UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

CBCA 2482 DENIED;
CBCA 2653 GRANTED: December 9, 2016

CBCA 2482, 2653

CHOCTAW TRANSPORTATION COMPANY, INC.,

Appellant,

v.

DEPARTMENT OF AGRICULTURE,

Respondent.

S. Leo Arnold and Matthew W. Willis of Ashley, Ashley & Arnold, Dyersburg, TN, counsel for Appellant.

Danny L. Woodyard, Office of the General Counsel, Department of Agriculture, Little Rock, AR; and L. Benjamin Young, Office of the General Counsel, Department of Agriculture, Washington, DC, counsel for Respondent.

Before Board Judges **DANIELS** (Chairman), **GOODMAN**, and **DRUMMOND**.

GOODMAN, Board Judge.

Appellant, Choctaw Transportation Company, Inc. (Choctaw or appellant), on behalf of itself and its subcontractor Bertucci Contracting Company, LLC (Bertucci),[1] appeals two decisions issued by a contracting officer of respondent, Department of Agriculture, Natural Resources Conservation Service (NRCS).

[1] Choctaw and Bertucci are referred to in this opinion when witnesses and documentation specific to each are mentioned.

The contract was for the construction of a rock groin and eight breakwaters at Raccoon Island, in the Gulf of Mexico, off the coast of Louisiana. As more fully detailed in this decision, appellant submitted its bid for the contract in early August 2005 in the amount $4,056,032.50. Several weeks later, Hurricane Katrina struck the project site. Appellant was awarded the contract in early September 2005, and soon thereafter Hurricane Rita struck the project site and Hurricane Wilma entered the Gulf of Mexico. Respondent sent a survey team to re-survey the project site, and issued modification 1 to the contract in December 2005, concurrent with the notice to proceed. Modification 1 made specific alignment changes to the groin and changes to the breakwaters. In modification 1, the NRCS contracting officer stated that these changes were "due to changed water depths as the result of the hurricane," and requested that appellant submit a price proposal in response to the changes ordered in the modification. Appellant and its subcontractor did not submit a price proposal before beginning performance. Later, during contract performance, appellant advised that a proposal would be submitted once the work was complete.

Appellant concluded contract performance in September 2007. In February 2010, appellant submitted a proposal for an equitable adjustment as the result of the changes ordered in modification 1. The parties were unable to resolve the request for equitable adjustment. In January 2011, appellant submitted a certified claim on behalf of itself and Bertucci seeking compensation for delay and disruption resulting from modification 1 in the amount of $4,144,191.20. On April 15, 2011, respondent's contracting officer issued a decision denying the certified claim in its entirety. Appellant's ensuing appeal of this decision was docketed as CBCA 2482. On November 21, 2011, respondent's contracting officer issued a second decision, asserting a government claim of actual damages against Choctaw in the amount $15,032.19, and appellant's appeal of this decision was docketed as CBCA 2653.

A hearing on the merits in these appeals (the hearing) was held on April 20-24, 2015, in Washington, D.C. Two fact witnesses testified in support of appellant's claims: Mr. Gregory Ford, Choctaw's vice president of operations, and Mr. Anthony Zelenka, Bertucci's president.[2] Two witnesses designated as experts testified on behalf of appellant: Mr. Ruben McCoy, a computer-aided design (CAD) consultant, and Mr. William Connole, a professional engineer, who was tendered as an expert on delay and disruption analysis and costs. Mr. Ford and Mr. Connole were also called as rebuttal witnesses by appellant.

[2] References to "Mr. Zelenka" in this decision are to Anthony Zelenka. There are occasional references to Steve Zelenka, Mr. Zelenka's brother.

Respondent presented the testimony of five fact witnesses: Mr. Ralph Broome, a procurement analyst for the NRCS, who served as contracting officer for the contract at issue; Mr. Bradley Sticker, a state construction engineer during the contract period; Mr. Dale Garber, an engineer for the NCRS and the contracting officer's technical representative (COTR) for the contract at issue; Mr. Edmund Geiring III, a registered professional engineer, now retired from the NRCS, who was the state engineer for the NRCS during the contract period, involved in design and construction; and Mr. Ben Hebert, an NRCS employee and inspector on the contract at issue. Respondent did not present any expert or rebuttal witnesses.

During the hearing, respondent's counsel stated that respondent would waive its claim for damages against appellant. Transcript, Vol. 3 at 151.[3] Accordingly, appellant is entitled to payment of the retained funds in the amount of $15,032.19 and we grant CBCA 2653. The remainder of this decision is with regard to CBCA 2482, appellant's claim arising from modification 1.

After the hearing concluded, the parties filed post-hearing briefs and post-hearing reply briefs. Having reviewed the record in these appeals,[4] including the testimony, appeal file, and pleadings of the parties, as stated herein, we deny CBCA 2482.

Findings of Fact

Previous Contract Performed by Bertucci at Raccoon Island

Raccoon Island (the island) is a small barrier island of approximately 270 acres off the coast of Louisiana, approximately twenty-eight miles southwest of Cocodrie, Louisiana.

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[3] "Transcript" refers to the transcript of the hearing on the merits. "Appeal File" refers to respondent's appeal file. "Appellant's Supp. Appeal File" refers to appellant's supplement to the appeal file, and "Respondent's Supp. Appeal File" refers to respondent's supplement to the appeal file.

[4] After submission of post-hearing briefs, appellant filed a renewal of previously-filed objections to certain documents in respondent's appeal file. These objections had been submitted before the hearing, and the Board had deferred ruling on the objections until respondent sought to admit any of the documents during the hearing. While respondent did not seek to admit or otherwise rely upon any of the objected-to documents at the hearing, respondent did refer to some of the documents in its post-hearing briefs. This decision does not rely upon any of the documents to which appellant objects. Accordingly, we do not rule on appellant's objections, as the objections are moot.

It is a major rookery (nesting area) for the brown pelican, a protected species. Its southern shoreline faces the Gulf of Mexico. The island's location helps to protect the Louisiana mainland from coastal erosion.

Because the island was losing significant land mass from erosion, the NRCS awarded a contract to Bertucci in 1997 for a demonstration project for the construction of eight segmented rock breakwaters to be built approximately 250 feet off the southern coast of the south/southeastern half of the island, to determine if the breakwaters would prevent or slow the rate of erosion and trap sediment so that accretion to the land mass would occur. These breakwaters were designated breakwaters 0 (zero) through 7. During Bertucci's performance of that demonstration contract, Bertucci encountered water depths that shallowed significantly since the job was bid. Respondent's Supp. Appeal File, Exhibit RR at 2411.

According to respondent, the breakwaters built by Bertucci in 1997 worked so well that respondent decided eight additional breakwaters should be built to protect the southwestern half of the island. The construction of the additional eight breakwaters was included in the contract which is the subject of these appeals.

The Solicitation and Project Description

With regard to the contract at issue in these appeals, on July 5, 2005, NRCS issued a solicitation for bids for "all labor, equipment, materials, transportation, and incidentals necessary to complete the work included in the attached specifications and drawings for Raccoon Island Shore Protection/Marsh Creation Project Phase A (the project)." Appeal File, Vol. 1 at 1. The project included the construction of eight breakwaters and a rock groin (groin)[5] to be built by placement of riprap. The eight breakwaters, designated 8 through 15, were be built in the Gulf waters approximately 250 feet south of the island. The groin was to be built to connect the eastern end of the island to the northeastern-most tip of breakwater zero, previously built by Bertucci pursuant to its contract in 1997. The groin's purpose was to prevent the current from scouring through the gap between the island and breakwater zero.

Choctaw and Bertucci

Choctaw and Bertucci bid this project as a team, with Choctaw as the prime contractor and Bertucci as its subcontractor. Choctaw has fifty-seven years of experience constructing

[5] A groin is a structure built from shore into the water perpendicular to the shoreline to protect against erosion and to trap materials to build up a new embankment. Appellant's Post-Trial Brief at 1 n.2.

rock projects along the Mississippi River and in the Gulf of Mexico. Bertucci has over fifty years of experience constructing rock structures in the Gulf of Mexico, including the demonstration project at the island in 1997. Choctaw's responsibility was to purchase the stone and deliver barges fully loaded with riprap (approximately 1200 tons per barge) to Bertucci's yard near New Orleans. Bertucci was to provide placement of all riprap and fabric and perform progress surveys.

