project Management	NE	0.0	0.0	0.0	16.1	0.0	16.1
12 Force Account Design	NE	0.0	0.0	0.0	4.7	0.0	4.7
13 Force Account Reserve	NE	0.0	0.0	0.0	49.8	0.0	49.8
14 3P Project Management Contract	NE	0.0	0.0	65.3	0.0	0.0	65.3
15 MTACC Project Management	NE	0.0	0.0	0.0	11.9	0.0	11.9
16 NYSDOT Project Management	NE	0.0	0.0	0.0	1.3	0.0	1.3
17 Project Administration (Other Costs)	NE	0.0	0.0	0.0	5.4	0.0	5.4
18 Owner Controlled Insurance Program (OCIP)	NE	0.0	0.0	0.0	13.8	0.0	13.8
19 Real Estate	NE	0.0	0.0	0.0	4.0	0.0	4.0
20 Arts for Transit	NE	0.0	0.0	0.0	2.0	0.0	2.0
21 LIRR Expansion Project Reserve	NE	0.0	0.0	0.0	0.0	16.1	16.1
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,595.3</b>	<b>\$438.6</b>	<b>\$16.1</b>	<b>\$2,050.0</b>
<b>Category Total 713</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$1,595.3</b>	<b>\$438.6</b>	<b>\$16.1</b>	<b>\$2,050.0</b>

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Numbers may not add due to rounding

# Capital Construction Company

## REGIONAL INVESTMENTS

**G - 714**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 REGIONAL INVESTMENTS</b>							
01 WBBP & EBRR F/A Connections	NE	0.0	0.0	3.9	2.0	0.0	5.9
03 Westbound Bypass	NE	0.0	0.0	8.5	0.0	0.0	8.5
07 GCT Concourse & Facilities Part 2	NE	0.0	0.0	0.8	0.0	0.0	0.8
10 Owner Controlled Insurance Program (OCIP)	NE	0.0	0.0	8.7	0.0	0.0	8.7
11 Construction Management	NE	0.0	0.0	12.2	0.0	0.0	12.2
15 Harold Track Work Part 3	NE	0.0	0.0	0.0	13.9	0.0	13.9
98 Regional Investment Program Support	NE	0.0	0.0	0.0	0.0	153.0	153.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$34.3</b>	<b>\$15.9</b>	<b>\$153.0</b>	<b>\$203.1</b>
<b>Category Total 714</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$34.3</b>	<b>\$15.9</b>	<b>\$153.0</b>	<b>\$203.1</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Capital Construction Company

## ESA LIABILITY RESERVE

**G - 715**

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 ESA LIABILITY RESERVE</b>							
02 East Side Access Risk Reserve	NE	0.0	0.0	0.0	0.0	131.0	131.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$131.0</b>	<b>\$131.0</b>
<b>Category Total 715</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$131.0</b>	<b>\$131.0</b>

\* Represents values less than \$50,000

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# Capital Construction Company

## MISCELLANEOUS

### G - 716

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>01 MISCELLANEOUS</b>							
01 Misc Engineering/Prog Support		0.0	0.0	30.7	24.0	27.9	82.6
02 MTA Indep. Engineering Consultant		0.0	8.6	0.0	4.0	4.2	16.8
04 SAS Phase 1 Reserve	NE	0.0	0.0	0.0	29.0	0.0	29.0
<b>Element Total 01</b>		<b>\$0.0</b>	<b>\$8.6</b>	<b>\$30.7</b>	<b>\$57.0</b>	<b>\$32.1</b>	<b>\$128.5</b>
<b>Category Total 716</b>		<b>\$0.0</b>	<b>\$8.6</b>	<b>\$30.7</b>	<b>\$57.0</b>	<b>\$32.1</b>	<b>\$128.5</b>
<b>TOTAL PROGRAM</b>		<b>\$33.4</b>	<b>\$1,597.1</b>	<b>\$2,094.8</b>	<b>\$877.5</b>	<b>\$3,049.5</b>	<b>\$7,652.4</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# CPRB Agency Summary

