# Rebuilding Our Nation's Infrastructure Together

### **2017 ANNUAL REPORT**

AN UPDATE BY THE GATEWAY PROGRAM DEVELOPMENT CORPORATION

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#### **2017 Board of Trustees**



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\*Each Trustee has a three-year term. Amtrak's initial Trustee's term expires on Dec. 31, 2018. Thereafter, the term for the Amtrak Trustee will be three years.

#### **Gateway Program Development Corporation**

he Gateway Program Development Corporation (GDC) was formed on November 17, 2016 as a New Jersey Nonprofit Corporation for the purposes of coordinating, developing, operating, financing, managing, owning or otherwise engaging in activities to effectuate the Gateway Program of rail infrastructure projects between Newark, NJ, and Penn Station New York, NY.

GDC is responsible for meeting critical transportation infrastructure needs of the region's people, businesses, and visitors by efficiently undertaking the Gateway Program.

New Jersey Transit Corporation (NJ TRANSIT), the National Railroad Passenger Corporation (Amtrak), and the Commissioner of the New York State Department of Transportation (NYSDOT) each appoint an individual to the Board of Trustees. The Chair of the Board rotates between the Trustee appointed by NJ TRANSIT and the Trustee appointed by NYSDOT on an annual basis. The Vice Chair of the Board is the Trustee appointed by Amtrak.

#### **The Gateway Program Partners**

The Gateway Program consists of numerous rail infrastructure improvement projects between Newark and Penn Station New York. GDC works closely with its local and federal partners, including NJ TRANSIT, the State of New York, the State of New Jersey, the Port Authority of New York and New Jersey, Amtrak, the United States Department of Transportation (USDOT), and others, to advance and deliver the Gateway Program.





# **Developing a Modern Rail Network**

For over 100 years, New York, New Jersey, and the Northeast have relied on rail infrastructure as the lifeblood of their economic and environmental well-being.

Together, we're planning for the next 100 years and beyond.





#### THE MOST URGENT INFRASTRUCTURE PROGRAM IN THE UNITED STATES

The Gateway Program, the most urgent infrastructure program in the United States, is a comprehensive rail investment program that would improve rail services by adding resiliency and creating new capacity in the busiest 10-mile section of the Northeast Corridor, the most heavily used passenger rail line in the country. The Gateway Program consists of critical projects that link millions of people to good jobs, connects the New York-New Jersey metropolitan region with the rest of the United States, and ensures the environmental sustainability of the Northeast Region.

Opposite Page: (L-R) Ist Row: Hudson Yards Concrete Casing & North River Tunnel 2nd Row: Portal North Bridge & Secaucus Junction 3rd Row: Hudson Yards Concrete Casing & Penn Station NY 4th Row: Ceremonial shovels from the Portal North groundbreaking and Secaucus Junction at night

# The Need for Resiliency and Capacity in the Gateway Program Corridor

The trans-Hudson train tunnel crossing is important to the economic well-being of New York and New Jersey, the Northeast Region, the Northeast Corridor, and the nation. This critical link connects 800,000 daily riders across eight states and Washington, D.C. and serves a region that is home to 17 percent of the U.S. population and 97 Fortune 500 company headquarters, and a corridor that contributes 20 percent of the national gross domestic product (GDP). A failure of this crossing would have a ripple effect on the entire national economy.

Together, we have learned that resiliency and redundancy from major flooding events, service disruptions such as tunnel electrical and track failures, or disabled trains are essential to the regional and national economy. The Gateway Program's first priority is to ensure that the region has a trans-Hudson rail infrastructure network capable of withstanding extreme storms, such as Superstorm Sandy, and other service disruptions.

Superstorm Sandy continues to cause significant reliability and capacity constraints on the Northeast Corridor in our region. Amtrak's North River Tunnel, the only trans-Hudson rail tunnel serving NJ TRANSIT and Amtrak, was inundated with saltwater during Superstorm Sandy, substantially damaging its already old and heavily used components.

