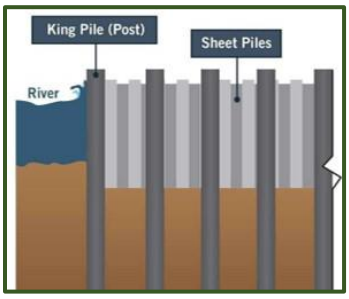
HUDSON RIVER GROUND STABILIZATION

OVERVIEW

The **Hudson River Ground Stabilization (HRGS) Project** is a critical early component of the Hudson Tunnel Project (HTP) that will stabilize the riverbed on the Manhattan side of the Hudson River to **enable the Tunnel Boring Machine to excavate the new tunnel and protect the riverbed ecosystem**.



The HRGS Project involves injecting grout into the silt that makes up 1,200 feet of shallow riverbed, then creating columns of soil mixed with cement and water. The end result will be **a block of reinforced earth off the Manhattan shoreline that is strong enough for tunnel construction to begin** without disrupting the river ecosystem.

HRGS is the **first heavy construction project** of the HTP. When construction begins in the summer of 2024, there will be **$1 billion worth of awarded construction activity in the ground**.

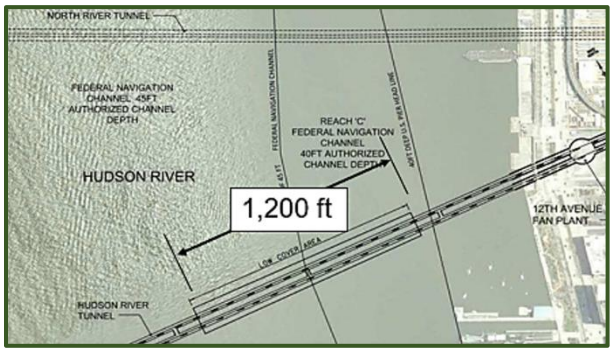
CURRENT ACTIVITIES & NEXT STEPS

Early surveying work to prepare for the HRGS Project began in May, and heavy construction will start this summer. Work will begin in the middle of the channel and progress eastward toward Manhattan.

The project will be completed in **two phases:**

- **Phase One** will include the design and construction of a test cofferdam; bathymetric and geophysical surveying; identification and removal of obstructions; and completion of a demonstration test program. This phase will be completed in 2024.
- **Phase Two** will use the findings from Phase One to complete the heavy construction portion of the project. Construction is expected to be completed in 2027.

Phasing the work in this way limits impacts on the river ecosystem by minimizing the area affected by work and enabling heavy construction to be timed to avoid disrupting fish spawning seasons. Work zones will also be enclosed by temporary sheet pile cofferdams, providing further protection for marine life.



The Gateway Development Commission (GDC) is **coordinating with the US Coast Guard** to ensure the safety of commercial and recreational river traffic in the channel.

Early construction of the HTP has already launched on both sides of the Hudson River. Ground broke in North Bergen on the **Tonnelle Avenue Bridge and Utility Relocation Project**, which involves building a new roadway bridge to allow for a connection to the new tunnel portal and an access point for Tunnel Boring Machines. In Manhattan, work is underway on the **Hudson Yards Concrete Casing – Section 3 (HYCC-3) Project** that will preserve a rail right-of-way to link the new Hudson Tunnel to New York Penn Station.

By the end of 2024, **more than $5 billion** in construction activity will be awarded, and an order will be in for the first Tunnel Boring Machine. Contracts to build sections of the tunnel passing through the Palisades in New Jersey and going through the Manhattan bulkhead under Hudson River Park are expected to be awarded in 2024.

THE HUDSON TUNNEL PROJECT

OVERVIEW

The Hudson Tunnel Project (HTP) includes three major elements to create **resiliency**, **redundancy**, and **reliability** for Amtrak's Northeast Corridor (NEC) service and NJ TRANSIT's commuter rail service between New Jersey and Penn Station New York (PSNY):

1. Construction of a **new two-track Hudson River rail tunnel** from the Bergen Palisades in New Jersey to Manhattan.
2. Construction of the **third and final concrete casing at Hudson Yards**, which will preserve the right-of-way for the new tunnel to connect to New York Penn Station.
3. **Rehabilitation of the existing North River Tunnel**, which was severely damaged during Superstorm Sandy.

BACKGROUND

The existing North River Tunnel (NRT), opened in 1910 by the Pennsylvania Railroad, was designed to early 20th-century standards and consists of two tracks. **This "one-track-in, one-track-out" rail system between New York and New Jersey results in significant delays up and down the NEC when service incidents occur.** Service reliability through the NRT, already suboptimal because of the tunnel's age and antiquated design, has been further compromised because of the damage caused by Superstorm Sandy in 2012.

When an incident takes one tube out of service, traffic in and out of PSNY must use the one remaining NRT tube, reducing capacity by up to 75% and leading to significant delays. The 24 trains per hour that use the NRT in the peak period could drop to as few as 6 when just one tube is closed.

The HTP will build two additional tracks and rehabilitate the existing two tracks, resulting in **four modern tracks between New York and New Jersey** that create operational flexibility, rail network redundancy, and resiliency against future impacts to the Hudson River rail crossing.

BENEFITS

The planned improvements to this vital part of the 457-mile NEC between Boston and Washington, DC – America's busiest passenger railroad – will result in substantial social, economic, and environmental benefits, including:

- **Eliminating a single point-of-failure** for a regional economy that drives a sizable portion of America's Gross Domestic Product (GDP). The New York regional economy and the NEC megaregion contribute 10% and 20%, respectively, of the nation's GDP.
- Creating over **95,000 direct, indirect, and induced jobs** and generating **$19.6 billion in economic activity** over the project's construction period.
- Stimulating the economy by directly spending an average of **more than $87 million/month on materials and labor** over the project's construction period.
- Utilizing **U.S. suppliers and manufacturers from around the country** through the Build America, Buy America requirement that applies to federally funded purchases, as well as the provisions regarding participation by minority- and women-owned, small, and disadvantaged businesses.