

# FORSCOM/USARC Combined Headquarters

Fort Bragg, North Carolina

**Owner**

U.S. Army Corps of Engineers,  
Savannah District

**Lead Architect**

Fentress Architects

**Associate Architect**

Giuliani & Associates Architects

**Contractor**

Hensel Phelps Construction Company

**Steel Design-Builder**

Steelfab, Inc.

**Completion Date**

2011

**Construction Cost**

\$304.2 million

**Total Area**

827,000 sf



Photo: U.S. Army photo by Jim Hinnant, U.S. Army Forces Command

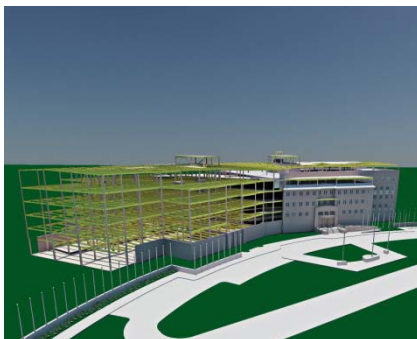
Thornton Tomasetti performed structural services for a design-build contract to provide a multi-building complex for the U.S. Army Forces Command and the U.S. Army Reserve Command. The project consists of a 708,000-square-foot joint command headquarters building as well as four information technology buildings, totaling 83,000-square feet, and a 36,000-square-foot energy plant located on a different area of the base. Sustainability design criteria call for a minimum of LEED Silver certification.

The design features raised access flooring, Sensitive Compartmented Information Facility (SCIF) areas, Uniform Facilities Criteria for blast mitigation and AT/FP design. The project also includes a 100-foot-wide, column-free briefing room.

Our engineers took full advantage of the collaboration and flexibility offered by design-build delivery to streamline the design process. We teamed directly with the steel fabricator to accelerate material procurement and worked closely with the precast supplier to develop a self-supporting façade system that decreased loads on the steel frame, reducing total tonnage.

The project made extensive use of BIM. All design team members used Revit to produce the project and a fully-coordinated model was the team's deliverable to the owner. During the early phases of design, each discipline delivered progress models weekly. This approach allowed the design team to detect and resolve clashes early, avoiding problems during construction and minimizing re-designs and delays.

The complex – designated an essential facility – includes rigorous seismic requirements and strict force protection criteria. We also performed thermal analyses to confirm that the 500-foot-long structure could be built without expansion joints, which improved progressive collapse avoidance performance while simplifying construction detailing for multiple trades.



Revit model: Thornton Tomasetti