

Northeast Corridor Capital Investment Plan

Fiscal Years 2021-2025

October 2020





Congress established the Northeast Corridor Commission to develop coordinated strategies for improving the Northeast's core rail network in recognition of the inherent challenges of planning, financing, and implementing major infrastructure improvements that cross multiple jurisdictions. The expectation is that by coming together to take collective responsibility for the NEC, these disparate stakeholders will achieve a level of success that far exceeds the potential reach of any individual organization.

The Commission is governed by a board comprised of one member from each of the NEC states (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland) and the District of Columbia; four members from Amtrak; and five members from the U.S. Department of Transportation. The Commission also includes non-voting representatives from four freight railroads, states with connecting corridors, and several commuter operators in the region.



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Newark Penn Station

Letter from the Co-Chairs

We are enduring the most difficult times any of our agencies have experienced. The COVID-19 pandemic has cost so much for Northeast Corridor stakeholders: fewer customers, lost revenue, and less certainty for our futures. Most grievously, we have lost staff members to the virus. Despite these hardships, our agencies and their employees have carried on, keeping systems running as safely as possible, in particular to support the movement of the essential workers who have kept our healthcare system and our economy as functional as possible.

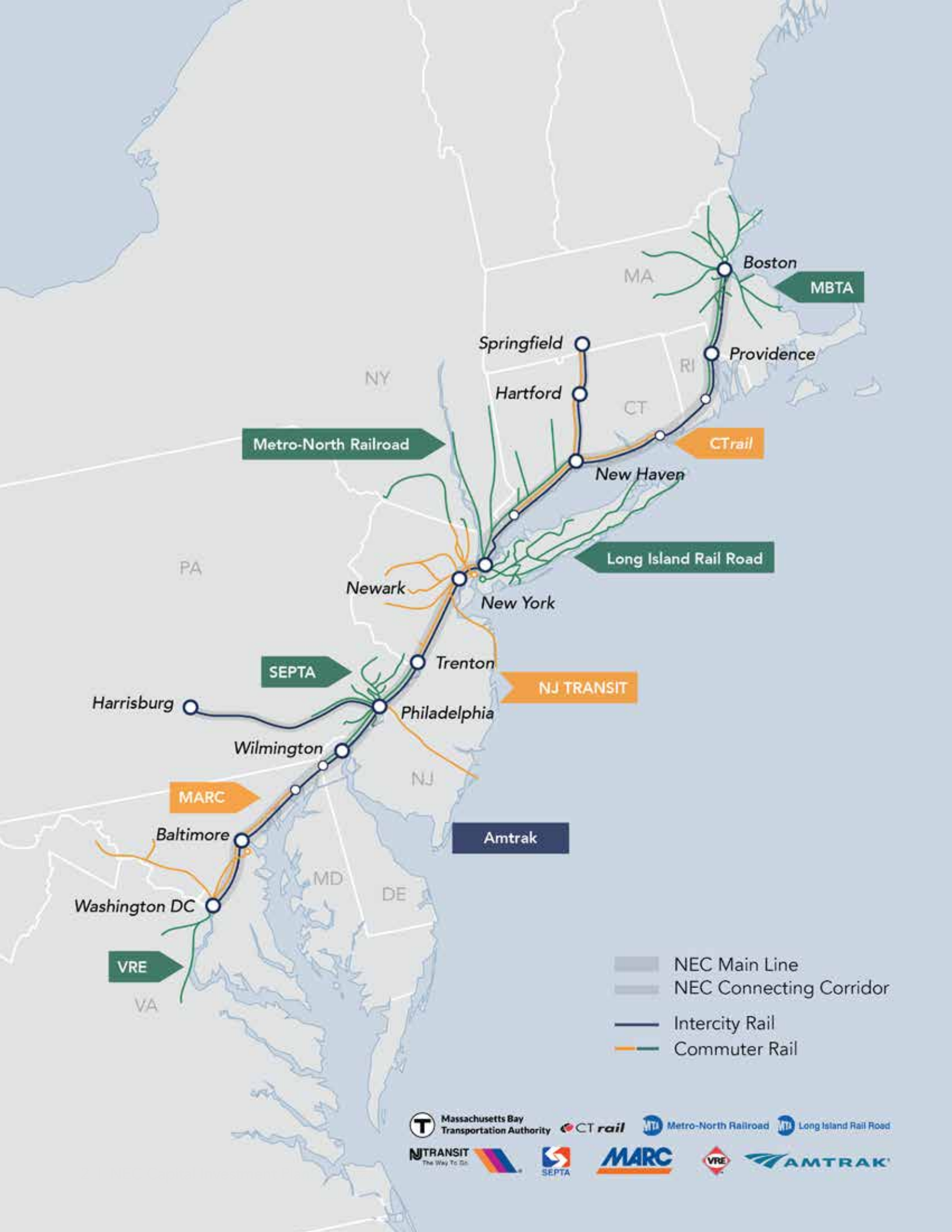
Although the pandemic has created tremendous uncertainty for our industry, it has not changed the imperative to bring the Northeast Corridor to a state of good repair and lay a foundation for growth once the current crisis eases and life returns to normal. Capital plans have always played—and will continue to play—a key role in advancing these goals, yet they also represent a snapshot in time and can be challenging to prepare under normal circumstances. This document, the FY21-25 NEC Capital Investment Plan, was developed during the first six months of the pandemic; as such, it reflects the Commission’s best available information during an extremely volatile and dynamic period where stakeholders have even less clarity than usual on what funding might be available to support our operations and capital programs. The Commission approved the Capital Investment Plan mindful of these uncertainties and will report adjustments to plan through its quarterly reporting process. It is our hope and expectation that the advancement of NEC capital investments will play an important role in supporting the industry’s recovery and energizing the regional economy.

Looking beyond the five-year time frame, the Commission has been hard at work on CONNECT NEC 2035, a planning process that will provide a roadmap for implementing phase one (i.e., the first 15 years) of the Federal Railroad Administration’s long-term vision for the corridor established in the 2017 NEC FUTURE Record of Decision. Key to this planning process will be an unprecedented project delivery analysis—an assessment of the track outage and workforce requirements to build all identified infrastructure projects by 2035 while maintaining, at minimum, pre-COVID-19 service levels. When CONNECT NEC 2035 is completed by the fall of 2021, the Commission will begin using it as a roadmap for the annual NEC Capital Investment Plan.

As these planning efforts progress and mature, much work remains to improve capital planning, reporting, and plan adherence at NEC stakeholder agencies, but the commitment to make those improvements remains strong. During these difficult times, Commission members are committed to working together and with Congress to maintain essential operations, spend capital dollars as efficiently as possible, and plan for our future. We look forward to continued partnership and brighter days to come.

Ronald Batory
Administrator, Federal Railroad Administration
Co-Chair, Northeast Corridor Commission

Kevin S. Corbett
Executive Director, NJ TRANSIT
Co-Chair, Northeast Corridor Commission



Metro-North Railroad

MBTA

CT rail

Long Island Rail Road

SEPTA

NJ TRANSIT

MARC

Amtrak

VRE

- NEC Main Line
- NEC Connecting Corridor
- Intercity Rail
- Commuter Rail

Introduction

The Northeast Corridor

Each day, the Northeast Corridor—both the NEC main line and connecting corridors to Harrisburg, PA; Spuyten Duyvil, NY; and Springfield, MA—hosts the passenger rail operations of eight commuter railroads and Amtrak’s intercity services. The 457-mile main line railroad still includes many bridges and tunnels that date back to the period between the Civil War and the New Deal. Located in the most densely populated region of the United States, the NEC is a vital transportation asset.

Between fiscal years 2016 and 2019, the NEC hosted over 800,000 average daily trips. However, fiscal year 2020 presented significant challenges to its riders and operating agencies due to the impacts of the COVID-19 pandemic. Since March 2020, NEC commuter and intercity passenger rail, like other transportation modes across the United States, has experienced steep ridership declines as the nation used social-distancing, telework, and travel advisories to slow the spread of the disease.

As a result of these measures, a global recession is on-going without a clear end in sight. Unemployment in the metro areas along the Northeast Corridor alone rose by 10 percentage points during the third quarter of federal fiscal year 2020 compared to the same period last year.¹ When the economy returns to full strength in the coming years, the NEC rail system will continue to serve as a vital transportation asset and driver of economic growth. Capital investment in the NEC will ensure a well-functioning railroad to enable workers to commute to jobs, people to connect with family and friends, and the region to attract businesses in a globally competitive economy.

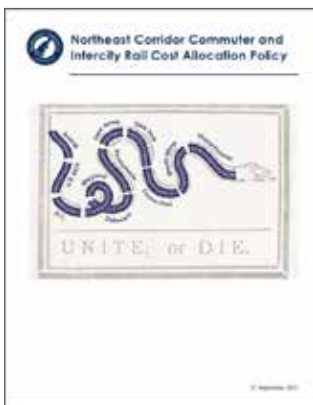
¹ Local Area Unemployment Statistics, U.S. Bureau of Labor Statistics, 2020

The Northeast Corridor Commission

Congress established the Northeast Corridor Commission to develop coordinated strategies for improving the Northeast’s core rail network in recognition of the inherent challenges of planning, financing, and implementing major infrastructure improvements that cross multiple jurisdictions. The expectation is that by coming together to take collective responsibility for the NEC, these disparate stakeholders will achieve a level of success that far exceeds the potential reach of any individual organization.

The Commission is governed by a board comprised of one member from each of the NEC states (Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, and Maryland) and the District of Columbia; four members from Amtrak; and five members from the U.S. Department of Transportation. The Commission also includes non-voting representatives from freight railroads, states with connecting corridors, and several commuter operators in the region.

The NEC Commuter and Intercity Rail Cost Allocation Policy



In September 2015, the Commission adopted the NEC Commuter and Intercity Rail Cost Allocation Policy. The Policy outlines a partnership built on three pillars.

First, it established a framework for allocating approximately \$1.3 billion annually in shared operating costs and capital normalized replacement values among the NEC’s four right-of-way owners and nine passenger rail operators. The agencies’ financial obligations are calculated annually through the NEC Commission’s Cost Allocation Model and are based on agencies’ relative use of NEC infrastructure. Right-of-way owners use agencies’ capital obligations, referred to as Baseline Capital Charges, to fund capital renewal investments associated with right-of-way basic infrastructure assets, such as track, structures, electric traction systems, and communication and signal systems.

Second, the Policy established a framework for transparency, collaboration, and accountability, including a first-ever corridor-wide capital planning and reporting process. The NEC Capital Investment Plan is a key component of that NEC-wide process and is required by the most recent federal transportation law, Fixing America’s Surface Transportation (FAST) Act (49 U.S.C. §24904(a)(1)). The final pillar of the Policy outlines a stable federal partnership framework from the perspective of Amtrak, NEC states, and Commuter Authorities, which, if implemented, should provide dependable and adequate funding to help restore the NEC to a state-of-good-repair, beyond the vital funds appropriated by Congress annually.

The NEC Capital Investment Plan

The NEC Capital Investment Plan (CIP) integrates NEC infrastructure investments planned by each NEC owner and operator over a five-year period into a single planning document to develop a complete picture of corridor activities. The plan combines anticipated investments based on available funding with capital investments that could occur with additional funding given available resources. Year One of the CIP serves as an implementation plan and as the baseline to measure capital investment progress through quarterly Capital Program Delivery Reports and the NEC Annual Report.

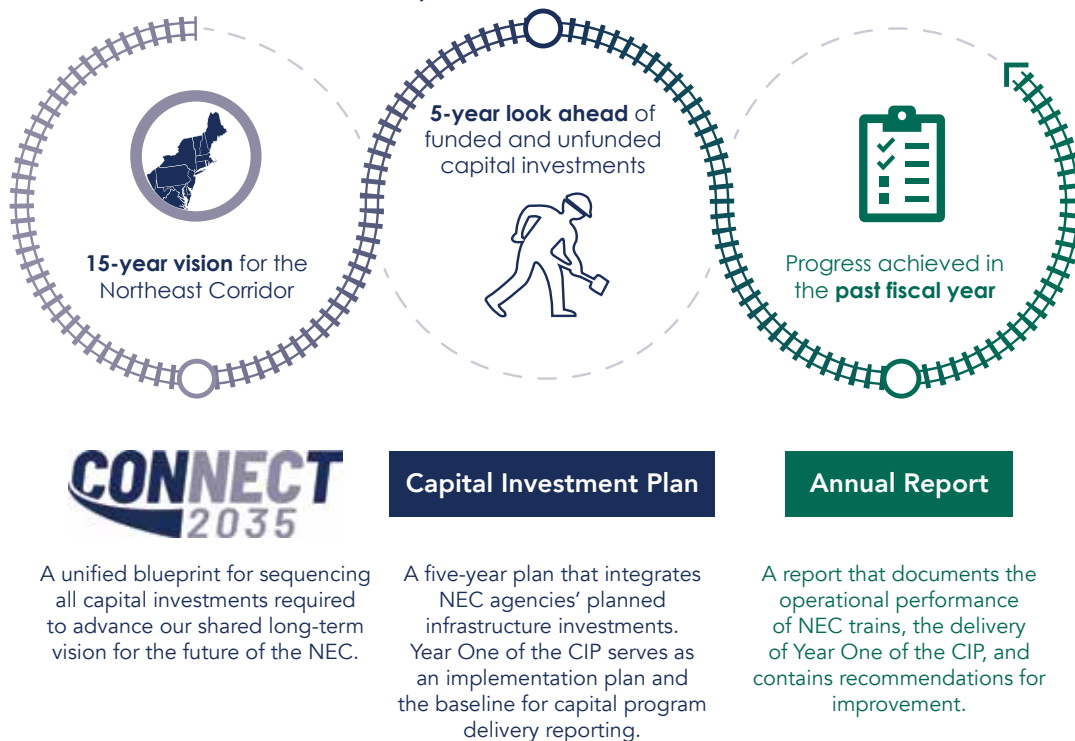
Stakeholders developed this plan by participating in an iterative and collaborative data gathering and review process. As a result of this collaboration, the plan transparently documents investments planned or required over the next five federal fiscal years to reverse decades of deterioration and begin to modernize the NEC for future economic growth.

Other NEC Plans and Reports

- The NEC Annual Report documents the operational performance of NEC trains, the delivery of Year One of the NEC Capital Investment Plan and makes recommendations for improvement.
- CONNECT NEC 2035 will present the business case for sustained investment in the NEC by identifying long-term service objectives and the capital investments required to achieve those objectives over a 15-year period. CONNECT NEC 2035 will be published by fall 2021.

Download a copy of the Policy and all NEC plans and reports at nec-commission.com

Figure 1. NEC Commission Plans and Reports



FY21-25 Capital Investment Plan

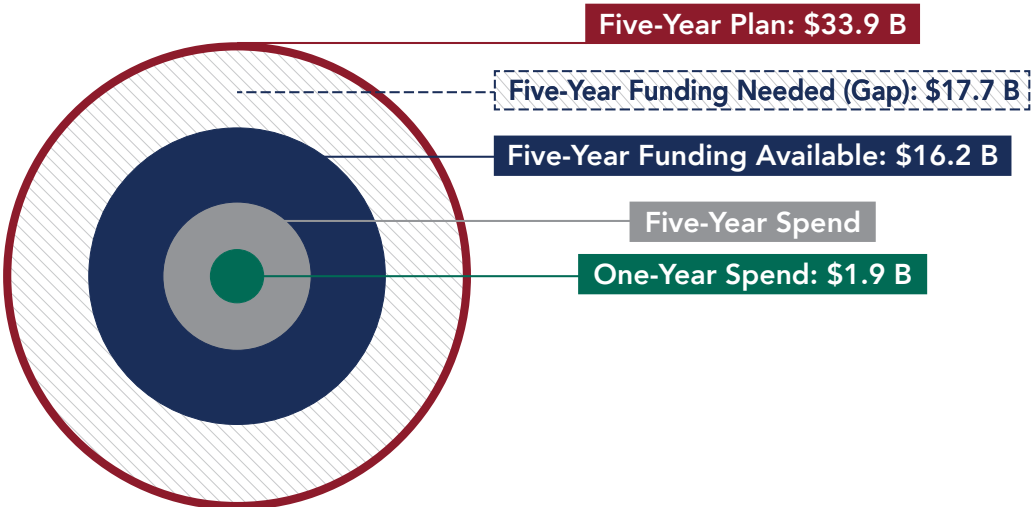
The NEC Capital Investment Plan for federal fiscal years 2021-2025 documents the infrastructure investments expected to be undertaken with available funding and the scope of work which could be undertaken during the five-year time frame if additional funding was made available. Per the NEC Cost Allocation Policy, all investments in this plan should reflect resource constraints, such as workforce and track time availability and project readiness; the first year (or “Year One”) is also fiscally constrained and serves as the baseline for Commission reporting on plan implementation.

NEC Investment Summary

Despite unprecedented funding uncertainties, NEC stakeholders are planning ambitious capital investment during FY21-25 to advance critical projects essential to the corridor’s future and begin to reduce the SOGR backlog.

NEC stakeholders have prepared a five-year capital investment plan for FY21-25 that amounts to \$33.9 billion. This figure reflects total funding that must be secured, obligated, and/or programmed during the five-year time frame to advance projects on schedule and maintain a reliable railroad; it does not represent the total amount of funding to be expended by NEC stakeholders during the five-year time frame. Figure 2 (**Five-Year Capital Investment Plan**) below shows the key components of this \$33.9 billion amount. These components are further explained in Figure 9 on page 16.

Figure 2. Five-Year Capital Investment Plan



Impact of COVID-19 on the FY21-25 Capital Investment Plan

As described in the introduction, the COVID-19 pandemic has had a devastating impact on NEC intercity and commuter rail systems. Declining ridership and revenues have created tremendous uncertainty regarding agencies' capital budgets and programming activities, which are often stretched thin under normal circumstances.

Throughout the assembly of this plan, agencies expressed concern about shifting budgets and acknowledged that many project scopes assume a healthy and productive workforce despite the threat of the pandemic and potential furloughs and layoffs. Agencies expect that budget and workforce uncertainties will result in deferred or canceled capital projects, at least in FY21, as agencies must adapt their plans to the unfolding impacts of the pandemic.

Furthermore, funding assumed to be available over the next five years and the associated planned investments are at risk depending on future federal support and how long operators experience decreased farebox or other revenue due to the pandemic.

In March, Amtrak and commuter agencies received emergency federal support through the Coronavirus Aid, Relief, and Economic Security (CARES) Act to offset lost revenue and pandemic-related costs. The over \$8.3 billion to NEC operators helped stabilize the industry in the near-term as it faced declining revenues and unprecedented budget gaps. As it became clear that COVID-19 revenue impacts were going to be far more severe and longer-lasting than initially expected, Amtrak and transit agencies requested a significant new infusion of federal funds to help them survive a challenging FY21.



Washington Union Station

Of the **Five-Year Plan** amount, approximately \$16.2 billion is currently available or expected to be secured during FY21-25. Some portion of that the **Five-Year Funding Available** will be spent directly on infrastructure investments such as planning, design, or construction during this time frame (**Five-Year Spend**), including \$1.9 billion in planned expenditures during FY21 (**One-Year Spend**). The remainder of the **Five-Year Funding Available** amount will allow key activities to progress—such as entering into design/build contracts and preparing for property acquisition—but may not result in direct expenditures on infrastructure investments before FY25.

Although stakeholders are planning an ambitious amount of capital investment in the corridor over the next five years, current funding available is insufficient. NEC stakeholders need approximately \$17.7 billion in additional funding to complete all planned work over the next five years (see **Five-Year Funding Needed (Gap)** in Figure 2); however, this figure may increase if currently anticipated funding is not realized. While investment in the corridor has increased in recent years with support from all partners, the COVID-19 pandemic has significantly worsened the prospects of that trend continuing without significant additional support from the federal government (see "Impact of COVID-19 on the FY21-25 Capital Investment Plan").

In looking beyond FY25, NEC funding needs are significant and growing. Through the CONNECT NEC 2035 program, stakeholders are developing a roadmap for eliminating the SOGR backlog and completing critical, capacity enhancing projects by 2035.

NEC Infrastructure Investments with Funding Available in FY21-25

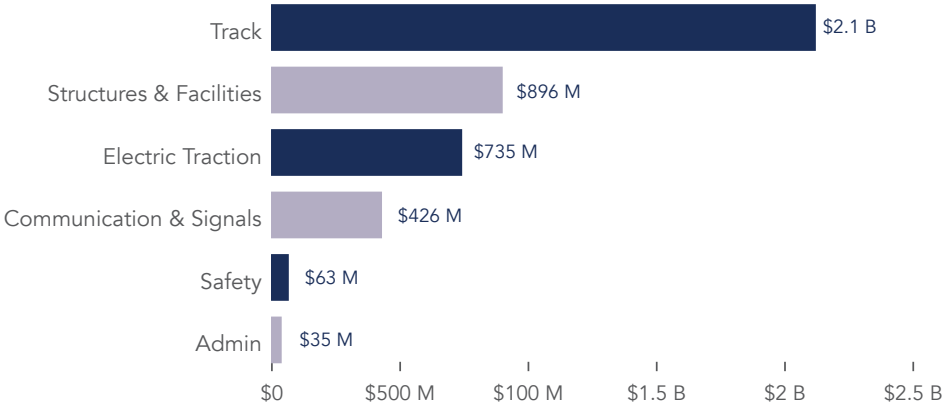
NEC stakeholders plan to use available funding to help eliminate the state-of-good-repair backlog, strengthen partnerships, and set the stage for future transformative projects.

This section summarizes infrastructure investments—including sole-benefit, common-benefit, and third-party projects—to be undertaken with the \$16.2 billion in available funding by each agency over the next five years. Investment details, including funding, scope, and schedule information were provided by project coordinating agencies and right-of-way owners and are published in the Project Information Appendix starting on page 22.

Capital Renewal

Approximately \$4.3 billion is available in FY21-25 for **capital renewal investments**, or the routine repair or replacement of basic infrastructure assets (see Figure 4). As seen in Figure 3, NEC stakeholders plan to make almost \$3 billion available for track and structures investments, and another \$1.1 billion for electric traction and communications and signals.

Figure 3. FY21-25 Capital renewal funding available by discipline



"Amtrak is planning to significantly ramp up its capital renewal investments over the next five years due to the completion of equipment purchases, including a new track laying system, two undercutters, five high-speed tampers, and one crane, during FY21 and FY22. The new equipment will allow Amtrak to complete more work in a more productive manner—resulting in greater efficiencies than we've been able to accomplish in the past.

Amtrak will focus on ramping up track investments, such as undercutting and surfacing, as well as renewing the corridor's electric traction system. These investments will result in an improved railroad for our passengers and commuter rail partners as we collectively recover from the devastating impacts of the COVID-19 pandemic."

- Gerhard Williams, Chief Engineer, Amtrak

Figure 4. Basic infrastructure assets

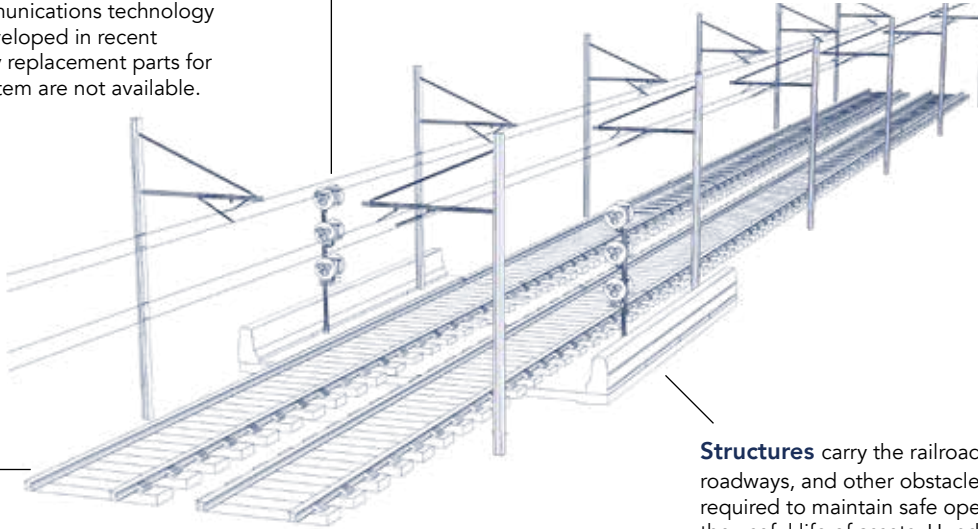
Basic infrastructure refers to infrastructure components that require annual renewal to keep the NEC's structures and systems functioning properly and in a state of good repair for safe train operations. On the right-of-way, this includes rails, ties, ballast, communication systems, electric traction power systems, undergrade bridges and other similar items.

Communications and Signals

control the movement of trains along tracks and between tracks at interlockings. The signal network on the NEC is among the most outdated of all assets as communications technology has rapidly developed in recent decades. Many replacement parts for the current system are not available.

Electric Traction

systems draw power from the regional electric grid and distribute it to trains through a complex system of frequency converters, substation facilities, and overhead catenary lines. Many such assets that date back to the 1930s limit train speeds and are a frequent source of infrastructure failures and service disruptions.



Structures carry the railroad over rivers, streams, roadways, and other obstacles. Regular maintenance is required to maintain safe operating conditions and extend the useful life of assets. Hundreds of such assets are now over a century old and require complete replacement.

Track physically supports the movement of trains, including rail, concrete or wooden ties, a trackbed of crushed stone, and sub-layers designed to ensure proper drainage and prevent shifting of the railroad. Regular maintenance of such infrastructure is required to maintain safe operating conditions, prevent damage to train equipment, and promote comfortable ride quality.

In FY21-25, NEC partners plan to contribute approximately \$3.4 billion over the next five years toward capital renewal investments through Baseline Capital Charge obligations, as seen in Figure 5 below. An additional \$888 million in funding will be provided through right-of-way owners' capital programs, project-based cost allocation (see "Capital Cost Sharing on the NEC: Baseline Capital Charges and Project-based Cost Allocation" on page 11), or other sources, noted in Figure 5 as "Other capital funds".

Figure 5. FY21-25 Planned Capital Renewal Investment by Funding Source (\$M)

	FY21	FY22	FY23	FY24	FY25
Planned Capital Renewal Investment	\$803.6 M	\$763.1 M	\$847.8 M	\$919.3 M	\$938.5 M
Baseline Capital Charges ¹	\$616 M	\$661 M	\$681 M	\$702 M	\$724 M
Other Capital Funds ²	\$188 M	\$102 M	\$167 M	\$217 M	\$214 M

Notes: (1) FY21 BCC reflects FY21 preliminary adopted obligation. FY22-25 BCCs are an estimate based on FY21 obligation (approximately \$640 M at 100% normalized replacement) inflated by compound annual growth rate in NR between FY16 and FY21 as an assumption of year-over-year inflation. (2) Other capital funds generally include right-of-way owners' capital funds or project-based cost allocation.

Special Projects

In FY21-25, approximately \$11.9 billion is available for special projects (see Figure 7) on the NEC with approximately \$5.4 billion available for 13 major backlog projects and \$6.5 billion for 87 improvement projects. For complete five-year funding information for all special projects, see Appendix Figure 7 on page 152.

As seen in Figure 6, relatively few projects account for the bulk of funding that stakeholders identified as “available” for special projects during FY21-25. For instance, 15 out of 87 projects—including Washington Union Station projects, New Haven Line Yard & Facility Program, and NJ TRANSITGRID—account for over three-quarters of funding available (or \$5.1 billion) for improvement projects. Similarly, only three projects—the Hudson Tunnel Project¹, the Walk Bridge Program, and the Portal North Bridge project—make up \$5 billion of \$5.4 billion total funding available for major backlog projects. Notably, the Walk Bridge Program and the Portal North Bridge project do not need additional funding to undertake construction over the next five years.

Figure 6. FY21-25 Special projects funding available by project type

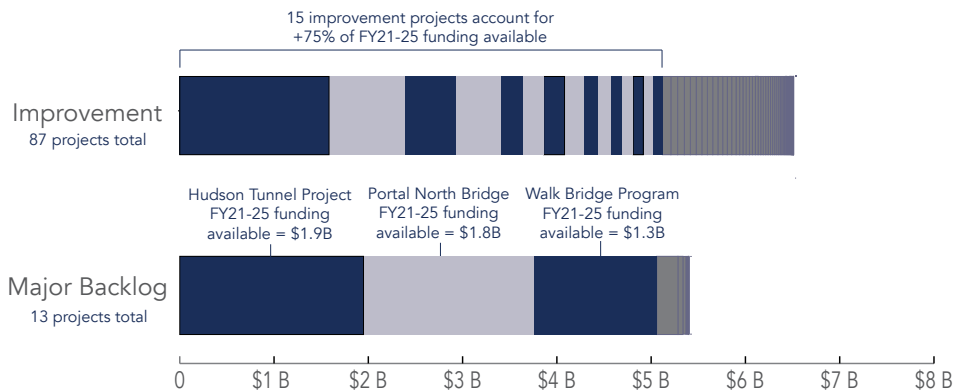


Figure 7. Special projects

Special projects include “major backlog projects” which represent the complete overhaul or replacement of major bridges and tunnels, and “improvement projects” aimed at creating new infrastructure above and beyond existing assets or replacing existing structures with markedly superior ones. However, as special projects can be large and complex, some improvement projects may include state-of-good-repair elements and certain major backlog projects may include improvement components.



Major backlog projects include the overhaul or replacement of major bridges and tunnels



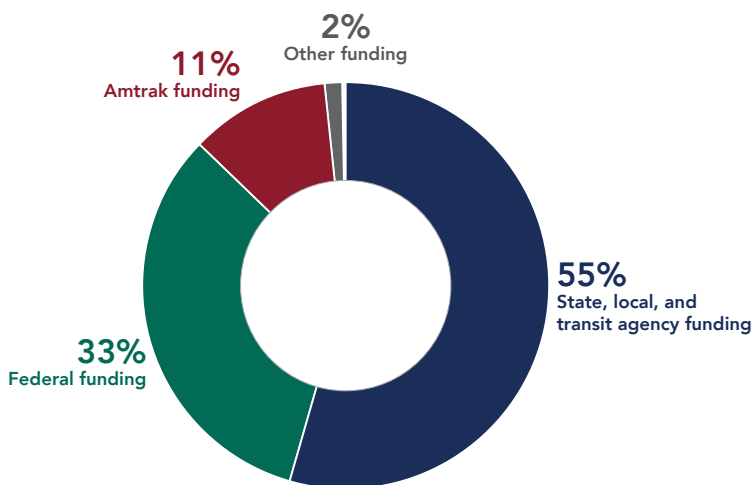
Improvement projects create new infrastructure or replace existing with markedly superior assets

¹ Five year funding information for the Hudson Tunnel Project is per the financial plan for the Hudson Tunnel Project Capital Investment Grant application which has been submitted to FTA. Funding considered available by each modal administration at USDOT is subject to individual administration requirements.

Special projects are funded through a mix of federal, Amtrak, state, local, and commuter agency sources. Figure 8 below represents funding sources for special projects in this plan (as reported by coordinating agencies) and illustrates the relative contribution to special projects by each type of NEC stakeholder. The data includes funding sources for a special project’s entire life cycle and not funding sources only available within the FY21-25 time frame.

For special projects in this plan, state, local, and commuter agency funding makes up over half of all project life cycle funding, while federal sources account for almost 33%. The federal category includes formula funding provided to commuter agencies and federal discretionary grant programs, such as the Capital Investment Grants program and Federal-State Partnership for State-of-Good-Repair Grant program. Examples of state, local, and commuter sources include transit agency fare box revenue and local tax revenue. Amtrak’s funding makes up about 11% of all funding sources.

Figure 8. Special project life cycle funding by source type



Capital Cost Sharing on the NEC: Baseline Capital Charges and Project-based Cost Allocation

Costs for common-benefit capital investments on the NEC are shared in one of two ways:

- Baseline Capital Charges:** Operators pay right-of-way owners Baseline Capital Charges (BCCs) for their relative use of NEC infrastructure. Owners use BCCs to fund the capital renewal of right-of-way basic infrastructure assets. Each agency’s BCC is determined as a percentage of the corridor’s Normalized Replacement Amount and calculated annually through the NEC Cost Allocation Model.
- Project-based cost allocation:** Common-benefit capital investments not funded by BCCs are subject to the Policy’s project-based cost allocation method. The method—and its associated project planning and coordination expectations—establishes a framework for determining agency cost shares for specific capital investments based on relative use principles. For the first time, the status of agencies’ project-based cost allocation agreements was collected for special projects as part of the plan development process and can be found in the Project Information Appendix starting on page 156.

Capital Investments in FY21-25

NEC stakeholders plan to make progress toward shared goals for the corridor over the next five years.

Learn more about these investments and all planned capital investments in the Project Information Appendix starting on page 22. For details on FY21 specific investments, see page 14.

Station improvements to enhance customer experience and accessibility

Pawtucket/Central Falls Station is a new infill commuter rail station along MBTA's Providence Line and is anticipated to open in 2022. This project will provide Rhode Island's densest urban communities between Providence and Attleboro with access to commuter rail.

At **South Attleboro Station** in Massachusetts upgrades will be completed to ensure that the structures are accessible and compliant with modern building codes. Similar upgrades at **Ardmore Station** in Pennsylvania include accessible pathways, high-level platforms, and a new station building which will be complete in 2023.

Both **Claymont and Newark Regional Transportation Centers** in Delaware are expected to be complete by the end of 2022 and include ADA compliant designs to improve passenger safety and state-of-the-art amenities for customers. Additionally the upgrades at Newark Regional Transportation Center will eliminate conflicts with freight operations thereby increasing passenger convenience.



Baltimore Penn Station

Partnerships to help eliminate the state of good repair backlog

The Federal-State Partnership for State of Good Repair grant program created by Congress and administered by the US Department of Transportation provides funding for capital projects to repair, replace, or rehabilitate railroad assets to reduce the state of good repair backlog and improve intercity passenger rail performance.

Construction to address reliability and resiliency issues at **Tower 1 Interlocking** near Boston South Station will be completed in the next five years. Tower 1 Interlocking is the railway "intersection" that provides operational flexibility for trains converging at South Station and distributes them to and from the station's platform tracks.

Final design and construction will be completed at **Providence Station**. An interior rehabilitation of the station will better meet the needs of today's travelers and create new intermodal connections.

210 catenary structures on the Hell Gate Line will be replaced to improve reliability of Amtrak's NEC services and to enable the broader **Penn Station Access** project, which will provide a one-seat ride on Metro-North to Penn Station New York.

Phase 1 work will be complete at **Zoo Interlocking** on the Connecting Corridor to Harrisburg, PA. Improvements at this interlocking will improve operational efficiencies, increase train speed and capacity, and decrease travel time. Phase 2 could be completed by 2024 if additional funding became available.



New Haven Union Station

Track projects to improve operational performance of the railroad

The **Delaware Third Track Program**, which is currently in service but will complete project closeout no later than early 2021, will eliminate a current two-track bottleneck and increase capacity for intercity and commuter service between Wilmington and Newark, DE.

Design activities have begun for the **New Haven Line Track Speed Improvement Program**, which seeks to upgrade 3 miles of track near Bridgeport, CT. This includes the replacement of fixed undergrade bridges to improve track speed from 70mph to 90mph and for continued safe operation. Additional funding is needed for construction to begin within the next five years.

Construction is underway at **Fitter Interlocking**, a new, universal interlocking in Clinton, CT. The project will enable Shore Line East trains to use all platforms and tracks in the area, thereby allowing both Amtrak and Shore Line East to expand service while reducing train conflicts and resulting delays. Additional funding is needed to ensure that construction and final cut over of the interlocking could occur by 2023.





Setting the stage for future transformative projects

Large, transformative capital projects often require smaller, enabling projects to initially take place. The **Subbasement Program at Washington Union Station** is expected to be completed in 2025 and will support both the near- and long-term projects at the station. This state-of-good-repair work includes the reconstruction of Track 22 and will construct a new structural support system for the subbasement to ensure the station continues to meet growing demand for intercity and commuter rail services.

Some enabling components for the **Baltimore & Potomac Tunnel** replacement will be underway. A 2019 Federal-State Partnership for State of Good Repair Program grant will support the replacement of timber ties to concrete ties from Winans to Bridge interlockings. Additionally project partners plan to use available funding to support property acquisitions and to continue advancing design. However, additional funding is needed to complete all of the enabling components and the final design and construction of the tunnel itself.



South Attleboro Station



VRE Train Arriving in Washington

Momentum to address major backlog projects

In the next five years, the majority of the construction for the **Walk Bridge Program** is expected to be complete. The functionally obsolete 120-year-old bridge has experienced increasing deterioration of electrical and mechanical components. Construction requires extended continuous outages of two tracks where normally four are operational. This change in track availability could cause changes in schedule, decreases in reliability, or even reductions in service. Therefore initial capital projects such as the construction of CP243 interlocking and improvements at Dock Yard are underway to ensure that train operations can continue during construction. The construction of the replacement bridge is anticipated to begin in 2021 and completed in 2026.

In addition, construction for the **Portal North Bridge**, the first project within the Gateway Program, will be substantially underway, with expected completion in 2026. The existing Portal Bridge is a major bottleneck and source of train traffic delay due to its limited vertical clearance and openings for maritime traffic along the Hackensack River. According to NEC Commission analysis, routine bridge openings resulted in 1,000 delayed trains and 230 hours of train delay between 2014 and 2018. This project would replace the century-old swing-span bridge with a new two-track, fixed-span bridge, allowing a modest expansion of capacity. Once complete, the new bridge will save upwards of \$1.3 million annually in reduced maintenance and operating costs.



Penn Station New York

Preparing for the next generation of service

In 2021, Amtrak will launch the first of its new Acela trainsets which will allow for modest reductions in travel time with a top speed of 160mph in select locations. In preparation, the **Next Generation High Speed Fleet Infrastructure** set of projects will support service improvements throughout the corridor, in addition to upgrading maintenance facilities with the capability to service these trainsets.

Amtrak's investments in **Ride Quality** and **Safety Mitigation** will have benefits for all service operators on the corridor. A new reference surfacing system will ensure consistent track surface conditions which will improve the efficiency of maintenance processes and improve ride quality. New security fencing and guardrails will enable safer conditions for service operators.

Additional investments to the maintenance facilities at Amtrak's **Ivy City** (DC), **Sunnyside** (NY) and **Southampton St.** (MA) Yards are necessary to support these new trainsets which enable reliable, high-speed inter-city passenger service between Boston and Washington D.C.



New Acela Trainset

FY21 Planned Investments

Year One of the Capital Investment Plan serves as an implementation plan for NEC stakeholders and the baseline for quarterly capital program delivery reporting and the NEC Annual Report. FY21 plan information reflects anticipated capital project activity in the upcoming federal fiscal year based on available capital funding. In FY21, NEC stakeholders plan to spend a total of **\$1.9 billion** on infrastructure investment on the NEC.

See the Project Information Appendix starting on page 22 for FY21 scope, schedule, and budget details for all FY21 capital renewal and special project investments and more details on FY21 BCC spending.

FY21 Capital Renewal Highlights: Regional Overview



Total FY21 Planned Capital Renewal Investment
\$804 M

1 Attleboro Line

MBTA is the right-of-way infrastructure owner for this region, which includes the NEC Main Line in the Commonwealth of Massachusetts.

FY21 Planned Capital Renewal Investment: \$24 M

Planned investment highlights in this region include \$3.2 M in upgrades to the Train Approach Message Sign (TAMS) systems at 5 stations, installing 21,000 feet of power, express and communication cable between Read and Forest interlockings, and advancing the South Station Tie and Rail Replacement Project with upgrades to 1,500' concrete guardrail ties and replacement of ballasts on Tracks 1 and 2 at South Station.

2 New England

Amtrak is the right-of-way infrastructure owner for this region, which includes a portion of the NEC Main Line in Rhode Island and Connecticut; and the Connecting Corridor from New Haven, CT to Springfield, MA.

FY21 Planned Capital Renewal Investment: \$66 M

Major investments in the region include a \$4.8 M project replacing one channel of the Shaws Cove Swing Bridge in FY21 and beginning the second, and investments in turnout renewal, spot surfacing, undercutting, and constant tension catenary hardware renewal.

4 New Jersey - New York

Amtrak is the right-of-way infrastructure owner for this region, which includes a portion of NEC Main Line in New York and New Jersey; and the Connecting Corridor from New York Penn Station to Spuyten Duyvil, NY.

FY21 Planned Capital Renewal Investment: \$169 M

Major investments in this region include a \$29.2 M investment in infrastructure renewal at Penn Station New York including rehabilitation of Tracks 7, 9 and 12 and the replacement of 9 switches; \$7 M in replacement upgrades to Q Interlocking; and a \$21 M investment in constant tension catenary upgrades between Clark and Ham Interlockings.

6 Mid-Atlantic South

Amtrak is the right-of-way infrastructure owner for this region, which includes the NEC Main Line in Maryland and the District of Columbia.

FY21 Planned Capital Renewal Investment: \$86 M

Major investments in this region include \$16 M towards replacement of over 1,000' of slab track, block ties, and rail on Tracks 2 and 3 in the Baltimore & Potomac Tunnel, TLS concrete tie replacement between Bridge and Grove Interlockings on Track 2, and upgrades to culverts, tunnels, retaining walls, and bridges in Maryland.

3 New Haven Line

Connecticut DOT and Metro-North Railroad are the right-of-way infrastructure owners for this region, which includes the portion of the NEC Main Line from New Haven, CT to New Rochelle, NY.

FY21 Planned Capital Renewal Investment: \$150 M

Major investments in this region include \$20 M towards completing construction and beginning catenary modifications on the Atlantic Street Bridge in CT and \$9 M towards continuing construction efforts on the Willet Avenue and Highland Road Bridges in NY.

5 Mid-Atlantic North

Amtrak is the right-of-way infrastructure owner for this region, which includes a portion of the NEC Main Line in Pennsylvania and Delaware; and the Connecting Corridor from Philadelphia 30th Street Station to Harrisburg, PA.

FY21 Planned Capital Renewal Investment: \$154 M

Major investments in this region include advancing work on the Philadelphia 30th Street Station facade restoration project, a \$9.6 M investment at the Newark and Davis Interlockings in DE, as well as investments in turnout renewal and concrete tie replacement using the track laying system (TLS).

7 Amtrak System-wide

Amtrak system-wide investments include investments which benefit the entire Amtrak-owned territory or do not fall into a single geographic region.

FY21 Planned Capital Renewal Investment: \$155 M

Major investments include software upgrades, completing remaining tasks associated with installing PTC, and \$68 M toward heavy equipment acquisition such as undercutting machines, ballast cars, and cranes.

FY21 Special Projects Highlights: Projects Nearing Completion

Total FY21 Planned
Special Projects
Investment

\$1.1 B

Moynihan Station: Phase 2

This project expands passenger-handling operations and station services into the historic James A. Farley Post Office building, which will function as the Moynihan Train Hall for Amtrak and Long Island Rail Road passengers.

This new joint facility will serve as a world-class intercity and commuter passenger boarding concourse with a sky-lit atrium, a combined ticketing and baggage unit and a new metropolitan lounge for Amtrak customers, an emergency platform ventilation system at the perimeter of the Farley building, and improvements to the 33rd Street sub-street corridor connecting Penn Station and Moynihan Station.

In FY21, focus will be on construction completion and activation activities for the opening of the new \$1.66 B Moynihan Train Hall to passengers.

Learn more about this project on page 192.



Maryland Section Reliability Improvements

This \$20.6 M project will upgrade 30 miles of Track 1 in Maryland and make associated signal system and track upgrades for higher speed operations on the Washington-to-Baltimore section of the NEC.

This segment operates at or near capacity today and is unable to reliably absorb increases in service without additional infrastructure improvements. This project targets reductions in congestion-related delays and provides new overtake capacity between different classes of service (high-speed, conventional, and commuter), allowing the faster, high-speed trains to pass slower trains.

In FY21, focus will be on construction completion of the communications and signal systems which includes Positive Train Control (PTC).

Learn more about this project on page 190.



Middletown Station

This project will modernize the Middletown, PA Station which serves Amtrak's Keystone Corridor passengers along the Harrisburg Line. This Pennsylvania DOT-led project will provide ADA access with high-level boarding platforms, improved and expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development.

In FY21, focus will be on construction completion and project close-out. This \$44 M investment was funded through the Federal Transit Administration's formula grant programs with a local match provided by the Commonwealth of Pennsylvania.

Learn more about this project on page 326.



Ruggles Street Station Accessibility Improvements: Phase 1

This \$38.9 M project will construct a new platform and make other improvements at Ruggles Station to enable all inbound and outbound MBTA trains to serve the station and to increase system capacity along this segment of the NEC. The project will improve accessibility by upgrading the existing elevators and adding one new elevator in the lower busway, and make interior and exterior repairs to bring the station to code. A TIGER grant partially funds this project, which is part of a larger initiative to modernize the Ruggles Station, but requires additional funding for full construction.

Today, more than 30 percent of inbound trains bypass Ruggles Station, requiring more than 500 inbound passengers to transfer at Back Bay Station, then backtrack to Ruggles, commonly known as the "Back Bay Detour." The new platform will provide service improvements for the MBTA Commuter Rail passengers and add operational flexibility for MBTA Commuter Rail and Amtrak.

In FY21, the focus will be on construction completion. The \$26.5 M Phase 2 project will begin upon completion of Phase 1.

Learn more about this project on page 264.

New Brunswick Station Improvements

This \$21.3 M project will extend the current eastbound platform at New Brunswick Station by approximately 230 feet. The station is slated to undergo significant rehabilitation of its exterior brick façade; installation of new lighting, windows, HVAC system, and escalator; and painting.

In FY21, the focus will be continuing work on the pedestrian walkway overpass, elevator rehabilitation, escalator replacement, eastbound platform extension, and station repairs. Construction is estimated to be completed in 2022.

Learn more about this project on page 300.



East River Tunnels: RoW Infrastructure Improvements

This \$88.5 M project includes several initiatives in the East River Tunnels. The project consists of mitigation of stray electric current in the tubes, an improved radio system in the tunnels and on the platforms at Penn Station New York, and renewal of track and track-bed infrastructure in tunnels 3 & 4. These projects will improve reliability and reduce delays and maintenance costs by replacing and/or upgrading existing equipment. These projects will enable a two-phased future rehabilitation project also described in this plan.

In FY21, the focus will be to continue antenna replacement in tunnels 3 and 4 and the total replacement of Track 4. This project is estimated to complete construction in 2022.

Learn more about this project on page 270.

NEC Infrastructure Investments with Funding Needs during FY21-25

Available funding is insufficient to accomplish all planned investments during FY21-25, some of which—such as the replacement of Baltimore & Potomac (B&P) Tunnel in Maryland—are essential to ensuring the long-term viability of the NEC.

In addition to the planned investments described in the previous section, this document also identifies investments which could occur in the next five years if additional funding were made available while bearing in mind constraints such as workforce resources, available track time, and project readiness. As seen in Figure 9, NEC stakeholders need over \$17 billion in additional funding to complete all necessary work identified over the next five years.

Figure 9. Summary of Funding Available and Needed During FY21-25

	FY21-25 Funding Available	FY21-25 Funding Needed	Total
Capital Renewal of Basic Infrastructure¹	\$4.27 B	\$1.09 B	\$5.36 B
Special Projects²	\$8.10 B	\$3.91 B	\$12.01 B
Major Backlog	\$1.64 B	\$1.92 B	\$3.56 B
Improvement	\$6.46 B	\$1.99 B	\$8.45 B
Special Projects: Gateway Program	\$3.81 B	\$12.66 B	\$16.48 B
Major Backlog	\$3.76 B	\$12.48 B	\$16.24 B
Improvement	\$0.05 B	\$0.18 B	\$0.24 B
Total	\$16.18 B	\$17.65 B	\$33.85 B

Notes: Figures above may slightly differ due to rounding. (1) Capital renewal funding available is reported by each right-of-way owner. Each owner's capital renewal plan can be found in the Project Information Appendix starting on page 22. Capital renewal funding needed is an estimate based on the difference between the updated annual normalized replacement amount and planned capital renewal spending. (2) Special projects funding available and needed figures are reported by the agencies. The reported values for each special project can be found in the Project Information Appendix. Special project figures provided by Connecticut DOT represent programmed amounts, not planned expenditures.

Capital Renewal

As discussed on page 9, right-of-way owners plan to increase spending on capital renewal each year during the five-year time frame with a total of \$4.27 billion funded through a mix of Baseline Capital Charges and other capital sources. However, right-of-way owners generally do not identify specific scopes of work for capital renewal investments that lack funding, workforce, equipment, or track time.

That does not mean additional funding for capital renewal is not needed, nor that feasible plans could not be developed to spend it. Estimates of an unfunded need for capital renewal can be developed at a conceptual, corridor-wide level. The Commission is working to update the “normalized replacement amount” for the corridor—or the annual cost of sustaining basic infrastructure assets in a state of good repair based on the count, average useful life, and unit cost for each asset type.

This exercise has indicated, preliminarily, that the new normalized replacement amount is notably higher than the figure previously estimated, and also higher than the total planned spending on capital renewal investments each year through FY25. Comparing best available data on the cost of sustaining a state of good repair to planned spending for FY22-FY25 suggests that the unfunded need to fill this gap is estimated to be approximately \$1 billion, and potentially higher if NEC stakeholders reduce their spending due to COVID-related budget crises or seek to reduce the SOGR backlog at a more aggressive pace.

While increasing the level of capital renewal investment on the corridor is an important goal, spending \$1 billion or more annually on these labor and track-outage-intensive activities would likely necessitate not just robust funding levels, but also new strategies related to equipment deployment, workforce levels, and project delivery. As part of the CONNECT NEC 2035 program, NEC stakeholders are analyzing future workforce needs and potential project delivery strategies that could position right-of-way owners to increase their annual spending on capital renewal investments without additional impacts to service levels and NEC passengers if funding is available.



Metro-North Railroad Track Work

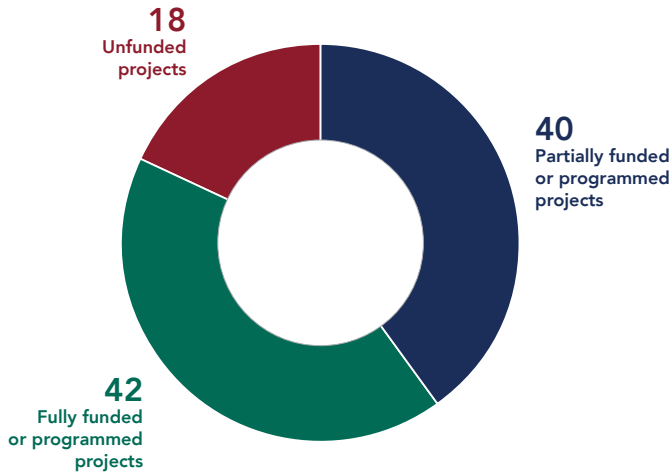


New Acela Trainset Pantograph

Special Projects

Of the 100 special projects in this plan, 40 are partially funded and 18 are entirely unfunded. As seen in Figure 9, over \$16 billion is needed over the next five years to continue advancing work on partially funded special projects and initiate work on completely unfunded special projects.

Figure 10. FY21-25 special projects by funding status



Of that amount, over \$14 billion is still needed to advance major backlog projects in FY21-25. For instance, Amtrak has made \$9.5 million available to reach 60% final design for the B&P Tunnel project within the next five years. Yet if \$466 million in additional funding were made available, project partners could complete final design and right-of-way acquisition and begin construction of the tunnel proper.

This life support model of funding major backlog projects is not unique to the B&P Tunnel project (see "Amtrak Future Funding Assumptions" on page 19). Although Amtrak

has committed approximately \$12 million toward the Connecticut River Bridge Replacement and the East River Tunnel Rehabilitation projects during FY21-25, an additional \$1 billion is needed to complete planned work for both projects, which includes construction initiation and final design, respectively.

Perhaps most importantly, Hudson Tunnel Project, the second most advanced major backlog project to be undertaken as part of the Gateway Program after Portal Bridge, requires an additional \$11.65 billion in funding, which has been proposed through the FTA Capital Investment Grant and FRA RRIF loan programs. This funding, along with the \$2 billion already committed by project partners, would allow partners to complete property acquisition and commence major construction in the next five years. Meanwhile, an additional \$800 million toward Sawtooth Bridge Replacement would allow stakeholders to complete preliminary engineering and final design and initiate construction of this Gateway Program project.



"Though we are pleased that some major NEC projects, such as Walk Bridge in Connecticut and Portal North Bridge in New Jersey, have sufficient funding to proceed with construction during the next five years, several other critical projects—including Connecticut River Bridge—remain stalled due to lack of funding availability. In these difficult budget times, federal funding is essential to advance these projects not only to help the corridor reach a state-of-good-repair, but also to help spur economic growth and provide much needed jobs throughout the region."

- Joseph Giulietti, Commissioner, Connecticut DOT

In addition to the major backlog projects that have an unfunded need during FY21-25, the NEC requires an additional \$2.2 billion in funding to advance improvement projects to increase train capacity and improve access to rail. These projects include station projects which would improve the customer experience, infrastructure investments which would alleviate bottlenecks to increase capacity and future service, and state-of-good-repair work which would improve operational efficiency.

Midline Loop



If funded, this project would include installing a fifth track (Track 5) along the NEC in North Brunswick, which would continue onto a new viaduct structure that loops over the NEC right-of-way and enters back onto inbound Track 1. This track and flyover would eliminate the need for eastbound trains from Jersey Avenue Station to move on the NEC from Track 4 to Track 1. The Midline Loop project would have substantial operational benefits for both NJ TRANSIT and Amtrak, as it would mitigate operational delays for both agencies, improve on-time performances, reduce congestion, and provide much-needed capacity augmentation.

Penn Station New York Projects



MTA received a Federal-State Partnership SOGR grant for rehabilitation of two platforms, but significant additional funding is needed to fully transform Penn Station, work that's being planned jointly by MTA, Amtrak, and NJ TRANSIT. The work being planned will address the station's deficiencies, improve passenger flow, and identify options to unify the existing Penn Station with the Moynihan Train Hall and a future expansion of the station, which is part of the Gateway Program.

Harrisburg Line Interlocking Improvements



Funding is needed to advance critical projects on the Harrisburg Line to replace functionally obsolete interlockings. Seven interlockings will need to be replaced or rebuilt as outlined in a conceptual design effort by PennDOT, SEPTA, and Amtrak to reconfigure the system. Additional funding for these projects would allow for the modernization of service and infrastructure on this segment of the NEC.

Amtrak Future Funding Assumptions

Efficient capital investment requires predictable, multi-year funding streams from which planners and engineers can systematically advance individual projects through various stages of development. Among NEC agencies, Amtrak, in particular, lacks such funding streams as the company relies primarily on annual appropriations from Congress to support its NEC and National Network operations.

Although Amtrak's annual appropriations have been fairly stable over the past five years, its appropriations have fluctuated significantly over the past few decades and the COVID-19 pandemic may upend recent stability. This lack of predictable and consistent funding has hampered Amtrak's ability to develop and adhere to multi-year capital plans. As a result, Amtrak currently relies more heavily on annual capital investment plans than multi-year plans; populates its plans with "life support" investments for many major backlog projects; and often assumes no funding is available or likely to be available for these and other special projects beyond the upcoming fiscal year (see Appendix Figure 7 on page 152).

This plan indicates that Amtrak has an unfunded need of \$14.5 billion for its special projects during the FY21-25 time frame. However, given current practices and the limited use of future funding assumptions, it is likely that Amtrak's annual appropriations for FY22 through FY25 will cover some portion of this unfunded need.

The NEC State-of-Good-Repair Backlog

The NEC state-of-good-repair (SOGR) backlog refers to the population of infrastructure assets on the NEC that are beyond their useful life. An asset's useful life can vary from a few years to many decades, after which they should be replaced. Some assets can operate safely beyond their useful life, though they become more expensive to maintain and more vulnerable to failures that cause service disruptions. Each year the SOGR backlog goes unaddressed it continues to grow, and failure to fully address the SOGR backlog would make it impossible to sustain existing NEC services.

Based on currently available data, the Commission estimates that addressing the entire NEC SOGR backlog would cost \$42 billion over the span of many years, beyond the time frame of this plan. As summarized in Figure 11, this figure is based on the estimated replacement value of existing right-of-way basic infrastructure assets (\$11.6 billion) and the estimated total project cost of major backlog projects (\$30.6 billion). Amtrak's 2013 State-of-Good-Repair Report is used to develop the estimated replacement value for right-of-way basic infrastructure assets and major backlog project costs are provided by project sponsors and updated each year through the NEC capital planning process. However, in some cases, total project cost estimates include costs for work that has already been completed and costs for improvement components (which are not considered part of the SOGR backlog).

While imperfect, the \$42 billion SOGR backlog estimate conveys the scope of the backlog problem and the massive undertaking it will be to fully address the backlog. The Commission has several efforts underway that will help refine the SOGR backlog estimate—including its asset assessment update, which will refresh the normalized replacement values for right-of-way basic infrastructure assets, and the CONNECT NEC 2035 program. In addition, the Commission plans to report on its progress in assessing and eliminating the NEC SOGR backlog in future NEC Annual Reports.

Figure 11. The NEC's state-of-good-repair backlog



Basic Infrastructure Assets	Replacement Value ¹
Track	\$1,500 M
Structures	\$8,200 M
Communications and Signals	\$700 M
Electric Traction	\$1,200 M
Basic Infrastructure Backlog Total	\$11,600 M

Note for basic infrastructure backlog: (1) Basic infrastructure backlog replacement values are provided by the right-of-way owners. For Amtrak, estimates are based on a 2013 State-of-Good-Repair Assessment.

Notes for major backlog projects: (2) Some major backlog projects combine elements of new capacity with the replacement of existing structures. Full details can be found in the Project Information Appendix. (3) Total project cost as provided by the infrastructure owner/ coordinating agency. Figures are order of magnitude estimates, as some projects are in the early stages of development. Actual construction estimates may change substantially. Total project cost estimates may fluctuate between plans when projects advance design. (4) These projects do not have any funding available or needed in FY21-25 due to resource constraints and/or project sequencing so are not included in this plan. For all other major backlog projects, details can be found in the Project Information Appendix starting on page 22.

Major Backlog Projects ²		Total Project Cost ³
CT	Connecticut River Bridge	\$432 M
	Devon Bridge	\$1,100 M
	Saugatuck Bridge	\$350 M
	Walk Bridge Program	\$1,307 M
NY	Cos Cob Bridge ⁴	\$1,000 M
	Pelham Bay Bridge	\$496 M
	East River Tunnel	\$1,647 M
NJ	Gateway: Hudson Tunnel Project	\$13,598 M
	Gateway: Portal North Bridge	\$1,803 M
	Gateway: Sawtooth Bridge	\$1,600 M
	Gateway: Highline Renewal ⁴	\$300 M
MD	Susquehanna River Bridge	\$1,885 M
	Bush River Bridge ⁴	\$400 M
	Gunpowder River Bridge ⁴	\$550 M
	Baltimore & Potomac Tunnel	\$4,595 M
Major Backlog Total		\$30,607 M

Funding Needed beyond FY21-25

NEC funding needs beyond FY25 are significant and growing; through the CONNECT NEC 2035 program, stakeholders are developing a roadmap and vision for eliminating the SOGR backlog and completing critical, capacity enhancing projects by 2035.

Although NEC stakeholders are attempting to maximize currently available workforce, equipment, and track outage resources to accomplish an ambitious amount of capital investment in the corridor during the next five years, the current pace of investment will not eliminate the state-of-good-repair backlog in the medium-term (i.e., the next 10 to 20 years). Several major backlog projects—including Pelham Bay, Susquehanna, Bush, and Saugatuck River Bridges—will see little to no investment occurring over the next five years due to lack of funding and other resources. Each year that the level of capital renewal investment falls below normalized replacement, the basic infrastructure backlog grows.

"Although the pandemic has created tremendous uncertainty for our industry, it has not changed the imperative to bring the Northeast Corridor to a state of good repair and lay a foundation for growth once the current crisis eases and life returns to normal. It is our hope and expectation that the advancement of NEC capital investments will play an important role in supporting the industry's recovery and energizing the regional economy."

*- Kevin Corbett,
Executive Director, NJ TRANSIT*

Beyond the SOGR backlog, several improvement projects identified by stakeholders as critical to the future of the corridor, for example BWI Fourth Track and Boston South Station Expansion projects, are not advancing during this time frame, but will have significant funding needs in the future. These delayed improvement projects and the SOGR backlog suggest a funding need for the corridor that far exceeds the numbers cited in this plan.

Accomplishing all NEC investment goals in the medium term will not only require significantly higher and sustained funding levels, but also more efficient and better coordinated project delivery and sequencing strategies. The Commission is facilitating the development of CONNECT NEC 2035, a roadmap for NEC stakeholders to collectively support addressing both challenges:



- **Alternative funding paradigm:** As seen throughout this Capital Investment Plan, NEC stakeholders often rely on a piecemeal approach to funding major capital investments due to a lack of dedicated and consistent funding streams for intercity and commuter rail projects. Unfortunately, this piecemeal approach contributes to project delays and inefficiencies. The lack of consistent funding also impacts agencies' abilities to start pre-construction activities which in turn impacts the pipeline of shovel ready projects. As part of CONNECT NEC 2035, the Commission is developing a detailed funding proposal which will recommend a dedicated, consistent federal-state funding paradigm to fund capital projects on the NEC.
- **Project delivery and sequencing:** To date, all NEC Capital Investment Plans, including this plan, have reflected the project sequencing strategies and resource assumptions made by individual agencies. CONNECT NEC 2035 will provide a unified blueprint for sequencing all capital investments that maximizes productivity of resource allocations and track outages while advancing a shared long-term vision for the NEC. It is expected that CONNECT NEC 2035 will help inform project sequencing, delivery strategies, and resource assumptions reflected in future NEC Capital Investment Plans.

Project Information Appendix

Capital Renewal

FY21 Capital Renewal Summary

Capital Renewal Investments and Baseline Capital Charges

Service operators pay right-of-way owners Baseline Capital Charges (BCCs) for their relative use of NEC infrastructure. Each operator’s BCC is determined as a percentage of the corridor’s Normalized Replacement Amount and calculated annually through the NEC Cost Allocation Model. Following eligibility criteria outlined in the Cost Allocation Policy, owners use BCCs to fund the capital renewal of basic infrastructure. For this plan, owners identified whether investments included in their capital renewal plans were BCC-eligible. Appendix Figure 1 below shows each owner’s anticipated FY21 capital renewal expenditure according to BCC-eligibility.

Appendix Figure 1. FY21 capital renewal investments by BCC-eligibility

	Amtrak	MBTA	CTDOT	MNR	Total
Capital renewal investment	\$628,974,400	\$131,200,000	\$24,211,887	\$19,200,000	\$803,586,287
BCC eligible	\$487,919,790	\$131,200,000	\$24,211,887	\$19,200,000	\$662,531,677
BCC ineligible	\$141,054,610				\$141,054,610

In general, the Policy requires right-of-way owners to invest operators’ BCCs on eligible assets within the operators’ service territories during the fiscal year the BCCs are provided. Appendix Figure 2 shows the BCC-eligible expenditures planned for FY21 that are within, or provide benefit to, each operator’s territory, and Appendix Figure 3 shows FY21 BCC obligations.

Appendix Figure 2. FY21 Planned BCC-eligible Capital Renewal Expenditure by Operator and Owner Territory

Service Operator	RoW Owner Territory				Total
	Amtrak	MBTA	CTDOT	MNR	
Amtrak	\$307,145,175	\$6,541,210	\$17,114,900	\$2,526,015	\$333,327,299
MBTA	\$1,595,049	\$17,670,677			\$19,265,726
Rhode Island DOT	\$2,162,417				\$2,162,417
CTDOT (Shore Line East)	\$4,537,484		\$1,074,478		\$5,611,962
CTDOT (Hartford Line) ¹	\$6,581,618		\$225,275		\$6,806,893
CTDOT (New Haven Line)			\$112,785,347		\$112,785,347
MTA Metro-North Railroad				\$16,673,985	\$16,673,985
MTA Long Island Rail Road	\$8,383,536				\$8,383,536
NJ TRANSIT	\$92,578,464				\$92,578,464
SEPTA	\$43,316,184				\$43,316,184
Delaware DOT	\$2,748,695				\$2,748,695
Maryland DOT	\$18,233,967				\$18,233,967
Virginia Railway Express	\$637,199				\$637,199
Total	\$487,919,787	\$24,211,887	\$131,200,000	\$19,200,000	\$662,531,675

Appendix Figure 3. FY21 BCC Obligations by Operator and Owner Territory

Service Operator	RoW Owner Territory				Total
	Amtrak	MBTA	CTDOT	MNR	
Amtrak	\$283,910,982	\$10,782,411	\$17,114,900	\$2,526,015	\$314,334,307
MBTA	\$1,595,049	\$17,670,677			\$19,265,726
Rhode Island DOT	\$2,162,417				\$2,162,417
CTDOT (Shore Line East)	\$4,537,484		\$1,074,478		\$5,611,962
CTDOT (Hartford Line)	\$6,581,618		\$225,275		\$6,806,893
CTDOT (New Haven Line)			\$49,221,409		\$49,221,409
MTA Metro-North Railroad				\$13,767,295	\$13,767,295
MTA Long Island Rail Road ¹	\$27,213,858				\$27,213,858
NJ TRANSIT ²	\$92,578,465				\$92,578,465
SEPTA	\$43,316,183				\$43,316,183
Delaware DOT	\$2,748,695				\$2,748,695
Maryland DOT	\$18,233,967				\$18,233,967
Virginia Railway Express	\$637,199				\$637,199
Total	\$483,515,917	\$28,453,088	\$67,636,062	\$16,293,310	\$595,898,377

Notes: (1) Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement. (2) NJ TRANSIT's FY21 BCC obligation reflects the NJ TRANSIT-Amtrak BCC variance for Portal North Bridge, approved by the Commission in August 2019.

A key purpose of this plan is to facilitate an exchange of information between right-of-way owners and operators regarding the owners’ ability to spend operators’ BCCs during the upcoming fiscal year. To that end, Appendix Figure 4 shows the difference between owners’ planned FY21 BCC-eligible expenditures and agencies’ FY21 BCCs.

The FY21 capital renewal plans submitted by Connecticut DOT and Metro-North Railroad indicate that the agencies will spend all BCCs provided for their territories. Amtrak’s FY21 plan indicates that the agency will spend all BCCs provided for its territory, except for those provided by Long Island Rail Road. However, Long Island Rail Road's annual capital obligation is based on actual expenditures per its agreement with Amtrak. MBTA's capital renewal plan does not indicate that all BCCs provided for its territory will be spent during FY21. However, MBTA plans to spend approximately \$11 million on the Special Project “Tower 1 Interlocking” (see pg. 260) during FY21. As all of the planned work on Tower One is considered BCC-eligible, MBTA can put any remaining FY21 BCCs towards that project, if needed.

In addition, for all agencies, the data provided represents a snapshot in time and actual work completed during FY21 and funded with BCCs may vary.

Appendix Figure 4. FY21 Planned BCC-eligible Capital Renewal Expenditure and BCC Obligation Comparison

Service Operator	RoW Owner Territory				Total
	Amtrak	MBTA ²	CTDOT	MNR	
Amtrak	\$23,234,193	(\$4,241,201)	\$0	\$0	\$18,992,992
MBTA	\$0				\$0
Rhode Island DOT	\$0				\$0
CTDOT (Shore Line East)	\$0				\$0
CTDOT (Hartford Line)	\$0				\$0
CTDOT (New Haven Line)			\$63,563,938		\$63,563,938
MTA Metro-North Railroad				\$2,906,690	\$2,906,690
MTA Long Island Rail Road ¹	(\$18,830,322)				(\$18,830,322)
NJ TRANSIT	(\$1)				(\$1)
SEPTA	\$1				\$1
Delaware DOT	\$0				\$0
Maryland DOT	\$0				\$0
Virginia Railway Express	\$0				\$0
Total	\$4,403,871	(\$4,241,201)	\$63,563,938	\$2,906,690	\$66,633,298

Notes: Figures above may slightly differ due to rounding. (1) Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement. (2) MBTA is planning to spend \$11M on BCC-eligible work as part of the Tower 1 Interlocking project (see page 260) which may be funded with remaining BCCs.

BCC Segments

To determine if right-of-way owners plan to invest operators' BCCs within their respective service territories, the corridor is divided into 31 BCC segments generally defined as points on the NEC where the mix of owners and/or operators changes. Each segment then has a distinct set of operators whose BCCs may be applied to fund BCC-eligible capital renewal investments.

