

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --)
)
Tri-State Consultants, Inc.) ASBCA No. 55251
)
Under Contract No. DACW61-99-C-0021)

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OPINION BY ADMINISTRATIVE JUDGE JAMES

This timely appeal arises from the contracting officer's (CO) 17 October 2005 final decision that denied in its entirety appellant's 16 March 2005 claim for \$1,645,987 and a 24 calendar day time extension. The Board has jurisdiction of the appeal under the Contract Disputes Act of 1978, 41 U.S.C. § 607. After a two-day hearing in Tampa, FL, the parties submitted post-hearing and reply briefs. The Board is to decide entitlement only, including the number of days of time extension, if any (tr. 1/11-12).

FINDINGS OF FACT

1. On 26 May 1999 the Philadelphia District of the U.S. Army Corps of Engineers (the Corps) issued Solicitation No. DACW61-99-B-0022 (the IFB) for Sedge Islands Beach Repair, Barnegat Inlet, Ocean County, NJ (compl. & answer ¶¶ 12; R4, tab 1 at 1).
2. The purposes of the IFB, as stated to Tri-State and other bidders in a 10 May 1999 "Pre-Solicitation Notice," were (i) to repair a breach in the Sedge Islands sand dune between Little Bay and the north channel of the Barnegat Inlet, (ii) by beneficial reuse of borrow material dredged from the navigation channel (ex. 8/13 at 2). The repair required

construction of a sand and geotube embankment using sand dredged from a designated borrow area.

3. The IFB gave bidders the alternatives of dredging with either a hopper, clamshell or hydraulic pipeline dredge (compl. & answer ¶¶ 12), and did not specify the means to transport and place fill material (R4, tab 1, § 02882 at 9).

4. The IFB scheduled a pre-bid site inspection on 10 June 1999 (R4, tab 1 at 1). The IFB (and resulting contract) contained the following relevant terms (R4, tab 1, § 00800 at 1-3, 9-10; § 02882 at 1-3, 8-10):

SECTION 00800 SPECIAL CLAUSES

SC-1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to . . . complete the entire work ready for use not later than 90 calendar days after the date of receipt of notice to proceed. . . .

. . . .

SC-4 PHYSICAL DATA (APR 1984)

. . . .

(c) Weather Conditions. The site of the work is sheltered from storms, except for open areas of the waterway adjacent to some of the inlets. It is believed that work can be performed during all seasons of the year except during winter months when ice conditions may interfere with dredging operations. . . . The Contractor shall satisfy himself as to the hazards likely to arise from weather conditions during the construction period.

. . . .

(f) Obstruction of Channel. . . . The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on

the approach of any vessel to such extent as may be necessary to afford a practicable passage. . . .

. . . .

SC-16 SPECIAL STANDARDS OF RESPONSIBILITY

Dredging: The Contractor’s dredge shall be of sufficient size to withstand the strong tidal currents and large swells that are common in Barnegat Inlet.

. . . .

This information concerning the size of the dredge to be used for the contract work . . . shall be submitted during the pre-award phase.

. . . .

SECTION 02882 GEOTEXTILE TUBE INSTALLATION

. . . .

1.3 CONTRACTOR QUALIFICATIONS . . . [T]he Contractor’s dredge shall be of sufficient size to withstand the strong tidal currents and large swells common in Barnegat Inlet. . . .

. . . .

1.4.2 Location of Borrow Material

The location of the borrow area and the limits to which removal of material is permitted is [sic] shown on the drawings. The maximum allowable depth for removal of material from the entire borrow area is -12.0 feet local mean low water. Unless specifically directed by the [CO], no payment will be made for material removed from outside the borrow area limits indicated on the contract drawings. If during the progress of the work it is determined that the borrow area does not contain a sufficient quantity of material

for completion of the project, the [CO] may adjust the maximum allowable depth of the borrow area.

1.4.3 Nature of Borrow Area

The surveys of the borrow area shown on the drawings are after-dredging surveys taken during October 1998 and are the most recent surveys available. The borrow area conditions are dynamic in nature. . . .

1.5 SITE CONDITIONS

. . . .

The borrow area is located within the jetties of Barnegat Inlet. The area is very dynamic in nature and is characterized by strong tidal currents and rough wave action. . . .

. . . .

1.7 HYDRAULIC AND HOPPER DREDGES

The size of the dredge utilized for this contract work shall be sufficient to withstand the severe tidal conditions present in Barnegat Inlet. If a hydraulic pipeline dredge is utilized, it shall have sufficient power to pump the sand to the project area. . . . Material excavated by hopper dredge shall be loaded into bins or hoppers . . . and pumped directly to the beachfill area

. . . .