The Solicitation

Indication of Changing Water Depths

The solicitation contained detailed drawings with regard to the eight breakwaters and the groin and various notes on the drawings and specifications concerning shallow water and the dynamic nature of the environment at the project site.[6]

A drawing entitled Breakwater Layout contained the following notation: "Water depths at breakwaters vary from 3' to 11' depending on location and tides."[7] Appeal File, Vol. 1 at 90.

The solicitation drawings for the eight breakwaters included cross-sections (Sheets 10-13 of 19). The following language was stated on each sheet:

> NOTE: Bottom elevations may change due to the dynamics of the environment. X[Cross]-Sections derived from surveys taken in July 2003.

Appeal File, Vol. 1 at 97-100.

[6] Mr. Zelenka acknowledged that he had read through the plans and specifications for the project and was aware of the notes that warned about shallow water and the dynamics of the environment at Raccoon Island. Transcript, Vol. 2 at 56. Mr. Ford also acknowledged that he had read the same information and was aware of the dynamic nature of the Gulf. *Id.* at 223.

[7] Mr. Zelenka testified that he expected to find the deeper depths near the eastern end of the island and breakwater zero. Transcript, Vol. 1 at 187.

Drawing sheet 5 of 19 indicated conditions at the place where the groin was to be built.[8] Water depths at the site of the groin were represented to be zero feet at the west end to approximately -11 feet on the east end. There is a note on this drawing that states, "[E]xcavation for floatation channel will not be allowed."[9] Appeal File, Vol. 1 at 92.

The solicitation contained cross-section drawings for the groin (sheets 14 - 19 of 19). The cross-sections were for various stations at intervals along the entire length of the groin to be constructed, and the following language was stated on each drawing:

> NOTE: Bottom elevations may change due to the dynamics of the environment. X-Sections derived from surveys taken in July 2004.[10]

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[8] As indicated throughout this decision, Mr. Ford, Mr. Zelenka, and Mr. Connole testified that the information in this drawing sheet was heavily relied upon by Choctaw and Bertucci in preparation of the bid. Mr. Zelenka testified that the plans for this project indicated the same water depths as in 1997 at the eastern end of the island where the groin was to be built. Transcript, Vol. 2 at 86.

[9] This drawing, sheet 5 of 19, does not contain the note that appears on the drawings detailing cross-sections of the groin that references the possibility of changing bottom elevations due to the dynamic environment. Mr. Zelenka testified that he relied on this drawing to determine water depths at the groin, and this was the only drawing that indicated those depths. Transcript, Vol. 2 at 83. Mr. Ford also testified that he reviewed this sheet, and he determined there was sufficient water depth to float half-loaded barges at the eastern end of the island where the groin was to be built. *Id.* at 127, 179. When asked if there were "any other plan sheets or information provided with the contract documents regarding elevations or water depths behind the groin where barges would be fleeted," Mr. Ford responded that there were not. *Id.* at 127.

[10] Mr. Zelenka testified that the elevations indicated on these drawings were not water depths, but the elevations of the groin that would be constructed. The water depths would vary with the tide and season, and what was important was the depth of the water away from the groin that would allow for floatation of equipment. He also stated that the elevations are not just next to the groin but would extend out past the groin. Transcript, Vol. 1 at 318-19. He later testified that these cross-sections do not show water depths surrounding the groin, but depths under the groin to be constructed. *Id*., Vol. 2 at 88.

It appears that the surveys for the breakwaters and the groin area were conducted a year apart, in 2003 and 2004. Mr. Zelenka testified at the hearing that appellant's claim does not involve the water depths at the breakwaters. Transcript, Vol 2. at 86. During the hearing,

Appeal File, Vol. 1 at 101-06.

In addition to the solicitation drawings, special provision 8 of the solicitation contained the following with regard to water depths:

> The contractor is advised that tidal fluctuations in this area will vary due to weather and daily tides. Historical tide data can be obtained from the U.S. Army Corps of Engineers or the U.S. Geological Survey. The contractor is responsible for taking the appropriate measures to ensure that tidal fluctuations do not interfere with the prosecution of the contract.

Appeal File, Vol. 1 at 31.

With regard to site access, the solicitation drawings noted access channels near the eastern end of the groin and near breakwater eight. Appeal File, Vol. 1 at 90. No water depths were indicated at or near the access channels. Transcript, Vol. 1 at 309 (Mr. Zelenka). The following was included in the solicitation:

> Construction Specification 8 Mobilization/Demobilization Paragraph 4.A.2: Access to the sites may be impeded due to shallow water conditions in the channels and/or existing utilities. The contract shall not be modified to increase the performance time or monetary value as a result of difficulty in accessing these sites due to shallow water conditions or existing utilities. **No excavation to increase flotation (draft depth) will be allowed.**

Appeal File, Vol. 1 at 61.

Government counsel questioned whether the access channels were the only designated route to the breakwaters, as respondent pre-bid allowed access from any part of the Gulf. Transcript, Vol. 2 at 32. Mr. Zelenka agreed that access to the breakwaters was allowed from any part of the Gulf. *Id.*

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he commented that an NRCS memorandum dated June 16, 2004, regarding a 2003 survey at the groin (Appellant's Supp. Appeal File, Exhibit 17) contained "incorrect statements" as to conditions at the groin that were ultimately found during performance. Transcript, Vol. 1 at 190. Apparently the groin area was surveyed again during the following month, as stated in the solicitation drawings.

The Dynamic Environment at the Project

The dynamic environment of changing water depths at the project site, noted in the solicitation plans and specifications, and subsequently reiterated in modification 1 of the contract, is mentioned in a document entitled "Louisiana Coastal Area, Louisiana Ecosystem Restoration Study," relied upon by appellant's expert, which reads in part:

> The morphology and integrity of the barrier islands along Louisiana's shoreline are directly related to the supply of sediment contributed to the coast and the physical processes operating in the region. The coastal zone is one of the most dynamic environments that exist in nature. The same processes that built the barrier islands are also partly responsible for their erosion and fragmentation.

Appellant's Supp. Appeal File, Vol. 6, Exhibit 15 at 3341-42.

This study also includes an aerial view of the east end of Raccoon Island and states as follows:

> The measurement and documentation of onshore sediment transport is a complex process that is not well understood. However, some examples do occur along the Louisiana coast indicating that this phenomenon is taking place. For example, the accumulation of sand in the lee[11] of several of the breakwaters at the eastern end of Raccoon Island (Figure D.2-26). Bottom boundary layer and sediment transport measurements made on the shoal indicate a net onshore mean current and sediment flux during both fair-weather and storm conditions. Sand not only is deposited in the lee of the structures but has, as shown in the figure, accumulated between the breakwater gaps and seaward of them.

Appellant's Supp. Appeal File, Vol. 6, Exhibit 94, Attachment 15 at 3367.

[11] Lee indicates the sheltered side of the island, in this case the northward side not facing the Gulf of Mexico.

The Length of the Groin

The solicitation drawings indicated that the groin that was to be built from the island to breakwater zero to be 1084 feet in length.[12] Appeal File, Vol. 1 at 92.

Provisions for Differing Site Conditions, Site Investigation, Changes and Severe Weather

The solicitation and contract incorporated by reference Federal Acquisition Regulation (FAR) 52.236-2, Differing Site Conditions (APR 1984); FAR 52.236-3, Site Investigation and Conditions Affecting the Work (APR 1984); and FAR 52.243-4, Changes (AUG 1987). Appeal File, Vol. 1 at 17. These clauses read as follows:

Differing Site Conditions (APR 1984)

(a) The Contractor shall promptly, and before the conditions are disturbed, give a 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.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written

[12] Mr. Zelenka testified that while the plans did not indicate any area for fleeting barges behind the groin, the solicitation drawings, specifically sheet 5 of 19, indicated water depths sufficient at the eastern end of the groin to fleet barges. Transcript, Vol. 2 at 88-89. Mr. Ford also testified regarding appellant's intent to fleet light-loaded (half-loaded) barges behind the groin once the groin was built, as the plans and specifications indicated a staging area behind the groin. *Id*. at 132.

notice required; provided, that the time prescribed in paragraph (a) of this clause for giving written notice may be extended by the Contracting Officer. (d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

Site Investigation and Conditions Affecting the Work (Apr 1984)

(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 cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;
(2) the availability of labor, water, electric power, and roads;
(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;
(4) the conformation and conditions of the ground; and
(5) the character of equipment and facilities needed preliminary to and during work performance.

