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10 Years After Superstorm Sandy: Tracking MTA Capital Spending

Highlights

- The MTA has set aside approximately \$7.6 billion for projects related to Superstorm Sandy. More than \$4.6 billion of this amount is for restoration projects, while \$2.9 billion is for resiliency.
- Over three-quarters of spending is for New York City Transit for projects scattered throughout the five boroughs, with substantial portions of work in affected areas, including downtown Manhattan, along the East and Harlem Rivers, and in the Rockaways.
- Nearly \$4 billion, or about 52 percent of project spending is now complete, with another \$2.3 billion, or 30.7 percent covering projects in the construction phase.
- \$1.3 billion in projects are either in the design or planning phases. The majority of this spending is for projects for New York City Transit; however the largest of these projects is for the Long Island Rail Road which are waiting for the completion of the East Side Access project.
- Over 90 percent of projects for Bridges and Tunnels and Metro North Divsions are either complete or in construction.
- The majority of New York City Transit projects in the design or planning phase are located outside of Manhattan, primarily along the south shore of Brooklyn and Queens.
- Major projects at or near completion include the 207th Yard and South Ferry Station repairs.
- Currently, the MTA anticipates all Sandy-related projects will be completed by 2028.

October 29, 2022 marks the 10-year anniversary of Superstorm Sandy making landfall in New York. The storm led to the reassessment of a number of approaches to development, adaptation and mitigation of infrastructure in the New York City metropolitan region. One of the key organizations involved in the recovery and the planning of responses to future climate events is the Metropolitan Transportation Authority (MTA), whose assets were substantially impacted by the storm.

In order to track the progress of these efforts, the MTA has identified resiliency and restoration projects that were developed in response to Superstorm Sandy in its capital dashboard and accompanying data. The Office of the New York State Comptroller (OSC) has tracked the progress of the Authority on these projects, which have moved forward slowly for a variety of reasons including the pandemic. Given the increased frequency of climate events, the MTA's effectiveness in finalizing restoration projects and completing resiliency projects is extremely important. Because of the need to protect the system over the long term, it is useful to highlight where these projects have been successfully completed and where work remains to be done.

In all, the MTA has set aside approximately \$7.6 billion for projects related to Superstorm Sandy. More than \$4.6 billion of this amount is for restoration projects, while \$2.9 billion is for resiliency. Projects for New York City Transit, the largest division of the Authority, make up 76.5 percent of the total program, while MTA Bridges and Tunnels, the Long Island Rail Road and Metro-North Railroad make up most of the remainder.

Туре	Complete	In Construction	Design	Planning	Grand Total								
Replacement	\$ 7	\$-	\$-	\$3	\$ 10								
Resiliency	1,085	1,167	484	208	2,944								
Restoration	2,864	1,174	600	5	4,643								
Support	16	-	-	17	32								
Grand Total	3,972	2,341	1,084	233	7,629								

FIGURE 1

MTA Superstorm Sandy Program by Project Type as of June 30, 2022 (in millions)

Sources: Metropolitan Transportation Authority; OSC analysis

The data for this project come from the MTA's Capital Program dashboard and specifically the 2010-2014 Capital Plan section. Projects were sorted by those labeled as "Superstorm Sandy" projects and then by agency.

As of the end of the second quarter of 2022, completed projects are the largest portion of the spending, followed by those in construction. The MTA has in the past reported to OSC that some projects remain in the construction phase in its Capital dashboard, but are effectively finished and waiting for project closeout items to be completed.

