

Indian River Inlet Bridge



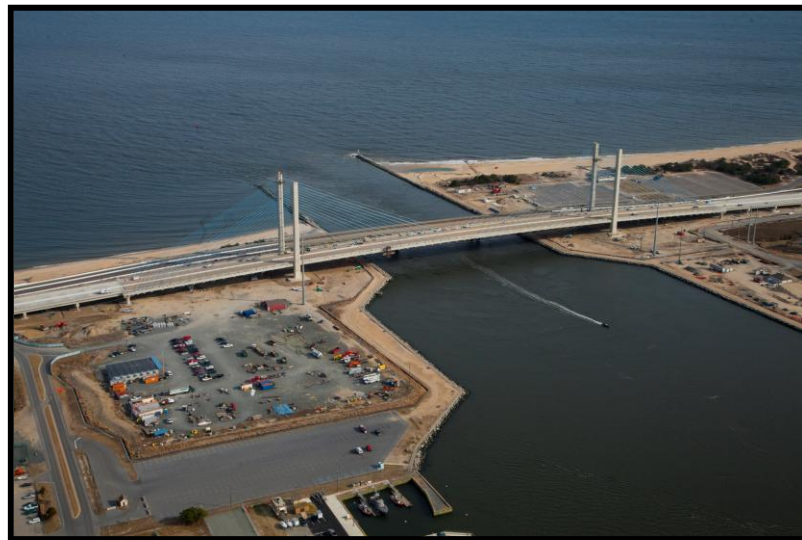
Construction of the new Indian River Inlet Bridge reached a major project milestone earlier this year with the initial opening to vehicular traffic on January 20th. Since that time, approach roadway construction and final bridge finishing activities have continued in preparation for the full opening to traffic scheduled for May 2012. With the completion of this signature Cable Stay Structure, for the first time, the new bridge fully spans the turbulent waters of the Indian River Inlet that have plagued bridges at this location for over 75 years. As work by the bridge constructor (Skanska USA Civil Southeast, Inc.) is completed this spring, the primary construction responsibilities will shift to George & Lynch, Inc. These remaining activities include the demolition of the existing bridge, the construction of a new beach dune just north of the inlet and final local roadway improvements. All roadway work is expected to be completed by year's end with restoration of Delaware Seashore State Park beginning in the summer of 2013.

The new bridge measures 2600 feet in length and can be distinguished by the 152 blue stay pipes encasing the stay cables which support the 950-foot long mainspan over the inlet. The cables allow the bridge deck to be suspended or "hang" from the four separate pylons, which each measure nearly 250 feet in height. Over 28 thousand cubic yards of concrete, 8.8 million pounds of reinforcing steel and 1.8 million feet of cable strand have been incorporated into the finished bridge structure.

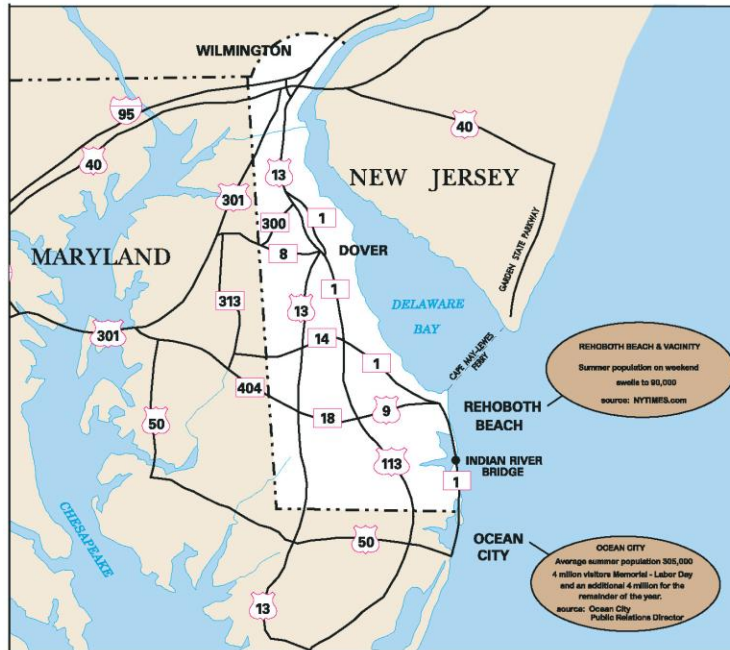
The University of Delaware, together with DelDOT, has installed many types of sensors into the segments to allow engineers to monitor the "health" of the bridge during its 100-year design life. The State will be able to track the formation of possible corrosive agents within the concrete, and will then have the ability for earlier intervention, if necessary. The monitoring plan also includes instruments to measure wind speed and resulting behavior of the cables, which is important in this region subjected to strong nor'easters and hurricanes. Other interesting

features of the bridge include a sand bypass pipe on the east side of the bridge deck that allows for transportation of sand from the south side to the north side of the inlet for beach refurbishment and a polyester polymer concrete roadway overlay as a protection barrier from corrosive road salts. One of the more dramatic features being incorporated into the finished structure are the LED accent lights. These energy efficient lights will provide a very attractive subtle blue illumination of the pylons and the stay cables from dusk and dawn.

During construction, the project staff accommodated over 3000 visitors to the project through numerous site tours that showcased the various construction operations. Experts from DelDOT and Skanska were readily and routinely available to share information, offer updates and field a wide array of questions offered by visitors and various members of the public. These visitors included students, industry professionals, local stakeholders, local residents, and members of the general public. These events offered a unique inside look into how this landmark structure was built, the many challenges that were overcome, and provided truly memorable experiences to all parties involved.



The Indian River Inlet Bridge, now on NHS, will serve the summer traffic between Rehoboth Beach and Ocean City, Maryland. The traffic demand is extremely high as the accompanying figures indicate.



REHOBOTH BEACH & VICINITY
Summer Population on Weekend Swells to 90,000
 Source nytimes.com

OCEAN CITY Average Summer Population 305,000
4 million visitors Memorial-Labor Day and additional 4 million for the remainder of the year
 Source: Ocean City Public Relations Director.

Distance: 27.2 miles Approximate Travel Time: 50 minutes

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