Commitments  
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL New York City Transit	\$363.6	\$1,963.3	\$3,406.8	\$6,815.5	\$4,192.8	\$16,742.0
TOTAL Long Island Rail Road	\$150.3	\$399.4	\$976.2	\$1,020.5	\$312.5	\$2,859.0
TOTAL Metro-North Railroad	\$41.7	\$123.7	\$639.6	\$818.4	\$838.1	\$2,461.7
TOTAL MTA Bus Company	\$0.0	\$34.5	\$8.9	\$98.4	\$234.1	\$376.0
TOTAL MTA Interagency	\$0.0	\$11.4	\$17.5	\$84.9	\$129.1	\$242.8
<b>Core Subtotal</b>	<b>\$555.7</b>	<b>\$2,532.3</b>	<b>\$5,049.0</b>	<b>\$8,837.7</b>	<b>\$5,706.6</b>	<b>\$22,681.3</b>
TOTAL Capital Construction Company	\$33.4	\$1,597.1	\$2,094.8	\$877.5	\$3,049.5	\$7,652.4
<b>TOTAL 2015-2019 CPRB PROGRAM</b>	<b>\$589.1</b>	<b>\$4,129.4</b>	<b>\$7,143.9</b>	<b>\$9,715.2</b>	<b>\$8,756.1</b>	<b>\$30,333.7</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Bridges and Tunnels

# STRUCTURES

## D - 701

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
98 Tunnel Vulnerability Improvements - Phase 2	NR	0.0	0.0	0.0	0.0	5.1	5.1
X4 Physical Barrier Installation	SI	0.0	0.0	0.0	19.7	0.0	19.7
<b>Element Total AW</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$19.7</b>	<b>\$5.1</b>	<b>\$24.7</b>
<b>BW BRONX-WHITESTONE BRIDGE</b>							
07 Fender Protection around Tower Piers (Const)	NR	0.0	0.1	0.1	0.0	25.6	25.8
14 Miscellaneous Structural Rehabilitation	NR	19.3	0.0	0.0	1.0	0.0	20.3
84 Cable & Suspender Rope Investigation/Testing	NR	9.0	0.0	0.0	0.0	0.0	9.0
<b>Element Total BW</b>		<b>\$28.2</b>	<b>\$0.1</b>	<b>\$0.1</b>	<b>\$1.0</b>	<b>\$25.6</b>	<b>\$55.0</b>
<b>CB CROSS BAY BRIDGE</b>							
18 CB Scour Protect/Repair/Replace CB/MP Pier Fender	NR	0.1	0.0	0.6	48.4	0.0	49.1
<b>Element Total CB</b>		<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.6</b>	<b>\$48.4</b>	<b>\$0.0</b>	<b>\$49.1</b>
<b>HH HENRY HUDSON BRIDGE</b>							
07 Structural Rehabilitation	NR	0.1	1.7	0.0	0.0	21.9	23.7
89 Skewback Retrofit	NR	0.0	2.1	97.8	0.0	0.5	100.4
<b>Element Total HH</b>		<b>\$0.1</b>	<b>\$3.8</b>	<b>\$97.8</b>	<b>\$0.0</b>	<b>\$22.5</b>	<b>\$124.1</b>
<b>QM QUEENS MIDTOWN TUNNEL</b>							
18 Manhattan/Queens Plaza Structural Rehab	NR	0.0	0.0	0.0	0.0	0.0	0.0*
<b>Element Total QM</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
04 Queens Anchorage Rehabilitation	NR	0.0	2.7	0.0	0.0	0.0	2.7
19 Seismic/Wind Retrofit & Structural Rehab Ph1	NR	0.0	0.2	4.3	0.6	57.7	62.8
20 Cable Inspection and Rehabilitation	NR	0.0	0.0	2.2	0.0	14.1	16.3
22 Interim Repairs - FDR Ramp	NR	0.0	0.0	17.1	0.0	0.0	17.1
70 Miscellaneous Structural Rehabilitation	NR	0.0	0.2	4.5	0.0	89.0	93.8
<b>Element Total RK</b>		<b>\$0.1</b>	<b>\$3.1</b>	<b>\$28.0</b>	<b>\$0.6</b>	<b>\$160.9</b>	<b>\$192.7</b>
<b>TN THROGS NECK BRIDGE</b>							
53 Approach Viaduct Seismic Retrofit/Structural Rehab	NR	0.0	7.9	0.0	5.2	149.2	162.5
87 Design for Anchorage & Tower Protection	NR	0.0	0.0	0.1	1.2	5.4	6.7
<b>Element Total TN</b>		<b>\$0.0</b>	<b>\$7.9</b>	<b>\$0.1</b>	<b>\$6.4</b>	<b>\$154.7</b>	<b>\$169.1</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Bridges and Tunnels