While safe to use and continuously inspected by Amtrak, the North River Tunnel's electrical and other infrastructure components are failing at an increased rate — requiring disruptive, unplanned maintenance and resulting in more frequent service disruptions for the over 200,000 rail passenger trips carrying passengers that rely on NJ TRANSIT and Amtrak to travel to and from their jobs and families.

The lack of infrastructure reliability makes it difficult to increase available rail service for NJ TRANSIT and Amtrak passengers.





Above (Top): Capacity Constraints in Penn Station New York & Across the Hudson River

Above (Bottom): Electrical & Structural Damage to the North River Tunnel after Superstorm Sandy in 2012

> The Gateway Program is critical to the New York—New Jersey metropolitan area, which produces 10 percent of America's economic output.



#### Building to Address Trans-Hudson Rail Capacity Constraints

The Northeast Corridor narrows from four tracks to two tracks between Newark, NJ, and Penn Station New York, creating a severe bottleneck at the most critical section of the regional rail network. The two tubes of Amtrak's existing North River Tunnel that crosses the Hudson River currently operate nearly at capacity during the rush hour.

Penn Station New York is the busiest rail station in North America and also operates at or near capacity during the rush hour. According to Amtrak, the station's owner, rail traffic has roughly doubled since the mid-1970s and is projected to increase significantly by 2030. Phase I of the Gateway Program provides critical redundancy and lays the foundation for capacity-enhancing projects at this critical point on the Northeast Corridor.

Phase 2 of the Gateway Program includes critical expansion of the track and platform capacity of Penn Station New York itself.

Trains and Passenger Trips Traveling Through the Existing North River Tunnel per Weekday



## Establishing the Gateway Program Development Corporation

The Gateway Program is unique in that it impacts not only one city or state, but multiple cities and states across the Northeast that form a regional mega-economy significant to the economy of the United States. Federal and state leaders took steps to address this unique situation through the creation of an entity focused solely on the Gateway Program, supported by important regional stakeholders.





In September 2015, after a series of summer train delays due to malfunctioning electrical equipment in the North River Tunnel, Governor Andrew M. Cuomo and Governor Chris Christie announced together that the two states would take responsibility for developing a funding plan to cover half of the project costs if the federal government committed to also provide half of the funding.

In November 2015, an agreement was reached by federal and state officials that outlined a 50/50 funding agreement and created a new development corporation, with representation from New York, lersey, and Amtrak. The New agreement, announced by Governors Cuomo and Christie and U.S. Senators Charles E. Schumer, Cory Booker, Bob Menendez, and Kirsten Gillibrand, outlined a first-ever funding commitment secured by the New York and New Jersey Senate Delegation from the USDOT and Amtrak to take responsibility for no less than half of the project costs.

On November 17, 2016, the new Gateway Program Development Corporation was incorporated with a Board of Trustees appointed by NJ TRANSIT, NYSDOT, and Amtrak.

Following incorporation, GDC held its organizational meeting on January 11, 2017. At this meeting, the Board of Trustees approved the corporation's first bylaws and entered into an Emerging Projects Agreement for Phase 1 of the Gateway Program with USDOT's Build America Bureau, one of the first programs to enter into the Emerging Projects Program.

The Emerging Projects Agreement established the framework for GDC and its Project Partners (NJ TRANSIT, Port Authority of NY & NJ, and Amtrak) to receive heightened technical assistance from the Build America Bureau in applying for and receiving approximately \$6 billion in financing from their low-cost credit programs, including the Railroad Infrastructure and Improvement Financing (RRIF) and the Transportation Infrastructure Finance and Innovation Act (TIFIA) Program, vital instruments in funding the local share of projects nationwide.

Throughout 2017, GDC's Board of Trustees took major steps to build the corporation's capabilities to meet its important mission, including the authorization of a funding agreement with Amtrak and professional technical support agreements with Amtrak, NJ TRANSIT, and the Port Authority of NY & NJ, kicking-off the search for a Chief Executive Officer, issuing a Request for Information, and announcing an Interim Finance Director.

## Building a More Reliable and Higher Capacity Portal Bridge

Adding capacity on the busiest stretch of passenger rail in the United States while eliminating a single point-of-failure presents an important opportunity for the Northeast Corridor and the regional transportation network.

