PCI NORTHEAST
A Chapter of the Precast/Prestressed Concrete Institute

MARION AVENUE BRIDGES

Southington, Connecticut

PCI
Precast/Prestressed Concrete Institute

PRECAST CONCRETE & BRIDGES

OWNER
Connecticut Department of Transportation, Newington, CT

CONTRACTOR
Northern Construction Services LLC, Palmer, MA

PRECASTER
Northeast Prestressed Products LLC, Pottsville, PA

PROJECT FACTS

PRECAST STRUCTURAL ELEMENTS INCLUDE:

– (10) PCEF BULB-TEE GIRDERS, 47-IN-DEEP X 102.5-FT-LONG

– APPROACH SLABS

• SECTION MOVED INTO PLACE USING SPMTS

• 56-HOUR CLOSURE OF HIGHWAY TO COMPLETE PROJECT

Photo courtesy of Northeast Prestressed Products LLC, Pottsville, PA

A two-bridge project in Southington, Connecticut, is taking advantage of precast concrete and Accelerated Bridge Construction (ABC) techniques to minimize construction time and reduce user costs for detours by reducing closure time on the bridge to less than 56 hours.

The twin east- and westbound bridges, on Interstate 84 over Marion Avenue, replace 1963 structures and will feature 47-inch-deep precast concrete PCEF bulb-tee girders approximately 102.5 feet long. The project was designed by the Connecticut Department of Transportation. The beams were fabricated in the plant by Northeast Prestressed Products (NPP) and delivered to a staging area near the bridge.

Once the components are in place, the highway beneath the bridges will be closed for a weekend. The existing bridges will be demolished and removed, and the new superstructures will be moved into place using Self-Propelled Modular Transports (SPMTs). To help speed construction, NPP also is providing precast concrete approach slabs, which were redesigned to provide larger slabs resulting in fewer closure joints.