

## Bradley International Airport - Design of Viaduct Windsor Locks, CT

### Project Description:

#### Location

Bradley International  
Airport, Windsor Locks, CT

#### Owner

Tom Harley, PE  
ConnDOT  
2800 Berlin Turnpike  
Newington, CT 06111  
(860) 594-3189

#### Duration

2003 – 2005

#### Prime/Sub

Sub

#### Construction Cost

\$10 million

AI Engineers, Inc. was assigned to prepare structural design, plans, specifications, and construction estimate for this viaduct.

The design encompassed the extension of the existing substructure of the viaduct to serve the expansion of Terminal 'A' at the Airport.

The new viaduct has an overall length of 537 ft. and out to out width of 76 ft. with up to 42" dia. columns. The substructure design consisted of the analysis and design of new multi-column piers, abutment & wingwalls on special footings. The substructure was designed to accommodate the surcharge loads of the adjacent existing and expanded building. Temporary shoring of existing foundation was designed. Single mode seismic analysis was used to design the substructure.

AI coordinated the design with the prime consultant to optimize overall cost savings and to reduce the effects of the construction on the traveling public and airport operations. AI was also part of the team for Construction Inspection.



### Salient Features

- New Substructure
- Staged Construction/  
Traffic Controls
- Accommodated Adjacent  
Building Loads
- Seismic Design