# STRUCTURES

## D - 701

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years	
<b>VN VERRAZANO-NARROWS BRIDGE</b>								
10	Anchorage & Piers Rehabilitation and Sealing	NR	3.4	0.0	0.0	45.5	0.0	49.0
32	Steel Repair & Concrete Rehabilitation	NR	0.0	0.0	1.7	32.1	0.0	33.8
34	Main Cable & Suspender Rope Testing - Phase 1	NR	0.0	0.0	30.4	0.5	0.0	30.9
89	Tower Pier Rehab/Construct Mooring Platform	NR	1.1	0.0	0.0	23.2	0.0	24.3
<b>Element Total VN</b>			<b>\$4.6</b>	<b>\$0.0</b>	<b>\$32.1</b>	<b>\$101.3</b>	<b>\$0.0</b>	<b>\$137.9</b>
<b>Category Total 701</b>			<b>\$33.0</b>	<b>\$15.0</b>	<b>\$158.7</b>	<b>\$177.4</b>	<b>\$368.7</b>	<b>\$752.7</b>

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# Bridges and Tunnels

# ROADWAYS & DECKS

## D - 702

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
X1 Replace Manhattan Plaza Pedestrian Bridge	NR	0.0	0.0	13.4	0.6	0.0	14.0
<b>Element Total AW</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$13.4</b>	<b>\$0.6</b>	<b>\$0.0</b>	<b>\$14.0</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
23 Construction of New Harlem River Drive Ramp	SI	0.0	22.9	0.0	1.6	110.9	135.4
65 Reconstruct Manhattan Toll Plaza Structure & Ramps	NR	0.0	0.0	13.4	26.0	0.0	39.3
<b>Element Total RK</b>		<b>\$0.0</b>	<b>\$22.9</b>	<b>\$13.4</b>	<b>\$27.5</b>	<b>\$110.9</b>	<b>\$174.7</b>
<b>TN THROGS NECK BRIDGE</b>							
49 Replacement of Grid Decks on Suspended Span	NR	0.0	0.0	0.0	365.8	0.0	365.8
55 Study for Bx/Qns Approach Viaduct Replacement DES	NR	0.0	0.0	12.8	0.0	0.0	12.8
<b>Element Total TN</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$12.8</b>	<b>\$365.8</b>	<b>\$0.0</b>	<b>\$378.6</b>
<b>VN VERRAZANO-NARROWS BRIDGE</b>							
11 Brooklyn Approach Reconstruction	SI	0.0	2.0	0.0	0.0	29.1	31.1
80 Prelim Design for Suspended Span Lower Level Deck	NR	0.0	0.0	0.1	0.6	6.0	6.7
84 Reconstruction of VN Approach Ramps - Phase1	NR	0.0	16.3	0.0	0.0	233.3	249.6
86 Design for Belt Parkway Ramps Widening	NR	0.0	0.1	0.0	4.6	0.0	4.6
<b>Element Total VN</b>		<b>\$0.0</b>	<b>\$18.4</b>	<b>\$0.1</b>	<b>\$5.2</b>	<b>\$268.4</b>	<b>\$292.0</b>
<b>Category Total 702</b>		<b>\$0.0</b>	<b>\$41.3</b>	<b>\$39.6</b>	<b>\$399.1</b>	<b>\$379.3</b>	<b>\$859.3</b>

