



July 17, 2009

Date: June 29, 2009
Time: 10:00 AM
Location: IRIB Construction Field Office
RE: Construction Advisory Group
Meeting #5 Minutes

ATTENDEES:

Title	First	Last	Association
Mr.	Larry	Agsten	Homeowner
Mr.	John	Brown	Carpenters L. U. 2012
Mr.	Andrew	Cripps	Bethany/Fenwick Chamber of Commerce
Ms.	Nancy	Fanning	Homeowner
Ms.	Ann	Klaes	Homeowner
Mr.	Don	Klein	Board Member D.S.P.F.
Mr.	Steve	Plotkin	Homeowner

PROJECT TEAM:

Salutation	First	Last	Association
Mr.	Jay	Erwin, Jr.	Skanska, Project Manager
Mr.	David	Geiszler	DeIDOT
Mr.	Doug	Long	DNREC
Mr.	Britt	Murray	DNREC
Ms.	Tina	Shockley	DeIDOT Public Relations
Mr.	Ed	Thomas	Kramer & Associates, Inc.

WELCOME: Ed Thomas started the fifth meeting of the IRIB Construction Advisory Group (CAG) at 10:05 AM by welcoming the attendees and asking if everyone had signed in and received a copy of the agenda and the meeting minutes from the previous meeting. Ed pointed out that Secretary Wicks is busy in Dover with the last two days of the General Assembly session and would not be attending today's meeting. She will be attending a subsequent CAG meeting, as the IRIB is an important DeIDOT project and the CAG is an important public outreach part of the project.

INTRODUCTIONS: All attendees introduced themselves indicating their interest and who they represented. Ed reviewed the agenda explaining what would be taking place during

the meeting. Ed asked if there were any questions or comments related to the June 1 CAG site tour. The only response was, “do it more often.” Attendees were asked if they had any changes or comments on the minutes of the June 1 CAG meeting – there were none.

SITE TOUR UPDATE: Jay Erwin pointed out that tours are ongoing and he expects them to continue. Jay explained that the purpose of the tours is to inform and to make bridge construction a real on-site experience. He stated that a tour was held on June 26 for 31 University of Delaware engineering students. Since the visitors were college students, Skanska had two of its younger engineers lead the tour presentation. Skanska sees the tours as an opportunity to draw young engineers into construction and a career path into management. Mr. Erwin stated that Skanska staff, as well as the public, learns through the tours and invited CAG members, business owners, homeowners, government officials and other stakeholders to become informed by taking advantage of the tour opportunity.

CONSTRUCTION AND DESIGN ACTIVITIES: Jay Erwin summarized the bridge work that is underway and expected to be accomplished or underway in the next few months:

- Geotechnical aspects of driving the piles have become more difficult than expected, as more dense material is being encountered. The deeper the piles are driven, the more compact the material becomes and the harder it is to drive the piles. However, the result is that the piles, once driven to the specified depths, actually provide more support for the bridge, possibly twice as much as called for by the contract specifications.
- Because of the dense material mentioned above, more hits are needed to sink each pile. Therefore, it will take longer than expected to install the pilings; but since work was begun earlier than scheduled, it will be completed on schedule.
- The test pile program is now complete. The last two test piles were driven on the south side last Friday (June 26). Testing was successful and data were used in casting the production pilings. Test pile work that was completed in late June was scheduled to be completed in August; therefore, testing was accomplished ahead of schedule and on budget.
- Production pile work, essentially a carry-on after all test piles are in place, is underway:
 - 92 (62%) of the 149 piles to be driven on the south side of the inlet are in place.
 - 74 (52%) of the 142 piles to be driven on the north side of the inlet are in place.
- Delivery of the piles to both the north and south sides continues. No traffic problems on SR 26 or SR 9 have been reported. Over the next 4-6 weeks there will be short traffic disruptions on Ramp B (south side) as piles are lifted over the fence onto the site. There will be traffic flagging, but there should not be any substantial traffic impact for the community or on DNREC facilities.
- North side pylon foundation has been put in place.

