Gall Zeidler Consultants
Geotechnics | Tunnel Design | Engineering

Hampton Roads Crossing Quality Control
Virginia Department of Transportation

Location: Hampton and Norfolk, Virginia

Date: 2022 - Present

Structure: Twin Large bore TBM Tunnels, Tri-Cell and Bi-Cell Large Diameter Shafts, Bridges

Length: ~4.8 miles

Cross-Section: 41.5 ft (12.7m) TBM Internal Diameter

Geology: Quaternary alluvial coarse-grained fine-grained, and highly plastic/organic fine-grained deposits; poorly graded and well graded sand fills

Cost: US $3.8 Billion

Client: KCI Technologies Inc

Owner: Virginia Department of Transportation (VDOT)

Providing Quality Control Inspectors:

The Hampton Roads Bridge Tunnel Expansion Project is the largest highway construction project in Virginia's history. This project widens the current four-lane segments along nearly 10 miles of the I-64 corridor in Norfolk and Hampton and includes the construction of new twin tunnels across the harbor by TBM.

Gall Zeidler Consultants (GZ) is providing full-time inspectors to the Quality Control team, headed by KCI Technologies Inc. These inspectors cover different quality control disciplines amongst all active construction areas throughout the Hampton Roads Bridge Tunnel Expansion Project, including the South Island Tri-Cell Shaft, North Island Slurry Walls, and North and South MOT. Some of the operations being monitored by GZ include jet grouting, shotcrete and surface improvement, waterproofing installation, reinforcing steel installation in sub/superstructures, concrete placement in substructures, and beam installation.

Figure 1. Finalizing installation of waterproofing membrane for the 7-foot base slab. Start of rebar installation in Cell 3 of the South Island Launch Pit.

Figure 2. Aerial picture showing the Tunnel Boring Machines on the project site. (Courtesy of VDOT)