3.2.4 Construction of Cradle

Prior to placement of the geotextile tube, a sufficient quantity of sand shall be placed along the geotextile tube centerline, as shown on the drawings, to allow for construction of a cradle. . . .

3.2.5 Filling of Geotextile Tube

The geotextile tube shall be filled with material dredged from the borrow area using a valve fitted on the dredged material disposal pipeline. This valve shall regulate of [sic] flow rate. The discharge pipe shall also be fitted with a baffle diffuser for uniform filling of the tube and a pressure gage to monitor filling pressures. The pumps used to fill the tubes, either pumping directly from the dredge or from another source, shall be sufficient to fully inflate the tubes with water and granular material to the dimensions shown on the drawings

3.2.6 Quantities

Approximately 85,000 cubic yards of dredged sand material (not including dredging losses) will be required to fill the geotextile tubes, to cover the geotextile tubes, to construct the cradle and to fill the areas surrounding the geotextile tubes.

. . . .

3.3 PLACEMENT OF BEACHFILL OVER AND SURROUNDING THE TUBES

. . . . A spreader section shall be used at the discharge end of the pipeline for uniform distribution of the beachfill material. . . .

5. The IFB (and resulting contract) contained six drawings. (a) Drawings 1 and 5 depicted the approximate borrow area, a longitudinally northwest-southeast rectangle, about 825' inside the seaward ends of the north and south jetties flanking the inlet, about 3,800' long and 300' wide and located in the navigation channel, with a southerly rectangular (800' long by 100' wide) enlargement of the area near the bay side of the south jetty. (b) Drawings 1 and 2 depicted the fill area for the approximately 2,560' geotextile tube embankment about 800' north of the northeast end of the borrow area. (c) Drawing 3 depicted a plan and cross-sectional elevation of the geotextile tube embankment, with its configuration and dimensions "After Initial Pumping" and "After Cradle Excavation (Prior to Final Filling/Grading)." Construction Note 6 thereon stated:

Prior to placement of the geotextile tubes, a large sand mound shall be constructed along the embankment alignment. This initial embankment shall be no higher than + 7 feet NAVD [North American Vertical Datum] and no wider than 75 feet

off of either side of the embankment centerline. A sand cradle shall then be constructed in the embankment by excavating a trench with stable side slopes

(R4, tab 1; tr. 1/109; ex. 4/C at A-1^{*})

6. In early June 1999 Tri-State requested a dredging subcontract proposal from Mr. William P. Humphreys, general manager of Hendry Corp., who obtained and reviewed the IFB plans and specifications (tr. 1/48, 51-53; ex. 2/1). Appellant offered, and the Board accepted, Mr. Humphreys, who had 25 years of experience in dredging and estimating dredging projects, as an expert in dredging, estimating and marine hydrology (tr. 1/204-07).

7. On 10 June 1999 Mr. Humphreys attended the pre-bid site visit conducted by the Corps (compl. & answer ¶¶ 12; R4, tab 12). Site conditions he saw from water's edge at Barnegat Inlet included 15-20 m.p.h. north winds and one-foot swells in the borrow area (tr. 1/105).

8. To prepare Hendry's quote to Tri-State, Mr. Humphreys considered possible dredge types. He eliminated hopper and bucket type dredges due to their draft and pumping capabilities and the time and cost to build an unloading facility and to mobilize an unloader barge. This left a hydraulic pipeline type dredge with cutterhead. (Tr. 1/108-10; ex. 1/3 at 5-6) Mr. Humphreys considered the suction-discharge pipe sizes of such a dredge, eliminated 8" and 10" dredges as too small to take in an inlet, and 20" and larger dredges due to their operating draft and inability to confine their pipeline pumping to the specified 150-foot fill width, leaving a 12", 14" or 16" dredge for consideration (tr. 1/110-14; ex. 1/3 at 6-7). He thought that an 8" to 16" dredge was consistent with the Corps' estimate of \$600-\$700,000 for the dredging work (tr. 1/53-54), and selected a 14" hydraulic pipeline type dredge to quote to Tri-State (tr. 1/111; ex. 1/3 at 7).

9. Mr. Humphreys considered the IFB warnings of swells and strong tidal currents in Barnegat Inlet. He did not plan to dredge continuously, but rather to move the dredge into protected waters during unfavorable weather and to operate the dredge 50% of the days when it was available and 75% of the hours when dredging was possible, *i.e.*, at 37.5% operating efficiency. (Tr. 1/107-08; ex. 1/3 at 5, 7)

10. Hendry's 25 June 1999 letter to Tri-State stated that Hendry planned to –

* All "exhibits" in the record are appellant's. The first digit indicates the book number; the second indicates the part or exhibit number.