Rendering of the new Portal North Bridge

### The Portal North Bridge Project

The first phase of the Gateway Program includes the replacement of the 107-year old Portal Bridge with a new higher clearance fixed span, which will enhance capacity on the Northeast Corridor. In addition to increasing capacity to meet current and future demand along the Northeast Corridor, the Portal North Bridge Project will improve service reliability and operational flexibility while eliminating conflicts with maritime traffic.

#### **About the Project**

The existing Portal Bridge, a movable swing-type rail bridge spanning the Hackensack River in New Jersey between the towns of Kearny and Secaucus, opened to train traffic on November 27, 1910, as part of the Pennsylvania Railroad's expansion to Manhattan. With only a 23-foot clearance above the river, the swing bridge is required to open for maritime traffic, using technology developed prior to the start of the facility's construction in 1907. As such, this 19th century "miter rail" technology experiences frequent failures that prevent the bridge from opening and closing properly, creating cascading service delays up and down the North East Corridor and permanently restricting speeds on the bridge to 60 miles per hour, while trains can operate at 90 miles per hour on adjacent areas. The existing Portal Bridge's age and design limitations prevent NJ TRANSIT and Amtrak from making improvements to accommodate growing ridership.

Improving service reliability allows NJ TRANSIT to run longer and multilevel trains with more passenger seating capacity during peak periods. NJ TRANSIT can use these higher-capacity trains when they know with greater certainty that they can access the longer platforms at Penn Station New York. Since the current Portal Bridge is unreliable and subject to mechanical failures, NJ TRANSIT cannot ensure access to the longer platforms. The new, high-level Portal North Bridge will allow NJ TRANSIT to utilize longer and multilevel cars that provide approximately II percent more seats per train.

#### **Replacing Portal Bridge is a Priority**



The existing 107-year old Portal Bridge is obsolete and is preventing NJ TRANSIT and Amtrak from implementing necessary capacity increases to meet growing ridership demand on the Northeast Corridor. With crowded trains in and out of Penn Station New York, the construction of the new Portal North Bridge will allow for an immediate increase in available passenger seats to and from Penn Station New York through the use of longer and multilevel trains.

The Portal North Bridge currently represents Phase IA of the Gateway Program. The Portal North and the future twin Portal South Bridge Projects are being phased to provide immediate usable capacity while planning for future capacity increases.

Left (Top): Over 400 trains per weekday travel over the existing Portal Bridge.

Left (Bottom): The existing Portal Bridge in the open position for maritime traffic.

#### **A Fully Funded Local Share**

As a nationally significant project, the Portal North Bridge will be funded and financed using a combination of locally paid loans and federal funds.

The project also utilizes a 2015 Transportation Investment Generation Economic Recovery (TIGER) grant awarded to NJ TRANSIT by USDOT to begin construction on early work activities. NJ TRANSIT is matching the \$16 million grant with \$4 million in local funds.

In February 2017, citing the Project's high qualifications for a grant, the Federal Transit Administration (FTA) assigned it the second-highest rating possible, a "Medium-High," for Federal Fiscal Year 2018. In September 2017, NJ TRANSIT, in collaboration with the project partners, submitted an updated request for inclusion in the President's FY2019 Budget, including a fully-funded funding and financing plan for project rating to augment the previous request for inclusion in the President's FY2018 Budget.

At the GDC's Board of Trustees meeting in June 2017, the Board of Trustees authorized GDC to take all actions as necessary to advance the Portal North Bridge's application for federal grant and Ioan programs. In September 2017, utilizing this authorization, GDC submitted a TIFIA Letter of Interest (LOI) to the USDOT's Build America Bureau for a \$284 million TIFIA Ioan request with debt service supported by the Port Authority of New York and New Jersey. This LOI is the first step in the process for receiving a local funding–backed TIFIA Ioan.