Appendix Figure 5. Owner and Operators by BCC Segment

BCC Segment	Owner	Operators
1. Boston South Station to MA/RI State Line	MBTA	Amtrak, MBTA
2. MA/RI State Line to Providence	Amtrak	Amtrak, MBTA
3. Providence to Wickford Junction	Amtrak	Amtrak, MBTA (on behalf of RIDOT)
4. Wickford Junction to New London	Amtrak	Amtrak
5. New London to New Haven	Amtrak	Amtrak, CT <i>rail</i> Shore Line East
6. New Haven to CT/NY State Line	CTDOT	Amtrak, MNR (on behalf of CTDOT)
7. CT/NY State Line to New Rochelle	MNR	Amtrak, MNR
8. New Rochelle to Harold	Amtrak	Amtrak
9. Harold to F Interlocking	Amtrak	Amtrak, LIRR
10. F Interlocking to Penn Station New York	Amtrak	Amtrak, LIRR, NJT
11. Penn Terminal	Amtrak	Amtrak, LIRR, NJT
12. Penn Station New York to Trenton	Amtrak	Amtrak, NJT
13. Trenton to Morris	Amtrak	Amtrak, NJT, SEPTA
14. Morris to Holmes	Amtrak	Amtrak, SEPTA
15. Holmes to Shore	Amtrak	Amtrak, SEPTA
16. Shore to Girard	Amtrak	Amtrak, NJT, SEPTA
17. Girard to Philadelphia 30th Street	Amtrak	Amtrak, NJT
18. Philadelphia 30th Street to Arsenal	Amtrak	Amtrak
19. Arsenal to Marcus Hook	Amtrak	Amtrak, SEPTA
20. Marcus Hook to Bacon	Amtrak	Amtrak, SEPTA (on behalf of DeIDOT)
21. Bacon to Perryville	Amtrak	Amtrak
22. Perryville to WAS	Amtrak	Amtrak, MARC
23. Washington Union Terminal	Amtrak	Amtrak, MARC, VRE
24. WAS to CP Virginia	Amtrak	Amtrak, VRE
25. Springfield to New Haven	Amtrak	Amtrak, CT <i>rail</i> Hartford Line
26. Poughkeepsie - Spuyten Duyvil (exempt from plan)	MNR	Amtrak, MNR
27. Spuyten Duyvil to Penn Station New York	Amtrak	Amtrak
28. Penn to 36th Street	Amtrak	Amtrak
29. 36th Street to Thorndale	Amtrak	Amtrak, SEPTA
30. Thorndale to Harrisburg	Amtrak	Amtrak
31. Amtrak System-wide	Amtrak	Amtrak

Appendix Figure 6. FY21 BCC-eligible capital renewal by segment

The following table shows each owner’s planned BCC-eligible capital renewal expenditure by operator territory. Details on each owner's BCC-eligible investments can be found in each FY21-25 Capital renewal plan by owner. Investment detail by BCC segment can be found at: nec-commission.com/fy21-25-cip

BCC Segment	Owner	Amtrak	MBTA	RIDOT	CTDOT (SLE)	CTDOT (HL)	CTDOT (NHL)
1	MBTA	\$6,541,210	\$17,670,677				
2	Amtrak	\$5,545,578	\$1,595,049				
3	Amtrak	\$1,458,895		\$2,162,417			
4	Amtrak	\$8,100,455					
5	Amtrak	\$10,266,185			\$4,537,484		
6	CTDOT	\$17,114,900			\$1,074,478	\$225,275	\$49,221,409
7	MNR	\$2,526,015					
8	Amtrak	\$5,005,377					
9	Amtrak	\$13,848,242					
10	Amtrak	\$4,460,351					
11	Amtrak	\$28,975,221					
12	Amtrak	\$0					
13	Amtrak	\$1,406,731					
14	Amtrak	\$6,756,770					
15	Amtrak	\$2,101,895					
16	Amtrak	\$11,633,839					
17	Amtrak	\$14,952,375					
18	Amtrak	\$2,919,721					
19	Amtrak	\$0					
20	Amtrak	\$36,144,291					
21	Amtrak	\$3,959,131					
22	Amtrak	\$50,708,961					
23	Amtrak	\$4,130,939					
24	Amtrak	\$981,550					
25	Amtrak	\$16,451,080				\$6,581,618	
27	Amtrak	\$9,261,546					
28	Amtrak	\$148,583					
29	Amtrak	\$0					
30	Amtrak	\$16,996,936					
31	Amtrak	\$27,696,328					
Total		\$310,093,105	\$19,265,726	\$2,162,417	\$5,611,962	\$6,806,893	\$49,221,409

MNR	LIRR ¹	NJT	SEPTA	DeIDOT	MDOT	VRE	Other Capital	Total
								\$24,211,887
								\$7,140,627
								\$3,621,312
								\$8,100,455
								\$14,803,669
							\$63,563,938	\$131,200,000
\$13,767,295							\$2,906,690	\$19,200,000
								\$5,005,377
	\$0							\$13,848,242
	\$2,985,534	\$0						\$7,445,885
	\$5,398,002	\$0						\$34,373,223
		\$92,251,038						\$92,251,038
		\$327,426	\$0					\$1,734,157
			\$0					\$6,756,770
			\$0					\$2,101,895
		\$0	\$3,613,006					\$15,246,845
		\$0						\$14,952,375
								\$2,919,721
			\$11,386,073					\$11,386,073
				\$2,748,695				\$38,892,986
								\$3,959,131
					\$18,233,967			\$68,942,928
					\$0	\$0		\$4,130,939
						\$637,199		\$1,618,749
								\$23,032,698
								\$9,261,546
								\$148,583
			\$28,317,105					\$28,317,105
								\$16,996,936
							\$23,234,194	\$50,930,522
\$13,767,295	\$8,383,536	\$92,578,464	\$43,316,184	\$2,748,695	\$18,233,967	\$637,199	\$89,704,822	\$662,531,675

(1) Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

FY21 Capital Renewal Plans by BCC Segment

BCC Segment 1: Boston South Station to MA/RI State Line (MBTA-owned)

Operators: Amtrak, MBTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$10,590,368	\$0	\$10,590,368
Projects	\$13,621,519	\$0	\$13,621,519
Total	\$24,211,887	\$0	\$24,211,887

Programs

Investment Description and FY21 Scope	Units	Schedule	FY21 Budget
BCC Eligible			
Battery Bank Replacement Program			
Replace Battery Banks at Interlockings between MP190.9 - MP229.0	1 Lump Sum	October 1, 2020 - September 30, 2021	\$138,880
CWR Replacement Program			
4000 LF Rail - Location TBD	4000 LF	June 1, 2021 - August 31, 2021	\$715,000
Fuse Upgrade Program			
Upgrade to slow burn fuses at interlockings between MP190.9 - MP229.0.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$146,556
Gas Hot Air Switch Blower Program			
Install Gas Hot Air Blower Switch Heaters (4 Units) - Location TBD	4 Units	April 1, 2021 - September 30, 2021	\$450,000
Insulated Joint Program			
20 Insulated Joints - MP190.9 - MP229.0	20 Units	October 1, 2020 - September 30, 2021	\$194,195
Interlocking Crossover Replacement Program			
Transfer 13 Turnout Replacement	1 Turnout	July 1, 2021 - August 31, 2021	\$750,000
Interlocking Steel Replacement Program			
Replace 5 Units Interlocking Steel - MP190.9 - MP229.0	5 Units	October 1, 2020 - September 30, 2021	\$276,067
Joint Elimination Program			
50 Thermite Welds - MP190.9 - MP229.0	50 Units	October 1, 2020 - September 30, 2021	\$269,250
M3 Switch Machine Program			
Upgrade to M3 Switch Machines at 8 locations between MP190.9 and MP229.0.	8 Units	October 1, 2020 - September 30, 2021	\$375,995
Out Of Face Surfacing Program			
100,000 Pass-Feet of Out-of-Face High Speed Surfacing - MP190.9 - MP229.0	100,000 Pass-Feet	October 1, 2020 - September 30, 2021	\$1,076,891
RoW Fence Upgrades Program			
Install impasse fence in Hyde Park, MA along Track 3.	2,800 Linear Feet	October 1, 2020 - December 31, 2020	\$1,250,000
Spot Surfacing Program			
60,000 Feet of Spot Surfacing - MP190.9 - MP229.0	60,000 Feet	October 1, 2020 - September 30, 2021	\$1,725,895
Spot Undercutting Program			
150 Feet of Spot Undercutting - MP190.9 - MP229.0	150 Feet	October 1, 2020 - September 30, 2021	\$303,469
Switch Heater Cabinet / Control Program			
Replace Switch Hear Cabinet / Controls - Plains I/L	1 Units	June 1, 2021 - August 31, 2021	\$350,000
Tie/Timber Program			
Replace 800 ties/timbers - MP190.9 - MP229.0	800 Units	October 1, 2020 - September 30, 2021	\$686,687
Track Circuit Protection Program			
Surge Protector replacements between MP190.9 and MP229.0.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$100,000

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Schedule	FY21 Budget
Track Lead Replacement Program			
Replace Track Leads between MP190.9 and MP229.0	1 Lump Sum	October 1, 2020 - September 30, 2021	\$370,000
Tree Cutting Program			
50 weeks tree cutting program - MP190.9 - MP229.0	50 Weeks	October 1, 2020 - September 30, 2021	\$1,050,625
Undergrade Bridge Upgrades Program			
Complete upgrades and retirements of undergrade bridges at locations TBD.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$360,858
BCC Segment 1 Programs Total			\$10,590,368

Projects

Investment Description and FY21 Scope	Schedule	FY21 Budget
BCC Eligible		
Emergency Egress Upgrades Project		
Complete the installation of new enclosures with vertical doors at six emergency egress locations.	October 1, 2020 - September 30, 2021	\$1,000,000
Hawk Hot Box / Dragging Equipment Detector Upgrade Project		
Procure the equipment and install the replacement hot box / dragging equipment detector at MP208.7.	April 1, 2021 - September 30, 2021	\$300,000
Interlocking RTU Upgrades Project		
Complete the upgrades of remote terminal units at Hebronville I/L, Holden I/L, Junction I/L, and Mansfield I/L.	October 1, 2020 - September 30, 2021	\$481,087
Power and Express Cable Upgrade Project		
Complete the installation of 21,000 feet of power, express, and communication cable between Read I/L and Forest I/L.	October 1, 2020 - December 31, 2020	\$1,000,000
Readville Material Control Warehouse Project		
Complete the design and construction of a material control warehouse at Yard 5, Readville, MA.	October 1, 2020 - September 30, 2021	\$1,545,697
South Station Tie and Rail Replacement Project		
Complete the upgrade to concrete guardrail ties and replace the rail, clip, pads, insulators, and ballast to Tracks 1-2 at South Station.	August 1, 2021 - September 30, 2021	\$2,726,887
Southampton Street and South Bay I/L Upgrades Project		
Begin the design phase for the South Bay I/L upgrades and backup generators. Procure and install DTMF switches at Southampton Street Yard. Procure and install transformer at South Bay I/L.	October 1, 2020 - September 30, 2021	\$2,885,148
TAMS Upgrades Project		
Upgrade TAMS system at Canton Junction Station (Canton, MA), MP 213.7, Ruggles Street Station (MP226.4), Forest Hills Station (MP223.8), Mansfield Station (MP204.0), and Sharon Station (MP210.6).	October 1, 2020 - September 30, 2021	\$3,228,565
Undergrade Bridge Upgrades Program		
Install anti-graffiti coating installed at four undergrade bridges (MP203.85, MP204.44, 206.42, and MP212.02).	April 1, 2021 - September 30, 2021	\$454,135
BCC Segment 1 Projects Total		\$13,621,519

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 2: MA/RI State Line to Providence (Amtrak-owned)

Operators: Amtrak, MBTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$7,140,627	\$0	\$7,140,627
Projects	\$0	\$0	\$0
Total	\$7,140,627	\$0	\$7,140,627

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00029 - New England Catenary - C.EN.101836				
<i>Projects include catenary hardware renewal between New Haven, CT, and Boston, MA on the AB Line, replacing of the MOD Units at Southampton Street Yard, and placing the OCS in service on Track 4 between Hebronville I/L and Holden I/L in Attleboro, MA.</i>				
Constant Tension Hardware Renewal MP 185.1 - 190.9 AB Line				
C.EN.101836.0006 CATC NED AB LN MP185.1-190.9-HRDWRE RNEW	1 EA Install/Renew Registration Arms/1 EA Install/Renew Catenary Insulators/Hardware	10/1/2020	9/30/2021	\$68,882
PG00033 - New England Signals - C.EN.101839				
<i>Projects include switch machine replacements in Rhode Island, cable replacements at multiple locations in Connecticut, circuit protection upgrades on the AB Line in Connecticut and Rhode Island, upgrade the RTUs at Palmers Cove, Shaws, Mystic, and Conn by Amtrak Signal forces. Replace crossing gates and overlay circuits at three locations on the AS line. Install grade crossing recorders at 10 locations.</i>				
Track Circuit ABS Upgrades MP 185.1 - 190.9 AB Line				
C.EN.101839.0036 ABS NED AB LN MP185.1/190.9-TRK CIRCUIT	Units not applicable	11/12/2020	11/25/2020	\$54,698
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
Concrete Tie Replacement MP 185.1 - 190.9 AB Line				
C.EN.101842.0026 TIES NED CONCRETE AB LN MP185.1-190.9	75 EA	10/1/2020	9/30/2021	\$162,102
Insulated Joint Removal MP 185.1 - 190.9 AB Line				
C.EN.101842.0006 RAIL NED INSULATE JT AB LN MP185.1-190.9	12 EA Install Insulated Joint (Incl OTM)	10/1/2020	9/30/2021	\$128,539
Interlocking Steel MP 185.1 - 190.9 AB Line				
C.EN.101842.0046 TURN NED I/L STEEL AB LN MP185.1-190.9	1 EA Renew Frog / 1 EA Renew Switch Point Stock	10/1/2020	10/1/2021	\$86,991
Joint Elimination MP 185.1 - 190.9 AB Line				
C.EN.101842.0016 RAIL NED JOINT ELIM AB LN MP185.1-190.9	40 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$298,817
Spot Surfacing MP 185.1 - 190.9 AB Line				
C.EN.101842.0066 GEOM NED SPOT SURFAC AB LN MP185.1-190.9	22000 PF	10/1/2020	9/30/2021	\$365,582
Spot Undercutting MP 185.1 - 190.9 AB Line				
C.EN.101842.0076 BLST NED SPOT UNDR CUT AB-MP185.1-190.9	1000 FT Vacuum Train, Spot Under	10/1/2020	10/1/2021	\$404,545
Wood Tie/Timber Replacement MP 185.1 - 190.9 AB Line				
C.EN.101842.0036 TIES NED TIE/TIMB AB LN MP185.1-190.9	800 EA	10/1/2020	9/30/2021	\$781,820
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 185.1 - 165.9 AB Line				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101855.0005 GEOM AB LN MP185.1- 165.9 HSS PRODUCTION - 3	Units not applicable	10/1/2020	9/30/2021	\$712,385
High Speed Surfacing Production MP 190.9 - 185.1 AB Line				
C.EN.101855.0003 GEOM AB LN MP 190.9-185.1 HSS PRDUCTION - 2	Units not applicable	10/1/2020	9/30/2021	\$89,493
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Lawn Interlocking #21 Crossover				
C.EN.101860.0091 TURN LAWN I/L #21 X/O - INSTALL	Units not applicable	11/4/2020	11/18/2020	\$1,089,969
C.EN.101860.0092 TURN LAWN I/L #21 X/O - T&E SUPPORT	Units not applicable	11/4/2020	12/2/2020	\$33,662
C.EN.101860.0093 TURN LAWN I/L #21 X/O - B&B SUPPORT	Units not applicable	11/4/2020	12/2/2020	\$17,013
C.EN.101860.0094 TURN LAWN I/L #21 X/O - C&S SUPPORT	Units not applicable	11/4/2020	12/2/2020	\$25,909
Orms Interlocking #21 Crossover				
C.EN.101860.0001 TURN - ORMS #21 X/O - INSTALL	2 EA Install Wood Turnout	8/20/2021	9/2/2021	\$1,327,852
C.EN.101860.0002 TURN - ORMS #21 X/O - ET SUPPORT	Units not applicable	8/20/2021	9/2/2021	\$20,985
C.EN.101860.0003 TURN - ORMS #21 X/O - T&E SUPPORT	Units not applicable	8/20/2021	9/2/2021	\$47,721
C.EN.101860.0004 TURN - ORMS #21 X/O - B&B SUPPORT	Units not applicable	8/20/2021	9/2/2021	\$9,951
C.EN.101860.0005 TURN - ORMS #21 X/O - C&S SUPPORT	4 EA Install Switch Machine	8/20/2021	9/2/2021	\$155,851
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Royal Little Rd, RI Security Fence				
C.EN.101854.0010 FEN ROYAL LITTLE ROAD RI-SECURITY FENCE	5100 FT Install/ Repair Right of Way Fencing	10/5/2020	2/18/2021	\$1,257,862
BCC Segment 2 Programs Total				\$7,140,627

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 3: Providence to Wickford Junction (Amtrak-owned)

Operators: Amtrak, MBTA (on behalf of RIDOT)

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$3,536,540	\$0	\$3,536,540
Projects	\$84,772	\$0	\$84,772
Total	\$3,621,312	\$0	\$3,621,312

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00029 - New England Catenary - C.EN.101836				
<i>Projects include catenary hardware renewal between New Haven, CT, and Boston, MA on the AB Line, replacing of the MOD Units at Southampton Street Yard, and placing the OCS in service on Track 4 between Hebronville I/L and Holden I/L in Attleboro, MA.</i>				
Constant Tension Hardware Renewal MP 165.9 - 185.1 AB Line				
C.EN.101836.0005 CATC NED AB LN MP165.9-185.1-HRDWRE RNEW	1 EA Install/Renew Registration Arms/1 EA Install/Renew Catenary Insulators/Hardware	10/1/2020	9/30/2021	\$68,882
PG00030 - New England Communications - C.EN.101837				
<i>FY21 Scope not available.</i>				
Warwick Sub 84 SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - SUB 84 WARWICK	1 EA Install / Renew RTU	12/1/2020	12/15/2020	\$139,639
PG00033 - New England Signals - C.EN.101839				
<i>Projects include switch machine replacements in Rhode Island, cable replacements at multiple locations in Connecticut, circuit protection upgrades on the AB Line in Connecticut and Rhode Island, upgrade the RTUs at Palmers Cove, Shaws, Mystic, and Conn by Amtrak Signal forces. Replace crossing gates and overlay circuits at three locations on the AS line. Install grade crossing recorders at 10 locations.</i>				
ABS Track Circuit Upgrades MP 165.9 - 185.1 AB Line				
C.EN.101839.0035 ABS NED AB LN MP165.9/185.1-TRK CIRCUIT	20 EA Track Circuits, Relays, and ACSES	3/19/2021	4/30/2021	\$96,491
Interlocking Switch Machine Upgrades MP 165.9 - 185.1 AB Line				
C.EN.101839.0045 INT NED M3 SW MACH AB LN MP165.9-185.1	8 EA Install Switch Machine	2/8/2021	3/8/2021	\$121,588
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
Concrete Tie Replacement MP 165.9 - 185.1 AB Line				
C.EN.101842.0025 TIES NED CONCRETE AB LN MP165.9-185.1	75 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$243,151
Drainage Improvements MP 165.9 - 185.1 AB Line				
C.EN.101842.0085 DRAN NED AB LN-DRAIN IMPRV-MP165.9-185.1	3000 FT Ditching and Grading	10/1/2020	3/15/2021	\$168,147
Insulated Joint Removal MP 165.9 - 185.1 AB Line				
C.EN.101842.0005 RAIL NED INSULATE JT AB LN MP165.9-185.1	12 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$128,539
Interlocking Steel MP 165.9 - 185.1 AB Line				
C.EN.101842.0045 TURN NED I/L STEEL AB LN MP165.9-185.1	2 EA Renew Frog / 2 EA Renew Switch Point Stock Rail	10/1/2020	10/1/2021	\$173,925
Joint Elimination MP 165.9 - 185.1 AB Line				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101842.0015 RAIL NED JOINT ELIM AB LN MP165.9-185.1	40 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$211,700
Spot Surfacing MP 165.9 - 185.1 AB Line				
C.EN.101842.0065 GEOM NED SPOT SURFAC AB LN MP165.9-185.1	25000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$443,614
Spot Undercutting MP 165.9 - 185.1 AB Line				
C.EN.101842.0075 BLST NED SPOT UNDR CUT AB-MP165.9-185.1	1000 FT Vacuum Train, Spot Undercut	10/1/2020	10/1/2021	\$404,545
Wood Tie/Timber Replacement MP 165.9 - 185.1 AB Line				
C.EN.101842.0035 TIES NED TIE/TIMB AB LN MP165.9-185.1	Units not applicable	10/1/2020	9/30/2021	\$195,479
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Cranston Interlocking #42 Turnout				
C.EN.101860.0036TURN - CRANSTON #42 T/O - INSTALL	2 EA Install Concrete Turnout	5/21/2021	5/27/2021	\$914,941
C.EN.101860.0037TURN - CRANSTON #42 T/O - ET SUPPORT	Units not applicable	5/21/2021	5/27/2021	\$7,410
C.EN.101860.0038TURN - CRANSTON #42 T/O - T&E SUPPORT	Units not applicable	5/21/2021	5/27/2021	\$17,895
C.EN.101860.0039TURN - CRANSTON #42 T/O - B&B SUPPORT	Units not applicable	5/21/2021	5/27/2021	\$14,925
C.EN.101860.0040TURN - CRANSTON #42 T/O - C&S SUPPORT	4 EA Install Switch Machine	5/21/2021	5/27/2021	\$185,669
BCC Segment 3 Programs Total				\$3,536,540

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0002 INT STONY I/L MP166.5-MPF HST ROD RPL	6/5/2021	\$18,196	\$68,882
C.EN.101894.0003 INT POST I/L MP178.5-MPF HST ROD RPL	6/19/2021	\$66,576	\$68,882
BCC Segment 3 Projects Total			\$84,772

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 4: Wickford Junction to New London (Amtrak-owned)

Operators: Amtrak

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$8,027,670	\$0	\$8,027,670
Projects	\$72,785	\$0	\$72,785
Total	\$8,100,455	\$0	\$8,100,455

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00029 - New England Catenary - C.EN.101836				
<i>Projects include catenary hardware renewal between New Haven, CT, and Boston, MA on the AB Line, replacing of the MOD Units at Southampton Street Yard, and placing the OCS in service on Track 4 between Hebronville I/L and Holden I/L in Attleboro, MA.</i>				
Constant Tension Hardware Renewal MP 158.0 - 165.9 AB Line				
C.EN.101836.0004 CATC NED AB LN MP158.0-165.9-HRDWRE RNEW	1 EA Install / Renew Registration Arms / 1 EA Install / Renew Catenary Insulators / Hardware	10/1/2020	9/30/2021	\$68,882
PG00030 - New England Communications - C.EN.101837				
<i>FY21 Scope not available.</i>				
Groton SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - GROTON	1 EA Install / Renew RTU	6/1/2021	6/15/2021	\$103,998
PG00033 - New England Signals - C.EN.101839				
<i>Projects include switch machine replacements in Rhode Island, cable replacements at multiple locations in Connecticut, circuit protection upgrades on the AB Line in Connecticut and Rhode Island, upgrade the RTUs at Palmers Cove, Shaws, Mystic, and Conn by Amtrak Signal forces. Replace crossing gates and overlay circuits at three locations on the AS line. Install grade crossing recorders at 10 locations.</i>				
ABS Track Circuit Upgrades MP 122.9 - 141.35 AB Line				
C.EN.101839.0033 ABS NED AB LN MP122.9/141.35-TRK CIRCUIT	12 EA Track Circuits, Relays, and ACSES	1/29/2021	2/12/2021	\$54,720
Interlocking Switch Machine Upgrades MP 141.35 - 165.9 AB Line				
C.EN.101839.0044 INT NED M3 SW MACH AB LN MP141.35-165.9	4 EA Install Switch Machine	10/5/2020	5/3/2021	\$352,563
Mystic River Interlocking RTU Upgrades				
C.EN.101839.0109 INT MYSTIC RIVER I/L-RTU UPGRADES	1 EA Install / Replace RTU	9/18/2020	11/12/2020	\$65,553
Palmers Cove Interlocking RTU Upgrades				
C.EN.101839.0106 INT PALMER COVE I/L-RTU UPGRADES	1 EA Install / Replace RTU	9/18/2020	11/12/2020	\$65,553
PG00034 - New England Structures - C.EN.101840				
<i>Complete the steel upgrades and bridge timber replacement at the Conn. River Bridge (CT49.73) on the AS Line and replace the bridge timbers on the Conn. River Bridge (CT106.89) on the AB Line. Complete the installation of the Hull Street Strike Beam and steel and abutment upgrades to State Pier (CT123.59) undergrade bridge. Complete several SOGR projects at the five movable bridges on the AB Line. Design projects include retaining wall upgrades at Shoreline Junction, Hartford Tunnel Drainage Improvements, and culvert upgrades on both the AB and AB lines.</i>				
Bridge Strike Mitigation MP 122.9 & MP 158.0 AB Line				
C.EN.101840.0005 BGUG NED MP122.9/158.0-STRIKE MITIGATION	5 EA Install and Maintain Signage	5/3/2021	9/30/2021	\$59,164
Mystic Bridge Mobile Catenary Construction				
C.EN.101840.0036 BGMS CT132.16 MOBILE CAT CONSTRUCT MYSTIC - B&B	Units not applicable	3/1/2021	1/5/2022	\$8,818
Mystic River Bridge Gearbox Replacement MP 132.16 AB Line				
C.EN.101840.0020 BGMS CT132.16 MYSTIC RIVER GEARBOX REPLACEMENT SOUTH - B&B	Units not applicable	8/2/2021	9/7/2021	\$174,486

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
State Pier Steel Upgrades MP 123.59 AB Line				
C.EN.101840.0038 BGUG CT123.59 STATE PIER STEEL UPGRADES - B&B	Units not applicable	5/3/2021	7/30/2021	\$320,669
PG00035 - New England Substations - C.EN.101841				
<i>Projects include replacing the transformer at the Norton Substation (MP198.9), installing commercial power and interlocking lighting at View I/L. Replace the sump pumps at New London, Millstone, Leetes Island, and Madison. Replace the batteries at the Stonington Paralling Station and ground power at Whitfield Siding in Guilford, CT. Replace breaker relays and breaker vacuum bottle replacement at two substations and complete a substation assessment. Work to be performed by Amtrak ET Substation forces and contractor forces.</i>				
New London Sub 82 Breaker Relay Replacement AB Line				
C.EN.101841.0021 Breaker Relay Replacement -New London	1 EA Install / Renew Breaker	2/1/2021	5/28/2021	\$96,724
New London Sub 82 Breaker Relay Replacement AB Line				
C.EN.101841.0022 Breaker Vacuum Bottle Replacement - New London	2 EA Install / Renew Breaker	2/1/2021	5/28/2021	\$380,378
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
Concrete Tie Replacement MP 122.9 - 158.0 AB Line				
C.EN.101842.0023 TIES NED CONCRETE AB LN MP122.9-158.0	75 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$173,911
Concrete Tie Replacement MP 158.0 - 165.9 AB Line				
C.EN.101842.0024 TIES NED CONCRETE AB LN MP158.0-165.9	75 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$243,151
Drainage Improvements MP 122.9 - 158.0 AB Line				
C.EN.101842.0083 DRAN NED AB LN-DRAIN IMPRV-MP122.9-158.0	2000 FT Ditching and Grading	3/1/2021	3/12/2021	\$39,979
Groton Interlocking Drainage Improvement MP 123.5 AB Line				
C.EN.101842.0215 DRAN GROTON INT DRAN IMPROV DSGN	Units not applicable	4/1/2021	8/31/2021	\$277,833
Insulated Joint Removal MP 122.9 - 158.0 AB Line				
C.EN.101842.0003 RAIL NED INSULATE JT AB LN MP122.9-158.0	8 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$92,152
Insulated Joint Removal MP 158.0 - 165.9 AB Line				
C.EN.101842.0004 RAIL NED INSULATE JT AB LN MP158.0-165.9	12 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$128,539
Interlocking Steel MP 122.9 - 158.0 AB Line				
C.EN.101842.0043 TURN NED I/L STEEL AB LN MP122.9-158.0	2 EA Renew Frog / 2 EA Renew Switch Point Stock Rail	10/1/2020	9/30/2021	\$160,696
Interlocking Steel MP 158.0 - 165.9 AB Line				
C.EN.101842.0044 TURN NED I/L STEEL AB LN MP158.0-165.9	1 EA Renew Frog / 1 EA Renew Switch Point Stock Rail	10/1/2020	10/1/2021	\$86,991
Joint Elimination MP 122.9 - 158.0 AB Line				
C.EN.101842.0013 RAIL NED JOINT ELIM AB LN MP122.9-158.0	35 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$183,151
Joint Elimination MP 158.0 - 165.9 AB Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101842.0014 RAIL NED JOINT ELIM AB LN MP158.0-165.9	40 EA Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$211,700
Spot Rock Scaling Drainage Improvements MP 122.9 - 158.0 AB Line				
C.EN.101842.0213 DRAN SPOT ROCK SCALING AB LN MP122.9-158.0	Units not applicable	5/3/2021	5/28/2021	\$99,164
Spot Surfacing MP 122.9 - 158.0 AB Line				
C.EN.101842.0063 GEOM NED SPOT SURFAC AB LN MP122.9-158.0	25000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$428,466
Spot Surfacing MP 158.0 - 165.9 AB Line				
C.EN.101842.0064 GEOM NED SPOT SURFAC AB LN MP158.0-165.9	25000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$443,614
Spot Undercutting MP 122.9 - 158.0 AB Line				
C.EN.101842.0073 BLST NED SPOT UNDR CUT AB-MP122.9-158.0	200 FT Vacuum Train, Spot Undercut	10/1/2020	10/1/2021	\$67,787
Spot Undercutting MP 158.0 - 165.9 AB Line				
C.EN.101842.0074 BLST NED SPOT UNDR CUT AB-MP158.0-165.9	1000 FT Vacuum Train, Spot Undercut	10/1/2020	10/1/2021	\$404,545
Wood Tie/Timber Replacement MP 122.9 - 158.0 AB Line				
C.EN.101842.0033 TIES NED TIE/TIMB AB LN MP122.9-158.0	400 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$314,980
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 143.1 - 122.9 AB Line				
C.EN.101855.0009 GEOM AB LN MP 143.1-122.9 HSS PRDUCTION - 4	Units not applicable	10/1/2020	9/30/2021	\$1,056,643
PG00063 - Track Rehabilitation - C.EN.101859				
<i>See below for further detail on planned FY21 work.</i>				
Groton Interlocking House Track				
Amtrak FA - Labor	Units not applicable	10/5/2020	12/18/2020	\$121,544
C.EN.101859.2021.38 TKRH GROTON INRL - HOUSE TRACK	Units not applicable	10/5/2020	12/18/2020	\$33,680
Surfacing	Units not applicable	10/5/2020	12/18/2020	\$46,751
Groton Yard Track Improvements				
C.EN.101859.2021.37 TKRH GROTON CT YD-TRACK IMPROVEMENT	Units not applicable	4/1/2021	5/30/2021	\$84,582
Westerly Yard Track Rehabilitation				
Amtrak FA - Labor	Units not applicable	1/4/2021	4/16/2021	\$209,133
C.EN.101859.2021.39 TKRH WESTERLY YARD - TRACK IMPROVEMENT	2000 EA Install Ties, Concrete	1/4/2021	4/16/2021	\$33,680

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Fit Concrete Ties and Joint fit rail panels	Units not applicable	1/4/2021	4/16/2021	\$442,913
Surfacing	Units not applicable	1/4/2021	4/16/2021	\$46,751
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Charleston, RI Impasse Fence Installation - MP 152.3, AB Line				
C.EN.101854.2021.11 FEN NED MP 152.3 AB LN CHARLESTON, RI- IMPASSE FENCE INSTALL	2000 FT Install / Repair Right of Way Fencing	11/2/2020	7/12/2021	\$473,948
Stonington, CT Impasse Fence Installation - MP 134.54, AB Line				
C.EN.101854.2021.15 FEN NED MP 134.54 AB LN STONINGTON, CT- IMPASSE FENCE INSTALL	1300 FT Install / Repair Right of Way Fencing	11/2/2020	6/24/2021	\$304,730
BCC Segment 4 Programs Total				\$8,027,670

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0004 INT KINGSTON I/L MP158.8-MPF HST ROD RPL	6/25/2021	6/26/2021	\$18,196
C.EN.101894.0005 INT LIBERTY I/L MP157-MPF HST ROD REPLAC	7/2/2021	7/17/2021	\$54,588
BCC Segment 4 Projects Total			\$72,785

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BCC Segment 5: New London to New Haven (Amtrak-owned)

Operators: Amtrak, CTrail Shore Line East

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$9,909,442	\$0	\$9,909,442
Projects	\$4,894,227	\$0	\$4,894,227
Total	\$14,803,669	\$0	\$14,803,669

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00029 - New England Catenary - C.EN.101836				
<i>Projects include catenary hardware renewal between New Haven, CT, and Boston, MA on the AB Line, replacing of the MOD Units at Southampton Street Yard, and placing the OCS in service on Track 4 between Hebronville I/L and Holden I/L in Attleboro, MA.</i>				
View Interlocking Lighting Upgrades MP 105.7 AB Line				
C.EN.101836.0106 INT LIGHTING UPGRADES VIEW I/L	Units not applicable	7/1/2021	8/13/2021	\$103,346
PG00030 - New England Communications - C.EN.101837				
<i>FY21 Scope not available.</i>				
Grove Beach Sub 80C SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - 80C GROVE BEACH	1 EA Install / Renew RTU	2/1/2021	2/16/2021	\$103,998
Madison Sub 80B SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - 80B MADISON	1 EA Install / Renew RTU	12/1/2020	12/15/2020	\$103,998
View SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - VIEW	1 EA Install / Renew RTU	4/1/2021	4/15/2021	\$103,998
Westbrook Sub W81 SCADA RTU Replacement				
C.EN.101837.xxxx SUB NED-SUB STA SCADA/RTU - W81 WESTBROOK	1 EA Install / Renew RTU	10/1/2020	10/16/2020	\$139,639
PG00033 - New England Signals - C.EN.101839				
<i>Projects include switch machine replacements in Rhode Island, cable replacements at multiple locations in Connecticut, circuit protection upgrades on the AB Line in Connecticut and Rhode Island, upgrade the RTUs at Palmers Cove, Shaws, Mystic, and Conn by Amtrak Signal forces. Replace crossing gates and overlay circuits at three locations on the AS line. Install grade crossing recorders at 10 locations.</i>				
ABS Track Circuit Upgrades MP 72.9 - 73.5 AB Line				
C.EN.101839.0031 ABS NED AB LN MP72.9/73.5-TRK CIRCUIT	5 EA Track Circuits, Relays, and ACSES	10/2/2020	10/2/2020	\$28,825
ABS Track Circuit Upgrades MP 73.5 - 122.9 AB Line				
C.EN.101839.0032 ABS NED AB LN MP73.5/122.9-TRK CIRCUIT	35 EA Track Circuits, Relays, and ACSES	10/9/2020	1/22/2021	\$169,629
Conn Interlocking RTU Upgrades				
C.EN.101839.0108 INT CONN I/L-RTU UPGRADES	1 EA Install / Replace RTU	9/18/2020	11/12/2020	\$65,553
Shaws Cove Interlocking RTU Upgrades				
C.EN.101839.0107 INT SHAWS COVE I/L-RTU UPGRADES	1 EA Install / Replace RTU	9/18/2020	11/12/2020	\$65,553
PG00034 - New England Structures - C.EN.101840				
<i>Complete the steel upgrades and bridge timber replacement at the Conn. River Bridge (CT49.73) on the AS Line and replace the bridge timbers on the Conn. River Bridge (CT106.89) on the AB Line. Complete the installation of the Hull Street Strike Beam and steel and abutment upgrades to State Pier (CT123.59) undergrade bridge. Complete several SOGR projects at the five movable bridges on the AB Line. Design projects include retaining wall upgrades at Shoreline Junction, Hartford Tunnel Drainage Improvements, and culvert upgrades on both the AB and AB lines.</i>				
Conn River Bridge Segmental Girder Upgrades				
C.EN.101840.xxxx BGMS CT106.89 CONN RIVER SEGMENTAL GIRDER UPGRADES	Units not applicable	3/1/2021	4/30/2021	\$168,277

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Connecticut River Bridge Timber Replacement MP 106.89 AB Line				
C.EN.101840.0001 BGTI CT106.89 CONN RIVER-BRG TIE DESIGN	Units not applicable	10/1/2020	12/31/2020	\$47,052
Hull Street Bridge Strike Beam Install MP 96.89 AB Line				
C.EN.101840.0037 BGUG CT 96.89 HULL ST-BRIDGE STRIKE BEAM INSTALL	Units not applicable	6/1/2021	9/30/2021	\$347,072
Movable Bridge Mobile Catenary Design				
C.EN.101840.0013 BGMS NED MOVEABLE BRD-MOBILE CAT DESIGN	Units not applicable	11/1/2019	2/5/2021	\$114,374
Niantic Movable Bridge Grease Shield MP 116.74 AB Line				
C.EN.101840.0035 BGMS CT116.74 NIAN TIC GREASE SHIELD - B&B	Units not applicable	7/1/2021	7/23/2021	\$72,433
Shaws Cove Movable Bridge Electrical Upgrades MP 122.65 AB Line				
C.EN.101840.0031 BGMS CT122.65 SHAWS COVE ELEC UPG CONT	Units not applicable	10/1/2020	11/30/2020	\$35,137
Shaws Cove Movable Bridge Shaft Bearing Upgrades MP 112.65 AB Line				
C.EN.101840.0034 BGMS CT122.65 SHAWS COVE SHAFT BEARING UPGRADES - B&B	Units not applicable	2/1/2021	3/31/2021	\$257,349
Shaws Cove Movable Bridge Wedge Screw Jack MP 122.65 AB Line				
C.EN.101840.0023 BGMS SHAWS MP122.65-WEDGE SCREW JACK	Units not applicable	9/17/2020	11/16/2020	\$37,332
Shoreline Junction Retaining Wall Replacement MP 96.89 AB Line				
C.EN.101840.0042 WALL CT75.0 Shoreline Junction - Retaining Wall Replacement FD	Units not applicable	1/4/2021	6/28/2021	\$79,441
Undergrade Bridge Cattle Pass Upgrades MP 106.89 AB Line				
C.EN.101840.xxxx BGUG CT108.87 CATTLE PASS UPGRADES - B&B	Units not applicable	5/3/2021	6/2/2021	\$127,636
Waterford, CT Culvert Replacement MP 118.21 AB Line				
C.EN.101840.0011 CULV CT118.21 WATERFORD UPG FINAL DSN	Units not applicable	10/1/2020	3/8/2021	\$117,966
PG00035 - New England Substations - C.EN.101841				
<i>Projects include replacing the transformer at the Norton Substation (MP198.9), installing commercial power and interlocking lighting at View I/L. Replace the sump pumps at New London, Millstone, Leetes Island, and Madison. Replace the batteries at the Stonington Paralling Station and ground power at Whitfield Siding in Guilford, CT. Replace breaker relays and breaker vacuum bottle replacement at two substations and complete a substation assessment. Work to be performed by Amtrak ET Substation forces and contractor forces.</i>				
Guilford, CT Ground Power Whitfield Siding AB Line				
C.EN.101841.0017 Ground Power Whitfield Siding Guilford, CT	Units not applicable	10/1/2020	10/7/2020	\$60,732
Leetes Island Sub 80A Sump Pump AB Line				
C.EN.101841.0015 Sump Pump Leetes Island	Units not applicable	7/1/2021	7/14/2021	\$49,478
Madison Sub 80B Sump Pump AB Line				
C.EN.101841.0016 Sump Pump Madison	Units not applicable	6/1/2021	6/11/2021	\$47,870
New London & Millstone Sump Pump Replacement AB Line				
C.EN.101841.0007 SUB NEW LONDON/MILLSTONE-PUMP REPLACE	Units not applicable	5/3/2021	5/12/2021	\$108,665
Old Lyme 125 V Battery Replacement				
C.EN.101841.0013 125V Battery Replacement - Old Lyme PS	1 EA Install / Renew Battery, Chargers	1/12/2021	1/14/2021	\$20,396
View Interlocking Commercial Power Backup AB Line				
C.EN.101841.0014 Commercial Power Backup View I/L	Units not applicable	3/1/2021	3/25/2021	\$152,181
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
C.EN.101842.0111 GEOM NED SPOT SURFACE AB LN MP72.9-122.9				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101842.0111 GEOM NED SPOT SURFACE AB LN MP72.9-122.9	50000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$867,102
C.EN.101842.0113 BLST NED SPOT UNDERCUT AB LN-MP72.9-122.9				
C.EN.101842.0113 BLST NED SPOT UNDERCUT AB LN-MP72.9-122.9	400 FT Vacuum Train, Spot Undercut	10/1/2020	10/1/2021	\$135,575
Concrete Tie Replacement MP 72.9 - 122.9 AB Line				
C.EN.101842.0105 TIES NED CONCRETE AB LN MP72.9-122.9	100 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$231,901
Insulated Joint Removal MP 73.5 - 122.9 AB Line				
C.EN.101842.0101 RAIL NED INSULATED JT AB LN MP72.9-122.9	16 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$184,305
Interlocking Steel MP 72.9 - 122.9 AB Line				
C.EN.101842.0109 TURN NED I/L STEEL AB LN MP72.9-122.9	4 EA Renew Frog	10/1/2020	9/30/2021	\$274,792
Joint Elimination MP 72.9 - 122.9 AB Line				
C.EN.101842.0103 RAIL NED JOINT ELIM AB LN MP72.9-122.9	55 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$287,807
Spot Rock Scaling Drainage Improvements MP 72.9 - 122.9 AB Line				
C.EN.101842.0212 DRAN SPOT ROCK SCALING AB LN MP72.9-122.9	Units not applicable	3/1/2021	4/30/2021	\$198,328
Wood Tie/Timber Replacement MP 72.9 - 122.9 AB Line				
C.EN.101842.0107 TIES NED TIE/TIMB AB LN MP72.9-122.9	600 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$472,472
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 112.0 - 72.3 AB Line				
C.EN.101855.0011 GEOM AB LN MP 122.9-72.3 HSS PRODUCTION - 5	Units not applicable	10/1/2020	9/30/2021	\$1,184,302
PG00062 - Track Undercutting - C.EN.100269				
109,392 FT Undercutting				
Conn to Crescent Track 1 Undercutter AB Line				
C.EN.100269.0292 BLST CONN/CRESSENT TK1-UNDERCUTTER	3000 FT Undercut Track, Out of Face	9/28/2020	10/13/2020	\$759,872
Conn to Crescent Track 2 Undercutter AB Line				
C.EN.100269.0291 BLST CONN/CRESSENT TK2-UNDERCUTTER	3000 FT Undercut Track, Out of Face	10/13/2020	10/26/2020	\$1,044,824
PG00065 - Turnout Renewal - C.EN.101860				
See below for further detail on planned FY21 work.				
Shoreline Interlocking #51 Turnout				
C.EN.101860.0042 TURN - SHORELINE JCT #51 TO - INSTALL	1 EA Install Wood Turnout / 1 EA Install Switch Machine	10/9/2020	10/13/2020	\$730,159
PG00069 - Fence Upgrades - C.EN.101854				
See below for further detail on planned FY21 work.				
Madison, CT Security Fence, AB Line				
C.EN.101854.0012 FEN AB LN MADISON CT-SECURITY FENCE	3420 FT Install / Repair Right of Way Fencing	3/15/2021	5/13/2021	\$810,075

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Segment 5 Programs Total				\$9,909,442

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000127 - Shaws Cove CT Swing Bridge Fender Replacement - C.EN.101584			
<i>Procure contractor and begin construction of fender replacement. Schedule currently forecasts completion of one channel, and beginning of the 2nd, in FY21 assuming a 10/1/2020 start.</i>			
C.EN.101584.0040 BGMS CT122.65 SHAWS COVE FENDER-CNTRTOR	5/14/2021	7/13/2022	\$4,216,889
C.EN.101584.0041 BGMS CT122.65 SHAWS COVE FENDER-RWP	5/3/2021	10/12/2022	\$142,600
C.EN.101584.0043 BGMS CT122.65 SHAWS COVE FENDER-C&S	5/14/2021	7/13/2022	\$109,571
C.EN.101584.0044 BGMS CT122.65 SHAWS COVE FENDER-E.T.	5/14/2021	7/13/2022	\$23,294
C.EN.101584.0045 BGMS CT122.65 SHAWS COVE FENDER-B&B	5/14/2021	7/13/2022	\$34,173
C.EN.101584.0050 BGMS CT122.65 SHAWS COVE FENDER-CM	10/1/2020	7/22/2022	\$86,785
C.EN.101584.0051 BGMS CT122.65 SHAWS COVE FENDR-CNTRTR CM	3/1/2021	12/30/2022	\$90,081
C.EN.101584.0052 BGMS CT122.65 SHAWS COVE FENDER-CPS	12/29/2020	12/30/2021	\$171,584
C.EN.101584.0070 BGMS CT122.65 SHAWS COVE FENDER-PM	10/1/2020	12/30/2022	\$19,250
BCC Segment 5 Projects Total			\$4,894,227

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BCC Segment 6: New Haven to CT/NY State Line (Connecticut DOT-owned)

Operators: Amtrak, MNR (on behalf of CTDOT)

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs/Projects	\$131,200,000	\$0	\$131,200,000
Total	\$131,200,000	\$0	\$131,200,000

Investment Description and FY21 Scope	Units	Schedule	FY21 Budget
BCC Eligible			
NHL - ALL Movable Bridge Repairs			
Cos Cob Interim Repairs (DOT03010173CN).			
Complete Design and begin procurement with Metro North		30% Design Complete; Construction in 2022-2023	\$6,000,000
SAGA Interim Repairs (DOT03010177CN).			
Complete Design and begin procurement with Metro North		30% Design in September 2020, Construction in 2022-2023	\$6,000,000
NHL CT - Bridge Design			
DOT03000175PE (Bridge Design).			
On-going Program		On-going Program	\$3,200,000
NHL CT - Bridge Replacement/Repair Program			
NHL CT - Bridge Replacement/Repair Program			
On-going Program		On-going Program	\$8,000,000
NHL CT - Bridges - Atlantic Street Bridge, Stamford including Yard/Platform/Catenary			
NHL CT - Bridges - Atlantic Street Bridge, Stamford including Yard/Platform/Catenary			
Complete Construction of Bridge, Begin catenary modifications		Catenary Work Complete 2023	\$20,000,000
NHL CT - Bridges - East Ave, Osbourne and Fort Point Bridges			
NHL CT - Bridges - East Ave, Osbourne and Fort Point Bridges			
Begin utility relocations		Construction Complete 2025	\$10,000,000
NHL CT - Catenary Replacement			
Segments C1A and C2 - Construction (DOT03010145CN).			
Track 4 will be completed in sections C1A and C2. Conductor Rail installation on tracks 3 and 1 for section C2 on Devon Bridge. Project will be completed.		Complete Construction 9/1/2021	\$5,000,000
NHL CT - Network Infrastructure Upgrade - All Phases			
DOT03000178CN (Network Infrastructure Upgrade Phase 2).			
Continue Construction		Project Completion Dec. 2020	\$3,000,000
DOT03000202CN (Network Infrastructure Upgrade Phase 3).			
On-going Construction		Project Completion Dec 2021	\$3,000,000
DOT03000202PE (Network Infrastructure Upgrade Phase 3).			
Design Phase is complete		Design Complete	\$3,000,000
DOT03000215PE (Network Infrastructure Upgrade Phase 4).			

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Schedule	FY21 Budget
Preliminary Engineering		Design Complete 2022	\$3,000,000
NHL CT - Track Program (C Program)			
C-31 (DOT03000190CN).			
Purchase and install wood ties, surface track, install 17.6 track miles of new 136lb rail for various curves, purchase and install Switch at CP 272. MP 26 - MP 72	Install wood ties; Rail Installation; Switch replacement CP 272; Out of Face Surfacing	12/31/20 completion	\$1,000,000
C-32 (DOT03000206CN).			
Purchase and install wood ties, surface track, install 14.4 track miles of new 136lb rail for various curves, purchase and install Switch at CP 271, Drainage Improvements at various location	Install wood ties (9/20-9/21); Rail Installation (9/20-11/21); Switches CP 271/ Stamford (9/20-12/21); Out of Face Surfacing (9/20-12/21)		\$17,000,000
Track and Speed Improvements (TIME) DOT03000214PE			
Initiate design and select consultant.		Complete Design in March 2023	\$4,000,000
NHL S program/Timber Program			
DOT03000161CN (Bridge Timber Program).			
MP 33.75, MP 40.89, MP 41.28, MP 55.03 and MP 29.90, MP 29.90, MP 29.48, MP 29.68"		10/20-12/21	\$2,900,000
DOT03000207CN (S-23).			
MP 33.75, MP 34.17, MP 33.72, MP 43.97, MP 49.66, MP 54.58, MP 56.35, MP 57.46, MP70.36"	East Main St. MP 34.17; Elm St. MP 33.75; Hamilton St. MP 34.72; Mill River MP 49.66; Bishop Ave. MP 57.46; Park Ave. MP 54.55; Washington Ave. MP 70.36	10/1/20 - 9/30/21	\$3,100,000
Positive Train Control			
Positive Train Control DOT030000149CN			
Complete installation for the New Haven mainline and put all segments into Revenue Service Demonstration		Put all segments in to RSD by December 31, 2020.	\$15,000,000
Substation Repairs/Improvements			
DOT03010505CN (Sasco Creek Power Supply) DOT03010508CN (Oil Filled Circuit Breakers)DOT03010517CN (HMI)			
Complete Procurement of Sasco Creek Transformers, begin installation		Start installation of Sasco Creek March 2021.	\$6,000,000
Substation Replacements			
DOT03010072CN (5 Substations). DOT03010153CN (6th Substation)			
Complete Construction of Substation 524, demolish old substation		Complete Construction 9/1/2021	\$2,000,000
BCC Segment 6 Total			\$131,200,000

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 7: CT/NY State Line to New Rochelle (MNR-owned)

Operators: Amtrak, MNR

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$3,450,000	\$0	\$3,450,000
Projects	\$15,750,000	\$0	\$15,750,000
Total	\$19,200,000	\$0	\$19,200,000

Programs

Investment Description and FY21 Scope	Units	Schedule	FY21 Budget
BCC Eligible			
Comms & Signal Program			
Work may include component replacement of Communications and Signal systems	Not applicable	Ongoing	\$500,000
Structures Program			
Work may include replacing deteriorated bridge culverts, bridge timbers, installing bridge walkways and ROW fencing	Not applicable	Ongoing	\$250,000
System-wide Support Programs			
Ongoing work associated with the delivery of capital program projects at MNR.	Not applicable	Ongoing	\$450,000
Track Programs			
Work may include track replacement, ballast and timber work, interlocking replacement, procurement of MOW equipment	Not applicable	Ongoing	\$2,250,000
BCC Segment 7 Programs Total			\$3,450,000

Projects

Investment Description and FY21 Scope	Schedule	FY21 Budget
BCC Eligible		
OH Bridge Rehabilitation Program: Centre Av Bridge Replacement		
Advertise 3rd party contract for design effort. Begin 3rd party design contract.	Design anticipated for FFY21	\$2,000,000
OH Bridge Rehabilitation: Design for NH Bridge replacements		
Advertise 3rd party contract for design effort. Begin 3rd party design contract.	Design anticipated for FFY21	\$2,000,000
Retaining Wall Reconstruction: Port Chester Retaining Wall		
Continue construction efforts	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of Willet Av and Highland Road Bridges in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$750,000
Substation 128 and 178 replacement		
Complete preliminary design effort. Prepare documents for design-build procurement. Advertise 3rd party design-build procurement.	Ongoing design work is anticipated to conclude FFY21 Q3	\$2,000,000
UG Bridge Rehabilitation Program: Willet Av and Highland Rd Bridge Replacement		
Continue construction efforts	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of retaining walls in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$9,000,000
BCC Segment 7 Projects Total		\$15,750,000

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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BCC Segment 8: New Rochelle to Harold (Amtrak-owned)

Operators: Amtrak

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$2,424,901	\$0	\$2,424,901
Projects	\$2,580,475	\$0	\$2,580,475
Total	\$5,005,377	\$0	\$5,005,377

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00037 - New York Catenary - C.EN.101843				
<i>See below for further detail on planned FY21 work.</i>				
Hellgate Catenary Renewal MP 12.8 - 13.8 AG Line				
C.EN.101843.0002 CAT HELLGATE MP12.8/13.8-CAT RENEWAL	300 EA Install / Renew Catenary Insulators / Hardware	10/1/2020	9/30/2021	\$732,314
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
Sunnyside Yard Tower Q Stairs Install				
C.EN.101847.0065 TOWR "Q" SSYD-TOWER STAIRS INSTALL	Units not applicable	3/1/2021	3/31/2021	\$71,329
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
Drainage Improvements, AG Line, MP 14.45				
C.EN.101849.0143 AG LN MP14.45 DRAINAGE IMPROVEMENTS	Units not applicable	10/1/2020	9/30/2021	\$171,923
High Speed Surfacing MP 18.9 - 3.7 AG Line				
C.EN.101849.0108 GEOM NYD HSS SURFAC AG LN MP E18.9-E3.7	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 18.9 - 3.7, AG Line				
C.EN.101849.0014 RAIL NYD INSULATED JT AG LN MPE18.9-E3.7	1 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$7,729
Interlocking Steel MP 18.9 - 3.7 AG Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$38,517
Joint Elimination MP 18.9 - 3.7 AG Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$24,863
Spot Surface, AG LN, MP 18.9 - 3.7				
C.EN.101849.0001 GEOM NYD SPOT SURFAC AG LN MP E18.9-E3.7	10000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$203,401
Vac Train MP 18.9 - 3.7 AG Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$143,895
Wood Tie/Timber Replacement MP 18.9 - 3.7 AG Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$535,115
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Rail Grinding MP .35 - 8.3 AZ Line				
XXX6 AZ LN MP 0.35 - MP 8.3	Units not applicable	10/6/2020	10/28/2020	\$403,053
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Bronx, NYC Fence Installation - MP 12.25				
C.EN.101854.2021.8 FEN NYC - MP12.25 BRONX FENCE INSTALL	0 FT Install / Repair Right of Way Fencing	8/16/2021	11/25/2022	\$59,064
BCC Segment 8 Programs Total				\$2,424,901

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000018-Hellgate Substation 45-47 Rehabilitation -C.EN.101745			
<i>Complete designs for relay replacement, structural and civil rehabilitation at all three substations. Procure contractor and start construction of replacement trolley and feeder breakers. Replace one 2H (138kV) breaker at Substation 46. Advertise and award contract for construction to replace relays and civil work.</i>			
C.EN.101745.1301 SUB HELLGATE SUB45/47 REHAB-PRELIM DSN	9/22/2020	11/18/2020	\$44,237
C.EN.101745.1501 SUB HELLGATE SUB REHAB-PRELIM DSN REVIEW	11/19/2020	12/10/2020	\$10,724
C.EN.101745.2101 SUB HELLGATE LINE NEW SUB-60% DESIGN	12/11/2020	2/9/2021	\$53,620
C.EN.101745.2201 SUB HELLGATE LINE NEW SUB-90% DESIGN	2/10/2021	4/7/2021	\$53,620
C.EN.101745.2301 SUB HELLGATE LINE NEW SUB-FINAL DESIGN	8/31/2020	6/3/2021	\$164,434
C.EN.101745.2401 SUB HELLGATE LINE NEW SUB-DSN REVIEW	12/11/2020	6/3/2021	\$44,404
C.EN.101745.2501 SUB HELLGATE LINE NEW SUB-DSN RWP SUPP	9/22/2020	7/9/2021	\$7,121
C.EN.101745.4102 SUB HELLGATE LINE NEW SUB-TROLLEY/BRKERS	10/14/2020	8/3/2021	\$1,769,460
C.EN.101745.4501 SUB HELLGATE LINE NEW SUB-CNSTRUCT E.T.	9/16/2020	1/13/2022	\$148,904
C.EN.101745.4601 SUB HELLGATE LINE NEW SUB-CNSTRUCT RWP	5/28/2021	4/19/2022	\$17,158
C.EN.101745.4801 SUB HELLGATE LINE NEW SUB-EQUIP RENTALS	9/16/2020	11/12/2020	\$19,437
C.EN.101745.6101 SUB HELLGATE LINE NEW SUB-TEST/COMM	8/4/2021	5/10/2022	\$10,523
C.EN.101745.7101 SUB HELLGATE LINE NEW SUB-PROJ. MGMT.	10/1/2019	5/13/2022	\$67,611
C.EN.101745.7201 SUB HELLGATE LINE NEW SUB-PROJ. SUPPORT	5/1/2020	6/16/2022	\$6,269
BCC Segment 8 Projects Total			\$2,580,475

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 9: Harold to F Interlocking (Amtrak-owned)

Operators: Amtrak, LIRR

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$6,320,959	\$0	\$6,320,959
Projects	\$7,527,283	\$5,920,923	\$13,448,206
Total	\$13,848,242	\$5,920,923	\$19,769,165

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				
Sunnyside Yard MOFW Engineering Trailer Replacement				
C.EN.101845.0017 MOFW SSSD ENG. TRAILER REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$119,769
Sunnyside Yard MOFW ET Trail Replacement				
C.EN.101845.0020 MOFW SUNNYSIDE YD-E.T. TRAILER REPLACE	Units not applicable	10/1/2020	9/30/2021	\$119,769
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
Sunnyside Yard R Switch RTU Replacement				
C.EN.101846.0025 INT "R" SWITCH SSSD-RTU REPLACEMENT	Units not applicable	10/1/2020	4/6/2021	\$281,551
PG00043 - New York Substations - C.EN.101848				
<i>See below for further detail on planned FY21 work.</i>				
Sunnyside Yard Frequency Converter - HVAC Replacement				
C.EN.101848.0025 FREQ SSSD NY FREQ CONVERTER-HVAC REPLACE	Units not applicable	10/1/2020	5/27/2021	\$1,003,157
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
Concrete Tie Replacement, AG Line, MP 3.7 - 3.0				
C.EN.101849.0077 TIES NYD CONCRETE AG LINE MPE3.7-E3.0	6 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$9,910
Drainage Improvements, AG Line, MP 3.7 - 3.0				
C.EN.101849.0101 DRAN NYD DRAINAGE IMPV AG LN MPE3.7-E3.0	Units not applicable	10/1/2020	9/30/2021	\$452,014
High Speed Surfacing MP 3.7 - 3.0 AG Line				
C.EN.101849.0109 GEOM NYD HSS SURFAC AG LN MP E3.7-E3.0	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 3.7 - 3.0, AG LN				
C.EN.101849.0015 RAIL NYD INSULATED JT AG LN MPE3.7-E3.0	1 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$7,729
Interlocking Steel MP 3.7 - 3.0 AG Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$231,101
Joint Elimination MP 3.7 - 3.0 AG Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$24,863
Spot Rail Replacement MP 3.0 - .01 AG Line				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Note: Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101849.0050 RAIL NY SPOT RAIL RPL AT LN MPE3.0-E0.01	5500 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$884,920
Spot Rail Replacement MP 3.7 - 3.0 AG Line				
C.EN.101849.0049 RAIL NYD SPOT RAIL RPL AG LN MPE3.7-E3.0	5950 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$957,325
Spot Surface, AG LN, MP 3.7 - 3.0				
C.EN.101849.0002 GEOM NYD SPOT SURFACE AG LN MP E3.7-E3.0	5500 PF Surface Track, Spot	10/1/2020	9/30/2021	\$111,872
Vac Train MP 18.9 - 3.7 AG Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$143,895
Wood Tie/Timber Replacement MP 3.7 - 3.0 AG Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$1,621,543
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 3.0 - .01 AG Line				
C.EN.101855.0025 GEOM AG LN MP E3.0- E0.01 HSS PRODUCTION - 10	Units not applicable	10/1/2020	9/30/2021	\$126,553
High Speed Surfacing Production MP 3.7 - 3.0 AG Line				
C.EN.101855.0021 GEOM AG LN MP E3.7 - E3.0 HSS PRODUCTION - 9	Units not applicable	10/1/2020	9/30/2021	\$109,625
BCC Segment 9 Programs Total				\$5,402,339

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000066 - Q Interlocking C&S Equipment Replacement - C.EN.100676			
<i>Continue trenching and cross track digs, Complete phase 1 signal huts fabrication and place in field; Continue foundation work for signal houses; continue cable paths from the new CIH to Phase 1 cases; continue of cable paths from the QRT house, Commence install of switch machines and heater for Phase 1; and set interface cases.</i>			
C.EN.100676.4301 INT "Q" I/L C&S EQUIP-C&S CONSTRUCTION	8/3/2020	10/3/2025	\$3,834,954
C.EN.100676.4302 INT "Q" I/L C&S EQUIP-LANCASTER SHOP	10/1/2020	12/28/2021	\$1,386,691
C.EN.100676.4303 INT "Q" I/L C&S EQUIP-C&S COMM CONSTRUCT	10/1/2020	10/11/2021	\$1,101,427
C.EN.100676.4801 INT "Q" I/L C&S EQUIP-FORCE ACCOUNT SUPP	10/1/2020	9/30/2021	\$106,697
C.EN.100676.5201 INT "Q" I/L C&S EQUIP-CONSTRUCT DSN SRVS	11/2/2020	11/30/2023	\$95,478
C.EN.100676.7101 INT "Q" I/L C&S EQUIP-PROJECT MGT.	10/1/2020	1/3/2028	\$268,096
P000077 - Sunnyside Yard Frequency Converter Upgrade - C.EN.101239			
<i>Complete 30% preliminary engineering design and commence procurement of a Design Build contractor</i>			
C.EN.101239.1301 FREQ SSYD-CONVERTER RPL PRELIM DSN	10/1/2020	8/2/2021	\$413,738
C.EN.101239.1501 FREQ SSYD-CONVERTER RPL PE PRELIM DSN	12/7/2020	12/28/2020	\$25,201
C.EN.101239.5101 FREQ SSYD-CONVERTER RPL CNSTRUCT MGT.	7/30/2021	10/1/2024	\$75,329
C.EN.101239.7101 FREQ SSYD-CONVERTER RPL PROJECT MGT.	10/1/2020	2/26/2025	\$128,690

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Note: Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0013 INT "F" I/L MP 3-MPF HST ROD REPLACE	10/23/2020	11/28/2020	\$90,981
BCC Ineligible			
P000051 - Sunnyside Yard S4 Substation Relocation/Upgrades - C.EN.101792			
<i>Complete fabrication, installation, and commissioning of new substation. Decommission and remove existing S4 substation.</i>			
C.EN.101792.4101 MOFE SUNNYSIDE YD SUB RELOCATE-CNTRCTOR	3/2/2020	7/2/2021	\$5,402,162
C.EN.101792.4401 MOFE SUNNYSIDE YD SUB RELOCATE-B&B CNSTR	6/4/2021	7/2/2021	\$25,725
C.EN.101792.4501 MOFE SUNNYSIDE YD SUB RELOCATE-E.T CNSTR	6/4/2021	7/2/2021	\$93,759
C.EN.101792.4601 MOFE SUNNYSIDE YD SUB RELOCATE-PROTECT	10/1/2018	6/24/2019	\$186,644
C.EN.101792.5201 MOFE SUNNYSIDE YD SUB RELOCATE-CM	12/3/2018	5/24/2019	\$80,264
C.EN.101792.6101 MOFE SUNNYSIDE YD SUB RELOCATE-TEST/COMM	7/2/2021	8/27/2021	\$42,896
C.EN.101792.7101 MOFE SUNNYSIDE YD SUB RELOCATE-PM	11/21/2017	6/27/2019	\$89,474
BCC Segment 9 Projects Total			\$13,448,206

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Note: Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

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BCC Segment 10: F Interlocking to Penn Station New York (Amtrak-owned)

Operators: Amtrak, LIRR, NJT

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$6,479,546	\$0	\$6,479,546
Projects	\$966,340	\$7,040,468	\$8,006,808
Total	\$7,445,886	\$7,040,468	\$14,486,353

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				
East River Tunnels Lines 1-4 Emergency Access Signage Upgrades				
C.EN.101845.HD.0000155 TUN NYD ERT LNS 1-4 EMERGENCY ACCESS SIGNAGE UPGRADES	Units not applicable	10/1/2020	3/31/2021	\$44,481
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
East River Tunnel Line 1 and 4 Electronic Relay Replacement				
C.EN.101846.0014 INT NYD ERT LN1/4-ELECTRONIC RELAYS RPL	Units not applicable	10/1/2020	9/30/2021	\$268,096
East River Tunnel Line 1 and 4 Relay Replacement				
C.EN.101846.0001 INT NYD EAST ERT LN1/4-RELAYS REPLACE	Units not applicable	10/1/2020	9/30/2021	\$465,647
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
East Portal Lines Sump Feeder Cable Replacement				
C.EN.101847.HD.0000466 TUN NYD EAST PORTAL LINES 2 & 3 - SUMP FEEDER CABLE REPLACEMENT/UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$387,876
C.EN.101847.HD.0000467 TUN NYD ERT MID RIVER LINES 3 & 4 - SUMP FEEDER CABLE REPLACEMENT/UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$282,381
East River Tunnel Improvements - Project Management				
C.EN.101847.0056 TUN EAST RIVER TUNNEL IMPROVEMENTS-PM	Units not applicable	10/1/2020	9/30/2021	\$32,170
East River Tunnels Benchwall Diamond Plate Improvements				
C.EN.101847.0052 TUN ERT-BENCHWALL/DIAMOND PLATE IMPRVO	Units not applicable	10/1/2020	9/30/2021	\$80,431
East River Tunnels Benchwall Handrail Replacements				
C.EN.101847.0073 TUN ERT LINE2-BENCHWALL HANDRAIL RPL	Units not applicable	10/1/2020	9/30/2021	\$100,991
C.EN.101847.0074 TUN ERT LINE3-BENCHWALL HANDRAIL RPL	Units not applicable	10/1/2020	9/30/2021	\$100,991
C.EN.101847.0075 TUN ERT LINE4-BENCHWALL HANDRAIL RPL	Units not applicable	10/1/2020	9/30/2021	\$100,991
East River Tunnels Emergency Power Transfer Switch				
C.EN.101847.0054 TUN ERT LN1/4-EMERGENCY PWR TRANSFER SW	Units not applicable	3/1/2021	6/30/2021	\$107,240
East River Tunnels Fire Standpipe Improvements				
C.EN.101847.HD.0000474 TUN NYD ERT - FIRE STANDPIPE IMPROVEMENTS	Units not applicable	10/1/2020	9/30/2021	\$463,487
East River Tunnels Flood Gates Improvements				
C.EN.101847.0051 TUN ERT LINE1/4 -FLOOD GATES IMPROVEMENT	Units not applicable	10/1/2020	12/31/2020	\$271,590
East River Tunnels Leak Mitigation Improvements				
C.EN.101847.0053 TUN ERT-LEAK MITIGATION IMPROVEMENTS	Units not applicable	10/1/2020	9/30/2021	\$414,018
East River Tunnels Lighting upgrades				
C.EN.101847.0055 TUN ERT LINES1/4-LIGHTING UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$80,431

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Note: Long Island Rail Road's obligation is subject to revision based on actual expenditures per Amtrak-LIRR agreement.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
Concrete Tie Replacement, AG Line, MP 3.0 -0.01				
C.EN.101849.0078 TIES NYD CONCRETE AG LN MPE3.0-MPE0.01	58 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$95,795
Drainage Improvements, AG Line, MP 3.0 -0.01				
C.EN.101849.0102 DRAN NYD DRAINAGE IMPV AG LN MPE3.0-E0.01	Units not applicable	10/1/2020	9/30/2021	\$2,189
Insulated Joint Removal, MP 3.0 - 0.01, AG Line				
C.EN.101849.0016 RAIL NYD INSULATED JT AG LN MPE3.0-E0.01	1 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$7,729
Interlocking Steel MP 3.0 - 0.01 AG Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$173,325
Joint Elimination MP 3.0 - 0.01 AG Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$24,863
Spot Surface, AG LN, MP 3.0 - 0.01				
C.EN.101849.0003 GEOM NYD SPOT SURFAC AG LN MP E3.0-E0.01	7000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$142,381
Vac Train MP 3.0 - 0.01 AG Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$374,124
Wood Tie/Timber Replacement MP 3.0 - 0.01 AG Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$1,945,847
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				
Rail Grinding MP .25 - 3.18 AT Line				
XXX7 AT LN MP 0.25 - MP 3.18	Units not applicable	10/22/2020	11/12/2020	\$351,612
PG00083 - Communications System Upgrades - C.EN.101857				
<i>See below for further detail on planned FY21 work.</i>				
New York East Fiber Transport Upgrades				
FY21.0011 NY EAST FIBER TRANSPORT UPGS.	Units not applicable	10/26/2020	9/30/2022	\$160,860
BCC Segment 10 Programs Total				\$6,479,546

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000012 - East River Tunnels Radio Antenna Replacement - C.EN.101780			
<i>Continue the installation of cable and hangers, removal of existing cable and installing new cable in the East River Tunnel.</i>			
C.EN.101780.0001 TUN ERT-LIRR ANTENNA REPLACEMENT LINE 3	2/4/2019	3/31/2021	\$301,958
C.EN.101780.0002 TUN ERT-LIRR ANTENNA REPLACEMENT LINE 4	2/4/2019	6/4/2021	\$284,685
C.EN.101780.0003 TUN ERT-PLATFORM 7/11 ANTENNA REPLACE	1/2/2020	3/31/2021	\$148,831

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
P000051 - Sunnyside Yard S4 Substation Relocation/Upgrades - C.EN.101792			
<i>Complete fabrication, installation, and commissioning of new substation. Decommission and remove existing S4 substation.</i>			
C.EN.101792.7201 MOFE SUNNYSIDE YD SUB RELOCATE-PROJ SUPP	10/1/2020	9/29/2021	\$21,834
P000066 - Q Interlocking C&S Equipment Replacement - C.EN.100676			
<i>Continue trenching and cross track digs, Complete phase 1 signal huts fabrication and place in field; Continue foundation work for signal houses; continue cable paths from the new CIH to Phase 1 cases; continue of cable paths from the QRT house, Commence install of swtich machines and heater for Phase 1; and set interface cases.</i>			
C.EN.100676.2401 INT "Q" I/L C&S EQUIP-DESIGN REVIEW	1/2/2020	3/30/2020	\$16,665
P000077 - Sunnyside Yard Frequency Converter Upgrade - C.EN.101239			
<i>Complete 30% preliminary engineering design and commence procurement of a Design Build contractor</i>			
C.EN.101239.1601 FREQ SSYD-CONVERTER RPL PE RWP/FLAG SUPPORT	4/1/2020	3/18/2021	\$47,434
P000170-1st Avenue Ventilation Fan Upgrade -C.EN.101910			
<i>Procurement of Construction and Award Construction</i>			
1st Avenue Vent (C.EN.101910)	10/1/2020	3/19/2025	\$144,933
BCC Ineligible			
P000171-River to River Railroad Resiliency Grant (R4 Grant) -C.EN.AAAAA2			
<i>Develop an RFP and Award Design Consultant</i>			
River to River Railroad Resiliency Grant (R4 Grant)	10/1/2020	9/30/2021	\$525,736
P000176-Sunnyside Yard Water Main Upgrades-C.EN.101913			
<i>FY21 Scope not available.</i>			
B0080.4101 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION CONTRACTS	4/1/2021	9/30/2022	\$2,681,001
B0080.4201 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION TRACK	4/1/2021	9/30/2022	\$346,101
B0080.4401 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION B&B	4/1/2021	9/30/2022	\$254,019
B0080.4501 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION ET	4/1/2021	9/30/2022	\$267,865
B0080.4601 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION RWP SUPPORT	4/1/2021	9/30/2022	\$306,307
B0080.5101 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCTION MANAGEMENT	4/1/2021	3/31/2023	\$268,102
B0080.5201 SUNNYSIDE YARD WATER MAIN UPGRADES - CONSTRUCION DESIGN SERVICES	4/1/2021	3/31/2023	\$107,241
B0080.7101 SUNNYSIDE YARD WATER MAIN UPGRADES - PROJECT MANAGEMENT	10/1/2020	3/31/2023	\$96,518
B0080.7201 SUNNYSIDE YARD WATER MAIN UPGRADES - PROJECT SUPORT	10/1/2020	3/31/2023	\$21,450
P000181-MofE- ICT Facility Program - NY Sunnyside Yard ICT Site Analysis-C.EN.101904			
<i>FY21 Scope not available.</i>			
C.EN.DDDDDD.0001 – Preliminary Design	4/1/2021	12/1/2021	\$1,358,057
C.EN.DDDDDD.0002 – PE Design review	4/1/2021	12/1/2021	\$215,874
C.EN.DDDDDD.0003 – PE RWP	4/1/2021	12/1/2021	\$143,916
C.EN.DDDDDD.0004 – Project Management	4/1/2021	12/1/2021	\$448,279
BCC Segment 10 Projects Total			\$8,006,808

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BCC Segment 11: Penn Terminal (Amtrak-owned)

Operators: Amtrak, LIRR, NJT

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$1,568,698	\$0	\$1,568,698
Projects	\$32,804,525	\$1,245,081	\$34,049,606
Total	\$34,373,223	\$1,245,081	\$35,618,304

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00039 - New York Facilities - C.EN.101845				
See below for further detail on planned FY21 work.				
PSNY Fire Life Safety Facilities				
C.EN.101845.0085 STA PSNY-LIFE SAFETY FACILITY IMPRVMENTS	Units not applicable	12/1/2020	9/30/2021	\$310,996
C.EN.101845.0086 STA PSNY-LIFE SAFETY FAC IMPRVMENTS PM	Units not applicable	12/1/2020	9/30/2021	\$5,361
PG00041 - New York Signals - C.EN.101846				
See below for further detail on planned FY21 work.				
Penn Station LED Signal Upgrades				
C.EN.101846.HD.0000256 INT NYD PSNY LED SIGNAL UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$246,931
PG00042 - New York Structures - C.EN.101847				
See below for further detail on planned FY21 work.				
Penn Station Standpipe/Heat Trace				
C.EN.101847.0094 STA PENN STA NY-STANDPIPE/HEAT TRACE	Units not applicable	10/1/2020	9/30/2021	\$115,096
PG00043 - New York Substations - C.EN.101848				
See below for further detail on planned FY21 work.				
Penn Station Sub 43 RTU Replacement				
C.EN.101848.0036 SUB PENN STA #43-RTU REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$159,568
Penn Station Substation #43 31st Street - B&F Switch Replacement				
C.EN.101848.0020 SUB PSNY #43 31st ST.-B&F SWITCH REPLACE	Units not applicable	10/1/2020	9/30/2021	\$627,438
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
See below for further detail on planned FY21 work.				
JO Interlocking Timber Replacement				
C.EN.101858.2021.19 TIE/TIMBER REPLACEMENT - JO	59 EA Install Ties and Timbers	4/26/2021	5/13/2021	\$103,309
BCC Segment 11 Programs Total				\$2,383,147

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000059 - Penn Station NY - Infrastructure Renewal - C.EN.101104			
Total track rehabilitation of Track 12, Track 9, and Track 7. Replacement of switches, including: 551/555 switch, 549/551 switch, 131/135 switch, 635 switch, 127/131 switch, 119/123 switch, 119/91 switch, 79 switch, and 123/127 switch.			
#55 Installation Outage - 1	10/16/2020	7/26/2021	\$992,224

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
119/91 Double Slip Replacement	7/9/2021	7/26/2021	\$677,112
C.EN.101104.4205 TCRN PENN STA NY YRD TKS REHAB 2C-TK	10/2/2020	1/29/2021	\$1,799,544
C.EN.101104.4206 TCRN PSNY-REPLACE TK9-TRK	6/7/2021	8/12/2021	\$1,205,852
C.EN.101104.4207 TCRN PSNY-REPLACE TK7-TRK	9/1/2021	12/16/2021	\$396,788
C.EN.101104.4209 TURN PENN STATION NY - #635 TO REPLACEMENT - TRACK	3/19/2021	3/29/2021	\$1,283,454
C.EN.101104.4210 TURN PENN STATION NY - #549/551TO REPLACEMENT - TRACK	1/8/2021	1/18/2021	\$1,892,258
C.EN.101104.4211 TURN PENN STATION NY - #131/135 TO REPLACEMENT - TRACK	2/19/2021	3/8/2021	\$1,892,258
C.EN.101104.4212 TURN PENN STATION NY - #127/131 TO REPLACEMENT - TRACK	4/9/2021	4/26/2021	\$1,892,258
C.EN.101104.4213 TURN PENN STATION NY - #119//123 TO REPLACEMENT - TRACK	4/30/2021	5/24/2021	\$1,892,257
C.EN.101104.4214 TURN PENN STATION NY - #79 TO REPLACEMENT - TRACK	8/13/2021	8/23/2021	\$1,677,778
C.EN.101104.4305 TCRN PENN STA NY TTK REHAB #12 2C-C&S	10/2/2020	1/29/2021	\$1,051,168
C.EN.101104.4306 TCRN PSNY-REPLACE TK9-C&S	6/7/2021	8/13/2021	\$912,967
C.EN.101104.4309 TURN PENN STATION NY - #635 TO REPLACEMENT - C&S	3/26/2021	3/29/2021	\$339,317
C.EN.101104.4310 TURN PENN STATION NY - #549/551 TO REPLACEMENT - C&S	1/15/2021	1/18/2021	\$455,355
C.EN.101104.4311 TURN PENN STATION NY - #131/135 TO REPLACEMENT - C&S	2/26/2021	3/8/2021	\$455,355
C.EN.101104.4312 TURN PENN STATION NY - #127/131 TO TO REPLACEMENT - C&S	4/16/2021	4/26/2021	\$455,355
C.EN.101104.4313 TURN PENN STATION NY - #119//123 TO REPLACEMENT - C&S	5/14/2021	5/24/2021	\$455,355
C.EN.101104.4314 TURN PENN STATION NY - #79 TO REPLACEMENT - C&S	8/20/2021	8/23/2021	\$197,979
C.EN.101104.4402 TCRN PSNY-REPLACE TK12-B&B	10/2/2020	1/29/2021	\$3,426,757
C.EN.101104.4403 TCRN PSNY-REPLACE TK9-B&B	6/7/2021	8/12/2021	\$2,346,303
C.EN.101104.4505 TCRN PENN STA NY TRK REHAB #12 2C-E.T.	10/2/2020	1/29/2021	\$788,836
C.EN.101104.4506 TCRN PSNY-REPLACE TK9-E.T.	6/7/2021	8/13/2021	\$655,462
C.EN.101104.4509 TURN PENN STATION NY - 635 TO REPLACEMENT - ET	3/26/2021	3/29/2021	\$128,958
C.EN.101104.4510 TURN PENN STATION NY - #549/551TO REPLACEMENT - ET	1/15/2021	1/18/2021	\$126,411
C.EN.101104.4511 TURN PENN STATION NY - #131/135 TO REPLACEMENT - ET	2/26/2021	3/8/2021	\$102,148
C.EN.101104.4512 TURN PENN STATION NY - #127/131 TO REPLACEMENT - ET	4/16/2021	4/26/2021	\$102,148
C.EN.101104.4513 TURN PENN STATION NY - #119//123 TO REPLACEMENT - ET	5/14/2021	5/24/2021	\$102,148
C.EN.101104.4514 TURN PENN STATION NY - #79 TO REPLACEMENT - ET	8/20/2021	8/23/2021	\$102,148
C.EN.101104.4800-PH GEOM AMTK SYS - GEOM AMTK SYS TRANSPORTATION SUPPORT	10/1/2020	9/30/2021	\$519,438
C.EN.101104.7000-PH GEOM AMTK SYS - GEOM AMTK SYS ¿ PROJECT CONTROL SUPPORT	10/1/2020	9/30/2021	\$42,897
C.EN.101104.7100 STIP PSNY INFRASTRUCTURE RENEW-PM	10/1/2020	9/30/2021	\$107,242
C.EN.101104.8001 TURN PSNY-INFRASTRUCT RENEW PARKING	10/1/2020	9/30/2021	\$43,753

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
Double Slip Replacement	10/9/2020	10/26/2020	\$716,927
P000060 - Penn Station NY Scada Phase II - C.EN.100081			
<i>Continue to develop Design Work Packages 2 and 3. Package 2 consists of system and software administration upgrades, Empire ventilation control upgrades, NY service building panel upgrades, and sump pump monitoring upgrades. Package 3 consists of PSNY substation panel upgrades, ERT portal panel upgrades, Brookfield ventilation control upgrades, and network architecture upgrades.</i>			
C.EN.100081.0001 CETC903780 SCADA-CM	3/1/2019	3/1/2019	\$361,911
C.EN.100081.0002 CETC903780 SCADA-PM	3/1/2019	7/21/2021	\$95,405
C.EN.100081.0005 CETC903780 SCADA-DSN CONSULT	10/3/2016	3/29/2018	\$103,627
C.EN.100081.0008 CETC903780 SCADA-AMTRAK LBR	3/1/2019	8/4/2021	\$89,259
C.EN.100081.0009 CETC903780 SCADA-3RD PARTY GC	3/1/2019	11/16/2021	\$1,926,786
P000177-FDNY Tunnel Radio System Upgrades-C.EN.101627			
<i>FY21 Scope not available.</i>			
B0078.2301-PH FDNY PSNY RADIO SYSTEM UPGRADES - FINAL DESIGN	10/30/2020	12/31/2020	\$46,498
B0078.2401-PH FDNY PSNY RADIO SYSTEM UPGRADES - FINAL DESIGN REVIEW	10/1/2020	10/29/2020	\$10,724
B0078.2501-PH FDNY PSNY RADIO SYSTEM UPGRADES - FD RWP/FLAG SUPPORT	8/3/2020	5/4/2021	\$2,917
B0078.4301-PH FDNY PSNY RADIO SYSTEM UPGRADES - CONSTRUCTION - C&S	5/21/2021	9/20/2021	\$825,099
B0078.5101-PH FDNY PSNY RADIO SYSTEM UPGRADES - CM	8/3/2020	5/4/2021	\$47,374
B0078.5201-PH FDNY PSNY RADIO SYSTEM UPGRADES - CONSTRUCTION DESIGN SERVICES	5/21/2021	10/20/2021	\$28,644
B0078.6101-PH FDNY PSNY RADIO SYSTEM UPGRADES - TESTING/ COMMISSIONING	9/21/2021	10/20/2021	\$3,001
B0078.7101-PH FDNY PSNY RADIO SYSTEM UPGRADES - PROJECT MANAGEMENT	8/3/2020	5/4/2021	\$22,672
B0078.7201-PH FDNY PSNY RADIO SYSTEM UPGRADES - PROJECT SUPPORT	8/3/2020	5/4/2021	\$4,395
BCC Ineligible			
P000039 - Brookfield Overbuild Support - C.EN.100882			
<i>Provide protection services, perform trackwork and protect/relocate utilities</i>			
C.EN.100882.0011 TKRN BROOKFIELD OVERBUILD S.E. TWR-C&S	9/1/2017	10/29/2019	\$119,539
C.EN.100882.0013 TKRN BROOKFIELD OVERBUILD S.E. TWR-E.T.	9/5/2017	12/31/2020	\$506,743
C.EN.100882.0014 TKRN BROOKFIELD OVERBUILD S.E. TWR-TRK	1/2/2018	12/31/2018	\$200,532
C.EN.100882.0015 TKRN BROOKFIELD OVERBUILD S.E. TWR-PM	11/1/2017	10/11/2023	\$96,584
C.EN.100882.0016 TKRN PSNY BROOKFIELD OVERBUILD-FA PROTEC	9/1/2017	12/31/2020	\$321,682
C.EN.101792.6101 MOFE SUNNYSIDE YD SUB RELOCATE-TEST/COMM	7/2/2021	8/27/2021	\$42,896
C.EN.101792.7101 MOFE SUNNYSIDE YD SUB RELOCATE-PM	11/21/2017	6/27/2019	\$89,474
BCC Segment 11 Projects Total			\$34,049,606

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BCC Segment 12: Penn Station New York to Trenton (Amtrak-owned)

Operators: Amtrak, NJT

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$46,241,505	\$0	\$46,241,505
Projects	\$46,009,533	\$0	\$46,009,533
Total	\$92,251,038	\$0	\$92,251,038

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00003 - Rail Replacement - C.EN.101856				
<i>156,000 FT CWR (NEW Rail); 80,000 FT CWR (Re-purposed "FIT" Rail)</i>				
Bergen Curve Curve Patch Replacement AN Line				
FY21.07 RAIL AN LINE CURVE PATCH REPL - NYD - Bergen Curve (2)	3200 FT Install Rail, CWR (Includes OTM)	2/18/2021	3/1/2021	\$337,009
Curve Patch MP 24.69 - AN Line				
FY21.04 RAIL AN LINE CURVE PATCH REPL - NYD - Curve Patch - AN Line - MP 24.69 - RB	3200 FT Install Rail, CWR (Includes OTM)	1/21/2021	1/25/2021	\$132,785
Rail Installation - 55 Hr Outage-2	Units not applicable	1/21/2021	1/25/2021	\$231,553
Curve Patch MP 26.39 - AN Line				
FY21.03 RAIL AN LINE CURVE PATCH REPL - NYD - Curve Patch - AN Line - MP 26.39 - RB	3200 FT Install Rail, CWR (Includes OTM)	1/14/2021	1/19/2021	\$132,785
Rail Installation - 55 Hr Outage-1	Units not applicable	1/14/2021	1/19/2021	\$231,553
Curve Patch MP 26.75 - AN Line				
FY21.02 RAIL AN LINE CURVE PATCH REPL - NYD - Curve Patch - AN Line - MP 26.75 - RB	3200 FT Install Rail, CWR (Includes OTM)	1/7/2021	1/11/2021	\$132,785
Rail Installation - 55 Hr Outage	Units not applicable	1/7/2021	1/11/2021	\$231,553
Curve Patch TBD				
Curve Patching 2640 TF - Location TBD-20 (1/3)	2640 FT Install Rail, CWR (Includes OTM)	10/1/2020	5/31/2022	\$22,836
Ham to Midway Track 4 MP 41.6 - 55.5 AN Line				
FY21.05 RAIL AN LINE - MP41.6-55.5 HAM TO MIDWAY TK 4	20000 FT Install Rail, CWR (Includes OTM)	10/1/2020	9/30/2021	\$1,204,200
PG00037 - New York Catenary - C.EN.101843				
<i>See below for further detail on planned FY21 work.</i>				
Hudson Interlocking to Lane Interlocking Catenary Upgrades AN Line				
C.EN.101843.HD.0000039-PH CAT UPGRADES HUDSON MP7.2 to LANE MP12.3	31680 FT Catenary Assembly and Wire	10/1/2020	9/30/2021	\$870,671
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				
Hunter Yard MOFE Trailer Replacement				
C.EN.101845.0019 MOFW HUNTER YARD NJ-TRAILER REPL/UPGRDS	Units not applicable	10/1/2020	9/30/2021	\$700,156
Hudson South & North Tubes Emergency Access Signage Upgrades				
C.EN.101845.HD.0000156 TUN NYD HUDSON N/S TUBES EMERGENCY ACCESS SIGNAGE UPGRADES	Units not applicable	10/1/2020	3/31/2021	\$22,242

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Union Tower MOFW Field Office Renovation				
C.EN.101845.0016 MOFW NYD UNION TOWER-FIELD OFFICE RENOV	Units not applicable	10/1/2020	9/30/2021	\$591,198
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
Cable Renewal MP 11 - MP 56.7 AN Line				
C.EN.101846.HD.0000259 INT NYD AN LN MP11.0 - MP56.7 CABLE RENEWAL & REPLACEMENT	2500 FT Install Signal Cable	10/1/2020	9/30/2021	\$257,002
Elmora Interlocking RTU Upgrade MP 14.7 AN Line				
C.EN.101846.HD.0000253-PH INT NYD ELMORA I/L MP14.7 - RTU UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$150,667
Event Recorder Upgrades at Menlo, Iselin, Portal and Lack Interlockings				
C.EN.101846.HD.0000251-PH INT NYD MENLO, ISELIN, PORTAL & LACK I/L - EVENT RECORDER UPGRADES (4)	Units not applicable	10/1/2020	9/30/2021	\$132,815
Hunter Interlocking West End LED Upgrade				
C.EN.101846.0021 INT NYD HUNTER I/L - WEST END LED UPGR	Units not applicable	10/1/2020	9/30/2021	\$148,608
Iselin Interlocking RTU Upgrade MP 22.8 AN Line				
C.EN.101846.HD.0000002-PH INT NYD ISELIN I/I MP22.8 RTU UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$158,082
Switch Machine Upgrades MP 11 - MP 56.7 AN Line				
C.EN.101846.0075 INT NYD AN LN MP11.0-MP56.7-SW MACH	15 EA Install Switch Machine	10/1/2020	9/30/2021	\$321,546
Union Interlocking RTU Upgrades				
C.EN.101846.0020 INT NYD UNION INTERLOCKING-RTU UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$97,171
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
Delco Interlocking Light Fixture Replacement				
C.EN.101847.0026 INTB DELCO I/L-LIGHT FIXTURE REPLACE	Units not applicable	8/2/2021	9/30/2021	\$158,836
C.EN.101847.0031 INTB DELCO I/L-LIGHT REPLACE FINAL DSN	Units not applicable	10/1/2020	12/31/2020	\$64,998
Elmora Interlocking Lighting Upgrades				
C.EN.101847.HD.0000005 INTB NYD ELMORA I/L LIGHTING UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$358,661
Hazelwood Ave Retaining Wall, MP 19.72 AN Line				
C.EN.101847.0036 WALL MP19.72 HAZELWOOD AVE-RETAIN WALL	Units not applicable	10/1/2020	9/30/2021	\$365,318
Hudson Tunnel Fire Standpipe Improvements				
C.EN.101847.HD.0000450 TUN NYD HUDSON TUNNEL FIRE STANDPIPE IMPROVEMENTS	Units not applicable	10/1/2020	9/30/2021	\$231,743
North River Tunnels Flood Gates Improvements				
C.EN.101847.0042 TUN NRT NO/SO TUBE-FLOOD GATES SILL RPL	Units not applicable	3/1/2021	6/30/2021	\$268,099
North River Tunnels Leak Mitigation Improvements				
C.EN.101847.0044 TUN NRT-LEAK MITIGATION IMPROVEMENTS	Units not applicable	10/1/2020	12/31/2020	\$293,799
North River Tunnels Lighting Upgrades				
C.EN.101847.0046 TUN NRT NO/SO TUBE-LIGHTING UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$123,589
North River Tunnels Project Management				
C.EN.101847.0049 TUN NORTH RIVER TUN IMPROVEMENTS PM	Units not applicable	10/1/2020	12/31/2020	\$32,172
North Tube Benchwall Rehab				
C.EN.101847.0097 TUN NYD N. TUBE-BENCHWALL REHAB	Units not applicable	10/1/2020	9/30/2021	\$192,471