Dredge enough sand to make an in-place fill of 85,000 c.y. This would take about 6 weeks. This would be a continuous operation . . . once we start. . . . We would place enough fill, in one lift, for you to make the final required cross section as shown on sheet 4 of the drawings. . . .

(R4, tab 41 at 1)

11. Hendry's 28 June 1999 letter to Tri-State confirmed its verbal quote of \$1,502,000 for all dredging on the Sedge Islands project (app. ex. 2/3).

12. Tri-State's 29 June 1999 bid on the IFB used and relied on Hendry's price for all aspects of the dredging work (R4, tab 1 at 2; tr. 1/229).

13. At the 29 June 1999 IFB opening, the Corps' estimate was \$1,403,242, based on using a "14" Cutter-Suction Dredge," *i.e.*, "DREDGE PIPELINE 14"" with 35% operating time efficiency (ex. 8/24 at 20, 22-36). Bids were received, *inter alia*, from Certified Geotextile Installers (\$1,163,000) and Tri-State (\$2,177,648). Certified's bid was rejected. Tri-State's bid exceeded the Corps' estimate by more than 25% and was not accepted at that time. (Compl. & answer ¶¶ 13-14; R4, tab 1 at 2; exs. 2/4, 8/25; tr. 2/97-98)

14. Pursuant to the IFB's SC-16, the Corps requested Tri-State to complete a pre-award survey regarding its proposed dredging equipment (compl. & answer ¶¶ 15). On 26 July 1999 the Corps received Hendry's 6 July 1999 information regarding the size and type of dredge to be utilized for the work: "12-inch or 14-inch Ellicott pipeline dredge and necessary attendant plant" (R4, tab 14 at 4). On 19 July 1999 Hendry submitted specifications for a Model 970 Ellicott 16" suction, 14" discharge, pipeline dredge (ex. 2/7 at 1, 21 of 22).

15. On 23 July 1999 the Corps revised its cost estimate to \$1,767,546 and operating time efficiency to 22% (exs. 8/25, 8/26 at 1-2, 21, 23-27).

16. On 20 August 1999 the Corps awarded Contract No. DACW61-99-C-0021 (the contract) to Tri-State (R4, tab 1 at 2-3). The contract included the FAR 52.236-2 DIFFERING SITE CONDITIONS (APR 1984) clause, whose ¶ (a) provided:

(a) The Contractor shall promptly, and before the conditions are disturbed, give written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ materially from those

indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

and 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984) clause, whose ¶ (a) provided in pertinent part:

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its costs, including . . . (3) uncertainties of weather, river stages, tides, or similar physical conditions at the site Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(R4, tab 1 at 00700-53-54)

17. In a 25 August 1999 telephone call, Mr. Arnold Hill, owner of Barnegat Bay Dredging, which did not bid on the Barnegat Inlet project, told Mr. Humphreys, "14" dredge not big enough run 30-50% of time" (R4, tabs 46 at 5, tab 47 at 1). Mr. Hill disagreed with Mr. Humphreys' bid estimate selection of a 14" dredge (tr. 1/157).

18. On 30 August 1999 Hendry wrote to Hampton Roads Leasing, Inc., offered to lease its dredge "Viking" for the Barnegat Inlet job and asked for help to locate two dredge tenders because "the tide makes a very strong current where we will be working" (R4, tab 51 at 1).

19. Tri-State received the Corps' notice to proceed on 7 September 1999 (R4, tab 4), thus setting the contract completion date as 6 December 1999, which Modification No. P00001 extended by 18 calendar days to 27 December 1999 (R4, tab 5).

20. On 9 September 1999 a pre-construction conference was held at the job site. The Corps' Mr. DiMeo re-emphasized to Tri-State and Hendry that the borrow area was very dynamic in nature and characterized by strong tidal currents and rough wave action. (R4, tab 15 at 1, tab 17 at 3)

21. After contract award, the Corps acknowledged to Tri-State that summer or early fall would be a better time to perform the work than the winter (compl. & answer ¶¶ 20).

22. On 29 September 1999 Hendry advised Tri-State that it would use the dredge “Viking” with 16" suction and discharge pipes and a 66' by 26' by 5' hull (R4, tab 55).

23. On 15 October 1999 Mr. John Fullerton, dredge superintendent of Barnegat Bay Dredging, told Hendry that he had been dredging for about 25 years, knew the Barnegat Inlet area very well, and (R4, tab 50 at 2) –

the sand moves around in [Barnegat] inlet very quickly. Can be daily if conditions are right. Trouble getting anchors to hold. Current will cause scour around anchors. Thinks sand will run to us. Has also seen sand build up behind a dredge to the point it created a shoal.

