

## YORK RIVER BRIDGE

York, Maine

ENGINEER VHB-Vanasse Hangen Brustlin, Inc.

CONTRACTOR CPM Constructors, Freemont, ME

PRECASTER Dailey Precast, LLC Shaftsbury, VT

## SUSTAINABLE CONSIDERATIONS

LEED CREDIT 4.1 Recycled content was used in the mix.

LEED CREDIT 5.1 Locally harvested materials.

## **PROJECT FACTS**

- FIRST NEXT BEAM BRIDGE
- LENGTH: BRIDGE 510 FT
- 7 SPAN BEAM BRIDGE
- 28 PRECAST NEXT BEAM UNITS MAKE UP THE (2) 55 FT SPANS AND (5) 80 FT SPANS
- NEXT BEAM SOLUTION PROVIDED APPROXIMATELY 4" OF ADDITIONAL NAVIGATIONAL CLEARANCE





## **PRECAST CONCRETE & BRIDGES**



The very first NEXT Beam bridge is under construction replacing a 17 span steel girder bridge on Route 103 that crosses the York River in Maine. Dailey Precast is the precaster on the project and produced 28 NEXT Beams in varying lengths to build the 7 span, 510 ft. bridge. Vanasse Hagen Brustlin, Inc. the design consultants on the project found developing a new bridge configuration while maintaining the existing profile was a challenge that the NEXT Beam would easily solve.

Some of the "challenges" for the new bridge configuration were to maintain the existing profile, navigational clearances, and avoids conflicts with existing substructure locations. NEXT beam solution provided approximately 4 in. of additional navigational clearance. Maine DOT desired an integral bridge design for the 510 ft. bridge. Diaphragms are located only at the beam ends at the abutments and piers. No intermediate diaphragms were required.

The newly developed Northeast Extreme Tee (NEXT) Beam solution addresses medium span bridges 45 to 90 ft. in length and was proposed and developed by PCI Northeast Bridge Technical Committee. The NEXT beam offers significant advantages over typical stringer beam bridges. The top flange of the beam is designed to support the weight of the cast-in-place concrete deck. There is no installation or stripping of formwork required in the field. No intermediate diaphragms are included in the NEXT beam, which eliminates a time-consuming process. All of these features should lead to a fast construction process. The system is also desirable because it allows for utilities to be run between the long stems of the tee making it easier for both inspections and repairs.