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# Bridges and Tunnels

# TOLL PLAZAS & ATMS

## D - 703

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
32 Installation of Rotating Prism Signs	NR	1.2	0.4	0.0	0.0	0.0	1.6
36 CCTV Replacement and System Integration	SI	0.0	0.0	0.0	0.3	10.0	10.3
52 Traffic Detection/Incident Management Systems	SI	0.0	0.0	0.0	0.3	2.6	2.9
57 Advanced Traffic Mgmt Systems Enhancement/Upgrade	SI	0.0	0.0	0.0	0.0	8.1	8.1
63 Replace Toll Equipment & New Toll Initiatives	NR	0.0	78.7	12.8	0.0	0.0	91.5
65 Toll Collection System Rehabilitation/Upgrades	NR	0.4	24.6	17.4	0.2	0.0	42.7
<b>Element Total AW</b>		<b>\$1.7</b>	<b>\$103.7</b>	<b>\$30.2</b>	<b>\$0.7</b>	<b>\$20.8</b>	<b>\$157.1</b>
<b>BW BRONX WHITESTONE BRIDGE</b>							
63 Open Road Tolling Initiative at BWB	SI	0.0	0.0	29.7	10.0	8.1	47.8
<b>Element Total BW</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$29.7</b>	<b>\$10.0</b>	<b>\$8.1</b>	<b>\$47.8</b>
<b>CB CROSS BAY BRIDGE</b>							
63 Open Road Tolling Initiative at CBB	SI	0.0	2.5	17.3	3.0	0.0	22.7
<b>Element Total CB</b>		<b>\$0.0</b>	<b>\$2.5</b>	<b>\$17.3</b>	<b>\$3.0</b>	<b>\$0.0</b>	<b>\$22.7</b>
<b>HC HUGH L. CAREY TUNNEL</b>							
63 Open Road Tolling Initiative at HLCT	SI	0.0	6.2	19.3	0.7	0.0	26.3
<b>Element Total HC</b>		<b>\$0.0</b>	<b>\$6.2</b>	<b>\$19.3</b>	<b>\$0.7</b>	<b>\$0.0</b>	<b>\$26.3</b>
<b>HH HENRY HUDSON BRIDGE</b>							
63 Open Road Tolling / Aesthetics	SI	0.0	0.0	0.8	0.7	6.2	7.7
88 Toll Plazas & Southbound Approach Reconstruction	NR	0.0	3.7	90.3	0.0	2.5	96.5
<b>Element Total HH</b>		<b>\$0.0</b>	<b>\$3.7</b>	<b>\$91.1</b>	<b>\$0.7</b>	<b>\$8.7</b>	<b>\$104.1</b>
<b>MP MARINE PARKWAY BRIDGE</b>							
63 Open Road Tolling Initiative at MPP	SI	0.0	2.2	16.5	4.2	0.0	22.9
<b>Element Total MP</b>		<b>\$0.0</b>	<b>\$2.2</b>	<b>\$16.5</b>	<b>\$4.2</b>	<b>\$0.0</b>	<b>\$22.9</b>
<b>QM QUEENS MIDTOWN TUNNEL</b>							
63 Open Road Tolling Initiative at QMT	SI	0.0	16.5	21.3	0.2	0.0	38.1
<b>Element Total QM</b>		<b>\$0.0</b>	<b>\$16.5</b>	<b>\$21.3</b>	<b>\$0.2</b>	<b>\$0.0</b>	<b>\$38.1</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
63 Open Road Tolling Initiative RFK Bridge	SI	0.0	7.0	71.2	0.5	0.0	78.8
<b>Element Total RK</b>		<b>\$0.0</b>	<b>\$7.0</b>	<b>\$71.2</b>	<b>\$0.5</b>	<b>\$0.0</b>	<b>\$78.8</b>
<b>TN THROGS NECK BRIDGE</b>							
63 Open Road Tolling Initiative at TNB	SI	0.0	2.5	23.2	20.0	8.1	53.7
<b>Element Total TN</b>		<b>\$0.0</b>	<b>\$2.5</b>	<b>\$23.2</b>	<b>\$20.0</b>	<b>\$8.1</b>	<b>\$53.7</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Bridges and Tunnels