24. The dredge Viking arrived at Barnegat Inlet on 30 October 1999 (ex. 2/19). On 1 November 1999 Tri-State and Hendry formalized their \$1,502,000 lump sum subcontract for “Mobilization & Demolition” and “Geotextile Tube Installation (dredging only)” (R4, tab 57 at 1, 7).

25. Hinged to the bow of a dredge is a “ladder,” which is a boom housing a suction pipe and cutter head that can be lowered and raised to remove material from the bottom. Attached to the dredge’s stern are “spuds,” vertical metal cylinders that can be lowered to penetrate the bottom and fix a dredge for operation. The Viking had two spuds, 7' to 12' apart, which it lowered and retracted alternately so as to pivot the dredge by pulling its anchor lines to move it forward. (Tr. 1/67, 2/45-48, ex. 32)

26. Hendry attempted to dredge in the Barnegat Inlet borrow area from 18 November to 8 December 1999 (R4, tabs 75-79). According to Mr. Humphreys, who was not on site but talked daily to its crew, the Viking encountered continual swells even with little or no wind, and a bottom current so strong, even at slack tide, that it scoured sand away from the Viking’s ladder and spud, broke crane barge spuds, broke a cutter head chain and surged the Viking, which was unable to dredge successfully (tr. 1/64-68). We accord no probative weight to Mr. Humphreys’ testimony about bottom current because of the paucity of his expertise in marine hydrology (tr. 1/204-07) and the inconsistency of such testimony with Hendry’s 9 November to 8 December 1999 Daily Reports signed by Project Manager Steven Genné, who identified wave action and swells as the causes of the barge and dredge problems and damage (R4, tabs 70-79).

27. Hendry's 23 November 1999 letter to Tri-State, which it forwarded to the Corps, described the sea swell conditions Hendry had encountered in Barnegat Inlet, and suggested alternate borrow sites in the south and central inlet channels in relatively protected waters unaffected by sea swells (R4, tab 18 at 2-5).

28. On 30 November 1999 the Corps representatives, including CO Glynda Toth, met with Tri-State and Hendry to discuss the difficulties the contractor was experiencing in dredging the Barnegat Inlet navigation channel. Tri-State and Hendry advised the Corps that conditions in the inlet were substantially different than had been reasonably anticipated at the time of the bid, and that the configuration of the shoal in the borrow area had changed from that shown on the borrow area drawing furnished to bidders and it would be impossible to perform the work with the dredge then on site using the designated borrow area. The Corps told Tri-State and Hendry that the main navigation channel had to be dredged, because the money that would have been used for the Corps' hopper dredge "Currituck" for maintenance dredging of that channel was used for this contract, and that the Corps was performing a new survey of both the originally planned borrow area as well as a possible alternative borrow area in a more protected area. Tri-State's president John Dobbs told Mr. Humphreys that if the cost for Currituck dredging was about \$150,000, Tri-State would split that cost with Hendry so that they could use an alternate borrow area. Based on the meeting discussion and the result of the Corps' survey, the Corps said it would consider what the possible options were, including Tri-State's and Hendry's proposal to use an alternate borrow area. (Compl. and answer ¶¶ 27-28; ex. 2/22 at 2-3; tr. 1/68-72)

29. CO Toth's 6 December 1999 letter to Tri-State declined to authorize use of an alternate borrow area as "counter to the justification of the project, which requires the beneficial use of the dredged material," authorized dredging to -14' local mean low water to obtain sufficient fill material and directed Tri-State "to obtain 'a dredge of sufficient size to withstand the strong tidal currents and large swells that are common in Barnegat Inlet'" (ex. 2/23).

30. CO Toth's 22 December 1999 letter to Tri-State stated:

. . . [B]ased on weather, work can be postponed until March 1, 2000. At that time, it is understood that Hendry's 24 inch dredge will be fully mobilized and operational The completion date will be revised to March 31, 2000. After March 31, 2000 liquidated damages of \$400.00 a day will be assessed and continue to accrue until substantial completion of the project is achieved.

(R4, tab 22)

31. Hendry's 23 December 1999 letter notified Tri-State that Hendry had arranged to rent the dredge "Tangier Sound" from C. J. Langenfelder & Son near Baltimore and would mobilize and move that dredge to Barnegat Inlet in January 2000 (ex. 2/25; tr. 1/75-76). The Tangier Sound was a 20" pipeline dredge of 200' length, 52' width and 8' draft (tr. 1/76, 81, 85).

32. On 5 January 2000 Tri-State forwarded to the CO Hendry's 30 December 1999 letter stating that Hendry considered her 6 December 1999 letter directing Tri-State to obtain a larger dredge to be a change order that would increase its performance costs in excess of \$1,000,000 and requested a contract modification for such costs (R4, tab 23).