- Installation of pilings to support the temporary falsework steel towers has begun. Towers on both sides of the inlet will be constructed concurrently. As the towers rise, stays are installed and will be used to lift the decking, in small increments, into place. When these permanent towers are finished, the falsework towers will be removed.
- We will be moving into a major concrete phase with the concrete being supplied by Thoro-Good's Concrete Company in Dagsboro. Each of the four pylons requires 1,300 cubic yards of concrete. There will be four pours, one every other week.
- Assembly of the tower forms will be starting over the next few weeks with the arrival of reinforcing steel, which will be assembled into panels to build the four sides of each form. Once a concrete pour has been completed the form is moved up and exposed concrete will be seen at the bottom as the pylon tower rises.
- The reinforcing steel will be delivered during the summer as a part of normal traffic movement. There will be minimal, if any, bridge traffic impact.
- The 110-115' precast concrete beams, girders to be used in construction of the bridge deck, will be arriving. While they are not as heavy as the piles, they are a bit longer and are awkward to move (vehicle is three times the length of a tractor and trailer truck). However, no traffic problems are anticipated.
- We will need to move some material from the north to the south side of the inlet. This controlled movement activity will take place after the July 4th holiday weekend; there will be no lane closures.

DELDOT WORK ON SR 1: Dave Geizler explained that on July 21, 22 and 23 DelDOT will be working on northbound SR 1 in the vicinity of the bridge. There will be a single-lane closure in the northbound direction from 7:00 a.m. to 5:00 p.m. Core borings will be taken from the embankment area 300-400' north and south of the bridge. Data are needed to develop the RFP for removal of the current bridge approaches. While Skanska may help with maintenance of traffic, this is not part of Skanska's bridge construction project. During these three days, community and DNREC park access may be temporarily altered; but will not be closed.

PROJECT TOURS: Tina Shockley, DelDOT Public Relations, summarized the extensive outreach that has been taking place to towns and Chambers of Commerce. She indicated that tours for these groups are being arranged and, in some cases, consolidated to avoid impacting construction work.

QUESTIONS AND ANSWERS: During the meeting questions were asked and responded to as follows:

Q: How deep are the pilings below the surface?

A: The depth varies but, on average, they will be approximately 105' deep.

Q: What is the steel structure sitting on the ground on the south side of the inlet?

A: That is called a spider frame. It is a reaction frame for pile testing. Once a pile is driven, the spider frame is placed on top, four 900-ton jacks are used to put a known load on a fixed object (the piling) to measure movement. 1,800 tons of known load were applied; no movement was detected.

Q: To what extent was the specified capacity exceeded?

A: Specified load was 1,000 tons; 1,800 tons were applied. While we don't know for sure, we estimate that the specification was surpassed by approximately twice the required capacity.

Q: What is the drying time for different sizes of concrete pours?

A: The drying time for a small, middle or large pour is about the same. Initial setting takes place in between 1 ½ and 3-4 hours, depending on temperature and type of mix. Full design strength is reached in approximately 28 days. We are seeing cure times between 7-14 days. There are 6-7 different mixes, different strengths, etc., which have different cure rates.

Q: How long will a pour take; how will it be done?

A: There are many variables, including truck size, plant capacity, traffic/drive time, weather, testing, truck cleaning, number of pumps, etc. We are trying to shorten the time per pour. At this time it looks like each pour will take between 10-18 uninterrupted hours with approximately 110-120 truck loads per pour.

Q: Will the concrete be a slurry or have aggregate?

A: The concrete will have a mixture of limestone, filter graded sand, cement, furnace slag and additives.

Q: Will the concrete have a color?

A: No, it will be natural.

Q: Are there any means whereby tourists can take a tour?

A: Yes, they can inquire via the project web site and through DelDOT's Public Relations Office and will be accommodated as long as construction is not impacted.

Comment: Nancy Fanning, who lives near the bridge and works in Rehobeth, said that she has heard no complaints regarding construction work.

MEETING SCHEDULING/WRAP UP: Ed thanked everyone for their continuing interest and participation and stated that the next CAG meeting will be held on July 27 at 10:00 a.m.