The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. 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.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

Changes (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes—

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating (1) the date, circumstances, and source of the order and (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after (1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

The solicitation and contract also contained NRCS Aquisition Regulation (NRCSAR) 41-52.249-70, Time Extension for Unusually Severe Weather. Appeal File, Vol. 1 at 21-22.

Pre-Bid Conference and Site Visit

A pre-bid site visit occurred on July 19, 2005, with prospective bidders traveling on an NRCS boat from Cocodrie, Louisiana, to the north or bay side of Raccoon Island. The boat was unable to access the south side (Gulf side) of the island, due to rough seas, but did visit the site where the groin would be built. While at the island, respondent's COTR, Mr. Garber, reviewed the contract work and drawings with the prospective bidders. Representatives of Bertucci, Nolan Simoneaux and Steve Zelenka,[13] were in attendance at the site visit.[14] Respondent's Supp. Appeal File, Exhibit A at 4. No representatives from Choctaw attended this pre-bid site visit.

During the site visit, prospective bidders suggested that respondent increase the 114-day performance time allowed for completing the project work. Respondent reconsidered the performance time, decreased the anticipated rock placement production rate from 1000 tons per day to 500 tons, included additional anticipated weather days, and issued amendment no. 3 to the solicitation, which increased the performance time to 193 calendar days. Amendment no. 3 also amended the severe weather clause–Time Extensions for Unusually Severe Weather–by adding severe weather days for January (seven days), February (four days), and March (two days); removed the Gulf side construction limits for the breakwaters, and clarified that the breakwaters were not considered "on the island."[15] Appeal File, Vol. 1 at 109. Thus, the duration of the contract was extended to approximately 6.5 months and the contract indicated anticipated performance during the winter.

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[13] These individuals did not testify at the hearing.

[14] With regard to this initial site visit, appellant's expert witness, Mr. Connole, states in his report: "According to the Bertucci representatives, nothing unusual or contrary to the plans were noted." Appellant's Supp. Appeal File, Vol. 6, Exhibit 94 at 2948.

[15] Special provision 9 of the solicitation specified that "No construction activities on Raccoon Island shall be performed between March 1 and August 31." Appeal File, Vol. 1 at 31. Respondent explains that the Louisiana Department of Fish and Wildlife prohibited construction activities "on the island" during this period, which was the brown pelican nesting season. The construction of the groin, which was to connect to the island, would be considered "on the island," but the breakwaters were not. Respondent's Pre-Hearing Brief at 4. Mr. Zelenka testified that this did not hinder construction of the groin. Transcript, Vol. 2 at 23.

At some point, for the benefit of bidders, Mr. Garber painted "10+84 " in orange paint on a rock situated in breakwater zero. Transcript, Vol. 4 at 215. Mr. Zelenka does not recall seeing it during the site visit. *Id.*, Vol. 1 at 193, 284. Mr. Ford did not mention that he ever saw it.

On July 25, 2005, Bertucci representatives Mr. Zelenka and Nolan Simoneaux and Choctaw representatives Greg Ford and Jamey Sanders[16] performed a site visit to Raccoon Island, including an investigation of the navigation route to the jobsite for delivery of materials, and ascertained the water depth conditions at the site. During this site visit, Mr. Ford checked water depths with a "fish finder." He testified during the hearing that the use of such equipment to check water depths was "fairly accurate to the point that it would provide us with enough information so that we could determine how to proceed with bidding on the job." Transcript, Vol. 2 at 227. Mr. Ford said that "we pulled up to breakwater Zero and just sounded right there off of the end of breakwater Zero where it ties in." *Id*. at 231. Mr. Connole testified that the site inspection was reasonable, but does not mention the use of a depth-finding instrument by Mr. Ford and Mr. Zelenka. *Id.*, Vol. 3 at 231.

Mr. Zelenka testified that Bertucci's bid was based on his site survey. Transcript, Vol. 1 at 317. He testified further that a fathometer[17] was used intermittently to test water depths near breakwater zero, the terminal end of the groin to be built, but qualified his statement by asserting that "unless you do a full blown survey, which will cost tens of thousands of dollars, you can't find anything you need to find." *Id*. at 192. Even though Mr. Zelenka appeared to discount the result of his site survey during the hearing, he had previously described his site visit as follows:

> The contract plans and specifications were consistent with our prior work experience at Raccoon Island in 1997, and our joint pre-bid survey and site assessment in July and August, 2005, which included discussions with local shrimpers and crewboat operators. . . . *The contract showed, and our site visit confirmed, that water depths permitted access to the eastern half of the groin by fully-loaded rock barges and pushboats.* [18]

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[16] Mr. Sanders, who authored most of the correspondence to the contracting officer during contract performance, did not testify during the hearing.

[17] It appears that Mr. Ford's "fish finder" was Mr. Zelenka's fathometer, used to check water depths and find objects underwater by use of sound waves.

[18] Mr. Zelenka confirmed that his bid was based on the site survey. Transcript, Vol. 1 at 316. Appellant's expert, Mr. Connole, states in his report: "Again, none of them observed

Appeal File, Vol. 1 at 292-93 (Letter from Mr. Zelenka to Mr. Ford (Jan. 29, 2010))(emphasis added)

Mr. Zelenka also testified during the hearing that in his experience water depths vary depending on the season when performing work near barrier islands, with shallower water in winter and deeper water in summer. It was more difficult to perform in winter as the result of the shallower depths in that season. Transcript, Vol. 1 at 168, 222.

Appellant's Bid

On August 3, 2005, appellant submitted a bid of $4,056,032.50, including the work of Choctaw and Bertucci, in response to the solicitation. According to Mr. Zelenka, appellant planned to complete the contract work in 105 calendar days. The last three-hundred-fifty to four-hundred feet of the groin would be the most productive work, as it was in deeper water. Transcript, Vol. 1 at 184. This portion would be critical to build, in order to be able to then stage barges behind the groin. *Id*. at 188. Mr. Zelenka used historical data from Bertucci's performance of the previous contract in 1997 to calculate Bertucci's portion of the bid. *Id.* at 221. Mr. Ford worked with Mr. Zelenka with regard to Choctaw's portion of the bid. Mr. Zelenka told Mr. Ford about Bertucci's experience in 1997 and that existing breakwater zero, which Bertucci had built in 1997, had deep water near it to make it easier to work there. *Id.*, Vol. 2 at 123-124.

As more fully explained herein, according to the testimony of Mr. Ford and Mr. Zelenka, appellant's bid and planned means and method of operation were based on their pre-bid interpretation of the solicitation–taking into consideration the length of the groin to be constructed, indicated as 1084 feet, and the water depths surrounding the site of the groin–that the construction of the groin would result in a "protected onsite staging area" that would have allowed appellant to fleet a number of barges north of the groin after it was built, to stockpile stone to be used in the construction of the breakwaters. Mr. Ford and Mr. Zelenka differed as to the number of barges they expected to fleet behind the groin, and Mr. Zelenka's experience was that he would not know for certain if barges could be fleeted behind the groin until his work force arrived at the project site. Appellant's expert, Mr. Connole, premised his determination of entitlement to costs and quantum calculation on his opinion with regard to an issue of law–that appellant's interpretation of the solicitation as indicating a "protected onsite staging area" for barges was reasonable.

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any discrepancies between the site conditions visible to them and the plans and specifications." Appellant's Supp. Appeal File, Exhibit 94 at 2948.

Contract Award, Hurricanes in the Gulf, and Respondent's Survey

On August 29, 2005, shortly after bid opening, the Louisiana coast was struck by Hurricane Katrina.

On September 9, 2005, contract AG-7217-C-05-0015 (the contract) was awarded to Choctaw. Appeal File, Vol. 1 at 116.

On September 24, 2005, Hurricane Rita struck the Louisiana coast. After Hurricane Rita, respondent sent a survey crew to the project site to investigate site conditions. Respondent then considered, based on this survey, whether to proceed with the project. Respondent ultimately decided to issue certain modifications to the contract that had already been awarded and proceed with construction.[19] Appeal File, Vol. 1 at 465-66. Hurricane Wilma formed on October 15, 2005, and dissipated on October 24, 2005, after entering the Gulf of Mexico and making landfall on the west coast of Florida.