33. The CO's 28 January 2000 letter to Tri-State stated:

You stated during the December 6, 1999 meeting that the subcontractor could not perform the work specified in the contract. We did agree with your subcontractor's assessment . . . that the dredge, currently on site, could not perform the work.

The CO asserted that the contract provided for use of a pipeline or hopper dredge, and concluded that the requested contract modification would not be considered, but that time extensions would be addressed in a contract modification. (R4, tab 24)

34. On 2 February 2000 the CO sent Tri-State a proposed, no-cost, bilateral Modification No. P00002 to extend the contract completion date by 95 calendar days, from 27 December 1999 to 31 March 2000, citing inclement weather conditions in Barnegat Inlet and the terms of SC-16, "The Contractor's dredge shall be of sufficient size to withstand the strong tidal currents and large swells that are common in Barnegat Inlet" (ex. 2/33 at 1-2).

35. The dredge Tangier Sound arrived at Barnegat Inlet on 15 March 2000 and Hendry began dredging on the next day (ex. 2/40 at 1, 4).

36. Because Tri-State declined to sign proposed bilateral Modification No. P00002, the CO issued that modification unilaterally on 17 March 2000 (R4, tab 6).

37. On 17 March 2000, four to five-foot swells broke both spuds on the Tangier Sound. Hendry obtained replacement spuds and installed them by 26 March 2000. (Ex. 2/40) According to Mr. Humphreys, even under the most favorable conditions (calm winds, minimal swells, between tidal changes), dredging with the Tangier Sound was difficult and inefficient due to bottom tidal currents moving the sand and scouring it

away from spuds and anchors (tr. 1/85-91, 93-96, 117). Tri-State's 17 March through 1 May 2000 Daily Quality Control Reports generally attributed sand movement and scouring in the borrow area to the large swells, tides and undefined "bad conditions." Only the 14 April 2000 report, signed by an unidentified Hendry representative, stated: "Seems that current on the bottom is so swift that it scours sand away around the part of the spud that is in the bottom." (Ex. 2/40) We accord little probative weight to the 14 April statement and greater weight to the other reports.

38. According to Mr. Humphreys, the current moved sand so fast that shoals formed between the cutterhead and the dredge, causing Hendry to dredge 25' to 30' deep to assure that the dredge did not run aground (tr. 1/84, 87-89). Hendry reported this deviant dredging depth to the CO, but she did not object to it (tr. 1/90, 92; ex. 2/40 at 13 April 2000 entry). Hendry was unable to place fill within the prescribed 150' embankment width, but expanded it to 285', without Corps objection (tr. 1/93-94).

39. Hendry dredged 98,560 c.y. on 22 days from 30 March through 4 May 2000, when it completed all dredging. During the remainder of that period, high swells and currents did not permit dredging. (Ex. 2/40)

40. On 26 August 2000 Tri-State completed all contract work, including installation of geotubes and grading of the new embankment (compl. & answer ¶¶ 31).

41. Between 27 June and 18 December 2000 the contract was modified three more times, due to unusually severe weather and differing site conditions of "the shell problem" and "additional fill quantities," thus extending its completion date by 42 additional calendar days to 12 May 2000 (R4, tabs 7-9).

42. From November 2000 to April 2001 Tri-State obtained documents from the Corps via Freedom of Information requests (exs. 3/57-63). A 1996 paper, undisclosed in the IFB, by two Corps engineers and a scientist stated that the new south jetty constructed at Barnegat Inlet from 1987 to 1991 changed the inlet hydraulics and shoaling patterns:

The occurrence of a shoal region between stations 200 and 400 is essentially a nodal point between ebb and flood flow dominance. Flood flow pushes sediment through the channel mostly on the south side, (based on velocity distribution measurements taken in 1994-96 by the authors). Ebb currents from the curved interior channel shear this shoal and sediment moves along the north side of the shoal (where ebb flows are concentrated) towards the ocean.

(Ex. 7/G at 3, 8, 12) Mr. Humphreys described the 800' by 100' portion of the borrow area as affected by a "cross-current" (tr. 1/102-03). The seaward 200' of that 800' portion is within the "shoal region between stations 200 and 400." There is no evidence that any cross-current moved at the bottom (rather than the surface) of that shoal region in 1996 and no persuasive evidence of a bottom current in the shoal region in 1999-2000. We find that the 1996 paper was consistent with the IFB's disclosure of "strong" and "severe" tidal conditions. Other undisclosed documents described the hazardous conditions in Barnegat Inlet in 1974 and 1984 before the new south jetty was built in 1991 (exs. 4/B, 6/F at 8), and hence are not material to and probative of the 1999-2000 inlet conditions in issue in this dispute.