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101847.0098 TUN NYD N. TUBE-BENCHWALL LADDERS	Units not applicable	10/1/2020	9/30/2021	\$29,714
C.EN.101847.0099 TUN NYD N. TUBE-BENCHWALL LED LIGHT RPL	Units not applicable	10/1/2020	9/30/2021	\$134,095
C.EN.101847.0100 TUN NYD N. TUBE-BLUE LED LIGHTING RPL	Units not applicable	10/1/2020	9/30/2021	\$27,538
Parsonage Road Undergrade Bridge Strike Mitigation				
C.EN.101847.0037-PH PARSONAGE RD STRIKE MITIGATION	Units not applicable	10/1/2020	9/30/2021	\$119,608
Penn Station Tunnel Door Replacement				
C.EN.101847.0096 TUN PSNY AREA TUN-DOOR REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$56,001
Portal Bridge MP 6.10 AN Line				
C.EN.101847.0012 BGMS NJ006.10 PORTAL BRG-CAT REST STOPS	Units not applicable	8/2/2021	8/31/2021	\$114,967
Portal Bridge Spot Timber Replacement - Movable Span				
C.EN.101847.HD.0000468 BGMS PORTAL BRIDGE SPOT TIMBER REPLACE MOVABLE SPAN	160 EA Install Bridge Timber	10/1/2020	9/30/2021	\$316,779
Project Controls				
C.EN.101847.2021.8001-PH STIP NEW YORK STRUCTURES PROGRAM-PRJ SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$30,384
Undergrade NYD Jefferson Street Walkway Parapet Replacement/Rehab				
C.EN.101847.HD.0000469 BGUG NYD JEFFERSON ST WALKWAY PARAPET REPLACEMENT/REHAB	Units not applicable	10/1/2020	9/30/2021	\$243,194
PG00043 - New York Substations - C.EN.101848				
<i>See below for further detail on planned FY21 work.</i>				
Hackensack Sub 42 12KV Disconnect AN Line				
C.EN.101848.HD.0000327 SUBSTATION 42 12KV DISCONNECT	Units not applicable	10/1/2020	9/30/2021	\$276,027
Hackensack Sub 42 Signal Equipment Upgrades AN Line				
C.EN.101848.HD.0000329 SUBSTATION 42 SIGNAL EQUIPMENT UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$375,339
Lincoln Switch Heater Replacement				
C.EN.101848.HD.0000332-PH LINCOLN SWITCH HEATER REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$394,068
NYD Substation Program Management				
C.EN.101848.9001 STIP NYD SUBSTATION PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$42,897
Princeton Sub 35 - Trough Replacement AN Line				
C.EN.101848.0038 SUB PRINCETON #35-TROUGH REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$288,641
Princeton Substation #35 - Signal Power Frequency Converter				
C.EN.101848.0043 SUB PRINCETON #35-SIG PWR FREQ CNVERTR	Units not applicable	4/1/2021	9/30/2021	\$842,610
Swift Interlocking Switch Heater - Substation Unit Replacement				
C.EN.101848.0028 SWHT SWIFT I/L-SUBSTATION UNIT REPLACE	2 EA Install / Renew Switch Heaters	10/1/2020	9/30/2021	\$753,825
Waverly #40 Substation Bus/Tie Breaker Replacement				
C.EN.101848.0024 SUB WAVERLY #40-BUS/TIE BRK REPLACE	1 EA Install / Renew Breaker	4/1/2021	9/30/2021	\$191,586
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
Concrete Tie Replacement, AG Line, MP 18.3 - 3.7				
C.EN.101849.0076 TIES NYD CONCRETE AG LINE MPE18.9-E3.7	20 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$33,033
Concrete Tie Replacement, AN Line, MP 0.1-11.0				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101849.0080 TIES NYD CONCRETE AN LN MPW0.1-11.0	380 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$627,620
Concrete Tie Replacement, AN Line, MP 511.0-56.7				
C.EN.101849.0081 TIES NYD CONCRETE AN LN MP11.0-56.7	260 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$429,424
Drainage Improvements, AG Line, MP 18.3 - 3.7				
C.EN.101849.0100 DRAN NYD DRAINAGE IMPV AG LN MPE18.9-E3.7	Units not applicable	10/1/2020	9/30/2021	\$6,560
Drainage Improvements, AN Line, MP 511.0-56.7				
C.EN.101849.0105 DRAN NYD DRAIN IMPV AN LN MP11.0-56.7	Units not applicable	10/1/2020	9/30/2021	\$151,752
High Speed Surfacing MP 0.1 - 11.0 AN Line				
C.EN.101849.0112 GEOM NYD HSS SURFAC AN LN MP W0.1-11.0	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
High Speed Surfacing MP 11 - 56.7 AN Line				
C.EN.101849.0113 GEOM NYD HSS SURFAC AN LN MP 11.0-56.7	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 0.01 - 11.0, AN Line				
C.EN.101849.0018 RAIL NYD INSULATED JT AN LN MP W0.1-11.0	13 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$100,451
Insulated Joint Removal, MP 11.0 - 56.7, AN Line				
C.EN.101849.0019 RAIL NYD INSULATED JT AN LN MP11.0-56.7	56 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$432,711
Interlocking Steel MP .1 - 11.0 AN Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$1,444,392
Interlocking Steel MP 11.0 - 56.7 AN Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$2,734,706
Joint Elimination MP .1 - 11.0 AN Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$372,928
Joint Elimination MP 11.0 - 56.7 AN Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$1,367,396
Joint Elimination PSNY - MP 10.8 AN Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$74,586
Spot Rail Replacement MP .1 - 11.0 AN Line				
C.EN.101849.0052 RAIL NYD SPOT RAIL RPL AN LN MPW0.1-11.0	100 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$16,091
Spot Rail Replacement MP 11.0 - 56.7 AN Line				
C.EN.101849.0053 RAIL NYD SPOT RAIL RPL AN LN MP11.0-56.7	50 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$8,046
Spot Rail Replacement MP 18.9 - 3.7 AG Line				
C.EN.101849.0048 RAIL NYD SPOT RAIL RPL AG MPE18.9-E3.7	1250 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$201,119

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Spot Surface, AN LN, MP 0.1 - 11.0				
C.EN.101849.0005 GEOM NYD SPOT SURFACE AN LN MP W0.1-11.0	40000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$813,606
Spot Surface, AN LN, MP 11.0 - 56.7				
C.EN.101849.0006 GEOM NYD SPOT SURFAC AN LN MP W11.0-56.7	100000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$2,034,014
Spot Surface, AN LN, MP 58.3 - 76.0				
C.EN.101849.0008 GEOM NYD SPOT SURFACE AN LN MP58.3-76.0	40000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$813,606
Swift Interlocking Road Bed Stabilization				
C.EN.101849.0147 RBED NYD SWIFT I/L ROAD BED STABILIZATION	Units not applicable	10/1/2020	9/30/2021	\$99,719
Train Vac PSNY to MP 10.8 AE Line				
NYD TK - Spot Undercut Track	5 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$1,920
Vac Train MP 0.1- 11.0 AN Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$367,715
Vac Train MP 11.0 - 56.7 AN Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$1,225,716
Wood Tie/Timber Replacement MP .1 - 11.0 AN Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$1,094,541
Wood Tie/Timber Replacement MP 11.0 - 56.7 AN Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$1,864,775
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 11.0 - 56.7 AN Line				
C.EN.101855.0029 GEOM AN LN MP 11.0 - 56.7 HSS PRODUCTION - 12	Units not applicable	10/1/2020	9/30/2021	\$2,090,786
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				
Rail Grinding MP .1 - 11.0 AN Line				
XXX2 AN LN MPW0.1-11.0	Units not applicable	3/16/2021	3/23/2021	\$81,738
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Edison Interlocking #19 Turnout				
C.EN.101860.0036TURN - EDISON #19 T/O - INSTALL	1 EA Install Wood Turnout	4/12/2021	4/30/2021	\$669,824
C.EN.101860.0037TURN - EDISON #19 T/O - ET SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$7,410
C.EN.101860.0038TURN - EDISON #19 T/O - T&E SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$17,895
C.EN.101860.0039TURN - EDISON #19 T/O - B&B SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$14,925
C.EN.101860.0040TURN - EDISON #19 T/O - C&S SUPPORT	2 EA Install Switch Machine	4/12/2021	4/30/2021	\$185,669
Edison Interlocking #21 Crossover				
C.EN.101860.0001 TURN - EDISON #21 X/O - INSTALL	2 EA Install Concrete Turnout	4/12/2021	4/30/2021	\$1,327,852

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101860.0002 TURN - EDISON #21 X/O - ET SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$14,821
C.EN.101860.0003 TURN - EDISON #21 X/O - T&E SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$35,790
C.EN.101860.0004 TURN - EDISON #21 X/O - B&B SUPPORT	Units not applicable	4/12/2021	4/30/2021	\$29,850
C.EN.101860.0005 TURN - EDISON #21 X/O - C&S SUPPORT	6 EA Install Switch Machine	4/12/2021	4/30/2021	\$371,338
Fair Interlocking 0 track				
C.EN.101860.00X2 FAIR Interlocking, 0 track-1	Units not applicable	11/2/2020	11/13/2020	\$1,009,523
Fair Interlocking North High track				
C.EN.101860.00X3 FAIR Interlocking, North High track	Units not applicable	11/2/2020	11/13/2020	\$407,458
Hunter - Lehigh Connection #65 Turnout				
C.EN.101860.0040TURN - Hunter-Lehigh Conn #65 T/O - C&S SUPPORT	2 EA Install Switch Machine	3/8/2021	3/12/2021	\$185,669
Hunter-Lehigh Connection #65 Turnout				
C.EN.101860.0036TURN - Hunter-Lehigh Conn #65 T/O - INSTALL	1 EA Install Wood Turnout	3/8/2021	11/27/2020	\$669,825
C.EN.101860.0037TURN - Hunter-Lehigh Conn #65 T/O - ET SUPPORT	Units not applicable	3/8/2021	3/12/2021	\$7,410
C.EN.101860.0038TURN - Hunter-Lehigh Conn #65 T/O - T&E SUPPORT	Units not applicable	3/8/2021	3/12/2021	\$17,895
C.EN.101860.0039TURN - Hunter-Lehigh Conn #65 T/O - B&B SUPPORT	Units not applicable	3/8/2021	3/12/2021	\$14,925
Lack Interlocking #26 Turnout				
C.EN.101860.0040TURN - LACK #26 A T/O - C&S SUPPORT	3 EA Install Switch Machine	3/1/2021	3/5/2021	\$109,036
Lack Interlocking #26A Turnout				
C.EN.101660.0082TURN - LACK #26 A T/O - INSTALL	1 EA Install Concrete Turnout	3/1/2021	11/20/2020	\$853,945
C.EN.101860.0037TURN - LACK #26 A T/O - ET SUPPORT	Units not applicable	3/1/2021	3/5/2021	\$17,291
C.EN.101860.0038TURN - LACK #26 A T/O - T&E SUPPORT	Units not applicable	3/1/2021	3/5/2021	\$27,598
C.EN.101860.0039TURN - LACK #26 A T/O - B&B SUPPORT	Units not applicable	3/1/2021	3/5/2021	\$9,950
Lane Interlocking #23 Crossover				
C.EN.101860.0001 TURN - LANE #23 X/O - INSTALL	2 EA Install Wood Turnout	3/15/2021	3/31/2021	\$1,327,852
C.EN.101860.0002 TURN - LANE #23 X/O - ET SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$14,821
C.EN.101860.0003 TURN - LANE #23 X/O - T&E SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$35,790
C.EN.101860.0004 TURN - LANE #23 X/O - B&B SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$29,849
C.EN.101860.0005 TURN - LANE #23 X/O - C&S SUPPORT	4 EA Install Switch Machine	3/15/2021	4/9/2021	\$371,338
Lane Interlocking #34 Crossover				
C.EN.101860.0001 TURN - LANE #34 X/O - INSTALL	2 EA Install Wood Turnout	3/15/2021	4/9/2021	\$1,327,852
C.EN.101860.0002 TURN - LANE #34 X/O - ET SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$14,821
C.EN.101860.0003 TURN - LANE #34 X/O - T&E SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$35,790
C.EN.101860.0004 TURN - LANE #34 X/O - B&B SUPPORT	Units not applicable	3/15/2021	4/9/2021	\$29,849
C.EN.101860.0005 TURN - LANE #34 X/O - C&S SUPPORT	4 EA Install Switch Machine	3/15/2021	4/9/2021	\$371,338
PG00067 - Production Concrete Tie/Timber Replacement - C.EN.101870				
550 West Fair to Ham Track #1				
West Fair to Ham Track 4 Concrete Installation AN Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101870.0001 TIES CONCRETE TIES W. FAIR/HAM TK4	550 EA Install Ties, Concrete	12/2/2020	3/15/2021	\$1,650,456
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Elizabeth, NJ Fence Installation - MP 15.1				
C.EN.101854.0040 FEN ELIZABETH NJ MP15.1-FEN INSTALL	90 FT Install / Repair Right of Way Fencing	10/1/2020	10/14/2020	\$99,423
Parsonage Road Security Fence, AN Line				
C.EN.101854.0014 FEN AN LN PARSONAGE ROAD-SECURITY FENCE	2200 FT Install / Repair Right of Way Fencing	10/13/2020	4/6/2021	\$518,671
Princeton Junction, NJ Security Fence - MP46.8				
C.EN.101854.2021.36 FEN PRINCETON JCT, NJ - SECURITY FENCE (MP46.8)	250 FT Install / Repair Right of Way Fencing	11/9/2020	11/23/2020	\$67,746
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Elmora to Union Track A Wood Tie Replacement				
C.EN.101858 TIE/TIMBER REPLACEMENT - ELMORA TO UNION TK A	4915 EA Install Ties and Timbers	10/26/2020	12/23/2020	\$1,031,474
Elmora to Union Track B Wood Tie Replacement				
C.EN.101858 TIE/TIMBER REPLACEMENT - ELMORA TO UNION TK B	4915 EA Install Ties and Timbers	1/4/2021	3/4/2021	\$1,031,474
PG00083 - Communications System Upgrades - C.EN.101857				
<i>See below for further detail on planned FY21 work.</i>				
Edison Interlocking Central Instrument House				
Core Manhole, Install Pipe and Hand Hole	Units not applicable	10/26/2020	9/30/2021	\$2,016
Install Innerduct and Fiber	Units not applicable	10/26/2020	9/30/2021	\$5,728
Labor	Units not applicable	10/26/2020	9/30/2021	\$44,552
Ring Cut Splice and Terminate Fiber	Units not applicable	10/26/2020	9/30/2021	\$4,017
Upgrade Network Switches	Units not applicable	10/26/2020	9/30/2021	\$5,593
Menlo Interlocking Central Instrument House				
Core Manhole, Install Pipe and Hand Hole	Units not applicable	10/26/2020	9/30/2021	\$2,016
Install Innerduct and Fiber	Units not applicable	10/26/2020	9/30/2021	\$5,728
Labor	Units not applicable	10/26/2020	9/30/2021	\$89,104
Ring Cut Splice and Terminate Fiber	Units not applicable	10/26/2020	9/30/2021	\$4,017
Upgrade Network Switches	Units not applicable	10/26/2020	9/30/2021	\$5,593
Milham Interlocking MP 54.6 AN Line				
C.EN.101857.0010 RAD MILHAM I/L MP54.6-COMM EQUIP REPLACE	Units not applicable	4/1/2021	8/2/2021	\$86,079
PG00085 - Amtrak Owned Positive Train CTRL (PTC) Installation - C.EN.201034				
<i>FY21 Scope includes completing all boundary locations, OBC Upgrades, completion of STS Migration and TP upgrades, ACSES Monitoring Tool Phase 2</i>				
Cape to Hudson NJT PTC Boundary Upgrade				
C.EN.201034.0099 PTC CAPE/HUDSON NJ7.8-NJT BOUNDARY UPG	Units not applicable	10/12/2020	11/20/2020	\$150,785
County to Stone NJT PTC Boundary Upgrade				
C.EN.201034.0106 PTC COUNTY/STONE-NJT BOUNDARY UPG	Units not applicable	11/16/2020	12/28/2020	\$150,785

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Graw to Union NJT PTC Boundary Upgrade - MP 19.7				
C.EN.201034.0101 PTC GRAW/UNION NJ19.7-NJT BOUNDARY UPG	Units not applicable	10/26/2020	12/7/2020	\$150,785
Kearny to Swift NJT PTC Boundary Upgrade - MP 7.3				
C.EN.201034.0103 PTC KEARNY/SWIFT NJ7.3-NJT BOUNDARY UPG	Units not applicable	11/9/2020	12/18/2020	\$150,785
Midway Interlocking Microlock II Upgrade - MP 41.3				
C.EN.201034.0107 ACSE MIDWAY I/L MP41.3-UPG MICROLOK II	Units not applicable	7/1/2021	7/14/2021	\$73,528
Newark to High NJT PTC Boundary Upgrade - MP 10.6				
C.EN.201034.0100 PTC NEWARK/HIGH NJ10.6-NJT BOUNDARY UPG	Units not applicable	10/19/2020	11/30/2020	\$150,785
BCC Segment 12 Programs Total				\$46,241,505

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000011 - Clark to Ham Constant Tension Upgrade - C.EN.101765			
<i>Total track rehabilitation of Track 12, Track 9, and Track 7. Replacement of switches, including: 551/555 switch, 549/551 switch, 131/135 switch, 635 switch, 127/131 switch, 119/123 switch, 119/91 switch, 79 switch, and 123/127 switch.</i>			
C.EN.101765.2301 CATC CLARK/HAM-FINAL DESIGN	12/1/2019	4/30/2020	\$27,390
C.EN.101765.2401 CATC CLARK/HAM-FINAL DESIGN REVIEW	3/16/2020	9/14/2020	\$7,001
C.EN.101765.4101 CATC CLARK/HAM-STRUCTURE PROCUREMENT	11/25/2020	9/28/2022	\$12,400,571
C.EN.101765.4105 CATC CLARK/HAM-HEADQUARTER LEASE	10/1/2020	9/30/2025	\$565,470
C.EN.101765.4106 CATC CLARK/HAM-OFFICE EQUIP/SUPPLIES	10/1/2020	8/29/2025	\$30,308
C.EN.101765.4107 CATC CLARK/HAM-LEASE VEHICLES	1/4/2021	9/30/2025	\$261,370
C.EN.101765.4301 CATC CLARK/HAM-CONSTRUCTION C&S	4/1/2021	9/30/2025	\$273,340
C.EN.101765.4401 CATC CLARK/HAM-B&B TEMP PLATFORM	4/1/2021	9/30/2025	\$3,029,726
C.EN.101765.4501 CATC CLARK/HAM-POLE/PORTAL ERECTION	6/1/2020	6/10/2024	\$158,162
C.EN.101765.4502 CATC CLARK/HAM-E.T. OCS ASSEMBLY/DISTRIB	10/1/2020	4/30/2021	\$345,066
C.EN.101765.4601 CATC CLARK/HAM-CONSTRUCT PROTECT E.T.	3/1/2021	7/25/2022	\$589,529
C.EN.101765.4602 CATC CLARK/HAM-CONSTRUCT PROTECT RWP	3/10/2021	6/8/2022	\$1,380,451
C.EN.101765.4603 CATC CLARK/HAM-C&S UNDERGROUND ASSETS	1/19/2021	8/4/2022	\$520,073
C.EN.101765.4801 CATC CLARK/HAM-CONSTRUCT REPAIRMEN	4/1/2021	9/30/2025	\$155,635
C.EN.101765.5101 CATC CLARK/HAM-CONSTRUCT MGMT. SUPPORT	10/1/2020	9/11/2026	\$435,435
C.EN.101765.5102 CATC CLARK/HAM-CONSTRUCTION MGMT.	1/5/2021	5/13/2026	\$424,595
C.EN.101765.5201 CATC CLARK/HAM-CONSTRUCT DSN SRVS SUPP	8/3/2020	9/30/2025	\$86,676
C.EN.101765.5202 CATC CLARK/HAM-CONSTRUCT DSN SRVS HNTB	1/4/2021	5/28/2025	\$93,959
C.EN.101765.6101 CATC CLARK/HAM-TESTING/COMMISSIONING	6/18/2021	6/16/2025	\$79,630
C.EN.101765.7101 CATC CLARK/HAM-PROJECT MGMT.	10/1/2020	2/27/2026	\$113,263
C.EN.101765.7201 CATC CLARK/HAM-PROJECT MGMT. SUPPORT	10/1/2020	2/27/2026	\$93,484

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
C.EN.101765.7301 CATC CLARK/HAM-LEGAL	10/1/2020	3/28/2025	\$24,598
P000026 - Fair Interlocking Renewal - C.EN.101277			
<i>Complete conversion of switch machines and switch heaters on 12 switch. Removal and straight railing of 86 crossover. Signal modifications and cutover of 68 turnout. Replacement of E86 turnout. Replacement of catenary sectionalizing switches and RTUs.</i>			
C.EN.101277.0003 WBS - ET CONSTRUCTION	2/1/2021	5/24/2021	\$710,047
C.EN.101277.4101 TURN FAIR INTERLOCKING-CONTRACTOR	10/16/2020	7/4/2022	\$501,883
C.EN.101277.4301 INT FAIR INTERLOCKING-CONSTRUCTION C&S	10/19/2020	3/31/2021	\$300,272
C.EN.101277.4503 CAT FAIR I/L-CONSTRUCT 86E CAT MODS	9/18/2021	9/25/2021	\$226,709
C.EN.101277.4504 CAT FAIR I/L-61/86 X/O DEMO CAT MODS	11/6/2020	7/4/2022	\$65,195
C.EN.101277.4505 CAT FAIR I/L-SO./NO.TRK E.T. CONSTRUCT	11/2/2020	12/3/2020	\$208,215
C.EN.101277.4601 TURN FAIR I/L-CONSTRUCT RWP SUPPORT	10/1/2020	7/5/2022	\$94,897
C.EN.101277.4801 TURN FAIR I/L-CONSTRUCT SUPPORT OTHER	10/16/2020	7/4/2022	\$62,199
C.EN.101277.7201 TURN FAIR I/L-PROJECT SUPPORT	10/1/2020	9/30/2022	\$24,113
C.EN.101277.8000 INT FAIR INTERLOCKING-PROJECT MGT	10/1/2020	9/30/2022	\$88,241
Fair Interlocking Design	11/2/2020	3/29/2021	\$305,678
Morrisville Substation #34 Sectionalizing Upgrade	10/15/2020	5/24/2021	\$1,244,881
Revisions - RH 68 T/O	10/15/2020	12/18/2020	\$655,650
Switch 12 - Movement Timber Replacement	11/2/2020	11/4/2020	\$35,756
Switch 86 - Remove No.10 Crossover and Straight Panel	10/1/2020	11/7/2020	\$1,619,120
Switch E86 - Remove and Replace No.10 Turnout with No.15 Turnout	8/30/2021	9/24/2021	\$926,829
Switch Panel - LH 12A	11/20/2020	12/23/2020	\$164,429
Switch Panel - LH 12B	12/4/2020	1/7/2021	\$164,429
Switch Panel - RH 86B	10/23/2020	10/26/2020	\$153,769
Switch Removal - RH 86A	10/16/2020	10/19/2020	\$153,769
P000036 - Kearny to Waverly Transmission Tower Upgrade - C.EN.101787			
<i>Obtain permits, procure contractor, and begin construction.</i>			
C.EN.101787.4101 TRN KEARNY/WAVERLY TWR RPL-CNSTR SRVS	12/24/2020	4/28/2022	\$6,550,005
C.EN.101787.4501 TRN KEARNY/WAVERLY TWR RPL-CNSTRUCT E.T.	7/1/2021	7/29/2022	\$126,439
C.EN.101787.5101 TRN KEARNY/WAVERLY TWR RPL-CM	12/24/2020	7/29/2022	\$390,710
C.EN.101787.5201 TRN KEARNY/WAVERLY TWR RPL-CNSTRUC DSN	12/24/2020	7/29/2022	\$224,643
C.EN.101787.7101 TRN KEARNY/WAVERLY TWR RPL-PROJ. MGMT.	10/1/2020	10/24/2022	\$43,963
C.EN.101787.7201 TRN KEARNY/WAVERLY TWR RPL-PROJ SUPPT.	10/1/2020	10/24/2022	\$36,390
P000042 - Metuchen Frequency Converter - Equipment Upgrades - C.EN.101747			
<i>Complete rotary frequency converter upgrades, provide the integration of HMI system and controls, replacement of brush holder and the installation of a fire suppression and dust collection systems. After physical completion continue to test, commission, accept and closeout the project.</i>			
C.EN.101747.0001 FREQ METUCHEN-ROTARY FREQ CNVRTER UPG	10/1/2020	10/9/2020	\$58,982

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
C.EN.101747.7101 FREQ METUCHEN RFC PHASE 2 - PROJECT MGT.	11/1/2019	3/11/2021	\$13,018
P000048-New Hackensack Substation 42 Control House -C.EN.101535			
<i>Procure and award the construction contract, procure long lead components, review submittals, and start construction of site improvements including grounding and retaining walls.</i>			
C.EN.101535.2301 SUB HACKENSACK SUB 42-FINAL DESIGN	10/1/2020	3/29/2021	\$320,116
C.EN.101535.7101 SUB HACKENSACK SUB42-PROJECT MGMT.	10/1/2020	7/19/2023	\$97,070
C.EN.101535.7201 SUB HACKENSACK SUB42-PROJECT SUPPORT	10/1/2020	7/19/2023	\$51,777
P000128 - Dock Fender Replacement - C.EN.101867			
<i>Start construction of the new composite fender system including navigation lighting, walkways and main power cables.</i>			
C.EN.101867.4101 BGMS NJ008.50 DOCK BRG FENDER-CONTACTS	3/15/2021	2/27/2023	\$1,395,534
C.EN.101867.4601 BGMS NJ008.50 DOCK BRG FENDER-RWP	3/15/2021	2/27/2023	\$27,287
C.EN.101867.5101 BGMS NJ008.50 DOCK BRG FENDER-CM	5/3/2021	2/27/2023	\$178,804
C.EN.101867.5201 BGMS NJ008.50 DOCK BRG FENDER-DSN SRVCES	5/3/2021	2/27/2023	\$68,398
C.EN.101867.7101 BGMS NJ008.50 DOCK BRG FENDER-PM	10/1/2020	6/30/2023	\$62,901
P000156 - Ham Interlocking Renewal - C.EN.101308			
<i>Start design for the new signal system and preliminary construction effort in install signal trough and conduit.</i>			
C.EN.101308.1301 INT HAM I/L RENEWAL-PRELIM DSN SIGNALS	12/8/2020	3/8/2021	\$321,721
C.EN.101308.1302 TURN HAM I/L RENEWAL-PRELIM DSN TK/E.T.	10/1/2020	2/26/2021	\$407,512
C.EN.101308.1501 INT HAM I/L RENEWAL-PRELIM DSN REVIEW	3/1/2021	4/5/2021	\$128,688
C.EN.101308.2301 INT HAM I/L RENEWAL-FINAL DSN SIGNALS	4/6/2021	11/4/2021	\$616,630
C.EN.101308.2302 TURN HAM I/L RENEWAL-FINAL DSN TK/E.T.	3/15/2021	9/15/2021	\$857,920
C.EN.101308.2401 INT HAM I/L RENEWAL-FINAL DSN REVIEW	5/24/2021	12/6/2021	\$664,888
C.EN.101308.4201-PH INT HAM I/L RENEWAL-CONSTRUCT TRK	9/30/2021	4/30/2024	\$26,840
C.EN.101308.4301 INT HAM I/L RENEWAL-CONSTRUCT C&S	10/1/2020	7/5/2024	\$3,364,655
C.EN.101308.4501-PH INRL HAM INTERLOCKING RENEWAL PROJECT - CONSTRUCTION ET	9/30/2021	7/12/2024	\$4,162
C.EN.101308.5101-PH INRL HAM INTERLOCKING RENEWAL PROJECT - CONSTRUCTION MANAGEMENT	1/4/2021	3/6/2025	\$250,314
C.EN.101308.7101 INRL HAM I/L RENEWAL-PROJECT MGMT.	10/1/2020	3/6/2025	\$154,539
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0006 INT MIDWAY I/L MP41.3-MPF HST ROD REPLAC	2/19/2021	5/8/2021	\$218,356
C.EN.101894.0007 INT ADAMS I/L MP37.1-MPF HST ROD REPLACE	5/14/2021	5/22/2021	\$66,576
C.EN.101894.0008 INT DELCO I/L MP33.75-MPF HST ROD REPLAC	5/28/2021	6/5/2021	\$66,577
C.EN.101894.0009 INT UNION I/L MP19.7-MPF HST ROD REPLACE	6/11/2021	8/21/2021	\$200,158
C.EN.101894.0010 INT LANE I/L MP12.3-MPF HST ROD REPLACE	8/27/2021	9/18/2021	\$72,785
C.EN.101894.0014 INT SWIFT I/L MP7.2-MPF HST ROD REPLACE	12/11/2020	1/9/2021	\$139,362
BCC Segment 12 Projects Total			\$46,009,533

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BCC Segment 13: Trenton to Morris (Amtrak-owned)

Operators: Amtrak, NJT, SEPTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$1,734,158	\$0	\$1,734,158
Projects	\$0	\$0	\$0
Total	\$1,734,158	\$0	\$1,734,158

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00044 - New York Track - C.EN.101849				
See below for further detail on planned FY21 work.				
Concrete Tie Replacement, AN Line, MP 56.7-58.3				
C.EN.101843.HD.0000039-PH CAT UPGRADES HUDSON MP7.2 to LANE MP12.3	31680 FT Catenary Assembly and Wire	10/1/2020	9/30/2021	\$870,671
Drainage Improvements, AN Line, MP 56.7-58.3				
C.EN.101849.0106 DRAN NYD DRAIN IMPV AN LN MP56.7-58.3	Units not applicable	10/1/2020	9/30/2021	\$2,189
High Speed Surfacing MP 56.7 - 58.3 AN Line				
C.EN.101849.0114 GEOM NYD HSS SURFAC AN LN MP56.7-58.3	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 56.7 - 58.3, AN LN				
C.EN.101849.0020 RAIL NYD INSULATED JT AN LN MP56.7-58.3	1 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$7,729
Interlocking Steel MP 56.7 - 58.3 AN Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$192,584
Joint Elimination MP 56.7 - 58.3 AN Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$161,602
Spot Rail Replacement MP 56.7 - 58.3 AN Line				
C.EN.101849.0054 RAIL NYD SPOT RAIL RPL AN LN MP56.7-58.3	20 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$3,219
Spot Surface, AN LN, MP 56.7 - 58.3				
C.EN.101849.0007 GEOM NYD SPOT SURFACE AN LN MP56.7-58.3	20000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$406,802
Train Vac MP 56.7 - 58.3 AN Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$35,018
Wood Tie/Timber Replacement MP 56.7 - 58.3 AN Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$445,923
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 56.7 - 58.3 AN Line				
C.EN.101855.0031 GEOM AN LN MP 56.7 - 58.3 HSS PRODUCTION - 13	Units not applicable	10/1/2020	9/30/2021	\$280,187
PG00083 - Communications System Upgrades - C.EN.101857				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
<i>See below for further detail on planned FY21 work.</i>				
Morris Interlocking Central Instrument House				
Core Manhole, Install Pipe and Hand Hole	Units not applicable	10/26/2020	9/30/2021	\$2,016
Install Innerduct and Fiber	Units not applicable	10/26/2020	9/30/2021	\$5,728
Ring Cut Splice and Terminate Fiber	Units not applicable	10/26/2020	9/30/2021	\$4,017
Upgrade Network Switches	Units not applicable	10/26/2020	9/30/2021	\$5,593
PG00085 - Amtrak Owned Positive Train CTRL (PTC) Installation - C.EN.201034				
<i>FY21 Scope includes completing all boundary locations, OBC Upgrades, completion of STS Migration and TP upgrades, ACSES Monitoring Tool Phase 2</i>				
Morris Interlocking Microlok II Upgrade - MP 58.3				
C.EN.201034.0108 ACSE MORRIS I/L MP58.3-UPG MICROLOK II	Units not applicable	8/2/2021	8/12/2021	\$73,528
BCC Segment 13 Projects Total				\$1,734,158

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 14: Morris to Holmes (Amtrak-owned)

Operators: Amtrak, SEPTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$6,756,770	\$0	\$6,756,770
Projects	\$0	\$0	\$0
Total	\$6,756,770	\$0	\$6,756,770

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
Holmes Interlocking Hot Box Install MP 77.2 AN Line				
INT HOLMES I/L MP77.2-DRAG/HOT BOX INSTL	Units not applicable	10/1/2020	9/30/2021	\$370,145
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				
Grundy Interlocking Electrical Service Upgrades MP 65.3 AN Line				
C.EN.101845.HD.0000161 INTB NYD GRUNDY MP65.3 ELECTRICAL SERVICE UPGRADES	Units not applicable	4/1/2021	6/30/2021	\$363,592
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
Grundy Interlocking RTU Upgrade MP 65.3 AN Line				
C.EN.101846.HD.0000249-PH INT NYD GRUNDY I/L MP65.3 - RTU UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$158,082
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
Bath Road New Parapet Wall MP 66.86 AN Line				
C.EN.101847.HD.0000472 WALL NYD BATH RD MP 66.86 - INSTALL NEW PARAPET	Units not applicable	10/1/2020	9/30/2021	\$375,339
Signal Bridge Fall Protection MP 64.90 AN Line				
C.EN.101847.0016 BGSB AN LN MP64.90-SIG BRG FALL PROTECT	Units not applicable	8/2/2021	9/15/2021	\$242,944
Signal Bridge Fall Protection MP 65.47 AN Line				
C.EN.101847.0015 BGSB AN LN MP65.47-SIG BRG FALL PROTECT	Units not applicable	5/3/2021	6/15/2021	\$195,352
PG00043 - New York Substations - C.EN.101848				
<i>See below for further detail on planned FY21 work.</i>				
Cornwells Substation #32 - Trough Replacement				
C.EN.101848.0037 SUB CORNWELLS #32-TROUGH REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$201,623
Edgely Sub 33 Breaker Replacement AN Line				
C.EN.101848.HD.0000326 SUB 33 BREAKER REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$387,477
Edgely Sub 33 New Distribution AC/DC				
C.EN.101848.0006 SUB EDGELY #33-NEW DISTRIBUTN AC/DC BUS	8 EA Install / Renew Breaker	10/1/2020	9/30/2021	\$123,328
Grundy to Cornwell Signal Cut Section Replacement AN Line				
C.EN.101848.HD.0000331 SIGNAL CUT SECTION REPLACEMENTS - GRUNDY TO CORNWELL	Units not applicable	10/1/2020	9/30/2021	\$252,254
PG00044 - New York Track - C.EN.101849				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
<i>See below for further detail on planned FY21 work.</i>				
Concrete Tie Replacement, AN Line, MP 58.3 -76.0				
C.EN.101849.0083 TIES NYD CONCRETE AN LN MP58.3-76.0	58 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$95,795
Drainage Improvements, AN Line, MP 58.3 -76.0				
C.EN.101849.0107 DRAN NYD DRAIN IMPV AN LN MP58.3-76.0	Units not applicable	10/1/2020	9/30/2021	\$87,484
High Speed Surfacing MP 58.3 - 76.0 AN Line				
C.EN.101849.0115 GEOM NYD HSS SURFAC AN LN MP58.3-76.0	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 58.3 - 76, AN Line				
C.EN.101849.0021 RAIL NYD INSULATED JT AN LN MP58.3-76.0	6 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$46,362
Interlocking Steel MP 58.3 - 76.0 AN Line				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$442,945
Joint Elimination MP 58.3 - 76.0 AN Line				
TK - Joint Elimination	2 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	9/30/2021	\$261,049
Spot Rail Replacement MP 58.3 - 76 AN Line				
C.EN.101849.0055 RAIL NYD SPOT RAIL RPL AN LN MP58.3-76.0	20 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$3,219
Vac Train MP 58.3 - 76.0 AN Line				
NYD TK - Spot Undercut Track	375 FT Vacuum Train, Spot Undercut	10/1/2020	9/30/2021	\$71,292
Wood Tie/Timber Replacement MP 58.3 - 76.0 AN Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$891,851
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 58.3 - 76.0 AN Line				
C.EN.101855.0033 GEOM AN LN MP 58.3 - 76.0 HSS PRODUCTION - 14	Units not applicable	10/1/2020	9/30/2021	\$2,152,935
BCC Segment 14 Programs Total				\$6,756,770

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BCC Segment 15: Holmes to Shore (Amtrak-owned)

Operators: Amtrak, SEPTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$2,101,895	\$0	\$2,101,895
Projects	\$0	\$0	\$0
Total	\$2,101,895	\$0	\$2,101,895

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 76.0 - 82.1 AN Line				
C.EN.101828.FY2121 TIES MADN CONCRETE AN LINE MP76.0-82.1	11 EA Install Ties, Concrete	11/2/2020	1/20/2021	\$36,796
High Speed Surfacing MP 77.2 - 82.1 AN Line				
C.EN.101828.FY2183 GEOM MADN HSS SURFACE AN LN MP77.2-82.1	7500 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$84,151
Insulated Joint Removal MP 77.2 - 82.1 AN Line				
C.EN.101828.FY2104 RAIL MADN INSULATE JT AN LINE MP77.2-82.1	6 EA Install Insulated Joint (Includes OTM)	1/4/2021	2/2/2021	\$61,208
Interlocking Steel MP 77.2 - 82.1 AN Line				
C.EN.101828.FY2151 TURN MADN I/L STEEL AN LN MP77.2-82.1	2 EA Renew Switch Point Stock Rail	12/1/2020	12/8/2020	\$37,325
Joint Elimination MP 77.2 - 82.1 AN Line				
C.EN.101828.0014 RAIL MADN JOINT ELIM AN LINE MP77.2-82.1	20 EA Field Weld and Grind Rail (Joint Elimination)	4/14/2021	5/18/2021	\$224,786
Spot Surfacing MP 77.2 - 82.1 AN Line				
C.EN.101828.FY2141 GEOM AN LN MP 76.0 - 82.1 SPOT SURFACING	40000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$554,637
Spot Undercutting MP 77.2 - 82.1 AN Line				
C.EN.101828.FY2162 BLST MAD SPOT UNDR CUT AN LN MP77.2-82.1	1500 FT Vacuum Train, Spot Undercut	1/4/2021	1/11/2021	\$497,066
Wood Tie/Timber Replacement MP 77.2 - 82.1 AN Line				
C.EN.101828.0031 TIES MAD TIE/TIMBER AN LINE MP77.2-82.1	100 EA Install Ties and Timbers	1/4/2021	1/28/2021	\$115,095
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 76.0 - 82.1 AN Line				
C.EN.101855.0035 GEOM AN LN MP 76.0 - 82.1 HSS PRODUCTION - 15	Units not applicable	10/1/2020	9/30/2021	\$490,831
BCC Segment 15 Programs Total				\$2,101,895

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BCC Segment 16: Shore to Girard (Amtrak-owned)

Operators: Amtrak, NJT, SEPTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$15,246,845	\$0	\$15,246,845
Projects	\$0	\$0	\$0
Total	\$15,246,845	\$0	\$15,246,845

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
Girard Interlocking RTU Replacement MP 87.7 AN Line				
INT GIRARD I/L MP87.7-RTU REPLACEMENT	1 EA Install / Replace RTU	10/1/2020	9/30/2021	\$131,056
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
<i>See below for further detail on planned FY21 work.</i>				
6th Street Philadelphia Undergrade Bridge Rehab MP 83.70 AN Line				
BGUG AN LN MP83.70 6TH ST PHILA PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$214,484
Mantua Signal Bridge Rehab MP 87.11 AN Line				
BGSB MANTUA SIGNAL BRIDGE REHAB AN LINE MP087.11-	Units not applicable	10/1/2020	9/30/2021	\$160,860
York Street Philadelphia Undergrade Bridge Rehab MP 85.46 AN Line				
BGUG AN LN MP85.46 YORK ST PHILA PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$268,096
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2122 TIES MADN CONCRETE AN LINE MP82.1-87.7	7 EA Install Ties, Concrete	1/15/2021	4/1/2021	\$31,888
High Speed Surfacing MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2184 GEOM MADN HSS SURFAC AN LN MP82.1 - 87.7	7500 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$84,151
Insulated Joint Removal MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2105 RAIL MADN INSULATE JT AN LINE MP82.1-87.7	8 EA Install Insulated Joint (Includes OTM)	2/3/2021	3/4/2021	\$81,611
Interlocking Steel MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2152 TURN MADN I/L STEEL AN LN MP82.1-87.7	1 EA Renew Switch Point Stock Rail	2/1/2021	2/8/2021	\$37,325
Joint Elimination MP 82.1 - 87.7 AN Line				
C.EN.101828.0015 RAIL MADN JOINT ELIM AN LINE MP82.1-87.7	10 EA Field Weld and Grind Rail (Joint Elimination)	5/18/2021	6/17/2021	\$112,392
Lehigh to Mantua Drainage Improvements AN Line				
C.EN.101828.FY2169 DRAN MANTUA TO LEHIGH DRAINAGE IMPROVEMENTS	Units not applicable	12/17/2020	1/8/2021	\$91,099

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Spot Surfacing MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2142 GEOM AN LN MP 82.1 - 87.7 SPOT SURFACING	50000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$693,291
Spot Undercutting MP 82.1 - 87.7 AN Line				
C.EN.101828.FY2163 BLST MAD SPOT UNDR CUT AN LN MP82.1-87.7	8000 FT Vacuum Train, Spot Undercut	2/1/2021	2/8/2021	\$2,651,012
Wood Tie/Timber Replacement MP 82.1 - 87.7 AN Line				
C.EN.101828.0032 TIES MAD TIE/TIMBER AN LINE MP82.1-87.7	160 EA Install Ties and Timbers	2/1/2021	3/3/2021	\$184,153
PG00062 - Track Undercutting - C.EN.100269				
<i>109,392 FT Undercutting</i>				
Equipment Maintenance				
C.EN.100269.8000 BLST NEC UNDERCUT-EQUIP MAINTENANCE	Units not applicable	10/1/2020	11/19/2020	\$98,531
Equipment Rentals				
C.EN.100269.9004 BLST UNDERCUTTER-EQUIPMENT RENTALS	Units not applicable	10/1/2020	11/19/2020	\$44,237
Lehigh to Mantua Track 1 Undercutter AN Line				
C.EN.100269.0284 BLST LEHIGH TO MANTUA TK 1 - UNDERCUTTER	Units not applicable	8/31/2020	10/1/2020	\$68,354
C.EN.100269.0285 BLST LEHIGH TO MANTUA TK 1-E.T. SUPPORT	Units not applicable	8/31/2020	10/1/2020	\$1,546
C.EN.100269.0286 BLST LEHIGH TO MANTUA TK 1-T&E. SUPPORT	Units not applicable	8/31/2020	10/1/2020	\$5,460
C.EN.100269.0287 BLST LEHIGH TO MANTUA TK 1-C&S SUPPORT	Units not applicable	8/31/2020	10/1/2020	\$8,203
Lehigh to Mantua Track 4 Undercutter AN Line				
C.EN.100269.0282 BLST LEHIGH TO MANTUA TK 4 - E.T SUPPORT	Units not applicable	10/5/2020	11/19/2020	\$38,103
Lehigh to Mantua Track 4 Undercutter AN Line				
C.EN.100269.0280 BLST LEHIGH TO MANTUA TK 4 - UNDERCUTTER	10032 FT Undercut Track, Out of Face	10/5/2020	11/19/2020	\$1,702,403
C.EN.100269.0281 BLST LEHIGH TO MANTUA TK 4 - T&E SUPPORT	Units not applicable	10/5/2020	11/19/2020	\$134,549
C.EN.100269.0283 BLST LEHIGH TO MANTUA TK 4 - C&S SUPPORT	Units not applicable	10/5/2020	11/19/2020	\$204,288
Program Management				
C.EN.100269.9000 BLST WAS TO NY-UNDERCUTTER PROGRAM PM	Units not applicable	10/1/2020	11/19/2020	\$43,545
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Lehigh Interlocking #12 Crossover				
C.EN.101860.0021 TURN - LEHIGH #12 X/O - INSTALL	2 EA Install Wood Turnout	5/10/2021	8/27/2021	\$1,177,363
C.EN.101860.0022 TURN - LEHIGH #12 X/O - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$19,760
C.EN.101860.0023 TURN - LEHIGH #12 X/O - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$25,968
C.EN.101860.0024 TURN - LEHIGH #12 X/O - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$9,950
C.EN.101860.0025 TURN - LEHIGH #12 X/O - C&S SUPPORT	2 EA Install Switch Machine	6/21/2021	8/27/2021	\$110,655
Lehigh Interlocking #23 Crossover				
C.EN.101860.0021 TURN - LEHIGH #23 X/O - INSTALL	2 EA Install Wood Turnout	5/10/2021	8/27/2021	\$1,247,261
C.EN.101860.0022 TURN - LEHIGH #23 X/O - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$19,760
C.EN.101860.0023 TURN - LEHIGH #23 X/O - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$25,968
C.EN.101860.0024 TURN - LEHIGH #23 X/O - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$9,950

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101860.0025 TURN - LEHIGH #23 X/O - C&S SUPPORT	2 EA Install Switch Machine	6/21/2021	8/27/2021	\$110,655
Lehigh Interlocking #34 Crossover				
C.EN.101860.0021 TURN - LEHIGH #34 X/O - INSTALL	2 EA Install Wood Turnout	5/10/2021	8/27/2021	\$1,177,364
C.EN.101860.0022 TURN - LEHIGH #34 X/O - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$19,760
C.EN.101860.0023 TURN - LEHIGH #34 X/O - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$25,968
C.EN.101860.0024 TURN - LEHIGH #34 X/O - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$9,950
C.EN.101860.0025 TURN - LEHIGH #34 X/O - C&S SUPPORT	2 EA Install Switch Machine	6/21/2021	8/27/2021	\$110,655
Lehigh Interlocking #44 Turnout				
C.EN.101860.0036TURN - LEHIGH #44 T/O - INSTALL	1 EA Install Wood Turnout	5/10/2021	8/30/2021	\$669,824
C.EN.101860.0037TURN - LEHIGH #44 T/O - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$7,409
C.EN.101860.0038TURN - LEHIGH #44 T/O - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$17,895
C.EN.101860.0039TURN - LEHIGH #44 T/O - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$14,926
C.EN.101860.0040TURN - LEHIGH #44 T/O - C&S SUPPORT	1 EA Install Switch Machine	6/21/2021	8/27/2021	\$185,669
Lehigh Interlocking #45 Crossover				
C.EN.101860.0021 TURN - LEHIGH #45 X/O - INSTALL	2 EA Install Wood Turnout	5/10/2021	8/27/2021	\$1,177,364
C.EN.101860.0022 TURN - LEHIGH #45 X/O - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$14,821
C.EN.101860.0023 TURN - LEHIGH #45 X/O - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$35,790
C.EN.101860.0025 TURN - LEHIGH #45 X/O - C&S SUPPORT	2 EA Install Switch Machine	6/21/2021	8/27/2021	\$371,338
Lehigh Interlocking #45Crossover				
C.EN.101860.0024 TURN - LEHIGH #45 X/O - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$29,849
Lehigh Interlocking #45W Crossover				
C.EN.101860.0040TURN - LEHIGH #45W - C&S SUPPORT	1 EA Install Switch Machine	6/21/2021	8/27/2021	\$185,669
Lehigh Interlocking #45W Turnout				
C.EN.101860.0036TURN - LEHIGH #45W T/O - INSTALL	1 EA Install Wood Turnout	5/10/2021	8/30/2021	\$669,824
C.EN.101860.0037TURN - LEHIGH #45W - ET SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$7,409
C.EN.101860.0038TURN - LEHIGH #45W - T&E SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$17,895
C.EN.101860.0039TURN - LEHIGH #45W - B&B SUPPORT	Units not applicable	6/21/2021	8/27/2021	\$14,926
Mantua Interlocking #21E Crossover				
C.EN.101860.0001 TURN - MANTUA #21E X/O - INSTALL	2 EA Install Wood Turnout	9/27/2021	9/24/2021	\$453,895
C.EN.101860.0002 TURN - MANTUA #21E X/O - ET SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$1,976
C.EN.101860.0003 TURN - MANTUA #21E X/O - T&E SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$4,772
C.EN.101860.0004 TURN - MANTUA #21E X/O - B&B SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$3,980
C.EN.101860.0005 TURN - MANTUA #21E X/O - C&S SUPPORT	4 EA Install Switch Machine	9/27/2021	11/5/2021	\$49,512
Mantua Interlocking #23 Crossover				
C.EN.101860.0002 TURN - MANTUA #23 X/O - ET SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$1,976
C.EN.101860.0003 TURN - MANTUA #23 X/O - T&E SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$4,772
C.EN.101860.0004 TURN - MANTUA #23 X/O - B&B SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$3,980

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101860.0005 TURN - MANTUA #23 X/O - C&S SUPPORT	2 EA Install Switch Machine	9/27/2021	11/5/2021	\$49,512
Mantua Interlocking #32 Crossover				
C.EN.101860.0002 TURN - MANTUA #32 X/O - ET SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$1,976
C.EN.101860.0003 TURN - MANTUA #32 X/O - T&E SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$4,772
C.EN.101860.0004 TURN - MANTUA #32 X/O - B&B SUPPORT	Units not applicable	9/27/2021	11/5/2021	\$3,980
C.EN.101860.0005 TURN - MANTUA #32 X/O - C&S SUPPORT	2 EA Install Switch Machine	9/27/2021	11/5/2021	\$49,512
BCC Segment 16 Programs Total				\$15,246,845

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BCC Segment 17: Girard to Philadelphia 30th St (Amtrak-owned)

Operators: Amtrak, NJT

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$13,879,975	\$0	\$13,879,975
Projects	\$1,072,400	\$7,116,269	\$8,188,669
Total	\$14,952,375	\$7,116,269	\$22,068,644

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00013 - Mid-Atlantic North Catenary - C.EN.101822				
<i>See below for further detail on planned FY21 work.</i>				
North Penn 12 KV Switchs MP 1.23 AP Line				
North Penn 12KV switches	24 EA Install / Renew 12 KV Disconnect Switches	10/1/2020	9/30/2021	\$617,033
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.FY2123 TIES MADN CONCRETE AN/AP LN MP87.7-1.5	7 EA Install Ties, Concrete	3/30/2021	6/11/2021	\$31,889
Insulated Joint Removal MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.FY2110 RAIL MADN INSULATE JT AP LINE MP87.7-1.5	5 EA Install Insulated Joint (Includes OTM)	2/4/2021	3/5/2021	\$51,008
Interlocking Steel MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.FY2153 TURN MADN I/L STEEL AN LINE MP87.7-1.5	1 EA Renew Switch Point Stock Rail	3/1/2021	3/8/2021	\$18,663
C.EN.101828.FY2158 TURN MADN I/L STEEL AP LN MP87.7-1.5	Units not applicable	6/1/2021	6/8/2021	\$18,663
Joint Elimination MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.0020 RAIL MADN JOINT ELIM AP LINE MP87.7-1.5	30 EA Field Weld and Grind Rail (Joint Elimination)	3/19/2021	5/7/2021	\$337,178
Spot Surfacing MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.FY2147 GEOM AP LN MP 87.7-1.5 SPOT SURFACING	20000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$277,317
Spot Undercutting MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.FY2168 BLST MAD SPOT UNDR CUT AP LN MP87.7-1.5	1000 FT Vacuum Train, Spot Undercut	7/1/2021	7/9/2021	\$331,377
Wood Tie/Timber Replacement MP 87.7 - 1.5 AP/AN Line				
C.EN.101828.0033 TIES MAD TIE/TIMBER AN/AP LN MP87.7-1.5	80 EA Install Ties and Timbers	3/1/2021	3/23/2021	\$92,076
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 82.1 -87.7 AN Line				
C.EN.101855.0037 GEOM AN LN MP 82.1 - 87.7 HSS PRODUCTION - 16	Units not applicable	10/1/2020	9/30/2021	\$712,911
High Speed Surfacing Production MP 87.7 - 1.4 AN/AP Line				
C.EN.101855.0039 GEOM AN/AP LN MP87.7-1.4 HSS PRODUCTION - 17	Units not applicable	10/1/2020	9/30/2021	\$58,833

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
PG00061 - Total Track Renewal - C.EN.101871				
3,320 track feet , 30th St Track 8 and Track 10				
30th Street Station Block Tie Replacement Track 10				
XXX10 TKRN AMTRAK SYSTEM - 30TH ST STATION TK 10	Units not applicable	5/3/2021	9/14/2021	\$4,721,661
30th Street Station Block Tie Replacement Track 8				
XXX8 TKRN AMTRAK SYSTEM - 30TH ST STATION TK 8	Units not applicable	2/1/2021	6/14/2021	\$4,759,949
PG00065 - Turnout Renewal - C.EN.101860				
See below for further detail on planned FY21 work.				
Mantua Interlocking #23 Crossover				
C.EN.101860.0001 TURN - MANTUA #23 X/O - INSTALL	2 EA Install Wood Turnout	9/27/2021	9/24/2021	\$436,857
Mantua Interlocking #32 Crossover				
C.EN.101860.0001 TURN - MANTUA #32 X/O - INSTALL	2 EA Install Wood Turnout	9/27/2021	9/24/2021	\$436,857
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
See below for further detail on planned FY21 work.				
Mantua Interlocking Timber Replacement				
C.EN.101858.2021.19 TIE/TIMBER REPLACEMENT - MANTUA IL	487 EA Install Ties and Timbers	1/4/2021	4/22/2021	\$863,629
PG00085 - Amtrak Owned Positive Train CTRL (PTC) Installation - C.EN.201034				
FY21 Scope includes completing all boundary locations, OBC Upgrades, completion of STS Migration and TP upgrades, ACSES Monitoring Tool Phase 2				
Zoo to Girard to Kay Mid-Atlantic Division PTC Boundary Upgrade				
C.EN.201034.0104 PTC MAD ZOO/GIRARD/KAY-BOUNDARY UPG	Units not applicable	10/1/2020	10/28/2020	\$114,072
BCC Segment 17 Programs Total				\$13,879,975

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000091 - 30th Street Station Facade Restoration - C.EN.100039			
Reconstruction of the north parapet wall including the protection of the existing signal room on the north side of the building and miscellaneous limestone and brick masonry repairs on the north side of the building.			
C.EN.100039.0005 STA PHIL 30TH ST-FAÇADE CONTRACTOR	9/1/2021	1/18/2023	\$1,072,400
BCC Ineligible			
P000161 - PCY Acela 21 Shop - C.EN.101893			
Completion of general site analysis, NEPA evaluation and design-build bridging documents. Development and award of 3rd party design-build contractor.			
C.EN.101893.0001 MOFE PCY NEW S&I TRAINSET FAC-PRELIM DSN	7/1/2020	11/2/2020	\$158,841
C.EN.101893.0005 MOFE PCY NEW S&I TRAINSET FAC-RWP	7/1/2020	11/2/2020	\$19,203
C.EN.101893.0007 MOFE PCY NEW S&I TRAINSET FAC-PROJ. MGT.	5/1/2020	9/1/2020	\$40,248
MOFE PENN COACH YARD NEW S&I ACELA 21 TRAINSET FACILITY	10/1/2020	10/25/2023	\$6,897,977
BCC Segment 17 Projects Total			\$8,188,669

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BCC Segment 18: Philadelphia 30th St to Arsenal (Amtrak-owned)

Operators: Amtrak

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$2,919,721	\$0	\$2,919,721
Projects	\$0	\$0	\$0
Total	\$2,919,721	\$0	\$2,919,721

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
<i>See below for further detail on planned FY21 work.</i>				
Arsenal Sub 2A Signal Power Station Frequency Converter AH Line				
Arsenal Sub 2A - Signal Power Static Frequency Converter	1 EA Install / Renew Frequency Converter	10/1/2020	9/30/2021	\$898,435
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2124 TIES MADN CONCRETE AP LINE MP1.4-2.7	9 EA Install Ties, Concrete	10/1/2020	12/17/2020	\$34,341
High Speed Surfacing MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2185 GEOM MADN HSS SURFAC AP LN MP1.4 - 2.7	2000 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$22,439
Insulated Joint Removal MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2106 RAIL MADN INSULATE JT AP LINE MP1.4-2.7	6 EA Install Insulated Joint (Includes OTM)	10/1/2020	10/30/2020	\$61,208
Interlocking Steel MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2154 TURN MADN I/L STEEL AP LN MP1.4-2.7	1 EA Renew Switch Point Stock Rail	4/1/2021	4/8/2021	\$18,663
Joint Elimination MP 1.4 - 2.7 AP Line				
C.EN.101828.0016 RAIL MADN JOINT ELIM AP LINE MP1.4-2.7	20 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	11/13/2020	\$224,786
Spot Surfacing MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2143 GEOM AP LN MP 1.4 - 2.7 SPOT SURFACING	50000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$693,291
Spot Undercutting MP 1.4 - 2.7 AP Line				
C.EN.101828.FY2164 BLST MAD SPOT UNDRUCUT AP LN MP1.4-2.7	2500 FT Vacuum Train, Spot Undercut	3/1/2021	3/8/2021	\$828,442
Wood Tie/Timber Replacement MP 1.4 - 2.7 AP Line				
C.EN.101828.0034 TIES MAD TIE/TIMBER AP LINE MP1.4-2.7	120 EA Install Ties and Timbers	4/1/2021	4/28/2021	\$138,115
BCC Segment 18 Programs Total				\$2,919,721

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BCC Segment 19: Arsenal to Marcus Hook (Amtrak-owned)

Operators: Amtrak, SEPTA

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$11,386,073	\$3,234,664	\$14,620,737
Projects	\$0	\$0	\$0
Total	\$11,386,073	\$3,234,664	\$14,620,737

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00013 - Mid-Atlantic North Catenary - C.EN.101822				
<i>See below for further detail on planned FY21 work.</i>				
Baldwin Interlocking to Bell Interlocking Catenary SAP Install AP Line				
Baldwin I/L to Bell I/L Catenary SAP Install	400 EA Install / Renew SAP Assemblies	10/1/2020	9/30/2021	\$903,905
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
Relay Replacement MP 6.4 - MP 17.1 AP Line				
INT MADN AP LN MP6.4/17.1-CODE RELAY RPL	Units not applicable	10/1/2020	9/30/2021	\$301,078
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
<i>See below for further detail on planned FY21 work.</i>				
Barklay Street Track 1 Bridge Timber Replacement MP 13.79 AP Line				
BGTI BARKLAY ST-BRG TIMB TK1 PA013.79	Units not applicable	10/1/2020	9/30/2021	\$428,956
Concord Ave Track 1 Bridge Timber Replacement MP 13.83 AP Line				
BGTI CONCORD AVE-BRG TIMB TK1 PA013.83	Units not applicable	10/1/2020	9/30/2021	\$428,956
Glenolden Ave Undergrade Bridge Rehab MP 8.32 AP Line				
BGUG AP LN MP08.32 GLENOLDEN AVE GLENOLDEN PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$241,290
Welsh St Track 3 Bridge Timber Replacement MP 13.42 AP Line				
BGTI WELSH ST-BRG TIMB RPL TK 3 PA013.42	Units not applicable	10/1/2020	9/30/2021	\$428,956
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
<i>See below for further detail on planned FY21 work.</i>				
Glenolden Sub 10 110 Air Break Replacement AH Line				
Glenolden Sub 10 110 Air Break Replacement	Units not applicable	10/1/2020	9/30/2021	\$201,693
Lamokin Sub 11 Air Break Replacement AH Line				
Lamokin Sub 11 - Air Break Replacement	Units not applicable	10/1/2020	9/30/2021	\$201,693
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 2.7 - 6.4 AP Line				
C.EN.101828.FY2125 TIES MADN CONCRETE AP LINE MP2.7-6.4	13 EA Install Ties, Concrete	12/15/2020	3/3/2021	\$39,249
Concrete Tie Replacement MP 6.4 - 17.1 AP Line				
C.EN.101828.FY2126 TIES MADN CONCRETE AP LINE MP6.4-17.1	9 EA Install Ties, Concrete	3/1/2021	5/12/2021	\$34,341
High Speed Surfacing MP 2.7 - 6.4 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101828.FY2186 GEOM MADN HSS SURFAC AP LN MP2.7 - 6.4	7500 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$84,151
Hook to Baldwin Drainage Improvements AP Line				
C.EN.101828.FY2178 DRAN BALDWIN TO HOOK DRAINAGE IMPROVEMENTS	Units not applicable	11/27/2020	12/17/2020	\$91,099
Insulated Joint Removal MP 2.7 - 6.4 AP Line				
C.EN.101828.FY2107 RAIL MADN INSULATE JT AP LINE MP2.7-6.4	2 EA Install Insulated Joint (Includes OTM)	11/2/2020	12/2/2020	\$20,402
Insulated Joint Removal MP 6.4 - 17.1 AP Line				
C.EN.101828.FY2108 RAIL MADN INSULATE JT AP LINE MP6.4-17.1	5 EA Install Insulated Joint (Includes OTM)	12/3/2020	1/4/2021	\$51,007
Interlocking Steel MP 2.7 - 6.4 AP Line				
C.EN.101828.FY2155 TURN MADN I/L STEEL AP LN MP2.7-6.4	1 EA Renew Switch Point Stock Rail	3/1/2021	3/8/2021	\$18,663
Interlocking Steel MP 6.4 - 17.1 AP Line				
C.EN.101828.FY2156 TURN MADN I/L STEEL AP LN MP6.4-17.1	1 EA Renew Switch Point Stock Rail	4/1/2021	4/8/2021	\$18,663
Joint Elimination MP 2.7 - 6.4 AP Line				
C.EN.101828.0017 RAIL MADN JOINT ELIM AP LINE MP2.7-6.4	10 EA Field Weld and Grind Rail (Joint Elimination)	11/13/2020	12/8/2020	\$112,393
Joint Elimination MP 6.4 - 17.1 AP Line				
C.EN.101828.0018 RAIL MADN JOINT ELIM AP LINE MP6.4-17.1	40 EA Field Weld and Grind Rail (Joint Elimination)	12/8/2020	2/11/2021	\$449,572
Spot Surfacing MP 2.7 - 6.4 AP Line				
C.EN.101828.FY2144 GEOM AP LN MP 2.7 - 6.4 SPOT SURFACING	80000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$1,109,271
Spot Surfacing MP 6.4 - 17.1 AP Line				
C.EN.101828.FY2145 GEOM AP LN MP 6.4 - 17.1 SPOT SURFACING	20000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$277,317
Spot Undercutting MP 2.7 - 6.4 AP Line				
C.EN.101828.FY2165 BLST MAD SPOT UNDRUCUT AP LN MP2.7-6.4	4000 FT Vacuum Train, Spot Undercut	4/1/2021	4/8/2021	\$1,325,507
Spot Undercutting MP 6.4 - 17.1 AP Line				
C.EN.101828.FY2166 BLST MAD SPOT UNDRUCUT AP LN MP6.4-17.1	2000 FT Vacuum Train, Spot Undercut	5/3/2021	5/10/2021	\$662,753
Wood Tie/Timber Replacement MP 2.7 - 6.4 AP Line				
C.EN.101828.0035 TIES MAD TIE/TIMBER AP LINE MP2.7-6.4	300 EA Install Ties and Timbers	5/3/2021	5/25/2021	\$345,287
Wood Tie/Timber Replacement MP 6.4 - 17.1 AP Line				
C.EN.101828.0036 TIES MAD TIE/TIMBER AP LINE MP6.4-17.1	120 EA Install Ties and Timbers	6/1/2021	6/28/2021	\$138,115
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Hook Interlocking #23 Crossover				
Hook X/O 23 Install	Units not applicable	10/2/2020	10/5/2020	\$715,779

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Concrete Tie Replacement MP 2.7 - 6.4 AP Line				
C.EN.101860.0100 TURN HOOK I/L #32 X/O - INSTALL	2 EA Install Wood Turnout	9/14/2020	10/29/2020	\$494,613
C.EN.101860.0101 TURN HOOK I/L #32 X/O - E.T. SUPPORT	Units not applicable	9/14/2020	10/29/2020	\$8,897
C.EN.101860.0102 TURN HOOK I/L #32 X/O - T&E SUPPORT	Units not applicable	9/14/2020	10/29/2020	\$20,098
C.EN.101860.0103 TURN HOOK I/L #32 X/O - B&B SUPPORT	Units not applicable	9/14/2020	10/29/2020	\$17,882
C.EN.101860.0104 TURN HOOK I/L #32 X/O - C&S SUPPORT	Units not applicable	9/14/2020	10/29/2020	\$30,940
PG00088-Ride Quality Improvements between Hook and Baldwin-C.EN.101902				
<i>In FY'21, we aim to address 4-6 bridges (8-12 approaches) on Track 4 between Hook and Baldwin (AP Line). Winter weather and extent of the existing drainage issue at this location will determine our final count of bridges completed in the fiscal year. This will be considered "winter work" for a portion of the production undercutter work group.</i>				
Ride Quality Improvements between Hook and Baldwin				
LOC #1	700 EA Install Ties, Concrete	1/4/2021	1/7/2021	\$212,993
LOC #1	Units not applicable	2/8/2021	2/11/2021	\$212,993
LOC #2	Units not applicable	1/11/2021	2/18/2021	\$425,985
LOC #3	Units not applicable	1/18/2021	2/25/2021	\$425,985
LOC #4	Units not applicable	1/25/2021	3/4/2021	\$425,985
LOC #5	Units not applicable	2/1/2021	3/11/2021	\$425,985
PCS	Units not applicable	10/1/2020	6/30/2021	\$26,811
PM	Units not applicable	10/1/2020	6/30/2021	\$26,811
BCC Ineligible				
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Hook Interlocking #89 Crossover				
C.EN.101860.0031 TURN - HOOK #89 X/O - INSTALL	2 EA Install Wood Turnout	10/1/2020	10/9/2020	\$1,297,839
C.EN.101860.0032 TURN - HOOK #89 X/O - ET SUPPORT	Units not applicable	10/1/2020	10/6/2020	\$14,821
C.EN.101860.0033 TURN - HOOK #89 X/O - T&E SUPPORT	Units not applicable	10/1/2020	10/8/2020	\$35,790
C.EN.101860.0034 TURN - HOOK #89 X/O - B&B SUPPORT	Units not applicable	10/1/2020	10/9/2020	\$29,850
C.EN.101860.0035 TURN - HOOK #89 X/O - C&S SUPPORT	1 EA Install Switch Machine	10/1/2020	10/28/2020	\$199,151
Hook Interlocking #91 Crossover				
C.EN.101860.0026 TURN HOOK I/L #91 X/O - INSTALL	2 EA Install Wood Turnout	10/1/2020	10/19/2020	\$1,212,183
C.EN.101860.0027 TURN HOOK I/L #91 X/O - E.T. SUPPORT	Units not applicable	10/2/2020	10/12/2020	\$14,900
C.EN.101860.0028 TURN HOOK I/L #91 X/O - T&E SUPPORT	Units not applicable	10/2/2020	10/12/2020	\$33,662
C.EN.101860.0029 TURN HOOK I/L #91 X/O - B&B SUPPORT	Units not applicable	10/2/2020	10/12/2020	\$29,951
C.EN.101860.0030 TURN HOOK I/L #91 X/O - C&S SUPPORT	2 EA Install Switch Machine	10/2/2020	10/12/2020	\$366,517
BCC Segment 19 Programs Total				\$14,620,737

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BCC Segment 20: Marcus Hook to Bacon (Amtrak-owned)

Operators: Amtrak, SEPTA (on behalf of DelDOT)

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$37,541,779	\$587,402	\$38,129,181
Projects	\$1,351,207	\$859,818	\$2,211,025
Total	\$38,892,986	\$1,447,220	\$40,340,206

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
Relay Replacement MP 17.1 - MP 29.6 AP Line				
INT MADN AP LN MP17.1/29.6-CODE RLAY RPL	Units not applicable	10/1/2020	9/30/2021	\$301,078
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
<i>See below for further detail on planned FY21 work.</i>				
Justison Street Undergrade Bridge Rehab MP 27.21 AP Line				
BGUG AP LN MP27.21 JUSTISON ST WILM DE REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$214,484
Lombard Street Undergrade Bridge Rehab MP 26.60 AP Line				
BGUG AP LN MP 26.60 LOMBARD ST WILM DE REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$214,484
Market Street Undergrade Bridge Rehab MP 26.92 AP Line				
BGUG AP LN MP26.92 MARKET ST WILM DE REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$160,860
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Concrete Tie Replacement MP 17.1 - 29.6 AP Line				
C.EN.101828.FY2127 TIES MADN CONCRETE AP LINE MP17.1-29.6	11 EA Install Ties, Concrete	5/10/2021	7/23/2021	\$36,796
High Speed Surfacing MP 17.1 - 29.6 AP Line				
C.EN.101828.FY2187 GEOM MADN HSS SURFAC AP LN MP17.1 - 29.6	20000 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$224,404
Insulated Joint Removal MP 17.1 - 29.6 AP Line				
C.EN.101828.FY2109 RAIL MADN INSULATE JT AP LINE MP17.1-29.6	2 EA Install Insulated Joint (Includes OTM)	1/5/2021	2/3/2021	\$20,402
Interlocking Steel MP 17.1 - 29.6 AP Line				
C.EN.101828.FY2157 TURN MADN I/L STEEL AP LN MP17.1-29.6	1 EA Renew Switch Point Stock Rail	5/3/2021	5/10/2021	\$18,663
Joint Elimination MP 17.1 - 29.6 AP Line				
C.EN.101828.0019 RAIL MADN JOINT ELIM AP LINE MP17.1-29.6	20 EA Field Weld and Grind Rail (Joint Elimination)	2/11/2021	3/19/2021	\$224,786
Spot Surfacing MP 17.1 - 29.6 AP Line				
C.EN.101828.FY2146 GEOM AP LN MP17.1 - 29.6 SPOT SURFACING	100000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$1,386,590
Spot Undercutting MP 17.1 - 29.6 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101828.FY2167 BLST MAD SPOT UNDRUCUT AP LN MP17.1-29.6	5000 FT Vacuum Train, Spot Undercut	6/1/2021	6/8/2021	\$1,656,883
Wood Tie/Timber Replacement MP 17.1 - 29.6 AP Line				
C.EN.101828.0037 TIES MAD TIE/TIMBER AP LINE MP17.1-29.6	220 EA Install Ties and Timbers	7/1/2021	8/5/2021	\$253,211
PG00026 - Mid-Atlantic South Structures - C.EN.101833				
<i>Upgrades to: 4 culverts, 2 tunnels, 5 retaining walls, 5 signal bridges, 5 undergrade bridges, and 3 movable bridges</i>				
Brick Wall Arch Upgrade MP 50.90 AP Line				
C.EN.101833.2021.14 WALL BRICK ARCH UPGRADE AT MP 50.90	Units not applicable	10/1/2020	9/30/2021	\$160,860
Culvert Upgrade MP 33.13 AP Line				
C.EN.101833.2021.04 CULV MD 33.12 - CULVERT UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$268,100
Iron Signal Bridge Upgrade AP Line				
C.EN.101833.2021.21 BSGS SIGNAL BRIDGE - IRON SBHS	1 EA Signal Bridge Component Upgrades	10/1/2020	9/30/2021	\$331,762
Stone Wall Arch Upgrade MP 36.40 AP Line				
C.EN.101833.2021.13 WALL STONE ARCH UPGRADE AT MP 36.40	Units not applicable	10/1/2020	9/30/2021	\$214,480
PG00027 - Mid-Atlantic South Substations - C.EN.101834				
<i>Tie switch replacement at 2 substations, and breaker replacement at Sub 15</i>				
Bacon Hill Sub 15 352 Break Replacement AP Line				
Bacon Hill Sub 15 352 Breaker replacement	Units not applicable	10/1/2020	9/30/2021	\$77,270
Landover Sub 24 Tie Switch Replacement AP Line				
Landover Sub 24 Tie Switch Replacement	Units not applicable	10/1/2020	9/30/2021	\$213,917
PG00028 - Mid-Atlantic South Track - C.EN.101835				
<i>Replace 40 insulated joints, 260 joint eliminations, 260000 LF spot surfacing upgrades, 34000 LF spot undercutting, 20 interlocking steel replacements, 1250 timber tie replacements, & 100 concrete tie replacements along with associated drainage improvements across Mid-Atlantic South (MADS) division utilizing MADS Track forces.</i>				
Concrete Tie Replacement MP 29.6 - 41.4 AP Line				
C.EN.101835.0033 TIES MADS CONCRETE AP LINE MP29.6-41.4	11 EA Install Ties, Concrete	11/10/2020	1/28/2021	\$36,795
Concrete Tie Replacement MP 41.4 - 51.0 AP Line				
C.EN.101835.0034 TIES MADS CONCRETE AP LINE MP41.4-51.0	11 EA Install Ties, Concrete	12/7/2020	2/23/2021	\$36,796
Drainage Improvements MP 29.6 - 41.4 AP Line				
C.EN.101835.0024 DRAN MADS AP LN MP29.6/41.4-DRAN IMPV	Units not applicable	10/1/2020	9/29/2021	\$818,755
Drainage Improvements MP 41.4 - 51.0 AP Line				
C.EN.101835.0025 DRAN MADS AP LN MP41.4/51.0-DRAN IMPV	Units not applicable	10/1/2020	9/29/2021	\$116,963
High Speed Surfacing MP 29.6 - 41.4 AP Line				
C.EN.101835.0104 GEOM MADS HSS SURFACE AP LN MP29.6-41.4	3000 PF Surface Track, Spot	11/2/2020	11/3/2020	\$33,698
High Speed Surfacing MP 41.4 - 51.0 AP Line				
C.EN.101835.0105 GEOM MADS HSS SURFACE AP LN MP41.4-51.0	3000 PF Surface Track, Spot	12/18/2020	12/22/2020	\$33,698
Insulated Joint Removal MP 29.6 - 41.4 AP Line				
C.EN.101835.0001 RAIL MADS INSULATE JT AP LN MP29.6-41.4	8 EA Install Insulated Joint (Includes OTM)	10/1/2020	10/30/2020	\$81,601
Insulated Joint Removal MP 41.4 - 51.0 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101835.0002 RAIL MADS INSULATED JT AP LN MP41.4-51.0	5 EA Install Insulated Joint (Includes OTM)	11/2/2020	12/2/2020	\$51,007
Interlocking Steel MP 29.6 - 41.4 AP Line				
C.EN.101835.0060 TURN MADS I/L STEEL AP LN MP29.6-41.4	6 EA Renew Frog	10/1/2020	10/13/2020	\$111,976
Interlocking Steel MP 41.4 - 51.0 AP Line				
C.EN.101835.0061 TURN MADS I/L STEEL AP LN MP41.4-51.0	6 EA Renew Frog	10/20/2020	10/30/2020	\$111,976
Joint Elimination MP 29.6 - 41.4 AP Line				
C.EN.101835.0012 RAIL MADS JOINT ELIM AP LINE MP29.6-41.4	37 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	1/26/2021	\$415,852
Joint Elimination MP 41.4 - 51.0 AP Line				
C.EN.101835.0013 RAIL MADS JOINT ELIM AP LINE MP41.4-51.0	37 EA Field Weld and Grind Rail (Joint Elimination)	10/20/2020	2/12/2021	\$415,854
Spot Surfacing MP 29.6 - 41.4 AP Line				
C.EN.101835.0070 GEOM MADS SPOT SURF AP LN MP29.6-41.4	50000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$693,294
Spot Surfacing MP 41.4 - 51.0 AP Line				
C.EN.101835.0071 GEOM MADS SPOT SURF AP LN MP41.4-51.0	20000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$277,316
Spot Undercutting MP 29.6 - 41.4 AP Line				
C.EN.101835.0077 BLST MADS SPOT UNDRUCUT AP LN MP29.6-41.4	1000 FT Vacuum Train, Spot Undercut	11/10/2020	11/19/2020	\$339,581
Spot Undercutting MP 41.4 - 51.0 AP Line				
C.EN.101835.0078 BLST MADS SPOT UNDRUCUT AP LN MP41.4-51.0	1000 FT Vacuum Train, Spot Undercut	10/1/2020	10/8/2020	\$351,913
Wood Tie/Timber Replacement MP 29.6 - 41.4 AP Line				
C.EN.101835.0049 TIES MADS TIE/TIMBER AP MP29.6-41.4	150 EA Install Ties and Timbers	11/2/2020	12/1/2020	\$172,645
Wood Tie/Timber Replacement MP 41.4 - 51.0 AP Line				
C.EN.101835.0050 TIES MADS TIE/TIMBER AP LN MP41.4-51.0	50 EA Install Ties and Timbers	12/3/2020	12/23/2020	\$57,548
PG00057 - TLS Concrete Tie Replacement - C.EN.101652				
80,134 Concrete Ties; 320,534 FT CWR				
Ragan to Bacon Track 3 TLS MP 30.01 - 50.71 AP Line				
201652.RB172 TLS RAGAN TO BACON TK 3 - INSTALL	58534 EA Install Ties, Concrete / 232320 FT Install Rail, CWR (Includes OTM)	5/3/2021	10/28/2021	\$21,116,683
201652.RB173 TLS RAGAN TO BACON TK 3 - ET SUPPORT	Units not applicable	5/3/2021	10/28/2021	\$579,398
201652.RB174 TLS RAGAN TO BACON TK 3 - C&S SUPPORT	Units not applicable	5/3/2021	10/28/2021	\$1,689,910
201652.RB175 TLS RAGAN TO BACON TK 3 - B&B SUPPORT	Units not applicable	5/3/2021	10/28/2021	\$692,338
201652.RB176 TLS RAGAN TO BACON TK 3 - T&E SUPPORT	Units not applicable	5/3/2021	10/28/2021	\$565,932
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 29.6 41.4 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101855.0049 GEOM AP LN MP 29.6 - 41.4 HSS PRODUCTION - 20	Units not applicable	10/1/2020	9/30/2021	\$396,593
High Speed Surfacing Production MP 41.4 - 51.0 AP Line				
C.EN.101855.0051 GEOM AP LN MP 41.4 - 51.0 HSS PRODUCTION - 20	Units not applicable	10/1/2020	9/30/2021	\$1,887,978
PG00063 - Track Rehabilitation - C.EN.101859				
<i>See below for further detail on planned FY21 work.</i>				
Wilmington Yard Track Rehabilitation				
Amtrak FA - Labor	Units not applicable	6/1/2021	6/30/2021	\$123,708
C.EN.101859.2021.41 TKRH WILMINGTON DE - WILMINGTON YARD	1 EA Install Wood Turnout	6/1/2021	6/30/2021	\$2,020
Install Switch	Units not applicable	6/14/2021	6/25/2021	\$195,408
Remove Switch	Units not applicable	6/1/2021	6/11/2021	\$16,106
Surfacing	Units not applicable	6/28/2021	6/30/2021	\$12,932
PG00083 - Communications System Upgrades - C.EN.101857				
<i>See below for further detail on planned FY21 work.</i>				
Communication House Replacement MP 34.3 AP Line				
C.EN.101857.0011 INT MADS MP34.3 AP LN-COMM HOUSE REPLACE	Units not applicable	2/1/2021	5/28/2021	\$126,472
BCC Ineligible				
PG00015 - Mid-Atlantic North Facilities - C.EN.101824				
<i>See below for further detail on planned FY21 work.</i>				
Lancaster MOFW C&S Shop Water Storage				
00098 FY21 MOFW LNC PA - C&S SHOP WATER STORAGE	Units not applicable	10/27/2020	9/8/2021	\$280,695
Wilmington DE, MOFE Wilmington New Cover on Rubb Building				
00099 MOFE Wilmington New Cover on the existing Rubb Building	Units not applicable	10/28/2020	9/7/2021	\$306,706
BCC Segment 20 Programs Total				\$38,129,181

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000003 - Brandy to Ragan Section Improvement - C.EN.201126			
<i>Complete the construction of the electrified 3rd track, test and tie into Ragan and Brandy Interlockings.</i>			
Brandy to Ragan Section Improvement	10/1/2020	9/30/2021	\$536,204
P000109 - Brill to Landlith OCS Improvements - C.EN.101880			
<i>Initiate preliminary design to be contracted out, advance the design to a conceptual design and prepare NEPA, environmental & SHPO documents.</i>			
Temp C.EN.101880 CAT BRILL/LANDLITH - CONSTRUCTION - ET	8/2/2021	4/23/2027	\$126,050
Temp C.EN.101880 CAT BRILL/LANDLITH - CONSTRUCTION MANAGEMENT	4/5/2021	7/30/2027	\$47,479
Temp C.EN.101880 CAT BRILL/LANDLITH - ROW/UTILITIES	9/7/2021	1/28/2022	\$48,746
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0012 INT RAGAN I/L MP29.7-MPF HST ROD REPLACE	7/2/2021	8/28/2021	\$163,766

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
P000168 - Gunpow Substation 18 New Prefabricated Control House - C.EN.101900			
<i>Procure and initiate design</i>			
Brandy to Ragan Section Improvement	10/1/2020	9/30/2021	\$428,961
BCC Ineligible			
P000119 - Wilmington Training Center Parking Access Improvements - C.EN.101879			
<i>Procure a design consultant and develop design up to 60% and initiate permitting.</i>			
C.EN.101879.0001 ROAD WIL DE TRAINING FAC RD-CONCEPT DSN	9/29/2020	11/30/2020	\$20,496
C.EN.101879.0002 ROAD WIL DE TRAINING FAC RD-STUDY/SURVEY	9/29/2020	12/1/2020	\$19,986
C.EN.101879.0003 ROAD WIL DE TRAINING FAC RD-PRELIM DSN	9/29/2020	2/1/2021	\$46,811
C.EN.101879.0004 ROAD WIL DE TRAINING FAC RD-ENVRN./NEPA	9/28/2020	1/29/2021	\$39,009
C.EN.101879.0005 ROAD WIL DE TRAINING FAC RD-60% DESIGN	10/27/2020	3/3/2021	\$53,083
C.EN.101879.0006 ROAD WIL DE TRAINING FAC RD-90% DESIGN	2/2/2021	5/26/2021	\$37,534
C.EN.101879.0007 ROAD WIL DE TRAINING FAC RD-FINAL DESIGN	4/1/2021	6/24/2021	\$32,172
C.EN.101879.0008 ROAD WIL DE TRAINING FAC RD-DSN REVIEW	4/1/2021	7/22/2021	\$34,853
C.EN.101879.0009 ROAD WIL DE TRAINING FAC RD-UTILITIES	3/4/2021	6/25/2021	\$34,853
C.EN.101879.0010 ROAD WIL DE TRAINING FAC RD-CONSTRUCTION	6/25/2021	1/26/2022	\$388,008
C.EN.101879.0011 ROAD WIL DE TRAINING FAC RD-CNSTRCT MGT.	11/30/2020	1/26/2022	\$65,975
C.EN.101879.0012 ROAD WIL DE TRAINING FAC RD-PROJ. MGT.	4/1/2019	11/28/2022	\$87,038
BCC Segment 20 Projects Total			\$2,211,025