(L-R) PANYNJ Executive Director Rick Cotton, GDC Chairman Richard Bagger, PANYNJ Chairman Kevin O'Toole, Congressman Donald Payne, Jr., Senator Cory Booker, New Jersey Governor Chris Christie, Senator Menendez, GDC Vice Chairman Anthony Coscia, Amtrak Sr. Director Marie Corrado, GDC Interim Executive Director John Porcari, and NJ TRANSIT Executive Director Steve Santoro.

#### Gateway Program Kicks Off Portal North Bridge

On October 13 2017, project stakeholders, including Governor Christie and Senators Booker and Menendez attended the Portal North Bridge groundbreaking ceremony, marking the beginning of construction on Phase IA of the Gateway Program.

Leveraging the 2015 TIGER grant awarded to NJ TRANSIT from USDOT, early action construction activities commenced on the Portal North Bridge in fall 2017.

This early work construction contract was awarded by NJ TRANSIT's Board of Directors in May 2017 in advance of the October groundbreaking and is being managed by NJ TRANSIT with construction support from Amtrak.

Construction of the early work activities allows the major construction to start on schedule, pending grant funding. This early work will prepare the site for major construction by relocating utilities, constructing access roads, and building an in-river pier to receive construction materials.





Above (Top): GDC Chairman Bagger at the groundbreaking.

Above (Bottom): Senator Booker delivering remarks to attendees.



The Portal Bridge's "Miter Rails" (center) are the source of many delays.

The Portal North Bridge Project includes the purchase of 25 new electric bi-level rail cars.

#### **19<sup>th</sup> Century Technology:** *Miter Rails*

Trains require continuous track connections for smooth, safe operations. A movable bridge creates a unique problem for trains since the continuous rail needs to be split to allow it to open and close. Miter rails, a type of special trackwork, form a connection between the fixed rails on the bridge approach and the movable rails on the swing-span.

Miter rails overlap from the swing-span to the fixed span and allow the rails to disengage and the bridge to open and close. When working properly, this makes it possible for the rails to disconnect before the bridge span is swung open and to reconnect after the bridge is closed.

Despite regular maintenance and several replacements over the Portal Bridge's 107-year-old history, its miter rails often experience mechanical failures, not allowing the rails to reconnect to create a continuous track. This results in the suspension of train traffic and significant delays up and down the Northeast Corridor.

#### New Trains, More Seats

The existing Portal Bridge is part of the busiest section of railroad in North America, supporting 450 daily commuter and intercity trains. The existing Northeast Corridor is nearly at capacity and ridership growth is expected to make this condition even worse.

NJ TRANSIT will utilize the improved bridge reliability to increase the number of available seats during the peak periods by purchasing 25 new multilevel electric railcars (rendering above). This will increase the number of seats to and from Penn Station New York by 11 percent.

Amtrak is also replacing the current Acela equipment with train sets with added seating to meet future intercity travel demand.





# Planning for Resiliency, Redundancy, and Future Capacity

The new Hudson River Tunnel and rehabilitation of the existing North River Tunnel will provide much needed resiliency and redundancy, while positioning the region for other future projects to expand rail capacity.





### **The Hudson Tunnel Project**

Phase IB of the Gateway Program, the Hudson Tunnel Project, would preserve the current functionality of trans-Hudson rail service for Amtrak and NJ TRANSIT between New Jersey and Penn Station New York, strengthen the Northeast Corridor's resiliency to support reliable service by providing redundant capability under the Hudson River, and improve operational flexibility for 450 daily Amtrak and NJ TRANSIT trains.

#### **About the Project**

In 2016, the Federal Railroad Administration (FRA) and NJ TRANSIT identified a Preferred Alternative for the Hudson Tunnel Project that consists of the construction of a new two-tube rail tunnel beneath the Hudson River, including tracks and other railroad infrastructure in New Jersey and New York connecting the new tunnel to the existing Northeast Corridor, and the rehabilitation of the existing Amtrak North River Tunnel.

The Hudson Tunnel Project would make use of the Hudson Yards Concrete Casing, a rail right-of-way preservation project under the extensive mixed-use residential and commercial development known as "Hudson Yards," to access Penn Station New York. The Hudson Yards Concrete Casing – Section 3 (HYCC-Section 3), the third and final section of a rail right-of-way preservation project would be constructed to complete the right-of-way preservation to access Penn Station New York.