43. On 16 March 2005 Tri-State submitted to the CO a properly certified claim in the amount of \$1,645,978 and a 24 calendar day extension on behalf of itself and Hendry Corp. based on five legal theories: Type I Differing Site Condition (DSC-I), Type II DSC (DSC-II), defective specifications, undisclosed superior knowledge and failure to cooperate based on the Corps' refusal to allow appellant to use an alternate borrow area (R4, tab 29 at 41-73). On 17 October 2005 the CO issued a final decision denying Tri-State's claim in its entirety (compl. & answer ¶¶ 6).

44. Respondent offered, and the Board accepted, Peter S. De Jong, who had 31 years of experience in dredge design, operation and production, as an expert in dredging operations and production (tr. 2/7, 27). Mr. De Jong persuasively opined that a 20" dredge could meet the 150' embankment width requirement either by lengthening the discharge pipe every two and one-half hours or by adding a pipeline branch to alternate the discharge (tr. 2/35-36).

DECISION

I.

To establish entitlement to an equitable adjustment due to a Type I [DSC], a contractor must prove, by preponderant evidence, that: [1] the conditions indicated in the contract differ materially from those actually encountered during performance; [2] the conditions actually encountered were reasonably unforeseeable based on all information available to the contractor at the time of bidding; [3] the contractor reasonably relied upon its interpretation of the contract and contract-related documents; and [4] the contractor was damaged as a result of the material variation between expected and encountered conditions.

Control, Inc. v. United States, 294 F.3d 1357, 1362 (Fed. Cir. 2002).

As stated in *Servidone Construction Corp. v. United States*, 19 Cl. Ct. 346, 359-60 (1990), *aff'd*, 931 F.2d 860 (Fed. Cir. 1991):

Contract indications may be implicit, *Foster Construction [C.A. v. United States*, 435 F.2d 873, 881 (Ct. Cl. 1970)], but there must be sufficient indications of the condition to induce a reasonable reliance in the bidder “that subsurface conditions would be more favorable than those encountered.” *Pacific Alaska [Contractors, Inc. v. United States*, 436 F.2d 461, 469 (Ct. Cl. 1971)].

Appellant concedes that the contract did not specify the type and size of dredge to be used to perform the contract dredging work, but argues nevertheless that it reasonably discerned, as did the Corps, from the IFB requirements to dredge to -12' depth and to discharge the dredged material in a 150' embankment, the implicit indication that a 14" hydraulic pipeline dredge could perform the specified dredging and withstand the tidal currents and swells in the Barnegat Inlet borrow area (app. br. at 34-36); the subsurface currents in Barnegat Inlet differed in nature from the expected current conditions, caused sand movement and scouring and disabled the 14" hydraulic pipeline dredge; a 0% dredge operating efficiency was not reasonably foreseeable; and its plan to discharge all the fill for the embankment did not prevent compliance with the 150' width restriction, such compliance was prevented by the 20" dredge's discharge rate (app. reply br. at 3-9).

Respondent argues that appellant has not shown that “bottom currents,” not severe weather, caused sand movement and scouring (gov't br. at 19); since appellant did not place sand for an “initial embankment,” the 150' width restriction thereon is irrelevant to selection of a dredge (*id.* at 21-22); appellant's inferences drawn from the 12' depth and 150' embankment width restrictions were not reasonable (*id.* at 25-26) and the “bottom currents” allegedly encountered were not materially different from the “strong tidal currents” warnings in the IFB (*id.* at 26-27).

With respect to DSC-I element 1, appellant's evidence of “implied indications” of subsurface site conditions -- the specified 12' dredging depth limit and 150' initial embankment width -- did not positively indicate anything about the nature of the subsurface site conditions on which appellant based its claim allegations, *viz.*, the alleged “bottom current” that moved and scoured sand in the designated borrow area, caused spuds and anchors to deform and slip, prevented dredging by the Viking and made dredging by the Tangier Sound difficult. The Viking was a 16" dredge (finding 22). The 12' dredging limit was not shown to correspond to either dredge's operating depth. The

CO relaxed the 12' dredging limit to 14' to obtain sufficient fill material (finding 29). The Viking never dredged and discharged any material, so its capability to meet the 150' embankment width is unknown. Thus, the inferential link from those implied indications to the size and type of dredge allowed by the IFB is too attenuated and remote to support appellant's conclusion that a 14" pipeline dredge (which was never used) could operate satisfactorily in the borrow area and the alleged "bottom current" prevented such operation. Appellant has not shown sufficient indications in the IFB terms to induce a reasonable reliance in the bidder "that subsurface conditions would be more favorable than those encountered."