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BCC Segment 21: Bacon to Perryville (Amtrak-owned)

Operators: Amtrak

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$3,959,131	\$0	\$3,959,131
Projects	\$0	\$0	\$0
Total	\$3,959,131	\$0	\$3,959,131

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00026 - Mid-Atlantic South Structures - C.EN.101833				
<i>Upgrades to: 4 culverts, 2 tunnels, 5 retaining walls, 5 signal bridges, 5 undergrade bridges, and 3 movable bridges</i>				
Principio Creek Bridge Repair MP 56.9 AP Line				
C.EN.101833.2021.17 BGUG PRINCIPIO CREEK - BRIDGE REPAIR (FY20 continuation)	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$1,580,944
Stone Wall Box Upgrades MP 51.37 AP Line				
C.EN.101833.2021.15 WALL STONE BOX UPGRADES AT MP 51.37	Units not applicable	10/1/2020	9/30/2021	\$160,860
PG00028 - Mid-Atlantic South Track - C.EN.101835				
<i>Replace 40 insulated joints, 260 joint eliminations, 260000 LF spot surfacing upgrades, 34000 LF spot undercutting, 20 interlocking steel replacements, 1250 timber tie replacements, & 100 concrete tie replacements along with associated drainage improvements across Mid-Atlantic South (MADS) division utilizing MADS Track forces.</i>				
Concrete Tie Replacement MP 51.0 - 59.4 AP Line				
C.EN.101835.0035 TIES MADS CONCRETE AP LINE MP51.0-59.4	26 EA Install Ties, Concrete	1/7/2021	3/24/2021	\$55,201
Drainage Improvements MP 51.0 - 59.4 AP Line				
C.EN.101835.0026 DRAN MADS AP LN MP51.0/59.4-DRAN IMPV	Units not applicable	10/1/2020	9/29/2021	\$350,895
High Speed Surfacing MP 51.0 - 59.4 AP Line				
C.EN.101835.0106 GEOM MADS HSS SURFACE AP LN MP51.0-59.4	3000 PF Surface Track, Spot	1/8/2021	1/11/2021	\$33,698
Insulated Joint Removal MP 51.0 - 59.4 AP Line				
C.EN.101835.0003 RAIL MADS INSULATED JT AP LN MP51.0-59.4	5 EA Install Insulated Joint (Includes OTM)	12/3/2020	1/4/2021	\$51,007
Interlocking Steel MP 51.0 - 59.4 AP Line				
C.EN.101835.0062 TURN MADS I/L STEEL AP LN MP51.0-59.4	6 EA Renew Frog	1/8/2021	1/20/2021	\$111,976
Joint Elimination MP 51.0 - 59.4 AP Line				
C.EN.101835.0014 RAIL MADS JOINT ELIM AP LINE MP51.0-59.4	37 EA Field Weld and Grind Rail (Joint Elimination)	11/6/2020	3/3/2021	\$415,852
Slope Stabilization MP 52.8 AP Line				
EPRJ000707 AP-52.8 Slope Stabilization	Units not applicable	10/1/2020	9/28/2022	\$55,254
Spot Surfacing MP 51.0 - 59.4 AP Line				
C.EN.101835.0072 GEOM MADS SPOT SURF AP LN MP51.0-59.4	60000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$831,953
Wood Tie/Timber Replacement MP 51.0 - 59.4 AP Line				
C.EN.101835.0051 TIES MADS TIE/TIMBER AP LN MP51.0-59.4	50 EA Install Ties and Timbers	1/5/2021	1/26/2021	\$57,548

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 51.0 - 59.4 AP Line				
C.EN.101855.0053 GEOM AP LN MP 51.0 - 59.4 HSS PRODUCTION - 21	Units not applicable	10/1/2020	9/30/2021	\$253,944
BCC Segment 21 Programs Total				\$3,959,131

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BCC Segment 22: Perryville to Washington Union Station (Amtrak-owned)

Operators: Amtrak, MARC

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$49,272,031	\$0	\$49,272,031
Projects	\$19,670,896	\$8,362,245	\$28,033,141
Total	\$68,942,927	\$8,362,245	\$77,305,172

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00021 - Mid-Atlantic South Catenary - C.EN.101829				
<i>250 SAP assemblies, 2 Cat Poles, and 2 Switch Heaters</i>				
Charles Switch Heater Replacement	Units not applicable	10/1/2020	5/28/2021	\$402,026
Magnolia Switch Heater Replacement	Units not applicable	10/1/2020	5/28/2021	\$402,030
Baltimore Station New Catenary Pole Install				
C.EN.101829.0001 POLE BAL MD STA-NEW CAT POLE INSTALL	2 EA Install / Rehabilitate Cat. Poles	10/1/2020	10/29/2020	\$664,656
Carroll Interlocking to Bridge Interlocking SAP Installation Track 3 AP Line				
C.EN.101829.0013 CAT CARROLL/BRIDGE I/L-SAP INSTALL TK2	125 EA Install / Renew SAP Assemblies	10/1/2020	7/1/2022	\$589,818
PG00023 - Mid-Atlantic South Facilities - C.EN.101831				
<i>Compressor Upgrades at Ivy City (MOFE), 480 Ground Power Upgrade, Electrical Upgrades at Wash. Terminal, and High Mast Lighting Replacement at Odenton</i>				
Odenton MOFW High Mast Lighting AP Line				
C.EN.101831.0005 MOFW ODENTON MD-HIGH MAST LIGHTING	3 EA Facility Improvement, Install High Mast Light	10/1/2020	9/30/2021	\$582,312
PG00025 - Mid-Atlantic South Signals - C.EN.101832				
<i>Cable Replacement, 15 CIHs</i>				
Cable Replacement MP 110.2 - 111.2 AP Line				
C.EN.101832.2020.01 Cable Replacement 57C, 49C, 37C in Amtrak owned duct bank (MP110.2 to MP111.2)	Units not applicable	10/1/2020	9/30/2021	\$412,872
PG00026 - Mid-Atlantic South Structures - C.EN.101833				
<i>Upgrades to: 4 culverts, 2 tunnels, 5 retaining walls, 5 signal bridges, 5 undergrade bridges, and 3 movable bridges</i>				
B&P Tunnel Slab Stabilization AP Line				
C.EN.101833.2021.05 TUN BAL MD - BP TUNNEL SLAB STABILIZATION	Units not applicable	10/1/2020	9/30/2021	\$107,240
Bush River Bridge Upgrades MP 72.14 AP Line				
C.EN.101833.2021.10 BGMS BUSH RIVER BRG, MD - BUSH RIVER MP 72.14 UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$160,860
C.EN.101833.2021.30 BGMS BUSH RIVER BRG, MD - BEARING UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$107,240
Bush Signal Bridge Upgrade AP Line				
C.EN.101833.2021.20 BGSB SIGNAL BRIDGE - BUSH SBHS	1 EA Signal Bridge Component Upgrades	10/1/2020	9/30/2021	\$331,762
Chase MD, Culvert Replacement MP 83.54 AP Line				
C.EN.101833.2021.03 CULV MD 83.54 CHASE MD - CULVERT REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$1,072,400
Concrete Arch Upgrades MP 115.61 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101833.2021.06 WALL MD 115.61 - CONCRETE ARCH UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$214,480
Concrete Bridge Slab MP 64.47 AP Line				
C.EN.101833.2021.16 BGUG BRIDGE CONCRETE SLAB AT MP 64.47	Units not applicable	10/1/2020	9/30/2021	\$160,860
Deck Girder Bridge Superstructure Upgrade MP 94.07 AP Line				
C.EN.101833.2021.07 BGUG SUBSTRUCTURE UPGRD FOR DECK GIRDER BRG AT MP 94.07	Units not applicable	10/1/2020	9/30/2021	\$268,100
North Point Road MP 90.98 AP Line				
C.EN.101833.2021.19 BGUG MP 90.98 - NORTH POINT ROAD	Units not applicable	10/1/2020	9/30/2021	\$282,487
Range Road Pier Rehab MP 115.61 AP Line				
C.EN.101833.2021.18 BGUG MP 115.61 - RANGE ROAD PIER REHAB	Units not applicable	10/1/2020	9/30/2021	\$221,934
Stone Wall Arch Upgrade MP 128.76 AP Line				
C.EN.101833.2021.08 WALL - STONE ARCH UPGRD AT MP 128.76	Units not applicable	10/1/2020	9/30/2021	\$214,480
Susquehanna River Bridge Machinery Upgrades AP Line				
C.EN.101833.2021.11 BGMS SUSQUEHANNA RIVER BRG MACHINERY UGRADES	Units not applicable	10/1/2020	9/30/2021	\$214,480
PG00027 - Mid-Atlantic South Substations - C.EN.101834				
<i>Tie switch replacement at 2 substations, and breaker replacement at Sub 15</i>				
Baltimore Sub 20 Signal Power Frequency Converter AP Line				
Baltimore Sub 20 - Signal Power Frequency Converter	1 EA Install / Renew Frequency Converter	10/1/2020	9/30/2021	\$920,129
Bowie Sub 23 Tie Switch Replacement AP Line				
Bowie Sub 23 Tie Switch replacement	Units not applicable	10/1/2020	9/30/2021	\$213,917
PG00028 - Mid-Atlantic South Track - C.EN.101835				
<i>Replace 40 insulated joints, 260 joint eliminations, 260000 LF spot surfacing upgrades, 34000 LF spot undercutting, 20 interlocking steel replacements, 1250 timber tie replacements, & 100 concrete tie replacements along with associated drainage improvements across Mid-Atlantic South (MADS) division utilizing MADS Track forces.</i>				
Baltimore East Slope Stabilization AP Line				
EPRJ001090 Baltimore East Slope Stabilization	Units not applicable	10/1/2020	9/29/2021	\$185,780
Concrete Tie Replacement MP 131.6 - 135.0 AP Line				
C.EN.101835.0038 TIES MADS CONCRETE AP LINE MP131.6-135.0	11 EA Install Ties, Concrete	4/12/2021	6/24/2021	\$36,796
Concrete Tie Replacement MP 59.4 - 79.3 AP Line				
C.EN.101835.0036 TIES MADS CONCRETE AP LINE MP59.4-79.3	11 EA Install Ties, Concrete	2/8/2021	4/22/2021	\$36,795
Concrete Tie Replacement MP 79.3 - 131.6 AP Line				
C.EN.101835.0037 TIES MADS CONCRETE AP LINE MP79.3-131.6	33 EA Install Ties, Concrete	4/16/2021	7/7/2021	\$110,387
Drainage Improvements MP 103.9 AP Line				
C.EN.101835.0103 DRAN AP LN MP 103.9-DRAINAGE IMPROVEMENT	1 EA Stabilize Track	10/1/2020	9/30/2021	\$2,789,650
Drainage Improvements MP 124.8 AP Line				
EPRJ001089 AP-124.8 Drainage Improvements (Prince George County)	Units not applicable	10/1/2020	9/29/2021	\$49,672
Drainage Improvements MP 59.4 - 79.3 AP Line				
C.EN.101835.0027 DRAN MADS AP LN MP59.4/79.3-DRAN IMPV	Units not applicable	10/1/2020	9/29/2021	\$175,448
High Speed Surfacing MP 131.6 - 135.0 AP Line				
C.EN.101835.0109 GEOM MADS HSS SURFACE APLN MP131.6-135.0	3000 PF Surface Track, Spot	3/8/2021	3/9/2021	\$33,698
High Speed Surfacing MP 59.4 - 79.3 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101835.0107 GEOM MADS HSS SURFACE AP LN MP59.4-79.3	3000 PF Surface Track, Spot	1/28/2021	1/29/2021	\$33,698
High Speed Surfacing MP 79.3 - 131.6 AP Line				
C.EN.101835.0108 GEOM MADS HSS SURFACE APLN MP79.3-131.6	3000 PF Surface Track, Spot	2/17/2021	2/18/2021	\$33,698
Insulated Joint Removal MP 131.6 - 135.0 AP Line				
C.EN.101835.0006 RAIL MADS INSLATE JT AP LN MP131.6-135.0	5 EA Install Insulated Joint (Includes OTM)	3/8/2021	4/5/2021	\$51,008
Insulated Joint Removal MP 59.4 - 79.3 AP Line				
C.EN.101835.0004 RAIL MADS INSULATED JT AP LN MP59.4-79.3	5 EA Install Insulated Joint (Includes OTM)	1/5/2021	2/3/2021	\$51,008
Insulated Joint Removal MP 79.3 - 131.6 AP Line				
C.EN.101835.0005 RAIL MADS INSULATE JT AP LN MP79.3-131.6	12 EA Install Insulated Joint (Includes OTM)	2/4/2021	3/5/2021	\$122,417
Interlocking Steel MP 131.6 - 135.0 AP Line				
C.EN.101835.0065 TURN MADS I/L STEEL AP LN MP131.6-135.0	20 EA Renew Frog	1/6/2021	2/11/2021	\$373,255
Interlocking Steel MP 59.4 - 79.3 AP Line				
C.EN.101835.0063 TURN MADS I/L STEEL AP LN MP59.4-79.3	10 EA Renew Frog	11/27/2020	12/16/2020	\$186,629
Interlocking Steel MP 79.3 - 131.6 AP Line				
C.EN.101835.0064 TURN MADS I/L STEEL AP LN MP79.3-131.6	30 EA Renew Frog	12/16/2020	2/11/2021	\$559,884
Joint Elimination MP 131.6 - 135.0 AP Line				
C.EN.101835.0017 RAIL MADS JOINT ELIM AP LN MP131.6-135.0	37 EA Field Weld and Grind Rail (Joint Elimination)	1/6/2021	4/27/2021	\$415,853
Joint Elimination MP 59.4 - 79.3 AP Line				
C.EN.101835.0015 RAIL MADS JOINT ELIM AP LINE MP59.4-79.3	37 EA Field Weld and Grind Rail (Joint Elimination)	11/27/2020	3/22/2021	\$415,853
Joint Elimination MP 79.3 - 131.6 AP Line				
C.EN.101835.0016 RAIL MADS JOINT ELIM AP LN MP79.3-131.6	37 EA Field Weld and Grind Rail (Joint Elimination)	12/16/2020	4/8/2021	\$415,853
Roadbed Stabilization MP 118.9 AP Line				
EPRJ001086 AP-118.9 Roadbed Stabilization	Units not applicable	10/1/2020	9/29/2021	\$24,920
Spot Surfacing MP 131.6 - 135.0 AP Line				
C.EN.101835.0075 GEOM MADS SPOT SURF AP LN MP131.6-135.0	20000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$277,316
Spot Surfacing MP 59.4 - 79.3 AP Line				
C.EN.101835.0073 GEOM MADS SPOT SURF AP LN MP59.4-79.3	20000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$277,316
Spot Surfacing MP 79.3 - 131.6 AP Line				
C.EN.101835.0074 GEOM MADS SPOT SURF AP LN MP79.3-131.6	350000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$4,853,061
Spot Undercutting MP 131.6 - 135.0 AP Line				
C.EN.101835.0081 BLST MADS SPOT UNDRCT AP LNMP131.6-135.0	1000 FT Vacuum Train, Spot Undercut	4/16/2021	4/23/2021	\$351,913
Spot Undercutting MP 59.4 - 79.3 AP Line				
C.EN.101835.0079 BLST MADS SPOT UNDRCT AP LN MP59.4-79.3	2000 FT Vacuum Train, Spot Undercut	2/4/2021	2/11/2021	\$703,826
Spot Undercutting MP 79.3 - 131.6 AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101835.0080 BLST MADDS SPOT UNDRCT AP LN MP79.3-131.6	2000 FT Vacuum Train, Spot Undercut	2/11/2021	2/19/2021	\$703,826
Wood Tie/Timber Replacement MP 131.6 - 135.0 AP Line				
C.EN.101835.0054 TIES MADDS TIE/TIMBER AP LN MP131.6-135.0	100 EA Install Ties and Timbers	4/6/2021	4/28/2021	\$115,095
Wood Tie/Timber Replacement MP 59.4 - 79.3 AP Line				
C.EN.101835.0052 TIES MADDS TIE/TIMBER AP LN MP59.4-79.3	50 EA Install Ties and Timbers	2/4/2021	2/25/2021	\$57,548
Wood Tie/Timber Replacement MP 79.3 - 131.6 AP Line				
C.EN.101835.0053 TIES MADDS TIE/TIMBER AP LN MP79.3-131.6	650 EA Install Ties and Timbers	3/8/2021	5/4/2021	\$748,122
PG00057 - TLS Concrete Tie Replacement - C.EN.101652				
<i>80,134 Concrete Ties; 320,534 FT CWR</i>				
Bridge to Grove Track 2 TLS MP 98.28 - 112.23 AP Line				
101652.BG172 TLS BRIDGE TO GROVE TK 2 - INSTALL	21600 EA Install Ties, Concrete / 84480 FT Install Rail, CWR (Includes OTM)	10/1/2020	12/17/2020	\$15,848,182
101652.BG173 TLS BRIDGE TO GROVE TK 2 - ET SUPPORT	Units not applicable	10/1/2020	12/17/2020	\$338,098
101652.BG174 TLS BRIDGE TO GROVE TK 2 - C&S SUPPORT	Units not applicable	10/1/2020	12/17/2020	\$2,410,385
101652.BG175 TLS BRIDGE TO GROVE TK 2 - B&B SUPPORT	Units not applicable	10/1/2020	12/17/2020	\$404,002
101652.BG176 TLS BRIDGE TO GROVE TK 2 - T&E SUPPORT	Units not applicable	10/1/2020	12/17/2020	\$330,240
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 131.6 - 135.0 AP Line				
C.EN.101855.0059 GEOM AP LN MP 131.6-135.0 HSS PRODUCTION - 22	Units not applicable	10/1/2020	9/30/2021	\$9,465
High Speed Surfacing Production MP 59.4 - 79.3 AP Line				
C.EN.101855.0055 GEOM AP LN MP 59.4 - 79.3 HSS PRODUCTION - 22	Units not applicable	10/1/2020	9/30/2021	\$2,153,367
High Speed Surfacing Production MP 6.4 - 17.1 AP Line				
C.EN.101855.0045 GEOM AP LN MP 6.4 - 17.1 HSS PRODUCTION - 19	Units not applicable	10/1/2020	9/30/2021	\$236,178
High Speed Surfacing Production MP 79.3 - 131.6 AP Line				
C.EN.101855.0057 GEOM AP LN MP 79.3-131.6 HSS PRODUCTION - 22	Units not applicable	10/1/2020	9/30/2021	\$935,815
PG00063 - Track Rehabilitation - C.EN.101859				
<i>See below for further detail on planned FY21 work.</i>				
Perryville Yard Track Rehabilitation				
Amtrak FA - Labor	Units not applicable	8/2/2021	9/30/2021	\$123,708
C.EN.101859.2021.40 TKRH PERRYVILLE YD - PVL YARD	2 EA Install Wood Turnout	8/2/2021	9/30/2021	\$3,368
Install Switch	Units not applicable	8/2/2021	9/30/2021	\$378,748
Remove Switch	Units not applicable	8/2/2021	9/30/2021	\$16,764
Surfacing	Units not applicable	8/2/2021	9/30/2021	\$17,118
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Odenton Yard Track 1 Turnout				
C.EN.101860 TURN ODENTON - B&B Support	Units not applicable	5/3/2021	5/28/2021	\$9,950

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101860 TURN ODENTON - C&S SUPPORT	1 EA Install Switch Machine	5/3/2021	5/28/2021	\$67,201
C.EN.101860 TURN ODENTON - ET SUPPORT	Units not applicable	5/3/2021	5/28/2021	\$19,761
C.EN.101860 TURN ODENTON - T&E Support	Units not applicable	5/3/2021	5/28/2021	\$47,721
C.EN.101860 TURN ODENTON YARD TK 1	1 EA Install Concrete Turnout	5/3/2021	5/28/2021	\$229,447
Paul Interlocking #61A Turnout				
C.EN.101860.0036TURN - PAUL #61A T/O - INSTALL	1 EA Install Wood Turnout	5/7/2021	12/28/2020	\$576,204
C.EN.101860.0037TURN - PAUL #61A T/O - ET SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$17,291
C.EN.101860.0038TURN - PAUL #61A T/O - T&E SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$27,598
C.EN.101860.0039TURN - PAUL #61A T/O - B&B SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$9,950
C.EN.101860.0040TURN - PAUL #61A T/O - C&S SUPPORT	1 EA Install Switch Machine	5/7/2021	5/20/2021	\$268,378
Paul Interlocking #61B Turnout				
C.EN.101860.0036TURN - PAUL #61B T/O - INSTALL	1 EA Install Wood Turnout	5/7/2021	12/28/2020	\$753,981
C.EN.101860.0037TURN - PAUL #61B T/O - ET SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$17,291
C.EN.101860.0038TURN - PAUL #61B T/O - T&E SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$27,598
C.EN.101860.0039TURN - PAUL #61B T/O - B&B SUPPORT	Units not applicable	5/7/2021	5/20/2021	\$9,950
C.EN.101860.0040TURN - PAUL #61B T/O - C&S SUPPORT	1 EA Install Switch Machine	5/7/2021	5/20/2021	\$109,036
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Baltimore, MD Security Fence				
C.EN.101854.0016 FEN BALTIMORE MD-SECURITY FENCE	2600 FT Install / Repair Right of Way Fencing	12/7/2020	2/23/2021	\$587,338
Harewood, MD Fence Installation - Harewood Park Drive & Harewood Road				
C.EN.101854.2021.10 FEN HAREWOOD, MD - HAREWOOD PARK DRIVE & HAREWOOD ROAD FEN INSTALL	250 FT Install / Repair Right of Way Fencing	10/1/2020	3/5/2021	\$59,833
Mid-Atlantic Division Bowie Station, MD - Impasse Fence Installation				
C.EN.101854.2021.17 FEN MAD BOWIE STATION, MD - IMPASSE FENCE INSTALL	2250 FT Install / Repair Right of Way Fencing	10/1/2020	4/14/2021	\$532,468
Odenton, MD Security Fence - MP 110.0 to 110.6				
C.EN.101854.0017 FEN ODENTON MD MP110.0/110.6-SEC FENCE	3400 FT Install / Repair Right of Way Fencing	10/5/2020	12/2/2020	\$766,865
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Landover Interlocking Timber Replacement				
C.EN.101858.2012 TIE/TIMBER REPLACEMENT - LANDOVER	208 EA Install Ties and Timbers	10/1/2020	10/8/2020	\$129,099
PG00083 - Communications System Upgrades - C.EN.101857				
<i>See below for further detail on planned FY21 work.</i>				
Perryville to Washington Cable Install AP Line				
C.EN.101857.0008 CABF PERRYVILLE/WAS-CABLE INSTALL	Units not applicable	10/1/2020	4/6/2021	\$65,221
BCC Segment 22 Programs Total				\$49,272,031

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Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000029 - New Hanson-Landover Interlocking - C.EN.100201			
<i>FY21 Scope not available.</i>			
C.EN.100201.0023 INT LANDOVER I/L - B&B DECOMMISSIONING	11/2/2020	11/30/2020	\$53,620
P000120 - Mid-Atlantic South Signal System Upgrades to 562 - C.EN.101872			
<i>Design of two segments for 562 upgrades- Magnolia to Wood, and CP Ave to Landover. Construction of 562 upgrades from Bush to Magnolia, including Switch and signal case replacement with new switch and signal cables and new track wires, and interlocking signals replacement.</i>			
C.EN.101872.0002 ABS GRACE TO WOOD 562 UPGRADES-FINAL DSN	6/1/2021	6/28/2024	\$160,860
C.EN.101872.0003 ABS OAK TO BUSH - 562 UPGRADES PHASE 1	10/1/2020	9/30/2024	\$2,761,427
P000130 - B&P Block Tie Replacement - C.EN.101885			
<i>Replacement of 1,000'+ of slab track, block ties and rail on Tracks No 2 & 3 in the B&P Tunnel.</i>			
C.EN.101885.2301 TIES B&P TUN-BLK TIE IN HOUSE FINAL DSN	10/1/2020	12/26/2024	\$16,086
C.EN.101885.4100 TIES B&P TUN-BLOCK TIE CNSTRUCT CNTRACTR	12/30/2020	3/25/2025	\$12,654,320
C.EN.101885.4200 TIES B&P TUN-BLOCK TIE CONSTRUCTION TRK	12/30/2020	3/25/2025	\$1,286,880
C.EN.101885.4601 TIES B&P TUN-BLOCK TIE CONSTRUCTION RWP	12/30/2020	3/25/2025	\$1,340,500
C.EN.101885.4602 TIES B&P TUN-BLOCK TIE E.T. PROTECTION	12/30/2020	3/25/2025	\$5,362
C.EN.101885.4603 TIES B&P TUN-BLOCK TIE C&S PROTECTION	12/30/2020	3/25/2025	\$348,530
C.EN.101885.5100 TIES B&P TUN-BLOCK TIE/RAIL RENEWAL CM	12/30/2020	3/25/2025	\$348,530
C.EN.101885.7100 TIES B&P TUN-BLOCK TIE/RAIL RENEWAL PM	12/30/2020	3/25/2025	\$69,706
Construction Phase Design	12/30/2020	3/25/2025	\$16,086
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0011 INT PERRY I/L MP59.5-MPF HST ROD REPLACE	6/4/2021	6/26/2021	\$72,785
P000169 - Jericho Park Frequency Converter Replacement - C.EN.101750			
<i>Procure and initiate design contract.</i>			
(Not provided)	10/1/2020	9/30/2021	\$536,204
BCC Ineligible			
P000074 - Washington Terminal & Ivy City Facility Electrical Upgrades - C.EN.100850			
<i>Initiate design and construction on various subprojects.</i>			
C.EN.100850.0008 MOFE IVY CITY-ELEC INFRASTRUC ASSESSMENT	10/1/2020	9/30/2021	\$2,209,145
P000123 - Ivy City Potable Water System Replacement - C.EN.101718			
<i>"Procure third-party contractor and initiate construction which will extend into FY 2022. FY 21 Milestones: Construction</i>			
C.EN.101718.0001 MOFE IVY CITY UTILITY UPGRADE-AMTRAK FA	10/1/2020	9/30/2021	\$433,933
C.EN.101718.0002 MOFE IVY CITY UTILITY UPG-CONSTRUCTION	10/1/2020	9/30/2021	\$5,236,665
C.EN.101718.0003 MOFE IVY CITY UTILITY UPG-ARCHEOLOGICAL	10/1/2020	9/30/2021	\$36,464
C.EN.101718.0005 MOFE IVY CITY UTILITY UPG-TESTING	6/3/2021	9/30/2021	\$53,620
C.EN.101718.0006 MOFE IVY CITY UTILITY UPG-PROJECT MGT.	10/1/2020	9/30/2021	\$70,697
C.EN.101718.0008 MOFE IVY CITY UTILITY UPG-CONSTRUCT MGT.	10/1/2020	9/30/2021	\$321,721
Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.			
BCC Segment 22 Projects Total			\$28,033,141

BCC Segment 23: Washington Union Terminal (Amtrak-owned)

Operators: Amtrak, MARC, VRE

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$4,130,939	\$2,204,184	\$6,335,124
Projects	\$0	\$678,066	\$678,066
Total	\$4,130,939	\$2,882,250	\$7,013,189

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00028 - Mid-Atlantic South Track - C.EN.101835				
<i>Replace 40 insulated joints, 260 joint eliminations, 260000 LF spot surfacing upgrades, 34000 LF spot undercutting, 20 interlocking steel replacements, 1250 timber tie replacements, & 100 concrete tie replacements along with associated drainage improvements across Mid-Atlantic South (MADS) division utilizing MADS Track forces.</i>				
Concrete Tie Replacement MP 135.0 - 136.0 AP Line				
C.EN.101835.0039 TIES MADS CONCRETE AP LINE MP135.0-136.0	26 EA Install Ties, Concrete	10/1/2020	10/5/2020	\$24,526
High Speed Surfacing MP 135.0 - 136.0 AP Line				
C.EN.101835.0110 GEOM MADS HSS SURFACE APLN MP135.0-136.0	3000 PF Surface Track, Spot	3/25/2021	3/26/2021	\$33,698
Insulated Joint Removal MP 135.0 - 136.0 AP Line				
C.EN.101835.0007 RAIL MADS INSLATE JT AP LN MP135.0-136.0	5 EA Install Insulated Joint (Includes OTM)	4/6/2021	5/4/2021	\$102,014
Interlocking Steel MP 135.0 - 136.0 AP Line				
C.EN.101835.0066 TURN MADS I/L STEEL AP LN MP135.0-136.0	20 EA Renew Frog	3/25/2021	4/29/2021	\$373,254
Joint Elimination MP 135.0 - 136.0 AP Line				
C.EN.101835.0018 RAIL MADS JOINT ELIM AP LN MP135.0-136.0	37 EA Field Weld and Grind Rail (Joint Elimination)	1/26/2021	5/14/2021	\$415,853
Spot Surfacing MP 135.0 - 136.0 AP Line				
C.EN.101835.0076 GEOM MADS SPOT SURF AP LN MP135.0-136.0	20000 PF Surface Track, Spot	10/1/2020	9/29/2021	\$277,316
Spot Undercutting MP 135.0 - 136.0 AP Line				
C.EN.101835.0082 BLST MADS SPOT UNDRCT AP LNMP135.0-136.0	5000 FT Vacuum Train, Spot Undercut	6/4/2021	6/11/2021	\$1,759,565
Wood Tie/Timber Replacement MP 135.0 - 136.0 AP Line				
C.EN.101835.0055 TIES MADS TIE/TIMBER AP LN MP135.0-136.0	200 EA Install Ties and Timbers	5/5/2021	6/4/2021	\$230,193
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Washington Union Station Timber Replacement				
C.EN.101858.2021.18 TIE/TIMBER REPLACEMENT - WAS	500 EA Install Ties and Timbers	10/12/2020	12/23/2020	\$914,520
BCC Ineligible				
PG00023 - Mid-Atlantic South Facilities - C.EN.101831				
<i>Compressor Upgrades at Ivy City (MOFE), 480 Ground Power Upgrade, Electrical Upgrades at Wash. Terminal, and High Mast Lighting Replacement at Odenton</i>				
Ivy City MOFE Compressor Upgrades AP Line				
C.EN.101831.2021.16 MOFW IVY CITY - COMPRESSOR UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$1,693,319
Ivy City MOFE Electrical Asset Upgrades AP Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101831.2021.05 MOFE ELECTRICAL ASSETS UPGRADE IN IVY CITY	Units not applicable	10/1/2020	9/30/2021	\$80,430
Ivy City MOFE S&I Roof Drainage Improvements Design AP Line				
C.EN.101831.0013 MOFE IVY CITY - S&I ROOF DRAINAGE IMPROVEMENT - DSN	Units not applicable	10/1/2020	9/30/2021	\$92,537
Ivy City MOFE Station Wayside 480 Ground Power Upgrade				
C.EN.101831.2021.01 MOFW IVY CITY - STATION WAYSIDE 480 GROUND POWER UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$203,848
Ivy City MOFE Water Box Upgrades AP Line				
C.EN.101831.2021.03 MOFE IVY CITY - WATER BOXES UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$53,620
Washington Union Station MOFE Electrical Asset Upgrades				
C.EN.101831.2021.04 MOFE ELECTIRCAL ASSETS UPGRADE IN UNION STATION	Units not applicable	10/1/2020	9/30/2021	\$80,430
BCC Segment 23 Programs Total				\$6,335,124

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000180-MofE- ICT Facility Program - DC Ivy City Yard ICT Site Analysis-C.EN.101905			
<i>FY21 Scope not available.</i>			
C.EN.CCCCCC.0001 – Preliminary Design	8/1/2021	4/1/2022	\$426,367
C.EN.CCCCCC.0002 – PE Design review	8/1/2021	4/1/2022	\$61,449
C.EN.CCCCCC.0003 – PE RWP	8/1/2021	4/1/2022	\$40,966
C.EN.CCCCCC.0004 – Project Management	8/1/2021	4/1/2022	\$149,285
BCC Segment 23 Projects Total			\$678,066

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 24: WAS to CP Virginia (Amtrak-owned)

Operators: Amtrak, VRE

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$1,618,749	\$0	\$1,618,749
Projects	\$0	\$0	\$0
Total	\$1,618,749	\$0	\$1,618,749

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00026 - Mid-Atlantic South Structures - C.EN.101833				
<i>Upgrades to: 4 culverts, 2 tunnels, 5 retaining walls, 5 signal bridges, 5 undergrade bridges, and 3 movable bridges</i>				
1st Avenue Fan Replacement AP Line				
TUN - 1ST AVENUE FAN REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$536,200
1st Street Tunnel Upgrades AP Line				
C.EN.101833.2021.25 TUN - 1st STREET TUNNEL UPGRADES	Units not applicable	10/1/2020	9/30/2021	\$268,100
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
A Interlocking #136 Turnout				
C.EN.101860 TURN A IL MP #17 136T/O - INSTALL	Units not applicable	12/1/2020	12/31/2020	\$407,225
C.EN.101860 TURN A IL MP 136 #19 T/O - INSTALL	Units not applicable	11/2/2020	11/30/2020	\$407,225
BCC Segment 24 Programs Total				\$1,618,749

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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BCC Segment 25: Springfield to New Haven (Amtrak-owned)

Operators: Amtrak, CTrail Hartford Line

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$22,496,451	\$0	\$22,496,451
Projects	\$536,247	\$0	\$536,247
Total	\$23,032,698	\$0	\$23,032,698

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00031 - New England Facilities - C.EN.101838				
<i>Facilities upgrades include upgrades to the water mains and parking lot serving the Southampton Street Yard facility as well as upgrades to the train servicing platforms inside the S&I building. Complete safety and energy efficiency upgrades at Southampton Street and Hamden MOFW Facilities.</i>				
Hamden MOFW Base Upgrades				
PH C.EN.101838.0014 MOFW HAMDEN BASE UPGS	Units not applicable	1/5/2021	4/6/2021	\$359,847
PG00033 - New England Signals - C.EN.101839				
<i>Projects include switch machine replacements in Rhode Island, cable replacements at multiple locations in Connecticut, circuit protection upgrades on the AB Line in Connecticut and Rhode Island, upgrade the RTUs at Palmers Cove, Shaws, Mystic, and Conn by Amtrak Signal forces. Replace crossing gates and overlay circuits at three locations on the AS line. Install grade crossing recorders at 10 locations.</i>				
ABS Track Circuit Upgrades MP 33.6 - 55.8 AS Line				
C.EN.101839.0039 ABS NED AS LN MP33.6/55.8-TRK CIRCUIT	Units not applicable	3/2/2021	9/30/2021	\$965,331
Battery Bank Replacement MP 1.5 - 33.6 AS Line				
C.EN.101839.0030 INT NED AS LN MP1.5/33.6-BATT BANK REPL	Units not applicable	12/3/2020	3/5/2021	\$216,335
Battery Bank Replacement MP 55.8 - 62.0 AS Line				
C.EN.101839.0028 INT NED AS LN MP55.8/62.0-BATT BANK REPL	Units not applicable	5/7/2021	5/15/2021	\$97,718
Battery Bank Replacement MP 33.6 - 55.8 AS Line				
C.EN.101839.0029 INT NED AS LN MP33.6/55.8-BATT BANK REPL	Units not applicable	7/9/2021	7/17/2021	\$86,072
Fuse Replacement MP 55.8 - 62.0 AB Line				
C.EN.101839.0008 INT NED AS LN MP55.8/62.0-FUSE REPLACE	Units not applicable	6/15/2021	9/28/2021	\$198,587
PTC Electric Lock Installation MP 50.4 - 53.9 AS Line				
C.EN.101839.0112 PTC AS LN MP50.4/53.9-ELEC LOCK INSTALL	2 EA Install EWL Location	10/1/2020	5/17/2021	\$510,418
Track Leads MP 55.8 - 62.0 AS Line				
C.EN.101839.0018 INT NED AS LN MP55.8-62.0-TRACK LEADS	Units not applicable	3/1/2021	6/7/2024	\$479,316
PG00034 - New England Structures - C.EN.101840				
<i>Complete the steel upgrades and bridge timber replacement at the Conn. River Bridge (CT49.73) on the AS Line and replace the bridge timbers on the Conn. River Bridge (CT106.89) on the AB Line. Complete the installation of the Hull Street Strike Beam and steel and abutment upgrades to State Pier (CT123.59) undergrade bridge. Complete several SOGR projects at the five movable bridges on the AB Line. Design projects include retaining wall upgrades at Shoreline Junction, Hartford Tunnel Drainage Improvements, and culvert upgrades on both the AB and AB lines.</i>				
Conn River Bridge Steel/Timber Upgrades MP 49.72 AS Line				
C.EN.101840.0024 BGUG CT49.73 CONN RIVER-STEEL CNTRCTOR	Units not applicable	12/1/2020	5/28/2021	\$4,167,349
C.EN.101840.0025 BGUG CT49.73 CONN RIVER-STEEL CM/DSN RWW	Units not applicable	1/4/2021	5/28/2021	\$119,052
C.EN.101840.0026 BGUG CT49.73 CONN RIVER-STEEL UPG TK1 RWP	1038 EA Install Bridge Timber	1/4/2021	5/28/2021	\$170,598
C.EN.101840.0027 BGUG CT49.73 CONN RIVER-STEEL UPG TK1 F/A	Units not applicable	12/1/2020	5/28/2021	\$514,664
Conn River Movable Bridge Electrical Upgrades MP 106.89 AS Line				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101840.0033 BGMS CT106.89 CONN RIVER ELEC UPG CONT	Units not applicable	9/1/2020	11/6/2020	\$41,967
Culvert Replacement Design & Construction MP 44.10 AS Line				
C.EN.101840.0039 CULV CT 44.10 REPLACEMENT FINAL DESIGN - B&B	Units not applicable	4/1/2021	9/30/2021	\$63,465
Hart Tunnel Drainage Improvements MP 36.99				
C.EN.101840.0044 DRAN HART TUNNEL MP 36.99 FINAL DSGN	Units not applicable	1/4/2021	6/30/2021	\$345,640
C.EN.101840.0012 DRAN HART TUN MP36.99-ALT. ANALYSIS DSN	Units not applicable	10/1/2020	5/28/2021	\$93,618
Undergrade Bridge Line and Grout Replacement MP 49.15 AS Line				
C.EN.101840.0040 BGUG CT 49.15 LINE AND GROUT REPLACEMENT CONSTRUCTION - B&B CM	Units not applicable	4/1/2021	3/29/2022	\$28,938
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
C.EN.101842.0112 GEOM NED SPOT SURFACE AS LN MP1.5-62.0				
C.EN.101842.0112 GEOM NED SPOT SURFACE AS LN MP1.5-62.0	Units not applicable	10/1/2020	9/30/2021	\$771,171
C.EN.101842.0114 BLST SPOT UNDERCUTTING AS LN MP1.5-62.0				
C.EN.101842.0114 BLST SPOT UNDERCUTTING AS LN MP1.5-62.0	Units not applicable	10/1/2020	10/1/2021	\$203,362
Drainage Improvements MP 55.8 - 62.0 AS Line				
C.EN.101842.0088 DRAN NED AS LN-DRAIN IMPRV-MP55.8-62.0	Units not applicable	10/1/2020	10/7/2020	\$19,990
Embankment Stabilization MP 59.5 AS Line				
C.EN.101842.0214 DRAN AS 59.5 EMBANKMENT STABILIZATION - TK	Units not applicable	5/3/2021	7/13/2022	\$46,715
C.EN.101842.0210 DRAN MP59.5-EMBANKMENT STAB FINAL DSN	Units not applicable	2/3/2020	2/3/2021	\$183,132
Insulated Joint Removal MP 1.5 - 62.0 AS Line				
C.EN.101842.0102 RAIL NED INSULATE JT AS LN MP1.5-62.0	Units not applicable	10/1/2020	9/30/2021	\$138,204
Interlocking Steel MP 1.5 - 62.0 AS Line				
C.EN.101842.0110 TURN NED I/L STEEL AS LN MP1.5-62.0	Units not applicable	10/1/2020	9/30/2021	\$482,088
Joint Elimination MP 1.5 - 62.0 AB Line				
C.EN.101842.0104 RAIL NED JOINT ELIM AS LN MP1.5-62.0	Units not applicable	10/1/2020	9/30/2021	\$518,362
Wood Tie/Timber Replacement MP 1.5 - 62.0 AS Line				
C.EN.101842.0108 TIES NED TIE/TIMB AS LN MP1.5-62.0	Units not applicable	10/1/2020	9/30/2021	\$844,978
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				
Rail Grinding MP 1.57 - 61.65 AS Line				
XXX9 AS LN MP 1.57 - MP 61.65	Units not applicable	9/8/2021	10/12/2021	\$401,645
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Springfield Line Wood Tie Replacement				
C.EN.101858.2021.20 TIE/TIMBER REPLACEMENT - AS LN	45500 EA Install Ties and Timbers	8/5/2021	9/30/2021	\$10,427,889
BCC Segment 25 Programs Total				\$22,496,451

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000046 - Spring (Springfield, MA) Interlocking Renewal - C.EN.101777			
<i>Procure design contractor and progress signal design, order long lead material for C&S and track, and pursue construction access agreement with CSXT.</i>			
C&S - Design Division	10/1/2020	4/30/2021	\$14,300
C&S - Design Philly	10/1/2020	4/30/2021	\$14,300
C.EN.101777.0020 INT SPRING I/L EXPANSION RENEW-C&S DSN	6/1/2021	12/30/2021	\$432,214
C.EN.101777.0022 TURN SPRING I/L EXPANSION RENEW-F/A SUPP	6/1/2021	8/2/2022	\$9,381
C.EN.101777.0023 INRL SPRING I/L EXP RENEW - AMTRAK TK/CS DSGN	5/3/2021	5/3/2021	\$3,039
C.EN.101777.0070 TURN SPRING I/L EXPANSION RENEW-PM	10/1/2020	2/25/2022	\$34,411
TK - Design Division	10/1/2020	4/30/2021	\$14,300
TK - Design Philly	10/1/2020	4/30/2021	\$14,300
BCC Segment 25 Projects Total			\$536,247

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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BCC Segment 27: Spuyten Duyvil to Penn Station New York (Amtrak-owned)

Operators: Amtrak

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$3,403,460	\$0	\$3,403,460
Projects	\$5,858,086	\$0	\$5,858,086
Total	\$9,261,546	\$0	\$9,261,546

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				
Empire Tunnel Emergency Access Signal Upgrades				
C.EN.101845.HD.0000008 TUN NYD EMPIRE EMERGENCY ACCESS SIGNAGE UPGRADES	Units not applicable	10/1/2020	3/31/2021	\$20,207
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
Empire Interlocking RTU Upgrades				
C.EN.101846.HD.0000254-PH INT NYD EMPIRE I/L RTU UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$150,667
Transponder Replacement				
C.EN.101846.0013 INT NYD-WIU/TRANSPONDER REPLACEMENT	Units not applicable	10/1/2020	9/30/2021	\$37,259
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
Empire Line Tunnel Improvements - Project Management				
C.EN.101847.0062 TUN EMPIRE LN REHAB TUN IMPROVEMENTS-PM	Units not applicable	10/1/2020	9/30/2021	\$16,086
Empire Tunnel - Egress Fence/Door Replacement				
C.EN.101847.0060 TUN EMPIRE LN-EGRESS FENCE/DOORS RPL	Units not applicable	10/1/2020	9/30/2021	\$158,812
Empire Tunnel Standpipe Commissioning				
C.EN.101847.0059 TUN EMPIRE LN-STANDPIPE COMMISSIONING	Units not applicable	10/1/2020	9/30/2021	\$82,367
Empire Tunnel Airlines Replacement				
C.EN.101847.0092 TUN EMPIRE TUNNEL-AIRLINES REPLACE	Units not applicable	10/1/2020	9/30/2021	\$97,402
Empire Tunnel Leak Mitigation				
C.EN.101847.0091 TUN EMPIRE TUNNEL-LEAK MITIGATION	Units not applicable	4/1/2021	7/30/2021	\$144,483
Empire Tunnel Line Overbuild Remote SCADA				
C.EN.101847.0058 TUN EMPIRE LN-OVERBUILD REMOTE SCADA	Units not applicable	10/1/2020	9/30/2021	\$214,479
Harlem River Bridge Fall Protection MP 10.24 AN Line				
C.EN.101847.0017 BGMS NY10.24 HARLEM RIVER-FALL PROTECT	Units not applicable	6/1/2021	7/30/2021	\$93,699
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
Concrete Tie Replacement, AE Line, MP 10.8				
C.EN.101849.0079 TIES NYD CONCRETE AE LINE PSNY-10.8	87 EA Install Ties, Concrete	10/1/2020	9/30/2021	\$143,693
Drainage Improvements, AE Line, MP 10.8				
C.EN.101849.0103 DRAN NYD DRAINAGE IMPV AE LN PSNY-10.8	Units not applicable	10/1/2020	9/30/2021	\$2,188

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Drainage Improvements, AN Line, MP 0.1-11.0				
C.EN.101849.0104 DRAN NYD DRAIN IMPV AN LN MPW0.1-11.0	Units not applicable	10/1/2020	9/30/2021	\$1,267,619
High Speed Surfacing MP 10.8 AE Line				
C.EN.101849.0111 GEOM NYD HSS SURFAC AE LN MP PSNY-10.8	3000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$33,700
Insulated Joint Removal, MP 10.8, AE Line				
C.EN.101849.0017 RAIL NYD INSULATED JT AE LN MP PSNY-10.8	6 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/30/2021	\$46,362
Joint Elimination PSNY - MP 10.8				
NYD TK - Interlocking Steel Upgrades	Units not applicable	10/1/2020	9/30/2021	\$250,357
Spot Rail Replacement PSNY - MP 10.8 AE Line				
C.EN.101849.0051 RAIL NYD SPOT RAIL RPL AE LN PSNY-10.8	200 FT Install Rail, Bolted (Includes OTM)	10/1/2020	9/30/2021	\$32,178
Spot Surface, AE LN, MP 10.8				
C.EN.101849.0004 GEOM NYD SPOT SURFACE AE LN MP PSNY-10.8	7000 PF Surface Track, Spot	10/1/2020	9/30/2021	\$142,381
Wood Tie/Timber Replacement PSNY - MP 10.8 AE Line				
NYD Tie Replacement	330 EA Install Ties and Timbers	10/1/2020	9/30/2021	\$324,309
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				
Rail Grinding MP .2 - 11 AE Line				
XXX8 AE LN MP 0.2 - MP 11	Units not applicable	11/12/2020	11/24/2020	\$135,993
PG00090-RBED System Geotech Hazard Inventory & Assessment-C.EN.101908				
<i>Geotech surveys of Harrisburg line, West side/empire connection, Empire Line, and Shoreline.</i>				
Roadbed System Geotech Hazard Inventory & Assessment - AE Line, West Side/Empire Connection				
RBED System Geotech Hazard Inventory & Assessment - AE LN, WEST SIDE/EMPIRE CONNECTION	Units not applicable	3/3/2021	3/3/2021	\$9,218
BCC Segment 27 Programs Total				\$3,403,460

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000049 - Spuyten Duyvil Fenders System Upgrades - C.EN.101791			
<i>Continue construction; complete steel fabrication shopdrawings; fabrication of steel fender system.</i>			
C.EN.101791.4101 BGMS SPUYTEN DUYVIL FENDER UPG-CS	11/2/2020	1/31/2022	\$5,222,169
C.EN.101791.4201 BGMS SPUYTEN DUYVIL FENDER UPG-TRACK	9/1/2021	1/31/2022	\$33,110
C.EN.101791.4301 BGMS SPUYTEN DUYVIL FENDER UPG-C&S	9/1/2021	1/31/2022	\$18,170
C.EN.101791.5101 BGMS SPUYTEN DUYVIL FENDER UPG-CM	7/1/2021	1/31/2022	\$156,282

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
C.EN.101791.5201 BGMS SPUYTEN DUYVIL FENDER UPG-CPS	10/1/2020	1/31/2022	\$230,864
C.EN.101791.7101 BGMS SPUYTEN DUYVIL FENDER UPG-PM	9/3/2019	7/1/2021	\$73,684
C.EN.101791.7201 BGMS SPUYTEN DUYVIL FENDER UPG-PROJ SUPP	8/3/2020	4/29/2022	\$15,854
P000136 - Empire Line Lighting Upgrade - C.EN.100732			
<i>Advance the design of tunnel egress, complete design and start procurement for construction.</i>			
C.EN.100732.0003 SAFE EMPIRE LN-LITE IMPROVEMENT DSN	3/1/2018	3/31/2020	\$10,713
C.EN.100732.5101 SAFE EMPIRE LN LITE IMPROVE-CM	2/3/2020	12/30/2022	\$2,948
C.EN.100732.5201 SAFE EMPIRE LN LITE IMPROVE-CPS	6/16/2021	11/1/2022	\$46,124
C.EN.100732.7101 SAFE EMPIRE LN LITE IMPROVE-PM	10/1/2020	1/31/2023	\$39,056
C.EN.100732.7201-PH SAFE EMPIRE LN PROJECT SUPPORT	10/1/2020	4/7/2022	\$9,112
C.EN.101791.7101 BGMS SPUYTEN DUYVIL FENDER UPG-PM	9/3/2019	7/1/2021	\$73,684
C.EN.101791.7201 BGMS SPUYTEN DUYVIL FENDER UPG-PROJ SUPP	8/3/2020	4/29/2022	\$15,854
BCC Segment 27 Projects Total			\$5,858,086

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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BCC Segment 28: Penn to 36th Street (Amtrak-owned)

Operators: Amtrak

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$148,583	\$0	\$148,583
Projects	\$0	\$0	\$0
Total	\$148,583	\$0	\$148,583

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
<i>See below for further detail on planned FY21 work.</i>				
North Philadelphia Sub 6 RTU Upgrade AH Line				
North Phila Sub 6 RTU Upgrade	Units not applicable	10/1/2020	9/30/2021	\$148,583
BCC Segment 28 Programs Total				\$148,583

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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BCC Segment 29: 36th Street to Thorndale (Amtrak-owned)

Operators: Amtrak, SEPTA

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$25,869,770		\$25,869,770
Projects	\$2,447,335	\$232,901	\$2,680,235
Total	\$28,317,105	\$232,901	\$28,550,005

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00013 - Mid-Atlantic North Catenary - C.EN.101822				
<i>See below for further detail on planned FY21 work.</i>				
Thorndale Contact Wire Replacement AH Line				
Thorndale Contact wire replacement	Units not applicable	10/1/2020	9/30/2021	\$311,026
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
High Signal Replacement MP 2.3 - 19.9 AH Line				
INT HIGH SIGNAL REPLACEMENT AH LN (2.3 - 19.9)	Units not applicable	10/1/2020	9/30/2021	\$536,204
Overbrook Interlocking to Bryn Mawr Interlocking ABS Cable Renewal AH Line				
ABS OVERBROOK I/L MP05.4 TO BRYN MAWR I/L MP10.0 -CABL RNWL	Units not applicable	10/1/2020	9/30/2021	\$1,196,811
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
<i>See below for further detail on planned FY21 work.</i>				
Chamounix Road Undergrade Bridge Rehab MP 13.80 AH Line				
BGUG AH LN MP013.80 CHAMOUNIX RD ST DAVIDS PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$321,720
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
<i>See below for further detail on planned FY21 work.</i>				
Paoli Sub 12KV Switches AH Line				
Paoli Sub 4 12KV Switches	Units not applicable	10/1/2020	9/30/2021	\$625,398
Paoli Sub 4 RTU Upgrade AH Line				
Paoli Sub 4 RTU Upgrade	Units not applicable	10/1/2020	9/30/2021	\$148,583
Zoo Sub 9 Signal Machine Replacement AH Line				
SIGP SUB#09 ZOO -SIGNAL MACHINE REPL	1 EA Install / Renew Frequency Converter	10/1/2020	9/30/2021	\$1,111,813
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
AH LN MP 20.2-35.3				
AH LN MP 20.2-35.3	Units not applicable	4/1/2021	4/14/2021	\$2,135
Concrete Tie Replacement MP 1.9 - 20.2 AH Line				
C.EN.101828.0028 TIES MAD TIE/TIMBER AH LN MP1.9-20.2	100 EA Install Ties and Timbers	10/1/2020	10/27/2020	\$115,095
Concrete Tie Replacement MP 20.2 - 35.3 AH Line				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101828.0029 TIES MAD TIE/TIMBER AH LN MP20.2-35.3	180 EA Install Ties and Timbers	11/2/2020	12/4/2020	\$207,173
High Speed Surfacing MP 1.9 - 20.2 AH Line				
C.EN.101828.FY2180 GEOM MADN HSS SURFACE AH LN MP1.9-20.2	5000 PF Surface Track, Spot	11/2/2020	8/30/2021	\$56,103
High Speed Surfacing MP 20.2 - 35.3 AH Line				
C.EN.101828.FY2181 GEOM MADN HSS SURFACE AH LN MP20.2-35.3	5000 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$56,103
Insulated Joint Removal MP 1.9 - 20.2 AH Line				
C.EN.101828.FY2101 RAIL MADN INSULATE JT AH LN MP 1.9-20.2	2 EA Install Insulated Joint (Includes OTM)	10/1/2020	9/24/2021	\$183,442
Insulated Joint Removal MP 20.2 - 35.3 AH Line				
C.EN.101828.FY2102 RAIL MADN INSULATE JT AH LN MP 20.2-35.3	1 EA Install Insulated Joint (Includes OTM)	3/30/2021	4/27/2021	\$10,202
Interlocking Steel MP 1.9 - 20.2 AH Line				
C.EN.101828.FY2148 TURN MADN I/L STEEL AH MP1.9-20.2	2 EA Renew Switch Point Stock Rail	10/1/2020	10/8/2020	\$37,325
Interlocking Steel MP 20.2 - 35.3 AH Line				
C.EN.101828.FY2149 TURN MADN I/L STEEL AH MP20.2-35.3	2 EA Renew Switch Point Stock Rail	11/2/2020	11/9/2020	\$37,325
Joint Elimination MP 1.9 - 20.2 AH Line				
C.EN.101828.0011 RAIL MADN JOINT ELIM AH LINE MP1.9-20.2	60 EA Field Weld and Grind Rail (Joint Elimination)	10/1/2020	1/11/2021	\$674,358
Joint Elimination MP 20.2 - 35.3 AH Line				
C.EN.101828.0012 RAIL MADN JOINT ELIM AH LINE MP20.2-35.3	10 EA Field Weld and Grind Rail (Joint Elimination)	1/11/2021	2/10/2021	\$112,393
Roadbed Stabilization MP 26.5 AH Line				
C.EN.101828.FY2173 AH-26.5 ROADBED STABILIZATION	Units not applicable	11/9/2020	11/17/2020	\$23,276
Spot Surfacing MP 1.9 - 20.2 AH Line				
C.EN.101828.FY2138 GEOM AH LN MP 1.9 - 20.2 SPOT SURFACING	30000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$415,976
Spot Surfacing MP 20.2 - 35.3 AH Line				
C.EN.101828.FY2139 GEOM AH LN MP 20.2 - 35.3 SPOT SURFACING	70000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$970,612
Spot Undercutting MP 1.9 - 20.2 AH Line				
C.EN.101828.FY2159 BLST MAD SPOT UNDR CUT AH LN MP1.9-20.2	1000 FT Vacuum Train, Spot Undercut	10/1/2020	10/8/2020	\$331,377
Spot Undercutting MP 20.2 - 35.3 AH Line				
C.EN.101828.FY2160 BLST MAD SPOT UNDR CUT AH LN MP20.2-35.3	2000 FT Vacuum Train, Spot Undercut	11/2/2020	11/9/2020	\$662,753
PG00060 - Production High Speed Surfacing - C.EN.101855				
300 Miles Surfaced by PROD HSS				
High Speed Surfacing Production MP 20.2 - 35.3 AH Line				
C.EN.101855.0067 GEOM AH LN MP 20.2 - 35.3 HSS PRODUCTION - 29	Units not applicable	10/1/2020	9/30/2021	\$672,677
PG00064 - Rail Grinding - C.EN.101794				
Grind 1,045 miles along the NEC in FY21.				

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Rail Grinding MP 1.9 - 20.2 AH Line				
XXX4 AH LN MP 1.9 - 20.2	Units not applicable	3/25/2021	5/17/2021	\$803,290
Rail Grinding MP 20.2 - 35.3 AH Line				
XXX5 AH LN MP 20.2 - 35.3	Units not applicable	5/11/2021	6/8/2021	\$455,197
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Overbrook Interlocking #13 Crossover				
C.EN.101860.0055 TURN OVERBROOK I/L #13 X/O - INSTALL	2 EA Install Wood Turnout	10/9/2020	10/12/2020	\$782,378
C.EN.101860.0056 TURN OVERBROOK I/L #13 X/O - T&E SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$89,764
C.EN.101860.0057 TURN OVERBROOK I/L #13 X/O - B&B SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$58,705
C.EN.101860.0058 TURN OVERBROOK I/L #13 X/O - C&S SUPPORT	4 EA Install Switch Machine	10/9/2020	10/19/2020	\$347,710
C.EN.101860.0059 TURN OVERBROOK I/L #13 X/O - E.T SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$19,867
Overbrook Interlocking #15 Crossover				
C.EN.101860.0050 TURN OVERBROOK I/L #15 X/O - INSTALL	2 EA Install Wood Turnout	10/9/2020	10/12/2020	\$782,378
C.EN.101860.0051 TURN OVERBROOK I/L #15 X/O - T&E SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$89,764
C.EN.101860.0052 TURN OVERBROOK I/L #15 X/O - B&B SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$58,705
C.EN.101860.0053 TURN OVERBROOK I/L #15 X/O - C&S SUPPORT	4 EA Install Switch Machine	10/9/2020	10/19/2020	\$374,520
C.EN.101860.0054 TURN OVERBROOK I/L #15 X/O - E.T SUPPORT	Units not applicable	10/9/2020	10/19/2020	\$19,867
Paoli Interlocking #11 Turnout				
C.EN.101860.0036TURN - PAOLI #11 T/O - REMOVAL	Units not applicable	5/21/2021	6/10/2021	\$253,525
Paoli Interlocking #15 Crossover				
C.EN.101860.0001 TURN - PAOLI #15 X/O - INSTALL	2 EA Install Wood Turnout	6/11/2021	7/15/2021	\$1,327,852
C.EN.101860.0002 TURN - PAOLI #15 X/O - ET SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$14,821
C.EN.101860.0003 TURN - PAOLI #15 X/O - T&E SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$35,790
C.EN.101860.0004 TURN - PAOLI #15 X/O - B&B SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$29,850
C.EN.101860.0005 TURN - PAOLI #15 X/O - C&S SUPPORT	2 EA Install Switch Machine	6/11/2021	7/15/2021	\$371,338
Paoli Interlocking #17A Crossover				
C.EN.101860.0011 TURN - PAOLI #17 A X/O - INSTALL	1 EA Install Wood Turnout	6/11/2021	7/15/2021	\$727,112
C.EN.101860.0012 TURN - PAOLI #17 A X/O - ET SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$14,821
C.EN.101860.0013 TURN - PAOLI #17 A X/O - T&E SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$35,790
C.EN.101860.0014 TURN - PAOLI #17 A X/O - B&B SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$29,850
C.EN.101860.0015 TURN - PAOLI #17 A X/O - C&S SUPPORT	1 EA Install Switch Machine	6/11/2021	7/15/2021	\$371,338
Paoli Interlocking #17B Turnout				
C.EN.101860.0036TURN - PAOLI #17B T/O - REMOVAL	Units not applicable	5/21/2021	6/10/2021	\$253,525
Paoli Interlocking #3 Turnout				
C.EN.101860.0036TURN - PAOLI #3 T/O - REMOVAL	Units not applicable	5/21/2021	6/10/2021	\$253,525

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Paoli Interlocking #5 Crossover				
C.EN.101860.0006 TURN - PAOLI #5 X/O - INSTALL	2 EA Install Wood Turnout	6/11/2021	7/15/2021	\$1,059,080
C.EN.101860.0007 TURN - PAOLI #5 X/O - ET SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$14,821
C.EN.101860.0008 TURN - PAOLI #5 X/O - T&E SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$35,790
C.EN.101860.0009 TURN - PAOLI #5 X/O - B&B SUPPORT	Units not applicable	6/11/2021	7/15/2021	\$29,850
C.EN.101860.0010 TURN - PAOLI #5 X/O - C&S SUPPORT	4 EA Install Switch Machine	6/11/2021	7/15/2021	\$371,338
Stiles Interlocking #42 Crossover				
C.EN.101860.0095 TURN - STILES #42 X/O - INSTALL	2 EA Install Wood Turnout	12/1/2020	11/30/2020	\$1,327,853
C.EN.101860.0096 TURN - STILES #42 X/O - ET SUPPORT	Units not applicable	12/1/2020	12/14/2020	\$14,821
C.EN.101860.0097 TURN - STILES #42 X/O - T&E SUPPORT	Units not applicable	12/1/2020	12/14/2020	\$35,790
C.EN.101860.0098 TURN - STILES #42 X/O - B&B SUPPORT	Units not applicable	12/1/2020	12/14/2020	\$29,850
C.EN.101860.0099 TURN - STILES #42 X/O - C&S SUPPORT	4 EA Install Switch Machine	12/1/2020	12/14/2020	\$199,151
Thorn Interlocking #45B Turnout				
C.EN.101860.0036TURN - THORN #45 B T/O - INSTALL	1 EA Install Wood Turnout	9/17/2021	11/18/2021	\$376,715
C.EN.101860.0037TURN - THORN #45 B T/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,929
C.EN.101860.0038TURN - THORN #45 B T/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,272
C.EN.101860.0039TURN - THORN #45 B T/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$2,262
C.EN.101860.0040TURN - THORN #45 B T/O - C&S SUPPORT	1 EA Install Switch Machine	9/17/2021	11/18/2021	\$24,781
Thorn Interlocking #47 Crossover				
C.EN.101860.0001 TURN - THORN #47 X/O - INSTALL	2 EA Install Wood Turnout	9/17/2021	11/18/2021	\$548,625
C.EN.101860.0002 TURN - THORN #47 X/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,368
C.EN.101860.0003 TURN - THORN #47 X/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$8,134
C.EN.101860.0004 TURN - THORN #47 X/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,784
C.EN.101860.0005 TURN - THORN #47 X/O - C&S SUPPORT	4 EA Install Switch Machine	9/17/2021	11/18/2021	\$84,450
Thorn Interlocking #49 Crossover				
C.EN.101860.0001 TURN - THORN #49 X/O - INSTALL	2 EA Install Wood Turnout	9/17/2021	11/18/2021	\$549,516
C.EN.101860.0002 TURN - THORN #49 X/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,368
C.EN.101860.0003 TURN - THORN #49 X/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$8,134
C.EN.101860.0004 TURN - THORN #49 X/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,784
C.EN.101860.0005 TURN - THORN #49 X/O - C&S SUPPORT	2 EA Install Switch Machine	9/17/2021	11/18/2021	\$84,395
Thorn Interlocking #51 Crossover				
C.EN.101860.0001 TURN - THORN #51 X/O - INSTALL	2 EA Install Wood Turnout	9/17/2021	11/18/2021	\$512,097
C.EN.101860.0002 TURN - THORN #51 X/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,368
C.EN.101860.0003 TURN - THORN #51 X/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$8,134
C.EN.101860.0004 TURN - THORN #51 X/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,784

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101860.0005 TURN - THORN #51 X/O - C&S SUPPORT	2 EA Install Switch Machine	9/17/2021	11/18/2021	\$84,395
Thorn Interlocking #53 Crossover				
C.EN.101860.0001 TURN - THORN #53 X/O - INSTALL	2 EA Install Wood Turnout	9/17/2021	11/18/2021	\$519,583
C.EN.101860.0002 TURN - THORN #53 X/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,368
C.EN.101860.0003 TURN - THORN #53 X/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$8,134
C.EN.101860.0004 TURN - THORN #53 X/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,784
C.EN.101860.0005 TURN - THORN #53 X/O - C&S SUPPORT	2 EA Install Switch Machine	9/17/2021	11/18/2021	\$84,395
Thorn Interlocking #55A Turnout				
C.EN.101860.0036TURN - THORN #55 A T/O - INSTALL	1 EA Install Wood Turnout	9/17/2021	11/18/2021	\$376,715
C.EN.101860.0037TURN - THORN #55 A T/O - ET SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$3,929
C.EN.101860.0038TURN - THORN #55 A T/O - T&E SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$6,272
C.EN.101860.0039TURN - THORN #55 A T/O - B&B SUPPORT	Units not applicable	9/17/2021	11/18/2021	\$2,262
C.EN.101860.0040TURN - THORN #55 A T/O - C&S SUPPORT	1 EA Install Switch Machine	9/17/2021	11/18/2021	\$24,781
Valley Interlocking #63 Turnout				
C.EN.101860 TURN VALLEY #63 T/O - INSTALL	1 EA Install Wood Turnout / 1 EA Install Switch Machine	7/16/2021	7/29/2021	\$692,817
Zoo JO Interlocking #143 Crossover				
C.EN.101860.0060 TURN "JO" ZOO I/L #143 X/O - INSTALL	1 EA Install Wood Turnout	11/3/2020	11/17/2020	\$1,820,894
C.EN.101860.0061 TURN "JO" ZOO I/L #143 X/O - E.T SUPPORT	Units not applicable	11/6/2020	11/16/2020	\$56,821
C.EN.101860.0062 TURN "JO" ZOO I/L #143 X/O - T&E SUPPORT	Units not applicable	11/6/2020	11/16/2020	\$89,764
C.EN.101860.0063 TURN "JO" ZOO I/L #143 X/O - B&B SUPPORT	Units not applicable	11/6/2020	11/16/2020	\$46,964
C.EN.101860.0064 TURN "JO" ZOO I/L #143 X/O - C&S SUPPORT	1 EA Install Switch Machine	11/6/2020	11/16/2020	\$254,484
BCC Segment 29 Programs Total				\$25,869,770

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000090 - Zoo to Paoli Catenary Structure Upgrade - C.EN.201264			
<i>FY21 Scope not available.</i>			
C.EN.201264.0015 POLE ZOO-PAOLI CAT PROJECT MANAGEMENT	10/1/2020	10/27/2026	\$25,740
Frequency Converter - Bryn Mawr	10/1/2020	9/30/2021	\$778,562
P000117 - Signal System Upgrades to 562 - Park to Paoli - C.EN.101770			
<i>Continue the design and construction of the ABS Signal System. Design progression from Paoli to Bryn Mawr. Switch and signal case replacement with new switch and signal cables and new track wires, and interlocking signals replacement, will continue from MP 33.7 to MP 25 (Glen).</i>			
FY21 C.EN.101770.0010 - ABS PAOLI/BRYN MAWR 562 - SIG SYS UPGS DSN	10/1/2020	9/30/2021	\$219,670

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
FY21 C.EN.101770.0011 - ABS THORN I/L	10/1/2020	9/30/2021	\$1,423,362
BCC Ineligible			
P000154 - Pennswood Bridge Catenary Improvements - C.EN.101892			
<i>Procure and award a design contract, develop the design and procure a construction contractor.</i>			
C.EN.101892.0001 CAT PENNSWOOD RD PA9.81-E.T. CONSTRUCT	6/18/2020	9/24/2021	\$163,373
C.EN.101892.0004 CAT PENNSWOOD RD PA9.81-PROJ. MGT.	5/1/2020	9/30/2021	\$66,459
C.EN.101892.0005 CAT PENNSWOOD RD PA9.81-CONST. MGT.	5/1/2020	11/18/2020	\$3,069
BCC Segment 29 Projects Total			\$2,680,235

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

BCC Segment 30: Thorndale to Harrisburg (Amtrak-owned)

Operators: Amtrak

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$12,904,722	\$0	\$12,904,722
Projects	\$4,092,214	\$0	\$4,092,214
Total	\$16,996,936	\$0	\$16,996,936

Programs

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00015 - Mid-Atlantic North Facilities - C.EN.101824				
<i>See below for further detail on planned FY21 work.</i>				
Downingtown Yard Upgrade				
C.EN.101824.0001 MOFW DOWNINGTOWN PA-YRD HQ UPGRADES	Units not applicable	11/2/2020	9/29/2021	\$156,226
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
<i>See below for further detail on planned FY21 work.</i>				
Cork & Conestoga Switch Machine Renewal AH Line				
INT AH LINE CORK MP68.1 & CONESTOGA MP67.7 – SW MACH RENW	31 EA Install Switch Machine	10/1/2020	9/30/2021	\$1,225,303
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
<i>See below for further detail on planned FY21 work.</i>				
Belmont Road Undergrade Bridge Rehab MP 55.94 AH Line				
BGUG AH LN MP055.94 BELMONT RD LEAMAN PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$214,484
Lenover Culvert Rehab MP 45.88 AH Line				
CULV AH LN MP045.88 LENOVER PA REHAB	1 EA Culvert Upgrade	10/1/2020	9/30/2021	\$214,484
Oak Street Undergrade Bridge Rehab MP 42.40 AH Line				
BGUG AH LN MP 042.40 OAK ST POMEROY PA REHAB	1 EA Undergrade Bridge Upgrade	10/1/2020	9/30/2021	\$160,860
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
<i>See below for further detail on planned FY21 work.</i>				
Royalton Sub 71 352 Break Install AH Line				
Royalton Sub 71 352 Breaker Install	Units not applicable	10/1/2020	9/30/2021	\$77,264
PG00020 - Mid-Atlantic North Track - C.EN.101828				
<i>Replace 40 insulated joints, 260 joint eliminations, 260,000 LF spot surfacing upgrades, 34,000 LF spot undercutting, 20 interlocking steel replacements, 1,250 timber tie replacements, and 100 concrete tie replacements. The program will also complete a series of drainage improvements across Mid-Atlantic South (MADS) division utilizing MAD's Track forces whenever possible.</i>				
Christiana Rock Cut Stabilization AH Line				
C.EN.101828.FY2171 CHRISTIANA ROCK CUT STABILIZATION	Units not applicable	10/16/2020	10/26/2020	\$30,568
Concrete Tie Replacement MP 35.3 - 105.2 AH Line				
C.EN.101828.0030 TIES MAD TIE/TIMBER AH LN MP35.3-105.2	120 EA Install Ties and Timbers	12/1/2020	12/29/2020	\$138,115
Downingtown East Drainage Improvements AH Line				
C.EN.101828.FY2172 DRAN EAST DOWNINGTOWN DRAINAGE IMPROVEMENTS	Units not applicable	10/26/2020	11/9/2020	\$23,456
Drainage Improvements in Cut Section MP 55 AH Line				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101828.FY2179 DRAN AH-55 DRAINAGE IMPROVEMENTS IN CUT SECTION	Units not applicable	10/1/2020	10/15/2020	\$42,295
High Speed Surfacing MP 35.3 - 105.2 AH Line				
C.EN.101828.FY2182 GEOM MADN HSS SURFACE AH LN MP35.3-105.2	20000 PF Surface Track, High Speed	11/2/2020	8/30/2021	\$224,404
Insulated Joint Removal MP 35.3 - 105.2 AH Line				
C.EN.101828.FY2103 RAIL MADN INSULATE JT AH LN MP35.3-105.2	3 EA Install Insulated Joint (Includes OTM)	4/28/2021	5/26/2021	\$30,604
Interlocking Steel MP 35.3 - 105.2 AH Line				
C.EN.101828.FY2150 TURN MADN I/L STEEL AH MP35.3-105.2	2 EA Renew Switch Point Stock Rail	7/1/2021	7/9/2021	\$18,663
Joint Elimination MP 35.3 - 105.2 AH Line				
C.EN.101828.0013 RAIL MADN JOINT ELIM AH LINE MP35.3-105.2	40 EA Field Weld and Grind Rail (Joint Elimination)	2/10/2021	4/14/2021	\$449,573
Mt. Joy Drainage Improvements AH Line				
C.EN.101828.FY2177 DRAN MAD NORTH DRAINAGE - MT JOY IMP.	Units not applicable	10/1/2020	10/7/2020	\$11,728
Rock Cut Remediation Track 2 MP 85 AH Line				
C.EN.101828.FY2175 RBED DRAN AH-85 2TRK ROCK CUT REMEDIATION	Units not applicable	11/2/2020	3/29/2021	\$532,752
C.EN.101828.FY2176 RBED DRAN AH-85 2TRK ROCK CUT REMEDIATION	Units not applicable	3/30/2021	8/18/2021	\$532,753
Rock Cut Remediation Track 2 MP 93.93 AH Line				
C.EN.101828.FY2174 AH-93.3 2TRK ROCK CUT REMEDIATION	Units not applicable	11/17/2020	11/27/2020	\$30,568
Spot Surfacing MP 35.3 - 105.2 AH Line				
C.EN.101828.FY2140 GEOM AH LN MP 35.3-105.2 SPOT SURFACING	60000 PF Surface Track, Spot	10/1/2020	9/28/2021	\$831,954
Spot Undercutting MP 35.3 - 105.2 AH Line				
C.EN.101828.FY2161 BLST MAD SPOT UNDRUCUT AH LN MP35.3-105.2	3000 FT Vacuum Train, Spot Undercut	12/1/2020	12/8/2020	\$994,130
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
High Speed Surfacing Production MP 35.3 - 105.2 AH Line				
C.EN.101855.0069 GEOM AH LN MP 35.3-105.2 HSS PRODUCTION - 30	Units not applicable	10/1/2020	9/30/2021	\$427,070
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Rheems to Roy Track 1 Wood Tie Replacement				
C.EN.101858 TIE/TIMBER REPLACEMENT - RHEEMS TO ROY TK 1	11480 EA Install Ties and Timbers	7/26/2021	9/23/2021	\$2,389,945
Rheems to Roy Track 2 Wood Tie Replacement				
C.EN.101858 TIE/TIMBER REPLACEMENT - RHEEMS TO ROY TK 2	11480 EA Install Ties and Timbers	9/27/2021	11/25/2021	\$265,550
Thorn to Park Track 1 Wood Tie Replacement				
C.EN.101858 TIE/TIMBER REPLACEMENT - THORN TO PARK TK1	10560 EA Install Ties and Timbers	11/19/2020	12/17/2020	\$2,198,417
Thorn to Park Track 4 Wood Tie Replacement				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101858.0009 TIES THORN/PARK TK4-TIE/TIMB REPLACE	Units not applicable	9/21/2020	10/22/2020	\$1,627,194
PG00090-RBED System Geotech Hazard Inventory & Assessment-C.EN.101908				
<i>Geotech surveys of Harrisburg line, West side/empire connection, Empire Line, and Shoreline.</i>				
Roadbed System Geotech Hazard Inventory & Assessment - AH Line, Harrisburg				
RBED System Geotech Hazard Inventory & Assessment - AH LN, HARRISBURG	Units not applicable	2/8/2021	2/11/2021	\$37,114
BCC Segment 30 Programs Total				\$12,904,722

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000014 - Conestoga to Royaltown Transmission Line Replacement - C.EN.101785			
<i>Advance the design, continue NS and utility coordination, continue the environmental and historical permitting process for NEPA compliance.</i>			
C.EN.101785.0007 TRN CONESTOGA/ROYALTON 11LN-60% DESIGN	10/1/2020	3/31/2021	\$1,319,052
C.EN.101785.0008 TRN CONESTOGA/ROYALTON 11LN-90% DESIGN	4/1/2021	6/24/2021	\$356,155
C.EN.101785.0009 TRN CONESTOGA/ROYALTON 11LN-100% DESIGN	6/24/2021	8/25/2021	\$434,869
C.EN.101785.0010 TRN CONESTOGA/ROYALTON 11LN-FINAL DSN REVW	6/24/2021	9/13/2021	\$107,240
C.EN.101785.0013 TRN CONESTOGA/ROYALTON 11LN-CNSTRUCT CNTRT	8/26/2021	4/25/2023	\$87,798
C.EN.101785.0014 TRN CONESTOGA/ROYALTON 11LN-E.T. CONSTRUCT	8/26/2021	6/7/2023	\$108,480
C.EN.101785.0016 TRN CONESTOGA/ROYALTON 11LN-CNSTRUCT MGT.	9/1/2021	4/28/2023	\$81,009
C.EN.101785.0017 TRN CONESTOGA/ROYALTON 11LN-CNSTRUCT DSN	8/26/2021	1/20/2022	\$79,158
C.EN.101785.0019 TRN CONESTOGA/ROYALTON 11LN-PROJ. MGT.	10/1/2020	4/27/2023	\$426,539
P000104 - Middletown, PA Station - C.EN.100891			
<i>FY21 Scope not available.</i>			
Force Account	8/1/2021	4/1/2022	\$40,966
P000111 - Conestoga Substation Improvements - C.EN.101877			
<i>Procure a design consultant, initiate design development and advance the design to 30%, initiate NEPA/SHPO coordination,</i>			
C.EN.101877.0001 SUB CONESTOGA YARD REHAB-PRELIM DESIGN	2/1/2021	9/30/2021	\$900,817
BCC Segment 30 Projects Total			\$4,092,214

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BCC Segment 31: Amtrak System-wide (Amtrak-owned)

Operators: Amtrak

Programs

Investment Type	BCC Eligible	BCC Ineligible	Segment Total
Programs	\$39,430,969	\$102,061,025	\$141,491,994
Projects	\$11,499,553	\$1,511,565	\$13,011,118
Total	\$50,930,523	\$103,572,590	\$154,503,112