As the notice to proceed with the contract work had not been issued, appellant submitted a proposed construction schedule executed by Mr. Sanders, dated October 28, 2005, showing an anticipated start date for contract work on December 1, 2005, and proceeding through the winter months of January, February, and March 2006. Appeal File, Vol. 1 at 463.[20]

Respondent conducted a preconstruction meeting on November 9, 2005, attended by representatives of Choctaw and Betrucci. No mention was made of possible changes to the contract as the result of respondent's recent survey of the site after Hurricane Rita. Respondent had not issued the notice to proceed at this point, as apparently it was still in the process of finalizing modification 1, which was issued a month later.

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[19] Appellant alleges that respondent considered terminating the contract for convenience and resoliciting for bids based on the survey after the hurricane. Appellant's Pre-Hearing Brief at 4 (citing Appellant's Supp. Appeal File, Vol. 1, Exhibit 29). While the documents cited contain questions as to how to proceed with the contract after re-surveying the project site, we do not find evidence in the record that respondent considered terminating the contract for convenience and resoliciting. In any event, the allegation, even if true, is not material. The contract was not terminated for convenience; instead, modification 1 was issued.

[20] Bertucci's cost proposal for modification 1, dated January 29, 2010, states: "We did not anticipate commencing work in January. The typical work season for this type project is June-November." Appeal File, Vol. 1 at 296.

Modification 1

On December 12, 2005, the contracting officer issued to Choctaw via email a written change order, referred to as modification 1.[21] The email message read in pertinent part:

> Through this email I am requesting a price proposal for the following changes to subject contract:
>
> (1) Change in the work sequence. Special Provision #2 is changed to have work begin on the groin and then on the breakwaters beginning with Breakwater #8 and moving west towards Breakwater #15.[22]
>
> (2) Alignment changes to groin and changes to breakwaters. Sheets 1 thru 5 and 10 thru 15 are revised to change the alignment of the groin and changes to breakwaters due to water bottom changes as a result of the hurricane. Additional quantities of riprap and geotextile is required for both the groin and segmented breakwaters.
>
> The changes are included in the attached drawings and special provision, which will be modified into the contract. Due to the changes referenced above, the government estimates the quantities of CLIN 0004 — Rock Riprap and 0005 — Geotextile will increase by 7,500 tons and 4,920 square yards, respectively.[23] Request you provide pricing for the increased quantities.
>
> Also request you provide time requirements for the additional quantities. The government estimates that an additional 15 calendar days of performance time will be needed to complete the additional quantities.

Appeal File, Vol. 1 at 118; Appellant's Supp. Appeal File, Vol. 1, Exhibit 35.

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[21] Correspondence and other documentation in the record at times refers to modification 1 as change order 1.

[22] This mandatory change in sequence should have had no impact, as Mr. Zelenka testified that appellant always had planned to begin work on the groin first. Transcript, Vol. 2 at 44.

[23] As stated elsewhere in this decision, the quantity of riprap decreased rather than increased.

Modification 1 also changed the geographic limits within which work could be performed on the project site.[24]

Drawing sheet 5M of 19 in modification 1 clearly indicated that the groin's length was decreased from 1084 feet to 926 feet, with coordinates changed for the position of the groin. Appeal File, Vol. 1 at 125. The modification contained revised drawings containing the same language on the cross-section views for the breakwaters and the groin as contained in the original solicitation that "[b]ottom elevations may change due to the dynamics of the environment." The revised cross-sections noted that "X-sections derived from survey taken in Oct. of 2005."[25] *Id.*, Vol 1. at 125-33.

Special provision 2 of the contract was modified by adding the following sentence:

> The Contractor shall begin work on the groin as the first item to be prosecuted in the contract. The breakwaters shall be constructed starting with breakwater 8 and proceeding west with breakwater 15 completed last. The groin and breakwaters may be worked on concurrently.

Appeal File, Vol. 1 at 119.

The Changes In Modification 1 Were Not the Result of the Hurricane

During the hearing, respondent's witnesses testified that the changes in modification 1 were made because the survey of Raccoon Island conducted after Hurricane Rita found errors in the original solicitation. This was contrary to the statements 1) in modification 1 that the changes were "the result of the hurricane" and 2) in the contracting officer's decision denying appellant's certified claim, that the changes were "due to the effects that Hurricane Rita and other natural occurring events had on the topography of Raccoon Island." Appeal File, Vol. 1 at 458-59.

Respondent's contracting officer, Mr. Broome, admitted that the changes addressed in modification 1 were not caused by the hurricane, however. Transcript, Vol. 4 at 120. Specifically, he stated that the length and size of the groin were changed to correct errors in

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[24] Mr. Zelenka testified that the restricted work limits impacted appellant's ability to fleet barges north of the groin. Transcript, Vol. 1 at 216. Mr. Connole's report also addressed this issue. Appellant's Supp. Appeal File, Vol. 6, Exhibit 94.

[25] Mr. Ford acknowledged that he and Mr. Zelenka had seen this note when they had reviewed modification 1. They did not ask for the surveys then. Transcript Vol. 2 at 225.

the original solicitation–"wrong coordinates" and the correction of these errors resulted in a reduction of the length of the groin from 1084 feet shown in the solicitation to 926 feet in modification 1. *Id.* at 110-11. He also stated that the drawing sheet 5 of 19 of the original solicitation had shown incorrect bathymetric contours–deeper water depths than those actually at the site. In particular, these contours were wrong because they failed to show a shallow area, a sandbar, that the appellant encountered when construction began on the eastern portion of the groin.[26] Mr. Broome also stated his belief that this shallow area "directly impacted the contractor's means and methods of performance." *Id.* at 112-14. He was not specific as to the exact nature of the impact or how this might have resulted in entitlement to additional compensation to appellant. He also offered no explanation why modification 1 or his final decision stated that the changes in modification 1 were the result of the hurricane.

Respondent's construction engineer for the State of Louisiana, Mr. Sticker, confirmed that the coordinates for the groin in the original solicitation were in error, and the error was not caused by the hurricane, although the error may not have been discovered but for the occurrence of the hurricane that caused respondent to perform a site review. Transcript, Vol. 4 at 148-49. He also confirmed that the contours on sheet 5 of 19 were not correct. *Id.* at 177. He expressed his belief that the groin was represented clearly in the plans, because the plans showed the groin was to be built from the island to a physical landmark–the northeast end of the crown at breakwater zero. Since neither the island nor breakwater zero moved as the result of the hurricane, the groin was always clearly represented, despite the incorrect length shown on the solicitation drawings. *Id.* at 148-49.

Mr. Garber, the COTR, testified as to the various surveys performed at the project site before construction for design purposes. Transcript, Vol. 4 at 178. He became aware of the error of the coordinates for the groin in November 2005 after the survey was conducted at the project site prompted by the hurricanes. *Id.* at 187.

Mr. Edmund Geiring III, the state engineer for the NRCS during the contract period, involved in design and construction, testified that the depths under the groin on the solicitation drawings came from a survey performed in February 2005. Transcript, Vol. 5, at 24. He was not aware of this at the time of bid. The depths shown north and south of the

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[26] This sandbar was designated as a ridge or hump at approximately station 8+50 on the revised drawing for modification 1. Appellant's Supp. Appeal File, Vol. 6, Exhibit 94 at 2956. We will refer to this sandbar in this decision as the sandbar-hump. Mr. Ford stated that the sandbar-hump was not obvious on the plans, and he would not have noticed it during his review of the solicitation and modification 1. Transcript, Vol. 2 at 226.

groin appeared to have come from this same file, as the contours extend to the edge of the drawing. *Id.* at 24-28. He did not believe that the changes in modification 1 were major changes, as the rock quantity was reduced by 7500 tons, a 15% reduction. Also, while he acknowledged an error in the coordinates of the groin, which incorrectly indicated its length in the original solicitation, the groin had always been intended to be built from the island to breakwater zero, which were both existing physical landmarks. *Id.* at 31.

Notice to Proceed

On December 12, 2005, the same day that respondent issued modification 1, respondent also issued the notice to proceed with the project. Appellant asserts it anticipated that a notice to proceed would have been issued shortly after contract award in September 2005, which would have allowed the work to be completed by December 2005,[27] within what Choctaw considered to be the normal seasonal time period for performing work of this nature. It therefore considers the allegedly delayed notice to proceed in mid-December to have been a directive to commence work in the winter season, when weather and sea conditions are typically unfavorable for marine operations.[28] Complaint ¶ 7.