# TOLL PLAZAS & ATMS

## D - 703

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>VN VERRAZANO-NARROWS BRIDGE</b>							
63 Open Road Tolling Initiative at VNB	SI	0.0	1.7	55.6	0.8	12.2	70.2
<b>Element Total VN</b>		<b>\$0.0</b>	<b>\$1.7</b>	<b>\$55.6</b>	<b>\$0.8</b>	<b>\$12.2</b>	<b>\$70.2</b>
<b>Category Total 703</b>		<b>\$1.7</b>	<b>\$146.1</b>	<b>\$375.4</b>	<b>\$40.8</b>	<b>\$57.8</b>	<b>\$621.8</b>

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# Bridges and Tunnels

# UTILITIES

## D - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
67 Overheight Vehicle Detection Systems	NR	0.0	0.0	0.0	12.1	0.0	12.1
80 Advanced Traveler Information Systems (ATIS)	SI	0.0	0.0	0.0	1.2	0.0	1.2
81 LED Roadway Display Signs	SI	0.0	0.0	10.0	0.0	0.0	10.0
X3 Bridge Structural Health Monitoring Initiatives	NR	0.0	0.0	1.5	0.6	7.1	9.1
<b>Element Total AW</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$11.5</b>	<b>\$14.0</b>	<b>\$7.1</b>	<b>\$32.5</b>
<b>BW BRONX-WHITESTONE BRIDGE</b>							
32 Installation of Fire Standpipe Connections	NR	0.0	0.1	0.2	0.0	6.3	6.6
39 Install Electronic Monitoring & Detection Systems	SI	0.1	0.0	36.2	0.0	0.0	36.2
<b>Element Total BW</b>		<b>\$0.1</b>	<b>\$0.1</b>	<b>\$36.4</b>	<b>\$0.0</b>	<b>\$6.3</b>	<b>\$42.8</b>
<b>HC HUGH L. CAREY TUNNEL</b>							
07 Rehabilitation of HCT Ventilation Systems	NR	0.0	0.0	0.7	84.8	0.0	85.5
30 Installation of Smoke Detection/Alarm Systems	NR	0.0	0.0	0.2	10.1	0.0	10.3
64 Brooklyn Service Building Electrical Rehab.	NR	0.0	0.0	0.2	9.6	0.0	9.9
<b>Element Total HC</b>		<b>\$0.0</b>	<b>\$0.1</b>	<b>\$1.1</b>	<b>\$104.5</b>	<b>\$0.0</b>	<b>\$105.7</b>
<b>HH HENRY HUDSON BRIDGE</b>							
13 Replacement of Facility Lighting System	NR	1.2	0.3	12.7	0.0	0.0	14.1
19 Replacement and Upgrade of Substations	NR	0.0	0.0	0.0	0.0	2.1	2.1
<b>Element Total HH</b>		<b>\$1.2</b>	<b>\$0.3</b>	<b>\$12.7</b>	<b>\$0.0</b>	<b>\$2.1</b>	<b>\$16.2</b>
<b>QM QUEENS MIDTOWN TUNNEL</b>							
81 Rehab of Tunnel Controls & Communication Systems	NR	0.0	0.0	0.0	42.2	0.0	42.2
91 Installation of Smoke Detection/Alarm Systems	NR	0.0	0.1	0.3	8.1	0.0	8.4
<b>Element Total QM</b>		<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.3</b>	<b>\$50.3</b>	<b>\$0.0</b>	<b>\$50.6</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
07 Electrical/Mechanical Rehab of HR Lift Span	NR	0.0	0.5	0.0	30.5	0.0	31.0
21 Install Fire Standpipe/Upgrade Protection System	SI	0.2	2.6	19.8	0.0	0.0	22.6
60 Install Electronic Monitoring & Detection Systems	SI	0.0	0.0	52.1	0.0	0.0	52.1
66 Relocation of 13KV Substation	NR	0.0	0.0	0.1	0.0	23.7	23.7
<b>Element Total RK</b>		<b>\$0.2</b>	<b>\$3.1</b>	<b>\$71.9</b>	<b>\$30.5</b>	<b>\$23.7</b>	<b>\$129.4</b>
<b>TN THROGS NECK BRIDGE</b>							
27 Service Building Alarm Systems & Upgrades [SBDP]	NR	0.0	0.0	0.1	1.2	0.0	1.3
58 Replace Electrical Equipment & Rehab Tower Elevator	NR	0.0	0.0	0.6	0.0	2.2	2.8
60 Anchorage Dehumidification	NR	43.5	0.0	0.0	0.0	0.0	43.5
<b>Element Total TN</b>		<b>\$43.5</b>	<b>\$0.0</b>	<b>\$0.7</b>	<b>\$1.2</b>	<b>\$2.2</b>	<b>\$47.6</b>