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
BCC Eligible				
PG00003 - Rail Replacement - C.EN.101856				
156,000 FT CWR (NEW Rail); 80,000 FT CWR (Re-purposed "FIT" Rail)				
Project Controls				
FY21.7000 GEOM AMTK SYS - GEOM AMTK SYS ; PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$42,897
Project Management				
C.EN.101856.8000 RAIL NEC RAIL REPLACE-CONTRACTOR/PM	Units not applicable	10/1/2020	5/28/2021	\$46,027
PG00013 - Mid-Atlantic North Catenary - C.EN.101822				
See below for further detail on planned FY21 work.				
Project Management				
STIP MADN CATENARY PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$80,430
PG00015 - Mid-Atlantic North Facilities - C.EN.101824				
See below for further detail on planned FY21 work.				
CNOC Tower Wilmington Electrical System Upgrades				
C.EN.101824.0006 MOFE WIL DE CAR SHOP BLD 1/2 DEMO DSN	Units not applicable	10/1/2020	4/30/2021	\$153,699
C.EN.101824.0007 TOWR WIL DE CNOC-ELECTRICAL SYSTEM UPGRD	Units not applicable	3/1/2021	8/27/2021	\$213,680
PG00017 - Mid-Atlantic North Signals - C.EN.101825				
See below for further detail on planned FY21 work.				
Program Management				
STIP MADN SIGNALS PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$80,430
PG00018 - Mid-Atlantic North Structures - C.EN.101826				
See below for further detail on planned FY21 work.				
Program Management				
STIP MADN STRUCTURES PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$80,430
PG00019 - Mid-Atlantic North Substations - C.EN.101827				
See below for further detail on planned FY21 work.				
Program Management				
STIP MADN SUBSTATIONS PROGRAM-PROJ. MGMT	Units not applicable	10/1/2020	9/30/2021	\$80,430
PG00021 - Mid-Atlantic South Catenary - C.EN.101829				
250 SAP assemblies, 2 Cat Poles, and 2 Switch Heaters				
PG00021 - Mid-Atlantic South Catenary - C.EN.101829				
Project Controls Support	Units not applicable	10/1/2020	9/30/2021	\$23,556
Program Management				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101829.9000 STIP MADs CATENARY PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$33,007
PG00023 - Mid-Atlantic South Facilities - C.EN.101831				
<i>Compressor Upgrades at Ivy City (MOFE), 480 Ground Power Upgrade, Electrical Upgrades at Wash. Terminal, and High Mast Lighting Replacement at Odenton</i>				
Program Management				
C.EN.101831.2021.9000 STIP MADs FACILITIES PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$33,006
Project Controls				
C.EN.101831.2021.9001 STIP MADs FACILITIES PROGRAM-PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$25,443
PG00026 - Mid-Atlantic South Structures - C.EN.101833				
<i>Upgrades to: 4 culverts, 2 tunnels, 5 retaining walls, 5 signal bridges, 5 undergrade bridges, and 3 movable bridges</i>				
Program Management				
C.EN.101833.2021.9000 STIP MADs STRUCTURES PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$33,006
Project Controls				
C.EN.101833.2021.8002 PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$32,981
PG00027 - Mid-Atlantic South Substations - C.EN.101834				
<i>Tie switch replacement at 2 substations, and breaker replacement at Sub 15</i>				
Program Management				
C.EN.101834.8000 STIP MADs CATENARY PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$33,006
Project Controls				
C.EN.101834.2021.8001 STIP MADs CATENARY PROGRAM-PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$23,557
PG00028 - Mid-Atlantic South Track - C.EN.101835				
<i>Replace 40 insulated joints, 260 joint eliminations, 260000 LF spot surfacing upgrades, 34000 LF spot undercutting, 20 interlocking steel replacements, 1250 timber tie replacements, & 100 concrete tie replacements along with associated drainage improvements across Mid-Atlantic South (MADS) division utilizing MADS Track forces.</i>				
Program Management				
C.EN.101835.9001 STIP MADs TRACK PROGRAM PROJ. MGT.	Units not applicable	10/1/2020	6/7/2021	\$213,935
Project Controls				
Project Controls	Units not applicable	10/1/2020	12/29/2020	\$87,434
Rail Lubrication Upgrades AP Line				
C.EN.101835.0008 TKAP MAD SOUTH RAIL LUBRICATION UPGRADES	Units not applicable	10/1/2020	11/25/2020	\$651,802
Track Layover Equipment				
C.EN.101835.0799 STIP MADs SOUTH TRK PROGRAM-LAYOVER EQUIP	Units not applicable	10/1/2020	10/1/2020	\$819,180
PG00029 - New England Catenary - C.EN.101836				
<i>Projects include catenary hardware renewal between New Haven, CT, and Boston, MA on the AB Line, replacing of the MOD Units at Southampton Street Yard, and placing the OCS in service on Track 4 between Hebronville I/L and Holden I/L in Attleboro, MA.</i>				
Program Management				
C.EN.101836.8000 STIP NEW ENGLAND CATENARY PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$23,949
Project Controls				
C.EN.101836.8100 STIP NED CAT PRJ/PROGRM ADMIN SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$47,563
PG00030 - New England Communications - C.EN.101837				
<i>FY21 Scope not available.</i>				
Program Management				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101837.8000 STIP NED COMMUNICATIONS PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$8,982
Project Controls				
C.EN.101839.8100 STIP NED COMM PROJECT/PROGRAM ADMIN SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$35,672
PG00031 - New England Facilities - C.EN.101838				
<i>Facilities upgrades include upgrades to the water mains and parking lot serving the Southampton Street Yard facility as well as upgrades to the train servicing platforms inside the S&I building. Complete safety and energy efficiency upgrades at Southampton Street and Hamden MOFW Facilities.</i>				
Project Management				
C.EN.101838.8000 STIP NED FACILITIES PROGRAM-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$71,847
PG00034 - New England Structures - C.EN.101840				
<i>Complete the steel upgrades and bridge timber replacement at the Conn. River Bridge (CT49.73) on the AS Line and replace the bridge timbers on the Conn. River Bridge (CT106.89) on the AB Line. Complete the installation of the Hull Street Strike Beam and steel and abutment upgrades to State Pier (CT123.59) undergrade bridge. Complete several SOGR projects at the five movable bridges on the AB Line. Design projects include retaining wall upgrades at Shoreline Junction, Hartford Tunnel Drainage Improvements, and culvert upgrades on both the AB and AB lines.</i>				
Project Management				
C.EN.101840.8000 STIP NEW ENGLAND STRUCTURES PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$11,968
Project Support				
C.EN.101840.8100 STIP NED STRUCT PRJ/PROGRM ADMIN SUPP	Units not applicable	10/1/2020	9/30/2021	\$47,563
PG00035 - New England Substations - C.EN.101841				
<i>Projects include replacing the transformer at the Norton Substation (MP198.9), installing commercial power and interlocking lighting at View I/L. Replace the sump pumps at New London, Millstone, Leetes Island, and Madison. Replace the batteries at the Stonington Paralling Station and ground power at Whitfield Siding in Guilford, CT. Replace breaker relays and breaker vacuum bottle replacement at two substations and complete a substation assessment. Work to be performed by Amtrak ET Substation forces and contractor forces.</i>				
ET Document Control				
C.EN.101841.0010 STIP NED E.T.-DOCUMENT CONTROL CAP PLAN	Units not applicable	10/1/2020	5/28/2021	\$53,360
NED Substation Assessment at Sharon, New London, Warwick, Branford Subs				
C.EN.101841.0018 NED Substation Assessment - (Sharon, New London, Warwick, Branford)	Units not applicable	1/4/2021	3/16/2021	\$85,803
Program Management				
C.EN.101841.8000 STIP NEW ENGLAND SUBSTATIONS PROG.-PM	Units not applicable	10/1/2020	9/30/2021	\$5,984
Project Controls				
C.EN.101841.8100 STIP NED SUBSTA PRJ/PROGRM ADMIN SUPP	Units not applicable	10/1/2020	9/30/2021	\$47,563
PG00036 - New England Track - C.EN.101842				
<i>Replace wood ties, concrete ties, interlocking steel, and insulated joints as well as continue joint elimination across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Perform ride quality, drainage, and road bed improvements through spot surfacing, spot undercutting, ditching and grading across the AS Line in Connecticut and Massachusetts and the AB Line in Connecticut and Rhode Island. Work to be performed by Amtrak Track Department forces.</i>				
Program Management				
C.EN.101842.8000 STIP NED TRACK PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$47,898
Project Controls				
C.EN.101842.8100 STIP NED TRK PRJ/PROGRM ADMIN SUPP	Units not applicable	10/1/2020	9/30/2021	\$47,563
PG00037 - New York Catenary - C.EN.101843				
<i>See below for further detail on planned FY21 work.</i>				
Program Management				
C.EN.101843.9002-PH STIP NYD CATENARY PROGRAM PROJ. SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$6,447
Project Management				
C.EN.101843.9001 STIP NYD CATENARY PROGRAM PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$13,779
PG00039 - New York Facilities - C.EN.101845				
<i>See below for further detail on planned FY21 work.</i>				

Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Fire Life Safety Fire Alarm Panel Upgrades				
C.EN.101845.HD.0000158-PH FIRE ALARM PANEL UPGRADES FSL	Units not applicable	10/1/2020	3/31/2021	\$106,094
Project Controls				
C.EN.101845.2021.8001-PH STIP NEW YORK FACILITIES PROGRAM-PRJ SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$8,935
Project Management				
C.EN.101845.8000 STIP NEW YORK FACILITIES PROGRAM-PRJ MGT	Units not applicable	10/1/2020	9/30/2021	\$17,874
PG00041 - New York Signals - C.EN.101846				
<i>See below for further detail on planned FY21 work.</i>				
Project Controls				
C.EN.101846.9002-PH STIP NYD SIGNALS PROGRAM PROJ. SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$10,723
Project Management				
C.EN.101846.9001 STIP NYD SIGNALS PROGRAM PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$21,448
PG00042 - New York Structures - C.EN.101847				
<i>See below for further detail on planned FY21 work.</i>				
New York Structures - Project Management				
C.EN.101847.8000 STIP NEW YORK STRUCTURES PROGRAM-PRJ MGT	Units not applicable	10/1/2020	9/30/2021	\$60,772
PG00043 - New York Substations - C.EN.101848				
<i>See below for further detail on planned FY21 work.</i>				
Project Controls				
C.EN.101848.9002 STIP NYD SUBSTATION PROGRAM-SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$21,448
PG00044 - New York Track - C.EN.101849				
<i>See below for further detail on planned FY21 work.</i>				
New York Track - Layover Equipment				
C.EN.101849.0128 STIP NEW YORK TRK PROGRAM-LAYOVER EQUIP	Units not applicable	10/1/2020	9/30/2021	\$3,339,930
New York Track - Project Management				
C.EN.101849.9001 STIP NEW YORK TRACK PROGRAM PROJ. MGT.	Units not applicable	10/1/2020	9/30/2021	\$199,981
New York Track - Project Support				
C.EN.101849.9002-PH STIP NEW YORK TRACK PROGRAM PROJ. SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$100,290
Rail Lubrication Upgrades AN Line				
C.EN.101849.0132 TKAP NYD RAIL LUBRICATION UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$209,964
PG00057 - TLS Concrete Tie Replacement - C.EN.101652				
<i>80,134 Concrete Ties; 320,534 FT CWR</i>				
CWR Distribution				
901652.9002 TLS AMTRAK SYSTEM - CWR DISTRIBUTION	Units not applicable	10/1/2020	9/30/2021	\$534,794
Project Management				
901652.9000 TLS AMTRAK SYSTEM - CONTRACTOR/PM	Units not applicable	10/1/2020	9/30/2021	\$428,961
PG00060 - Production High Speed Surfacing - C.EN.101855				
<i>300 Miles Surfaced by PROD HSS</i>				
Contractor Equipment				
C.EN.101855.9002GEOM AMTK SYS SURFACING-CNTRTOR/EQUIP	Units not applicable	10/1/2020	9/30/2021	\$214,479
Overlift Tamping Training				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101855.9007 GEOM AMTK SYS - GEOM AMTK SYS & DESIGN OVERLIFT TAMPING TRAINING	Units not applicable	10/1/2020	9/30/2021	\$26,809
Overlift Tamping Upgrade				
C.EN.101855.9005 GEOM AMTK SYS - GEOM AMTK SYS & DESIGN OVERLIFT TAMPING UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$36,781
Project Controls				
C.EN.101855.7000 GEOM AMTK SYS - GEOM AMTK SYS & PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$42,897
Project Management				
C.EN.101855.9000GEOM AMTK SYS SURFACING-PROJ. MGMT.	Units not applicable	10/1/2020	9/30/2021	\$107,242
C.EN.101855.9004 GEOM AMTK SYS - SURFACING PROGRAM DEVELOPMENT	Units not applicable	10/1/2020	9/30/2021	\$214,479
System Surfacing Equipment Maintenance				
C.EN.101855.9003GEOM AMTK SYS SURFACING-EQUIP MAINT	Units not applicable	10/1/2020	9/30/2021	\$321,721
Tamping Effectiveness				
C.EN.101855.9006 GEOM AMTK SYS - GEOM AMTK SYS & TAMPING EFFECTIVENESS PRJ	Units not applicable	10/1/2020	9/30/2021	\$107,242
PG00061 - Total Track Renewal - C.EN.101871				
<i>3,320 track feet , 30th St Track 8 and Track 10</i>				
Program Management				
C.EN.101871.8001 AMTRAK SYS TOTAL TRACK RENEWAL-PM	Units not applicable	8/3/2020	8/2/2021	\$44,646
Project Controls				
XXXX.7000 TKRN AMTRAK SYSTEM - PROJECT CONTROL SUPPORT	Units not applicable	8/3/2020	8/2/2021	\$35,718
PG00062 - Track Undercutting - C.EN.100269				
<i>109,392 FT Undercutting</i>				
Contingency				
FY21 Project Contingency	Units not applicable	10/1/2020	11/19/2020	\$564,648
PG00063 - Track Rehabilitation - C.EN.101859				
<i>See below for further detail on planned FY21 work.</i>				
Project Controls				
FY21.8002 PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$37,697
PG00064 - Rail Grinding - C.EN.101794				
<i>Grind 1,045 miles along the NEC in FY21.</i>				
Project Controls				
FY21.8002 PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$37,697
Project Management				
XXXX.X8000 RAIL NEC GRINDING PROJECT MANAGEMENT	Units not applicable	10/2/2020	9/29/2021	\$85,791
PG00065 - Turnout Renewal - C.EN.101860				
<i>See below for further detail on planned FY21 work.</i>				
Equipment Rentals				
C.EN.101860.0079 TURN - EQUIPMENT RENTALS	Units not applicable	10/1/2020	9/30/2021	\$80,431
Project Management				
C.EN.101860.0077TURN AMTRAK NEC - PROJECT MANAGEMENT	Units not applicable	10/1/2020	9/29/2021	\$169,891
Turnout Renewal Survey and Design				
C.EN.101860.0078TURN NEC TURNOUT RENEW-SURVEY/DESIGN	Units not applicable	10/1/2020	9/30/2021	\$116,969

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
PG00067 - Production Concrete Tie/Timber Replacement - C.EN.101870				
<i>550 West Fair to Ham Track #1</i>				
Program Management				
C.EN.101870.8000 TIES CONCRETE TIE/TIMB PROGRAM-PM	Units not applicable	10/1/2020	9/30/2021	\$26,809
PG00069 - Fence Upgrades - C.EN.101854				
<i>See below for further detail on planned FY21 work.</i>				
Amtrak System Fence Upgrade Project Management				
C.EN.101854.8000 FEN AMTRAK SYS FENCE UPG-PROJECT MGMT.	Units not applicable	10/1/2020	9/30/2021	\$85,792
Project Control Support				
C.EN.101854.2021.8002 PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$37,692
PG00071 - Production Wood Tie/Timber Replacement - C.EN.101858				
<i>See below for further detail on planned FY21 work.</i>				
Misc. Wood Tie Replacement				
C.EN.101858.2021.20 TIE/TIMBER REPLACEMENT - Z192	7043 EA Install Ties and Timbers	6/1/2021	9/30/2021	\$2,916,859
Project Controls				
C.EN.101858.7000 GEOM AMTK SYS - GEOM AMTK SYS & PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$42,897
Tie/Timber Replacement - Equipment Rental				
C.EN.101858.9003 TIE/TIMBER REPLACEMENT - EQUIP RENTAL	Units not applicable	10/1/2020	9/30/2021	\$214,481
Tie/Timber Replacement - Project Management				
C.EN.101858.7100 TIE/TIMBER REPLACEMENT - PROJECT MANAGMENT	Units not applicable	10/1/2020	9/30/2021	\$53,619
PG00077 - Engineering Capital / Management - C.EN.100418				
<i>Continued support of FY21 Engineering portfolio with projects controls services including not limited to estimating, scheduling, reporting and document control.</i>				
1801 Market Street Philadelphia - Engineering Office Rent				
C.EN.100418.0009 SYS 1801 MARKET ST PHILA-ENG OFFICE RENT	Units not applicable	10/1/2020	9/30/2021	\$117,106
Engineering Capital Program - Non Project Management Office Staff				
C.EN.100418.0005 SYS ENG CAPITAL PROGM-NON PMO STAFF	Units not applicable	10/1/2020	9/30/2021	\$409,433
Engineering Capital Program - Project Management Office Staff				
C.EN.100418.0004 SYS ENG CAPITAL PROGRAM-PMO STAFF	Units not applicable	10/1/2020	9/30/2021	\$2,471,893
Engineering Schedule Cost/Support				
C.EN.100418.0003 SYS ENGINEERING SCHEDULE COST/SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$1,657,737
PG00078 - Engineering Asset Management System - C.EN.100123				
<i>We will continue to support the Maximo 7.6 and ESRI implementations. We plan on procuring asset collection devices and oil test stations for the equipment shop. We further develop the Digital Project Environment, 2021 Infrastructure Asset Line Plan and Maximo system changes and user training. We will continue to progress PLM and further improve our Asset collection process. We will mature the autonomous signal inspection system project, ad-hoc business cases, tableau reports/dashboards, and process reviews to support the needs and increased efficiencies of the Engineering department</i>				
Autonomous Signal Inspection System				
C.EN.100123.0163 APP AUTONOMUS SIGNAL INSPECT SYSTEM	Units not applicable	10/1/2020	9/30/2021	\$210,189
C.EN.100123.0169 SYS MOW EQUIPMENT MOBILE APP PRJ				
C.EN.100123.0169 SYS MOW EQUIPMENT MOBILE APP PRJ	Units not applicable	10/1/2020	9/30/2021	\$20,375
Engineering Asset Management Plan				
C.EN.100123.0167 SYS ENGINEERING ASSET MANAGEMENT PLAN	Units not applicable	10/1/2020	9/30/2021	\$2,661,695
Engineering Asset Management Project Management				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.100123.0022 APP ENG ASSET MGT PM	Units not applicable	10/1/2020	9/30/2021	\$64,345
Enterprise Asset Management Device/System Upgrades				
C.EN.100123.0177 APP EAM DEVICE/SYSTEM UPGRADES CAP	Units not applicable	10/1/2020	9/30/2021	\$99,732
Enterprise Asset Management Device/System Upgrades Project				
C.EN.100123.0178 APP EAM DEVICE/SYSTEM UPGRADES PRJ	Units not applicable	10/1/2020	9/30/2021	\$99,732
Enterprise Asset Management System - Maximo Modifications				
C.EN.100123.0173 APP ENG ASSET MGT SYS-MAXIMO MODS	Units not applicable	10/1/2020	9/30/2021	\$97,588
Maximo Engineering Asset Library Upgrade				
C.EN.100123.0170 APP MAXIMO ENGR ASSET LIBRARY UPGRADE	Units not applicable	10/1/2020	9/30/2021	\$499,739
PG00083 - Communications System Upgrades - C.EN.101857				
<i>See below for further detail on planned FY21 work.</i>				
Fiber Transport Backbone				
Equipment Purchase, Configuration and Staging	Units not applicable	11/3/2020	7/16/2021	\$3,034,047
Site Installation / Turn Up	Units not applicable	7/19/2021	8/6/2021	\$156,316
Site Surveys and Fiber Testing	Units not applicable	10/1/2020	11/2/2020	\$83,878
Test and Commission	Units not applicable	8/9/2021	9/1/2021	\$39,429
Fiber Transport Upgrade				
FY21.0002 FIBER TRANSPORT UPGRADE - HBG LINE	Units not applicable	10/26/2020	9/29/2022	\$214,477
NEC Fiber Optic Replacement				
C.EN.101857.0012 CABF NEC-FIBER OPTIC ELEC REPLACE SPECS	Units not applicable	10/1/2020	11/30/2020	\$77,213
New York West Fiber Transport Upgrades				
Core Manhole, Install Pipe and Hand Hole	Units not applicable	10/26/2020	9/30/2021	\$2,016
Install Innerduct and Fiber	Units not applicable	10/26/2020	9/30/2021	\$5,728
Labor	Units not applicable	10/26/2020	9/30/2021	\$44,552
Ring Cut Splice and Terminate Fiber	Units not applicable	10/26/2020	9/30/2021	\$4,017
Upgrade Network Switches	Units not applicable	10/26/2020	9/30/2021	\$5,593
NYD Communications House Replacement				
B&B dig foundations and Place Comm Hut on Stands	Units not applicable	5/3/2021	9/30/2021	\$113,859
Install new Split Unit	Units not applicable	5/3/2021	9/30/2021	\$33,087
Labor	Units not applicable	5/3/2021	9/30/2021	\$63,377
Remove and Replace Existing Battery/Rectifier Plant	Units not applicable	5/3/2021	9/30/2021	\$61,577
Remove equipment from old hut and reinstall in new Hut	Units not applicable	5/3/2021	9/30/2021	\$42,467
Remove Existing/Retrofit Opening	Units not applicable	5/3/2021	9/30/2021	\$7,860
Replace Comm Hut	Units not applicable	5/3/2021	9/30/2021	\$21,575
Upgrade Comm Location UPS	Units not applicable	5/3/2021	9/30/2021	\$381
Radio Systems Infrastructure Upgrade				
FY21.0003 RADIO SYSTEMS INFRASTRUCTURE UPG. PRG.	Units not applicable	5/3/2021	3/7/2022	\$413,872
Wayside Fiber Upgrade New York to Washington DC				
FY21.0004 WAYSIDE FIBER UPGRADE - NY TO DC	Units not applicable	1/4/2021	6/2/2022	\$214,479
PG00085 - Amtrak Owned Positive Train CTRL (PTC) Installation - C.EN.201034				
<i>FY21 Scope includes completing all boundary locations, OBC Upgrades, completion of STS Migration and TP upgrades, ACSES Monitoring Tool Phase 2</i>				
Burns Scope				
Burns Scope	Units not applicable	7/1/2020	12/31/2020	\$127,272

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.201034.0076 PTC GATE/"F" TWR/HUDSON LIRR BNDRY UPG				
C.EN.201034.0076 PTC GATE/"F" TWR/HUDSON LIRR BNDRY UPG	Units not applicable	10/1/2020	11/30/2020	\$86,537
C.EN.201034.0116 ACSE PTC SAFETY PLAN SYSTEM UPGS				
C.EN.201034.0116 ACSE PTC SAFETY PLAN SYSTEM UPGS	Units not applicable	10/1/2020	3/31/2021	\$91,763
C.EN.201034.0117 ACSE AMTK MSA TASK#42-D&MS INSTALLS				
C.EN.201034.0117 ACSE AMTK MSA TASK#42-D&MS INSTALLS	Units not applicable	7/21/2020	10/20/2020	\$12,199
C.EN.201034.9001 ACSE AMTRK OWNED PTC PROJECT MGT.				
C.EN.201034.9001 ACSE AMTRK OWNED PTC PROJECT MGT.	Units not applicable	10/1/2020	12/31/2020	\$69,706
FY21				
FY21	Units not applicable	10/1/2020	10/29/2020	\$265,955
FY21 ASCE Monitoring Tool Phase				
FY21 ACSES MONITORING TOOL PHASE 2	Units not applicable	1/4/2021	9/29/2021	\$268,100
HRSTS				
HRSTS Scope	Units not applicable	10/1/2020	9/29/2021	\$2,005,066
Materials				
Materials	Units not applicable	10/1/2020	1/29/2021	\$107,240
PTC ACSE NEC Improvement TP Migration				
C.EN.201034.0084 ACSE PTC NEC IMPROVEMENT-TP MIGRATION	Units not applicable	10/30/2020	2/26/2021	\$455,785
PTC ACSE Transponder Upgrades				
C.EN.201034.0113 ACSE PTC NEC IMPRV-WIU/TRANSPONDER UPGS	Units not applicable	10/1/2020	1/26/2021	\$136,655
PTC ACSE Interoperability MBTA				
C.EN.201034.0092 ACSE STS TO STS INTEROPERABILITY MBTA	Units not applicable	10/1/2019	11/2/2020	\$201,813
PTC ACSE Interoperability MNR				
C.EN.201034.0088 ACSE STS TO STS INTEROPERABILITY MNR	Units not applicable	8/1/2019	6/28/2021	\$54,313
PTC ACSE Interoperability NJT				
C.EN.201034.0091 ACSE STS TO STS INTEROPERABILITY NJT	Units not applicable	2/3/2020	3/5/2021	\$62,409
PTC ACSE Interoperability SEPTA				
C.EN.201034.0090 ACSE STS TO STS INTEROPERABILITY SEPTA	Units not applicable	7/1/2020	10/30/2020	\$54,755
PTC ACSE Siemens				
C.EN.201034.0059 ACSE AMTRAK OWNED PTC-SIEMENS REV11	Units not applicable	1/4/2021	9/30/2021	\$6,735
PTC Northeast Corridor - Interoperability Testing				
C.EN.201034.0114 ACSE PTC NEC - INTEROPERABILITY TESTING	Units not applicable	10/23/2020	10/29/2021	\$416,556
PTC Northeast Corridor Improvement				
FY21 - ASCES PTC NEC IMPROVEMENT - Locations	Units not applicable	10/1/2020	10/28/2021	\$3,194,319
REV 12 FY21				
REV 12 FY21	Units not applicable	1/4/2021	9/30/2021	\$2,895,481
PG00086 - ET Linear Assets Research and Development Program - C.EN.101873				
<i>The FY 21 scope is for the design of signal hut prototype, Wildlife Asset Protection, Dead End Pulley Assembly, Messenger Clamp Lock Nut Assembly, CMV Wire Detection System and OCS Hauling Clamp.</i>				
Electronic Traction System Project Management				
C.EN.101873.8000 SYS E.T. SYSTEM-PROJECT MANAGEMENT	Units not applicable	10/1/2020	9/30/2021	\$8,418
Electronic Traction System Research and Development				
C.EN.101873.0001 SYS E.T. SYSTEM-RESEARCH/DEVELOP	Units not applicable	11/2/2020	7/20/2021	\$795,531

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Electronic Traction System Signal Hut Conceptual Design				
C.EN.101873.0002 SYS E.T. SYSTEM-SIG HUT CONCEPTUAL DSN	Units not applicable	2/1/2021	7/30/2021	\$16,145
Electronic Traction System Signal Hut Final Design				
C.EN.101873.0003 SYS E.T. SYSTEM-SIG HUT FINAL DSN	Units not applicable	7/2/2021	9/3/2021	\$96,707
Mid-Atlantic Division 1001 Circuit 19 Bridge Wildlife and Asset Protection				
XXX4 SYS ET - MAD 1001 CIRCUIT 19 BRDG WILDLIFE & ASSET PROTECTION	Units not applicable	11/2/2020	11/23/2020	\$187,812
Mid-Atlantic Division 6.9KV to 12KV Circuits Wildlife and Asset Protection				
XXX5 SYS ET - MAD 6.9KV TO 12 KV CIRCUITS WILDLIFE & ASSET PROTECTION	Units not applicable	12/1/2020	12/16/2020	\$108,393
Northeast Division 8002 Circuit 22 Bridge Wildlife and Asset Protection				
XXX6 SYS ET - NED 8002 CIRCUIT 22 BRDG WILDLIFE & ASSET PROTECTION	Units not applicable	4/1/2021	4/7/2021	\$67,004
Northeast Division CMV Wire Detection System				
XX10 SYS ET - NED CMV WIRE DETECTION SYSTEM	Units not applicable	10/1/2020	10/7/2020	\$26,221
Northeast Division Dead End Pulley Assembly				
XXX8 SYS ET - NED DEAD END PULLEY ASSEMBLY	Units not applicable	11/2/2020	11/16/2020	\$65,050
Northeast Division Equipment to 8002 Circuits Wildlife and Asset Protection				
XXX7 SYS ET - NED EQUIP TO 8002 CIRCUITS WILDLIFE & ASSET PROTECTION	Units not applicable	10/1/2020	10/15/2020	\$110,841
Northeast Division OCS Hauling Clamp				
XX11 SYS ET - NED OCS HAULING CLAMP	Units not applicable	5/3/2021	5/26/2021	\$82,661
Northeast Division OCS Messenger Clamp Lock Nut Assembly				
XXX9 SYS ET - NED OCS MESSENGER CLAMP LOCK NUT ASSEMBLY	Units not applicable	3/1/2021	3/4/2021	\$33,722
PG00090-RBED System Geotech Hazard Inventory & Assessment-C.EN.101908				
<i>Geotech surveys of Harrisburg line, West side/empire connection, Empire Line, and Shoreline.</i>				
Roadbed System Geotech Hazard Inventory & Assessment - AB Line, Shoreline				
RBED System Geotech Hazard Inventory & Assessment - AB LN, SHORELINE	Units not applicable	3/8/2021	3/12/2021	\$46,412
Roadbed System Geotech Hazard Inventory & Assessment - Project Control Support				
RBED System Geotech Hazard Inventory & Assessment - PROJECT CONTROL SUPPORT	Units not applicable	10/1/2020	9/30/2021	\$28,270
Roadbed System Geotech Hazard Inventory & Assessment - Project Management				
RBED System Geotech Hazard Inventory & Assessment - PROJECT MANAGMENT	Units not applicable	10/1/2020	9/30/2021	\$75,544
BCC Ineligible				
PG00052 - Engineering Major Equipment Acquisition - C.EN.101757				
<i>EQIR ENG EQUIP PURCH-TRACK LAYING MACH For the equipment purchase of a new Track Laying Machine (TLM) for concrete tie replacement projects.</i>				
C.EN.101757.0002 EQIR ENG EQUIP PURCH-TRACK LAYING MACH				
C.EN.101757.0002 EQIR ENG EQUIP PURCH-TRACK LAYING MACH	Units not applicable	10/1/2020	9/30/2021	\$4,338,978
<i>EQIR ENG RLLING STCK PURCH-FLAT CARS-120 For the purchase of 120 Flat Cars to support work along Amtrak's NEC. We will purchase 10 trucks each year from FY19 thru FY28.</i>				
C.EN.101757.0006 EQIR ENG RLLING STCK PURCH-FLAT CARS-120				
C.EN.101757.0006 EQIR ENG RLLING STCK PURCH-FLAT CARS-120	Units not applicable	10/1/2020	9/30/2021	\$4,908,966
<i>EQIR ENG ROLL STCK PUR- BALLAST CARS-360 For the purchase of 360 Ballast Cars to support work along Amtrak's NEC. We will purchase 30 trucks each year from FY19 thru FY28.</i>				
C.EN.101757.0007 EQIR ENG ROLL STCK PUR- BALLAST CARS-360				
C.EN.101757.0007 EQIR ENG ROLL STCK PUR- BALLAST CARS-360	Units not applicable	10/1/2020	9/30/2021	\$25,094,227
<i>EQIR ENG ROLLING STOCK PUR-SIDE DUMPS-60 For the purchase of 60 Side Dump Cars to support work along Amtrak's NEC. We will purchase 5 trucks each year from FY19 thru FY28.</i>				

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
C.EN.101757.0008 EQIR ENG ROLLING STOCK PUR-SIDE DUMPS-60				
C.EN.101757.0008 EQIR ENG ROLLING STOCK PUR-SIDE DUMPS-60	Units not applicable	10/1/2020	9/30/2021	\$5,420,897
<i>EQIR ENG EQUIP PURCHASE 32T TAMPER For the purchase of a 32 CAT Tamper to be utilized under Maintenance of Way capital and maintenance projects. This equipment is planned for the Surfacing gang (TLS) - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0010 EQIR ENG EQUIP PURCHASE 32T TAMPER				
C.EN.101757.0010 EQIR ENG EQUIP PURCHASE 32T TAMPER	Units not applicable	10/1/2020	9/30/2021	\$3,226,912
<i>EQIR ENG EQUIP PURCHASE TIE CRANE-2 For the purchase of a two (2) Tie handling cranes to be utilized under MW capital and Maintenance projects. This equipment is planned for the Head End gang (UC) - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0013 EQIR ENG EQUIP PURCHASE TIE CRANE-2				
C.EN.101757.0013 EQIR ENG EQUIP PURCHASE TIE CRANE-2	Units not applicable	10/1/2020	9/30/2021	\$1,652,559
<i>EQIR ENG EQUIP PURCHASE 04S TAMPER-2 For the purchase of two (2) 04S Tamper for MW capital and maintenance projects. This equipment is planned for the High Speed Surfacing - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0025 EQIR ENG EQUIP PURCHASE 04S TAMPER-2				
C.EN.101757.0025 EQIR ENG EQUIP PURCHASE 04S TAMPER-2	Units not applicable	10/1/2020	9/30/2021	\$7,365,462
<i>EQIR ENG EQUIP PUR BALLAST MANAGEMENT-3 For the purchase of two (2) Ballast Management for MW capital and maintenance projects. This equipment is planned for the Reference Surfacing - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0034 EQIR ENG EQUIP PUR BALLAST MANAGEMENT-3				
C.EN.101757.0034 EQIR ENG EQUIP PUR BALLAST MANAGEMENT-3	Units not applicable	10/1/2020	9/30/2021	\$7,289,950
<i>EQIR ENG EQUIP PURCHASE STABILIZER-2 For the purchase of two (2) Stabilizers for MW capital and maintenance projects. This equipment is planned for the high Speed Surfacing - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0036 EQIR ENG EQUIP PURCHASE STABILIZER-2				
C.EN.101757.0036 EQIR ENG EQUIP PURCHASE STABILIZER-2	Units not applicable	10/1/2020	9/30/2021	\$2,356,978
<i>EQIR ENG EQUIP PURCHASE-KIROW CRANE SYS For the purchase of a new Kirow Crane system - which includes The Crane, the 2 tilt cars, and the lifting beam.</i>				
C.EN.101757.0037 EQIR ENG EQUIP PURCHASE-KIROW CRANE SYS				
C.EN.101757.0037 EQIR ENG EQUIP PURCHASE-KIROW CRANE SYS	Units not applicable	10/1/2020	9/30/2021	\$2,544,459
<i>EQIR ENG ROLL STCK PURCH MFS40 CARS-50 For the purchase of 50 MFS40 Ballast Cars to support work along Amtrak's Undercutter gangs. It is part of the 5 year M/W Capital Equipment Plan Cost is 50 x \$850,000 = \$42,500,000.</i>				
C.EN.101757.0038 EQIR ENG ROLL STCK PURCH MFS40 CARS-50				
C.EN.101757.0038 EQIR ENG ROLL STCK PURCH MFS40 CARS-50	Units not applicable	10/1/2020	9/30/2021	\$749,949
<i>EQIR ENG EQUIP PURCHASE BRANDT TRUCK-3 For the purchase of three (3) Brandt Trucks for MW capital and maintenance projects. This equipment is planned for the 1 TLS gang and 2 Undercutting gangs - if needed they will be moved in the future to other gangs.</i>				
C.EN.101757.0041 EQIR ENG EQUIP PURCHASE BRANDT TRUCK-3				
C.EN.101757.0041 EQIR ENG EQUIP PURCHASE BRANDT TRUCK-3	Units not applicable	10/1/2020	9/30/2021	\$3,214,056
PG00053 - Engineering Equipment Heavy Overhaul - C.EN.100157				
<i>Heavy Overhaul of the following Engineering Roadway Machines: N25001 Track Laying Machine, A14907 Track Undercutter, A26708 Ballast Cribber, A26709 Ballast Cribber, A18301 Portal Crane, A18302 Portal Crane, A18101 Raupenwagon, A18102 Raupenwagon, A21916 Tie Insertor/Remover, A21917 Tie Insertor/Remover, A21918 Tie Insertor/Remover, A21919 Tie Insertor/Remover, A21920 Tie Insertor/Remover, A11270 HST Tamper, A10107 HST Tamper, A23256 Spike Driver, A23252 Spike Driver, A25306 E-Clip Applicator, A25310 Fast Clip Applicator, A10806, A14644 BMS100, & A14645 BMS200</i>				
Engineering Equipment Overhaul - Heavy Overhaul				
C.EN.100157.0001 EQIRCATCHER - HEAVY OVERHAUL LBR	Units not applicable	10/1/2020	9/28/2021	\$9,651,601
PG00054 - Engineering Equipment Acquisition - C.EN.100285				
<i>Acquisition of various pieces of M/W equipment to attempt to bring the M/W Equipment fleet to a state of good repair</i>				
Undercutter Rebuild				
C.EN.100285.0001 EQIR UNDERCUTTER REBUILD	Units not applicable	10/1/2020	9/28/2021	\$14,552,142
PG00056 - Engineering Vehicle Acquisition - C.EN.101455				
<i>7 upgraded Class J2 trucks, 2 class N9 trucks, 2 Class N7 trucks, 1 Class G9 truck, 5 Brandt Trucks, and 5 lease buyouts.</i>				
Undercutter Rebuild				
C.EN.100285.0001 EQIR UNDERCUTTER REBUILD	Units not applicable	10/1/2020	9/28/2021	\$14,552,142

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Investment Description and FY21 Scope	Units	Start Date	End Date	FY21 Budget
Engineering Vehicle Purchase - Boom Truck				
C.EN.101455.0067 EQIV ENG EQUIP PURCHASE BOOM TRUCK-2	Units not applicable	10/1/2020	12/31/2020	\$804,300
Engineering Vehicle Purchase - Fuel/Truck				
C.EN.101455.0069 EQIV ENG EQUIP PURCHASE FUEL/LUBE TRUCK	Units not applicable	10/1/2020	12/31/2020	\$246,652
Engineering Vehicle Purchase - Hirail Truck				
C.EN.101455.0001 EQIV VEHICLE ACQ-HIRAIL AERAIL TRUCKS-18	Units not applicable	10/1/2020	9/28/2021	\$5,109,363
Engineering Vehicle Purchase - Welding Truck				
C.EN.101455.0064 EQIV ENG EQUIP PUR THERMITE WELD TRUCK-5	Units not applicable	10/1/2020	12/31/2020	\$1,394,120
C.EN.101455.0065 EQIV ENG EQUIP PURCH E/A WELDING TRUCK-2	Units not applicable	10/1/2020	7/2/2021	\$514,753
PG00057 - TLS Concrete Tie Replacement - C.EN.101652				
80,134 Concrete Ties; 320,534 FT CWR				
Survey & Design				
901652.9001 TLS AMTRAK SYSTEM - SURVEY & DESIGN	Units not applicable	10/1/2020	9/30/2021	\$241,291
PG00089-NEC Trip Time Reduction-C.EN.101909				
Increase speed from 80 mph to 110 mph on Track #1 between Bacon and Davis Interlockings with exceptions of curves at MP 47, MP 48, and MP 50. Increase speed to 160 mph at locations where the current MAS is 150 mph near Route 128 in Kingston, RI. Increase speeds on Track #1 between Baltimore and Washington as per RRIF funded work .				
Design				
Final Design	Units not applicable	10/1/2020	9/30/2021	\$275,413
Force Account				
AMTRAK CONSTRUCTION (F/A)	Units not applicable	10/1/2020	9/30/2021	\$1,066,257
Project Management				
Project management	Units not applicable	10/1/2020	9/30/2021	\$41,740
BCC Segment 31 Programs Total				\$141,491,994

Projects

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
BCC Eligible			
P000016 - Sunnyside Yard Service Platform Upgrade - C.EN.101433			
Replacement of steel plates and concrete patching that required immediate attention to address safety concerns.			
C.EN.101433.0009 MOFW SSYD PLTFRM REHAB/WATER SERVICE F/A	12/1/2020	3/2/2023	\$360,326
P000030 - PTC NEC Secure Wireless Communications Installation - C.EN.101537			
FY21 Scope not available.			
C.EN.101537.0008 PTC PHASE 2 TASK 4- INTEROP/MAINT	11/2/2020	1/28/2022	\$378,950
C.EN.101537.0009 PTC SECURE WIRELESS COMM-PRJ MGT.	11/1/2019	7/31/2020	\$38,103
P000077 - Sunnyside Yard Frequency Converter Upgrade - C.EN.101239			
Complete 30% preliminary engineering design and commence procurement of a Design Build contractor			
C.EN.101239.7201 FREQ SSYD-CONVERTER RPL PROJECT SUPPORT	10/1/2020	2/26/2025	\$19,305
P000085 - Washington to Boston ARINC to AMTEC Software Upgrade - C.EN.101767			
Design to 60%, AMTEC software for Chicago dispatching office. Develop and complete an AMTEC ET SCADA interface software for Boston and Wilmington dispatching offices. Develop and complete IETMS software interface for Wilmington and Chicago dispatching offices, required for PTC implementation.			

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Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
C.EN.101767.0010 CETC NEW ENG DIV-AMTEC UPG PRJ MGT.	10/1/2020	4/29/2022	\$92,012
C.EN.101767.0011 CETC NEW ENG DIV-AMTEC UPG TRAINING	1/4/2021	2/1/2021	\$23,280
PH C.EN.101767.0013 CETC-NED/MAD-AMTEC SCADA/IETMS PRELM DSGN	10/1/2020	12/31/2020	\$46,521
PH C.EN.101767.0014 CETC-NED/MAD-AMTEC SCADA/IETMS FINAL DSGN	1/4/2021	9/30/2021	\$108,552
PH C.EN.101767.0015 CETC-NED/MAD-AMTEC SCADA/IETMS INSTALL	1/4/2021	6/30/2021	\$920,856
P000109 - Brill to Landlith OCS Improvements - C.EN.101880			
<i>Initiate preliminary design to be contracted out, advance the design to a conceptual design and prepare NEPA, environmental & SHPO documents.</i>			
C.EN.101880.0001 CAT BRILL/LANDLITH RENEW-CONCEPT DESIGN	10/1/2020	4/15/2021	\$949,071
C.EN.101880.0002 CAT BRILL/LANDLITH RENEW-PRELIM DESIGN	11/3/2020	11/24/2021	\$1,067,873
C.EN.101880.0003 CAT BRILL/LANDLITH RENEW-DESIGN REVIEW	10/1/2020	11/24/2021	\$157,657
C.EN.101880.0004 CAT BRILL/LANDLITH RENEW-RWP/FLAG SUPP	10/1/2020	11/24/2021	\$166,313
C.EN.101880.8000 CAT BRILL/LANDLITH RENEW-PROJ. MGMT.	10/1/2020	7/23/2027	\$2,346,660
P000112 - Penn Coach Yard High Mast Lighting - C.EN.101874			
<i>Procure and award a design contract, develop the design and procure a construction contractor.</i>			
C.EN.101874.0001 MOFW PCY PA HIGH MAST LIGHT-PRELIM ENG.	12/1/2020	12/31/2020	\$32,172
C.EN.101874.0002 MOFW PCY PA HIGH MAST LIGHT-FINAL DESIGN	3/30/2021	9/8/2021	\$112,601
C.EN.101874.0003 MOFW PCY PA HIGH MAST LIGHT-CONSTRUCTION	2/1/2021	9/23/2021	\$950,657
C.EN.101874.0004 MOFW PCY PA HIGH MAST LIGHT-CNSTRUCT MGT	2/1/2021	9/23/2021	\$58,769
C.EN.101874.0005 MOFW PCY PA HIGH MAST LIGHT-PROJECT MGT	12/1/2020	8/26/2021	\$26,809
P000114 - Penn Coach Yard Water Main Replacement - C.EN.101876			
<i>Procure and award a design contract, develop the design and procure a construction contractor.</i>			
C.EN.101876.2100 MOFW PENN COACH YD WATER MAIN-60% DSN	10/1/2020	12/29/2020	\$160,860
C.EN.101876.2400 MOFW PENN COACH YD WATER MAIN-DSN REVW	10/1/2020	12/29/2020	\$20,376
C.EN.101876.7100 MOFW PENN COACH YD WATER MAIN-PM	10/1/2020	9/29/2022	\$33,247
P000120 - Mid-Atlantic South Signal System Upgrades to 562 - C.EN.101872			
<i>Design of two segments for 562 upgrades- Magnolia to Wood, and CP Ave to Landover. Construction of 562 upgrades from Bush to Magnolia, including Switch and signal case replacement with new switch and signal cables and new track wires, and interlocking signals replacement.</i>			
C.EN.101872.9000 ABS MADDS CONVERT TK CIRCUITS 562-PM	10/1/2020	9/30/2024	\$187,670
P000158 - Electric Traction System Aerial System Assessment - C.EN.101809			
<i>FY21 scope includes capturing 5000 Structures and entering into existing database</i>			
C.EN.101809.0001 CAT ET SYS AERIAL ASSESSMENT-CONTRACTOR	10/1/2020	9/27/2024	\$1,951,769
C.EN.101809.0002 CAT ET SYS AERIAL ASSESSMENT-PROJ. MGT.	10/1/2020	9/27/2024	\$26,810
P000160 - Movable Point Frog Switch Machine Rod Replacement - C.EN.101894			
<i>The FY 21 scope is to complete the remaining 54 turnouts.</i>			
C.EN.101894.0015 INT MPF HST ROD REPLACE-PROJ. MGMT.	10/1/2020	9/29/2021	\$55,570
BCC Ineligible			

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Investment Description and FY21 Scope	Start Date	End Date	FY21 Budget
P000135 - Penn Coach Yard Paving Improvements - C.EN.101807			
<i>Complete design, obtain permits, procure a construction contractor and construction management support.</i>			
C.EN.101807.2100 MOFW PCY PAVING/DRAINAGE IMPRV 60% DSN	10/1/2020	8/18/2021	\$171,588
C.EN.101807.2400 MOFW PCY PAVING/DRAIN IMPRV DSN REVIEW	8/19/2021	9/30/2021	\$21,448
C.EN.101807.7100 MOFW PCY PAVING/DRAINAGE IMPRV PM	10/1/2020	6/29/2023	\$65,731
P000151 - Acela 21 Electric Traction - Load Flow Study - C.EN.101887			
<i>Study ET system capacity and the impacts of the Acela 21 operating plan to ensure ET infrastructure can support the roll-out and full deployment of the new fleet. The Scope of work is to perform an entire analysis on the 25Hz Electric Traction system and identify potential problem areas, identify capacity shortfalls, and make recommendations for upgrades and capacity enhancements. The Scope of this applies only to the Electric Traction system South of Bowery Bay (Hell Gate Line) phase break in New York to the end of catenary in the First Street Tunnel, South of Washington Union Station, as well as West to Harrisburg.</i>			
C.EN.101887.0001 TRN ACELA 21 E.T. LOAD FLOW STUDY-CONCEP	10/1/2020	8/23/2021	\$368,539
C.EN.101887.0002 TRN ACELA 21 E.T. LOAD FLOW STUDY-PM	10/1/2020	8/30/2021	\$10,725
P000178-MofE- ICT Facility Program - Program Management-C.EN.101907			
<i>FY21 Scope not available.</i>			
C.EN.EEEEE.0002 – Project Management	10/1/2020	9/30/2027	\$604,190
C.EN.EEEEE.0003 – Project/Program Support	10/1/2020	9/30/2027	\$269,344
BCC Segment 31 Projects Total			\$13,011,118

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

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FY21-25 Capital renewal plans by owner

MBTA FY21-25 capital renewal plan

Name/title (description)	BCC-Eligibility	FY21 Scope	FY21 Units	FY21 Schedule	FY21 Budget
Battery Bank Replacement Program	BCC Eligible	Replace Battery Banks at Interlockings between MP190.9 - MP229.0	1 Lump Sum	October 1, 2020 - September 30, 2021	\$138,880
Concrete Tie Replacement Program	BCC Eligible				\$0
CWR Replacement Program	BCC Eligible	4000 LF Rail - Location TBD	4000 LF	June 1, 2021 - August 31, 2021	\$715,000
Emergency Egress Upgrades Project	BCC Eligible	Complete the installation of new enclosures with vertical doors at six emergency egress locations.	6 Locations	October 1, 2020 - September 30, 2021	\$1,000,000
Fuse Upgrade Program	BCC Eligible	Upgrade to slow burn fuses at interlockings between MP190.9 - MP229.0.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$146,556
Gas Hot Air Switch Blower Program	BCC Eligible	Install Gas Hot Air Blower Switch Heaters (4 Units) - Location TBD	4 Units	April 1, 2021 - September 30, 2021	\$450,000
Hawk Hot Box / Dragging Equipment Detector Upgrade Project	BCC Eligible	Procure the equipment and install the replacement hot box / dragging equipment detector at MP208.7.	1 Units	April 1, 2021 - September 30, 2021	\$300,000
Insulated Joint Program	BCC Eligible	20 Insulated Joints - MP190.9 - MP229.0	20 Units	October 1, 2020 - September 30, 2021	\$194,195
Interlocking Crossover Replacement Program	BCC Eligible	Transfer 13 Turnout Replacement	1 Turnout	July 1, 2021 - August 31, 2021	\$750,000
Interlocking RTU Upgrades Project	BCC Eligible	Complete the upgrades of remote terminal units at Hebronville I/L, Holden I/L, Junction I/L, and Mansfield I/L.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$481,087
Interlocking Signal System Upgrades Program	BCC Eligible	No work planned in FY21 under this program.			\$0
Interlocking Steel Replacement Program	BCC Eligible	Replace 5 Units Interlocking Steel - MP190.9 - MP229.0	5 Units	October 1, 2020 - September 30, 2021	\$276,067
Joint Elimination Program	BCC Eligible	50 Thermite Welds - MP190.9 - MP229.0	50 Units	October 1, 2020 - September 30, 2021	\$269,250
M3 Switch Machine Program	BCC Eligible	Upgrade to M3 Switch Machines at 8 locations between MP190.9 and MP229.0.	8 Units	October 1, 2020 - September 30, 2021	\$375,995
Out Of Face Surfacing Program	BCC Eligible	100,000 Pass-Feet of Out-of-Face High Speed Surfacing - MP190.9 - MP229.0	100,000 Pass-Feet	October 1, 2020 - September 30, 2021	\$1,076,891
Power and Express Cable Upgrade Project	BCC Eligible	Complete the installation of 21,000 feet of power, express, and communication cable between Read I/L and Forest I/L.	1 Lump Sum	October 1, 2020 - December 31, 2020	\$1,000,000
RoW Fence Upgrades Program	BCC Eligible	Install impasse fence in Hyde Park, MA along Track 3.	2,800 Linear Feet	October 1, 2020 - December 31, 2020	\$1,250,000
Rail Grinding Program	BCC Eligible				\$0
Readville Material Control Warehouse Project	BCC Eligible	Complete the design and construction of a material control warehouse at Yard 5, Readville, MA.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$1,545,697

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

FY22 Scope	FY22 Units	FY22 Schedule	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
Replace Battery Banks at Interlockings between MP190.9 - MP229.0	1 Lump Sum	October 1, 2021 - September 30, 2022	\$1,240,000	\$167,000	\$0	\$0
			\$0	\$18,000,000	\$18,000,000	\$0
4000 LF Rail - Location TBD	4000 LF	June 1, 2022 - August 30, 2022	\$730,000	\$745,000	\$760,000	\$782,800
Complete the installation of new enclosures with vertical doors at six emergency egress locations.	6 Locations	October 1, 2021 - September 30, 2022	\$1,000,000	\$1,000,000	\$0	\$0
			\$0	\$0	\$0	\$0
Install Gas Hot Air Blower Switch Heaters (4 Units) - Location TBD	4 Units	October 1, 2021 - September 30, 2022	\$500,000	\$550,000	\$600,000	\$625,000
			\$0	\$0	\$0	\$0
20 Insulated Joints - MP190.9 - MP229.0	20 Units	October 1, 2021 - September 30, 2022	\$199,050	\$204,027	\$209,127	\$215,400
Interlocking Crossover Replacements - Locations TBD	2 Units	October 1, 2021 - September 30, 2022	\$2,100,000	\$4,000,000	\$3,250,000	\$0
			\$0	\$0	\$0	\$0
Placeholder for interlocking signal system upgrades at Read I/L and Plains I/L		October 1, 2021 - September 30, 2022	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
Replace 5 Units Interlocking Steel - MP190.9 - MP229.0	5 Units	October 1, 2021 - September 30, 2022	\$284,349	\$292,880	\$301,666	\$310,715
50 Thermite Welds - MP190.9 - MP229.0	50 Units	October 1, 2021 - September 30, 2022	\$276,000	\$283,000	\$290,000	\$298,700
Upgrade to M3 Switch Machines at 8 locations between MP190.9 and MP229.0.	8 Units	October 1, 2021 - September 30, 2022	\$385,395	\$395,029	\$404,905	\$417,052
100,000 Pass-Feet of Out-of-Face High Speed Surfacing - MP190.9 - MP229.0	100,000 Pass-Feet	October 1, 2021 - September 30, 2022	\$1,105,592	\$1,133,232	\$1,161,563	\$1,196,409
			\$0	\$0	\$0	\$0
Install impasse fence in Hyde Park, MA along Track 1.	3,200 Linear Feet	October 1, 2021 - September 30, 2022	\$1,400,000	\$1,250,000	\$1,250,000	\$1,250,000
Rail Grinding - Location TBD	1 Lump Sum	May 1, 2022 - June 30, 2022	\$250,000	\$0	\$0	\$250,000
			\$0	\$0	\$0	\$0

MBTA capital renewal plan continued on the next page >>>

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

MBTA FY21-25 capital renewal plan (continued)

Name/title (description)	BCC-Eligibility	FY21 Scope	FY21 Units	FY21 Schedule	FY21 Budget
South Station Tie and Rail Replacement Project	BCC Eligible	Complete the upgrade to concrete guardrail ties and replace the rail, clip, pads, insulators, and ballast to Tracks 1-2 at South Station.	1,534 Track Feet	August 1, 2021 - September 30, 2021	\$2,726,887
Southampton Street and South Bay I/L Upgrades Project	BCC Eligible	Begin the design phase for the South Bay I/L upgrades and backup generators. Procure and install DTMF switches at Southampton Street Yard. Procure and install transformer at South Bay I/L.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$2,885,148
Spot Surfacing Program	BCC Eligible	60,000 Feet of Spot Surfacing - MP190.9 - MP229.0	60,000 Feet	October 1, 2020 - September 30, 2021	\$1,725,895
Spot Undercutting Program	BCC Eligible	150 Feet of Spot Undercutting - MP190.9 - MP229.0	150 Feet	October 1, 2020 - September 30, 2021	\$303,469
Switch Heater Cabinet / Control Program	BCC Eligible	Replace Switch Heater Cabinet / Controls - Plains I/L	1 Units	June 1, 2021 - August 31, 2021	\$350,000
TAMS Upgrades Project	BCC Eligible	Upgrade TAMS system at Canton Junction Station (Canton, MA), MP 213.7, Ruggles Street Station (MP226.4), Forest Hills Station (MP223.8), Mansfield Station (MP204.0), and Sharon Station (MP210.6).	1 Lump Sum	October 1, 2020 - September 30, 2021	\$3,228,565
Tie/Timber Program	BCC Eligible	Replace 800 ties/timbers - MP190.9 - MP229.0	800 Units	October 1, 2020 - September 30, 2021	\$686,687
Track Circuit Protection Program	BCC Eligible	Surge Protector replacements between MP190.9 and MP229.0.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$100,000
Track Lead Replacement Program	BCC Eligible	Replace Track Leads between MP190.9 and MP229.0	1 Lump Sum	October 1, 2020 - September 30, 2021	\$370,000
Tree Cutting Program	BCC Eligible	50 weeks tree cutting program - MP190.9 - MP229.0	50 Weeks	October 1, 2020 - September 30, 2021	\$1,050,625
Undergrade Bridge Upgrades Program	BCC Eligible	Complete upgrades and retirements of undergrade bridges at locations TBD.	1 Lump Sum	October 1, 2020 - September 30, 2021	\$360,858
Undergrade Bridge Upgrades Program	BCC Eligible	Install anti-graffiti coating installed at four undergrade bridges (MP203.85, MP204.44, 206.42, and MP212.02).	4 Locations	April 1, 2021 - September 30, 2021	\$454,135
Total					\$24,211,887

Note: MBTA plans to spend approximately \$11 million on the Special Project "Tower 1 Interlocking" (see pg. 208) during FY21. As all of the planned work on Tower One is considered BCC-eligible, MBTA can put any remaining FY21 BCCs towards that project, if needed.

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

FY22 Scope	FY22 Units	FY22 Schedule	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
Complete the upgrade to concrete guardrail ties and replace the rail, clip, pads, insulators, and ballast to Tracks 3-13 at South Station.	10,986 Track Feet	October 1, 2021 - August 31, 2022	\$17,677,211	\$0	\$0	\$0
Complete the design and begin the installation of upgrades at South Bay I/L and backup generators.	1 Lump Sum	October 1, 2021 - September 30, 2022	\$1,657,129	\$4,149,912	\$0	\$0
60,000 Feet of Spot Surfacing - MP190.9 - MP229.0	60,000 Feet	October 1, 2021 - September 30, 2022	\$1,777,672	\$1,831,002	\$1,885,933	\$1,942,510
150 Feet of Spot Undercutting - MP190.9 - MP229.0	150 Feet	October 1, 2021 - September 30, 2022	\$312,601	\$321,979	\$331,638	\$341,587
Replace Switch Hear Cabinet / Controls - Location TBD	1 Units	October 1, 2021 - September 30, 2022	\$358,750	\$367,719	\$376,912	\$0
Upgrade TAMS system at South Attleboro Station (MP191.7) and Hyde Park Station (MP220.4).	1 Lump Sum	October 1, 2021 - December 31, 2021	\$855,402	\$0	\$0	\$0
Replace 800 ties/timbers - MP190.9 - MP229.0	800 Units	October 1, 2021 - September 30, 2022	\$703,855	\$721,451	\$739,487	\$761,671
			\$0	\$0	\$0	\$0
			\$0	\$0	\$0	\$0
50 weeks tree cutting program - MP190.9 - MP229.0	50 Weeks	October 1, 2021 - September 30, 2022	\$1,076,891	\$1,103,813	\$1,131,408	\$1,165,350
Complete upgrades and retirements of undergrade bridges at locations TBD.	1 Lump Sum	October 1, 2021 - September 30, 2022	\$426,930	\$347,989	\$395,358	\$0
Install anti-graffiti coating installed at four undergrade bridges - locations TBD.	4 Locations	October 1, 2021 - September 30, 2022	\$465,489	\$477,126	\$0	\$0
			\$39,782,316	\$42,341,159	\$36,087,997	\$14,557,194

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Connecticut DOT FY21-25 capital renewal plan

Name/title (description)	BCC-Eligibility	FY21 Budget	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
NHL - ALL Movable Bridge Repairs	BCC Eligible	\$12,000,000	\$15,000,000	\$18,000,000	\$18,000,000	\$20,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
Cos Cob Interim Repairs (DOT03010173CN).	Complete Design and begin procurement with Metro North	\$6,000,000	Units not available	30% Design Complete; Construction in 2022-2023		
SAGA Interim Repairs (DOT03010177CN).	Complete Design and begin procurement with Metro North	\$6,000,000	Units not available	30% Design in September 2020, Construction in 2022-2023		
NHL CT - Bridge Design	BCC Eligible	\$3,200,000	\$3,600,000	\$4,000,000	\$4,500,000	\$5,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03000175PE (Bridge Design).	On-going Program	\$3,200,000	Units not available	On-going Program		
NHL CT - Bridge Replacement/Repair Program	BCC Eligible	\$8,000,000	\$10,000,000	\$25,000,000	\$30,000,000	\$40,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
NHL CT - Bridge Replacement/Repair Program	On-going Program	\$8,000,000	Units not available	On-going Program		
NHL CT - Bridges - Atlantic Street Bridge, Stamford including Yard/Platform/Catenary	BCC Eligible	\$20,000,000	\$15,000,000	\$5,000,000	\$0	\$0
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
NHL CT - Bridges - Atlantic Street Bridge, Stamford including Yard/Platform/Catenary	Complete Construction of Bridge, Begin catenary modifications	\$20,000,000	Units not available	Catenary Work Complete 2023		
NHL CT - Bridges - East Ave, Osbourne and Fort Point Bridges	BCC Eligible	\$10,000,000	\$35,000,000	\$35,000,000	\$35,000,000	\$35,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
NHL CT - Bridges - East Ave, Osbourne and Fort Point Bridges	Begin utility relocations	\$10,000,000	Units not available	Construction Complete 2025		
NHL CT - Bridges - Main Street Stratford, East Main Street Stratford	BCC Eligible	\$0	\$0	\$0	\$0	\$8,000,000
NHL CT - Catenary Replacement - Segments C1A and C2 - Construction (DOT03010145CN). Replacement of existing Catenary with Auto-Tension Catenary CP-241 to CP248(C1A) and CP255 to CP261(C2)	BCC Eligible	\$5,000,000	\$3,000,000	\$0	\$0	\$0
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
Segments C1A and C2 - Construction (DOT03010145CN).	Track 4 will be completed in sections C1A and C2. Conductor Rail installation on tracks 3 and 1 for section C2 on Devon Bridge. Project will be completed.	\$5,000,000	Units not available	Complete Construction 9/1/2021		
NHL CT - Catenary Section A SOGR	BCC Eligible	\$0	\$0	\$0	\$5,000,000	\$10,000,000

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Name/title (description)	BCC-Eligibility	FY21 Budget	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
NHL CT - Network Infrastructure Upgrade - All Phases	BCC Eligible	\$12,000,000	\$12,000,000	\$14,000,000	\$16,000,000	\$18,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03000150CN (Network Infrastructure Upgrade)	Project Complete	\$0	Units not available	Project Complete		
DOT03000178CN (Network Infrastructure Upgrade Phase 2).	Continue Construction	\$3,000,000	Units not available	Project completion Dec. 2020		
DOT03000178PE (Network Infrastructure Upgrade Phase 2).	Design Phase is complete	\$0	Units not available	Design Complete		
DOT03000202CN (Network Infrastructure Upgrade Phase 3).	On-going Construction	\$3,000,000	Units not available	Project Completion Dec 2021		
DOT03000202PE (Network Infrastructure Upgrade Phase 3).	Design Phase is complete	\$3,000,000	Units not available	Design Complete		
DOT03000215CN (Network Infrastructure Upgrade Phase 4).	No Activity	\$0	Units not available	Schedule TBD		
DOT03000215PE (Network Infrastructure Upgrade Phase 4).	Preliminary Engineering	\$3,000,000	Units not available	Design Complete 2022		
NHL CT - Signal System Replacement Future Phases	BCC Eligible	\$0	\$10,000,000	\$15,000,000	\$18,000,000	\$18,000,000
NHL CT - Signal System Replacement Phase 1	BCC Eligible	\$10,000,000	\$10,000,000	\$10,000,000	\$0	\$0
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03010154CN (Signal System).	On-going Construction	\$5,000,000	Units not available	Project Complete December 2020		
DOT03010XXXCN (Signal System Phase 2, 3/4).	Preliminary Engineering	\$5,000,000	Units not available	Design Complete 8/2024		
NHL CT - Track Program (C Program)	BCC Eligible	\$22,000,000	\$22,000,000	\$24,000,000	\$26,000,000	\$28,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
C-30 (DOT03000182CN).	Purchase and install concrete and wood ties, undercut tracks, surface track, purchase 32 track miles of new 136lb rail for various curve, purchase and install switch at CP234.	\$0	Units not available	Project Complete in Closeout		
C-31 (DOT03000190CN).	Purchase and install wood ties, surface track, install 17.6 track miles of new 136lb rail for various curves, purchase and install Switch at CP 272. MP 26 - MP 72	\$1,000,000	Install wood ties; Rail Installation; Switch replacement CP 272; Out of Face Surfacing	12/31/20 completion		
C-32 (DOT03000206CN).	Purchase and install wood ties, surface track, install 14.4 track miles of new 136lb rail for various curves, purchase and install Switch at CP 271, Drainage Improvements at various location	\$17,000,000	Install wood ties (9/20-9/21); Rail Installation (9/20-11/21); Switches CP 271/ Stamford (9/20-12/21); Out of Face Surfacing (9/20-12/21)			
Track and Speed Improvements (TIME) DOT03000214PE	Initiate design and select consultant.	\$4,000,000	Units not available	Complete Design in March 2023		

Connecticut DOT capital renewal plan continued on the next page >>>

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Connecticut DOT FY21-25 capital renewal plan (continued)

Name/title (description)	BCC-Eligibility	FY21 Budget	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
NHL S program/Timber Program	BCC Eligible	\$6,000,000	\$7,500,000	\$9,000,000	\$9,800,000	\$10,800,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03000161CN (Bridge Timber Program).	MP 33.75, MP 40.89, MP 41.28, MP 55.03 and MP 29.90, MP 29.90, MP 29.48, MP 29.68	\$0	Units not available	Project Complete in Closeout		
DOT03000195CN (S-22).	MP 33.41, MP 59.01, MP 59.96."	\$1,000,000	Install wood ties; Rail Installation; Switch replacement CP 272; Out of Face Surfacing	12/31/20 completion		
DOT03000207CN (S-23).	MP 33.75, MP 34.17, MP 33.72, MP 43.97, MP 49.66, MP 54.58, MP 56.35, MP 57.46, MP70.36"	\$4,000,000	Units not available	Complete Design in March 2023		
Positive Train Control	BCC Eligible	\$15,000,000	\$15,000,000	\$15,000,000	\$15,000,000	\$0
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
Positive Train Control DOT030000149CN	Complete installation for the New Haven mainline and put all segments into Revenue Service Demonstration	\$15,000,000	Units not available	Put all segments in to RSD by December 31, 2020.		
Substation Repairs/Improvements	BCC Eligible	\$6,000,000	\$5,000,000	\$5,000,000	\$5,000,000	\$5,000,000
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03010511 (Devon Transformer)	Continue procurement	\$0	Units not available	Installation Scheduled to Begin 2022		
DOT03010505CN (Sasco Creek Power Supply) DOT03010508CN (Oil Filled Circuit Breakers)DOT03010517CN (HMI)	Complete Procurement of Sasco Creek Transformers, begin installation	\$6,000,000	Units not available	Start installation of Sasco Creek March 2021.		
Substation Replacements	BCC Eligible	\$2,000,000	\$0	\$0	\$0	
<u>FY21 Scope, Budget, Units, Schedule Details</u>						
DOT03010072CN (5 Substations). DOT03010153CN (6th Substation)	Complete Construction of Substation 524, demolish old substation	\$0	Units not available	Complete Construction 9/1/2021		
Total		\$131,200,000	\$163,100,000	\$179,000,000	\$182,300,000	\$197,800,000

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Metro-North Railroad FY21-25 capital renewal plan

Name/title (description)	BCC-Eligibility	FY21 Scope	FY21 Units	FY21 Schedule	FY21 Budget
Comms & Signal Program	BCC Eligible	Work may include component replacement of Communications and Signal systems	Not applicable	Ongoing	\$500,000
OH Bridge Rehabilitation Program: Centre Av Bridge Replacement	BCC Eligible	Advertise 3rd party contract for design effort Begin 3rd party design contract	None specified	Design anticipated for FFY21	\$2,000,000
OH Bridge Rehabilitation: Design for NH Bridge replacements	BCC Eligible	Advertise 3rd party contract for design effort Begin 3rd party design contract	None specified	Design anticipated for FFY21	\$2,000,000
Retaining Wall Reconstruction: Port Chester Retaining Wall	BCC Eligible	Continue construction efforts	None specified	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of Willet Av and Highland Road Bridges in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$750,000
Structures Program	BCC Eligible	Work may include replacing deteriorated bridge culverts, bridge timbers, installing bridge walkways and ROW fencing	Not applicable	Ongoing	\$250,000
Substation 128 and 178 replacement	BCC Eligible	Complete preliminary design effort. Prepare documents for design-build procurement. Advertise 3rd party design-build procurement."	None specified	Ongoing design work is anticipated to conclude FFY21 Q3	\$2,000,000
System-wide Support Programs	BCC Eligible	Ongoing work associated with the delivery of capital program projects at MNR.	Not applicable	Ongoing	\$450,000
Track Programs	BCC Eligible	Work may include track replacement, ballast and timber work, interlocking replacement, procurement of MOW equipment	Not applicable	Ongoing	\$2,250,000
UG Bridge Rehabilitation Program: Willet Av and Highland Rd Bridge Replacement	BCC Eligible	Continue construction efforts	None specified	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of retaining walls in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$9,000,000
Total					\$19,200,000

Note: This information is accurate as of August 1, 2020. As of August 1, 2020, the MTA has not announced any changes to the 2020-2024 Capital Program due to financial impacts caused by the COVID-19 pandemic. Annual allocations for projects and programs are based on the MTA 2020-2024 Capital Program, as approved on December 31, 2019 by MTA Capital Program Review Board. Subject to change as project implementations proceed. FFY 2025 is beyond the scope of the current MTA Capital Program.

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

FY22 Scope	FY22 Units	FY22 Schedule	FY22 Budget	FY23 Budget	FY24 Budget	FY25 Budget
Work may include component replacement of Communications and Signal systems	Not applicable	Ongoing	\$500,000	\$500,000	\$500,000	\$500,000
Continue design efforts; complete preliminary design. Determine feasibility for 3rd party design-build contract for bridge replacement.	None specified	Design tasks anticipated for FFY22	\$2,000,000	\$8,000,000	\$8,000,000	\$1,000,000
Continue design efforts; continue advancing preliminary design for OH bridge replacements	None specified	Design tasks anticipated for FFY22	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Continue construction efforts, complete retaining wall reconstruction	None specified	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of Willet Av and Highland Road Bridges in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$750,000	\$0	\$0	\$0
Work may include replacing deteriorated bridge culverts, bridge timbers, installing bridge walkways and ROW fencing	Not applicable	Ongoing	\$250,000	\$250,000	\$250,000	\$250,000
Begin design-build contract for substation replacements. Activities include final design, review and construction	Not applicable	Design-Build contract anticipated to begin in FY22 Q1 and last for 3 years	\$13,000,000	\$13,000,000	\$12,500,000	\$0
Ongoing work associated with the delivery of capital program projects at MNR.	Not applicable	Ongoing	\$450,000	\$450,000	\$450,000	\$100,000
Work may include track replacement, ballast and timber work, interlocking replacement, procurement of MOW equipment	Not applicable	Ongoing	\$2,250,000	\$2,250,000	\$2,250,000	\$2,250,000
Continue construction efforts, complete bridge replacement	None specified	This work will require a mix of off-peak, weekend, and continuous outages on one track at a time between CP 223 and CP 229 beginning in October FFY21 to the end of FFY21. This work is planned in parallel with the replacement of retaining walls in Port Chester, NY. Service plans for 3-track operation in this segment have been developed by MNR with input from Amtrak. No reduction in service is expected.	\$9,000,000	\$0	\$0	\$0
			\$30,200,000	\$26,450,000	\$25,950,000	\$6,100,000

Tables include a subset of submitted capital renewal data. For complete details including BCC segment breakdown, go to nec-commission.com.

Amtrak FY21-25 capital renewal plan

Discipline and Region	FY21	FY22	FY23	FY24	FY25
3rd Party	\$232,901	-	-	-	-
NEC Main Line	\$0	-	-	-	-
NEC Branch Lines	\$232,901	-	-	-	-
Admin	\$32,941,225	-	-	-	-
NEC Main Line	\$31,982,638	-	-	-	-
NEC Branch Lines	\$958,587	-	-	-	-
Communication & Signals	\$91,896,359	\$30,353,334	\$33,032,212	\$31,458,762	\$30,746,422
NEC Main Line	\$68,308,006	\$23,415,034	\$26,269,598	\$26,782,892	\$25,042,776
NEC Branch Lines	\$23,588,353	\$6,938,300	\$6,762,613	\$4,675,869	\$5,703,646
Electric Traction	\$112,519,703	\$106,828,918	\$129,528,331	\$149,422,343	\$145,639,164
NEC Main Line	\$105,284,370	\$100,433,318	\$120,276,307	\$136,603,662	\$131,970,763
NEC Branch Lines	\$7,235,333	\$6,395,600	\$9,252,024	\$12,818,681	\$13,668,401
Safety	\$2,576,989	-	-	-	-
NEC Main Line	\$2,576,989	-	-	-	-
NEC Branch Lines	\$0	-	-	-	-
Structures & Facilities	\$49,355,458	\$65,106,282	\$64,617,230	\$68,600,572	\$127,173,503
NEC Main Line	\$36,716,426	\$58,628,901	\$55,053,394	\$64,106,024	\$82,955,739
NEC Branch Lines	\$12,639,032	\$6,477,381	\$9,563,836	\$4,494,548	\$44,217,764
Track	\$339,451,765	\$327,711,466	\$372,822,228	\$425,518,323	\$416,440,911
NEC Main Line	\$305,662,306	\$314,128,780	\$361,410,392	\$409,394,291	\$389,104,110
NEC Branch Lines	\$33,789,459	\$13,582,686	\$11,411,836	\$16,124,032	\$27,336,801
Total	\$628,974,400	\$530,000,000	\$600,000,000	\$675,000,000	\$720,000,000

Notes:

Amtrak's FY21 capital renewal plan details, including scope, schedule, and budget information, can be found on each Amtrak-owned segment page or on nec-commission.com/fy25-cip

FY21 Budget is provided as part of Amtrak's FY21 Capital Renewal Plan submission. The FY22-25 Budgets are adapted from Amtrak's Infrastructure Asset Line Plan. 3rd Party, Admin, and Safety investments are not described in Amtrak's Infrastructure Asset Line Plan therefore expenditures in these disciplines are to be determined.

The NEC Main Line refers to the main alignment between Washington, DC and Boston, MA. The NEC Branch Line refers to the 3 branch alignments on the Northeast Corridor (Philadelphia, PA to Harrisburg, PA; New York, NY to Spuyten Duyvil, NY; New Haven, CT to Springfield, MA). The NEC Branch Lines investments in the FY22-25 plan may also include projects and programs on Amtrak-owned territory between Spuyten Duyvil, NY and Poughkeepsie, NY (BCC Segment 26) however this segment is not under the purview of the Northeast Corridor Commission.

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Special Projects

Appendix Figure 7. Summary of FY21-25 special project funding requirements

The following is a summary of the FY21 budgets, FY21-25 funding available, and FY21-25 funding needed for all special projects. Explore all the special projects at nec-commission.com/fy25-cip

Special Project	Coordinating Agency	FY21 Budget	FY21-25 Funding Available	FY21-25 Funding Needed	FY21-25 Total
SPECIAL PROJECTS		\$1,081,751,019	\$11,918,380,783	\$16,871,729,558	\$28,790,110,341
Major Backlog		\$285,396,995	\$5,401,669,654	\$14,394,902,431	\$19,796,572,085
Baltimore & Potomac Tunnel Replacement: Enabling Components	Amtrak	\$16,300,000	\$31,375,400	\$26,000,000	\$57,375,400
Baltimore & Potomac Tunnel Replacement: Tunnel Proper	Amtrak	\$10,700,000	\$10,700,000	\$466,000,000	\$476,700,000
Connecticut River Bridge Replacement	Amtrak	\$4,600,000	\$4,600,000	\$415,200,000	\$419,800,000
Devon Bridge Replacement	Connecticut DOT	\$500,000	\$225,000,000	\$0	\$225,000,000
East River Tunnel Rehabilitation: Enabling Components	Amtrak	\$2,000,000	\$2,000,000	\$35,000,000	\$37,000,000
East River Tunnel Rehabilitation: Tunnel Proper	Amtrak	\$6,737,000	\$6,737,000	\$500,000,000	\$506,737,000
Gateway: Hudson Tunnel Project	Amtrak	\$35,741,495	\$1,949,000,000	\$11,650,000,000	\$13,599,000,000
Gateway: Portal North Bridge	NJ TRANSIT	\$66,701,000	\$1,803,000,000	\$0	\$1,803,000,000
Gateway: Sawtooth Bridges Replacement Project	Amtrak	\$9,277,500	\$9,277,500	\$827,902,431	\$837,179,931
Pelham Bay Bridge Replacement	Amtrak	\$0	\$0	\$15,000,000	\$15,000,000
Saugatuck River Bridge Replacement	Connecticut DOT	\$0	\$0	\$350,000,000	\$350,000,000
Susquehanna River Bridge Replacement: Phase 1	Amtrak	\$2,840,000	\$52,840,000	\$50,000,000	\$102,840,000
Walk Bridge Program	Connecticut DOT	\$130,000,000	\$1,307,139,754	\$59,800,000	\$1,366,939,754
Improvement		\$796,354,024	\$6,516,711,129	\$2,476,827,127	\$8,993,538,256
30th Street West Catenary Replacement	SEPTA	\$2,236,845	\$71,388,589	\$0	\$71,388,589
Ardmore Transportation Center: Phase 1 ADA Improvements	SEPTA	\$12,580,000	\$46,791,706	\$0	\$46,791,706
Attleboro Line Track 3 Extension: Transfer to Junction	MBTA	\$5,000,000	\$60,177,108	\$0	\$60,177,108
Attleboro Line Track 3 OCS Installation	MBTA	\$3,058,319	\$3,058,319	\$0	\$3,058,319
Back Bay Station: Platform Ventilation	MBTA	\$26,000,000	\$26,000,000	\$0	\$26,000,000
Baltimore Penn Station: Infrastructure Improvements	Amtrak	\$16,628,643	\$46,579,089	\$0	\$46,579,089
Baltimore Penn Station: Master Plan	Amtrak	\$16,865,226	\$90,000,000	\$20,000,000	\$110,000,000
Boston South Station: Tower 1 Interlocking	MBTA	\$11,050,000	\$71,310,000	\$0	\$71,310,000
Claymont Regional Transportation Center	Delaware DOT	\$32,217,097	\$58,590,797	\$0	\$58,590,797

Special Project	Coordinating Agency	FY21 Budget	FY21-25 Funding Available	FY21-25 Funding Needed	FY21-25 Total
CTrail Hartford Line Commuter Station Improvements	Connecticut DOT	\$1,000,000	\$229,000,000	\$17,500,000	\$246,500,000
Delaware Third Track Program	Delaware DOT	See project page	See project page	\$0	\$0
Delco Lead	NJ TRANSIT	\$8,000,000	\$224,849,000	\$0	\$224,849,000
East River Tunnel: Right of Way Infrastructure Improvements	MTA	\$3,000,000	\$3,000,000	\$0	\$3,000,000
Edison Station Improvements	NJ TRANSIT	\$0	\$22,200,000	\$0	\$22,200,000
Elizabeth Station Improvements	NJ TRANSIT	\$20,000,000	\$34,400,000	\$36,600,000	\$71,000,000
Exton Station: Phase 2 Multimodal Improvements	SEPTA	\$0	\$0	\$39,500,000	\$39,500,000
Fitter Interlocking (formerly Yale Interlocking)	Amtrak	\$3,000,000	\$3,000,000	\$26,300,000	\$29,300,000
Frazer Rail Shop and Yard Upgrade	SEPTA	\$1,844,592	\$62,019,535	\$0	\$62,019,535
Gateway: Dock Bridge Rehabilitation	Amtrak	\$1,586,245	\$31,800,000	\$31,800,000	\$63,600,000
Gateway: Harrison Fourth Track Phase 1	Amtrak	\$1,660,000	\$2,211,649	\$1,315,000	\$3,526,649
Gateway: NJ TRANSIT Storage Yard	NJ TRANSIT	\$0	\$0	\$150,000,000	\$150,000,000
Gateway: Penn Station Expansion	Amtrak	See project page	\$19,550,000	See project page	\$19,550,000
Hanson Interlocking	Amtrak	\$16,812,914	\$37,677,895	\$0	\$37,677,895
Harold Interlocking	MTA	\$100,000,000	\$798,478,633	See project page	\$798,478,633
Harrisburg Line Interlocking Improvements: Paoli	Pennsylvania DOT	\$0	\$0	\$0	\$0
Harrisburg Line Interlocking Improvements: Potts	Pennsylvania DOT	\$0	\$0	\$4,600,000	\$4,600,000
Harrisburg Line Interlocking Improvements: Zoo	Pennsylvania DOT	\$2,000,000	\$56,531,526	\$7,500,000	\$64,031,526
Harrisburg Line Signal Upgrade: Zoo to Paoli	SEPTA	\$0	\$0	\$50,000,000	\$50,000,000
Harrisburg Line Station Improvements: Coatesville	Pennsylvania DOT	\$15,000,000	\$55,000,000	\$0	\$55,000,000
Harrisburg Line Station Improvements: Downingtown	Pennsylvania DOT	\$2,500,000	\$20,436,190	\$8,000,000	\$28,436,190
Harrisburg Line Station Improvements: Lancaster	Pennsylvania DOT	\$2,000,000	\$2,000,000	\$14,000,000	\$16,000,000
Harrisburg Line Station Improvements: Middletown	Pennsylvania DOT	\$10,000,000	\$10,000,000	\$0	\$10,000,000
Harrisburg Line Station Improvements: Parkesburg	Pennsylvania DOT	\$500,000	\$3,500,000	\$24,000,000	\$27,500,000
Harrisburg Line Track 2 Restoration: Paoli to Frazer	SEPTA	\$0	\$0	\$50,000,000	\$50,000,000
Harrisburg Line Track 2 Upgrade: Glen to Thorn (MP 25.3 to 35.0)	SEPTA	\$4,670,000	\$16,675,000	\$0	\$16,675,000
Hartford Line Rail Program: Phases 3B - 5	Connecticut DOT	\$1,000,000	\$221,500,000	\$184,000,000	\$405,500,000
Hunter Flyover	NJ TRANSIT	See project page	\$500,000	\$256,500,000	\$257,000,000

Special Project	Coordinating Agency	FY21 Budget	FY21-25 Funding Available	FY21-25 Funding Needed	FY21-25 Total
Jersey Avenue Station	NJ TRANSIT	\$0	\$0	\$75,000,000	\$75,000,000
Malvern Station: ADA Improvements	SEPTA	\$0	\$0	\$15,260,000	\$15,260,000
MARC Storage Improvements: Martin Airport	Maryland DOT	\$0	\$0	\$13,000,000	\$13,000,000
Martin State Airport Station Replacement	Maryland DOT	\$0	\$0	\$950,000	\$950,000
Maryland Section Reliability Improvements	Amtrak	\$640,111	\$640,111	\$0	\$640,111
MBTA Pawtucket Layover Facility	MBTA	\$7,000,000	\$7,000,000	\$20,000,000	\$27,000,000
Metuchen Station Improvements	NJ TRANSIT	\$0	\$0	\$63,500,000	\$63,500,000
Midline Loop	NJ TRANSIT	\$0	\$0	\$344,506,156	\$344,506,156
Moynihan Station: Phase 2	Amtrak	\$50,700,000	\$50,700,000	\$0	\$50,700,000
New Brunswick Station Improvements	NJ TRANSIT	\$21,348,000	\$21,348,000	\$0	\$21,348,000
New Carrollton Station: Acela 21	Amtrak	\$8,490,000	\$16,200,000	\$17,637,881	\$33,837,881
New Carrollton Station: SOGR & ADA	Amtrak	\$0	\$0	\$1,200,000	\$1,200,000
New Haven Line Stations Improvements: Stamford Station	Connecticut DOT	\$1,500,000	\$105,250,000	\$0	\$105,250,000
New Haven Line Track Speed Improvement Program	Connecticut DOT	\$2,000,000	\$26,000,000	\$224,000,000	\$250,000,000
New Haven Line Yard and Facility Program	Connecticut DOT	\$1,000,000	\$477,000,000	See project page	\$477,000,000
Newark (DE) Regional Transportation Center	Delaware DOT	\$19,259,786	\$28,709,786	\$0	\$28,709,786
Newark Penn Station: Amtrak Projects	Amtrak	\$1,000,000	\$1,000,000	\$91,500,000	\$92,500,000
Newark Penn Station: NJ TRANSIT Projects	NJ TRANSIT	See project page	\$26,350,000	See project page	\$26,350,000
Next Generation High Speed Fleet Infrastructure: Ivy City/Washington Terminal Yard Facility Improvements	Amtrak	\$22,400,000	\$22,400,000	\$0	\$22,400,000
Next Generation High Speed Fleet Infrastructure: Ride Quality Investment	Amtrak	\$3,456,396	\$14,720,094	\$0	\$14,720,094
Next Generation High Speed Fleet Infrastructure: Safety Mitigation	Amtrak	\$21,464,393	\$64,021,238	\$0	\$64,021,238
Next Generation High Speed Fleet Infrastructure: Southampton St. Yard Facility Improvements	Amtrak	\$8,800,000	\$8,800,000	\$0	\$8,800,000
Next Generation High Speed Fleet Infrastructure: Sunnyside Yard Facility Improvements	Amtrak	\$41,600,000	\$147,600,000	\$0	\$147,600,000
NJ TRANSITGRID	NJ TRANSIT	\$76,394,000	\$547,268,000	\$0	\$547,268,000
North Elizabeth Station Improvements	NJ TRANSIT	\$0	\$0	\$717,000	\$717,000
Paoli Transportation Center: Phase 2 Station & Intermodal Improvements	SEPTA	\$0	\$0	\$51,200,000	\$51,200,000
Pawtucket/Central Falls Station	Rhode Island DOT	\$18,500,000	\$34,910,000	\$0	\$34,910,000
Penn Station Access	MTA	See project page	\$1,583,141,445	See project page	\$1,583,141,445

Special Project	Coordinating Agency	FY21 Budget	FY21-25 Funding Available	FY21-25 Funding Needed	FY21-25 Total
Penn Station New York: NJ TRANSIT Projects	NJ TRANSIT	\$10,028,000	\$10,028,000	\$65,000,000	\$75,028,000
Penn Station New York: Reconstruction Master Plan	MTA	See project page	See project page	See project page	\$430,000,000
Penn-Camden Connector	Maryland DOT	\$0	\$0	\$9,500,000	\$9,500,000
Philadelphia 30th Street Station District Plan Implementation	Amtrak	\$3,100,000	\$203,035,000	See project page	\$203,035,000
Princeton Junction Station Improvements	NJ TRANSIT	\$747,000	\$747,000	\$0	\$747,000
Providence Station Improvements	Rhode Island DOT	\$14,000,000	\$25,000,000	\$0	\$25,000,000
River-to-River Rail Resiliency Projects (R4)	MTA	\$25,000,000	\$108,100,000	\$0	\$108,100,000
Ruggles Street Station Accessibility Improvements: Phase 1	MBTA	\$12,500,000	\$12,500,000	\$0	\$12,500,000
Ruggles Street Station Accessibility Improvements: Phase 2	MBTA	\$3,000,000	\$3,248,754	\$23,000,000	\$26,248,754
Shore Line East Station Improvements	Connecticut DOT	\$1,000,000	\$32,000,000	See project page	\$32,000,000
Shore Line East Track & Catenary Improvements (FY22)	Connecticut DOT	\$10,000,000	\$10,000,000	See project page	\$10,000,000
South Attleboro Station Accessibility Improvements	MBTA	\$45,100,000	\$48,661,718	\$0	\$48,661,718
Southwest Connection Improvement Project	SEPTA	\$6,270,798	\$34,124,672	\$0	\$34,124,672
Trenton Transit Center Improvements	NJ TRANSIT	See project page	\$0	\$23,690,000	\$23,690,000
Veltri Interlocking	Amtrak	\$2,000,000	\$2,000,000	\$29,500,000	\$31,500,000
Villanova Station: Phase 2 ADA Improvements	SEPTA	\$0	\$10,450,000	\$0	\$10,450,000
VRE Midday Storage Facility	VRE	\$8,383,706	\$96,780,678	\$0	\$96,780,678
Warwick/T.F. Green Airport Station	Rhode Island DOT	\$3,000,000	\$3,500,000	\$180,000,000	\$183,500,000
Washington Union Station: Claytor Concourse Modernization Program	Amtrak	\$1,417,663	\$146,299,437	See project page	\$146,299,437
Washington Union Station: Long Term Station Expansion	Amtrak	\$1,879,871	\$115,944,915	See project page	\$115,944,915
Washington Union Station: Near Term Rail Program	Amtrak	\$1,131,377	\$28,072,819	See project page	\$28,072,819
Washington Union Station: Subbasement Program	Amtrak	\$22,033,042	\$114,934,426	See project page	\$114,934,426

FY21-25 CIP Special project listing by coordinating agency

The following is a list of NEC special projects organized by the coordinating agency and project type (which include Major Backlog Projects and Improvement Projects), listed alphabetically and the corresponding special project page. Explore all the special projects at nec-commission.com/fy25-cip

Amtrak

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Appendix Figure 8. Special Projects Page Key

The special projects appendix page key is intended to provide context on the special project pages in this appendix and clarity about how the various fields relate to each other. All special project information is submitted by the coordinating agency and confirmed through an iterative review process with partner agencies.