Respondent's contracting officer's final decision states that the three weather disturbances that occurred in the Gulf of Mexico after bid opening (Hurricanes Katrina, Rita, and Wilma) delayed issuance of the notice to proceed. Appeal File, Vol. 1 at 459.

It appears that respondent issued the notice to proceed in December 2005 to allow work to begin on the groin outside the nesting season for the brown pelican, as such work was restricted from March 1 through August 31. Thus, appellant was directed to start in winter and was precluded from working on the groin as of March 1, 2006.

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[27] This assertion is apparently based upon the original 114 calendar days of contract performance before the contract period was extended to 193 calendar days.

[28] Mr. Zelenka testified during the hearing that late spring to late fall was the best time to perform the work. Work could be performed during hurricane season, as long as precautions were taken. Winter was the most adverse time to perform work around barrier islands. Transcript, Vol. 1 at 165. He compared actual weather reports from September and October 2005 to January 2006 to show the difference in weather conditions for those months. *Id.* at 235-39. He testified at length concerning pictures of performance but did not identify the time frame for the pictures. *Id.* at 240-50.

Mobilization and Initial Performance–December 2005 to February 2006

Mr. Zelenka testified that upon receipt of the notice to proceed, appellant mobilized and began marshalling the barges, producing the rock, collecting empty barges and sending them up to the quarry to get them in position for loading, speaking to the suppliers, and preparing to buy or rent equipment and purchase materials. All of this was done with the realization that it would be more difficult to commence and perform work during the winter season. Transcript, Vol. 1 at 210-11. Mr. Ford also confirmed the beginning of contract performance upon receipt of the notice to proceed. *Id.*, Vol 2 at 145. He explained the extensive up-front costs for the project, including purchasing of rock, and the need for quickly mobilizing as it takes significant time for the rock to arrive at the project site. *Id.* at 190.

While the contracting officer had requested a price proposal with regard to the changes in modification 1, appellant did not submit a price proposal before beginning performance, nor did it do so during the entire period of contract performance. Mr. Zelenka testified that the proper procedure would have been to negotiate a change order before performance began, but appellant has "never priced the original change order." Transcript, Vol. 2 at 94. No explanation was offered as to why appellant did not submit a price proposal with regard to the changes clearly indicated in modification 1 or raise the issue that the groin had been shortened before performance commenced, despite testimony from both Mr. Ford and Mr. Zelenka that the initial bid would have been greater if Choctaw and Bertucci had had the information in modification 1.

Even though Bertucci stated in its letter dated January 29, 2010 (Appeal File, Vol. 1 at 292-93) that the site investigation confirmed "that water depths permitted access to the eastern half of the groin by fully-loaded rock barges and pushboats," Choctaw and Bertucci allege that upon mobilization they discovered previously provided access channels to the groin and breakwaters were blocked to fully loaded barge traffic, as the access channel which they assert was represented in the contract as nine feet to eleven feet deep was actually only two to five feet deep or less.

As both the solicitation and modification 1 drawings had indicated, appellant found that water depths at the project site near the groin and the access channels were not static, but were changing from day to day, as a result of the dynamic environment. Areas filled in with sediment as construction proceeded. Areas that had been accessible one day were not accessible the next. When Mr. Zelenka was questioned as to the filling in of the access channels, he acknowledged the dynamic nature of the environment and the changing water depths, stating: "The dynamics are different everywhere. Some places got deeper, some places got shallower." Transcript, Vol. 2 at 37-38.

Mr. Zelenka confirmed that there could be no protection from a constructed groin or breakwater until those structures were built. Transcript, Vol. 2 at 33. When shown an aerial photograph of a completed breakwater at the project site, Mr. Zelenka noted that the photograph showed sand that had built up behind the breakwater after construction. *Id.*, Vol. 1 at 160.

Mr. Zelenka emphasized that the two main issues were differing site conditions and access to the groin. Transcript, Vol. 2 at 87. Even though modification 1 clearly indicated that the length of the groin was changed from that shown in the solicitation, Mr. Zelenka testified that he did not realize that the groin had been shortened until his personnel arrived at the project site in January 2005 and performed a survey. Transcript, Vol. 1 at 233-34. He stated, in response to the Board's inquiry as to when he realized the groin was too short to protect the barges: "When you start trying to get barges in there. That's very common. We put a plan together but until you get your barges there and see it, you don't really understand it." *Id.*, Vol. 2 at 43.

The dynamic environment at the project site was documented by Choctaw, Bertucci, and respondent. It is clear that the water depths were changing during contract performance as areas that were accessible at first became unaccessible within a short period of time. According to the quality control report for Bertucci and Choctaw dated January 19, 2006, the captain of one of their barges spoke with local crew boat captains who stated that Hurricane Rita had "flattened deep water areas." Appeal File, Vol. 2, Choctaw Quality Control Report (Jan. 19, 2006); Transcript, Vol. 1 at 302.

According to the NRCS job diary, on January 25, 2006, Greg Ford of Choctaw stated: "[A]ccess on plan area has fill[ed] in since job was bidded [sic] and this is a differing site condition." Appeal File, Vol. 4, Exhibit "NRCS Job Diaries" (Jan. 25, 2006).

Mr. Hebert, an NRCS inspector on the contract, testified that appellant performed a survey in the area of the groin on January 23, 2006, and found that the water depths were within a foot of those shown on the drawings upon which Choctaw and Bertucci based their bid. He stated that no one mentioned to him appellant's plan to moor or anchor barges north of the groin. He also testified that on January 25, 2006, he was on site and Mr. Ford stated that access to the site had filled in since bid and that it was a "different site condition." Transcript, Vol. 5 at 37-39.

Mr. Ford testified that the intention was to begin to build the eastern end of the groin. When they arrived on site, they found water depths shallower than depicted on the plans and also ran into the sandbar-hump. Performance was constantly impacted by not being able to

proceed concurrently on the groin and the breakwaters without the expected protection of the groin once it was completed. Transcript, Vol. 2 at 149.

During the night of January 28, 2006, and morning of the next day, a storm hit the project site and Betucci's AB-4 barge partially sank, allegedly as the result of wave action causing a spud to break loose and with resulting damage to the barge. Appeal File, Vol. 2, Choctaw Quality Control Report (Jan. 29, 2006).[29]

The water depths continued to shallow. Choctaw's daily inspection report dated February 14, 2006, states:

> Moved the 218 rig to Raccoon Island this date to try and access the East Groin to begin work. *Ran into extremely shallow water in the same areas that the AB-4 [barge] had made just 2 weeks earlier.* Paddled around both the east and west sides of the groin and still could not access the groin with the crane rig even with [sic] though we only draw 4' of water.

Respondent's Supp. Appeal File, Vol. 2, Exhibit NN at 2188 (emphasis added).

Similarly, Bertucci's field notes dated February 14, 2006 (attached to Choctaw's report of the same date), states:

> [*S*]*o all this area is filling in* so now I don't know what to do because *all of this we have before assessing is now build up* and cannot get the spud barge in and Delta Falcon is coming with the lite partial so now I have to change thinking and now *Delta Falcon that pass through before cannot now.*

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[29] Bertucci seeks $64,938, the uninsured deductible that Bertucci paid for damage to the Barge AB-4. In its supporting documentation, Bertucci states that " [t]he loss of access/water depth caused the Spud Barge AB-4 to sink on January 29, 2006." Appeal File, Vol. 1 at 339. The barge had been on site and the documentation shows that the water depths were changing due to the dynamic environment as indicated in the solicitation and the contract. While appellant's witnesses did testify that the barge had been damaged and sunk, the barge was under the control of appellant's employee's, and Bertucci apparently recovered costs from its insurance company but not its uninsured deductible. There is no evidence that the Government caused the damage to the barge.

Respondent's Supp. Appeal File, Vol. 2, Exhibit NN at 2189 (emphasis added).[30]

Choctaw's daily inspection report dated February 20, 2006 states: "Gathered information for meeting on Wednesday [February 22, 2006], surveys and what not. . . . *Ran more surveys on the east groin and access channels and found them all to be filling in.*" Respondent's Supp. Appeal File, Vol. 2, Exhibit NN at 2194 (emphasis added).