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# Bridges and Tunnels

# UTILITIES

## D - 704

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>VN VERRAZANO-NARROWS BRIDGE</b>							
30 Elevator Rehabilitation	NR	0.0	0.0	0.0	11.5	0.0	11.5
<b>Element Total VN</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$11.5</b>	<b>\$0.0</b>	<b>\$11.5</b>
<b>Category Total 704</b>		<b>\$45.0</b>	<b>\$3.6</b>	<b>\$134.4</b>	<b>\$212.0</b>	<b>\$41.3</b>	<b>\$436.4</b>

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# Bridges and Tunnels

# BUILDINGS & SITES

## D - 705

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
12 Hazardous Material Abatement	NR	0.0	1.9	0.0	4.8	4.0	10.7
66 Operations Command Center Rehab/Replacement	NR	0.0	2.6	13.8	0.3	0.0	16.7
<b>Element Total AW</b>		<b>\$0.0</b>	<b>\$4.5</b>	<b>\$13.8</b>	<b>\$5.0</b>	<b>\$4.0</b>	<b>\$27.4</b>
<b>HC HUGH L. CAREY TUNNEL</b>							
80 Rehabilitation of Ventilation Buildings	NR	0.0	0.1	0.0	0.0	4.7	4.7
<b>Element Total HC</b>		<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$4.7</b>	<b>\$4.7</b>
<b>QM QUEENS MIDTOWN TUNNEL</b>							
36 Rehabilitation of Ventilation Building	NR	0.0	0.1	0.0	0.0	3.1	3.2
<b>Element Total QM</b>		<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$3.1</b>	<b>\$3.2</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
58 Rehab Robert Moses Building & Ancillary Facilities	NR	0.0	0.0	0.0	0.0	5.5	5.5
<b>Element Total RK</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$5.5</b>	<b>\$5.5</b>
<b>Category Total 705</b>		<b>\$0.0</b>	<b>\$4.6</b>	<b>\$13.8</b>	<b>\$5.0</b>	<b>\$17.3</b>	<b>\$40.8</b>

\* Represents values less than \$50,000

Numbers may not add due to rounding

# Bridges and Tunnels

## MISCELLANEOUS

### D - 706

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
10	Enterprise Asset Management	0.0	3.5	0.5	0.0	0.0	4.0
15	MTA Independent Engineer	0.0	2.3	0.0	0.0	0.2	2.5
18	Protective Liability Insurance	0.0	1.4	1.5	2.5	7.7	13.1
21	Program Administration	2.2	2.2	3.1	6.5	3.6	17.6
22	Miscellaneous	0.0	0.1	0.8	3.9	0.0	4.8
28	Scope Development	2.9	0.2	2.2	4.9	1.6	11.8
85	Traffic Enforcement Support	0.0	7.8	0.0	0.0	0.0	7.8
94	Small Business Mentoring Program	0.0	0.0	0.0	3.7	0.0	3.7
<b>Element Total AW</b>		<b>\$5.1</b>	<b>\$17.5</b>	<b>\$8.0</b>	<b>\$21.4</b>	<b>\$13.1</b>	<b>\$65.2</b>
<b>Category Total 706</b>		<b>\$5.1</b>	<b>\$17.5</b>	<b>\$8.0</b>	<b>\$21.4</b>	<b>\$13.1</b>	<b>\$65.2</b>

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# Bridges and Tunnels

## STRUCTURAL PAINTING

### D - 707

Commitments  
(\$ in millions)

