

Design Plans for Park Avenue Viaduct/Tillary St. On-Ramp, BOE New York, NY

Project Description:

Location

New York, NY

Owner

Tarik Bashir
NYSDOT /NYCDOT
Hunters Point Plaza 47-40,
21st St.
Long Island City, NY 11101
718-482-4691

Duration

2003-2006

Prime/Sub

Sub

Construction Cost

\$ 130 Million

AI Engineers, Inc. performed Final Design Plans for the on-ramp to the Brooklyn Queens Expressway (BOE/I-287) viaduct over the very busy Park Avenue at Tillary Street. The design was for the replacement of superstructure for four (4) 64ft spans. A three (3) girder system was used with a composite deck that cantilevered up to 4.5ft, designed using LRFD. The bridge girders required new stiffened bearing seats and bearing pads. A multi stringer framing supported by the main girders was designed where the on-ramp meets the main line and the gore area.

For the substructure, in-depth inspection of abutment for the ramp and main line and their rehabilitation was also included in the scope along with strengthening of Pier footings for seismic loads. Highway plans included alignment, construction staging, temporary work alignments including requirement of a temporary bridge was also included as a part of our design assignment. Total length of bridge ramp and approaches was 700ft.

AI also performed the in-depth inspection and rehabilitation of the main line abutments, approaches and approach subbase.



Salient Features

- Elevation of ramp
- Super-structure rehabilitation
- Main-line viaduct approach rehabilitation
- Drainage
- Substructure strength
- Temporary ramps
- Construction staging
- Seismic design
- Construction support services