Project Name

Coordinating Agency: NEC stakeholder agency which provides capital project data for the development of this plan.
In Partnership With: NEC stakeholder agencies or other non-NEC organizations which are contributing to or affected by this project.
Type: (Major Backlog/Improvement) **Benefit:** (Sole/Shared)
Funding Status: (Fully funded or programmed / Partially funded or programmed / Unfunded) This field indicates if this project currently needs any additional funding or if it is sufficiently funded through the funding sources listed below.

General Project Information

Full Project Scope Complete scope for the entire project (including previously completed work and work to be completed beyond fiscal year 2025).

Project Justification Justification for the complete project scope stated above.

Total Project Cost The total project cost estimate to complete the full scope as described.

Status of Project-Based Cost Allocation (PBCA) Agreement:
 Not applicable/Not yet started/In Progress/Completed

For more information on Project-Based Cost Allocation, see page TK in the main report body.

Cost Derivation Methodology: Qualitative description of how the total project cost was estimated.

Project-Based Cost Allocation (PBCA) Agreement Notes: Clarifying information to explain the current status of a project-based cost allocation agreement (if applicable).

Funding sources for entire project history All funding sources reasonably assumed to fund the full project scope at the total project cost estimate quoted above. These funding sources apply to the entire project life cycle and not only to activities occurring during FY21-25. Some funding sources for ongoing projects have been expended before FY21 and others may be expended after FY21. Some projects list funding sources which have been applied for but not yet confirmed. These will be designated in the clarifying information column below.

Funding Source	Amount	Clarifying information
		In most cases, assume a funding source is confirmed unless specified differently here.

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
This section contains the most recent project schedule estimate to complete the full project scope as stated above, outlining all phases of the project including those already completed and those occurring after fiscal year 2025. Cost estimates for each phase are provided when available.								

Project Name

Coordinating Agency: NEC stakeholder agency which provides capital project data for the development of this plan.

In Partnership With: NEC stakeholder agencies or other non-NEC organizations which are contributing to or affected by this project.

Type: (Major Backlog/Improvement) **Benefit:** (Sole/Shared)

Funding Status: This field indicates if this project currently needs any additional funding or if it is sufficiently funded through the funding sources listed below. (Fully funded or programmed / Partially funded or programmed / Unfunded)

One Year Information

The One Year Information contains detailed budget, scope, and milestones for fiscal year 2021 and serves as the baseline for assessing agencies' delivery of the one year plan in the Quarterly Capital Program Delivery Reports.

FY21 Budget: Planned fiscal year 2021 expenditure

FY21 Scope: Planned fiscal year 2021 scope associated with the fiscal year's planned expenditure

FY21 Milestones:

- Schedule of milestones to be completed in fiscal year 2021.

Not all projects will have work to be completed in fiscal year 2021 either because the project is slated to begin after fiscal year 2021 or funding is not available to complete work in fiscal year 2021.

Notes: Clarifying information regarding the planned budget, scope, and schedule for planned activities in fiscal year 2021.

Five Year Information

Five Year Information describes capital investments to be made in FY21-25 based on available funding and capital investments that could occur in FY21-25 with additional funding given available resources.

FY21-25 Funding Available:

The total amount of funding expected to be available for spending between fiscal years 2021 to 2025. This amount includes any confirmed or programmed funding sources that agencies can reasonably assume will be received.

At this funding level, the following phases could be initiated or completed in FY21-25:

The scope of work that could be completed with available resources up to the total funding available during this period, listed above. This field only applies to projects which have funding available in fiscal years 2021 to 2025.

FY21-25 Additional Funding Needed:

The amount of additional funding needed to advance work on the project during fiscal years 2021 to 2025 given known resource constraints.

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**

The scope of work that could be completed during fiscal years 2021 to 2025 if the additional funding (indicated above) was secured. This field only applies to projects for which additional funding is needed during FY21-25.

Notes: Clarifying information regarding the planned budget and scope for planned activities in fiscal years 2021 to 2025.

Baltimore & Potomac Tunnel Replacement: Enabling Components

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope

The B&P Tunnel Replacement Project is located across three miles of the NEC in West Baltimore and consists of two major elements: the Tunnel Proper and Necessary Enabling Components. Necessary Enabling Components are numerous discrete components that can be individually managed and completed prior to and in anticipation of constructing the tunnel proper. These components are identified through an array of criteria including: third party infrastructure ownership/ responsibility/ coordination; stakeholder impacts; obligations associated with the Programmatic Agreement and Record of Decision; independent utility; contract size; long lead procurements; resource requirements; and specialty contractors. The list may be further modified as design development continues. Individual components may be combined in contract packages as appropriate to ensure cost and schedule efficiency. The components include, but are not necessarily limited to: Winans Interlocking Expansion and Track A Improvements from Winans (MP 103.4) to Bridge (MP 98.2) Interlockings to replace timber ties with concrete ties, Electric Traction Substation 20 Relocation and Modernization, Franklinton and Warwick Bridge Replacements, Gwynns Interlocking Installation, Utility Relocations, Reprofilng Franklin Mulberry Streets, Lafayette Avenue Bridge Modification, Edmondson Avenue Bridge Reconstruction, Property and Easement Acquisition, Building Demolition, CSX Bridge Pier Relocation, and BGE Jones Falls Transmission Tunnel Removal.

Project Justification

By utilizing discrete components, the Project does not need to be funded all at once from a single source, but rather can be funded through numerous smaller investments that are more compatible with existing funding streams. Also, a project the size of the B&P Tunnel Replacement, located in a dense urban environment must coordinate with numerous infrastructure owners and stakeholders. Discrete components allow the Project to focus attention to individual stakeholder's requirements wherever the Project intersects with a third party. By coordinating, but not combining, the discrete components, large dollar contracts are not exposed to the multitude of competing stakeholders' interests, which reduce Project risks and allow the Project to proceed on a more predictable Delivery Schedule.

Total Project Cost

\$395,000,000

Status of PBCA Agreement: Not started

Cost Derivation Methodology: Construction Cost Estimate (dated March 2017) was based upon Preliminary Engineering (nominally 30% design) using 2017 dollars. The estimate Work Breakdown Structure (WBS) has been prepared to conform to the Federal Transit Administration (FTA) Standard Cost Categories (SCC) for Capital Projects. The Cost Estimate is a Class 3 Estimate as defined by the Association for the Advancement of Cost Engineering (AACE International) Cost Estimate Classification System. Escalation is included in the estimate at a rate of three percent (3%) per annum to the midpoint of construction, which was assumed to be July 2024.

PBCA Notes: Not applicable

Funding sources for entire project history

ARRA/HSIPR	\$4,350,000	
Federal State Partnership for SOGR	\$8,000,000	FY19 Award for Track A Upgrade from Winans to Bridge Improvement
Maryland DOT	\$1,500,000	Match for FY19 SOGR Award
Amtrak FY19 & prior GCAP	\$6,725,000	
Amtrak FY20 GCAP	\$1,500,000	Reduced due to COVID-19
Amtrak FY21 GCAP	\$16,300,000	Proposed
Other Amtrak Sources	\$6,500,000	Match for FY19 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design		Oct 2011 - Dec 2015						Project initiation through 10% submittal to FRA
PE/NEPA		Apr 2014 - Sep 2019						NEPA Contract NTP 4/8/2014; ROD Issued March 2017; extended PE followed
Final Design	\$32,000,000	Oct 2019 - Sep 2025						
Construction	\$363,000,000	Mar 2022 - Sep 2027						

Baltimore & Potomac Tunnel Replacement: Enabling Components

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$16,300,000

FY21 Scope: Continue development of a Project Plan identifying major elements, cash flow, and required resources. Prepare design of Track A upgrade from Winans to Bridge. Prepare 60% submittals for replacing Warwick Avenue and Franklinton Road undergrade bridges. Initiate design on Edmondson Avenue and Lafayette Avenue Bridges and Sub 20. Continuing to prepare documents and exhibits to meet commitments in the Project's Section 106 Programmatic Agreement (PA) and Record of Decision (ROD); Coordinate with CSX regarding the reconstruction of the CSX Bridge over the proposed Alignment. Coordinate with local utilities regarding utility relocations. Initiate Right-of-Way / Property acquisition.

FY21 Milestones:

- Issue Contract Mod to proceed into Final Design (Oct 2020)
- Track A Final Design (Sep 2021)
- Franklinton Road and Warwick Avenue Bridge Replacement 60% Design (Sep 2021)

Notes: Track A Upgrade Winans to Bridge is a discrete component with independent utility prior to the construction of the B&P Tunnel and will mitigate the operational impact of constructing other components of the B&P Tunnel Replacement Project. A portion of the \$6M FY21 Budget will be applied to the estimated \$924,600 necessary to complete the design of the Track A Upgrade.

Five Year Information

FY21-25 Funding Available: \$31,375,400

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Track A Upgrade Winans to Bridge received an \$8M Federal-State SOGR Grant, with MTA-MARC contributing \$1.5M, and Amtrak contributing the balance of \$6.5M. The \$15,075,400 shown above and the \$924,600 from FY21 is dedicated to the estimated \$16M Track A Upgrade and cannot be used towards other enabling component. Other than the Track A Upgrade Winans to Bridge, the FY22-25 monies have not been committed, however, on November 13, 2019, Amtrak Board of Director's approved a resolution to fund the next 29 months of design at an approximate cost of \$49.3M, including Project Management Support. This work is currently on hold due to COVID-19; but, once restarted, we anticipate support of property acquisitions and initiation of acquired building demolition and historic element storage; progressing design to 60% completion for bridge modifications, for the City's Edmondson Avenue and Lafayette Avenue Bridge, MARC's West Baltimore Station, and associated major city utility relocation; address design review comments; continued support of the development of the strategy for program delivery; and, engineering support necessary for compliance with commitments identified in the Section 106 Historical Preservation Programmatic Agreement.

FY21-25 Additional Funding Needed: \$26,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Complete final design of enabling projects.

Notes: Due to the discrete components, the design phase and the construction phase of different components will overlap. There is not a singular sequential phase of 60%, 90%, Final Design, then construction package.

Baltimore & Potomac Tunnel Replacement: Tunnel Proper

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>The B&P Tunnel Replacement Project is located across three miles of the NEC in West Baltimore and consists of two major elements: the Tunnel Proper and Necessary Enabling Components. The Tunnel Proper will replace the functionally obsolete, low speed, two-track, mile and a half long B&P Tunnel with a modern four-track, two-mile long tunnel. The new tunnel will reduce trip-time by permitting speeds up to 100 mph, minimize operational conflicts among high-speed, intercity, and commuter passengers, and increase throughput capacity. The new tunnel will be constructed as four single track bores to provide an inherent resiliency and will provide robust Fire & Life Safety measures that meet contemporary standards. The increased throughput will allow for greater frequency as envisioned by NEC FUTURE to accommodate growing demand across all types of service. Although not a clearance project, infrastructure constructed as part of this project will not preclude the future passage of AAR Plate H (double stack equipment) if such clearances are provided on connecting segments.</p>	
Project Justification	<p>The aging B&P Tunnel (opened 1873) is nearing the end of its useful life and is in need of constant monitoring and maintenance at high cost. With both tracks in the same structural envelope, it is a single point of failure for the NEC and it cannot be cost effectively rehabilitated while continuing operations. Even if rehabilitated, the tunnel cannot provide for redundancy during service disruptions and would remain as a key chokepoint, forcing trains to reduce speeds to 30 mph due to its tight curvature. The improvements defined by the FRA issued Record of Decision (d. March 24, 2017) are required in order to maintain operations through Baltimore and additional tracks are needed to meet future demand.</p>	
Total Project Cost	\$4,200,000,000	Status of PBCA Agreement: Not started
	<p><i>Cost Derivation Methodology:</i> Construction Cost Estimate (dated March 2017) was based upon Preliminary Engineering (nominally 30% design) using 2017 dollars. The estimate Work Breakdown Structure (WBS) has been prepared to conform to the Federal Transit Administration (FTA) Standard Cost Categories (SCC) for Capital Projects. The Cost Estimate is a Class 3 Estimate as defined by the Association for the Advancement of Cost Engineering (AACE International) Cost Estimate Classification System. Escalation is included in the estimate at a rate of three percent (3%) per annum to the midpoint of construction, which was assumed to be July 2024.</p>	
	<p><i>PBCA Notes:</i> Not applicable</p>	
Funding sources for entire project history	<p>ARRA/HSIPR \$39,150,000</p> <p>SAFETEA-LU \$1,182,389 Inspection of existing tunnel</p> <p>Amtrak FY19 & prior GCAP \$26,675,000</p> <p>Amtrak FY20 GCAP \$1,500,000 Reduced due to COVID-19</p> <p>Amtrak FY21 GCAP \$10,700,000 Proposed</p>	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design		Oct 2011 - Dec 2015						Project initiation through 10% submittal to FRA
PE/NEPA	\$42,913,679	Apr 2014 - Sep 2019						NEPA Contract NTP 4/8/2014; ROD Issued March 2017; extended PE followed
Final Design	\$130,000,000	Oct 2019 - Sep 2024						
Construction	\$4,070,000,000	Oct 2022 - Sep 2032						

Baltimore & Potomac Tunnel Replacement: Tunnel Proper

Coordinating Agency: Amtrak

In Partnership With: Maryland DOT

Type: Major Backlog

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$10,700,000

FY21 Scope: Advance design of the tunnel proper and balance of project not contained within enabling projects towards 60% level and continuing geotechnical exploration program. Continue development of a Project Plan identifying major elements, cash flow, and required resources. Initiate Right-of-Way / Property acquisition.

FY21 Milestones:

- Issue Contract Mod to proceed into Final Design (Oct 2020)

Notes: Due to magnitude of design effort, will not reach 60% design completion in FY21.

Five Year Information

FY21-25 Funding Available: \$10,700,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** FY22-25 monies have not been committed, however, on November 13, 2019, Amtrak Board of Director's approved a resolution to fund the next 29 months of design at an approximate cost of \$49.3M, including Project Management Support, which will begin final design. However, this work is currently on hold due to COVID-19; but, once restarted, we anticipate progressing design to 60% completion for the major civil works (open cuts, tunnels and shafts) continued geotechnical exploration; address design review comments; continued support of the development of the strategy for program delivery, and support of property acquisitions.

FY21-25 Additional Funding Needed: \$466,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Right-of-Way Acquisition, complete heavy civil design packages, prepare bid packages (see note below relative to railroad system design), begin construction of the Tunnel (i.e. the hole through the hill).

Notes: The B&P Tunnel Replacement Project's National Environmental Policy Act (NEPA) process was supported by Preliminary Engineering (PE), a design representing approximately 30% of Final Design; however, PE did not attempt to segment the work into discrete packages. The NEC Commission Capital Investment Plan divides the entire Project into two subsets: enabling components and the tunnel proper, with the major heavy construction and systems installations being part of the tunnel proper and enabling components being necessary preparatory work needed to ensure continuous seamless NEC service throughout construction. Each package will be developed on a just-in-time basis, to maintain the continuous progress of the B&P Tunnel Replacement Project without requiring any package to wait for others to be completed before it can proceed. Although some design will lead construction, a significant portion of design will run concurrently with construction due to the nature of the delivery methodology. Some contract packages use construction commodities that do not significantly change over time. Other contract packages require non-commodities that are manufactured products and are subject to elimination from the market place. To ensure that the design does not become obsolete while waiting to be constructed, the design effort for those contract packages that include non-commodity components will be carefully scheduled to be completed as late as possible (akin to just in time delivery) so that the specified products are current and available. Nevertheless, all design will be comprehensively and holistically developed to appropriate level of completion to coordinate across all disciplines, refine construction cost estimates and schedules, and identify needed Amtrak Force Account resources. This project delivery strategy results in the design effort continuing through most of the duration of construction.

Connecticut River Bridge Replacement

Coordinating Agency: Amtrak
In Partnership With: Connecticut DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This project would replace the Connecticut River Bridge between Old Saybrook and Old Lyme, CT that carries Amtrak and Shore Line East trains. Completed in 1907, it is the oldest movable bridge between New Haven, CT and Boston, MA. The bridge has a movable span that is raised up to allow boats to pass. By law, the bridge must remain open from May through September for recreational boats to pass and closes only when trains approach. Plans would replace the Connecticut River Bridge with a new design along a new alignment parallel to and south of the existing bridge that improves reliability and offers higher speeds for Amtrak and Shore Line East trains. FRA completed NEPA and issued a Finding of No Significant Impact (FONSI) for this project in January 2017. Final design is underway, but no funding is available for construction. There are multiple preparatory activities that, due to this project's size, can be initiated as standalone enabling projects, such as: submarine cable relocation and construction of retaining walls and new alignment embankment.</p>	
Project Justification	<p>A century of operation in a marine environment, coupled with the age of the structure, has taken its toll and speeds are restricted to 45 mph. Many key elements of the bridge have reached the end of their design life and require extensive maintenance to remain in operable condition. The frequent opening and closing of the bridge – over 3,000 times per year – puts high demands on its aging components, increasing maintenance costs for Amtrak and reducing reliability for both railway and marine traffic.</p>	
Total Project Cost	<p>\$432,470,000</p> <p><i>Cost Derivation Methodology:</i> This estimate is based on 60% design.</p> <p><i>PBCA Notes:</i> Not available</p>	<p>Status of PBCA Agreement: Not started</p>
Funding sources for entire project history	<p>Amtrak FY19 & prior GCAP</p>	<p>\$7,250,000</p>

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$1,800,000	Jan 2018 - Jan 2019						
Final Design	\$8,900,000	Jan 2019 - Dec 2021						
Construction	\$432,470,000	Jan 2024 - Jan 2030						Enabling components may begin in FY22 if funding became available.

Connecticut River Bridge Replacement

Coordinating Agency: Amtrak
In Partnership With: Connecticut DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$4,600,000

FY21 Scope: Complete final design and environmental permitting

FY21 Milestones:

- Final Design (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$4,600,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
With the current funding available in FY21, Final design will be completed, along with all applicable environmental and historical permitting.

FY21-25 Additional Funding Needed: \$415,200,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If project construction was fully funded starting in FY22, Amtrak could procure a contractor immediately after final design completion and permitting, mobilize construction, and begin the 50 month schedule of construction, which would include placing fill and retaining structures of the new alignment, installing new piers in the river, fabricating and floating in of structural members, etc., in the FY22-25 window. Final completion, cutover, and demolition would not be until FY26.

East River Tunnel Rehabilitation: Enabling Components

Coordinating Agency: Amtrak
In Partnership With: MTA, NJ TRANSIT
Type: Major Backlog **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope

The principal project that these projects enable and support is the Rehabilitation of the East River Tunnel (ERT) Line 1 and Line 2 which connect Penn Station to Sunnyside Yard in Long Island City, Queens, NY. Detailed information on that project, which may require extended outages of both tubes in series, can be found in that project’s description. Discussions are underway among the railroads to determine how and whether the outages can be minimized or avoided. The reason for the ERT Enabling project listing is to both improve resiliency to the system in preparation for the added stress of 3-tube operations as well as augment the system to mitigate the transportation impacts from 3-tube operations.

Multiple enabling components have been identified, of which two are submitted for the FY20 Fed-State partnership SOGR grant applications including: (1) Traction Power Sub-3 Cable Relocation; and (2) Sunnyside Yard Connection Sub 4-Line 2.

1. **Traction Power:** This enabling component project will replace an aging and vulnerable section of traction power cable that currently lies in Line 2 of the ERT and install new cable in Line 1 (where the majority of the existing cable already resides). The work will be completed in two phases. The first phase involves inspecting, cleaning, proving and installing pull lines in the existing benchwall duct banks in Line 1 so as to both identify and prepare viable route options for the new section of cable to be installed. The second phase will install the new cable section in Line 1 and run the appropriate tests to bring the cable online.
2. **Sunnyside Yard Connection Sub4-Line2:** This enabling component will implement a connection to efficiently route trains from Sunnyside Yard into Penn Station. The project includes Signal System design and installations including track, switches, and catenary in the vicinity of F-Interlocking in Sunnyside Yard, Queens, NY. Benefits to Amtrak includes a high-speed bi-directional connection between Sunnyside Yard and East River Tunnel Line 2 which increases efficiency, redundancy and overall train capacity between the two facilities. This efficiency is especially critical during the ERT Line 1 tunnel outage during the rehabilitation of the Tunnel where this connection is most critical to maintaining operations.

Other components under scoping and design development include:

- **Sub 3 to Line 4 upgrades:** The Sub 3 Line 4 connection and crossover 723 will become very important for yard operations when ERT Line 2 is taken out-of-service. All west bound departures from Sunnyside Yard will be funneled through Switch 715; making this a critical piece of infrastructure and a possible single point of failure. Tasks to be completed under this effort include upgrade to 30 mph the Sub 3 Line 4 Connection from turnout 715 east to Lead 1, Lead 2, and Lead 3 and upgrade crossover 723 and crossover 79.
- **Sub 1 and Sub 2 upgrades:** Sub 1 and Sub 2 will accommodate the continued operation while ERT Line 1 is out of service. Sub 1 and Sub 2 will also allow trains to stack coming out of Sunnyside Yard and proceed through ERT Line 2 when the tunnel direction is set westward. To insure operational reliability, the required upgrades for Sub 1 and Sub 2 should include: 1) the Tune-up Sub 1 and Sub 2 connections eastward from SW 719 to Yard Leads 1, 2, and 3 for 30 mph operation and 2) upgrade seven turnouts: 65, 66, 69, 717, 719, 721, and 753; and one crossover: 67.
- **Redundant Fiber Installation in ERT-3:** to install a new redundant fiber optic cable backbone in ERT-3 to main backup for Amtrak telephone, security, SCADA, IT Network and C&S Signal systems communications. New fiber would be installed from the Penn Station Retail Room to the Sunnyside Yard Communication Hut at the Eastern portal.
- **Reverse Signaling of SSYD Loop Track:** this will partially mitigate the impacts of the tunnels being taken out of service. When ERT Line 2 is out of service, reverse signaling will allow trains to depart Sunnyside Yard westbound via R interlocking and ERT Line 1 and ERT Line 3 (i.e. backwards). Note: Unless turning Amtrak trains are run around the loop, the leading piece of equipment will become the trailing piece westbound. Entering Sunnyside Yard “backwards” will work with Push-Pull Equipment. When ERT Line 1 is out of service, reverse signaling the loop tracks will facilitate the reverse move needed for equipment to enter the S&I after entering Sunnyside Yard from ERT Line 2. Loop A, Loop 1, and Loop 2 will be upgraded to wayside signaling in both directions (Rule 261) from “R” Interlocking to “F” Interlocking.
- **Hardening / Tune-Up of Lines 1, 3 and 4:** During the ERT Rehab of Line 2, each of the three remaining tunnels will be in service. Prior to beginning of ERT rehab project Line 2, each of the remaining tunnels should receive assessment and tune-up of all systems associated with using that route in order to minimize the risk of one of the three in-service tunnel routes from unexpectedly failing and temporarily disrupting rail traffic. Possible work packages could include: feeder cable replacement, signal case replacement, switch/switch machine tune-up, drainage / sump/pump, and any associated points of failure in the powering of these systems, near term benchwall stabilization and spall/leak mitigation.

Project Justification

The East River Tunnel tubes are in desperate need of rehabilitation and improvement, due to continually worsening conditions of the tunnel given both their age and damage related to Superstorm Sandy, to ensure continuation of operations for LIRR, NJ TRANSIT, and Amtrak. This project would both enable maximum redundancy and operational continuity by mitigating the transportation impacts from the extended outages required to completely rehabilitate East River Tunnel tubes 1 and 2 which connect Penn Station, NY to Queens, NY.

Total Project Cost

\$37,000,000

Status of PBCA Agreement: In progress

Cost Derivation Methodology: • Traction Power S-3 Cable Relocation: \$6,000,000, (based on 90% design) • Sunnyside Yard Connection Sub4-Line 2: \$15,000,000 (based on 30% design) •Sunnyside Yard Connection SUB3-Line 4: \$ 13,000,000(ROM) •Sunnyside Yard Connection Loop Reversal Signaling: \$2,000,000 (ROM) . Estimates include design budget. Cost estimates for the remaining enabling projects will be developed.

PBCA Notes: Amtrak Business Development discussions with sister railroads have initiated.

Funding sources for entire project history

Not available

East River Tunnel Rehabilitation: Enabling Components

Coordinating Agency: Amtrak
In Partnership With: MTA, NJ TRANSIT
Type: Major Backlog **Benefit:** Shared
Funding Status: Unfunded

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction- Traction Power S-3 cable Relocation	\$6,000,000	Oct 2020 - Dec 2022						
Final Design	\$3,000,000	Jun 2020 - Dec 2023						
Construction - Sub4-Line 2	\$14,000,000	Oct 2023 - Oct 2024						
Construction - Sub3-Line 4	\$12,000,000	Oct 2022 - Oct 2024						
Construction - Loop Reversal Signaling	\$2,000,000	Oct 2022 - Oct 2024						

One Year Information

FY21 Budget: \$2,000,000

FY21 Scope: Advance the design of the Sunnyside Yard Connections enabling projects : Sub 3-Line 4, Sub 4 -Line 2 and Reverse Signaling of Loop Tracks. Procure and advance construction of S3 relocation- Phase A.

FY21 Milestones:

- S3 Relocation Phase A - Construction 90% (Sep 2021)
- Reverse Signaling 90% Design (Sep 2021)
- Sub 3 to Line 4 Upgrade 90% Design (Sep 2021)
- Sub 4 to Line 2 Upgrade 30% Design (Sep 2021)

Notes: Enabling projects Relocation FY21 productivity will be heavily contingent upon COVID available budgeting and procurement timelines.

Five Year Information

FY21-25 Funding Available: \$2,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Complete the design of all enabling projects. Complete the construction of all enabling projects.

FY21-25 Additional Funding Needed: \$35,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/ workforce constraints and track outages):** Preliminary and Final Design for all approved enabling projects; construction of the enabling works that have estimates assigned herein.

East River Tunnel Rehabilitation: Tunnel Proper

Coordinating Agency: Amtrak
In Partnership With: MTA, NJ TRANSIT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope

This project would rehabilitate East River Tunnel tubes 1 and 2 which connect Penn Station, NY to Queens, NY. Each tunnel is approximately 13,000 feet in length. As currently designed, both tunnel tubes would be demolished down to the concrete liner and entirely rebuilt with new bench walls, track, communication systems, and electrical and signaling systems. In parallel to this effort, multi-railroad conversations are ongoing to determine if and how the outages can be minimized or avoided by investigating alternative implementation approaches. Rehabilitation of the track and drainage systems will require removal and replacement of track and ballast, new welded rail installations on a modern direct fixation track system, new impedance bond installations, new I joint installations, drainage system cleaning, and the removal and replacement of the third rail for the entire length of each tube. The tunnel renovations will also be designed to improve the safety and security (to the greatest extent practicable) in the tunnels.

Available funding from FRA Superstorm Sandy recovery grants has been utilized, but a significant funding gap remains. This project would implement High Density Signaling to the extent recommended by a joint Amtrak/LIRR "East River Tunnel High Density Signaling" study. To support ERT Rehabilitation project and facilitate the ability to take each line out of service during construction, several enabling projects have been identified to prepare for the tunnel outages by either moving/installing utilities to provide the required redundancy / tunnel isolation or increasing reliability and throughput on other aspects of the system to mitigate train cancellations. For planning and reporting purposes, Amtrak now considers the ERT Enabling Projects a standalone project.

Project Justification

The East River Tunnel tubes are in desperate need of rehabilitation and improvement, due to continually worsening conditions of the tunnel structure given both its age and damage related to Superstorm Sandy, to ensure continuation of operations for LIRR, NJ TRANSIT, and Amtrak.

Total Project Cost

\$1,153,600,000

Status of PBCA Agreement: In progress

Cost Derivation Methodology: The most recent estimates utilize the 60% Rehabilitation Design Cost and Schedule estimates and assume a 2023 major construction initiation. Escalation of 3.5% per annum has been utilized and most modifiers have been aligned with the Gateway Program to ensure regional parity between the geographically and technically similar projects. This most recent estimate utilizes a reduced schedule duration as a result of improved design clarity and assumes a 1-year hiatus between the major tunnel outages to allow for system SOGR to catch up. This estimate does not yet include "outside of portal" system augmentation that will be required to fully refresh the system. This design scope will be added in FY21 and construction estimates will inform future updates to this plan and budget.

PBCA Notes: Amtrak Business Development discussions with sister railroads have initiated.

Funding sources for entire project history

Other Federal Discretionary	\$3,600,000	Superstorm Sandy FRA Relief Funds and Insurance Claims
Amtrak Annual Federal Grant	\$23,600,000	Includes FY21 Request

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$3,600,000	Apr 2015 - Dec 2016						
PE/NEPA		Oct 2017 - Mar 2021						Budget included in Final Design
Final Design	\$30,000,000	Oct 2018 - Sep 2021						Includes upcoming scope expansion for outside-of-portal systems design
Construction (Lines 2, 1)	\$1,070,000,000	Oct 2023 - Dec 2027						Year of Expenditure escalated value assuming a 2023 start.
Construction - Expanded Scope TBD	\$50,000,000	Oct 2024 - Sep 2028						Outside-of-portal design scope to be added in FY21, construction estimate not yet available. \$50M included as a placeholder.

East River Tunnel Rehabilitation: Tunnel Proper

Coordinating Agency: Amtrak
In Partnership With: MTA, NJ TRANSIT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$6,737,000

FY21 Scope: Advance the design of the tunnel rehab from nominally 60% to nominally 90% level and beyond toward 100% Design; advance to 60% design to necessary work outside of the tunnel proper.

FY21 Milestones:

- 90% Design Completion (Base Scope) (Mar 2021)
- NEPA Class of Action and CE/EA (Mar 2021)
- 100% Design Completion (Base Scope) (Sep 2021)
- 60% Design (Expanded Scope) (Sep 2021)

Notes: COVID impacts and Amtrak workforce reductions have already induced some delays and are expected to be a productivity risk factor in FY21.

Five Year Information

FY21-25 Funding Available: \$6,737,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Design completion of base scope in FY21. Progress design of enabling projects in FY21.

FY21-25 Additional Funding Needed: \$500,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Final Design completion in FY22. Enabling project design and construction completion within the first quarter of FY25. Roughly 50% ERT Rehab construction by end FY25.

Notes: The FY21-25 Funding Needed figure assumes minimal design continuation funding from Amtrak GCAP. Estimated FY spend due to expanded scope and revised construction initiation date: FY2022: \$3M, FY2023: \$1M, FY2024: \$200M, FY2025: \$300M

Gateway: Hudson Tunnel Project

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope

This project will construct a new two-track rail tunnel beneath the Hudson River, rehabilitate and modernize the existing two-track North River Tunnel, and construct the third and final rail right-of-way preservation section beneath the second phase of the Hudson Yards development project on the west side of Manhattan. When complete, the project will increase reliability and operational flexibility for Amtrak and NJ TRANSIT services on the NEC. The project was accepted by the FTA into the Engineering Phase of its Capital Investment Grant - Core Capacity grant program in June 2020.

Project Justification

Service reliability in the North River Tunnel has been compromised because of the damage to tunnel components caused by Superstorm Sandy, which inundated both tubes with seawater in October 2012. Chlorides from the seawater remain in the tunnel's concrete liner and bench walls, causing ongoing damage to the bench walls, embedded steel, track, and signaling and electrical components, requiring an extended outage of the tunnel in order to completely replace damaged systems and rehabilitate the tunnel. These improvements must be achieved while maintaining uninterrupted commuter and intercity rail service. Existing service can only be maintained by the construction of a new, two-track tunnel connecting to the existing Penn Station that would carry existing rail traffic during the rehabilitation of the North River Tunnel. Taking one track out of service at a time without the new tunnel would reduce total capacity for Amtrak and NJ TRANSIT by as much as 75%, impacting roughly 200,000 passenger trips on 450 trains each weekday.

Total Project Cost

\$13,598,000,000

Status of PBCA Agreement: In progress

Cost Derivation Methodology: The cost estimate is based on the 30% design of the new Hudson River Tunnel, 10% design of that rehabilitation of the North River Tunnel, and the 100% design of Section 3 of the Hudson Yards Concrete Casing. The \$13.6B cost estimate includes financing costs during the grant disbursement period; namely those associated with the proposed borrowing through federal financing programs. Financing costs have not been finalized and remain subject to negotiation between USDOT and the Gateway Program partners (Amtrak, Gateway Program Development Corporation, Port Authority of New York & New Jersey, and NJ TRANSIT). Funding sources cover entire project cost; may slightly differ due to rounding.

PBCA Notes: The FY 2021 Financial Plan provides the most recent contribution amount from each partner.

Funding sources for entire project history

FTA CIG New Starts Grant	\$5,510,000,000	Requested per 08-28-2020 Financial Plan
Port Authority of NY & NJ	\$227,000,000	Per 08-28-2020 Financial Plan
New York	\$154,000,000	Per 08-28-2020 Financial Plan
New Jersey	\$281,000,000	Per 08-28-2020 Financial Plan
Local funding	\$5,000,000	Per 08-28-2020 Financial Plan
RRIF Loan A1 (PANYNJ)	\$2,369,000,000	Per 08-28-2020 Financial Plan, proposed
RRIF Loan A2 (NYS)	\$1,923,000,000	Per 08-28-2020 Financial Plan, proposed
RRIF Loan B (NJ)	\$1,643,000,000	Per 08-28-2020 Financial Plan, proposed
RRIF Loan C (Local)	\$205,000,000	Per 08-28-2020 Financial Plan, proposed
Other Amtrak Sources	\$1,282,000,000	Amtrak Contribution/FRA Grant TBD

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA		Jan 2016 - Dec 2020 ^A						Cost included in New Tunnel and Concrete Casing
New Tunnel and Concrete Casing (Major Construction)	\$9,756,000,000	Jan 2021 - Jan 2030						
Rehab of North River Tunnel Construction	\$1,805,000,000	Jan 2030 - Jan 2033						

Notes: (A) The HTP estimated cost estimate and schedule is based on the August 2020 FY2022 FTA CIG HTP Financial Plan Submittal. For the purposes of the FY2022 FTA CIG HTP financial plan submittal, the Project Partners assumed that the environmental review for the new Hudson River Tunnel and rehabilitation of the North River Tunnel would be complete in calendar year 2020. While the FRA and the Project Partners are currently conducting the environmental review, the updated schedule for the FEIS and ROD has not been determined. This schedule will be updated once the FEIS and ROD schedule are finalized.

Gateway: Hudson Tunnel Project

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ,
 Gateway Program Development Corporation
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$35,741,495

FY21 Scope: Includes scope under four different projects at Amtrak: 1) Hudson Tunnel Project Design: a) A project-wide engineering services contract modification to support pre-procurement activities for a Design-Build contract for HTP Package 1 (Civil Works), including procurement support for an RFQ/RFP, engineering design support, environmental support services and non-NEPA permitting, risk management, additional contract packaging, and safety and security activities. b) Continuation of supplemental geotechnical borings. c) The start of final design of interior tunnel systems. 2) Hudson Yards Concrete Casing - Section 3 Utility Relocation Early Work: With the bid phase in process in Q4 of FY20, the construction phase will initiate and progress to substantial completion in FY21 with an estimated period of performance of approximately 13-14 months. Work must be complete, by agreement with the developer, by October 1, 2021. Work includes relocation of Long Island Rail Road Emergency Services Building utilities. 3) Hudson Tunnel Project NEPA: Update of the administrative draft Final Environmental Impact Statement (FEIS) that was completed in February 2018 and updated in December 2018. An updated FEIS will be published in coordination with FRA and FTA, followed by Records of Decision by both agencies. 4) Manhattan Property Acquisition: Preparatory activities to purchase Block 675 Lot 1 the key construction staging site and location of the permanent ventilation plant for the new Hudson River Tunnel, and securing a temporary construction easement for Block 675 Lot 12.

FY21 Milestones:

- HYCC-3 Early Work: Electrical Manholes/ Pull Boxes/ Cables; Award Final Design Contract; HYCC-3 Early Work: Fabrication and delivery of long lead equipment (May 2021)
- HYCC-3 Early Work: Compound Canopy/Equipment/ Fence (Jul 2021)
- HYCC-3 Early Work: Splicing, Testing, Commissioning (Sep 2021)

Notes: Hudson Tunnel Project Design, Contract packaging: \$10,963,228; Hudson Yards Concrete Casing Sec 3 Early Work: \$23,237,500; Hudson Tunnel Project NEPA: \$840,767; Hudson Tunnel Property Acquisition: \$700,000 (FY21 Budget only includes Amtrak planned expenditures)

Five Year Information

FY21-25 Funding Available: \$1,949,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Complete Hudson Yards Concrete Casing Section 3 (Right of Way Preservation Project); Early Work Publish FEIS and obtain FTA and FRA RODS; Purchase necessary properties for Hudson Tunnel Project; Complete final design, contract packaging, Begin RFQ/RFP Process.

FY21-25 Additional Funding Needed: \$11,650,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Award major construction contracts for Tunnel Project. Complete property purchases for right-of-way and construction staging. Begin major construction.

Notes: Five year information is per the financial plan for the Hudson Tunnel Project Capital Investment Grant application which has been submitted to FTA. Funding considered available by each modal administration at USDOT is subject to individual administration requirements.

Gateway: Sawtooth Bridges Replacement Project

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This project would replace Amtrak Bridges No. 7.80 and No. 7.96, collectively referred to as the "Sawtooth Bridges." The existing bridges are located in the Town of Kearny, Hudson County, New Jersey between Newark Penn Station and Secaucus Junction, and are located directly above or in close proximity to several important rail lines, including the NJ TRANSIT Morris and Essex Line, the former Conrail Center Street Branch, and the PATH WTC rail line. The proposed project would replace an approximately 1.1-mile long segment of existing transportation right-of-way along Amtrak's Northeast Corridor with new structures that would result in a four-track segment of the NEC with improved design speeds.</p>	
Project Justification	<p>The increasing age of the Sawtooth Bridges, their structural condition, and their two speed-restricted tracks (60 miles per hour) limit the efficiency and reliability of rail operations along this critical segment of the NEC. The Sawtooth Bridges were constructed in 1907 and are nearing the end of their functional life. Amtrak rehabilitated the bridges in the early 1980s yet despite this rehabilitation effort, recent inspections indicate that the Sawtooth Bridges continue to deteriorate. Amtrak conducted an inspection and condition survey in 2013 that found the Sawtooth Bridges to be in poor to very poor condition.</p>	
Total Project Cost	<p>\$1,600,000,000</p> <p><i>Cost Derivation Methodology:</i> Opinion of probable cost (conceptual) in 2016 dollars, escalated 3.5% a year to year of expenditure, plus allowance for risk coverage and financing.</p> <p><i>PBCA Notes:</i> Not available</p>	<p>Status of PBCA Agreement: Not available</p>
Funding sources for entire project history	<p>Amtrak FY21 FRA Grant</p>	<p>\$9,277,500</p>

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$1,105,860	Jan 2012 - Jan 2017						
NEPA	\$375,000	Jan 2018 - Sep 2020						
PE	\$19,996,735	Nov 2020 - Sep 2022						
Final Design	\$82,167,242	Dec 2022 - Jan 2025						
Construction	\$1,251,172,640	Jan 2023 - Jan 2029						

Gateway: Sawtooth Bridges Replacement Project

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$9,277,500

FY21 Scope: FY 21 scope will include initiation of Preliminary Engineering contract and submission of 15% design package.

FY21 Milestones:

- Preliminary Engineering NTP (Oct 2020)
- Complete Field Investigations (Feb 2021)
- 15% Track and Bridge Concept Design (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$9,277,500

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Preliminary engineering

FY21-25 Additional Funding Needed: \$827,902,431

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete preliminary engineering, final design, and contract packaging. Conduct bid phase. Award contract and begin construction.

Pelham Bay Bridge Replacement

Coordinating Agency: Amtrak
In Partnership With: MTA
Type: Major Backlog **Benefit:** Sole
Funding Status: Partially funded

General Project Information

Full Project Scope This project would replace the century-old movable Pelham Bay Bridge, which crosses the Hutchinson River in the Bronx, with either a new, low-level movable, mid-level movable, or a high-level fixed bridge with clearance for marine traffic. Additional funding is required for evaluation of these alternatives and to commence Preliminary Engineering. • Option 1: Two 2-track 70 mph mid-level movable bridges • Option 2: Retain the 2-track 45 mph low-level movable bridge for trains stopping at Co-op City Station and construct two 1-track 100 mph high-level fixed bridges on each side for express trains. This project also includes an 80 mph improved Pelham Lane Interlocking replacing Pelham Bay Interlocking.

Project Justification The Pelham Bay Bridge was built in 1907, and the existing Pelham Bay Bridge is a speed restriction on the fastest part of the Hell Gate Line. The movable span consists of a two-track 82-foot long through truss. This bridge creates a bottleneck by constricting traffic down to speeds of 45 mph. The aging bridge still opens frequently for marine traffic and occasionally fails to properly close, creating delays for Amtrak service between Boston and New York as well as delays in freight and commuter service, which use the line. This asset will not provide the reliability needed for future expansion of train operations until the movable span is upgraded. With added MNR PSA trains it will become even more of a capacity bottleneck on the east side of the proposed Co-op City Station.

Total Project Cost \$496,130,000 **Status of PBCA Agreement:** Not started
Cost Derivation Methodology: Initial estimate developed from the report "Pelham Bay Bridge Replacement/ Reconstruction Project Conceptual Engineering and Inspection Services Final Feasibility Report FY2015."
PBCA Notes: Not available

Funding sources for entire project history Amtrak FY18 & prior GCAP \$2,116,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$1,253,636	Oct 2014 - Sep 2015						
Pre-NEPA		Oct 2017 - Sep 2018						
NEPA	\$688,000	Oct 2019 - Jan 2022						
PE/NEPA	\$9,188,364	Jan 2022 - Jul 2024						
Final Design	\$25,000,000	Jul 2024 - Dec 2028						
Construction	\$460,000,000	Jan 2029 - Mar 2033						

Pelham Bay Bridge Replacement

Coordinating Agency: Amtrak

In Partnership With: MTA

Type: Major Backlog

Benefit: Sole

Funding Status: Partially funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned in FY21.

FY21 Milestones:

- Not applicable

Notes: The project has been deferred to October 2021 and no work is anticipated in FY21.

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$15,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If additional funding is provided the project can complete Preliminary Engineering and Final Design.

Susquehanna River Bridge Replacement: Phase 1

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project would replace the existing two-track movable Susquehanna River Bridge with a modern high-level, fixed structure, with two tracks. The project would benefit commuter and intercity rail as well as Norfolk Southern, which uses the segment to access the Port of Baltimore. Using a \$22 million High-Speed Intercity Passenger Rail (HSIPR) grant, preliminary engineering and environmental review were completed in FY17. Additional funding is required for final design and construction.	
Project Justification	Built in 1906, the existing two-track bridge is nearing the end of its useful life. The current bridge requires trains to reduce speeds for almost a mile due to its condition. A new asset is required in order to maintain operations through this section of Maryland and additional tracks are needed to meet future demand.	
Total Project Cost	\$1,885,000,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Project Cost Estimate was based upon Preliminary Engineering Design. The Draft Cost Estimate of \$1.885 Billion was initially prepared November 2016, updated November 2017 and is based on 2017 Dollars. The updates consisted of Contingency and Project Management Costs aligning with Amtrak Project Management Manual Criteria.	
	PBCA Notes: Not available	
Funding sources for entire project history	ARRA/HSIPR	\$12,600,000
	Amtrak FY19 & prior GCAP	\$11,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$7,739,367	May 2012 - May 2017						
<ul style="list-style-type: none"> • Lewis Lane OH Bridge Replacement (MDOT/track alignment) • Ikea Access Road to MOW Perryville Base (phasing) • Havre de Grace High School Athletic Field (ROW alignment) • Jean S. Roberts Memorial Park Boat Ramp Relocation (ROW alignment) • Demolition of abandoned ROW OH bridges (ROW alignment) • Furnace Bay Golf Course OH Bridge Raising (track geometry) and other Miscellaneous items 	\$86,200,000	Jan 2020 - Jan 2024						
Final Design	\$50,000,000	May 2017 - Jun 2024						Based on Previous PM info
Construction	\$1,741,060,633	Jan 2024 - Jan 2030						Based on Latest Hard Dollar Estimate

Susquehanna River Bridge Replacement: Phase 1

Coordinating Agency: Amtrak

In Partnership With: Maryland DOT

Type: Major Backlog

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$2,840,000

FY21 Scope: In FY21 we plan to reach the 60% design milestone and move toward the 90% design milestone. We will also look at the potential to perform some small precursor projects that are part of the construction phase.

FY21 Milestones:

- Grace Interlocking Design (Precursor Activity) (Sep 2021)

Notes: The information above is our best guess for milestone accomplishments this year but these assumptions will be adjusted based on funding level received and conversations between Amtrak PM team and Designer of Record. The budget amount displayed reflects the amount requested.

Five Year Information

FY21-25 Funding Available: \$52,840,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
In order to finish the design and begin to accomplish some of the precursor projects leading up to the bridge replacement itself, the funding level called out above (\$50M) would need to be provided. That funding level would allow the design of the new bridge to be completed as well as complete the designs for the precursor projects including Grace Interlocking reconfiguration, a new ballast wash at Perryville, raising of bridge for golf course north of the bridge and the bridge and abutment modifications on the approach to the bridge.

FY21-25 Additional Funding Needed: \$50,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
The phases listed above would be able to be completed if the stated funding levels (\$50M for FY22-25) were met. This represents funding that is needed but not approved. With additional funding, we could complete all design activities and begin/complete many of the precursor projects that must be completed before the bridge itself is replaced.

Baltimore Penn Station: Infrastructure Improvements

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will construct two additional platforms to support scheduled Acela overtakes of Northeast Regional and MARC trains. The scope includes a new Track 8 (F) platform, including new vertical access and canopy. The Track 3 existing low-level platform will be rebuilt as an accessible high-level facility, including repairs to the existing elevator and stairs. Additional track, signal, and electric traction improvements are also included to support the platform addition and improvement.	
Project Justification	The reconstruction of the existing platform and the construction of a new platform are required to support scheduled increases to the high-speed rail service, specifically overtakes of Northeast Regional and MARC trains in both the southbound and northbound directions.	
Total Project Cost	\$46,579,089	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Current overall project estimate was developed by the Project PM based on a designer's estimate for GC work, other project costs, and contingency. The current estimate based on the 100% design submission and constructibility review is approximately \$46.58M.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	RRIF Loan - Amtrak	\$46,579,089 RRIF Loan (working with Bill Prosser to achieve additional RRIF Loan funding need)
	Other Amtrak Sources	Amtrak Electric Traction (ET) will be providing the funding for the catenary construction phase.

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$50,446	Oct 2017 - Oct 2018						Environmental Consultant
Feasibility, Design	\$2,574,958	May 2017 - Sep 2020						
Construction	\$28,500,504	Oct 2020 - Feb 2023						GC Work on Platforms only, FA in Other
CM Services, FA work, CPS, Contingency	\$15,453,596	Oct 2020 - Feb 2023						

Baltimore Penn Station: Infrastructure Improvements

Coordinating Agency: Amtrak

In Partnership With: Maryland DOT

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$16,628,643

FY21 Scope: In FY21, we plan to award a contract to a General Contractor to begin the construction phase of this project. Early construction items include the foundation work for the new Platform 2 and potentially the new Platform 5 as well as the catenary pole foundations for Platform 5 (funded through an Amtrak ET GCAP Project). The demo of the existing Platform 2 and the construction of the new Platform 2 will also begin. Canopy work will also begin for Platform 2 as well as vertical circulation work.

FY21 Milestones:

- NTP General Contractor (Oct 2020)
- Mobilization and start of Construction (Oct 2020)
- Cat pole foundation finish (Nov 2020)

Notes: The milestone information and dates provided above reflect the best assumptions for planned work in FY21. This may be affected by the GCs means and methods and phasing changes that may occur when GC is awarded.

Five Year Information

FY21-25 Funding Available: \$46,579,089

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
We expect to complete this project by the end of FY23.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Baltimore Penn Station: Master Plan

Coordinating Agency: Amtrak

In Partnership With: Maryland DOT

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope	This project would provide a comprehensive and integrated approach for Baltimore Penn Station to advance key near-term state-of-good-repair projects while establishing a development framework to leverage under utilized assets and accommodate future growth and redevelopment through a public private partnership. Additional funding is required for design and construction of improvements.		
Project Justification	Baltimore Penn Station is Amtrak’s 8th busiest station serving nearly one million riders and an additional two million commuter passengers each year. The Station is challenged by aging infrastructure that is not conducive modern train operations. Both passenger and employee facilities are in need of improvement, and multimodal connectivity is strained by the station’s current configuration. Efforts to advance state-of-good-repair programs, improve rail operations to accommodate additional Acela service, and a private-public partnership for large-scale redevelopment will set the future course to realize Baltimore Penn Station as a vibrant transportation hub interwoven within an integrated mixed-use urban district.		
Total Project Cost	\$115,000,000	Status of PBCA Agreement: Not started	
	<i>Cost Derivation Methodology:</i> Total project cost estimate is derived from the scope of work required to bring Baltimore Penn Station into a state of good repair, complete operational facility improvements, and Station modernization and expansion. The original estimates were based on SOGR assessments, and a 2019 set of program requirements. Additional cost information will be the result of continued design development. Contingency rate is N/A.		
	<i>PBCA Notes:</i> Ongoing coordination with MDOT, MTA, MARC on design and construction of Baltimore Penn Station improvements.		
Funding sources for entire project history	BUILD	\$6,200,000	\$6.2M MDOT FY20 BUILD Application “Building Baltimore Penn Station Connections” No awards have been made yet.
	Maryland DOT	\$300,000	Contributed to SOGR 1a 1b Design
	City of Baltimore DOT	\$500,000	Match for FY20 BUILD Application “Building Baltimore Penn Station Connections” No awards have been made yet.
	Amtrak Annual Federal Grant	\$90,000,000	
	Private Source	\$700,000	Developer match for FY20 BUILD Application “Building Baltimore Penn Station Connections” No awards have been made yet.

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$2,500,000	May 2017 - Apr 2020						
PE/NEPA	\$7,651,000	May 2020 - Oct 2020						
Final Design	\$9,970,000	Oct 2020 - Aug 2021						
Construction	\$74,879,000	Nov 2020 - Jan 2023						

Baltimore Penn Station: Master Plan

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$16,865,226

FY21 Scope: The FY21 scope includes completing design and moving into construction of the Exterior Envelope, and Early Action SOGR improvements, as well as advancing design for the remaining SOGR improvements, station modernization, and concourse expansion.

FY21 Milestones:

- 30% Design Documentation for Station Expansion (Oct 2020)
- NTP for SOGR Exterior Envelope Construction (Dec 2020)
- 60% Design Documentation for Station Expansion (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$90,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete design and construction of Baltimore Penn Station building SOGR improvements, modernization, and expansion.

FY21-25 Additional Funding Needed: \$20,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
The current scope is limited to repairs, improvements, and concourse expansion of the historic Baltimore Penn Station to meet current and future operational needs. It does not include necessary improvements to station access, exterior circulation, and intermodal connections. Additional funding is needed to complete the reconfiguration of station plazas, curbside transit facilities, TNC's, and bike/scooter share facilities.

Fitter Interlocking (formerly Yale Interlocking)

Coordinating Agency: Amtrak
In Partnership With: Connecticut DOT
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This project would include the construction of a new, wired universal interlocking in Clinton, CT that would subdivide a 16-mile interlocking-to-interlocking segment (Guilford and View Interlockings) into two shorter segments, allowing single track operation over a shorter distance during maintenance with less operational disruption. This will improve reliability. Construction would include the installation of #24 clothoidal turn-outs, rail, switch ties, sub-grade, ballast, components of the overhead catenary system, signal transformers, signal cables, signal masts, switch heaters, switch machines, switch houses, instrument houses, and interlocking lighting. Additional funding is necessary for construction.</p>	
Project Justification	<p>A new interlocking in Clinton would increase the flexibility of Shore Line East and Amtrak operations. This new interlocking would enable SLE trains to flexibly service the existing and future platforms at Clinton and Madison stations and make greater use of the Clinton siding, a short stretch of third track along the south side of the NEC. By enabling SLE trains to use all platforms and tracks in the area, the interlocking would enable Amtrak and SLE to expand services while reducing train conflicts and their resulting delays.</p>	
Total Project Cost	\$34,100,000	Status of PBCA Agreement: Completed
	<p><i>Cost Derivation Methodology:</i> This interlocking reached Final Design, which included an engineer's estimate, in December of 2017. Amtrak's PM group then performed a "validation" effort with Division leadership to enhance the force account assumptions, resulting in the current estimate, in FY18 dollars, of \$32.4M. Some escalation was assumed for different tasks since this is a multi-year project.</p> <p><i>PBCA Notes:</i> A PBCA agreement is in place for the Construction phase.</p>	
Funding sources for entire project history	<p>Connecticut DOT</p> <p>Amtrak FY20 GCAP + Connecticut DOT</p> <p>Amtrak FY19 & prior GCAP</p>	<p>Contributing 35% of construction</p> <p>Revised post-COVID figures</p> <p>\$2,030,000</p> <p>\$2,329,000</p>

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$1,937,604	Nov 2015 - Dec 2017						Environmental work continues; \$195K needed for FY18
Construction	\$32,100,000	Oct 2018 - Dec 2022						Seeking an agreement under the CTDOT Master Agreement

Fitter Interlocking (formerly Yale Interlocking)

Coordinating Agency: Amtrak

In Partnership With: Connecticut DOT

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$3,000,000

FY21 Scope: Resume construction with post-covid funding. Complete procurement of material, complete signal cable relocation and Lancaster shop to complete construction of signal facilities.

FY21 Milestones:

- Begin contractor procurement (Jan 2021)
- C&S complete cable relocation (Feb 2021)
- Lancaster Shop Deliver CIH (May 2021)

Five Year Information

FY21-25 Funding Available: \$3,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete C&S construction of CIH and related cases and huts at Lancaster shop and deliver to New England Division. C&S Division forces to complete cable relocation; ET Division to procure all long lead material and start assembly of arms/hangars.

FY21-25 Additional Funding Needed: \$26,300,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete all construction and cutover new interlocking, including installation of cat poles, track shifts, installation of all Signal facilities, installation of switches, installation of under-drain, and final cut over.

Gateway: Dock Bridge Rehabilitation

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	Dock Bridge is a complex of three vertical lift structures located along one the busiest sections of the Northeast Corridor (Milepost 8.5), crossing the Passaic River in Newark, NJ. The bridge carries six tracks utilized by Amtrak, NJ TRANSIT and PATH trains. Considerable repairs are needed to this critical asset to restore the bridge to a state of good repair, to maintain reliable operation of the structure, and to preserve safe passage for the more than 720 trains per day that utilize the structure. Required repairs include structural steel painting of towers and spans, repair to the steel members, pier repairs including cathodic protection system, fender replacement, and replacement of movable miter rails with straight rails and counterweight adjustment. This work will prolong the life of the bridge and minimize the risk of more costly rehabilitation in the future, as well as reduce delays associated with bridge openings, pending a permit modification by the U.S. Coast Guard.		
Project Justification	The project would perform critical maintenance and rehabilitation work to bring an intensely used infrastructure asset in the busiest section of the Northeast Corridor to a state of good repair, avoiding service disruption and maintaining its useful life.		
Total Project Cost	\$63,600,000	Status of PBCA Agreement: In progress	
	<i>Cost Derivation Methodology:</i> The cost estimate was developed in Spring 2020 after completing a detailed inspection and load rating of the three spans in January 2020.		
	<i>PBCA Notes:</i> Dock Bridge has an existing cost sharing agreement between Amtrak and PATH that can be used as a basis for this project.		
Funding sources for entire project history	Amtrak Revenues	\$9,860,000	Committed match to a FY20 Federal State Partnership for SOGR grant application
	PATH	\$10,340,000	Committed match to a FY20 Federal State Partnership for SOGR grant application
	FTA Formula Grants	\$11,600,000	NJ TRANSIT, committed match to a FY20 Federal State Partnership for SOGR grant application

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design	\$822,000	Mar 2021 - Feb 2022						
Construction	\$62,778,000	Sep 2022 - Dec 2024						

Gateway: Dock Bridge Rehabilitation

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,586,245

FY21 Scope: FY 21 scope will include the preliminary design of the rehabilitation program.

FY21 Milestones:

- Anticipated Federal State Partnership SOGR Grant Announcement (Oct 2020)
- Dock Bridge Rehab - Design NTP (Mar 2021)
- 30% Design Deliverable (Aug 2021)

Five Year Information

FY21-25 Funding Available: \$31,800,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Only design will be completed until grant can be secured for full project amount.

FY21-25 Additional Funding Needed: \$31,800,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
With all funding secured, full project scope will be completed by 2025.

Gateway: Harrison Fourth Track Phase 1

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, PATH/Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project includes the design and construction of approximately 2,000 ft. of additional main track along the Northeast Corridor through the city of Harrison, NJ on the western side of the corridor with new embankment and/or retaining structures, track, signal and third rail systems to allow shifting of the westbound PATH track to this new alignment. The project will identify and design changes necessary to connect the new track with the existing infrastructure and also be coordinated with PATH's on-going Harrison Station replacement project.	
Project Justification	This project would allow construction of a new fourth main track through Harrison, NJ using the former PATH track alignment. Currently, the NEC through Harrison consists of three shared commuter/ intercity rail tracks and two additional tracks operated on exclusively by PATH trains between Newark, NJ and Jersey City, NJ and other points east. Through the project site, the two PATH tracks lie immediately adjacent to the three NEC tracks and prevent adding additional NEC tracks due to this configuration. This is another increment in creating the full four-track Gateway Program alignment between Newark, NJ and Penn Station, NY.	
Total Project Cost	Total Project Cost TBD	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Project in early stages of development; cost information not yet available.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Amtrak FY20 FRA Grant	\$516,649
	Amtrak FY21 FRA Grant	\$1,660,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,115,020	Mar 2020 - Feb 2021						
Final Design	\$2,915,000	May 2021 - Sep 2022						

Gateway: Harrison Fourth Track Phase 1

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, PATH/Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,660,000

FY21 Scope: FY 21 Scope will include continuation of Preliminary Engineering through 30 percent design. Following 30 percent design deliverable, a contract mod will be issued for final design and contract packaging to begin in the latter half of the fiscal year.

FY21 Milestones:

- Cat Ex Worksheet Submission (Nov 2020)
- 30% Draft Design Submittal/ Presentation (Nov 2020)
- Submit Final 30% Design (Feb 2021)
- NTP - Final Design and Packaging (May 2021)

Five Year Information

FY21-25 Funding Available: \$2,211,649

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Completion of preliminary engineering and start final design and contract packaging

FY21-25 Additional Funding Needed: \$1,315,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Completion of final design and contract packaging

Notes: Until we have completed P.E. we will not have a reliable cost estimate for project construction.

Hanson Interlocking

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project would improve operational flexibility at New Carrollton station and reduce delays for Amtrak and MARC service. A new interlocking would allow universal moves and reduce conflicts that occur when trains must pass other trains stopped at New Carrollton. Construction of Hanson Interlocking would also advance a state of good repair by allowing for the modification of aging Landover Interlocking.		
Project Justification	This project will expand capacity and reduce congestion by enabling express and local trains to operate simultaneously in both directions.		
Total Project Cost	\$92,187,895	Status of PBCA Agreement: Not applicable	
	<i>Cost Derivation Methodology:</i> Total project cost was reassessed in 2017.		
	<i>PBCA Notes:</i> Not applicable		
Funding sources for entire project history	FTA Formula Grants	\$8,000,000	Additional funding spent in prior fiscal years.
	Maryland	\$2,000,000	Additional funding spent in prior fiscal years.
	Other Amtrak Sources	\$82,187,895	Balance of funding required is funded by Amtrak through written agreement for the cost sharing.

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,992,271	Jun 2009 - May 2015						
Final Design	\$857,940	May 2015 - Dec 2019						
Construction	\$84,033,563	Oct 2011 - Jul 2022						
Contingency	\$5,304,121	Nov 2017 - Jul 2022						

Hanson Interlocking

Coordinating Agency: Amtrak

In Partnership With: Maryland DOT

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$16,812,914

FY21 Scope: Main items for FY21 is to install signal bridges and catenary poles for Hanson. This will involve coordination with Pepco, WMATA, Zayo and Transportation. C&S will work on testing. ET will begin catenary work after poles are installed.

FY21 Milestones:

- Begin Signal Bridge Installation (Oct 2020)
- Complete Signal Bridge Installation (Dec 2020)
- Begin Catenary Pole Installation (Dec 2020)
- Complete Catenary Pole Installation (May 2021)

Five Year Information

FY21-25 Funding Available: \$37,677,895

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
At this time, project is projected to be completed in FY22

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Maryland Section Reliability Improvements

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will upgrade 30 miles of existing Track 1 in Maryland and make associated signal system and track upgrades for higher speed operations on the Washington-to-Baltimore section of the NEC.	
Project Justification	This section of the NEC operates at or near capacity today and is not able to reliably absorb increases in service without additional infrastructure improvements. This project targets reductions in congestion-related delays and provides new overtake capacity between different classes of service (high-speed, conventional, and commuter), allowing the faster, high-speed trains to pass slower trains. These improvements, along with structural and operational changes, optimize use of this infrastructure and provide the necessary capacity to meet the Service Plan requirements.	
Total Project Cost	\$20,600,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The Order of Magnitude (OOM) estimate was developed based on a conceptual design. The design did not include any C&S work for signal system modification, Positive Train Control equipment changes or ET catenary wire realignment. There was a new approach developed by the project team to mitigate additional costs associated with the C&S and ET constructions costs.	
	PBCA Notes: Not available	
Funding sources for entire project history	RRIF Loan - Amtrak	\$20,600,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$1,575,396	Aug 2017 - Dec 2018						

Maryland Section Reliability Improvements

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$640,111

FY21 Scope: Complete C&S Construction, which includes PTC and signal systems, and prepare built drawings.

FY21 Milestones:

- C&S CONSTRUCTION (PTC and Signal Sys.) (Dec 2020)

Five Year Information

FY21-25 Funding Available: \$640,111

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
1. The C&S Signal System and PTC construction will be completed (FY-21). 2. Complete As built drawings and project close out (FY-21).

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Moynihan Station: Phase 2

Coordinating Agency: Amtrak
In Partnership With: MTA, Empire State Development Corporation, Moynihan Station Development Corporation, US Postal Service
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	<p>This project expands passenger-handling operations and station services into the historic James A. Farley Post Office building, which will function as the Moynihan Train Hall. This new joint facility will serve as a world-class intercity and commuter passenger boarding concourse for Amtrak and Long Island Rail Road (LIRR) passengers. Phase 1, was completed in FY17 and included the expansion and enhancement of the 33rd Street Connector between Penn Station and the West End Concourse; the extension and widening of the West End Concourse to serve nine of Penn Station’s eleven platforms; the development of new vertical access points and passenger circulation space; the creation of new entrances into the West End Concourse through the 31st and 33rd Street corners of the Farley building; and the installation of an emergency ventilation system to improve life safety. Phase 2 is currently underway and entails significant design and construction to create the Moynihan Train Hall. Phase 2 construction will result in an enhanced boarding concourse and customer waiting room, a sky lit atrium, a combined ticketing and baggage unit, a new metropolitan lounge, an emergency platform ventilation system at the perimeter of the Farley building, and improvements to the 33rd Street sub-street corridor connecting Penn Station and Moynihan Station. Moynihan Station Development Corporation (MSDC), the building owner, is coordinating the design of non-train hall work in collaboration with Amtrak and Long Island Rail Road. The project is being managed by the MSDC, a subsidiary of the Empire State Development Corporation, a public benefit corporation of the state of New York and the Port Authority of New York New Jersey, in cooperation with Amtrak and Long Island Rail Road.</p>		
Project Justification	<p>When Moynihan Station’s train hall construction project is complete, Amtrak will be in a position to move its primary operations into the new facility, which will improve passenger comfort and security, relieve congestion, and enhance accessibility for passengers with disabilities in the busiest train station in the nation.</p>		
Total Project Cost	\$1,600,000,000	Status of PBCA Agreement: Not available	
	<p><i>Cost Derivation Methodology:</i> The total project cost estimate was not developed by Amtrak, it was developed by New York State’s Empire State Development Corporation (ESD).</p> <p><i>PBCA Notes:</i> Not available</p>		
Funding sources for entire project history	CMAQ	\$22,000,000	Penn-Farley Complex; Farley Building Loading Dock
	CMAQ	\$40,165,000	Penn-Moynihan Station Complex Train-Shed Hardening Project
	MTA	\$114,000,000	
	ESD Corporation TIFIA Loan	\$526,100,000	
	ESD Corporation	\$475,300,000	
	PANYNJ	\$150,000,000	
	RRIF Loan - Amtrak	\$106,000,000	RRIF Loan for Phase 2
	Private Source	\$230,000,000	Developer payment

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$1,594,000,000	May 2017 - Jan 2021						

Moynihan Station: Phase 2

Coordinating Agency: Amtrak
In Partnership With: MTA, Empire State Development Corporation, Moynihan Station Development Corporation, US Postal Service
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$50,700,000

FY21 Scope: The FY21 focus will be on construction and activation activities for the opening of Moynihan Train Hall. Activities include: Moynihan Train Hall fit-out construction, furnish the spaces, complete operational readiness planning and execution, complete the execution of agreements and formation of the Train Hall condominium, test the building and security systems, train employees is using the new equipment and the new space, conduct operational trials, and move employees to the Train Hall from NYP and other locations. The Moynihan Train Hall will open to customers in early 2021.

FY21 Milestones:

- Employee Station Familiarization Complete (Nov 2020)
- Signage Complete (Nov 2020)
- Substantial Completion of Amtrak Fit-out (Dec 2020)
- Moynihan Train Hall Opening Day (Dec 2020)
- Prepare Built Drawings (Jan 2021)

Five Year Information

FY21-25 Funding Available: \$50,700,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Construction and activation activities for the opening of Moynihan Train Hall. Activities include: Moynihan Train Hall fit-out construction, furnish the spaces, complete operational readiness planning and execution, complete the execution of agreements and formation of the Train Hall condominium, test the building and security systems, train employees in using the new equipment and the new space, conduct operational trials, and move employees to the Train Hall from NYP and other locations. The Moynihan Train Hall will open to customers in December 2020, and back-of-house will be completed in early 2021.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Not applicable

New Carrollton Station: Acela 21

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

General Project Information

Full Project Scope	The scope of work of the New Carrollton Station (NCR) Acela 2021 project includes: 1. New 1,050-foot side platform adjacent to an upgraded Track 1; 2. New vertical access (escalators, elevator and stairs) and required station modifications to access NCR at ground level below the elevated track; and 3. Reinstallation of a freight ganuntlet along Track 2 to preserve wide load service through NCR, per Amtrak’s statutory freight railroad access requirements.	
Project Justification	The New Carrollton Station (NCR) project is an integral component of required infrastructure investments to support the Acela 2021 Program and the 2020 NEC Service Plan, and will improve overall train performance, resulting in reduced trip times, as well as improve operational reliability of all rail services on the south end of Amtrak’s NEC. As a result, there would be an enhanced passenger experience.	
Total Project Cost	\$35,837,881	Status of PBCA Agreement: In progress
	<i>Cost Derivation Methodology:</i> The Total Project Cost Estimate was last updated in October 2018 based on 90% design documents. This estimate includes cost for full design services (15% Design through Issued for Bid Documents); project management; construction phase; construction management; environmental; and contingency costs for Design and Construction phases.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	RRIF Loan - Amtrak	\$18,200,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design		End Dec 2020						
Construction	\$33,700,000	Apr 2021 - May 2023						

New Carrollton Station: Acela 21

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

One Year Information

FY21 Budget: \$8,490,000

FY21 Scope: Finalize WMATA design package. Finalize 100% design phase. Issue construction NTP. Excavate areas that are sensitive to the WMATA tracks during WMATA's track outage in the Summer of FY21.

FY21 Milestones:

- Submit 2nd WMATA package (Oct 2020)
- Finalize WMATA package (Nov 2020)
- Begin RFP process for construction contractor (Dec 2020)
- Finalize and submit 100% Design (Dec 2020)
- Procurement start (Jan 2021)
- Construction NTP (Mar 2021)

Five Year Information

FY21-25 Funding Available: \$16,200,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete Design in FY21. Initiate Construction FY21. Complete Construction FY23

FY21-25 Additional Funding Needed: \$17,637,881

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete all construction activities.

New Carrollton Station: SOGR & ADA

Coordinating Agency: Amtrak
In Partnership With: MARC, WMATA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	The (NCR) New Carrollton Station-(SOGR) State of Good Repair project is to address deficiencies on the existing concrete platform. The scope of work includes: repair platform, replace stair and escalator enclosures, re-paint canopy steel structure, and replace canopy roofing.	
Project Justification	As the owner of the NCR station (the structure, platform, and tracks), Amtrak is responsible for state of good repair (SOGR) improvements.	
Total Project Cost	\$2,500,000	Status of PBCA Agreement: Completed
	<i>Cost Derivation Methodology:</i> The Total Project Cost Estimate is based on the SOGR Assessments Report completed in July 2018.	
	<i>PBCA Notes:</i> Design cost	
Funding sources for entire project history	Federal State Partnership for SOGR	\$1,000,000 For FRA Stations Design, FY20 applied

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$10,916	Apr 2020 - Jun 2020						
Final Design	\$410,739	Mar 2020 - Dec 2020						Dependent on funding request
Construction	\$2,000,000	May 2021 - May 2022						

New Carrollton Station: SOGR & ADA

Coordinating Agency: Amtrak
In Partnership With: MARC, WMATA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: Finish design phase, procure a contractor to commence construction (dependent on funding request of \$1.2M).

FY21 Milestones:

- IFB Submission, complete design (Dec 2020)
- Start construction procurement (Jan 2021)
- Complete construction procurement, issue NTP (Apr 2021)
- Start construction (May 2021)

Notes: Construction phase estimate will be developed as part of the design phase and coordinated with PMO estimate. Construction phase estimate will include the Designer of Record construction phase services, all other associated cost and contingency. The current construction phase ROM is estimated at +/- \$2M. FY21 activities are dependent on outcome of funding request.

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
In FY20, Amtrak contracted with AECOM to advance the design phase toward design development. For FY21, to complete the design phase and start construction, funding of \$1.2M has been requested and is under review.

FY21-25 Additional Funding Needed: \$1,200,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete construction.

Newark Penn Station: Amtrak Projects

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, PATH
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project involves improvements to the condition, appearance and functionality on Platforms A, B, and C at Newark Penn Station. Both Amtrak and NJ TRANSIT have responsibility to maintain to a state of good repair. To date, work on Platform E has been completed. This scope of this project includes the design and rehabilitation of Platforms A, B, and C; their roof/ canopy structures; and any other repairs deemed necessary by the initial structure assessment. The structural assessment is nearing completion. Once the final document is produced, Amtrak will prepare a "Make Safe Plan" for platform repairs.	
Project Justification	The project would create a safer platform environment and boarding conditions for passengers by bringing station areas to a state of good repair and into compliance with USDOT regulations. Due to expansion issues that have occurred over time, the joints at level-boarding platforms are buckling. In many cases, the expansion joints correspond to skewed bearing locations on the viaduct below, complicating the issues at the expansion joints. This project would improve safety and accessibility for all commuters, including physically challenged customers that board and deboard both Amtrak and NJ TRANSIT trains.	
Total Project Cost	\$123,462,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> This estimate was created from the State of good Repair Assessment in conjunction with the Force Account Estimate (it was Preliminary as of FY18).	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Amtrak BCC's	\$303,000 BCCs used for initial structural assessment of the platforms.
	Amtrak FY20 & prior GCAP	\$262,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
SOGR Assessment	\$262,000	Jul 2017 - Jan 2018						
PE/NEPA	\$3,000,000	Jun 2018 - Jun 2019						NJ TRANSIT and PATH proportional funding agreements pending.
Structural Assessment	\$303,000	Nov 2019 - Sep 2020						
Final Design	\$1,500,000	Oct 2020 - Sep 2022						
Construction	\$118,500,000	Oct 2023 - Sep 2025						NJ TRANSIT and PATH proportional funding agreements pending.

Newark Penn Station: Amtrak Projects

Coordinating Agency: Amtrak
In Partnership With: NJ TRANSIT, PATH
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,000,000

FY21 Scope: Design Consultant to design Refurbishment of Platforms A,B &C including train shed Façade

FY21 Milestones:

- Design Procurement (Oct 2020)
- Design NTP (Jan 2021)
- 30% Submittal (Apr 2021)
- 60% Submission (Jul 2021)

Notes: Design will take one year and will span FY21- FY22

Five Year Information

FY21-25 Funding Available: \$1,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Begin design activities

FY21-25 Additional Funding Needed: \$91,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Construction

Notes: Track outages dictate the Schedule. Only one platform can be out of service at a time Construction of One platform per year

Next Generation High Speed Fleet Infrastructure: Ivy City/Washington Terminal Yard Facility Improvements

Coordinating Agency: Amtrak
In Partnership With:
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	<p>This project will satisfy the anticipated facility and infrastructure improvements and maintenance requirements of a new Tier III High Speed Rail (HSR) fleet, the existing Acela fleet and accommodate an increase in service operations. The Tier III train sets are configured differently from the current Acela trainsets and will require modifications to the existing HSR S&I facilities to adequately service both the existing Acela fleet and the Tier III train sets. Scope of Work for Modifications to Existing HSR S&I includes design and Construction Phase Services (CPS) related to: upper level platforms, 480 VAC wayside power, center platform, potable/wastewater water, Inspection pit, split rail system, Alstom office and material storage, nose access platform, monorail crane and sanding system. Improvements to the Yard are necessary to support storage of the new train sets. This includes removing existing tracks and installing longer tracks (3 electrified and 1 non-electrified) as well as associated utility improvements (lighting, water, electrical duct banks), fencing, wayside power, & other related elements. Additionally, pit modifications within the S&I facility are necessary to support new wheel lathe for truing Tier III train sets.</p>	
Project Justification	<p>A new and expanded facility is necessary for commissioning, inspection, service, and maintenance of new HSR equipment, which is expected to be delivered between 2020 and 2022. The facility will improve equipment and operational reliability throughout the Northeast Corridor.</p>	
Total Project Cost	\$42,900,000	Status of PBCA Agreement: Not applicable
	<p><i>Cost Derivation Methodology:</i> S&I modifications and wheel lathe pit modifications is based on actual contracted costs. North Storage Track costs are based on Final Design cost estimate. Project cost estimate includes: Design, Construction (including Contracted work and work by Amtrak), Project/Construction Management, & RWP.</p> <p><i>PBCA Notes:</i> Not applicable</p>	
Funding sources for entire project history	RRIF Loan - Amtrak	\$95,600,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$3,402,136	Oct 2016 - Sep 2019						
Final Design	\$263,857	Oct 2019 - Jun 2020						
Construction	\$39,250,000	Jan 2020 - Aug 2021						S&I mods (\$13.25M), Storage Tracks (\$18.6M), Pit Mods (\$1.5M), PM/CM/RWP (\$2M), Contingency (\$3.9M)

Next Generation High Speed Fleet Infrastructure: Ivy City/Washington Terminal Yard Facility Improvements

Coordinating Agency: Amtrak
In Partnership With:
Type: Improvement **Benefit: Sole**
Funding Status: Fully funded

One Year Information

FY21 Budget: \$22,400,000

FY21 Scope: Complete S&I facility modifications including fabrication, delivery, installation, testing and commissioning of all specialty equipment, installation of new roof access platforms, installation of new Alstom trailer, and installation of associated utility improvements. Complete North Storage Track installation including all track improvements, catenary improvements, and associated utility improvements, fencing, & wayside power. Complete wheel lathe pit modifications including delivery of new wheel truing machine and associated testing and commissioning.