Appellant states in its claim that it anticipated receiving the notice to proceed shortly after contract award, and did not anticipate commencing work in January, as the typical work season for this type of work is June-November. Appeal File, Vol. 1 at 296. According to appellant, marine conditions at the commencement of the work were hazardous, and Bertucci's equipment[31] was severely damaged while complying with the Government's directive to commence work during the winter. Choctaw and Bertucci continued with their efforts to work until being forced to abandon the jobsite for safety reasons on February 22, 2006. Appellant alleges that "virtually no productive work was accomplished during January and February 2006 due to access issues and winter season conditions." Complaint ¶ 8. Mr. Zelenka confirmed this during the hearing, stating that had they realized the dimensions of the groin they would not have tried to work in the winter. Transcript, Vol. 1 at 233-34.

Mr. Zelenka testified as to the difficulties of performing during this period by referring to photographs of job performance. Transcript, Vol. 1 at 225-30. He stated that appellant only performed rock placement on the breakwaters for four days during this entire period, although the entire period was devoted to attempting to perform the work. *Id.*, Vol. 2 at 58-59. Mr. Ford confirmed that no productive work was accomplished during this period, as two percent of the work had been accomplished in fifty-three percent of the contract time. *Id*. at 157-58. He states that this occurred "because we got out there behind the groin and we found that the change of conditions that we experienced didn't allow us to stage barges behind there, therefore allowing us not to do any productive work." *Id.* at 157.[32]

A meeting was held on February 22, 2006, to discuss performance difficulties. According to respondent's job log, "Jamey Sanders with Choctaw stated weather conditions and different site conditions at the groin area has [sic] delayed them." This meeting was

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[30] Despite the continued changes in water depths, Mr. Ford testified that accretion was not an impediment to performance. Transcript, Vol. 5 at 45; Appellant's Post-Trial Brief at 28.

[31] An apparent reference to Barge AB-4.

[32] The groin had not been built at this point in time.

further described by the contracting officer, in a subsequent letter dated March 17, 2006, from the contracting officer to Mr. Sanders, in which the contracting officer stated in part:

> In our meeting on February 22, 2006, you requested that the contract be suspended due to unsafe conditions and other reasons. At the conclusion of the meeting I asked for the request to be put in writing so the government could review and determine whether to grant your request. To this date, I have not received your written request. Because your request hasn't been granted, the contract performance time continues to run.

Appeal File, Vol. 1 at 530.

Not receiving a response, the contracting officer further described the meeting in a follow-up letter to Mr. Sanders dated April 7, 2006, stating in part:

> Performance time for the subject contract began on December 13, 2005. On-site work began in late January. By mid-February all work had ceased. On February 22, 2006 we met and you presented several reasons for not being able to work, e.g., *low tide, fog, rough seas, access problems due to sedimentation and so forth.* You requested that all work be suspended for a certain amount of time due to poor site conditions. I asked that your request be submitted in writing. You agreed. As of this date, I have not received anything from you or heard from you again on this matter. . . . There has been no change to the performance time or issuance of a suspension of work under this contract. The original terms of the contract remain in effect.

Appeal File, Vol. 1 at 531 (emphasis added).

Mr. Sanders responded to the contracting officer by letter dated April 10, 2006, describing the working conditions from the notice to proceed to February 22, 2006, when work ceased. The letter stated in part:

> A timely notice to proceed would have allowed this project to start during the appropriate season for construction. However, a notice to proceed was withheld for four months, until December 12, 2005. This resulted in a critical delay to the commencement of the work given the available season for construction.

> Your notice to proceed identified changes to the work that you attributed to the hurricane. The sequence of the work was changed to start the groin[33] and then the breakwaters, beginning with Breakwater No. 8 and moving west. Additional quantities of riprap and geotextile were added due to the site changes which would indicate that the water bottom was deeper than anticipated. At the preconstruction conference, we specifically asked whether the site was as indicated, and we were advised that no significant changes had occurred.
>
> We proceed[ed] with work as directed. On our second day out, our light loading rig got stuck in the sand fifteen miles from the job site. Based on our prebid site visit, we expected to set up light loading rigs three miles from the job site. Instead the closest we could get without encountering problems was twenty miles. This change created serious problems. Together with the *difficult conditions of winter, especially fog*, we could not accomplish any productive work. We spent 38 days trying to work on the Groin and were able to place only one barge of stone, about 1,300 tons. *Also instead of a deeper water bottom at the Groin, we found it filled with sand so that we could not get close enough to place stone.*

Appeal File, Vol. 1 at 532-33 (emphasis added).

Job Progress–February 23 to April 31, 2006

No work was performed between February 23 and April 31, 2006. Appellant was granted a time extension by the contracting officer during this period for unsafe conditions. By letter dated April 28, 2006, the contracting officer extended the contract performance for sixty-six calendar days "due to weather and poor site conditions encountered." Appeal File, Vol. 1 at 536.

Job Progress–May 1, 2006 to June 11, 2006

By May 30, 2006, appellant had not recommenced work, and by letter dated May 30, 2006, to Mr. Sanders, the contracting officer stated:

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[33] As mentioned previously, Mr. Zelenka testified that appellant always intended to build the groin first. Transcript, Vol. 2 at 44.

> The government considers your failure to re-start work in a timely manner a condition that has endangered timely completion of the contract. Unless this condition is cured within ten (10) calendar days . . . the Government may terminate [this contract] for default.

Appeal File, Vol. 1 at 538.

> By letter dated June 6, 2006, Mr. Sanders replied:
>
> Please reference your letter dated May 30, 2006. Please be advised that we have already resumed work and are loading barges and mobilizing them to the jobsite . . . . *The basic problem is that the conditions at the job site did not allow productive work during the winter months.* Therefore we are entitled to an extension of 71 calendar days for the period between the Notice to Proceed through February 22, 2006.

Appeal File, Vol. 1 at 539-40 (emphasis added).

Job Progress–June 12, 2006 to September 15, 2006

Mr. Ford testified that when appellant returned in June 2006, it encountered a sandbar and was not able to fleet barges behind the groin. Transcript, Vol. 2 at 159.[34] There were continuing difficulties with weather that damaged equipment and impacted the progress of the work. *Id.* at 160-69.

Mr. Zelenka testified that a meeting was held with respondent on August 30, 2006, with Mr. Ford in attendance to discuss two issues–access to the groin and change of conditions around the groin area, the primary issues affecting performance. Transcript, Vol. 1 at 254; Transcript, Vol. 2 at 87. Mr. Ford also testified about this meeting and confirmed that these were the two primary issues. He recalled he had a phone call or a meeting with Mr. Broome, who told him the hurricanes were the cause of the changing depths behind the groin. Transcript, Vol. 2. at 173. There was no specific mention at this time of the issue of length of the groin or inability to fleet barges behind the groin.

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[34] It is not clear at this point how much groin construction had taken place, nor is there any confirmation at this date that the obstruction was the alleged sandbar-hump shown in the contract drawings. A subsequent letter from Mr. Sanders dated September 27, 2006, quoted herein, mentions that only one barge of stone had been placed before demobilization the previous winter.

Appellant performed contract work from June 12 through November 11, 2006. As discussed herein, it was the subsequent opinion of appellant's expert, stated in his report issued in 2014, that the contract work could and would have been commenced by appellant on June 12, 2006, and should have been completed by September 15, 2006, had the conditions been as represented in the original contract plans.[35] Mr. Ford also stated his belief that the work would have been completed in 2006 had conditions been as represented in the solicitation. Transcript, Vol. 2 at 176.

Job Progress–September 16, 2006 t0 November 11, 2006

Appellant continued to pursue the work from September 16 until November 11, 2006, when it demobilized due to rough seas and winter weather.

By letter dated September 19, 2006 to Mr. Sanders, the contracting officer advised that the extended performance period for the contract had expired on September 13, 2006, and again stated that appellant "may be in default."

By letter dated September 27, 2006, Mr. Sanders stated:

> You have requested that we provide you with facts supporting a time extension on this project.
>
> By letter dated April 10, 2006, we informed you that upon receipt of the Notice to Proceed on December 12, 2005, conditions at the jobsite did not permit work to proceed. *We spent 38 days trying to work on the Groin at your discretion [sic], but could place only one barge of stone*. You eventually recognized and agreed that it was neither safe nor appropriate to work in the conditions we encountered, and allowed us to demobilize. . . . [W]e have previously notified you that conditions at the jobsite were not as represented in the contract plans. Please further note that during our last meeting, we provided you with data, including cross-sections, demonstrating *that performance of the work in the Groin is materially different and will involve substantial additional costs due to the changed conditions we have experienced.* Nevertheless, you have directed us to proceed with this work.

