Construction Engineering Conference
Virginia Tech
Blacksburg, Virginia
September 30, 2010

Replacement of the Thames River Bridge:
How 19th Century Construction Can
Impact 21st Century Construction

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Thames River Railroad Bridge
Groton – New London
Core Samples of Grouted Sands
“At the present time Pier 2 is in progress of sinking...the cutting edge is now below El. -100...some boulders have been found in the upper portion of the gravel stratum and the sand directly above it. They give a certain amount of trouble at times by tendency to collect, the buckets dredging out mainly the smaller stuff until more or less of a layer or pocket of larger stone has formed, which interferes with digging.”

**Engineering News, March, 1917**

“Pier 2 took an ugly slant when about 100 feet down, and it took a lot of “jockeying” of the crib, using a jet, excavating in the necessary pockets, and loading others with concrete and stone, until finally the crib was sunk to grade and straightened up, with the result that it was about 2 feet out of position.”

“As this caisson was about 42 feet wide there was plenty of room for adjustment of this variation.”

**James Rollins, 1920**

**Holbrook, Cabot and Rollins, Contractors**
Pier 2 Actual

Spans B and C at time of 1980's Bridge Renovations

The bridge before and after the renovations.
Borings for Thames River Railroad Bridge - 1888

Thames River Railroad Bridge, 1890

Pier 3:
Cofferdam 50 x 50 x 50
Crib 70 x 70
B of Masonry -34
B of Grillage -50
B of Crib -70
Pile tip el -130
600 – 10 Ton Piles
July 18, 1888  Pier 3 Crib

Pile cut-off saw

July 18, 1888  Concreting East Abutment
“Everybody worked for the best interest of the job: no pet schemes or new theories were tried out, for we all realized that we had a most difficult problem, which was a new one for all of us, and that it needed thought, brains and the most diligent attention, in order to be carried through with success.

James Rollins, 1920
Holbrook, Cabot and Rollins, Contractors