FY21 Milestones:

- New wheel lathe put in-service (Feb 2021)
- S&I Mods Substantial Completion (Feb 2021)
- North Storage Tracks Substantial Completion (Jun 2021)

Notes: Mitigate impacts from covid-19 to manage schedule. Monitor work progress and assure compliance as construction activities are completed. Deliver complete S&I modifications, including O&M manuals, for Mechanical use. Deliver new wheel lathe for Mechanical use. Deliver North Storage Tracks, including 4 new track segments (3 electrified and 1 non-electrified).

Five Year Information

FY21-25 Funding Available: \$22,400,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Expect project to be fully completed with all components in-service/operation by close of FY21.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Not applicable

Next Generation High Speed Fleet Infrastructure: Ride Quality Investment

Coordinating Agency: Amtrak
In Partnership With: NEC Operators
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project, which consists of two parts, will establish the means and methodology for performing reference surfacing on the NEC main line with the potential for expansion to other lines and maintenance and construction operations. The first project element is the establishment of the positioning network and data management system. This will include a survey of all tracks on the NEC. The second element is the acquisition of three sets of equipment for the ongoing surfacing of the NEC. The purpose of this project is to improve current surfacing practices, which will result in more efficient maintenance operations and better ride quality.	
Project Justification	This project is necessary in order to run trains at maximum authorized speeds of 160mph. Amtrak’s current surfacing methods are inconsistent throughout the NEC and do not put the track back to a designed position. These methods are outdated and cannot be sustained on a true high speed railroad. The expected result of this project is that all components of surfacing (survey, design, and solutions) will be connected by GPS positioning on the track. By tamping track to a design at a known location, maintenance practices will be reliable and repeatable. The time between tamping maintenance will increase and the wear and tear on track and vehicle components will decrease. This will result in desired track geometry and therefore higher ride quality and passenger comfort.	
Total Project Cost	\$67,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The total project estimate was developed from a conceptual white paper called “Development of a Reference Surfacing System for the NEC.”	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	RRIF Loan - Amtrak	\$67,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Selection of methodology/proof of concept	\$13,932,814	Sep 2017 - Sep 2019						
Final Design	\$53,067,186	Oct 2019 - Sep 2021						Survey, design and equipment purchase

Next Generation High Speed Fleet Infrastructure: Ride Quality Investment

Coordinating Agency: Amtrak
In Partnership With: NEC Operators
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$3,456,396

FY21 Scope: Finish the NEC Baseline LiDAR Survey started in FY-20. The Baseline Survey will produce a 3D point cloud. The 3D point cloud will be used to create the new track alignment designs. Complete CORS Node Densification. The will provide a overlapping GPS correction signal along the entire NEC. Track design for test section of NEC track. C&S and ET design for test section of NEC tracks.

FY21 Milestones:

- Complete CORS Node Densification. (Nov 2020)
- Complete NEC Baseline LiDAR Survey. (Jan 2021)
- Track Design (Mar 2021)
- ET Design (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$14,720,094

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Plan to complete construction for the test section of railroad, training and place the new system into production. Construction will continue under the yearly maintenance budget.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Next Generation High Speed Fleet Infrastructure: Safety Mitigation

Coordinating Agency: Amtrak
In Partnership With: NEC Operators
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will make several investments to allow Amtrak to permit operation of Tier III Trainsets on the NEC at up to the maximum speed of FRA Tier III standards. Amtrak undertook a detailed and lengthy risk analysis that demonstrates that this standard can be met with a limited investment in infrastructure improvements designed to limit intrusions on to the right of way and/or high-speed tracks in designated high-speed zones expected to be used by Acela. These investments include 20 miles of security fencing, 1/2 mile of guardrails, and other provisions associated with the Tier III FRA Waiver.	
Project Justification	These investments will increase intercity travels speeds and reduce overall travel time.	
Total Project Cost	\$90,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The total estimate of \$90M was provided by Amtrak Engineering prior to the RRIF funding authorization granted in August 2016.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	RRIF Loan - Amtrak	\$90,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$90,000,000	Sep 2017 - Mar 2021						

Next Generation High Speed Fleet Infrastructure: Safety Mitigation

Coordinating Agency: Amtrak
In Partnership With: NEC Operators
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$21,464,393

FY21 Scope: GATES/FENCING: The installation of fencing, guard rails and motorized gates at select locations on the NEC, per Tier III FRA Waiver. PTSO: This work will meet the FRA waiver requirements with the design enhancement of the PTSR button installation on Acela 21 trains. MOW: This project is to prevent on track work equipment from collisions that could happen when working on tracks. ADJ TRK: Complete project work and clean up for the two siding are listed below: 1. Merckens Chocolate Lead, Mansfield, MA, MP 204.2 to 204.8, Adjacent to Track 2, Owner: MBTA, maintenance responsibility unknown 2. Blaine Chemical Lead, Mansfield MA MP 204.3 to 204.8, Adjacent to Track 1, Owner MBTA maintenance responsibility unknown – track out of service only used by Amtrak MW

FY21 Milestones:

- GATE: Start Security Gate Installation (Dec 2020)
- Adj Track: Complete Construction (Dec 2020)
- MOW: NTP Collision Avoidance System Phase (Dec 2020)
- PTSO: NTP for Hardware Completion (Oct 2020)

Five Year Information

FY21-25 Funding Available: \$64,021,238

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
 GATES/FENCING: Complete installation of fencing, guard rails at 18 locations and if approved the installation of 100 motorized gates at select locations on the NEC, per Tier III FRA Waiver. PTSO: Complete the FRA waiver requirements with the design enhancement of the PTSR button installation on Acela 21 trains. MOW: Procure MOW avoidance collision system to prevent on track work equipment from collisions that could happen when working on tracks. ADJ TRK: Complete construction, clean up and project closeout for the siding upgrades to FRA class 2 listed below: 1. Merckens Chocolate Lead, Mansfield, MA, MP 204.2 to 204.8, Adjacent to Track 2, Owner: MBTA, maintenance responsibility unknown 2. Blaine Chemical Lead, Mansfield MA MP 204.3 to 204.8, Adjacent to Track 1, Owner MBTA maintenance responsibility unknown – track out of service only used by Amtrak MW

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
 Not applicable

Next Generation High Speed Fleet Infrastructure: Southampton St. Yard Facility Improvements

Coordinating Agency: Amtrak

In Partnership With: MBTA

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	The project scope includes the design and construction of infrastructure improvements for Southampton Street Yard to support the Next Generation High-Speed Rail (HSR). This project will satisfy the anticipated facility and infrastructure improvements and maintenance requirements of a new Tier III High Speed Rail (HSR) fleet, the existing Acela fleet and accommodate an increase in service operations. The Tier III train sets are configured differently from the current Acela trainsets and will require modifications to the existing HSR S&I facilities to adequately service both the existing Acela fleet and the Tier III train sets. More specifically, Scope of Work for Modifications to Existing HSR S&I includes design and Construction Phase Services (CPS) related to: upper level platforms, 480 VAC wayside power, center platform, potable/wastewater water, Inspection pit, split rail system, Alstom office and material storage, nose access platform, monorail crane and sanding system.	
Project Justification	A new and expanded S&I facility is necessary for commissioning, inspection, service, and maintenance of new Next Generation High-Speed Rail equipment, which is expected to be delivered between 2020 and 2022. The facility will improve equipment and operational reliability throughout the Northeast Corridor.	
Total Project Cost	\$16,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Project cost estimate based on actual contracted cost derived from 100% design documents. Project cost estimate includes: Design, Construction (including Contracted work and work by Amtrak), Project/Construction Management, & RWP.	
	PBCA Notes: Not applicable	
Funding sources for entire project history	RRIF Loan - Amtrak	\$4,500,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$520,735	Oct 2016 - Sep 2019						
Final Design	\$79,456	Oct 2019 - Jan 2020						
Construction	\$15,400,000	Jan 2020 - Aug 2021						Contracted (\$13.525M), Contingency (\$1M), PM/CM/RWP (\$875K)

Next Generation High Speed Fleet Infrastructure: Southampton St. Yard Facility Improvements

Coordinating Agency: Amtrak

In Partnership With: MBTA

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$8,800,000

FY21 Scope: Complete S&I facility modifications including fabrication, delivery, installation, testing and commissioning of all specialty equipment, installation of new roof access platforms, installation of new Alstom trailer, and installation of associated utility improvements.

FY21 Milestones:

- S&I Mods Substantial Completion (Feb 2021)
- S&I Mods Final Completion (Apr 2021)

Notes: Mitigate impacts from covid-19 to manage schedule. Monitor work progress and assure compliance as construction activities are completed. Deliver complete S&I modifications, including O&M manuals, for Mechanical use.

Five Year Information

FY21-25 Funding Available: \$8,800,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Expect project to be fully completed with all components in-service/operation by close of FY21.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Not applicable

Notes: Mitigate impacts from covid-19 to manage schedule. Monitor work progress and assure compliance as construction activities are completed. Deliver complete S&I modifications, including O&M manuals, for Mechanical use.

Next Generation High Speed Fleet Infrastructure: Sunnyside Yard Facility Improvements

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	<p>This project will satisfy the anticipated facility and infrastructure improvements and maintenance requirements of a new Tier III High Speed Rail (HSR) fleet, the existing Acela fleet and accommodate an increase in service operations. The Tier III train sets are configured differently from the current Acela trainsets and will require modifications to the existing HSR S&I facilities to adequately service both the existing Acela fleet and the Tier III train sets. Scope of Work for Modifications to Existing HSR S&I includes design and Construction Phase Services (CPS) related to: upper level platforms, 480 VAC wayside power, center platform, potable/wastewater water, Inspection pit, split rail system, Alstom office and material storage, nose access platform, monorail crane and sanding system. Yard improvements associated with the project have been added including: demolition of existing constraints (honeywell street ramp and Queens Blvd. staircase) and installing new Honeywell staircase with time clock/shed; install new retaining wall and 3 new electrified storage tracks, realignment of existing yard tracks (EWE and hump tracks); installation of an exterior (covered), elevated service yard platform; and associated utility improvements (lighting, water, communication/electrical duct banks), wayside power, & other related elements.</p>	
Project Justification	<p>A new and expanded high-speed rail facility is necessary for commissioning, inspection, service, and maintenance of new Next Generation High-Speed Rail equipment, which is expected to be delivered between 2020 and 2022. The facility will improve equipment and operational reliability in New York and throughout the Northeast Corridor.</p>	
Total Project Cost	\$108,000,000	Status of PBCA Agreement: Not applicable
	<p><i>Cost Derivation Methodology:</i> S&I modifications based on actual contracted costs. Ready Track costs for demolition activities are based on Final Design cost estimate while track installation, retaining wall, utility installation, platform costs are based on 30% design. Project cost estimate includes: Design, Construction (including Contracted work and work by Amtrak), Project/Construction Management, & RWP.</p>	
	<p><i>PBCA Notes:</i> Not applicable</p>	
Funding sources for entire project history	RRIF Loan - Amtrak	\$339,900,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$13,278,050	Oct 2016 - Jul 2020						Includes Ready Track Design
Final Design	\$3,000,000	Oct 2019 - Oct 2020						Includes Ready Track Design
Construction	\$91,750,000	Jan 2020 - Apr 2023						S&I mods (\$14.75M), Ready Tracks Demo (\$12M), Ready Tracks Install (\$50M), Contingency (\$10M), PM/CM/RWP (\$5M)

Next Generation High Speed Fleet Infrastructure: Sunnyside Yard Facility Improvements

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$41,600,000

FY21 Scope: Complete S&I facility modifications including fabrication, delivery, installation, testing and commissioning of all specialty equipment, installation of new roof access platforms, installation of new Alstom trailer, and installation of associated utility improvements. Begin demolition and construction activities at Ready Tracks including removal of Honeywell Street Ramp and beginning installation of retaining wall, Honeywell Street staircase, trackwork, and utility work, installation, and track improvements, catenary improvements, and associated utility improvements, fencing, & wayside power.

FY21 Milestones:

- Ready Tracks Package 'B' 100% design (Oct 2020)
- Ready Tracks Package 'A' Construction NTP (Jan 2021)
- S&I Mods Substantial Completion (Feb 2021)
- Ready Tracks Package 'B' Construction NTP (Mar 2021)

Notes: Mitigate impacts from covid-19 to manage schedule. Monitor work progress and assure compliance as construction activities are completed. Deliver complete S&I modifications, including O&M manuals, for Mechanical use. Begin Ready Tracks demolition and construction activities.

Five Year Information

FY21-25 Funding Available: \$147,600,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Expect S&I mods portion of project to be fully completed with all components in-service/operation by close of FY21. Expect to initiate construction for the Ready Tracks package 'A' and 'B' work in FY21. Expect to complete package 'A' and 'B' work as well as initiate package 'C' work in FY22. Construction for package 'C' expected to be complete in FY23.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Notes: Mitigate impacts from covid-19 to manage schedule. Monitor work progress and assure compliance as construction activities are completed. Deliver complete S&I modifications, including O&M manuals, for Mechanical use. Begin Ready Tracks demolition and construction activities in FY21. Complete demolition activities and construction activities necessary for expanded HSR service in FY22. Complete balance of track improvements necessary for transportation operations in FY23.

Philadelphia 30th Street Station District Plan Implementation

Coordinating Agency: Amtrak

In Partnership With: SEPTA, NJ TRANSIT

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This project includes immediate and long-term improvements to passenger and rail facilities. Work currently underway includes the completion of a comprehensive assessment of state of good repair needs and focusing on design projects to enhance the customer experience and expanding the capacity of concourse to accommodate anticipated growth in Amtrak ridership. Conceptual design of key station improvement projects has now been completed. As established in the Philadelphia 30th Street Station District Plan, the plan for the station is multi-phased and incremental strategy designed to enable sustainable operational growth of 30th Street Station, while unlocking the development potential of the real estate assets over the course of a 35-year horizon. The next key project milestone is a two-phased master developer procurement process that will identify a master development partner to assist Amtrak with implementing state of good repair improvements, developing commercial assets, and maximizing the overall value of 30th Street Station.</p>	
Project Justification	<p>Philadelphia 30th Street Station is Amtrak's third busiest station in the nation and Pennsylvania's busiest intermodal station serving Amtrak, Southeastern Pennsylvania Transportation Authority (SEPTA) and NJ TRANSIT. Heavy utilization of the station coupled with deferred maintenance has left 30th Street Station in a state of disrepair. An estimated growth of 3.5 percent in annual ridership will stress state of good repair issues and push the station beyond its operating capacity unless the station is adapted to accommodate this growth.</p>	
Total Project Cost	\$354,000,000	Status of PBCA Agreement: Not started
	<p><i>Cost Derivation Methodology:</i> Total project cost estimate is based on a compilation of various plans and reports, specifically the 2014 District Plan, an ongoing Penn Coach Yard Plan (2018), completed 10% concept designs for Station Plaza (2017), North Concourse Expansion (2016), and the West Underground Concourse (2017), in addition to the State of Good Repair Assessment (2018).</p> <p><i>PBCA Notes:</i> Due diligence period required to be completed to finalize Design & Construction GMP</p>	
Funding sources for entire project history	Amtrak Annual Federal Grant	\$11,964,433

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$2,877,522	Jun 2014 - Sep 2016						
PE/NEPA	\$8,795,747	Oct 2016 - Sep 2018						
Finalize Feasibility/Conceptual Design	\$4,000,000	Oct 2018 - Dec 2020						
Final Design	\$25,000,000	Jan 2021 - Jan 2025						
Construction	\$313,000,000	Jan 2022 - Jan 2026						

Philadelphia 30th Street Station District Plan Implementation

Coordinating Agency: Amtrak
In Partnership With: SEPTA, NJ TRANSIT
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$3,100,000

FY21 Scope: Amtrak will engage with selected development partner to finalize negotiations, execute the Agreement, to be followed by a six (6) month Due Diligence Period. Once the Due Diligence Period is completed to finalize the financial transaction and design construction pricing, Amtrak Board approval will be requested for Financial Close in Q2 FY2021.

FY21 Milestones:

- Complete Due Diligence (Dec 2020)
- Amtrak Board Approval (Feb 2021)
- Financial Close (Mar 2021)
- Finalize 100% Design Documentation (Sep 2021)

Notes: As noted above, the majority of FY 2021 will be dedicated to due diligence activities to finalize documentation for design and construction budget in order to reach financial close by March 2021.

Five Year Information

FY21-25 Funding Available: \$203,035,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Will be determined during due diligence period and with execution of Financial Close by March 2021.

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

Veltri Interlocking

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	This project would design and install a new universal interlocking VELTRI at MP133 in Mystic, CT. Construction would include the installation of turn-outs, rail, ties, sub-grade, ballast, overhead catenary, signal transformers, signal cables, signal bridges, switch heater, switch machines, switch houses, instrument houses, and interlocking lighting. This new interlocking will be an Amtrak sole use asset.	
Project Justification	This new interlocking will provide operating flexibility, improve reliability, allow for future maintenance outages and track possessions, and subdivide an 18-mile interlocking-to-interlocking segment into two shorter segments, allowing single track operation over a shorter distance during maintenance with less operational disruption. This will improve reliability.	
Total Project Cost	\$35,821,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Project cost estimate was derived as an order of magnitude from similar, recent projects. This project is currently in the design stage at the 60% level. The design process will include an engineer's estimate as well as a construction schedule which will be used to update when submitted and validated.	
	PBCA Notes: Not applicable	
Funding sources for entire project history	Amtrak FY19-21 GCAP	\$3,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$1,900,000	Jan 2019 - Dec 2020						
Construction	\$33,921,000	Oct 2020 - Sep 2023						

Veltri Interlocking

Coordinating Agency: Amtrak

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$2,000,000

FY21 Scope: Complete design and begin construction of interlocking.

FY21 Milestones:

- Final Design (Dec 2020)
- Procurement Start (Jul 2021)
- Lancaster Shop Complete (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$2,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete design and start procurement

FY21-25 Additional Funding Needed: \$29,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete construction and cut-over of interlocking

Washington Union Station: Claytor Concourse Modernization Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration, WMATA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This program provides design and construction of immediate operational, safety, and passenger experience improvements to the existing passenger concourse at Washington Union Station, known as the Claytor Concourse. Prior to realizing the full Concourse Modernization, there are two predicate projects that need to be implemented. The Amtrak Police Department (APD) requires relocation from their current location in the station to a new, improved facility outside the Claytor Concourse. Design of the new APD 10,000 sf facility was completed in FY18 and construction began in FY19 but was canceled due to leadership involvement. In FY18, Amtrak completed the first predicate project – the relocation and replacement of critical Heating, Ventilation, and Air Conditioning (HVAC) infrastructure. The full Claytor Concourse Modernization will include the renovation of critical passenger areas, the installation of the new glass curtain wall as an entrance to the station from the platforms and the footprint for a new, expanded Metropolitan Lounge (formerly known as the ClubAcela lounge). The modernization will also include constructing back of the house uses on the First Street Level so as to relocate the existing support space from the concourse floor. It will also support the improvement of critical building infrastructure needed to enable the concourse expansion. This infrastructure includes a new emergency generator for the building as well as a new, expanded electrical substation. In FY20, FRA requested that Amtrak consider having USRC deliver the project given the complex ownership issues at the station.</p>																												
Project Justification	<p>These improvements are needed to correct safety egress issues as well as capacity limitations and to improve the overall passenger experience for Amtrak and commuter riders.</p>																												
Total Project Cost	<p>\$178,801,479</p> <p><i>Cost Derivation Methodology:</i> Cost estimate includes completed design and construction costs. Concourse construction costs based on 100% design documents. Estimate is in FY14-25 dollars.</p> <p><i>PBCA Notes:</i> Not available</p>	<p>Status of PBCA Agreement: Not available</p>																											
Funding sources for entire project history	<table border="0"> <tr> <td>FRA Rail Safety Grant</td> <td>\$2,350,000</td> <td></td> </tr> <tr> <td>Maryland MTA</td> <td>\$525,000</td> <td>HVAC Construction</td> </tr> <tr> <td>Union Station Redevelopment Corporation</td> <td>\$1,400,000</td> <td>HVAC Construction</td> </tr> <tr> <td>Maryland MTA</td> <td>\$468,000</td> <td>Concourse Planning/Design</td> </tr> <tr> <td>VRE</td> <td>\$125,000</td> <td>Concourse Planning/Design</td> </tr> <tr> <td>Union Station Redevelopment Corporation</td> <td>\$900,000</td> <td>Concourse Planning/Design</td> </tr> <tr> <td>Amtrak Annual Federal Grant</td> <td>\$107,883,479</td> <td></td> </tr> <tr> <td>RRIF Loan - Amtrak</td> <td>\$65,000,000</td> <td></td> </tr> <tr> <td>Akridge</td> <td>\$150,000</td> <td>Concourse Planning/Design pre FY19</td> </tr> </table>		FRA Rail Safety Grant	\$2,350,000		Maryland MTA	\$525,000	HVAC Construction	Union Station Redevelopment Corporation	\$1,400,000	HVAC Construction	Maryland MTA	\$468,000	Concourse Planning/Design	VRE	\$125,000	Concourse Planning/Design	Union Station Redevelopment Corporation	\$900,000	Concourse Planning/Design	Amtrak Annual Federal Grant	\$107,883,479		RRIF Loan - Amtrak	\$65,000,000		Akridge	\$150,000	Concourse Planning/Design pre FY19
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Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction (HVAC)	\$5,800,000	Jun 2016 - Sep 2018						
Design (Concourse Modernization Project)	\$11,000,000	Nov 2015 - Jan 2019						
Construction (APD and Electric Workshop Relocation)	\$12,000,000	Oct 2018 - Mar 2020						
APD/HVAC/Electric Workshop	\$5,321,479	Jan 2014 - Sep 2020						
Additional USRC constructibility review; design work.	\$2,000,000	Oct 2020 - Sep 2022						
Construction (Concourse Modernization Project)	\$142,680,000	Oct 2022 - Sep 2025						

Washington Union Station: Claytor Concourse Modernization Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
Redevelopment Corporation, Federal Railroad Administration,
WMATA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,417,663

FY21 Scope: USRC will undertake a constructibility of the Concourse project and produce final bid documents to progress the project forward to procurement in late FY21/early FY22.

FY21 Milestones:

- USRC Constructibility Review completion (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$146,299,437

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Project will move into construction, with construction taking place FY22- FY25.

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
No additional funding is needed other than what is stated above. However, what is stated above is currently planned but must be requested as part of the Amtrak annual grant each year or is already available via the RRIF funding or FRA Safety Grant.

Washington Union Station: Long Term Station Expansion

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station Redevelopment Corporation, Federal Railroad Administration, District DOT
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>The Long Term Program builds on the 2012 Washington Union Terminal Master Plan which outlined a long-term vision to redevelop the station to address capacity constraints and aging infrastructure as well as coordinate with the air rights project known as Burnham Place. The Long Term Program consists of a large-scale station expansion including a complete redesign and reconstruction of the rail terminal. This will also include the construction of Burnham Place, which is Akridge’s air rights project over the tracks and platforms. This program has begun and is undergoing an Environmental Impact Statement (EIS), a process being led by the Federal Railroad Administration (FRA) and targeted to be complete in FY20. Once that process has concluded, the Long Term Program will require funding for advanced design and program management to begin implementation of the finalized concept followed by full construction. Currently specific projects within this program include: Terminal Infrastructure (concept design of reconstruction of tracks, platforms and related rail infrastructure at Washington Union Station), Cost and Constructibility reviews, geotechnical investigations, and overall execution of the current concept planning and EIS documentation.</p>	
Project Justification	<p>The Washington Union Station complex, including passenger, operational, and train handling facilities and infrastructure, is not in a state of good repair. Long-term, the Washington Union Station Expansion Project is evaluating alternatives for station redevelopment to meet growing demand for commuter and intercity rail.</p>	
Total Project Cost	\$8,000,000,000	Status of PBCA Agreement: Not started
	<p><i>Cost Derivation Methodology:</i> This is a high level, order of magnitude estimate, based off concept level design. The estimate is in FY13- until project completion year dollars. Contingency rate is not applicable at this point in the process.</p> <p><i>PBCA Notes:</i> Not available</p>	
Funding sources for entire project history	VRE	\$575,000
	Maryland MTA	\$749,000
	Union Station Redevelopment Corporation	\$8,950,000 \$8.3M in prior years; \$650,000 in FY20
	Amtrak FY20 GCAP	\$991,000
	Amtrak FY19 & prior GCAP	\$11,100,000
	Akridge	\$4,400,000
	Other	\$115,944,915 Amtrak and expansion project partners exact contribution TBD

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$8,200,000	Nov 2013 - Nov 2015						
PE/NEPA	\$20,500,000	Nov 2015 - Dec 2020						
Future Precedent Projects	\$37,000,000	Dec 2021 - Dec 2025						
Design	\$70,500,000	Jan 2023 - Dec 2027						
Construction	\$7,863,800,000	Jan 2028 - Jan 2040						

Washington Union Station: Long Term Station Expansion

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
 Redevelopment Corporation, Federal Railroad Administration,
 District DOT
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,879,871

FY21 Scope: Finalize EIS with Record of Decision. Determine governance structure, funding potential, procurement strategy and next steps to advance project from EIS concept level to design.

FY21 Milestones:

- Record of Decision (Mar 2021)
- Determine roadmap to advance the project with partners (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$115,944,915

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
 In general, need to determine framework for successful execution of this mega project with project stakeholders and partners in order to secure funding and advance the project. Full design of the project will be underway in FY22 - FY25. Additionally Amtrak will in design and construction of necessary rail infrastructure projects to enable successful construction and phasing of the Station Expansion project in the future.

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
 No additional funding is needed other than what is stated above. However, what is stated above is currently planned but must be requested as part of the Amtrak annual grant each year. It is assumed that Station Expansion partners will also be contributing funding in FY22 - FY25. Track outages, engineering design review resources, and Amtrak forces will all be needed to successfully complete the work currently identified.

Washington Union Station: Near Term Rail Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
 Redevelopment Corporation, Federal Railroad Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	The Near Term Rail program provides design and construction of critical rail and infrastructure projects needed to enhance current operational flexibility of the Washington Union Station rail terminal and to provide for the phasing and capacity expansion of the Long Term Program. Projects within the Near Term Rail Program include: (1) Substation 25A Relocation and Catenary Sectionalizing; (2) Crew Base Renovation; and (3) Satellite Commissary Relocation.	
Project Justification	These projects are needed to bring operational infrastructure up to a State of Good Repair, fix safety and security deficits and allow for better and more efficient current and future operations at Washington Union Station.	
Total Project Cost	\$75,000,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> This cost includes design of the projects in previous fiscal years. Cost estimates are based on Amtrak and contractor cost estimates during design and into construction. The estimate is in FY15-FY28 dollars.	
	<i>PBCA Notes:</i> It was assumed that Platform 15/16 would be a shared cost with MARC but that project has been indefinitely deferred. There is potential for cost sharing of Sub 25A as it has benefit to the full terminal.	
Funding sources for entire project history	Amtrak Annual Federal Grant	\$36,352,819

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Work completed in previous FYs including previous design work and Track 8/9 electrification	\$8,280,000	Oct 2015 - Sep 2019						
Design (Relocation of Satellite Commissary)	\$420,000	Nov 2019 - Mar 2021						Note that the design has been re-scoped. This amount reflects the new design scope and schedule.
Design (Crew Base Relocation)	\$1,300,000	Apr 2017 - Sep 2021						Design delayed due to COVID-19 budget reductions in FY20
Design (Substation 25A Relocation)	\$1,000,000	Feb 2018 - Oct 2021						
Construction (Relocation of Satellite Commissary)	\$9,000,000	Nov 2021 - Nov 2022						
Construction (Crew Base Relocation)	\$17,000,000	Nov 2022 - Nov 2025						
Construction (Substation 25A Relocation)	\$38,000,000	Mar 2025 - Aug 2028						

Washington Union Station: Near Term Rail Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
Redevelopment Corporation, Federal Railroad Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$1,131,377

FY21 Scope: Complete design for Satellite Commissary, Crew Base, and Substation 25A. Progress Satellite Commissary to construction procurement during 2nd half of FY21 in order to begin construction at the beginning of FY22.

FY21 Milestones:

- Satellite Commissary design complete (Mar 2021)
- Satellite Commissary construction procurement commences (Apr 2021)
- Crew Base Design complete (Sep 2021)
- Substation 25A design complete (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$28,072,819

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Design completion of all 3 projects. Construction will be completed on Satellite Commissary and Crew Base. Construction will begin in FY25 on Substation 25A.

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
No additional funding is needed other than what is stated above. However, what is stated above is currently planned but must be requested as part of the Amtrak annual grant each year.

Washington Union Station: Subbasement Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
 Redevelopment Corporation, Federal Railroad Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This program includes two projects Track 22 and the Subbasement Reconstruction. The Track 22 project will not only provide Amtrak and VRE with an additional revenue track by which to board and alight trains, it is a necessary precursor to the Subbasement Structural Replacement project so as to provide an additional run-through track to remain open during the Subbasement project. The Subbasement Reconstruction project will replace the bridging structure at the north portal of the First Street Tunnel spans rail tracks over a back of house station area (known as the Subbasement). The structure is in a state of disrepair and requires replacement. The critical SOGR Project will replace the structurally deficient beams, girders and columns with a new structural support system. The track slab will be replaced and railroad infrastructure will be replaced in kind.</p>	
Project Justification	<p>The Subbasement Reconstruction program is a necessary State of Good Repair project, as the Subbasement currently has temporary shoring to keep the track bed for the run-through tracks intact. Collapse of the Subbasement would have significant impacts to not only the NEC but the entire eastern rail network. Track 22 will allow the Subbasement Reconstruction to proceed without major cuts to current service levels.</p>	
Total Project Cost	\$130,000,000	Status of PBCA Agreement: In progress
	<p><i>Cost Derivation Methodology:</i> Subbasement cost is based off of 60% design estimates for the previous design and concept re-scoped design; Track 22 amounts are based off the current construction contracts and anticipated Amtrak resources required to support and complete the project. The estimate is in FY15-FY25 dollars.</p> <p><i>PBCA Notes:</i> VRE is contributing to the Track 22 project. TBD if VRE will contribute to the subbasement reconstruction project.</p>	
Funding sources for entire project history	FRA THUD Grant	\$19,037,037 Track 22
	VRE	\$6,300,000 Matching funds for FRA THUD Grant for Track 22
	Amtrak Annual Federal Grant	\$91,962,963 TBD what funding source will be used for Subbasement Construction
	Other Amtrak Sources	\$12,700,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Track 22 design; supporting items for Track 22	\$2,375,926	Nov 2015 - Sep 2019						
Subbasement Final Design	\$4,550,000	Jan 2020 - Jun 2021						This is for the re-scoped project which includes utility relocation design being undertaken by USRC.
Track 22 Construction	\$38,074,074	Mar 2020 - Aug 2022						
Subbasement Construction	\$85,000,000	Dec 2021 - Mar 2025						

Washington Union Station: Subbasement Program

Coordinating Agency: Amtrak
In Partnership With: Maryland DOT, VRE, Union Station
Redevelopment Corporation, Federal Railroad Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$22,033,042

FY21 Scope: Progress Track 22 construction. Finalize Subbasement design and support USRC led utility relocation and investigation that is needed to advance the Subbasement reconstruction.

FY21 Milestones:

- Subbasement final design (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$114,934,426

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Track 22 construction completion in FY22. Subbasement construction completion in FY25

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
No additional funding is needed other than what is stated above. However, what is stated above is currently planned but must be requested as part of the Amtrak annual grant each year.

Devon Bridge Replacement

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project would replace the functionally obsolete 111-year-old Devon Bridge. The bridge, which carries four New Haven Line tracks over the Housatonic River, has experienced serious deterioration, and is the next most critical movable bridge for replacement on the New Haven Line portion of the NEC after the Walk Bridge Program. Additional funding is required for design and construction of a replacement bridge.	
Project Justification	Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life.	
Total Project Cost	\$1,100,000,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Project in early stages of development. Construction estimates are preliminary.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$12,000,000
	Connecticut	\$3,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$5,000,000	Jun 2016 - Feb 2018						
PE/NEPA	\$10,000,000	Jan 2021 - Jan 2023						
Final Design	\$45,000,000	Jan 2023 - Jan 2025						
Construction	\$950,000,000	Apr 2025 - Apr 2029						

Devon Bridge Replacement

Coordinating Agency: Connecticut DOT

In Partnership With: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$500,000

FY21 Scope: Design activities will continue with the goal of completing 60% design.

FY21 Milestones:

- Not applicable

Notes: Project on hold to sequence after Walk Bridge

Five Year Information

FY21-25 Funding Available: \$225,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete Final Design and begin implementing project construction.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Notes: Project being sequenced behind Walk. Acceleration not feasible.

Saugatuck River Bridge Replacement

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially programmed

General Project Information

Full Project Scope	The Saugatuck River Bridge is a 458-foot-long bascule bridge constructed in 1904. The bridge is actually not one, but two parallel bridges, each carrying two tracks. Like the Norwalk River Bridge, its age and deferred maintenance have caused deterioration encompassing both its electrical and mechanical components. CTDOT is aiming to fully replace major components of the bridges, including the movable spans and the approach tracks. This work would also include the replacement of mechanical and electrical systems, new signal equipment, and a new operator's house. This new bridge would greatly improve reliability for Amtrak and Metro-North riders, as well as maritime traffic.	
Project Justification	Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life.	
Total Project Cost	\$350,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Project cost is based on latest 60% design.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$12,560,000
	Connecticut	\$5,690,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$750,000	End Sep 2005						
PE/NEPA	\$750,000	Jan 2007 - Jan 2007						
Final Design	\$30,000,000	Jan 2007 - Jan 2030						Project has been deferred. Phase is paused. With additional funding, phase could resume in FY21-25.
Construction	\$325,000,000	Jan 2030 - Jan 2034						With additional funding, phase could be advanced to begin in FY21-25.

Saugatuck River Bridge Replacement

Coordinating Agency: Connecticut DOT

In Partnership With: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

Funding Status: Partially programmed

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$350,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Advance final design and begin construction.

Walk Bridge Program

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Major Backlog **Benefit:** Shared
Funding Status: Fully programmed

General Project Information

Full Project Scope	<p>This project will replace the functionally obsolete 120-year-old Walk Bridge which has experienced increasing deterioration of electrical and mechanical components. Connecticut DOT has committed to replace this asset with a combination of federal and state funds. Construction will require an extended continuous outage of two tracks where normally four are operational. This change in track availability could cause changes in schedule, decreases in reliability, or even reductions in service. Two additional capital projects in the vicinity of Walk Bridge will help address these concerns. The construction of CP243 interlocking will shorten the block length between Westport and Norwalk while increasing operational flexibility. Additionally, improvements at Dock Yard including the electrification of the lower Danbury Branch will allow for Metro-North trains to turn at Norwalk without increasing congestion on the main line of the NEC. FTA completed NEPA and issued a Finding of No Significant Impact (FONSI) for this project in July 2017. Additionally, the Norwalk Fixed Bridge is included in the package of bridges part of the Walk Bridge Program.</p>		
Project Justification	<p>Aging movable bridges pose a big risk of long-term major disruption of service along the NEC. These structures require constant maintenance, are functionally obsolete, and well beyond their useful life. The situation at Walk Bridge is made worse by the fact that all four tracks reside on one movable span. A failure of the span severs the entire NEC.</p>		
Total Project Cost	\$1,307,000,000	Status of PBCA Agreement: In progress	
	<p><i>Cost Derivation Methodology:</i> Total project cost estimate is based on Final Design, November 2019. Estimate includes PE, construction, incidentals, contingencies, and railroad force account.</p> <p><i>PBCA Notes:</i> Not available</p>		
Funding sources for entire project history	Federal State Partnership for SOGR	\$29,900,000	FY19 Award for Walk Bridge Replacement
	Other Amtrak Sources	\$90,000,000	Match for FY19 SOGR Award
	FTA Formula Grants	\$303,000,000	Programmed
	Federal Emergency Relief Award	\$160,979,022	
	CTDOT	\$663,760,723	Programmed (includes match for FY19 SOGR Award)
	Federal State Partnership for SOGR	\$79,700,000	FY20 Award, applied

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$234,100,000	End Dec 2020						
Construction Phase 1	\$366,000,000	End Jan 2021						
Construction (Phase 2 - Walk)	\$706,900,000	Jun 2021 - Sep 2026						

Walk Bridge Program

Coordinating Agency: Connecticut DOT

In Partnership With: Amtrak, MTA

Type: Major Backlog

Benefit: Shared

Funding Status: Fully programmed

One Year Information

FY21 Budget: \$130,000,000

FY21 Scope: Activities include completing design, initiating construction. Work continues on CP243, Danbury, and utility relocations.

FY21 Milestones:

- Complete Final Design (Dec 2020)

Five Year Information

FY21-25 Funding Available: \$1,307,139,754

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Initiate Construction

FY21-25 Additional Funding Needed: \$59,800,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
All funding would be in place to complete Construction in 2026. This is the remainder of the Amtrak Share and is programmed for the FY 20 and FY21 Fed State Partnership Program.

CTrail Hartford Line Commuter Station Improvements

Coordinating Agency: Connecticut DOT
In Partnership With:
Type: Improvement **Benefit:** Sole
Funding Status: Partially programmed

General Project Information

Full Project Scope	This project will add additional station stops between New Haven, CT to Springfield, MA including North Haven, Newington, West Hartford, and Enfield.	
Project Justification	New and upgraded stations between New Haven and Springfield are needed to support the CTrail Hartford Line service which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.	
Total Project Cost	\$246,500,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Preliminary Design	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Let's Go CT	\$229,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$27,500,000	End Oct 2023						Phased for each station
Construction	\$219,000,000	Oct 2021 - Oct 2025						Depending on avail funding

CTrail Hartford Line Commuter Station Improvements

Coordinating Agency: Connecticut DOT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Partially programmed

One Year Information

FY21 Budget: \$1,000,000

FY21 Scope: Continue final design

FY21 Milestones:

- Final Design North Haven (Apr 2021)

Five Year Information

FY21-25 Funding Available: \$229,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Begin Construction

FY21-25 Additional Funding Needed: \$17,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete construction.

Hartford Line Rail Program: Phases 3B - 5

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Partially programmed

General Project Information

Full Project Scope	The program is being progressed in phases to rebuild and upgrade infrastructure between New Haven, CT and Springfield, MA. The final phases, not yet funded for construction, include adding a second track between Hartford and Enfield, rehabilitating or replacing many bridges and culverts, and improving stations at Windsor and Windsor Locks. The program also includes costs associated with replacing the elevated track structure through Hartford and the Connecticut River Bridge in Windsor Locks.	
Project Justification	These investments will improve reliability and allow for increased service of up to 25 round trips per day between New Haven and Springfield on the <i>CTrail</i> Hartford Line service, which launched in June 2018. This project will increase ridership for the NEC and enhance regional rail travel in New England.	
Total Project Cost	\$221,500,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Preliminary Design	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Connecticut	\$221,500,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$28,500,000	End Feb 2020						
Construction (Windsor Locks)	\$65,000,000	Jan 2020 - Jan 2023						

Hartford Line Rail Program: Phases 3B - 5

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Partially programmed

One Year Information

FY21 Budget: \$1,000,000

FY21 Scope: Complete Final Design at Windsor Locks.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$221,500,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Initiate construction at Windsor Locks

FY21-25 Additional Funding Needed: \$184,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete construction at Windsor Locks.

New Haven Line Stations Improvements: Stamford Station

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Improvement **Benefit:** Shared
Funding Status: Fully programmed

General Project Information

Full Project Scope	This program will upgrade and repair the Stamford Station to ensure continued safe operation and improve the passenger experience. Work will increase canopy and windscreen coverage, provide additional pedestrian paths, repair and replace platform sections that are failing due to their age, and ensure ADA compliance. The future program also includes the construction of a pedestrian bridge at Stamford Station as well as a new parking garage.	
Project Justification	This program is critical not only to address passenger demands for enhancements at the stations, but also to provide repairs for aging platforms that are beginning to fail due to years of exposure salt and de-icing chemicals. This program allows for the continued safe operation of the stations.	
Total Project Cost	\$105,250,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Projects are at different stages of design from concept to final design.	
	<i>PBCA Notes:</i> Only applicable to certain projects	
Funding sources for entire project history	FTA Formula Grants	\$53,000,000
	TIGER	\$9,160,000
	Connecticut	\$43,090,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction: Elevator/Escalator	\$28,700,000	End Nov 2018						
Final Design: Elevator/Escalator	\$2,300,000	End Mar 2021						
Construction Phase 2: Garage	\$74,250,000	Jan 2020 - Jan 2022						

New Haven Line Stations Improvements: Stamford Station

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Improvement **Benefit:** Shared
Funding Status: Fully programmed

One Year Information

FY21 Budget: \$1,500,000

FY21 Scope: Complete Final Design for Elevator/Escalator Project

FY21 Milestones:

- Final Design Elevator/Escalator (Mar 2021)

Five Year Information

FY21-25 Funding Available: \$105,250,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Begin construction all phases

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

New Haven Line Track Speed Improvement Program

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Improvement **Benefit:** Shared
Funding Status: Partially programmed

General Project Information

Full Project Scope	This program will upgrade a three mile stretch of track in Bridgeport, including the replacement of five fixed undergrade bridges to improve the track speed from 70mph to 90mph. The bridges will be replaced with ballasted decks and improvements will be made to track geometry to lengthen spirals and increase super elevation.	
Project Justification	This program is critical not only to address passenger demands for enhancements at the stations, but also to provide repairs for aging platforms that are beginning to fail due to years of exposure salt and de-icing chemicals. This program allows for the continued safe operation of the stations.	
Total Project Cost	\$250,000,000 <i>Cost Derivation Methodology:</i> Project Scoping <i>PBCA Notes:</i> Not available	Status of PBCA Agreement: Not started
Funding sources for entire project history	Connecticut	\$26,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design		End Dec 2020						
PE/NEPA		End Sep 2021						
Final Design	\$26,000,000	End May 2023						
Construction	\$224,000,000	Oct 2023 - Oct 2026						

New Haven Line Track Speed Improvement Program

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak, MTA
Type: Improvement **Benefit:** Shared
Funding Status: Partially programmed

One Year Information

FY21 Budget: \$2,000,000

FY21 Scope: Begin design and complete NEPA

FY21 Milestones:

- PE/NEPA (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$26,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete Design

FY21-25 Additional Funding Needed: \$224,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Begin Construction

New Haven Line Yard and Facility Program

Coordinating Agency: Connecticut DOT
In Partnership With: MTA
Type: Improvement **Benefit:** Sole
Funding Status: Fully programmed

General Project Information

Full Project Scope	This project is a multi-year initiative that receives funding on an annual basis to store and maintain the rail fleet and spare parts and includes improvements at all yard facilities statewide. Additional funding would design and construct other modernization elements, including new facilities to improve efficiency and allow for growth.	
Project Justification	Continued funding for this project is vital to the ability of the State of Connecticut to effectively store and maintain its passenger rail fleet. The upgrade of the Connecticut commuter fleet requires new facilities to maintain the vehicles and store parts. This is a project is critical to CTDOT's fleet strategy. Lack of funding will jeopardize the significant investment that Connecticut has made in a state of the art rail passenger fleet.	
Total Project Cost	\$477,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Conceptual design	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Connecticut	\$477,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design S&I Shop	\$47,000,000	End Apr 2021						
Construction S&I	\$430,000,000	Sep 2021 - Oct 2023						
Construction Other Phases		Start Apr 2022						

New Haven Line Yard and Facility Program

Coordinating Agency: Connecticut DOT
In Partnership With: MTA
Type: Improvement **Benefit:** Sole
Funding Status: Fully programmed

One Year Information

FY21 Budget: \$1,000,000

FY21 Scope: Final Design S&I (Service and Inspection) Shop

FY21 Milestones:

- Final Design S&I (Apr 2021)

Five Year Information

FY21-25 Funding Available: \$477,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Begin Construction on S&I shop and Car and Diesel Shop, complete design on yard expansion.

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

Shore Line East Station Improvements

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Sole
Funding Status: Fully programmed

General Project Information

Full Project Scope	This project is a series of investments to expand and improve stations, constructing two high-level platforms, improved waiting areas, and expanded parking at several stations. Work is underway at Clinton Station and design has begun on a plan to expand Madison Station to dual platforms.	
Project Justification	When Shore Line East service was launched in the 1990s, most stations featured a single low-level platform along the eastbound track. As a result, westbound trains have been required to switch tracks to service these stations, which consumes capacity and creates conflicts with other trains. Two high-level platforms with a pedestrian bridge connection is critical to true bi-directional traffic for Shore Line East trains and has the added benefit of increasing capacity on this segment of the NEC.	
Total Project Cost	\$32,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Concept Design	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Connecticut	\$32,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design		End Apr 2021						
Construction	\$32,000,000	Oct 2021 - Oct 2023						

Shore Line East Station Improvements

Coordinating Agency: Connecticut DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Sole

Funding Status: Fully programmed

One Year Information

FY21 Budget: \$1,000,000

FY21 Scope: Complete Final Design

FY21 Milestones:

- Final Design (Apr 2021)

Five Year Information

FY21-25 Funding Available: \$32,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete Construction

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

Shore Line East Track & Catenary Improvements (FY22)

Coordinating Agency: Connecticut DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Fully programmed

General Project Information

Full Project Scope	This project will install electric catenary over the platform track at New London station to support future Shore Line East electric service.	
Project Justification	This project, by allowing the use of electric powered equipment on Shore Line East, is critical to Connecticut's statewide fleet management plan. The use of electric powered equipment on Shore Line East will also provide benefits to users of the NEC main line.	
Total Project Cost	\$10,000,000 <i>Cost Derivation Methodology:</i> Final Design <i>PBCA Notes:</i> Not applicable	Status of PBCA Agreement: Not applicable
Funding sources for entire project history	Connecticut	\$10,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$10,000,000	Apr 2021 - Apr 2022						

Shore Line East Track & Catenary Improvements (FY22)

Coordinating Agency: Connecticut DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully programmed

One Year Information

FY21 Budget: \$10,000,000

FY21 Scope: Start construction

FY21 Milestones:

- Construction (Apr 2021)

Five Year Information

FY21-25 Funding Available: \$10,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Start construction

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

Claymont Regional Transportation Center

Coordinating Agency: Delaware DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	This project replaces the existing Claymont, DE train station. The new station will be located north of the current site to the former Evraz Steel Site in Claymont, Delaware. It will meet all current ADA standards, with two high-level platforms and a pedestrian overpass over the NEC. The new station will be a multi-modal transportation center with improved access for bus transit, bicycles, and pedestrians. The project includes the construction of a parking garage and provide rail and bus riders with state-of-the-art amenities.	
Project Justification	The current Claymont Station does not meet current accessibility standards although it is ADA compliant in the form of wheel chair lifts to a tunnel under the NEC and mini-high platforms. The tunnel has a flooding risk because of the high water table. The station is also located on a curve of the NEC causing trains to sit at an angle which is not an optimal situation for loading and unloading trains. In addition, the 504 parking spaces at are capacity and vehicular and transit access to the station are congested. The project is also coordinated with redevelopment of the former industrial site and will spark economic activity. The project will increase passenger safety, greater accessibility to the station and trains, passenger convenience and regional rail service.	
Total Project Cost	\$71,425,235	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The project costs were updated after the award of the Design Build contract in January 2019.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$32,365,935
	TIGER	\$10,000,000 2016
	Delaware	\$29,032,637
	Other	\$26,663

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$6,726,663	Jan 2016 - Dec 2020						NEPA revision was approved on August 2018. Pieces of the PE phase are still on-going due to the ET Project
Construction	\$64,698,572	Jan 2019 - Oct 2022						*includes Design Build Contract (CON), Contingency, Construction Engineering Services, and Railroad

Claymont Regional Transportation Center

Coordinating Agency: Delaware DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

One Year Information

FY21 Budget: \$32,217,097

FY21 Scope: The Design/Build Team will finalize the project design. The team will continue to commence construction activities on approved design elements. The start of the construction of the parking garage, parking lot, and roadway elements are scheduled for FY21. The team also hopes that the ET project will be finalized in design and will be able to begin construction.

FY21 Milestones:

- Start of garage construction. (Nov 2020)
- Start of Station construction. (Apr 2021)
- Completion of Project Design (Jun 2021)

Notes: In FY21 the project design/build team will continue to design various project components and work with DelDOT and Amtrak to obtain approval of those designs. The design work will include completing final design for the construction phase. Construction of infrastructure, the garage and station is scheduled to commence in FY21.

Five Year Information

FY21-25 Funding Available: \$58,590,797

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Project is expected to complete all phases within FY 21 - 25. The design/build contract is currently anticipated to be completed in FY 23.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Notes: This project was awarded as a design build contract in Jan 2019. The project is currently anticipated to be completed in FY23.

Delaware Third Track Program

Coordinating Agency: Delaware DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will increase capacity for intercity and commuter service between Wilmington and Newark, DE by eliminating a current two-track bottleneck and thereby restoring a third track through most of the state. This joint Amtrak/Delaware DOT project is funded by a combination of federal and state sources.		
Project Justification	This project will remedy a choke point south of Wilmington, DE where the NEC, otherwise three tracks, has only two crossing a bridge over Mill Creek. A former third track was removed during NECIP and is being restored to provide capacity and service reliability for intercity and commuter service. The project increases regional rail and Amtrak to improve on-time performance while also increasing service to the Wilmington/Newark Line stations. The project improves and updates infrastructure along the Delaware NEC corridor.		
Total Project Cost	\$45,000,000	Status of PBCA Agreement: In progress	
	<i>Cost Derivation Methodology:</i> Based on final design as of February 18, 2011.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	ARRA/HSIPR	\$13,300,000	
	FTA Formula Grants	\$15,418,744	
	FHWA	\$16,576,626	
	Transportation Trust Fund	\$10,789,139	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA		End Jul 2011						
Construction	\$55,455,001	Apr 2012 - Sep 2020						
Project Closeout	TBD	End Jun 2021						

Delaware Third Track Program

Coordinating Agency: Delaware DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: Construction cut and throw track work is expected to be completed in September 2020 with project closeout activities thereafter in FY21.

FY21 Milestones:

- Project closeout work (Jan 2021)
- Grant Closeout (Jun 2021)

Five Year Information

FY21-25 Funding Available:

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Project closeout

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Newark (DE) Regional Transportation Center

Coordinating Agency: Delaware DOT

In Partnership With: Amtrak, SEPTA

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will construct an updated Regional Transportation Center in Newark, DE that will increase capacity and support additional SEPTA service between Newark and Wilmington, DE. The project includes construction of a new station house, a new platform, a new freight track connection, and a new pedestrian bridge so passengers are not forced to cross an active track. The project will make the station ADA-compliant, eliminate conflicts with freight operations, and permit expansion of regional and commuter service. This project is funded by a combination of federal, state, and local sources.	
Project Justification	Improve passenger safety by improving ADA access to the platforms and trains and eliminating Amtrak passengers current requirement to board and disembark from active tracks. Increase the number of regional rail and Amtrak trains that can service the stations. Provide rail and bus passengers with state-of-the-art amenities and more convenient access to the station. The project will also eliminate passenger and freight operations at the station thereby increasing passenger convenience.	
Total Project Cost	\$88,879,328	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Design costs are based on actual design contracts awarded. Several of the construction contracts have already been constructed or awarded, so the costs for those contracts reflect actual construction costs such as the increase and improvement of parking lots. Future construction estimates are based on the 60% design, developed in 2017. Plans have changed since that estimate due to further coordination with Amtrak. Remaining construction estimate will be updated when 90% plans are submitted, later in 2020. Remaining contract design to be completed and bid include C&S design work. The completion and approval of this design work is scheduled for May 2021.	
	PBCA Notes: Not available	
Funding sources for entire project history	FTA Formula Grants	\$10,000,000
	TIGER	\$10,000,000 TIGER IV
	Delaware	\$65,579,328
	City of Newark, WILMAPCO, New Castle County	\$300,000
	University of Delaware	\$3,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$6,778,014	Jul 2013 - Dec 2015						
Final Design	\$10,283,122	Nov 2015 - Mar 2021						
Construction	\$71,818,192	May 2017 - Dec 2022						

Newark (DE) Regional Transportation Center

Coordinating Agency: Delaware DOT

In Partnership With: Amtrak, SEPTA

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$19,259,786

FY21 Scope: Complete final design, begin DelDOT and Amtrak force account construction contracts for Track A relocation.

FY21 Milestones:

- 100% C&S Design (May 2021)
- Bid Advanced Grading contract for Track A relocation (Jul 2021)

Notes: Milestone completion as projected is dependent upon reaching agreement regarding the design of work with Amtrak, and in part Norfolk Southern.

Five Year Information

FY21-25 Funding Available: \$28,709,786

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
100% Design and station construction complete. Anticipated construction completion of track work, pedestrian bridge and platform is currently estimated to occur in FY23. 100% Design and station construction complete.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

MARC Storage Improvements: Martin Airport

Coordinating Agency: Maryland DOT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

General Project Information

Full Project Scope	This project will construct additional storage tracks and related infrastructure at the Martin State Airport Facility, including catenary to support two trainsets with electric locomotives.	
Project Justification	MARC Trains currently occupy track at Baltimore Penn Station for overnight and weekend storage and layover. Amtrak plans to re-purpose one of the tracks currently used by MARC Train into a through-running revenue track with a new platform edge. This improvement at Martin's Yard will allow MARC Train to accommodate the trains displaced from Penn Station. The project will also result in additional seating capacity for MARC Penn Line Train service as well as reduced operating costs.	
Total Project Cost	\$15,314,343	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Total Project Cost is based on combined Project Phase costs. Preliminary Planning/Preliminary Engineering allocation of \$1.4M for Planning and Design, ROW acquisition allocation of \$2.2M for purchase of required private property in fee and associated easements, Construction Phase allocation of \$11.81M. Combined project cost is estimated using Standard MTA methodology for the current status at 85% design.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	FTA Formula Grants	\$7,832,000 Additional funding spent in prior fiscal years.
	Maryland	\$8,633,000 Additional funding spent in prior fiscal years.

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$384,726	Jan 2021 - Mar 2021						
Construction Management/Support	\$3,335,767	Mar 2021 - Mar 2023						
Construction	\$8,476,375	Jun 2022 - Mar 2023						

MARC Storage Improvements: Martin Airport

Coordinating Agency: Maryland DOT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$13,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Construction/Project Completion (note that \$13M is an estimate; awaiting completion of Final Design for final fully loaded cost estimate)

Notes: All on hold due to COVID-19 and funding.

Martin State Airport Station Replacement

Coordinating Agency: Maryland DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	Replace the existing MARC Martin State Airport Station with a new ADA-compliant high-level platform station. The current station is low level boarding with at-grade crosswalks to access multiple tracks on the NEC. An elevated pedestrian walkway to the new high-level platforms will be constructed, with elevators or some other means of ADA accessibility.	
Project Justification	The existing Martins Station has low level passenger boarding and requires passengers to cross existing mainline tracks to access the trains. This is the only such station on the NEC between DC and NYC. There is a significant risk of harm to passengers and trespassers at this station. This risk has been realized in the past and concern has been expressed by our passengers and train crews. FRA recently released rules that may increase speeds on this track segment, which increase the risks and hazards associated with the current level boarding and track crosswalks.	
Total Project Cost	\$80,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The Total Project Cost Estimate is a Rough-Order-of-Magnitude (ROM) cost used for planning purposes. A fully loaded cost estimate will be prepared as part of any NEPA/30% design efforts.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Not available	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Finalization of 100% Design		Jan 2021 - Mar 2021						Schedule assumes funding is identified
Procurement Activities		Apr 2021 - Oct 2021						
Construction		Nov 2021 - Nov 2022						

Martin State Airport Station Replacement

Coordinating Agency: Maryland DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$950,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
30% Design/NEPA, 65% Design, 85% Design, 100% (Final) Design, Procurement for Construction Services, Construction (potentially).

Penn-Camden Connector

Coordinating Agency: Maryland DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

General Project Information

Full Project Scope	Construct a rail connection between Penn Line (Northeast Corridor) and Camden Line , using a mixture of existing rail right-of-way and privately-owned properties. The “Penn-Camden Connector” will provide storage for MARC Penn Line trainsets, provide storage tracks long enough to support some 10-car consists, and construct a more direct connection to the MARC Riverside Maintenance Facility where MARC maintains its diesel locomotives.
Project Justification	The connection will allow MARC to more efficiently bring its locomotives to MARC’s Riverside Maintenance Facility, which is MARC’s only back shop for locomotive servicing and maintenance. The connector will also allow MARC to store trainsets at a rail yard (Mt. Clare Yard) adjacent to the Penn-Camden Connector, eliminating the need to store trains overnight at Amtrak’s Penn Station.
Total Project Cost	<p>\$80,000,000 Status of PBCA Agreement: Not available</p> <p><i>Cost Derivation Methodology:</i> The Total Project Cost Estimate is a Rough-Order-of-Magnitude (ROM) cost used for planning purposes. A fully loaded cost estimate will be prepared as part of any NEPA/30% design efforts.</p> <p><i>PBCA Notes:</i> Not available</p>
Funding sources for entire project history	Not available

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
NEPA		Aug 2019 - Jul 2020						Schedule assumes funding is identified
30% and Final Design		Sep 2019 - Dec 2021						
RoW Acquisition		Aug 2019 - May 2021						
Construction		Dec 2021 - Jul 2023						

Penn-Camden Connector

Coordinating Agency: Maryland DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$9,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
30% Design/NEPA, 65% Design, 85% Design, 100% (Final) Design, Procurement for Construction Services, Construction (potentially).

Attleboro Line Track 3 Extension: Transfer to Junction

Coordinating Agency: MBTA
In Partnership With: MassDOT, Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project is for the design of installing a third mainline track between Transfer Interlocking and Junction Interlocking. The project is expected to be completed in two phases. Phase 1 consists of extending Track 3 from Transfer I/L to Route 128 West (approx. 2.75 miles). Phase 2 consists of extending Track 3 from Route 128 West to Junction I/L (approx. 1.25 miles).	
Project Justification	Not available	
Total Project Cost	\$60,677,108	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Not available	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	MBTA Capital Funds	\$60,677,108

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design and permitting	\$10,177,108	Oct 2020 - Sep 2022						
Construction	\$50,000,000	Oct 2022 - Sep 2025						

Attleboro Line Track 3 Extension: Transfer to Junction

Coordinating Agency: MBTA
In Partnership With: MassDOT, Amtrak
Type: Improvement Benefit: Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$5,000,000

FY21 Scope: Begin the design and permitting for phase one of the project.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$60,177,108

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete entire project scope.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Attleboro Line Track 3 OCS Installation

Coordinating Agency: MBTA
In Partnership With: MassDOT, Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project is for the completion of the design and construction of a new Overhead Catenary System including the installation of all appurtenances and structural supports required for the electrification of track 3 between Thatcher and Holden Interlockings.	
Project Justification	Not available	
Total Project Cost	\$3,058,319	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Not available	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	MBTA Capital Funds	\$3,058,319

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design and Construction	\$10,177,108	Jun 2020 - Sep 2021						

Attleboro Line Track 3 OCS Installation

Coordinating Agency: MBTA

In Partnership With: MassDOT, Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$3,058,319

FY21 Scope: Complete the design and construction of a new Overhead Catenary System including the installation of all appurtenances and structural supports required for the electrification of track 3 between Thatcher and Holden Interlockings.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$3,058,319

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete entire project scope.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Back Bay Station: Platform Ventilation

Coordinating Agency: MBTA

In Partnership With: Amtrak, MassDOT

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	Back Bay Station serves passengers from four MBTA commuter rail lines and Amtrak's Regional, Acela, and Lake Shore Limited trains. The ventilation project will provide for the design and construction of an advanced ventilation system at the track and platform level. This will help remove diesel fumes from the tracks and platforms 1, 2 and 3. The air flows are currently being modeled and will render a preferred design solution.		
Project Justification	Environmental, safety, state of good repair.		
Total Project Cost	\$20,000,000	Status of PBCA Agreement: Not available	
	<i>Cost Derivation Methodology:</i> Based on a new conceptual estimate. 30% design will be reached in July 2020.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	TIGER	\$5,000,000	Recently applied for TIGER grant
	Massachusetts	\$16,000,000	Funds from original ductwork project = \$12M Potentially available from original ductwork project
	Private Source	\$5,000,000	Private commercial contribution toward upgrades

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
30% Design	\$1,000,000	Jun 2017 - Jul 2020						
Full Design and CPS	\$1,500,000	Oct 2020 - Jul 2020						
Construction	\$20,000,000	Oct 2021 - Oct 2022						

Back Bay Station: Platform Ventilation

Coordinating Agency: MBTA

In Partnership With: Amtrak, MassDOT

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$26,000,000

FY21 Scope: 30% design will be achieved at beginning of FY21 Q1, and the MBTA will pout out a RFP/RFQ for new design services for final design and CPS.

FY21 Milestones:

- Re-procure FD and CPS (Oct 2020)
- Complete Design (Sep 2021)

Notes: Re-procure design services and commence FD effort

Five Year Information

FY21-25 Funding Available: \$26,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Boston South Station: Tower 1 Interlocking

Coordinating Agency: MBTA
In Partnership With: MassDOT, Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	The complete redesign of Tower 1 Interlocking is part of the Boston South Station Expansion project. Tower 1 Interlocking is the railway "intersection" that provides operational flexibility for trains converging on South Station. It distributes each train to and from its platform track at the station. The goal of the Tower 1 Early Action project is to address current reliability and resiliency issues. Potential elements of the project may include: '- Replacing the existing signal system with a state-of-the-art microprocessor system; - Addressing settling that has occurred at switch points; - Providing conduits to allow easier access to wires and cables; - Evaluating the ability to raise the tracks to remove an existing dip caused by ground settlement; - Addressing ways to make Tower 1 more resilient to effects of climate change (flooding, extreme rain/snow events, heat stress, etc.); - Upgrading existing communications and providing redundancy; - Evaluating the ability to host longer trains by extending the platforms; - Raise all terminal track MAS to 15mph (Restoring track speed to 15 mph from 10 mph in the Boston Terminal would significantly improve OTP by reducing signal clearing time for all trains)"		
Project Justification	Several issues now limit Tower 1's efficiency, such as physical constraints, more demands for service, and outdated equipment. MassDOT has prioritized redesigning Tower 1 as an improvement with immediate benefits for operating the current and future system.		
Total Project Cost	\$82,367,690	Status of PBCA Agreement: Not available	
	<i>Cost Derivation Methodology:</i> Not available		
	<i>PBCA Notes:</i> 100% signal design awarded, PI executed with Amtrak, FRA pre-award authorization executed		
Funding sources for entire project history	Federal State Partnership for SOGR	\$41,183,845	FY17-18 Award for South Station Expansion - Tower 1 Early Action Project
	MBTA BCCs	\$24,000,000	MassDOT/MBTA match for FY17-18 SOGR Award
	Amtrak BCCs	\$17,183,845	Amtrak match for FY17-18 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Engineering	\$12,508,170	Mar 2018 - Dec 2019						Includes CPS, agency oversight, final design, and owner's rep
Construction	\$69,489,781	Jun 2021 - Jun 2025						Includes contingency

Boston South Station: Tower 1 Interlocking

Coordinating Agency: MBTA

In Partnership With: MassDOT, Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$11,050,000

FY21 Scope: Final design of all packages (special trackwork procurement, signal procurement, MBTA signal contractor package, Amtrak contractor trackwork package. Bid phase support for MBTA and Amtrak, Agency support, Begin purchase of long lead procurement items (1st special trackwork package, some signal equipment for Amtrak Lancaster shop)., CPS support for initial long lead procurement package (special trackwork submittal reviews)

FY21 Milestones:

- Signal design completed-100% (Nov 2020)

Five Year Information

FY21-25 Funding Available: \$71,310,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Purchase of track material and signal material finalized in procurement packages, construction of Tower 1 trackwork (Amtrak) and signal (MBTA) packages, CPS support for all package, and agency support

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

MBTA Pawtucket Layover Facility

Coordinating Agency: MBTA

In Partnership With: RIDOT

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

General Project Information

Full Project Scope	<p>This project will implement improvements to the existing Pawtucket Layover Facility, where the MBTA stores and services locomotive for the Providence/Stoughton Line. Enhancements will allow MBTA to perform fueling and light equipment maintenance in Pawtucket relieving pressure on other MBTA facilities. Phase 1, completed in 2013, included a 700 feet inspection pit. Under Phase 2, locomotive fluid handling equipment and storage tanks will be installed. This includes dispensing systems for diesel fuel, sand, and lube oil. Phase III is currently in design and will include a Train Inspection Shed that encapsulate all work in Phase I and Phase II. Phase III Construction is scheduled to be finished in 2022-2023.</p>	
Project Justification	<p>MBTA Providence Line service extends into Wickford Junction Station, RI and in order for locomotives to receive light maintenance or fluid replenishment, they have to travel back into Massachusetts. Pawtucket Layover Facility lies on the border of Rhode Island and serves as a midday/overnight layover. With additional light maintenance capabilities provided by the Pawtucket Layover Improvements, locomotives will be stored and serviced to accommodate increasing ridership on the Northeastern Corridor and Providence Line.</p>	
Total Project Cost	<p>\$37,000,000</p>	<p>Status of PBCA Agreement: In progress</p> <p><i>Cost Derivation Methodology:</i> All Phase Design:\$ 4,800,000 All Phase Construction: \$32,200,000 Costs above are inclusive of all direct and indirect cost associated across the three phases of Pawtucket Layover.</p> <p><i>PBCA Notes:</i> RIDOT will partially fund MBTA capital improvements in Rhode Island through Reimbursements.</p>
Funding sources for entire project history	<p>FTA Formula Grants \$3,000,000</p> <p>MBTA/RIDOT \$34,000,000 MBTA partially funded/Reimbursed by RIDOT</p>	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design of Phase 1, 2, 3	\$4,800,000	Mar 2011 - Jan 2021						
Construction of Phase 1, 2, 3	\$32,200,000	Aug 2012 - Apr 2022						

MBTA Pawtucket Layover Facility

Coordinating Agency: MBTA

In Partnership With: RIDOT

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

One Year Information

FY21 Budget: \$7,000,000

FY21 Scope: Pawtucket Phase III Design will be completed within the FY21. The design includes the installation of a Train Inspection Shed encompassing three tracks of the layover. The Train Inspection Shed will incorporate Phase I Track Inspection Pit and Phase II Fluid Handling Equipment. The train inspection shed will allow for light to intermediate maintenance of locomotives serving the Providence Line.

FY21 Milestones:

- Phase III Final Design (May 2021)
- Phase III Construction NTP to be Issued (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$7,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Pawtucket Phase III Design is expected to be completed in FY 21. Pawtucket Phase III Construction is expected to be completed in FY 23

FY21-25 Additional Funding Needed: \$20,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Pawtucket Phase III Construction could be completed with the additional funding.

Ruggles Street Station Accessibility Improvements: Phase 1

Coordinating Agency: MBTA
In Partnership With: MassDOT
Type: Improvement
Funding Status: Fully funded

Benefit: Sole

General Project Information

Full Project Scope	This project will construct a new platform and make other improvements at Ruggles Station to enable all inbound and outbound MBTA trains to serve the station and to increase system capacity along this segment of the NEC. The project will improve accessibility by upgrading the existing elevators and adding one new elevator in the lower busway, and make interior and exterior repairs to bring the station to code. A TIGER grant partially funds this project, which is part of a larger initiative to modernize the Ruggles Station which requires additional funding for full construction.	
Project Justification	Today, more than 30 percent of inbound trains bypass Ruggles Station, requiring more than 500 inbound passengers to transfer from MBTA Commuter Rail to the MBTA Orange Line at Back Bay then backtracking to Ruggles, commonly known as the "Back Bay Detour." The new platform will provide service improvements for the MBTA Commuter Rail passengers and add operational flexibility for MBTA Commuter Rail and Amtrak. With full service to Ruggles Station, Commuter Rail ridership to the area surrounding the station will grow as station area employment and Boston region population grows.	
Total Project Cost	\$38,996,774	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Based on final design, construction is currently ~71% complete	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	TIGER	\$20,000,000 TIGER Grant
	Other Federal Discretionary	\$18,998,774 Grants 540016 & 790002
	Massachusetts	\$398,000 State/Bond fund R20A06

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design		Mar 2012 - Jan 2017						
Construction	\$19,667,000	Jun 2017 - Jan 2020						
Other	\$19,729,774							Internal and external force accounts, field inspection, project administration, real estate, construction phase services, project contingency

Ruggles Street Station Accessibility Improvements: Phase 1

Coordinating Agency: MBTA
In Partnership With: MassDOT
Type: Improvement
Funding Status: Fully funded

Benefit: Sole

One Year Information

FY21 Budget: \$12,500,000

FY21 Scope: Substantial completion of construction anticipated in November 2020, with final completion in December 2021 and closeout complete in Summer 2021.

FY21 Milestones:

- Substantial Completion (Nov 2020)
- Final Completion (Dec 2020)
- Closeout Complete (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$12,500,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Substantial completion of construction anticipated in November 2020, with final completion in December 2021 and closeout complete in Summer 2021.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Ruggles Street Station Accessibility Improvements: Phase 2

Coordinating Agency: MBTA
In Partnership With: MassDOT
Type: Improvement
Funding Status: Partially funded

Benefit: Sole

General Project Information

Full Project Scope	Project scope is still being determined, but is anticipated to include reconstruction of the existing center island Commuter Rail platform, construction of a new elevator serving the Orange Line , reconstruction of an existing staircase serving the Orange Line Platform, and interior improvements including installation of accessible bathrooms, handrails, stairs, signage, platform seating, visual displays, entrances, pull stations and sound systems. A November 2019 SGR report and March 2019 Sprinkler System Evaluation identify numerous items anticipated to be addressed in this Project. It is planned to replace Amtrak’s existing electronic signage (train approach messaging system, or TAMS), on the center island commuter rail platform, and it would be beneficial and economical to incorporate this work within the Phase 2 reconstruction of the platform.	
Project Justification	The MBTA applied for and received a variance from the Massachusetts Architectural Access Board (MAAB) to perform Phase 1 Improvements. This Phase 1 work is currently ongoing and includes construction of a new commuter rail platform, adding a new elevator, and reconstructing 4 existing elevators. To meet its obligation under the MAAB variance, the MBTA needs to make accessibility improvements as described above as part of the Phase 2 project. The project will also address State-of-Good-Repair and bring the station to compliance with the new building codes. The 1987 structure has never been upgraded and this work will not only upgrade the station but also ensure its reliability and structural integrity for the next 20 plus years .	
Total Project Cost	\$26,500,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Based on initial conceptual design. It is a rough-order-of-magnitude estimate based on an internal cost estimate.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Massachusetts	\$3,248,754 State/Bond funds

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$200,000	Jun 2020 - Dec 2020						
Final Design	\$2,436,468	Dec 2020 - Sep 2021						
Construction	\$20,000,000	Dec 2021 - Jun 2023						
Other	\$3,810,526							Internal and external force accounts, field inspection, project administration, project contingency

Ruggles Street Station Accessibility Improvements: Phase 2

Coordinating Agency: MBTA
In Partnership With: MassDOT
Type: Improvement
Funding Status: Partially funded

Benefit: Sole

One Year Information

FY21 Budget: \$3,000,000

FY21 Scope: Progress to and complete 100 % design

FY21 Milestones:

- Complete 15% design (Dec 2020)
- Complete 100% design (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$3,248,754

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Bid Phase Services

FY21-25 Additional Funding Needed: \$23,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Construction of Ruggles Phase 2 Improvements

South Attleboro Station Accessibility Improvements

Coordinating Agency: MBTA
In Partnership With: MassDOT, GATRA, RIPTA, City of Attleboro
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	The scope of work for the South Attleboro Accessibility Improvements Project includes, new pedestrian walkway bridge with access to inbound and outbound platforms, installation of three bus bays, new accessible parking improvements, new pedestrian crossings, and new high level platforms.	
Project Justification	Due to community complaints on the State of Repair of South Attleboro Station, a full renovation project will be undertaken to provide accessibility improvements, to modernize the entire station, and to provide multimodal transfer capabilities.	
Total Project Cost	\$48,661,718	Status of PBCA Agreement: In progress
	<i>Cost Derivation Methodology:</i> Design Cost: \$5,000,000 Construction Cost: \$40,000,000 Contingency: 10%	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Section 5337 Funds	\$48,661,718

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design and Administration	\$4,475,819	Mar 2020 - Jun 2021						
Construction	\$44,185,899	Sep 2021 - Dec 2022						

South Attleboro Station Accessibility Improvements

Coordinating Agency: MBTA
In Partnership With: MassDOT, GATRA, RIPTA, City of Attleboro
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

One Year Information

FY21 Budget: \$45,100,000

FY21 Scope: South Attleboro Accessibility Improvements Project Final Design will be completed in FY 2021. South Attleboro Accessibility Improvements Project Construction NTP will be issued in FY 2021.

FY21 Milestones:

- Final Design Completion (Jun 2021)
- NTP for Construction (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$48,661,718

- **At this funding level, the following phases could be initiated or completed in FY21-25:** South Attleboro Final Design is expected to be completed in FY21. South Attleboro Construction is expected to be completed in FY23.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

East River Tunnel: Right of Way Infrastructure Improvements

Coordinating Agency: MTA
In Partnership With: Amtrak
Type: Improvement
Funding Status: Fully funded

Benefit: Shared

General Project Information

Full Project Scope	This project includes several initiatives in the East River Tunnels, including: Stray Current Study; Communications antenna replacement in lines 3 and 4; Total track replacement in line 4; and 1st Avenue substation replacement. Work would evaluate and mitigate stray current in the tubes, improve radio system infrastructure in the tunnels and on the platforms at Penn Station New York used by Amtrak and LIRR, renew track and track-bed infrastructure in East River Tunnels 3 & 4, and install a new fully operational AC-DC traction power substation to replace a substation that was damaged by Hurricane Sandy. These projects would improve reliability and reduce delays and maintenance costs by replacing and/or upgrading existing equipment. Some funding for these improvements is available. Additional funding is required for other improvements.	
Project Justification	Track and antenna replacement are state-of-good-repair projects to resolve existing and identified deficiencies. The Stray Current Study will identify source of stray current causing base corroded rail and will identify means to contain it. The new substation will replace a traction power substation damaged during Hurricane Sandy.	
Total Project Cost	\$88,500,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The cost estimates were derived by a combination of internal LIRR cost estimators and 3rd party consultant estimators, based on either 30% designs or 100% designs created between 2012-15.	
	<i>PBCA Notes:</i> For the sub Station project, as this is a DC Sub Station LIRR funds the improvement 100%.	
Funding sources for entire project history	MTA Capital Funds	\$88,500,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$3,000,000	Jan 2012 - Jun 2015						
Construction	\$85,500,000	Jan 2017 - Dec 2022						

East River Tunnel: Right of Way Infrastructure Improvements

Coordinating Agency: MTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$3,000,000

FY21 Scope: Continue antenna replacement in ERT's 3&4 and platforms. Continue ERT Line 4 Total Track Replacement.

FY21 Milestones:

- Complete ERT Line 4 Track Rehab (Feb 2021)
 - Subject to availability of Amtrak force account and track outages in the ERT
- Complete Tunnel Antenna Project (Mar 2021)
 - Subject to availability of Amtrak force account and track outages in the ERT

Five Year Information

FY21-25 Funding Available: \$3,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Complete ERT Tunnel and platform replacement, and ERT Line 4 Total Track Rehab in 2021

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Not applicable

Gateway: Penn Station Expansion

Coordinating Agency: MTA
 In Partnership With: Amtrak, NJ Transit
 Type: Improvement **Benefit: Shared**
 Funding Status: Partially funded

General Project Information

Full Project Scope	This project would expand Penn Station NY to add new tracks, platforms, and concourse space to facilitate a growth in rail service in coordination with other Gateway Program investments to expand capacity. The project may also include expansion of existing platforms 1 and 2 to allow longer trains to use the platforms.	
Project Justification	Penn Station New York is a pinch point at the center of the NEC, with 21 tracks accommodating some 1,300 average weekday train movements. The expansion of Penn Station tracks, platforms, and concourses is necessary to address growth in trans-Hudson demand and rail service that will be accommodated by additional elements of the Gateway Program.	
Total Project Cost	Total Project Cost TBD	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> Project in early stages of development; cost information not yet available.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Amtrak FY21 FRA Grant	\$14,050,000 (with additional funds to be identified)
	MTA	\$5,500,000 (with additional funds to be identified)
	NJ Transit	TBD

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$2,807,009	Jul 2019 – Dec 2020						
PE/NEPA	TBD	Jan 2021 – Sep 2022						
Property Acquisition/Relocations	TBD	Oct 2022 – Sep 2023						
Demolition	TBD	Sep 2023 – Jun 2024						
Design/Build Contract	TBD	Mar 2023 – Dec 2028						

Gateway: Penn Station Expansion

Coordinating Agency: MTA
In Partnership With: Amtrak, NJ Transit
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: TBD

FY21 Scope: Initiation of Penn Station Expansion Environmental Impact Statement and Preliminary Engineering.

FY21 Milestones:

- Environmental Consultant NTP (Sep 2020)
- Engineering Consultant NTP (Nov 2020)
- Data gap Analysis & Scoping (Q1 CY2021)

Five Year Information

FY21-25 Funding Available: \$19,550,000

- Amtrak: FY21 FRA Grant: \$14,050,000 with additional funds to be identified
- MTA: \$5,500,000 with additional funds to be identified
- NJT: TBD
- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Initiation of Preliminary Engineering and NEPA.

FY21-25 Additional Funding Needed: TBD

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Completion of preliminary engineering, start of construction.

Harold Interlocking

Coordinating Agency: MTA
In Partnership With: Amtrak
Type: Improvement
Funding Status: Fully funded

Benefit: Shared

General Project Information

Full Project Scope	This project will construct new conflict-free train routes through Harold Interlocking, the busiest switch point on the NEC. Located in Queens, NY, this interlocking sorts Amtrak, LIRR, and NJ TRANSIT trains as they travel north and east of Penn Station or access Sunnyside Yard for service and storage.		
Project Justification	The project, which utilized HSIPR funds, will greatly improve reliability, on-time performance, and travel time for all rail services operating through the Harold Interlocking.		
Total Project Cost	\$1,404,295,860	Status of PBCA Agreement: Not available	
	<i>Cost Derivation Methodology:</i> New estimate created to incorporate impacts of Amtrak's lack of resources and reduced productivity, which extended the project schedule to 2027. Current schedule coordinates implementation of project elements with other Regional and Amtrak projects. Designs for remaining project elements are at or near 100%, however, contracts for remaining work will be advanced as design build contracts. Project cost estimate was updated May 2019.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	ARRA/HSIPR	\$294,781,579	All grant funds disbursed to reimburse project costs through 2017.
	Local funding	\$1,109,514,281	Local match

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$1,404,295,860	Jul 2015 - Dec 2027						

Harold Interlocking

Coordinating Agency: MTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$100,000,000

FY21 Scope: Award and commence construction under a third party contract (CH063) to undertake project related catenary and trackwork: October 2020. Award and commence construction of the Eastbound Reroute contract (CH058B).

