

Goethals Bridge Replacement Project

New York

The Goethals Bridge was constructed in 1928 to the criteria and standards of that time. Given present-day traffic volume, commercial growth and new standards, the bridge is now functionally obsolete. The existing 10-foot-wide narrow lanes are substandard in comparison to current standard 12-foot-wide lanes, and as such present a safety issue for trucks and wider vehicles. The lack of roadway shoulders with only two lanes of traffic in each direction causes congestion during peak traffic periods and impedes access during emergencies. In addition, the current design provides no access for pedestrians or bicyclists.

According to the Port Authority, which owns and operates the bridge, more than \$33 billion in regional goods cross the bridge yearly. About 74,000 vehicles use the bridge weekly. If the bridge is not replaced now, additional vital repairs in the hundreds of millions of dollars will be necessary, and still the existing bridge will remain functionally obsolete.

Size/Dollar Value: Financing for the \$1.5 billion (construction value ~\$980M) replacement of the Goethals Bridge was completed in Nov 2013 as the developers agreed to make equity contributions and receive payments over 35 years. The NJ Economic Development Authority agreed to sell \$457 million of municipal bonds (PABs) on behalf of the private developers hired by the Port Authority of New and New Jersey to rebuild the 85-year old span between New Jersey and Staten Island.

The project has also received a \$480 million TIFIA loan.

The balance will be raised by NYNJ Link Partnership, a coalition of companies that includes Macquarie Infrastructure of Australia and Kiewit Development Company. Kiewit also leads the design and construction JV which includes Massman Construction and Weeks Marine. The payments to the partnership will depend on the performance of the contractors. NYNJ Link was hired by the Port Authority to oversee the design and construction of the new bridge, and the demolition of the old one. Fitch Ratings gave the bonds an investment grade of BBB-minus rating. The bonds were also insured by Assured Guarantee. Bank of America Merrill Lynch was the lead underwriter.

Issue Address - or need it served: see above - plus the procurement structure helped the NYNJPA leverage private sector funds over a 30+ year term to accelerate the delivery of a critical infrastructure asset, since the Port Authority was recovering from the heroic efforts and financial challenges of its commitment and leadership towards rebuilding the hallowed Ground Zero.

Procurement method: The replacement bridge is being delivered as a design-build-finance-maintain (DBFM) P3 under a 40-year concession - a first for the Port Authority. The Port Authority will continue to operate the facility, set and collect tolls, and make annual availability payments of \$56.5 million.

- TIFIA loan - \$473.7 million (amount does not include \$31.6 million in capitalized interest)
- Private Activity Bonds - \$453.3 million
- Equity - \$106.8 million
- Port Authority Milestone Payments - \$125.0 million
- Pre-development costs funded by the Port Authority - \$300.2 million

The innovation or success - benefits include:

- *Risk transfer* - The Goethals Bridge replacement is a highly complex project. The P3 structure will transfer substantial risk for potential construction overruns and the long-term cost and quality of maintenance to the developer.

- *Efficiency and long-term alignment of interests* - The developer, NYNJ Link, will be paid for performance by the Port Authority over the life of the P3 instead of receiving the upfront payment that would be required under a more traditional financing scheme. Should the developer underperform or if the replacement bridge develops problems during its service period, the agency will be able to reduce payment. This payment scheme will align the interests of Port Authority and of the developer in designing and implementing a project as efficiently as possible, and in providing high-quality design, construction, upkeep and user service.
- *Attractive and increased financing capacity* - The ability of the Port Authority to repay the costs of construction to the developer, over the life of the P3 once the project is complete, allowed the agency to commence procurement for the project more quickly. The commitment from the Port Authority to the developer will be junior to the Port Authority's commitment to its Consolidated Bond Holders.
- The Goethals Replacement will provide state-of-the-art smart bridge technology, including Roadway Weather Information Systems that collect environmental data such as wind speed, visibility, and pavement temperature. A Traffic Detection System will use sensors to provide alerts on traffic build-up so incident response plans may be quickly implemented.
- Smart bridge technology provides continuous electronic monitoring of bridge structures using a network of sensors at critical points. The sensors can spot potentially serious problems before they might be apparent to a human inspector, as well as help determine how a bridge will behave under heavy traffic, in severe weather conditions and during other potentially hazardous situations.
- Also unique (since the 2008 banking crisis)... Assured Guaranty Municipal insured more than \$101 million of a \$461 million bond issue in connection with a public-private partnership sponsored by the Port Authority of NYNJ. The insurance reduced the all-in cost of the financing. In addition to Assured's guaranty of full and timely payment, our participation includes the underwriting and surveillance of construction and operational risks, allowing certain investors to participate in project financings they might not otherwise invest in due to the lack of appropriate internal resources.

It is estimated that the Goethals Bridge replacement project will create 2,250 direct jobs, paying a total of \$224 million in wages, and generating \$872 million in total economic activity for the region.