Construction of the new tunnel would double the number of rail tracks, allowing for the rehabilitation of the existing tunnel and providing critical system redundancy, while positioning the region for other projects to expand rail capacity that would be delivered through subsequent phases of the Gateway Program.



#### Governors Christie and Cuomo's Commitment to Fund 100 Percent of States' Half of New Tunnel

In December 2017, Governor Christie and Governor Cuomo announced commitments to fund 100 percent of New York and New Jersey's share of the new Hudson River Tunnel. The commitment follows the 2015 framework agreement in which the federal government will fund 50 percent of the Gateway program, which includes Phase IB, the Hudson Tunnel Project, an essential portion of the Northeast Corridor that connects New York and New Jersey and is the nation's most urgent, critical major infrastructure project.

The \$12.7 billion Hudson Tunnel Project\* consists of three elements: (i) a new two-track tunnel, (ii) the Hudson Yards Concrete Casing-Section 3 (HYCC-Section 3) and (iii) the rehabilitation of the existing Amtrak North River Tunnel. The commitments announced include \$1.9 billion by NJ TRANSIT, \$1.75 billion by the State of New York and \$1.9 billion previously committed by the Port Authority of New York and New Jersey. Together these commitments totaling \$5.55 billion fund 100 percent of the local share for the most urgent, time-sensitive elements of the project: the construction of a new tunnel and the HYCC-3, which together total \$11.1 billion. The rehabilitation of the existing tunnel is not expected to begin until 2026, and will cost an estimated \$1.6 billion; the local share is \$800 million.

<sup>\*</sup>The Hudson Yards Concrete Casing — Section 3 is included in this description of the Hudson Tunnel Project for financial purposes, though it is a separate, but related project to the Hudson Tunnel Project as currently being studied in accordance with National Environmental Policy Act by the FRA and NJ TRANSIT.

# The New Hudson Tunnel: An Immediate Need and a Time-Sensitive Project

Since 1910, hundreds of millions of commuters and intercity rail travelers have relied on the two existing rail tubes of the North River Tunnel to cross the Hudson River between Penn Station New York and New Jersey. Decades of heavy use as the lifeblood of the Northeast Corridor, combined with the disastrous saltwater flooding during Superstorm Sandy in 2012, has led to significant reliability challenges.

After the saltwater was pumped out of the tunnel, chlorides remained in the concrete and electrical components responsible for operating train signals and providing power to trains. This damage leads to disabled trains and, ultimately, cascading delays not only between New York and New Jersey, but from Boston to Washington, D.C. These delays result in missed appointments and being late to work or to the dinner table.

Major repairs need to be undertaken in the existing North River Tunnel, but closure of one tube of this tunnel without a new tunnel could reduce capacity by up to 75 percent — that's a drop from 24 trains per hour to as few as 6 — a nightmare scenario for the region. Our regional and national economy cannot afford long-term train cancellations or unpredictable travel times on this critical trans-Hudson crossing. The time to build is now.



Penn Station New York is the busiest rail station in North America.

#### A Vital Link at Risk

The Impact of a Hudson Rail Tunnel Closure



\*\* With one tunnel, capacity could fall to as few as 6 trains per hour.

Image Source: Regional Plan Association



#### Hudson Tunnel Project Environmental Review on Accelerated Track to be Completed in Spring 2018

The Hudson Tunnel Project, including the construction of a new Hudson River Tunnel and the rehabilitation of the existing North River Tunnel, is undergoing an accelerated and streamlined environmental review process and is on track to receive a Final Environmental Impact Statement (EIS) in accordance with the National Environmental Policy Act (NEPA) in March 2018, less than two years after the review began and approximately half the time a review would normally take for a project of this size.

On June 30, 2017, the FRA published the Draft EIS. As co-lead agencies for the environmental review, FRA and NJ TRANSIT provided various outlets for the public to provide comments on the content of the Draft EIS throughout July and August 2017. The environmental review team hosted two public hearings in New Jersey and one public hearing in New York City where members of the public could attend a project presentation and provide oral or written comments.