Appeal File, Vol. 1 at 543-44 (emphasis added). Mr. Sanders concluded his letter by stating:

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[35] It is not clear if this assumes that work on the groin could have been commenced on June 12, 2006, as this was still within the brown pelican nesting season.

> *We will provide our proposal for additional costs once physical work is completed.*

Id. at 545 (emphasis added).

Job Progress–November 12, 2006 to June 30, 2007

During this period appellant was not working on the contract.

Job Progress-July 1, 2007 to September 17, 2007–Contract Completion

By letter dated July 19, 2007 to the contracting officer, Mr. Sanders stated:

> Site conditions changed dramatically after the hurricanes of 2005 and *continue to change due to the volatility of the weather and the environment around the jobsite.*

Appeal File, Vol. 1 at 548 (emphasis added).

By letter dated July 22, 2007, to the contracting officer, Mr. Sanders again emphasized the dynamic environment of the project site and stated:

> *Since site conditions can change very rapidly in the cross-sectional areas of the groin,* as mentioned in the last letter, the panels were ordered larger than called for in the specifications to make absolutely sure that the geotextile panels were not too small once in place.

Appeal File, Vol. 1 at 562.

Appellant completed performance of the contract in September 2007.

Cost Proposal for Modification 1

On February 11, 2010, approximately two and a half years after completion of the contract work, appellant submitted a proposal for an equitable adjustment as a result of modification 1, which included narratives and proposed costs for both Choctaw and Bertucci in the amount of $4,144,191.20. Choctaw's narrative stated in part:

> Enclosed you will find our proposal for Change Order No. 1 reflecting a change in topography, access to the work and other directed changes at the start of our work.

Appeal File, Vol. 1 at 139.

> Bertucci's narrative stated in part:
>
> The contract plans and specifications were consistent with our prior work experience at Raccoon Island in 1997, and our joint pre-bid survey and site assessment in July and August, 2005, which included discussions with local shrimpers and crewboat operators. . . . *The contract showed, and our site visit confirmed, that water depths permitted access to the eastern half of the groin by fully-loaded rock barges and pushboats*. . . .
>
> *About half the groin would be built using material from fully-loaded barges*.[36] *As the Groin began to take shape and rise above sea-level light loading of barges was to occur with the Groin construction limits. By construction of the east end of the Groin, the Groin would provide additional protection from the Gulf seas and the light loading area would be in waters protected from the Gulf of Mexico.*[37] Light-loaded or partially loaded barges of rock would then be moved by pushboat to the breakwaters or paddled to the west end of the Groin for placement.

Appeal File, Vol. 1 at 292-94 (emphasis added).

On August 17, 2010, representatives of Choctaw, Bertucci, and respondent met to attempt to resolve the modification 1 request for equitable adjustment. By letter dated September 28, 2010, Choctaw confirmed the discussions at that meeting. The letter contained a detailed explanation of the proposal for modification 1, addressing the following subjects: 1) a change in the alignment of the groin, 2) the change in sea bottom elevations, and 3) the change in the provided access. The letter read in pertinent part:

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[36] However, Mr. Zelenka testified that the bid was based on half-loaded barges rather than fully-loaded barges, as there was an expectation that fully-loaded barges would not access the project site. Transcript, Vol. 1 at 310.

[37] This appears to be the first mention of the plan to fleet barges behind the groin.

> 1. The Change in the Alignment of the East Groin. . . . [T]he alignment of the East Groin had shifted to the south due to Existing Breakwater #0 being incorrectly located on the drawings. . . . Because Modification No. 1 changed the location/alignment, the seaward (protected) end of the groin was reduced in length by 122 feet; almost the length of one barge.[38] This part of the project would have been our most productive work area. More importantly, it was the key to accessing the new breakwaters. *As explained in our meeting, we planned on using the seaward end of the new groin as a fleeting area and protection from the gulf seas.* However, these benefits to our construction effort were lost due to the change in the groin alignment and the groin's length. Instead of using the seaward end of the new groin as a fleeting area, we were required by this change to fleet from Caillou Boca.
>
> When the groin alignment change was made by Modification No. 1, the construction limits and Government provided access channel were also changed. The contract specified work area on the north side of the groin, our construction limits, and the Government provided access channel to the south were shifted by 130 feet. This shift drastically impacted our work and resulted in increased costs of performance.
>
> 2. Change in Sea Bottom Elevations. Modification No. 1 also provided new sea bottom elevations for the new alignment. These new elevations show a hump or ridge at approximate Station 8+50. This ridge was not a result of the weather.[39] It was an existing feature that was incorrectly depicted on the contract drawings. . . . This change in elevation is made much worse because the work limits were shifted when Modification No. 1 was issued, making access with fully and even half loaded barges impossible.
>
> 3. Change in Contract Provided Access. The contract prohibited excavation for flotation access to the work. However, on the east side of the Groin, the contract furnished an access route 500 feet long and 100 feet wide for floating barges into the East Groin work area. Our pre-bid site investigation confirmed sufficient water depth for floating full barge loads to the site. However, once we commenced work, the NRCS recognized the loss of this contract provided access, and changed the contract to allow access to the East Groin through the

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[38] This appears to be the first mention of the reduction in length of the groin in the record of the communication between appellant and respondent.

[39] This appears to be the sandbar-hump.

> no work limits between existing Breakwaters #1 and #0. Unlike the original contract provided access, the area for the changed access was so shallow that equipment had to be paddled to the groin for placement of stone.

Appeal File, Vol. 1 at 511-12.

Certified Claim and Contracting Officer Final Decision

After attempts to resolve the proposal did not result in a resolution, appellant submitted a claim dated January 10, 2011, certified pursuant to the Contract Disputes Act in the amount of the previous cost proposal–$4,144,191.20.[40] The contracting officer issued a final decision dated April 15, 2011, denying the claim in its entirety, stating in part that the changes to the contract as the result of modification 1 were "minor" and necessary because of natural occurrences, including the hurricanes that entered the Gulf. The decision also stated:

> While it is true that the drawings may not have correctly depicted correct water depths for some of the groin construction area, these inconsistencies are not believed to [have] affected your work. The fact that you visited the site and took soundings of the area before submitting your bid indicates you relied on the conditions found during your site visit and not the conditions represented on the drawings.

Appeal File, Vol. 1 at 459.

Appellant appealed the final decision to this Board, and the appeal was docketed as CBCA 2482.

Appellant's Testimony Concerning the Impact of Modification 1

The focus of appellant's witnesses' testimony during the hearing was the impact of modification 1 on the performance of the contract and alleged extra costs incurred as a result.

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[40] The certified claim contained the narratives from Choctaw and Bertucci previously submitted on February 11, 2010, with supporting cost documentation. Bertucci's portion of the claim is $2,150,172.51. Mr. Zelenka testified at the hearing concerning the preparation of the claim and the cost records in support. Transcript, Vol. 1 at 266-70.

Appellant's fact witnesses testified as to their interpretation of the solicitation, the pre-bid site visits, bid preparation, expectations as to means and methods of operations, and difficulties of performing the contract work.

According to appellant, the changes to the contract made by modification 1 were not minor as alleged by the contracting officer in his final decision denying the certified claim, as Modification 1 shortened the length and reduced the size of the groin[41]; required the construction of the groin first, but concurrently with the breakwaters; reduced the specified work limits north of the groin; and provided new bathymetric contours showing shallower water conditions than those shown on the solicitation. Appellant's Post-Trial Brief at 7-8.

The major impact that appellant alleges is that modification 1 changed its planned means and methods of operations, in that appellant based its bid on information in the original solicitation that indicated that the groin would be 1084 feet in length, and with the water depths indicated in the solicitation drawings, such conditions would allow a number of barges[42] loaded with riprap to be fleeted to the north of the groin as it took shape,

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[41] According to appellant's expert, appellant calculated the groin would receive 22,298 tons of rock. Modification 1 altered the alignment and dimensions of the groin and eliminated 122 feet of the seaward end of the structure. The quantity of stone was reduced from the original estimate of 22,298 tons to an actual quantity of 13,495 tons. This change eliminated the deep water that appellant had planned to use for staging barges behind the groin, and prevented appellant from placing rock at the groin on the days where weather prevented placement at the breakwaters. Appellant's Supp. Appeal File, Exhibit 94 at 2940. Mr. Zelenka also testified with regard to the alleged elimination of the deep water. Transcript, Vol. 2 at 54.

