

Peer Review of Final Design, Armed Forces Reserve Center Middletown, CT

Project Description:

Just prior to acquisition by AI Engineers, Inc., RC Boggs Consulting (RCBC) was selected by the Structural Engineer of Record for the Armed Forces Reserve Center to provide an independent peer review of the structural design for two new buildings at the facility: a 164,000 square foot new Training Center and 35,000 square foot Vehicle Maintenance Shop.

The training center will house training facilities for four Army Reserve units and six units of the Connecticut Army National Guard. The Training Center building was separated by an expansion joint into two separate structures. The taller of the two extended up to four stories, and was therefore subject to the Army Corps of Engineers requirement to be designed to prevent progressive collapse. This involved incorporation of lateral ties and the addition of redundant elements into the vertical load resisting systems of the building. RCBC was asked to review the Army Corps documents to ensure their proper implementation into the design. In addition, all structures were evaluated to ensure conformance with all load parameters, the Connecticut State Building Code and all Army Corps requirements.

Following our detailed, independent structural analysis and review, a report was provided. The report provided specific conclusions and recommendations with regard to code conformance and progressive collapse prevention. The design documents were subsequently modified in response to these comments.

Location

Middletown, CT

Owner

US Army Corps of Engineers

Completion

2010

Construction Cost

\$51.5 million

Salient Features

- Peer review to assess conformance with Building Code and Progressive Collapse prevention
- Independent review required by Army Corps of Engineers
- Four-story braced steel frame structure