With respect to element 2, appellant has not shown that the sand movement, scouring, damaging of spuds and dislodging of anchors in the borrow area were "reasonably unforeseeable" based on all information available at the time of bidding. With respect to element 3, and consistent with our analysis of the implied contract indications in element 1, appellant has not established that its interpretation of those implied indications to mean that a 14" pipeline dredge could withstand the strong tidal currents and large swells common in Barnegat Inlet was reasonable. With respect to DSC-I element 4, appellant has not shown that sand movement, scouring, damaging of spuds and dislodging of anchors in the borrow area were caused by the alleged "bottom current" rather than by the fully disclosed "strong" and "dynamic" tidal currents (finding 4). Accordingly, we hold that appellant has not established a DSC-I.

II.

With respect to the elements of proof of a DSC-II, *Randa/Madison Joint Venture III v. Dahlberg*, 239 F.3d 1264, 1276 (Fed. Cir. 2001), stated:

Our precedent provides that in order to qualify as a Type 2 [DSC], "the unknown physical condition must be one that could not be reasonably anticipated by the contractor from his study of the contract documents, his inspection of the site, and his general experience[,] if any, as a contractor in the area." *Perini Corp. v. United States*, 180 Ct. Cl. 768, 381 F.2d 403, 410 (1967).

Appellant contends that nothing stated in the IFB nor known in the extensive experience of Mr. Humphreys with inlets similar to Barnegat, warned bidders of the "severely erosive and scouring bottom conditions that made it impossible to set anchors and spuds and have them hold" even when "surface conditions were calm and surface currents slack" (app. br. at 36-39), and no one knew that the efficiency of a 14" pipeline dredge in Barnegat Inlet was zero (app. reply br. at 9-10). Respondent asserts that the Barnegat Inlet conditions Hendry learned of via Barnegat Bay Dredging before

subcontracting were precisely those one would expect to encounter in that work location (gov't br. at 28-29).

The FAR 52.236-2 (APR 1984) DSC clause requires the contractor to establish that a DSC-II condition was both unknown and unusual. An unknown physical condition is one that could not be reasonably anticipated by the contractor from his study of the contract documents, his inspection of the site, and his general experience, if any, as a contractor in the area. We are persuaded that the repeated IFB warnings of strong tidal currents and dynamic borrow area conditions (finding 4) gave Tri-State and Hendry reason to know that the Barnegat Inlet currents could move and scour sand when they bid on 28-29 June 1999, and on 20 August 1999 when the contract was awarded to Tri-State.

The DSC-II element of a site condition of an "unusual nature, which differs materially from that ordinarily encountered and generally recognized" is applied in conjunction with the Site Investigation and Conditions Affecting the Work clause which requires a contractor to investigate and satisfy itself as to the general and local conditions which can affect its work or its costs, including tides or similar physical conditions at the site (finding 16).

A contractor does not make a reasonable site investigation when it fails to inquire of the "local citizenry" for their common knowledge of the "nature of the bottom" (subsoil conditions). *See S.T.G. Construction Co. v. United States*, 157 Ct. Cl. 409, 416 (1962) (site information gleaned from local contractors after the contractor gave notice of the DSC led to the denial of the DSC-II claim); *CCI Contractors, Inc.*, AGBCA No. 84-314-1, 91-3 BCA ¶ 24,225 at 121,167, *aff'd*, 979 F.2d 216 (Fed. Cir. 1992) (table) (failure to seek information from knowledgeable experienced contractors in the same area defeated a DSC-II claim).

Hendry belatedly learned the local site conditions information required by the Site Investigation and Conditions Affecting the Work clause that it had not ascertained before bidding in May-June 1999. On 25 August 1999, Hendry heard from local dredger Arnold Hill, owner of Barnegat Bay Dredging, that a 14" dredge was not big enough for Barnegat Inlet; Mr. Hill disagreed with Hendry's bid estimate choice of a 14" dredge (finding 17). On 15 October 1999 Hendry learned from John Fullerton of Barnegat Bay Dredging of sand movement that caused shoals to build up and scouring that made trouble getting anchors to hold in the Barnegat inlet (finding 23), the very site conditions that provoked appellant's claim. Thus, appellant has not shown a site condition of an "unusual nature, which differs materially from that ordinarily encountered and generally recognized" in Barnegat Inlet.

Moreover, appellant has not shown that sand movement, scouring, damaging of spuds and dislodging of anchors in the borrow area were caused by the alleged "bottom

current” rather than by the fully disclosed “strong tidal currents” and “dynamic” borrow area conditions (findings 4, 26, 37, 42). Accordingly, we hold that appellant has not established a DSC-II.

III.

