Massive Nighttime Concrete Pour Planned For New Indian River Inlet Bridge

Indian River – The Department of Transportation (DelDOT), Skanska USA Civil Southeast, Inc. and Thoro-Good’s Concrete Company are teaming up this week to pour 1,000 cubic yards of concrete into the first pylon on the northside of the new Indian River Inlet Bridge. The massive concrete pour will take 12 hours to complete and represents the first major concrete pour of the more than 36,000 cubic yards of cast-in-place concrete that will be used to construct the bridge.

To successfully complete the pour, the construction team, bridge builder Skanska and Thoro-Good’s will be working from 6 p.m. to 6 a.m. on Thursday, July 30, 2009. The pour is scheduled to occur at night for several reasons. For one, cooler nighttime air temperature will help to lower the initial concrete temperature, which will in turn reduce the temperature of the overall concrete in the pour. Specifically, the air temperature must be at least 30 degrees cooler than the concrete temperature. Concrete typically is a heat generator, and therefore, the concrete will mixed with ice and cold water to keep the concrete temperature within an acceptable range. Maintaining the correct temperature reduces the possibility of the concrete cracking. A concrete pour of this size will generate more heat than your average construction-size concrete project.

In addition, the nighttime pour will make it easier for the concrete trucks to deliver the product, and means less impact on the traveling public. Since the work is occurring on the northside of the bridge, noise should not be an issue for nearby campers or residents.

Sussex County-based Thoro-Good’s Concrete, established in 1958, employs 50+/- workers. The company was selected by Skanska to supply all the cast-in-place concrete for the bridge at a cost of approximately $4 million. Thoro-Good’s will provide all the concrete for the bridge from their two plants in Millsboro. Large pours are nothing new for Thoro-Good’s as they have poured as much as 1,700 cubic yards of concrete in one day for other construction projects.

Local companies such as Thoro-Good’s are financially benefitting from the construction of the bridge. They are able to keep their equipment running, keep employees working, provide a much needed product for the bridge and are very appreciative for the work during these otherwise tight times. Thoro-Good’s Gerald Miller notes, “Thoro-Good’s is honored to be a major contributor to the bridge project.”

The pour will consist of 1,000 cubic yards of concrete being trucked to the site by 111 trucks (each truck plans to carry 9 cubic yards of concrete). The concrete mix is made up of sand, stone, cement, ice, water, slag cement (byproduct of steel) and other beneficial chemical additives. Deliveries will continue throughout the 12 hour timeframe. At the site, each concrete truck will discharge the concrete mix into a hydraulic concrete pump with an attached large (elephant-like trunk) hose which will dispense the concrete into the pylon footer. Once the concrete has been poured in the footer, two layers of black thermal blankets will be placed over the top of the footer acting as a heat insulator. The goal is to not shock the concrete by exposing the 160 degree concrete to 85 degree air temperatures. These measures are being taken to ensure that once the concrete is poured, it does not crack which could diminish the strength of the concrete. Teams of inspectors and workers from Skanska, DelDOT and Thoro-Good’s will be onsite throughout the pour to ensure that the materials are meeting industry and contract requirements and that the pour is a success.

For additional information on the existing bridge or the construction of the new Indian River Inlet Bridge Project go to www.irib.deldot.gov.