CASE STUDY:

New Jersey's Portal Bridge Being Replaced With All-New Tracks and Fixtures

BOTTLENECKS AND MALFUNCTIONS

The primary cause of delays and congestion stems from the outdated Portal Bridge, which features a two-track, movable swing span. This bridge encounters frequent malfunctions when it opens and closes to accommodate maritime traffic, contributing to the bottleneck situation.

ENHANCING RAIL CAPACITY AND RELIABILITY

The outdated structure is being replaced with a high-level fixed span called Portal North, consisting of two tracks. This new bridge will eliminate the need for movable components and reduce the risk of malfunction. It will stand 50 feet above the river and cover approximately 2.5 miles of the Northeast Corridor, including the approaches. The Portal North Bridge is a crucial component of the goal to double the rail capacity between Newark and New York in the future.

STABILITY AND INNOVATION

Pittsburgh Pipe supplied caissons to support the Skanska/Traylor Bros Joint Venture to fix movable swing span components featured in the new bridge. These caissons are designed to provide deep-foundation solutions using cast-in-place concrete, and they serve as reliable foundations for various construction projects. They offer earth retention support and stability to different structures, including the new Portal North Bridge.

A NEED FOR DEVELOPMENT

The original Portal Bridge served as a crucial transportation link between Newark, New Jersey, and Penn Station, New York, accommodating more than 450 daily trains over the Hackensack River. In October 2021, the NJ TRANSIT Board of Directors approved a project to develop the new Portal North Bridge.

PROJECT PARTNERS

- AMTRAK
- GATEWAY DEVELOPMENT CORPORATION
- NJ TRANSIT
- USDOT FEDERAL RAILROAD ADMINISTRATION
- USDOT FEDERAL TRANSIT ADMINISTRATION