



## The bridge over the Caloosahatchee

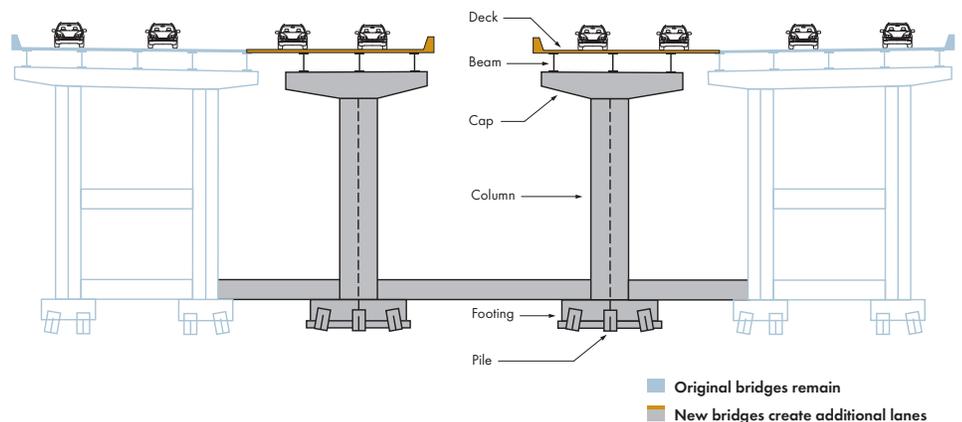
When the Florida Department of Transportation went forward with plans to widen the I-75 bridge over the Caloosahatchee River, New Millennium was selected to provide a polymer-coated, stay-in-place deck form system and help solve some construction complications. In the end, time and money were saved and the delicate habitat of the manatees that call the Caloosahatchee home was protected.



Bridge photos courtesy of the Florida Department of Transportation.



The Caloosahatchee bridge widening project was completed without interrupting traffic in either direction or disturbing the habitat of manatees that call the river home.



The plans to widen the high-level, fixed-structure bridge spanning the environmentally sensitive Caloosahatchee National Wildlife Refuge were part of a larger road project to reconstruct and widen I-75 from four-lanes to eight, with an auxiliary lane in each direction. One major complicating factor for the project was the fact that the Caloosahatchee River is home to the second-largest population of manatees in Florida.

The decking selected for the project, polymer laminated Rhino-Dek®, is manufactured in a controlled environment, fabricated from high-strength galvanized steel, and designed

to protect bridges from salt corrosion. One aspect of Rhino-Dek® that differentiates it from the competition is the ease of connection to the existing bridging.

Welding the deck to the existing bridge structure was not possible due to both the polymer laminate and Florida Department of Transportation specifications. Competitive products require laddering and extensive field fabrication of hardware to facilitate connection to steel girders. Laddering is a time-consuming process involving the construction of a lattice that lies on top of the girders running parallel to provide attachment points for the decking system.

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### Saving time, money, and manatees

"To minimize the amount of work that was required on-site, which would be difficult to manage given the environmental sensitivity, instead of a laddering system, New Millennium developed a fully pre-fabricated connection system that crews simply dropped into place by hand on the steel girder top flange," says Gerald Arvay, New Millennium District Sales Manager.

"It's easier to carry the product out on a girder and quicker to put down. So from a safety standpoint, crew members were spending less time walking around on girders that have nothing between them."

### 45% less labor

Projects using this sort of system have seen labor costs reduced by 45%. "When you eliminate the laddering, not only are you eliminating expensive on-site welding, you are also saving time; so, the cost savings can be pretty dramatic," says Bob Eison of Leware Construction, the contractor on the project.

The solution New Millennium custom-designed for this project included a fully assembled part consisting of one rung of the typical laddering system used in bridging with just a small section of the rail attached to each end of the rung. The drop-in-place solution saved the project substantial time, lowered installation costs, and improved safety.

*The Caloosahatchee River is home to Florida's second largest population of manatees. New Millennium's innovative decking system reduced the amount of on-site work that had to be done, helping reduce interruption to the habitat and improving jobsite safety.*



### Award-winning project

The I-75 Caloosahatchee River Bridge Widening project was honored by Roads & Bridges magazine with a spot on the list of 2015 Top Bridges. In addition, the Florida Department of Transportation recognized it for its 2016 Best in Construction – Major Bridge award. Also in 2016, the Florida Institute of Consulting Engineers named the Caloosahatchee widening its Outstanding Bridge Project of the year.



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