FY21 Milestones:

- Award and NTP for Catenary Contract (CH063) (Oct 2020)
- Award and NTP for EBRR East Approach work under CH058B (Dec 2020)

Notes: Achievement of milestones may be affected by impacts of Covid-19 restrictions.

Five Year Information

FY21-25 Funding Available: \$798,478,633

- **At this funding level, the following phases could be initiated or completed in FY21-25:** MTA C&D expects to complete the Eastbound Reroute and Westbound Bypass by mid-2025. Per the current schedule, construction of the Amtrak Car Washer and related track work would begin in late 2025 (FFY 2026).

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** It is expected that funding needed after December 2024 will be included in the MTA's 2025-2029 Capital Program.

Notes: The MTA's approved 2020-2024 Capital Program provides project funding for activities initiated through December 2024.

Penn Station Access

Coordinating Agency: MTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope

This project will open a new Metro-North Railroad link directly into Penn Station New York from the New Haven Line in Westchester and the State of Connecticut. Four new Metro-North stations will be built in the Bronx – near Co-op City, Morris Park, Parkchester/Van Nest, and Hunts Point. The project also includes upgrading the power and signal systems along the Hell Gate Line; adding new interlockings and tracks, and modifying existing ones and curves on a portion of the line; modifying existing over-the-street railroad bridges such as Eastchester Road Bridge, Bronxdale Avenue Bridge, and Pelham Lane Bridge, as necessary; and reinforcing the Bronx River Bridge. Early action items could include the replacement of antiquated power assets (including but not limited to catenary assets). This work will bring existing Amtrak assets to a state of good repair, as well as support the introduction of Metro-North New Haven Line commuter rail service to Penn Station New York.

Project Justification

Penn Station Access will add resiliency and redundancy to the existing Metro-North New Haven Line service to Manhattan, providing greater mobility, access, connectivity, and travel times savings for existing and new Metro-North customers and helping to address Grand Central Terminal (GCT) capacity issues. The project will substantially reduce travel times between Manhattan’s West Side and areas within Metro-North’s East-of-Hudson service territory; provide a new one-seat ride from NHL communities to jobs, shopping and other destinations on Manhattan’s West Side; and improve regional connectivity and mobility by completing direct connections at Penn Station among all of the New York area’s regional and intercity rail carriers—Metro-North, LIRR, New Jersey Transit, and Amtrak. Furthermore, the four new stations will increase access from East Bronx communities to employers on Manhattan’s West Side and along I-95 in Westchester and the State of Connecticut and access to East Bronx employers from the same areas. The benefits above will be cost-effective by largely using existing infrastructure.

Total Project Cost

\$1,583,141,445

Status of PBCA Agreement: In progress

Cost Derivation Methodology: Approved Project Budget was based on the phase of Conceptual Engineering and created in February 2019.

PBCA Notes: Not available

Funding sources for entire project history

Federal State Partnership for SOGR	\$30,000,000	FY19 Award for Penn Station Access - Hell Gate Line Catenary
MTA	\$1,553,141,445	Includes MTA match for FY19 SOGR Award
Other Amtrak Sources		TBD

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$32,236,716	CY Q1 2019 - Q4 2020						
Final Design	\$60,000,000	CY Q1 2021 - Q2 2022						
Construction	\$1,153,905,516	CY Q2 2021 - Q2 2025						

Penn Station Access

Coordinating Agency: MTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget*: \$1,213,905,516

FY21 Scope: MTA plans to complete PE/NEPA in FY2021, in order to procure a design/build contract by the end of FY 2021 for the completion of PSA.

FY21 Milestones:

- PE/NEPA Complete (Sep 2020)
- Execute Design-Build Agreement (Sep 2020)
- Execute Workforce Agreement (Sep 2020)
- Execute Cost Sharing Agreement (Nov 2020)
- Execute Real Estate Agreement (Nov 2020)
- Award Design-Build (Dec 2020)
- Initiate Final Design (Dec 2020)
- Initiate Construction (Mar 2021)

Notes: \$1,213,905,516 is available for this project in FY21. For consistency, this available funding is not included in FY21 planned expenditure totals throughout this plan.

Five Year Information

FY21-25 Funding Available: \$1,583,141,445

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete design & construction.

FY21-25 Additional Funding Needed: TBD

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

Penn Station New York: Reconstruction Master Plan

Coordinating Agency: MTA

In Partnership With: Amtrak, NJ TRANSIT

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope

This project will undertake a major reconstruction of Penn Station to relieve overcrowding, improve passenger flow, safety and security, rationalize station configuration and operation, increase revenue generation, improve the general passenger experience, unify the existing Penn Station with the Moynihan Train Hall and a future expansion of the station, and address deficiencies of building systems, platform and building egress, vertical circulation, lighting, finishes and amenities.

The first element of this program is MTA's East End Gateway and LIRR Concourse project, currently in construction, which will add a major new entrance at 33rd Street and 7th Avenue and widen and improve the LIRR 33rd Street Concourse along with associated building systems, lighting, finishes and LIRR station operation facilities. The next element, the Penn Station Reconstruction Master Plan, will extend the reconstruction begun by MTA under the East End Gateway and LIRR Concourse project to encompass the entire station, jointly with Amtrak and NJ TRANSIT.

The project includes state of good repair work on Platforms 7 and 8 and may include expansion of existing platforms 1 and 2 to allow longer trains to use the platforms.

Project Justification

Penn Station is currently serving three times the number of users it served in the 1960s when it was converted from a world-class station in a grand neo-classical building widely regarded as a civic treasure into two unimaginative basement levels under an office building and Madison Square Garden. Despite improvements over the years, it is outdated and poorly configured, portions of it are highly congested, its finishes are worn, space planning is constrained by a forest of legacy and new structural members and many building systems are nearing the end of their useful lives. The station is badly in need of major investment to maintain and expand operations, renew its infrastructure, improve its revenue stream to support itself and re-establish itself as the premier rail transportation center in the New York Metropolitan region.

Total Project Cost

Total Project Cost TBD

Status of PBCA Agreement: In progress

Cost Derivation Methodology: The cost estimates for some elements were derived by a combination of internal MTA cost estimators and 3rd party consultant estimators, based on either 30% designs created between 2015 and 2020.

PBCA Notes: Tracks 17 – 21 are funded 100% by MTA, Tracks 13 – 16 are funded approximately 65% by MTA, and Tracks 1 – 12 are funded 0% by MTA based on usage.

Funding sources for entire project history

Federal State Partnership for SOGR	\$17,506,577	FY19 Award for Penn Station Platform Improvements
MTA	\$608,463,577	Includes \$14,463,577 match for FY19 SOGR Award
Other Amtrak Sources	\$3,043,000	Match for FY19 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
East End Gateway and LIRR Concourse Construction	TBD	Jun 2019 - Dec 2022						
Penn Station Master Plan Reconstruction	TBD	Aug 2023 - Aug 2028						

Penn Station New York: Reconstruction Master Plan

Coordinating Agency: MTA

In Partnership With: Amtrak, NJ TRANSIT

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: TBD

FY21 Scope: Complete Construction of the new LIRR Entrance at 33rd Street.

FY21 Milestones:

- Start 33rd St Corridor Construction (Nov 2020)
 - Requires Amtrak executed "Permit to Enter"
 - Subject to Amtrak force account availability and provision of track outages
- Complete Construction of New Entrance (Dec 2020)

Five Year Information

FY21-25 Funding Available: TBD

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Complete the LIRR Entrance at 33rd Street and reconstruction of the LIRR Concourse; complete the Master Plan study

FY21-25 Additional Funding Needed: TBD

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Environmental determination, 30% design, procurement and initiation and progression of the Penn Station Master Plan Reconstruction.

River-to-River Rail Resiliency Projects (R4)

Coordinating Agency: MTA
In Partnership With: Amtrak
Type: Improvement
Funding Status: Fully funded

Benefit: Shared

General Project Information

Full Project Scope	<p>This program will protect the East River Tunnels and the West Side Yard against flood hazards to ensure connectivity at New York Penn Station for Amtrak, LIRR, and NJ TRANSIT. The program consists of multiple elements, including West Side Yard perimeter protection and drainage improvements, hardening the Queens Portals of the East River Tunnels, resiliency improvements within the East River Tunnels, including the installation of permanent emergency generators, and waterproofing of the entrances and manhole/conduit points of entry to two ventilation facilities.</p> <p><i>Note: Amtrak’s portion of this project, which is funded by the FRA, can be found in Amtrak’s capital renewal plan.</i></p>	
Project Justification	<p>This project will enhance weather resiliency.</p>	
Total Project Cost	<p>\$108,100,000</p> <p><i>Cost Derivation Methodology:</i> The cost estimates were derived by a 3rd party consultant estimator, based on a conceptual design in Oct 2013.</p> <p><i>PBCA Notes:</i> Improvements in East River Tunnels are funded 100% for Lines 3 and 4 and approximately 25% for Lines 1 and 2 based on overall usage by carrier.</p>	<p>Status of PBCA Agreement: Completed</p>
Funding sources for entire project history	<p>FTA Superstorm Sandy Grant</p>	<p>\$80,036,167 FTA Sandy Grant for West Side Yard; FTA Sandy Grant for LIC Queens Portals; FTA Sandy Grant for ERT System Protection. Note: \$13,478,978 was flexed from the FTA to the FRA on 4/26/18.</p>
	<p>MTA/Amtrak</p>	<p>\$28,000,000 For West Side Yard. MTA expects the 25% match will be shared by MTA & Amtrak = \$10.6M For LIC Queens Portals. MTA expects the 25% match will be shared by MTA & Amtrak. = \$5.4M For ERT System Protection. MTA expects the 25% match will be shared by MTA & Amtrak. = \$6.4 M</p>

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$2,500,000	Sep 2016 - Dec 2020						Conceptual Design period extended to include soil survey, profile and composition analysis
Construction	\$105,500,000	Dec 2020 - Jun 2023						

River-to-River Rail Resiliency Projects (R4)

Coordinating Agency: MTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$25,000,000

FY21 Scope: Construction start of the WSY and Queens North & South flood perimeter walls. Procurement of a Design-Builder for the Queens ERT Portals flood protection.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$108,100,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Procure the Design-builder for the Queens Portal Flood mitigation and complete the work. Complete the WSY Flood Wall. Complete the Queens North & South perimeter flood walls.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** Not applicable

Gateway: Portal North Bridge

Coordinating Agency: NJ TRANSIT
In Partnership With: Amtrak, Port Authority of NY & NJ, Gateway Program Development Corporation, NJ Economic Development Authority
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project would replace the century-old swing-span Portal Bridge over the Hackensack River with a new two-track, fixed-span bridge, allowing a modest expansion of capacity. Amtrak and NJ TRANSIT have completed final design and environmental review. The project was accepted by the FTA into the "Engineering Phase" of its Capital Investment Grant - Core Capacity grant program in June 2020. Once complete, the new bridge will save upwards of \$1.3 million annually in reduced maintenance and operating costs due to the replacement of a swing bridge with a fixed bridge.		
Project Justification	The existing Portal Bridge is a major bottleneck and source of delay of train traffic. It has limited vertical clearance and must routinely be opened for maritime traffic. The bridge is functionally obsolete and experiences frequent mechanical failures, resulting in a single point-of-failure on the NEC and substantial delays. The risk of continued and increasing unplanned outages due to malfunctioning of the obsolete bridge cannot be mitigated by maintenance.		
Total Project Cost	\$1,803,000,000	Status of PBCA Agreement: In progress	
	<i>Cost Derivation Methodology:</i> The estimated cost of the Portal North Bridge (PNB) Project at \$1.803 billion is consistent with the September 2019 CIG submission to FTA. This higher cost incorporates new mandates such as 5% escalation per year, and using a "P65" probability of cost factor. The Project is at a 100% level of design completion as the design phase was generally completed in 2013, with certain updates, revisions and clarifications being incorporated over the past few years.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	CIG	\$766,500,000	FTA Core Capacity
	CMAQ	\$57,063,562	CMAQ funding and FHWA Congestion Mitigation for Construction Phase 2
	Federal State Partnership for SOGR	\$55,100,000	FY19 Award for Portal North Bridge Project
	NJ Economic Development Authority Bonds	\$553,722,000	
	NJ Turnpike Authority	\$165,172,000	
	NJ Transportation Trust Fund	\$26,116,566	
	NJ TRANSIT	\$14,265,890	Match for CMAQ Funds
	Amtrak Escrow Account Contribution	\$64,506,000	
	Amtrak Revenues	\$55,100,000	Match for FY19 SOGR Award
	Amtrak Gateway Program Reserves	\$45,869,000	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction - Phase 2 - Contract GC.02	\$1,803,000,000	Jul 2021 - Dec 2026						Per 2020 Financial Plan

Gateway: Portal North Bridge

Coordinating Agency: NJ TRANSIT
In Partnership With: Amtrak, Port Authority of NY & NJ, Gateway Program Development Corporation, NJ Economic Development Authority
Type: Major Backlog **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$66,701,000

FY21 Scope: The Procurement Phase to secure the services of a Construction Contractor is slated to begin in October 2020. This phase will be supplemented with a Contractor/ DBE Outreach Event scheduled for January 2021. Bid opening is tentatively scheduled for March/April 2021, and that event would be followed by the issuance of Notice to Proceed to the winning bidder within Q4 FY21. Financially, the project's next Financial Plan is anticipated to be submitted to the FTA by the end of September 2020 and the execution of an FFGA with the FTA is contemplated to occur within the 1st or 2nd Quarters of FY21.

FY21 Milestones:

- Contractor / DBE Outreach Event (Jan 2021)
- Execution of FFGA (FY21 TBD)
- Contract Award (May 2021)
- NTP Issued (Jul 2021)

Five Year Information

FY21-25 Funding Available: \$1,803,000,000^A

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The Construction Phase, with an estimated 5.5 year duration, will be well underway during this FY period.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/ workforce constraints and track outages):**
Not applicable

Notes: ^AFY21-25 Funding Available figure includes existing federal, local, and Amtrak funding sources in addition to the \$766.5M requested from the FTA's CIG program and is expected over the next 5 years per a pending full funding grant agreement (FFGA).

Delco Lead

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will construct a safe haven storage facility on the NEC south of the New Brunswick station to protect rail rolling stock against damage resulting from a storm surge. A service and inspection facility that is part of the project will facilitate the rapid return of equipment to service following a storm event. This project is supported by FTA Emergency Relief Program funds. Phase I of the Delco Lead Project is the County Yard project which will expand the existing County Storage Yard from its current footprint to include an unused part of an adjacent rail freight yard. The Delco Lead project, with County Yard improvements, will provide safe storage capacity for up to 444 rail cars in the event of flooding at other locations.	
Project Justification	The project will provide resilient storage for rail cars and service and inspection (S&I) capabilities to facilitate the rapid return to service of stored rolling stock equipment following an extreme weather event. The S&I Facility will be utilized for daily inspections and required equipment service at County Yard. Furthermore, the Delco Lead tracks would potentially be used in the future in conjunction with the proposed Mid-Line Loop and North Brunswick Station projects.	
Total Project Cost	\$245,992,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The project is currently at a 60% level of design completion, but will soon be at 90%. The estimate was prepared by the Engineer-of-Record, Jacobs Engineering Group, during its preparation of the design plans in 2016.	
	PBCA Notes: Not applicable	
Funding sources for entire project history	FTA Formula Grants	\$184,493,910 Multiple FTA Grants (7)
	NJ Transportation Trust Fund	\$63,551,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,500,000	Oct 2014 - Feb 2016						
Final Design	\$16,568,000	Mar 2016 - Sep 2020						
Construction	\$267,284,910	Sep 2021 - May 2026						

Delco Lead

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$8,000,000

FY21 Scope: The Construction Contract is to be advertised in January 2021. The contract is expected to be awarded by NJ TRANSIT's Board of Directors in July 2021 and, Notice to Proceed is scheduled to be issued to the winning bidder in September 2021.

FY21 Milestones:

- Procurement (Jan 2021)
- Contract Award (Jul 2021)
- Notice to Proceed (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$224,849,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The Construction Phase will be in full operation through FFY '25

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Edison Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	This project would relocate an existing freight turn-out switch to a location north of Plainfield Avenue by Edison Station and then extend the existing outbound high-level platform by 425 feet for a total platform length of approximately 1,020 feet. Additional funding is required for design and construction.	
Project Justification	The extended platform will result in smoother passenger boarding and de-boarding as well as shorter dwell times.	
Total Project Cost	\$22,220,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Due to the unavailability of funding, the project currently remains at a 0% - 5% level of design completion. The 2013 cost estimate was prepared by NJ TRANSIT's Project Management staff as a ball-park estimate, and is based upon the scope of similar civil and railroad systems construction projects.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	NJ Transportation Trust Fund	\$395,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$167,455	Apr 2006 - Jun 2008						
PE/NEPA	\$1,500,000	Jan 2022 - Dec 2022						Dates and cost are TBD
Final Design	\$3,000,000	Jan 2023 - Jun 2024						
Construction	\$17,552,545	Jul 2024 - Jul 2026						

Edison Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$22,200,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
If funding is allocated in State FY '23, the design and construction phases would begin.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Elizabeth Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

General Project Information

Full Project Scope	This project would reconstruct two side high-level concrete passenger platforms and two station buildings including new elevators, stairs, ticketing offices, operational office spaces, and retail spaces. Additional funding is required for design and construction.	
Project Justification	NJ TRANSIT plans to reconstruct the Elizabeth, NJ commuter rail station in its entirety with needed upgrades to bring the station up to current ADA compliance standards. The station activities will also accommodate a proposed future fifth track along the NEC planned to be built by Amtrak. The upgraded rail station will also provide longer platforms for NJ TRANSIT trains.	
Total Project Cost	\$71,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> This project is being advanced under a "Design/Build" concept. A 30% level design package was completed by NJ TRANSIT's internal staff in 2015. The contractor/engineering team will complete the design as well as construct the project.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	FTA Formula Grants	\$29,950,000 FTA Grant Nos. NJ-90-0023 and NJ-2017-020-00
	NJ Transportation Trust Fund	\$4,489,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
30% Preliminary Design	\$6,180,000	Jun 2011 - Jun 2013						
PE/NEPA	\$730,000	Jan 2012 - Jul 2013						
Final Design	\$7,000,000	Jun 2018 - Dec 2020						Design/Build Contract. 100% Final Design
Construction	\$57,090,000	Oct 2018 - Dec 2022						Design/Build Contract

Elizabeth Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Partially funded

One Year Information

FY21 Budget: \$20,000,000

FY21 Scope: The full construction work as described above will be continuing throughout the FY '21 fiscal year.

FY21 Milestones:

- Achieve 50% Completion (Dec 2020)

Five Year Information

FY21-25 Funding Available: \$34,400,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not Applicable. All construction activities will be underway within the subject 5-year fiscal year period.

FY21-25 Additional Funding Needed: \$36,600,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
All required funding is anticipated to be allocated. As a consequence, the full construction scope of work is expected to proceed unimpeded.

Gateway: NJ TRANSIT Storage Yard

Coordinating Agency: NJ TRANSIT
In Partnership With: Amtrak, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	This project would locate a new rail yard in New Jersey to support the capacity and service increase goals of the Gateway Program. Additional funding is needed for NEPA/PE, design and construction.	
Project Justification	A rail yard in New Jersey would provide the layover storage and maintenance facilities necessary to optimize the new capacity enabled by track and station expansion projects associated with the Gateway Program. Many of the existing NJ TRANSIT train storage or maintenance facilities have constraints that preclude further expansion and/or are located in outlying areas. However, the greatest need for increased train storage and maintenance capacity is in close proximity to terminal stations and major hubs such as Penn Station New York (PSNY), Hoboken, Secaucus, and Newark Penn Station.	
Total Project Cost	Total Project Cost TBD	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> The project is in early stages of development, full cost information is not yet available.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	NJ Transportation Trust Fund	\$399,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$399,000	Jan 2019 - Sep 2020						
ROW		Jan 2023 - Jan 2024						

Gateway: NJ TRANSIT Storage Yard

Coordinating Agency: NJ TRANSIT
In Partnership With: Amtrak, Port Authority of NY & NJ, Gateway Program Development Corporation
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$150,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Most of the design phase and ROW acquisition could take place through 2025 if funding was available.

Hunter Flyover

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope	This project would construct an elevated viaduct structure to allow for NJ TRANSIT's Newark-bound Raritan Valley Line trains to cross over and above the NEC tracks to merge with the NEC's eastbound local track in order to continue their movement towards Newark. Additional funding is required for design and construction.	
Project Justification	Currently, Newark-bound Raritan Valley Line trains must travel along the westbound local track or cross the NEC at grade to reach the eastbound local track. NJ TRANSIT identified the need for a flyover that would eliminate at-grade crossings, thereby reducing conflict between trains, increasing capacity for NJ TRANSIT and Amtrak, and enabling NJ TRANSIT to improve Raritan Line service.	
Total Project Cost	\$257,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> As planning activities are expected to begin on or about July 2020, the project is currently at a 0% level of design completion. The 2012 cost estimate was prepared by NJ TRANSIT's Project Management staff as a ball-park estimate, and is based upon the scope of similar civil and railroad systems construction projects.	
	PBCA Notes: Not available	
Funding sources for entire project history	NJ Transportation Trust Fund	\$500,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$500,000	Apr 2020 - Oct 2022						
PE/NEPA	\$5,500,000							Dates and cost are TBD
Final Design	\$10,000,000							
Construction	\$241,000,000							

Hunter Flyover

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: The Planning and Study Phase of the Project is expected to get underway during FFY '21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$500,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Only the Planning and Study Phase

FY21-25 Additional Funding Needed: \$256,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
With additional funding the design phase could be completed, and the construction phase would be able to commence.

Jersey Avenue Station

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

General Project Information

Full Project Scope	This project would reconstruct the existing station including new eastbound and westbound platforms. These improvements would be complemented by the addition of a new commuter parking lot that would be connected to the station via a pedestrian overpass. This project is being coordinated with the construction of NJ TRANSIT's Delco Lead Project. Additional funding is required for design and construction.	
Project Justification	The purpose of the Jersey Avenue Station improvements is to make this station ADA accessible by installing new high-level platforms and elevators.	
Total Project Cost	\$75,000,000	Status of PBCA Agreement: Not applicable
Funding sources for entire project history	<p><i>Cost Derivation Methodology:</i> Due to the unavailability of funding, the project currently remains at a 0% level of design completion. The 2012 cost estimate was prepared by NJ TRANSIT's Project Management staff as a ball-park estimate, and is based upon the scope of similar civil and railroad systems construction projects.</p> <p><i>PBCA Notes:</i> Not applicable</p> <p>Not available</p>	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$1,000,000							Dates and cost are TBD
PE/NEPA	\$3,000,000							
Final Design	\$7,000,000							
Construction	\$64,000,000							

Jersey Avenue Station

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$75,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Commence and complete the Design Phase and, start the Construction Phase.

Metuchen Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

General Project Information

Full Project Scope	This project would extend the existing outbound high-level platform at Metuchen Station by 360 feet. Additional funding is required for design and construction.	
Project Justification	The extended platform will result in smoother passenger boarding and de-boarding as well as shorter dwell times.	
Total Project Cost	\$31,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Due to the unavailability of funding, the project currently remains at a 0% level of design completion. The 2012 cost estimate was prepared by NJ TRANSIT's Project Management staff as a ball-park estimate, and is based upon the scope of similar civil and railroad systems construction projects.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	NJ Transportation Trust Fund	\$198,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$148,588	Nov 2013 - Nov 2014						
PE/NEPA	\$1,500,000							Dates and cost are TBD
Final Design	\$5,000,000							
Construction	\$63,351,412							

Metuchen Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$63,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Begin and complete the design phase, and commence the Construction Phase of the Project

Midline Loop

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

General Project Information

Full Project Scope	This project would construct a new above-grade connection between existing and planned train storage facilities and the NY-bound local track of the NEC. The crossover would eliminate at-grade movements that create conflicts between commuter and intercity trains. Preliminary engineering is currently underway. Additional funding is required for final design and construction.	
Project Justification	The Mid-line Loop will eliminate at-grade movements that create conflicts between commuter and intercity trains. In doing so, this new infrastructure will open up capacity for all users while improving reliability for NJ TRANSIT services that today must wait for a slot to open before they can cross tracks to begin New York-bound service. The capacity created will help enable the New Jersey High-Speed Rail Program's goal of 160-mph speeds on Acela, as well as support future express service patterns planned by NJ TRANSIT.	
Total Project Cost	\$350,000,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> Due to the unavailability of funding, the project is currently at a 0% level of design completion. The 2012 cost estimate was prepared by NJ TRANSIT's Project Management staff as a ball-park estimate, and is based upon the scope of similar civil and railroad systems construction projects.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	NJ Transportation Trust Fund	\$5,382,844
	NJ TRANSIT	\$111,000 Operating Funds

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$5,493,844	Sep 2013 - Feb 2017						
Final Design	\$44,539,000							Dates and cost are TBD
Construction	\$299,967,156							

Midline Loop

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$344,506,156

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
The additional funding would allow for the start and completion of the Design Phase, and the commencement of the Construction Phase.

New Brunswick Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	This project would extend the current eastbound platform at New Brunswick Station by approximately 230 feet. Additional funding is required to design and construct an extension of the westbound platform and upgrade customer amenities at the station. The station is slated to undergo significant rehabilitation of its exterior brick façade; installation of new lighting, windows, HVAC system, and escalator; and painting.	
Project Justification	This major commuter rail station on NJ TRANSIT’s NEC Line is in need of repairs in order to lengthen the useful life of the facility and to contain the cost to maintain the station.	
Total Project Cost	\$20,303,000	Status of PBCA Agreement: In progress
	<i>Cost Derivation Methodology:</i> This is a multi-tiered project consisting of 8 different components. Each component was cost estimated by NJ TRANSIT staff or by a Task Order Consultant (TOC) under contract to NJ TRANSIT. And, each has a separate start and completion date for each phase of the Project; New Elevator Tower; Pedestrian Walkway Overpass; Elevator Rehabilitation; Escalator Replacement; Escalator Rehabilitation; NEC Eastbound Extension; Station Repairs and, Soft Costs. The total estimated cost is in 2017 dollars.	
	PBCA Notes: Not available	
Funding sources for entire project history	New Jersey	\$21,348,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$600,000	May 2007 - May 2012						
Final Design	\$2,000,000	Jun 2012 - May 2019						
Construction	\$18,748,000	Sep 2010 - Jul 2022						

New Brunswick Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$21,348,000

FY21 Scope: Activities expected to continue during FY '21 includes either design or construction work on the Pedestrian Walkway Overpass; Elevator Rehabilitation; Escalator Replacement; NEC Eastbound Extension; Station Repairs and, Soft Costs.

FY21 Milestones:

- NTP - Escalator Replacement (Nov 2020)
- Construction Complete - Elevator Rehabilitation (Feb 2021)

Five Year Information

FY21-25 Funding Available: \$21,348,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Completion of the Design and Construction Phases is expected to be completed within the FY '21 to FY '25 fiscal year period.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Newark Penn Station: NJ TRANSIT Projects

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope	Newark (NJ) Penn Station was constructed in various stages during 1929-1937. This aging, historic station requires replacement and/or upgrades of numerous infrastructure components throughout the facility. These components include, but are not limited to: the rehabilitation of Platform D; new vertical circulation units (elevators, escalators, and staircases); roof replacement; restrooms upgrades; HVAC system improvements; replacement of Terrazzo flooring throughout the station; painting; LED lighting installations; waiting room bench repairs/refurbishment; bus passenger facilities refurbishment; and display board upgrades throughout the facility; as well as potential structural improvements to the facility.		
Project Justification	Newark Penn Station is the most heavily utilized NJ TRANSIT owned facility. This multi-modal station is northern New Jersey's primary access point to Amtrak intercity services and the national rail network, while also serving as a critical hub for numerous NJ TRANSIT modes/routes and the PATH rapid transit system. A series of recent studies and analyses has resulted in a comprehensive program of proposed Newark Penn Station improvements. These improvements would provide an enhanced experience for customers and would allow the overall station facility to be brought up to a state of good repair. Among the improvements, the upgraded PA system, signage, Departure Vision boards, rail platforms, streetscape improvements, and bus passenger facilities areas would all benefit the majority of Newark Penn Station customers who transfer between multiple transportation services.		
Total Project Cost	\$454,000,000	Status of PBCA Agreement: Not available	
	<i>Cost Derivation Methodology:</i> Cost estimates are from multiple previously completed studies and analyses, including: Amtrak's Newark Penn Station Train Shed Assessment Report (2018); Amtrak's Newark Penn Station Structural Condition and Movement Assessment (2020); NJ TRANSIT's Newark Penn Station Passenger Circulation Study (2017); and NJ TRANSIT's 5-Year Capital Plan (2020).		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	Federal State Partnership for SOGR	\$18,445,000	FY17-18 Award for Newark Penn Station Platform D Improvements
	NJ TRANSIT	\$5,905,000	Match for FY17-18 SOGR Award
	Other Amtrak Sources	\$2,000,000	Match for FY17-18 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Design: Platform D		Dec 2020 - Jan 2024						
Construction: Platform D		Feb 2024 - Aug 2028						
Final Design: Station Improvements								Cost estimate and schedule are TBD
Construction: Station Improvements								

Newark Penn Station: NJ TRANSIT Projects

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: Notice to proceed on design for Platform D and begin 30% design activities.

FY21 Milestones:

- NTP Design (Dec 2020)

Five Year Information

FY21-25 Funding Available: \$26,350,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete design phase and begin construction on Platform D

FY21-25 Additional Funding Needed: Not available

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not available

NJ TRANSITGRID

Coordinating Agency: NJ TRANSIT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will create a microgrid power generation and distribution system as a backup to the regional power network, allowing transit systems to function during storms or other times when the centralized power grid is compromised. NJ TRANSITGRID will incorporate renewable energy, distribution generation, and other technologies to provide resilient power to key NJ TRANSIT stations, maintenance facilities, bus garages, and other buildings. The project will also provide resilient electric traction power to NJ TRANSIT trains on critical corridors, including portions of the NEC, to continue to operate even when the traditional power grid fails.		
Project Justification	Superstorm Sandy highlighted the need for infrastructure improvements to increase the resilience of the region’s transit system to withstand another major climatological event. NJ TRANSIT partnered with the U.S. Department of Energy and other agencies to evaluate opportunities to develop an independent power generating system to permit the operation of core train services in the event of power outages. This collaboration resulted in the NJ TRANSIT GRID Project with the intent on constructing a “Microgrid Electric Power Generating System” that will provide a resilient power source to energize portions of the NEC, NJ TRANSIT’s Morris & Essex rail line, and the Hudson-Bergen Light Rail. The completion of this project will also provide resilient power at selected rail stations and bus maintenance facilities.		
Total Project Cost	\$577,353,000	Status of PBCA Agreement: In progress	
	<i>Cost Derivation Methodology:</i> The project is currently at a 20% level of design completion. The 2016 cost estimate was prepared by the Engineers-of-Record, Jacobs Engineering Group and AECOM.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	FTA Formula Grants	\$409,764,814	Two FTA Section 5324 Grants
	NJ Transportation Trust Fund	\$100,252,000	
	Other	\$67,336,186	
	Other Federal Discretionary	\$21,000,000	Sandy Recovery Funds for Substation 41
	Federal State Partnership for SOGR	\$36,408,410	FY19 Award for Reconstruction of Substation 41
	New Jersey	\$15,603,604	Match for FY19 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$4,547,000	Jan 2016 - Jul 2019						
Final Design	\$23,000,000	Feb 2016 - Jun 2020						
Construction	\$549,806,000	Nov 2020 - Feb 2025						
Substation 41: Final Design	\$7,400,000	Mar 2021 - Sep 2021						
Substation 41: NEPA Update	\$600,000	Sep 2021 - Dec 2022						
Substation 41: Construction	\$65,010,000	May 2023 - Apr 2025						

NJ TRANSITGRID

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$76,394,000

FY21 Scope: The contract for the Distributed Generation (DG) contract is expected to receive approval from NJ TRANSIT's Board of Directors. The design of the Microgrid Central Facility (MCF) is expected to continue until reaching 100% complete.

FY21 Milestones:

- Construction Start - DG (Nov 2020)
- Complete Design - MCF (Dec 2020)
- NTP Issued - DG (Jan 2021)

Five Year Information

FY21-25 Funding Available: \$547,268,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The Design and Construction Phase activities are expected to continue throughout the FY '21 to FY '25 fiscal year period.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

North Elizabeth Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

General Project Information

Full Project Scope	This project would rehabilitate the existing high-level concrete platform and replace the tactile warning edge material on both the eastbound and westbound platforms at North Elizabeth Station. Additional funding is required for construction.	
Project Justification	An inspection indicated that there is advanced deterioration of the expansion joints, rub rail, and the concrete deck on both the eastbound and westbound high-level platforms.	
Total Project Cost	\$998,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The project is currently at a 100% level of design completion. The 2018 cost estimate was prepared by NJ TRANSIT's Project Management staff.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	NJ TRANSIT	\$281,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$281,000	Nov 2010 - Oct 2011						
Construction	\$717,000							Date and cost TBD

North Elizabeth Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$717,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Once funding is allocated, the Construction Phase of the project could begin.

Penn Station New York: NJ TRANSIT Projects

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

General Project Information

Full Project Scope	This project would make much needed improvements to Penn Station New York. Among the projects being advanced are extending the existing Central Concourse to allow for more vertical access to existing train platforms, improving the existing Hilton Corridor so it better connects between vertical access points to platforms, and improving signage and wayfinding to facilitate the safe and efficient movement of passengers and visitors. While some funding is programmed for this work, additional funding is needed to make all the necessary improvements. This is an enabling project for Major Backlog project Gateway: Penn Station Expansion.	
Project Justification	Construction of the multiple planned improvement projects at Penn Station New York will primarily be targeted on improving commuter safety and convenience. These projects will address serious vertical access and egress issues that currently exist between platforms and the various other levels of the station in an effort to increase capacity and improve the passenger experience. This project creates the connection between existing Penn Station and Penn Station Expansion.	
Total Project Cost	\$75,000,000	Status of PBCA Agreement: In progress
	<i>Cost Derivation Methodology:</i> The repairs proposed to be undertaken for Penn Station New York currently include multiple projects, including Refurbishing and Expanding the Hilton Corridor; a Unified Signage Program, and; Relocation of the 7th Avenue Artwork. As each project has a different start and completion time, the design completion levels range from 0% to 100%. The 2018 cost estimate was prepared by NJ TRANSIT's Project Management staff.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$11,018,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$441,000	Nov 2015 - Aug 2016						
Final Design	\$10,577,000	Sep 2016 - Aug 2018						Dates and cost are TBD
Construction	\$63,982,000	Start Mar 2021						

Penn Station New York: NJ TRANSIT Projects

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$10,028,000

FY21 Scope: The removal of the Transit Art is expected to get underway. Some work on the Hilton Passageway is expected to begin during the fiscal year.

FY21 Milestones:

- NTP - Transit Arts Removal (Mar 2021)
- NTP - Hilton Passageway Project (Mar 2021)

Five Year Information

FY21-25 Funding Available: \$10,028,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:** Completion of 2 of the projects would be achieved. Currently the Unified Signage Project would not be able to proceed.

FY21-25 Additional Funding Needed: \$65,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):** With additional funding construction activities could commence throughout the station.

Princeton Junction Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will install a tactile edge panel at each of the three platforms where passengers load onto trains bound for Trenton and Newark as well as the local Dinky to Princeton. Interim repairs to the platforms will also be undertaken as needed.	
Project Justification	An inspection indicated that there is advanced deterioration of the tactile warning surface in addition to the three platforms themselves. This work will bring the station up to a state of good repair for the benefit of the stations users.	
Total Project Cost	\$747,000	Status of PBCA Agreement: In progress
	<i>Cost Derivation Methodology:</i> The project is currently at a 100% level of design completion. The 2018 cost estimate was prepared by NJ TRANSIT's Project Management staff.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	NJ Transportation Trust Fund	\$747,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$100,000	Jul 2011 - Oct 2011						
Construction	\$647,000	Jul 2020 - Mar 2021						

Princeton Junction Station Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$747,000

FY21 Scope: Repair of the platform would begin and be completed.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$747,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Completion of the Construction Phase

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Trenton Transit Center Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

General Project Information

Full Project Scope

Trenton Transit Center is a critical intermodal facility for New Jersey’s capital city and the central New Jersey region. Ten different Amtrak intercity routes serve the Trenton Transit Center, along with NJ TRANSIT’s Northeast Corridor (NEC) Line and the Southeastern Pennsylvania Transportation Authority’s (SEPTA) Trenton Line commuter rail services. The Trenton Transit Center also provides connections to/from NJ TRANSIT’s RiverLINE light rail service, 12 intrastate bus routes, one interstate Philadelphia-bound bus route, and one SEPTA bus route. Recent analyses have resulted in a multifaceted improvement program proposed for Trenton Transit Center. The proposed work includes, but is not limited to: constructing a new high-level platform (replacing an existing low-level platform) to better accommodate increased high speed and intercity rail service; reconstructing existing island platform edges; removing wooden platform components and replacing them with concrete; replacing overhead canopies that have reached the end of useful life; modernization of escalators and elevators; and installing improved drainage systems. The canopy enhancements will incorporate energy-efficient LED lighting, new variable message sign boards, and a new public announcement system with enhanced speakers.

Project Justification

Trenton Transit Center is a high traffic and high-profile station in New Jersey’s capital city that is utilized by Amtrak, NJ TRANSIT and SEPTA customers. Platform and canopy improvements would reduce maintenance frequency and allow for more efficient and safe boarding for station customers. Modernized escalators and elevators will result in improved vertical circulation and lower maintenance costs. Enhanced communication systems and lighting will bring added comfort to the customer experience and improved passenger safety throughout the station.

Total Project Cost

\$49,000,000

Status of PBCA Agreement: Not available

Cost Derivation Methodology: New analyses for various infrastructure components at the Trenton Transit Center were conducted as part of NJ TRANSIT’s recently completed 5-Year Capital Plan effort

PBCA Notes: Not available

Funding sources for entire project history

Not available

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design								Cost estimate and schedule are TBD
Construction								

Trenton Transit Center Improvements

Coordinating Agency: NJ TRANSIT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not available

FY21-25 Additional Funding Needed: \$23,690,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
With \$23.69MM, a series of improvements could be completed that includes canopy and platform rehab, elevator & escalator improvements, and replacement of a low-level platform with a new high-level platform.

Harrisburg Line Interlocking Improvements: Paoli

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	<p>Recognizing that the interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line have far exceeded their useful life and are functionally obsolete, PennDOT, in coordination with SEPTA and Amtrak, advanced a comprehensive conceptual design effort to evaluate and reconfigure the system of interlockings along the Line. The purpose of the conceptual design was to determine how to address the infrastructure condition and functionality to achieve both a state of good repair and optimal service performance on the highly utilized segment of the Keystone Corridor. Through an advanced conceptual design effort, which was last updated in 2015, PennDOT, Amtrak and SEPTA agreed that the following infrastructure replacements or reconfiguration would best support current and future growth along the corridor, as described below. Following the conceptual design phase, PennDOT led preliminary engineering of all interlockings in coordination with Amtrak and SEPTA. Additional funding is needed to advance these critical infrastructure projects to construction. Paoli Interlocking: Modernize and reconfigure. Preliminary engineering complete.</p>	
Project Justification	<p>This project is a state of good repair initiative that will improve operational efficiencies by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. SEPTA’s Paoli-Thorndale Line is the highest ridership line on SEPTA’s Regional Rail Network and provides over 7.9 million trips annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. To support existing and future ridership growth, SEPTA must enhance service. SEPTA’s ability to enhance or alter service is stymied by the limitations of the existing interlockings. In order to address the ridership demand faced by both SEPTA and Amtrak, new interlockings are needed.</p>	
Total Project Cost	\$84,187,943	Status of PBCA Agreement: Not available
	<p><i>Cost Derivation Methodology:</i> The cost estimate was developed based on the 30% design submission submitted in 2014. The budget amount is subject to change based on timing and Amtrak’s final budget for support costs.</p> <p><i>PBCA Notes:</i> Not available</p>	
Funding sources for entire project history	FRA ARRA Grant	\$1,159,149
	Pennsylvania	\$128,794

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,287,943							
Final Design	\$13,800,000	Jan 2025 - Jan 2027						
Construction	\$69,100,000							

Harrisburg Line Interlocking Improvements: Paoli

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Amtrak resources are not available

Harrisburg Line Interlocking Improvements: Potts

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	<p>Recognizing that the interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line have far exceeded their useful life and are functionally obsolete, PennDOT, in coordination with SEPTA and Amtrak, advanced a comprehensive conceptual design effort to evaluate and reconfigure the system of interlockings along the Line. The purpose of the conceptual design was to determine how to address the infrastructure condition and functionality to achieve both a state of good repair and optimal service performance on the highly utilized segment of the Keystone Corridor. Through an advanced conceptual design effort, which was last updated in 2015, PennDOT, Amtrak and SEPTA agreed that the following infrastructure replacements or reconfiguration would best support current and future growth along the corridor, as described below. Following the conceptual design phase, PennDOT led preliminary engineering of all interlockings and final design of Zoo Interlocking in coordination with Amtrak and SEPTA. Additional funding is needed to advance these critical infrastructure projects to construction. Potts Interlocking: New interlocking. Preliminary engineering complete</p>	
Project Justification	<p>This project is a state of good repair initiative that will improve operational efficiencies by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. SEPTA’s Paoli-Thorndale Line is the highest ridership line on SEPTA’s Regional Rail Network and provides over 7.9 million trips annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. To support existing and future ridership growth, SEPTA must enhance service. SEPTA’s ability to enhance or alter service is stymied by the limitations of the existing interlockings. In order to address the ridership demand faced by both SEPTA and Amtrak, new interlockings are needed</p>	
Total Project Cost	\$30,346,286	Status of PBCA Agreement: Not available
	<p><i>Cost Derivation Methodology:</i> The cost estimate was developed based on the 30% design submission submitted in 2014. The budget amount is subject to change based on timing and Amtrak’s final budget for support costs</p> <p><i>PBCA Notes:</i> Not available</p>	
Funding sources for entire project history	FRA ARRA Grant	\$761,657
	Pennsylvania	\$84,629

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design	\$846,286							
PE/NEPA	\$1,500,000	Jan 2012 - Jun 2014						
Final Design	\$4,600,000	Oct 2025 - Jun 2027						
Construction	\$23,400,000							

Harrisburg Line Interlocking Improvements: Potts

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$4,600,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Amtrak resources are not available

Harrisburg Line Interlocking Improvements: Zoo

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope

Recognizing that the interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Regional Rail Line have far exceeded their useful life and are functionally obsolete, PennDOT, in coordination with SEPTA and Amtrak, advanced a comprehensive conceptual design effort to evaluate and reconfigure the system of interlockings along the Line. The purpose of the conceptual design was to determine how to address the infrastructure condition and functionality to achieve both a state of good repair and optimal service performance on the highly utilized segment of the Keystone Corridor. Through an advanced conceptual design effort, which was last updated in 2015, PennDOT, Amtrak and SEPTA agreed that the following infrastructure replacements or reconfiguration would best support current and future growth along the corridor, as described below. Following the conceptual design phase, PennDOT led preliminary engineering of all interlockings and final design of Zoo Interlocking in coordination with Amtrak and SEPTA. The total project cost for Zoo Interlocking is an estimated \$119.5M. Given the importance of this project, PennDOT has worked with Amtrak and SEPTA to identify an early action scope of work for completing the Zoo Interlocking state of good repair improvements. The Project will first include the replacement of two stone masonry retaining walls, totaling 1,400 feet of new infrastructure. The current retaining walls are listing or leaning significantly and at risk of failure that could cause damage to track, signal, and electrification infrastructure and destabilize the slope. The first phase of track work will modernize the Track 2 through freight track, including the replacement of wooden ties with concrete ties and continuous welded rail. The second phase of the Project will require track reconfiguration and state of good repair updates on the western end of the ZOO Interlocking, including the construction of new concrete tie tracks, the removal of one turnout and 500 feet of existing track, and various signal and OCS improvements to create a through movement for westbound trains. The retaining wall construction and first and second phase of track work can begin in the early calendar year 2020 and can be fully completed by 2024. These projects have the potential to save 45 – 70 seconds per train. The cost of this early action scope of work is \$55.2M.

Project Justification

This project is a state of good repair initiative that will improve operational efficiencies increase train speed and capacity and decrease travel time, by replacing or reconfiguring the functionally obsolete interlockings on Amtrak’s Keystone Corridor and SEPTA’s Paoli-Thorndale Line. Having far exceeded their useful, the interlockings currently in operation are outdated, which prohibits the most efficient and timely use of the interlocking and challenges reliability. The current interlocking configuration is no longer able to effectively support the ridership demands on the Line. Including SEPTA and Amtrak service, over 8 million passenger pass through Zoo Interlocking annually. Ridership has continually increased and trains are frequently operating at capacity or over capacity. SEPTA and Amtrak have limited ability to enhance or alter service because of the limitations of Zoo Interlocking.

Total Project Cost

\$120,831,526

Status of PBCA Agreement: Not available

Cost Derivation Methodology: The cost estimate was developed based on the 90% design submission. The budget amount is subject to change based on timing and Amtrak’s final budget for support costs

PBCA Notes: Not available

Funding sources for entire project history

FRA ARRA Grant	\$1,198,374	
Federal State Partnership for SOGR	\$15,140,236	FY17-18 Award for Keystone Corridor Zoo Interlocking State of Good Repair Improvements Project
PennDOT	\$11,040,000	Match for FY17-18 SOGR Award
FTA Formula Grants	\$29,019,764	
FTA Section 5337 Funds	\$16,560,000	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,331,526							
Final Design	\$20,000,000	Jan 2020 - Jan 2024						
Construction	\$99,500,000	Start Aug 2021						

Harrisburg Line Interlocking Improvements: Zoo

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$2,000,000

FY21 Scope: Phase 1 final design will be completed in FY 2021. This design will address reconstruction of retaining walls in the area of 40th Street, Philadelphia and track reconstruction adjacent to the wall.

FY21 Milestones:

- 100% final design (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$56,531,526

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Reconstruction of retaining walls in the area of 40th Street, Philadelphia and track reconstruction adjacent to the wall.

FY21-25 Additional Funding Needed: \$7,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Final Design of Phase 2 work.

Harrisburg Line Station Improvements: Coatesville

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will eventually modernize the Amtrak station at Coatesville, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development.	
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.	
Total Project Cost	\$65,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on the 90% design submission submitted in 2018. The budget amount is subject to change based on timing and Amtrak's final budget for support costs	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$48,000,000 FTA Section 5307 and Section 5337 grants
	Pennsylvania	\$17,000,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$2,000,000	Jan 2013 - Sep 2014						
Final Design	\$5,000,000	Oct 2015 - Oct 2020						
Construction	\$60,000,000	Oct 2020 - Oct 2023						

Harrisburg Line Station Improvements: Coatesville

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$15,000,000

FY21 Scope: Sheet piling on the south side to support the tracks. Caissons and retaining walls on the south side to support the high level platforms. Construction of the south elevator and stair tower.

FY21 Milestones:

- Start physical work (Feb 2021)

Five Year Information

FY21-25 Funding Available: \$55,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Project to be completed in Dec 2023

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Harrisburg Line Station Improvements: Downingtown

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project will eventually modernize the Amtrak station at Downingtown, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development. To facilitate the construction of the new station with high level platforms, a new Amtrak overhead bridge over US 322 will need to be built prior to constructing the station facility. The new bridge will allow pedestrian access between east bound and west bound rail travel.	
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.	
Total Project Cost	\$115,500,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on conceptual estimates in 2018.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$16,348,952
	Pennsylvania	\$4,087,238 State match to FTA Grant

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,000,000	Feb 2019 - Jul 2021						
Final Design	\$9,500,000	Aug 2021 - Dec 2022						
Construction	\$105,000,000	Start Jan 2023						

Harrisburg Line Station Improvements: Downingtown

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, SEPTA, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$2,500,000

FY21 Scope: Final design of building demolition in the north east quadrant. Preliminary engineering of the bridge replacement.

FY21 Milestones:

- 100% building Demo (Jan 2021)

Five Year Information

FY21-25 Funding Available: \$20,436,190

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete building demo in north east quadrant.
Complete final design of Amtrak overhead bridge.
Initiate construction of Amtrak overhead bridge. Initiate final design of station facility.

FY21-25 Additional Funding Needed: \$8,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Amtrak resources are not available

Notes: Additional funding, including track outages, will be needed to complete the construction of the entire project.

Harrisburg Line Station Improvements: Lancaster

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	Lancaster is the second busiest station on the Keystone Corridor. The biggest constraint to additional rail travel is the lack of parking at the station. This project will add approximately 200 additional parking stalls on the north side of the tracks. Station access will be provided by an elevator and stair tower along with a concourse extension.	
Project Justification	Lancaster is the second busiest station on the Keystone Corridor. The lack of available parking restricts people from using rail travel. The additional parking will generate more rail travelers.	
Total Project Cost	\$16,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on conceptual data in 2020. The budget amount is subject to change based on timing and Amtrak’s support costs.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$1,600,000 FTA Section 5307 and Section 5337 grant
	Pennsylvania	\$400,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,200,000	May 2020 - Sep 2020						
Final Design	\$2,000,000	Oct 2020 - May 2021						
Construction	\$12,800,000	Sep 2021 - Nov 2022						

Harrisburg Line Station Improvements: Lancaster

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$2,000,000

FY21 Scope: Completion of final design for the project

FY21 Milestones:

- Design completion (May 2021)

Five Year Information

FY21-25 Funding Available: \$2,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Complete Design

FY21-25 Additional Funding Needed: \$14,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Complete construction

Harrisburg Line Station Improvements: Middletown

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will eventually modernize the Amtrak station at Middletown, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development.	
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.	
Total Project Cost	\$44,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on the actual bid prices in 2020. The budget amount is subject to change based on timing and Amtrak's final budget for support costs.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$34,500,000 FTA Section 5307 and Section 5337 grants
	Pennsylvania	\$9,500,000 State match to FTA Grant

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$3,000,000	Jan 2014 - Sep 2015						
Final Design	\$5,000,000	Oct 2015 - Dec 2019						
Construction	\$36,000,000	Sep 2018 - Sep 2021						

Harrisburg Line Station Improvements: Middletown

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$10,000,000

FY21 Scope: Completion of Station Construction

FY21 Milestones:

- Construction completion (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$10,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Project completion

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Harrisburg Line Station Improvements: Parkesburg

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project will eventually modernize the Amtrak station at Parkesburg, along the Harrisburg Line. PennDOT is leading construction. The new station will provide ADA access with high-level boarding platforms, improved/expanded parking, and multimodal connections. This project will improve the passenger experience and lead to community and economic development.	
Project Justification	These improvements will provide ADA access with high-level boarding platforms and improved parking.	
Total Project Cost	\$49,000,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on conceptual estimates in 2018.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$2,800,000
	Pennsylvania	\$700,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$1,500,000	Oct 2020 - Apr 2022						
Final Design	\$2,500,000	May 2022 - Dec 2023						
Construction	\$45,000,000	Start Mar 2024						

Harrisburg Line Station Improvements: Parkesburg

Coordinating Agency: Pennsylvania DOT
In Partnership With: Amtrak, Federal Transit Administration
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

One Year Information

FY21 Budget: \$500,000

FY21 Scope: Preliminary engineering and NEPA

FY21 Milestones:

- Preliminary Engineering and NEPA (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$3,500,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Preliminary engineering and NEPA

FY21-25 Additional Funding Needed: \$24,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
With funding, preliminary and final design should be accomplished along with one year of construction activities.

Pawtucket/Central Falls Station

Coordinating Agency: Rhode Island DOT
In Partnership With: MBTA
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will build a new infill commuter rail station along MBTA's Providence Line in Pawtucket, RI with an anticipated opening in 2022. The scope includes station platforms, a pedestrian overpass, and associated pedestrian access points. The project was the recipient of a 2016 USDOT TIGER Award.	
Project Justification	The new Pawtucket/Central Falls Station will provide Rhode Island's densest urban communities located between Providence and Attleboro with access to commuter rail service. This station will provide relief to overcrowded stations in Providence and South Attleboro, while attracting new riders from adjacent residential redevelopment areas that would take advantage of proximity to transit for access to jobs, educational opportunities, and medical options in Boston and Providence.	
Total Project Cost	\$50,910,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The estimate is based on actual contracted dollars from October 2018, estimated RIDOT soft costs, and Amtrak force account estimates for a main line station stop.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	CMAQ	\$5,580,000
	FTA Formula Grants	\$18,000,000 FTA 5307
	TIGER	\$13,100,000
	Rhode Island	\$11,230,000
	Local funding	\$3,000,000 Municipal

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design		End Jun 2007						
PE/NEPA		End Jan 2018						
Final Design	\$7,500,000	Nov 2018 - Feb 2021						
Construction	\$43,410,000	Apr 2019 - Jul 2022						

Pawtucket/Central Falls Station

Coordinating Agency: Rhode Island DOT

In Partnership With: MBTA

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$18,500,000

FY21 Scope: The Project is a design / build format and will complete design and environmental permitting. Construction of Station will continue with completion of retaining walls, relocation of the freight rail track, completion of both northbound and southbound platform foundations, and related signal work.

FY21 Milestones:

- Complete environmental permitting (Dec 2020)
- Complete retaining wall construction (Dec 2020)
- Complete 100% design (Feb 2021)
- Relocate freight rail track (Feb 2021)
- Complete southbound platform foundation (May 2021)
- Complete northbound platform foundation (Jun 2021)
- Relocate utilities (Jun 2021)

Notes: Final design shall complete with environmental permits granted. Station construction continues with sitework and retaining walls to increase area needed for station; construction of platform foundations with preparation for actual platform surface installation; and continuing Amtrak work related to signals, communication, and power systems.

Five Year Information

FY21-25 Funding Available: \$34,910,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The project is scheduled to complete in summer FY22. FY22 includes completion of platforms and passenger access points including the elevator, stairs and ramps. FY22 also includes installation of the pedestrian bridge, wayfinding, mechanical, electrical and plumbing systems and associated finishes throughout the project. MBTA begins commission testing prior to revenue start date.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/ workforce constraints and track outages):**
Not applicable

Providence Station Improvements

Coordinating Agency: Rhode Island DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project would construct interior layout changes, emergency platform egress, and pedestrian access improvements to Providence Station. The PE/NEPA phase included a full assessment of the station's condition, development of short- and long-term improvements for both the station's interior and exterior, 30 percent design for recommended short-term improvements, and an environmental review on the preferred alternative. Long-term actions could include connections to adjacent retail centers, enhance bus/ intermodal connections, increased parking, and station expansion. RIDOT is pursuing a separate project to develop a transit hub adjacent and connected to Providence Station.		
Project Justification	Providence Station was relocated in downtown Providence in the 1980s. The current station is in need of reprogramming of interior space to better reflect the needs of today's travelers. The relocation also created a need for new intermodal connections to ensure that passengers can seamlessly travel to Providence Station for destinations along the Corridor, including Boston, MA. Numerous companies in Boston have also decided to locate additional offices in Providence, thereby increasing the importance for service between the two cities.		
Total Project Cost	\$28,750,000	Status of PBCA Agreement: Not available	
	<i>Cost Derivation Methodology:</i> The cost estimate is based on 2017 30% design plans and is in 2017 dollars.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	ARRA/HSIPR	\$3,000,000	
	Federal State Partnership for SOGR	\$12,500,000	FY17-18 Award for Providence Station State of Good Repair and Capacity Project
	RIDOT	\$750,000	State match for ARRA/HSIPR
	RIDOT	\$5,250,000	Match for FY17-18 SOGR Award
	Other Amtrak Sources	\$7,250,000	Match for FY17-18 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$3,750,000	Sep 2011 - Dec 2017						
Final Design	\$2,000,000	Sep 2020 - Dec 2020						
Construction	\$23,000,000	Feb 2021 - Jul 2022						

Providence Station Improvements

Coordinating Agency: Rhode Island DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$14,000,000

FY21 Scope: FD consultant will be given NTP in FY 21 and FD will be completed in the same year. A contractor will be given NTP and construction will begin.

FY21 Milestones:

- Complete FD (Feb 2021)
- Procure contractor (Feb 2021)
- Procure long lead items (Apr 2021)
- Begin construction (Apr 2021)

Five Year Information

FY21-25 Funding Available: \$25,000,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
FD and construction

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Warwick/T.F. Green Airport Station

Coordinating Agency: Rhode Island DOT
In Partnership With: Amtrak
Type: Improvement **Benefit:** Shared
Funding Status: Partially funded

General Project Information

Full Project Scope	This project would expand Warwick/T.F. Green Airport rail station which opened in 2010. In that project, the Rhode Island Airport Corporation constructed a station house and a single high-level platform to support the introduction of MBTA commuter rail services to the Airport and to new communities south of Providence. For this project, RIDOT and Amtrak have proposed expanding the station with additional track and platform capacity to accommodate intercity rail.	
Project Justification	This project would enable the introduction of Amtrak service at Warwick/T.F. Green Airport rail station.	
Total Project Cost	\$184,400,000	Status of PBCA Agreement: Not available
	<i>Cost Derivation Methodology:</i> In June 2020 Amtrak and RIDOT completed a conceptual design study that included cost estimates for multiple scenarios. The \$180M scenario is a potential alternative (Alternative 4, track lowering).	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	CRISI	\$2,800,000
	Other Federal Discretionary	\$720,000 FHWA section 5303/5304 and SPR
	Rhode Island	\$880,000 20% match to federal funds

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility Study	\$500,000	Sep 2016 - Apr 2017						FRA study
Engineering Study	\$400,000	Oct 2018 - Jun 2020						Conceptual design
PE/NEPA	\$3,500,000	Oct 2020 - Dec 2021						

Warwick/T.F. Green Airport Station

Coordinating Agency: Rhode Island DOT

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Partially funded

One Year Information

FY21 Budget: \$3,000,000

FY21 Scope: Utilizing funding from a FRA CRISI grant, RIDOT will issue NTP to a consultant for PE/NEPA. It is expected NEPA will be completed during FY21, while the 30% plans will be completed shortly into FY22.

FY21 Milestones:

- NTP to be issued (Oct 2020)
- Complete NEPA (Sep 2021)

Five Year Information

FY21-25 Funding Available: \$3,500,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
PE and NEPA completed

FY21-25 Additional Funding Needed: \$180,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Full construction; value shown in 2020 dollars

30th Street West Catenary Replacement

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will replace and modernize the SEPTA overhead catenary system from 30th Street Station westbound to K and Zoo Interlockings, an area that includes SEPTA's Powelton Yard. Work also includes repairs to aging catenary support structures, foundations, retaining walls, tunnels, and site drainage.	
Project Justification	The project will rehabilitate assets beyond their useful life and improve system reliability.	
Total Project Cost	\$77,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The cost estimate was developed during the scoping phase of the project. The project design is currently 96% complete.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Pennsylvania	\$74,516,750
	Local funding	\$2,483,250

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$6,864,620	Feb 2015 - Dec 2020						
Construction	\$70,135,380	Jun 2021 - Jun 2025						Funding is programmed in FFY21-25 but not fully obligated

30th Street West Catenary Replacement

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$2,236,845

FY21 Scope: SEPTA forces and contractors are expected to initiate construction in the Spring of 2021.

FY21 Milestones:

- Design Complete (Dec 2020)
- Issue NTP (Jun 2021)

Five Year Information

FY21-25 Funding Available: \$71,388,589

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
This project will be completed in FY 2021-2025.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Ardmore Transportation Center: Phase 1 ADA Improvements

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

General Project Information

Full Project Scope	This project will make ADA improvements to Ardmore Station on SEPTA's Paoli-Thorndale Regional Rail Line and Amtrak's Keystone Corridor to make the station fully ADA compliant. The project includes a new station building, high-level platforms, modifications to the existing pedestrian tunnel, elevators and accessible pathways, new canopies and passenger shelters, site and circulation improvements, and installing foundations for a future parking garage.	
Project Justification	The project will make the station fully accessible as well as improve the customer experience and bring the station into a state of good repair.	
Total Project Cost	\$53,601,817	Status of PBCA Agreement: Completed
	<i>Cost Derivation Methodology:</i> The project cost was updated in 2019 with the award of the construction contracts and is a current project budget.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	FTA Formula Grants	\$31,846,090
	Other Federal Discretionary	\$5,830,670 FTA Earmark
	Pennsylvania	\$4,910,860
	Local funding	\$191,564
	Other state/local/agency	\$3,500,000 RCAP
	Other Amtrak Sources	\$7,322,533

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$4,657,660	Apr 2009 - Dec 2016						
Construction	\$48,942,340	Aug 2019 - Oct 2022						Construction funding is fully programmed and partially obligated.

Ardmore Transportation Center: Phase 1 ADA Improvements

Coordinating Agency: SEPTA

In Partnership With: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$12,580,000

FY21 Scope: The FY21 project scope is to continue construction, which is expected to be completed in FY2023.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$46,791,706

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
This project will be completed in FY 2021-2025.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Exton Station: Phase 2 Multimodal Improvements

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	The project includes the construction of a circulation bus loop with shelters and a fully accessible, expanded parking with pathways to the station.	
Project Justification	The project will promote multimodal connections by adding parking to the station, which is currently at capacity, and providing seamless access to the station for transit buses and circulator shuttles.	
Total Project Cost	\$39,500,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> The cost estimate was developed during the scoping phase in 2010.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Not available	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA		Start Oct 2020						
Final Design	\$4,026,500	End Mar 2022						Project schedule assumes funding is identified in FY21-25. Currently no funding is programmed for this project in the FY21-25.
Construction	\$35,473,500	Jul 2022 - Jun 2025						

Exton Station: Phase 2 Multimodal Improvements

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$39,500,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If funding is made available in FY 2021-2025 then the project can be designed and constructed.

Frazer Rail Shop and Yard Upgrade

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will make significant renovations and expand the Frazer Rail Shop and Yard facilities. SEPTA recently acquired new locomotives and is in the process of procuring a fleet of multi-level cars for the Regional Rail System and needs to accommodate the increased fleet size. The initial phase will include significant earthwork and stormwater improvements at the 40-acre site to create space for additional yard tracks. Additional phases of work will include extending three existing storage tracks and adding three new storage tracks; major upgrades to the repair shop and equipment, including the wheel truing machine and drop table; construction of a shop extension, new cleaning track, vehicle washer building, and yardmaster building; and utility upgrades. Also, the roof will be upgraded and mechanical equipment and electrical connections will be replaced.	
Project Justification	The project will allow for the storage and maintenance of SEPTA's new rolling stock to accommodate Southeastern Pennsylvania's increasing demand for regional rail service, which has been consistently growing over the last decade.	
Total Project Cost	\$139,000,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The project budget is based on the completion of design and construction for Phase 1, substantial completion of design and construction for Phase 2 and 30% design submission of Phase 3.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Pennsylvania	\$134,517,250
	Local funding	\$4,482,750

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$13,894,291	Jan 2015 - Mar 2021						
Construction	\$125,105,709	Mar 2016 - Sep 2022						FFY21-25 funding is programmed but not fully obligated.

Frazer Rail Shop and Yard Upgrade

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$1,844,592

FY21 Scope: The FY21 project scope includes substantial completion of Package 1, closeout of Package 2 and the start of Package 3 construction.

FY21 Milestones:

- Package 2 Closeout (Oct 2020)
- Package 1 Substantial Completion (Dec 2020)
- Package 3 Bid Cycle Start (Jun 2021)

Notes: SEPTA may re-evaluate the scope of this project based on funding availability. Project schedule and one year budget amount is subject to change.

Five Year Information

FY21-25 Funding Available: \$62,019,535

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
This project will be completed in FY 2021-2025.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Harrisburg Line Signal Upgrade: Zoo to Paoli

Coordinating Agency: SEPTA

In Partnership With: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

General Project Information

Full Project Scope	<p>This project will replace the outdated and functionally obsolete, single-direction, signal system on Amtrak’s Keystone Line through a coordinated, multi-phased improvement program. Ultimately, this project will provide for implementation of bi-directional signaling (Rule 261 or 562 depending on the location) from Zoo Interlocking to State Interlocking. Amtrak is in the final states of completing the installation of bi-directional signaling from Park Interlocking to Paoli Interlocking. The Zoo to Paoli Signal Upgrade project will continue the installation of bi-directional signals east from Paoli and provides benefits to SEPTA’s Paoli-Thorndale Regional Rail service as well as Amtrak’s Keystone service. PennDOT, in coordination with Amtrak and SEPTA, has completed or initiated design on the signal system from Zoo to Paoli. The cost to complete this entire project is \$50 million, which includes finalizing design and construction. SEPTA, Amtrak, and PennDOT have partnered to identify Paoli to Overbrook as the next segment of signaling to be upgraded. The Paoli to Overbrook segment will cost approximately \$21.9 million to complete.</p>	
Project Justification	<p>The project will rehabilitate infrastructure that is beyond its useful life and functionally obsolete. Completion of this project will allow Amtrak to retire the manned signal towers currently in use on the line and will provide significant operational enhancements.</p>	
Total Project Cost	<p>\$50,000,000</p> <p><i>Cost Derivation Methodology:</i> The project cost estimate was developed based on conceptual design and general cost estimating principals for signal work.</p> <p><i>PBCA Notes:</i> Not available</p>	<p>Status of PBCA Agreement: Not available</p>
Funding sources for entire project history	<p>Not available</p>	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
NEPA/Final Design	\$1,400,000	Nov 2020 - Jun 2021						Project schedule assumes funding is identified in FY21-25. Currently no funding is programmed for this project in the FY21-25.
Construction	\$20,510,000	Oct 2021 - Oct 2024						

Harrisburg Line Signal Upgrade: Zoo to Paoli

Coordinating Agency: SEPTA

In Partnership With: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$50,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If funding and Amtrak forces are available in FY21-25, then construction can be completed.

Notes: Project schedule assumes funding is identified in FY21-25.

Harrisburg Line Track 2 Restoration: Paoli to Frazer

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	This project would reinstall a third track on the 4-mile segment from Paoli to Frazer. In addition to the track work, the project will include overhead contact system (OCS), signal, interlocking modifications, and right-of-way work all of which is needed to operate on the new track. All work will occur in the existing right-of-way. This project is an estimated \$50 million unfunded need.	
Project Justification	The project will improve operational efficiency.	
Total Project Cost	\$50,000,000	Status of PBCA Agreement: Not started
	<i>Cost Derivation Methodology:</i> The project cost estimate was developed based on conceptual design and general cost estimating principals for track, catenary and signal work.	
	<i>PBCA Notes:</i> Not available	
Funding sources for entire project history	Not available	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$2,000,000	Jan 2021 - Dec 2021						Project schedule assumes funding is identified in FY21-25 and Amtrak forces are available for design and construction. Currently no funding is programmed for this project in the FY21-25 and Amtrak has not committed forces for this project.
Final Design	\$3,000,000	Jan 2022 - Oct 2022						
Construction	\$45,000,000	Mar 2023 - Mar 2025						

Harrisburg Line Track 2 Restoration: Paoli to Frazer

Coordinating Agency: SEPTA

In Partnership With: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$50,000,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If funding is made available in FY 2021-2025 then the project can be designed and constructed.

Harrisburg Line Track 2 Upgrade: Glen to Thorn (MP 25.3 to 35.0)

Coordinating Agency: SEPTA

In Partnership With: Amtrak, Pennsylvania DOT

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	This project will rehabilitate and upgrade Track 2 from Glen to Thorn Interlocking in Chester County, PA, on the Amtrak-owned Harrisburg Line. The project will upgrade 10 miles of track to FRA Class 3 standards (60 mph) and upgrade the signal system to Rule 562. The corridor services Amtrak's Keystone and Pennsylvania services, SEPTA's Paoli-Thorndale service, and freight operations. The project will eliminate a choke point, enhancing rail capacity and reliability while also improving operational safety and flexibility.		
Project Justification	The upgrade of Track 2 will reduce congestion on the corridor. SEPTA is in the process of expanding its Frazer Yard to accommodate additional trains, which will increase rail traffic on the heavily used corridor. Upgrading the track will return it to a state of good repair and allow for faster deadhead moves between Frazer and Thorndale thereby reducing the number of trains using revenue tracks.		
Total Project Cost	\$16,675,000	Status of PBCA Agreement: Not started	
	<i>Cost Derivation Methodology:</i> The project cost estimate was developed based on conceptual design and general cost estimating principals for track, catenary and signal work.		
	<i>PBCA Notes:</i> Not available		
Funding sources for entire project history	Federal State Partnership for SOGR	\$8,337,500	FY19 Award for Harrisburg Line Capacity Improvements
	PennDOT	\$2,000,000	Match for FY19 SOGR Award
	SEPTA	\$5,937,500	Match for FY19 SOGR Award
	Other Amtrak Sources	\$400,000	Match for FY19 SOGR Award

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$16,675,000	Jan 2021 - Jun 2022						

Harrisburg Line Track 2 Upgrade: Glen to Thorn (MP 25.3 to 35.0)

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Fully funded

One Year Information

FY21 Budget: \$4,670,000

FY21 Scope: Complete FRA grant agreement, SEPTA-Amtrak project agreement, and initiate construction

FY21 Milestones:

- Initiate Construction (Feb 2021)

Five Year Information

FY21-25 Funding Available: \$16,675,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The project will be designed and constructed.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Malvern Station: ADA Improvements

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

General Project Information

Full Project Scope

Design and construction of high-level platforms and accessibility improvements at Malvern Station on SEPTA's Paoli-Thorndale Regional Rail Line. This station will receive new full length high-level platforms; new passenger shelters; accessible pathways, bike facilities; additional new signage and lighting; stormwater management systems and landscaping.

Project Justification

The addition of high-level platforms will improve accessibility at Malvern Station.

Total Project Cost

\$15,260,000

Status of PBCA Agreement: Not applicable

Cost Derivation Methodology: The project cost estimate was developed based on conceptual design and general cost estimating principals for high-level platforms and accessibility improvements.

PBCA Notes: Not applicable

Funding sources for entire project history

Not available

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$860,000	Mar 2022 - Dec 2022						Funding is programmed in FY26 but could be completed earlier if funding is identified.
Final Design	\$745,000	Dec 2022 - Jul 2023						
Construction	\$13,655,000	Jan 2024 - Jun 2026						

Malvern Station: ADA Improvements

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$15,260,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If SEPTA has programmed funding for this project in FY2026 and Amtrak forces are available in FY 2021-2025 then the project can be designed and construction can be initiated.

Paoli Transportation Center: Phase 2 Station & Intermodal Improvements

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

General Project Information

Full Project Scope	<p>This project provides for the engineering and construction of a new multimodal transportation center in Paoli, Chester County. The new facility is located on SEPTA's Paoli/Thorndale Regional Rail Line and Amtrak's Harrisburg Line. Connecting services include Bus Routes 92, 106, 204, and 206. SEPTA partnered with PennDOT and Amtrak to advance this project. The project will be advanced in two phases. Phase 1, completed in September 2019, made the existing station ADA accessible. This phase included construction of a pedestrian overpass with elevators linking inbound and outbound station parking lots as well as a new full length high-level center platform. The outbound parking areas were reconfigured and pedestrian sidewalks and crosswalks, provided throughout the station area. A companion PennDOT project will consist of the extension of Darby Road over the railroad, including a new bridge connecting to the station, and the removal of the North Valley Road bridge. The companion project must be completed prior to Phase 2 construction. Phase 2 includes an intermodal station complex complete with an additional high-level platform on the outbound side, passenger amenities, enhanced bus facilities, and a commuter parking garage.</p>	
Project Justification	<p>The project will improve accessibility, passenger amenities and intermodal connections. In addition, the new parking garage will provide opportunities for more passengers to access SEPTA and Amtrak service.</p>	
Total Project Cost	<p>\$51,200,000</p> <p><i>Cost Derivation Methodology:</i> The project cost estimate was developed based on conceptual design and general cost estimating principals.</p> <p><i>PBCA Notes:</i> Not available</p>	<p>Status of PBCA Agreement: Not started</p>
Funding sources for entire project history	<p>Not available</p>	

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
PE/NEPA	\$2,750,000	Jan 2024 - Dec 2024						Project schedule assumes funding is identified in FY21-25. Currently no funding is programmed for this project in the FY21-25.
Final Design	\$2,250,000	Jan 2025 - Dec 2025						
Construction	\$46,200,000	Jun 2026 - Dec 2028						

Paoli Transportation Center: Phase 2 Station & Intermodal Improvements

Coordinating Agency: SEPTA
In Partnership With: Amtrak, Pennsylvania DOT
Type: Improvement **Benefit:** Shared
Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$0

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
Not applicable

FY21-25 Additional Funding Needed: \$51,200,000

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
If funding and Amtrak forces are available in FY 2021-2025 then the project can be designed and construction can be planned.

Southwest Connection Improvement Project

Coordinating Agency: SEPTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

General Project Information

Full Project Scope	Reconfiguration and rebuilding of Regional Rail signals, track, catenary, and interlockings from 30th Street Station to Phil Interlocking (in University City). Work includes new track special work, Overhead Contact Systems (OCS), and switch and lock mechanisms, as well as the addition of new Positive Train Control (PTC) systems. The existing signal block layout will be modified. Design and construction will progress in phases with construction outages scheduled for the summer of 2018, 2019 and 2020. As part of the project, SEPTA will assume maintenance responsibility for Amtrak's tracks on a segment where SEPTA is the sole operator. This project includes Civic Interlocking.	
Project Justification	The project will repair assets that are beyond their useful life and improve system reliability.	
Total Project Cost	\$70,990,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The project cost estimate was increased due to costs incurred during the 2018 outage and construction.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Pennsylvania	\$68,700,573 Funding is programmed in FFY 2021-2025 but not fully obligated.
	Local funding	\$2,289,427

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Final Design	\$9,663,483	Oct 2014 - Aug 2020						
Construction	\$61,326,517	May 2017 - Mar 2021						Funding is programmed in FFY21-25 but not fully obligated.

Southwest Connection Improvement Project

Coordinating Agency: SEPTA

In Partnership With: Amtrak

Type: Improvement

Benefit: Shared

Funding Status: Fully funded

One Year Information

FY21 Budget: \$6,270,798

FY21 Scope: The FY21 project scope is to continue construction to be completed in FY22.

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$34,124,672

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
The project will be completed in FY 2021-2025.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

Villanova Station: Phase 2 ADA Improvements

Coordinating Agency: SEPTA
In Partnership With:
Type: Improvement **Benefit:** Sole
Funding Status: Unfunded

General Project Information

Full Project Scope	This project will modernize Villanova Station on SEPTA's Paoli-Thorndale Regional Rail Line. Work includes high-level platforms, canopies, and an improved station building. SEPTA currently leases this station from Amtrak.	
Project Justification	The project will make the station fully accessible as well as improve the customer experience and bring the station into a state of good repair.	
Total Project Cost	\$10,450,000	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> The cost estimate was developed based on substantial completion of Phase 1 construction and 90% design submission of Phase 2.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	Pennsylvania	\$10,450,000

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Construction	\$10,450,000	Mar 2023 - Oct 2025						Funding is programmed in FY21 for this project. No funding is currently obligated.

Villanova Station: Phase 2 ADA Improvements

Coordinating Agency: SEPTA

In Partnership With:

Type: Improvement

Benefit: Sole

Funding Status: Unfunded

One Year Information

FY21 Budget: Not applicable

FY21 Scope: No activities planned for FY21

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$10,450,000

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
At this level of funding, construction will be initiated in FY2021-2025.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

VRE Midday Storage Facility

Coordinating Agency: VRE
In Partnership With: District DOT, Amtrak
Type: Improvement **Benefit:** Sole
Funding Status: Fully funded

General Project Information

Full Project Scope	The Midday Storage Facility project will replace the current storage space leased from Amtrak at the Ivy City Coach Yard in the District of Columbia. The project will include planning, designing, and constructing a permanent midday storage facility for VRE trains that travel to the District. The proposed facility will be used to store commuter trains on weekdays between the inbound morning commute and the outbound afternoon commute.	
Project Justification	Midday train storage in the Washington, DC metropolitan region is critical to VRE’s continued operations and growth. VRE operates trains providing daily commuter rail service from as far as Manassas and Fredericksburg, Virginia, into Union Station. During the weekday midday, those trains need to be stored near Union Station and off the main line tracks. Currently, VRE stores trains in Amtrak’s Ivy City rail complex in the District of Columbia. The current and future demand for train storage and maintenance functions -- for both Amtrak intercity and VRE commuter services -- within the existing Ivy City rail complex exceeds available space.	
Total Project Cost	\$99,366,508	Status of PBCA Agreement: Not applicable
	<i>Cost Derivation Methodology:</i> Total project cost derivation details not available. Total project cost in YOE dollars.	
	<i>PBCA Notes:</i> Not applicable	
Funding sources for entire project history	FTA Formula Grants	\$61,607,235 Includes both 5307 and 5337 funds
	Virginia	\$33,784,613 State match to federal funds
	VRE	\$3,974,660 VRE/local match to federal funds

Project Schedule

Phase	Cost Estimate	Schedule	FY21	FY22	FY23	FY24	FY25	Notes
Feasibility/Conceptual Design and NEPA	\$4,877,802	Aug 2016 - Apr 2018						
Engineering and Final Design	\$3,478,706	Aug 2018 - Jan 2022						
Property Acquisition and Construction	\$91,010,000	Mar 2022 - Sep 2024						

VRE Midday Storage Facility

Coordinating Agency: VRE

In Partnership With: District DOT, Amtrak

Type: Improvement

Benefit: Sole

Funding Status: Fully funded

One Year Information

FY21 Budget: \$8,383,706

FY21 Scope: Continue discussions with Amtrak on most efficient use of space within Ivy City property and best approach for meeting near- and long-term capacity needs
Prepare for critical property acquisition actions

FY21 Milestones:

- Not applicable

Five Year Information

FY21-25 Funding Available: \$96,780,678

- **At this funding level, the following phases could be initiated or completed in FY21-25:**
All phases expected to be complete by FY25.

FY21-25 Additional Funding Needed: \$0

- **With additional funding, the following phases could be initiated or completed in FY21-25 (given resource/workforce constraints and track outages):**
Not applicable

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Page iii: Newark Penn Station: Courtesy of Amtrak.

Page 7: Washington Union Station: Courtesy of Amtrak.

Page 12: New Haven Union Station. Courtesy of Amtrak.

Page 12: Baltimore Penn Station. Courtesy of Amtrak.

Page 12: "VRE and the M Street cycle-track" by flickr user BeyondDC, 2018. Used under Creative Commons License Attribution-NonCommercial 2.0 Generic (CC BY-NC 2.0): <https://creativecommons.org/licenses/by-nc/2.0/> Photo available at: <https://flic.kr/p/27YYD32>

Page 12: "Outbound train arriving at South Attleboro station, June 2013" by Wikimedia user Pi.1415926535. 2013. Used under Creative Commons Attribution-Share Alike 3.0 Unported (CC BY-SA 3.0): <https://creativecommons.org/licenses/by-sa/3.0/> Photo available at: https://commons.wikimedia.org/wiki/File:Outbound_train_arriving_at_South_Atteleboro_station,_June_2013.JPG

Page 12: New Acela Trainset in Philadelphia. Courtesy of Amtrak.

Page 15: Moynihan Train Hall - Under Construction. Courtesy of Amtrak.

Page 15: MARC Train at West Baltimore Station. Courtesy of Amtrak.

Page 15: Middletown Station. Courtesy of Pennsylvania DOT.

Page 15: "New Brunswick Station, street view" by Wikimedia user Zeete, 2013. Used under Creative Commons Attribution-Share Alike 3.0 Unported (CC BY-SA 3.0): <https://creativecommons.org/licenses/by-sa/3.0/> Photo available at: https://commons.wikimedia.org/wiki/File:New_Brunswick_Station,_street_view.jpg

Page 17: Metro-North Train Repair. Courtesy of Metropolitan Transportation Authority of the State of New York.

Page 17: New Acela Trainset Pantograph. Courtesy of Amtrak.

Page 18: Baltimore & Potomac Tunnel. Courtesy of Amtrak.

Page 18: Connecticut River Bridge. Courtesy of Connecticut DOT.

Page 18: North River Tunnels. Courtesy of Amtrak.

Page 19: Midline Loop. Courtesy of NJ Transit.

Page 19: Penn Station New York. Courtesy of Amtrak.

Page 19: Harrisburg Line Interlocking. Courtesy of Amtrak.

Back Cover: Portal Bridge Opening. Courtesy of Amtrak.



Front Cover: LIRR Trains at Hudson Yards
Back Cover: Portal Bridge, New Jersey

