



Woodrow Wilson Bridge Replacement

Project Description

The \$3-billion Woodrow Wilson Bridge Replacement project is located in one of the most heavily trafficked areas of the U.S., at approximately the midpoint of I-95, on the south side of the Washington, D.C. metropolitan area.

The original bridge, constructed in 1961, was carrying close to 200,000 vehicles each day – well over the original design capacity of 75,000 vehicles per day. This capacity problem was exacerbated by the need to raise the bascules 260 times a year to allow river traffic to pass, and by the narrowing of I-95 from 8 lanes to 6 just prior to entering the bridge.

The new box girder drawbridge consists of 12 lanes and will only be raised 60 times a year. Four major interchanges surrounding the bridge area are also being improved to increase traffic flow. One of the major challenges facing construction has been the extremely soft soils upon which the roadway and interchanges are to sit.

GeoTesting Express' Role

In order to evaluate alternative methods of construction, such as surcharging with wick drains, URS Grenier and Woodward Clyde Consultants hired GeoTesting Express (GTX) to conduct

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Construction work on embankment

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consolidation and strength testing of the extremely soft soils. GTX was selected because of its

- fast turnaround times
- quality
- and technical support capabilities.

Total testing costs were \$25,500.

Benefits to Client

The data generated by Geo-Testing Express allowed URS Grenier and Woodward Clyde Consultants to successfully determine the most effective construction methods on the extremely soft soils.

Critical to getting reliable information was GTX's ability to adapt standard test methods to evaluate unique and complex materials. Despite the fact that samples had to be shipped over 400 miles

from the site to GTX, we were able to provide testing fast enough to keep the design engineers on schedule. To further assist the client with its design, and out of interest in the project, GTX voluntarily performed simple shear tests.

GTX's professionalism and dedication to finding answers to the project's critical questions helped make the Woodrow Wilson Bridge Replacement project a success.