Major completed projects include component replacement work in the Canarsie line subway tunnel between Brooklyn and Manhattan (\$345 million) and the repair and replacement of components at the South Ferry Terminal (\$348.2 million.) The MTA is also expected to complete mitigation and recovery efforts in Coney Island by March 2023, including perimeter protection of, and replacement of power cables and switches at the Coney Island Yard (\$526.3 million). Perimeter protection and signal system replacement efforts at the 207th Yard in Manhattan (\$950.7 million) are expected to conclude in early 2024. Major projects outside of New York City Transit expected to conclude this year includes power infrastructure replacement on the Hudson Line of Metro-North Railroad (\$176.7 million). Given the potential lags in reporting completed projects, which OSC has recommended be remedied by identifying beneficial use, looking at the share of project spending in the design or planning phases may provide a better sense of where work remains. Such spending accounts for 17 percent of the total Sandy budget. Based on this approach, of the divisions analyzed, MTA Bridges and Tunnels was furthest along, with only 2 percent of its spending left in the planning phase. In contrast, the Long Island Rail Road had the largest share of spending, 49 percent, that has not made it out of the design phase.

FIGURE 2

MTA Superstorm Sandy Program by Division as of June 30, 2022 (in millions)

Division	Complete		In Construction		Design		Planning		Total	
New York City Transit	\$	2,973	\$	1,888	\$	803	\$	176	\$	5,840
Bridges & Tunnels		720		6		-		13		738
Long Island Rail Road		195		103		281		-		578
Metro-North Railroad		75		345		-		44		463
MTA Bus and Miscellaneous		10		-		-		-		10
Total		3,972		2,341		1,084		233		7,629

Sources: Metropolitan Transportation Authority; OSC analysis

Figure 3

MTA Superstorm Sandy Projects by Phase as of June 30, 2022



Sources: Metropolitan Transportation Authority Capital Program Management; OSC analysis

Looking on a project basis, New York City Transit has 18 projects in the design phase and six projects in the planning phase, totaling \$929 million. The projects in the design phase exceed \$800 million, with recovery projects expected to make up about \$420 million of that total. Recovery projects remaining are all located outside of Manhattan, including \$278 million for a restoration project at the Culver Yard in Coney Island and over \$140 million to repair circuit breaker houses. These projects are expected to start construction in late 2022 and 2023. The MTA reports the Culver Yard project was added in an amendment to the 2010-2014 Capital Plan more recently, in 2019.

The remaining six projects, all for resiliency, totaling \$176 million are in the planning phase, however this includes nearly \$100 million in reserves for line reconstruction projects in the Rockaways. The MTA is currently planning to use the 105th and Beach Street station to be the terminal station in the case of a severe storm.

MTA Bridges and Tunnels has three projects in the planning phase totaling \$13 million. Two of these are for structure work on the Bronx-Whitestone Bridge and the RFK Bridge and one is for utility work on the Throgs Neck Bridge.



The Long Island Rail Road has two projects in the design phase totaling \$281 million. Both involve the East River tunnels, where work has been delayed until the completion of the East Side Access project. These projects are more comprehensive in nature, affecting resiliency of line structures, signals and power substations.

Metro-North Railroad has four projects in the planning phase totaling \$44 million. Three of the projects are for signals and communications and one is for power.

In some cases, the completion of projects could be affected by other priorities that may lead to changes in sequencing which impact their completion. As noted above, the Long Island Rail Road put off restoration work in the East River Tunnels until after the completion of the East Side Access project so service would not be as impacted if the tunnels were closed for construction. The East Side Access project has consistently faced complications that have increased the time for completion and led to cost overruns but is supposed to be completed and operational by the end of 2022.

Figure 3 color codes projects in each of the four stages of completion: red for planning, yellow for design, green for construction and blue for

complete. Overall, New York City Transit projects outside Manhattan or associated with tunneling were most likely to be delayed. OSC also has noted that a number of systemwide projects with little visibility, such as power stations, have taken longer to start.

Ten years after the devastation wrought by Sandy, it is imperative that the MTA complete recovery projects and continue to advance mitigation work to harden its infrastructure and protect the system from new disasters. In recent years, OSC has highlighted how the MTA can use operational indicators to inform its capital planning process and that it must incorporate the impact of climate change into its next needs assessment. The needs assessment should be released as soon as possible before the October 2023 deadline to inform public debate and ensure targeted investments. The Authority should also make an effort to provide greater detail on the selection of projects, their progress toward improving performance and resilience of the system and their impact on riders and toll payers.

Prepared by the Office of the State Deputy Comptroller for the City of New York

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