

Fairfax Parkway Construction Moves Forward with GeoStructures

Design-Build Contractor Selected for Value-Engineered Solutions

PURCELLVILLE, Va., April 2, 2010 – With construction underway of sound walls and bridge abutments from GeoStructures, the Fairfax County Parkway project remains on schedule for completion later this year. The project team is led by general contractor [Cherry Hill Construction](#) supported by civil engineer [Johnson Mirmiran & Thompson](#), and geotechnical engineer [Schnabel Engineering](#).

Cherry Hill's design-build team is having GeoStructures undertake several elements of this complex project based on the company's demonstrated ability to deliver value engineered solutions. Through its [EarthTec](#) subsidiary, the company designed and supplied 50,000 square feet of mechanically stabilized earth (MSE) structures including retaining walls and abutment head walls to five bridges. Some of the structures, particularly those located along the Accotink Creek where the existing grades dip precipitously toward the creek bed, presented complex global stability challenges.

Working with Schnabel and JMT, GeoStructures incorporated longer reinforcements near the base of the MSE abutments, effectively creating a foundation mattress within the structures. This innovative detail achieved the required improvement to global stability, while minimizing excavation and the need for Cherry Hill to import stone backfill.

"Design-build projects like this provide us with opportunity to deliver value to general contractors through design innovation that produces lower total cost solutions, and we focus on that mission," says Mike Cowell, P.E., president of GeoStructures.

Because the 1.5 mile roadway passes through a suburban community, Cherry Hill also turned to GeoStructures to design and install a noise-absorptive sound wall. The post-and-panel structure stretches for 1,360 feet along Rolling Road with a break at the perpendicular Richfield Road. GeoStructures designed a cost-effective foundation support system for the noise barrier posts, consisting of drilled piers at 20' spacing.

The Fairfax County Parkway Extension project was expanded in 2009, when VDOT secured allocation of additional federal stimulus funds via the American Recovery and Reinvestment Act. Original funding came from Virginia Department of Transportation as well as the U.S. Army Corps of Engineers, which needs access for 8,500 employees being relocated to Fort Belvoir North as part of the Base Realignment and Closure Act (BRAC). Once opened in the Fall 2010, Fairfax County Parkway will be directly linked to I-95 through Fort Belvoir North.

About GeoStructures

[GeoStructures](#) is a design-build contractor providing solutions for integrated foundation improvement, earth support and wall construction on commercial, industrial and transportation projects. By deploying its engineering expertise at the design stage, the company efficiently addresses unique site-development challenges and makes the best use of construction schedules and budgets.

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