Appellant contends that it was commercially impracticable to select a dredge that simultaneously was large enough to operate in the tidal currents and swells of Barnegat Inlet, to dredge in -12' of water and to pump a 150' embankment, and only by respondent's disregard of those two requirements was performance eventually possible (app. br. at 39-41). Appellant cites *Ocean Salvage, Inc.*, ENGBCA No. 3485, 76-1 BCA ¶ 11,905, arguing that, just as it took a crane 16 times larger than anticipated to lift hull fragments in that case, a dredge 10 times the displacement of the Viking was required to dredge the Barnegat Inlet borrow area (app. reply br. at 11-12).

Respondent denies that performance was commercially or practically impossible because the originally anticipated means of dredging by a high-end small dredge or a low-end medium pipeline dredge was in fact used successfully, 16" and 20" cutterhead pipeline dredges are not “vastly different,” respondent warned bidders of the difficult swells and tidal conditions in Barnegat Inlet and left to the bidder's expertise to determine the type and size of dredge to use (gov't br. at 35-38).

Appellant's proof of defective specification is unpersuasive. The contract gave Tri-State discretion to select the means of dredging, including the type and size of the dredge (findings 3-4). The contract requirements to dredge to -12' and to discharge a 150' embankment (finding 4) were performance-type specifications. We are not persuaded that Tri-State's or the Corps' interpretation of such requirements, for purposes of estimating, to be consistent with use of a 14" hydraulic pipeline dredge (findings 8, 13) changed those performance requirements to design requirements, as appellant contends. Nor do we agree that the CO's 6 December 1999 direction to Tri-State to comply with the express terms of the contract, “to obtain ‘a dredge of sufficient size to withstand the strong tidal currents and large swells that are common in Barnegat inlet’” (finding 29), was a change order, as appellant asserted (finding 32).

IV.

To establish the elements of proof of undisclosed superior knowledge, a contractor must prove that: (1) it undertook to perform without vital knowledge of a fact which affected performance cost or duration, (2) the government was aware that the contractor had no knowledge of and had no reason to obtain such information, (3) any contract specification supplied by the government misled the contractor or did not put it on notice to inquire, and (4) the government failed to provide the relevant information. *Hercules*,

Inc. v. United States, 24 F.3d 188, 196 (Fed. Cir. 1994), *aff'd on other grounds*, 516 U.S. 417 (1996).

Appellant contends that the information in undisclosed documents that described the hazardous conditions in Barnegat Inlet in 1974 and 1984, and a 1996 paper that stated that the new south jetty constructed at Barnegat Inlet from 1987 to 1991 produced currents that would not ordinarily be expected to occur in the shoal that is part of the borrow area, would have revealed information about the Barnegat Inlet conditions that made Hendry's dredging so difficult (app. br. at 41-43).

Respondent argues that Barnegat Inlet conditions changed after preparation of the 1974 and 1984 documents appellant cites, so they are not "material" to performance of the 1999 contract, and the 1996 paper did not address dredging, Barnegat Inlet conditions changed after 1996, the paper revealed nothing different from the IFB warnings about Barnegat Inlet conditions and there is no evidence that respondent was aware that appellant did not know of the conditions described in that paper (gov't br. at 32-34).

Tri-State has not established that any of the undisclosed information was "vital" to successful performance of the contract. The 1974 and 1984 vintage documents described the hazardous conditions in Barnegat Inlet in 1974 and 1984 before the new south jetty was built in 1991, and hence are not material to and probative of the 1999-2000 inlet conditions in issue in this dispute (finding 42). The 1996 paper disclosed that flood and ebb currents in Barnegat Inlet produced shoaling and moved sediment. Such movement occurred in the 800' by 100' part of the borrow area in 1999-2000, but there is no evidence that flood, ebb or cross-currents moved at the bottom (rather than the surface) of the inlet and the paper was consistent with the IFB's disclosures of "strong" and "severe" tidal conditions. (Findings 5, 42) We conclude that such 1996 information was not vital.

V.

Appellant's March 2005 claim asserted that the Corps' refusal in November-December 1999 to provide alternate borrow areas was a failure to cooperate (finding 43). Appellant's complaint alleged that the Corps' failure to disclose the documents reviewed in IV above was a failure to cooperate. Appellant's briefs do not address the legal theory of failure to cooperate. We consider that theory abandoned, except insofar as it relates to undisclosed superior knowledge, decided above.

For all the foregoing reasons, we deny the appeal.

Dated: 15 February 2008

DAVID W. JAMES, JR.
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

I concur

MARK N. STEMLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 55251, Appeal of Tri-State Consultants, Inc., rendered in conformance with the Board's Charter.

Dated:

CATHERINE A. STANTON
Recorder, Armed Services
Board of Contract Appeals