ELEMENT DESCRIPTION/PROJECT	NEEDS CODE	2015	2016	2017	2018	2019	Total All Years
<b>AW AGENCY-WIDE</b>							
95 Miscellaneous Agency Wide Painting	NR	0.0	0.0	0.0	4.0	0.0	4.0
<b>Element Total AW</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$4.0</b>	<b>\$0.0</b>	<b>\$4.0</b>
<b>BW BRONX-WHITESTONE BRIDGE</b>							
84 Paint Tower Interior Base Cells and Struts	NR	30.6	0.0	0.0	0.0	0.0	30.6
<b>Element Total BW</b>		<b>\$30.6</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$30.6</b>
<b>HH HENRY HUDSON BRIDGE</b>							
30 Replacement of HHB Overcoat System	NR	0.0	0.3	0.0	0.0	20.3	20.6
<b>Element Total HH</b>		<b>\$0.0</b>	<b>\$0.3</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$20.3</b>	<b>\$20.6</b>
<b>RK ROBERT F. KENNEDY BRIDGE</b>							
70 Paint Suspended Span/Bronx Truss Steel	NR	0.0	0.1	0.0	0.0	32.0	32.1
<b>Element Total RK</b>		<b>\$0.0</b>	<b>\$0.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$32.0</b>	<b>\$32.1</b>
<b>TN THROGS NECK BRIDGE</b>							
49 Painting of Suspended Span	NR	0.0	0.0	0.0	23.5	0.0	23.5
60 Anchorage Dehumidification - Painting	NR	8.2	0.0	0.0	0.0	0.0	8.2
<b>Element Total TN</b>		<b>\$8.2</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$23.5</b>	<b>\$0.0</b>	<b>\$31.7</b>
<b>VN VERRAZANO-NARROWS BRIDGE</b>							
49 Paint Suspended Span Upper & Lower Level Steel	NR	0.0	0.0	0.2	40.7	0.0	40.9
<b>Element Total VN</b>		<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.2</b>	<b>\$40.7</b>	<b>\$0.0</b>	<b>\$40.9</b>
<b>Category Total 707</b>		<b>\$38.8</b>	<b>\$0.4</b>	<b>\$0.2</b>	<b>\$68.2</b>	<b>\$52.3</b>	<b>\$160.0</b>
<b>TOTAL PROGRAM</b>		<b>\$123.7</b>	<b>\$228.6</b>	<b>\$730.2</b>	<b>\$923.9</b>	<b>\$929.9</b>	<b>\$2,936.3</b>

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# All Agency Summary

Commitments  
(\$ in millions)

AGENCY	2015	2016	2017	2018	2019	Total All Years
TOTAL New York City Transit	\$363.6	\$1,963.3	\$3,406.8	\$6,815.5	\$4,192.8	\$16,742.0
TOTAL Long Island Rail Road	\$150.3	\$399.4	\$976.2	\$1,020.5	\$312.5	\$2,859.0
TOTAL Metro-North Railroad	\$41.7	\$123.7	\$639.6	\$818.4	\$838.1	\$2,461.7
TOTAL MTA Bus Company	\$0.0	\$34.5	\$8.9	\$98.4	\$234.1	\$376.0
TOTAL MTA Interagency	\$0.0	\$11.4	\$17.5	\$84.9	\$129.1	\$242.8
<b>Core Subtotal</b>	<b>\$555.7</b>	<b>\$2,532.3</b>	<b>\$5,049.0</b>	<b>\$8,837.7</b>	<b>\$5,706.6</b>	<b>\$22,681.3</b>
TOTAL Capital Construction Company	\$33.4	\$1,597.1	\$2,094.8	\$877.5	\$3,049.5	\$7,652.4
TOTAL 2015-2019 CPRB PROGRAM	\$589.1	\$4,129.4	\$7,143.9	\$9,715.2	\$8,756.1	\$30,333.7
TOTAL Bridges and Tunnels	\$123.7	\$228.6	\$730.2	\$923.9	\$929.9	\$2,936.3
TOTAL 2015-2019 CAPITAL PROGRAM	\$712.7	\$4,358.0	\$7,874.1	\$10,639.1	\$9,686.1	\$33,270.1

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**CAPITAL  
PROGRAM**

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