After the Draft EIS public comment period closed, FRA and NJ TRANSIT considered all comments in the development of the Final EIS. A summary of the comments made on the Draft EIS during the public comment period, responses to those comments, and any revisions to the Draft EIS needed to address the comments will be included in the Final EIS. Furthermore, the FRA will prepare a Record of Decision in Spring 2018 that officially documents the selection of the Preferred Alternative and the measures to be incorporated into the project that will avoid, minimize, or mitigate adverse impacts.

This accelerated schedule would not be possible without the support of the USDOT, FRA, FTA, U.S. Army Corps of Engineers, the Governors of New York and New Jersey, and the New York and New Jersey U.S. Senate and House Congressional Delegations.

For more information about the NEPA EIS process, please visit HudsonTunnelProject.com.

#### Hudson Tunnel Preliminary Engineering

Leveraging financial support for Preliminary Engineering from Amtrak and the Port Authority of NY & NJ, the design for the new Hudson River Tunnel and rehabilitation of the existing North River Tunnel has advanced to support the environmental review.

Important geotechnical work for the new rail tunnel has begun. Crews are taking rock and soil samples from several locations to better refine the project's engineering plans and reduce the likelihood of discovering unexpected soil and rock conditions during construction, which would lead to increased costs.

Right (Top): Rock and soil samples are being taken to better understand the underground conditions prior to tunnel construction.

Right (Bottom): Rock and soil from the Hudson Tunnel Project area to be sent to the lab for geological testing.



#### Preserving a Rail Route Under Hudson Yards

The Hudson Yards development project is rising and we are making sure trains will be able to travel between Penn Station New York and the new Hudson River Tunnel. Two of three phases of the HYCC, a big concrete box under Hudson Yards, have been constructed by Amtrak to preserve a rail right-of-way.

The design of the third section has been completed, and once built, will be available for use for the Hudson Tunnel Project's Preferred Alternative. HYCC-Section 3 was a component of a Supplemental Environmental Assessment prepared by Amtrak in 2014. A Finding of No Significant Impact was issued by the FRA in 2014.

Right (Top): Hudson Yards pre-2016: Section I (Bottom-Left) of the Hudson Yards Concrete Casing under construction.

Right (Bottom): Sections I and 2 of the Hudson Yards Concrete Casing have been completed to preserve a right-of-way under Hudson Yards.





# Leveraging Private-Sector Knowledge and Innovation

Seeking innovative ideas from private-sector design, construction, and financing industry leaders will help inform planning for the procurement and delivery of the Hudson Tunnel Project and final section of the Hudson Yards Concrete Casing, resulting in a project that is delivered better, faster, and cost-effectively.





#### Hudson Tunnel Project Learns from Private-Sector Feedback and Experience

The procurement and construction strategies for Phase IB of the Gateway Program, including the Hudson Tunnel Project and HYCC-3, involve partnering with private-sector entities to successfully deliver the project.

To fully take advantage of the private sector's project delivery ideas and innovations, GDC Trustees authorized the issuance of a pre-procurement Request for Information (RFI) at their June 2017 meeting to solicit private sector interest and feedback on the Phase IB's financing and delivery structures.

Through the RFI that was released on August 10, 2017, GDC sought feedback on project risks and mitigations, innovative financing methods, and procurement strategies for the construction of the new Hudson River Tunnel, the construction of HYCC-3, and the rehabilitation of the existing North River Tunnel.

GDC's goal was to use the feedback to drive innovation, contain cost and mitigate risk.

The RFI responses received in September 2017 indicated enthusiasm and robust interest from a diverse group of respondents, including contractors, financial advisors, lenders and equity funds that represented a broad cross section of the global infrastructure market.

In October 2017, GDC began an ongoing process of engaging with respondents to discuss their feedback in more detail. GDC's engagement with the private sector is an ongoing process and conversations with respondents will inform GDC's procurement and financing strategy.

THE GATEWAY PROGRAM Hudson Tunnel Project & Concrete Casing Request for Information ugust 10, 2017 Gateway Program Development Corporation

### Gateway Program Development Corporation

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