[42] Mr. Zelenka initially testified during the hearing that the plan was to build the groin and fleet four to six barges behind it. He testified at length concerning the planned method of operations, using a staging area behind the groin as a base of operations, allowing work to be performed concurrently between the end of the groin, the breakwaters and the tie-in of the groin to the island. Transcript, Vol. 1 at 198-205. He stated that the shortening of the groin impacted the work in that "it shortened the distance of the deep water work; the amount of deep water work that we had and it shortened that distance that we could put the barges behind and use as an area to stage from; from roughly 370 to 400 feet, which the barges are 195 feet long, to 150 or 160 feet, which leaves [the barges] exposed." *Id.* at 214. It therefore took longer to build the breakwaters, without having a staging area behind the groin for barges. *Id.* at 219-20.

protected from the wave action of the Gulf.[43] This would allow a constant stockpile of riprip in close proximity to the project site that could be used to construct the breakwaters, allowing riprap to be available at all times even if access across the Gulf was not available due to weather. According to appellant's witnesses, modification 1 shortened the length of the groin and impacted their ability to fleet barges. Transcript, Vol. 2 at 44 (Mr. Zelenka), 129-35, 179. (Mr. Ford). Appellant's CAD expert, Mr. McCoy, testified that the shortening of the groin would only allow two barges to be staged behind the groin, with a portion of the length of the barges exposed to open water from the Gulf. *Id.*, Vol. 1 at 65-66.

Appellant alleges that the water depths were not as indicated in the original solicitation, and the actual conditions at the site were too shallow to allow fully loaded barges to gain access to the site or remain behind the groin, resulting in having to constantly "light load" the barges. Mr. Zelenka summarized this impact, stating that under the original solicitation, while the plans did not "state specifically" that this was an area to fleet barges, he identified what he believed was an area with adequate access in depth so that half-loaded barges could be transported to and floated along the groin from station 7+15 to 10+84 and that this was consistent with his site inspection. Transcript, Vol. 1 at 261; *id.*, Vol. 2 at 88-89. Mr. Ford and Mr. Zelenka both testified that a more accurate description of the groin would have resulted in a higher bid, but neither offered any calculation or estimate of what that higher bid might have been. *Id.* at 140 (Mr. Ford); *Id.*, Vol. 1 at 264 (Mr. Zelenka stated that the bid would have been "a lot higher."). Mr. Zelenka believed that if the plans and specifications had accurately reflected the depths behind the groin, there would never have been a claim. *Id.*, Vol. 2 at 93. Neither witness offered any explanation why a cost proposal for modification 1 was not submitted by appellant when the modification was issued, as the changes, including the change in the length of the groin, were clearly indicated in the modification.

There is no evidence in the record contemporaneous with the performance of the contract that specifically indicates appellant's intended means and methods of operations.[44]

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[43] Mr. Ford testified that the plan was to fleet six or eight barges behind the groin. He explained in detail about the alleged impact of an "unprotected fleeting area" for the barges. Transcript, Vol. 2 at 151-153. It was Bertucci, not Choctaw, that performed the actual placement of the rock from barges at the project site.

[44] Appellant refers to an email message dated November 15, 2005, from Bertucci to Choctaw that states that work would begin on the seaward end of the groin, Appellant. Supp. Appeal File, Exhibit 33 at 1014, but it does not specifically mention means and methods of operation. Appellant asserts that "except for this email, the record contains no documentation as to the means and methods of performance, nor should it." Appellant's Post-Hearing Reply Brief at 3.

Appellant's CAD Expert's Testimony as to Water Depths Represented in the Solicitation and Modification 1

During the hearing, appellant offered testimony from Mr. McCoy, the CAD consultant, who analyzed respondent's sets of survey data allegedly used to prepare the solicitation and modification 1. Mr. McCoy had no personal knowledge of contract performance; he was hired during the claim preparation process. He came to various conclusions as to the differences in the information in the solicitation and modification 1 by importing data received from respondent into his CAD program and reviewing the generated output.

With reference to drawing sheet 5 of 19 of the solicitation, Mr. McCoy explained in general how contour lines indicate water depths and underwater features. Transcript, Vol. 1 at 21. Mr. McCoy was given the data which he believed was used to generate solicitation drawings and imported this data into his CAD program in an attempt to recreate the information on the solicitation drawings. He was not able to recreate solicitation drawing sheet 5 of 19 from the data NRCS allegedly used to create it and concluded by the result of the program that the data would not have generated sheet 5 of 19 as given to the potential bidders. Transcript, Vol. 1 at 22-29, 38; McCoy Report, Appellant Supp. Appeal File, Vol. 5, Exhibit 93. That data, Mr. McCoy concluded, would have created a drawing "wildly different" from that given to the bidders. Transcript, Vol. 1 at 43. From the pre-bid data, Mr. McCoy also analyzed the pre-bid conditions that existed at the corrected location of the groin as shown in modification 1 and concluded that there was an underwater hill or hump at that location not shown to bidders in the solicitation drawings, but indicated in the data. *Id.* at 50.

Mr. McCoy performed the same analysis on the respondent's survey data allegedly used to prepare modification 1. He found that the survey data did generate the drawings in modification 1, which showed the underwater hill or hump. Transcript, Vol. 1 at 51-53.

Mr. McCoy also concluded that from the information given to the contractor pre-bid, the contractor had sufficient area and depth behind the groin to fleet eight barges after the groin was built, but after modification 1 was issued there was not sufficient area to do so. This analysis was based solely on Mr. McCoy's knowledge of CAD, as he had no actual knowledge of the performance of the contract work by appellant. Transcript, Vol. 1 at 64.

With regard to drawing Sheet 5 of 19 of the solicitation, Mr. McCoy stated his opinion that the drawing was altered to indicate information different from what the survey data should have generated. He believes a draftsman manually altered the information, so as not to show the actual elevations and contours that existed in both sheet 5 of 19 and the cross-

sections of the groin, and to incorrectly show the length of the groin as 1084 feet. Transcript, Vol. 1 at 70-74.

Mr. McCoy's conclusions were that:

> 1) The solicitation contained inaccurate information as to the underwater topography and "misrepresented the actual water depths within the construction work limits of the job. And in particular where the existing tie-in area at breakwater number zero";
>
> 2) The survey data collected by the NRCS prior to the release of the plans and specifications for bidding do not match the bathymetric data represented in the plans and specifications provided to contractors for bidding purposes;
>
> 3) Sheet 5 of 19 is a critical representation of the bathymetric conditions surrounding the groin location directed in the original contract. The sheet contains numerous errors in addition to the incorrect bathymetric data;
>
> 4) The most current survey data obtained by the NRCS prior to the release of the plans and specifications for bidding shows insufficient depth for marine equipment with a five foot draft being between station 9+00 and station 9+50 at the location established for the groin by the original contract;
>
> 5) The actual pre-bid bathymetric conditions of the job site 60 feet north of the groin location established by the original contract would only allow a contractor a maximum 276 feet of space in which to shelter barges and equipment within the work limits north of the completed groin. But the contract-provided profile shows that a contractor would have had approximately 334 feet in which to shelter barges and equipment.[45]

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[45] The following inquiry was made by the Board to this conclusion, with the following response:

> JUDGE GOODMAN: Now, was this the result of that hill you were talking about or what caused this or was it just the incorrect data. I'm trying to connect your testimony to your conclusions here.
>
> THE WITNESS: What it boils down to is any set of data that we acquired from the NRCS, none of them yielded anyway you could get a barge behind the groin. . . . [T]he only data set that would allow you that is just the contours on

6) Modification 1 changed the location of the groin and thereby shortened the groin by 122 feet on the seaward end of the groin and by 159 feet overall, removing more of the staging area;

7) The new position of the groin directed by Modification 1 was necessitated by errors made by the NRCS as to the coordinates for the groin;

8) Hurricanes Katrina, Rita, and Wilma did not affect the alignment of the groin or necessitate its realignment;

9) Hurricanes Katrina, Rita, and Wilma did not cause the loss of adequate floatation space to shelter barges and equipment within the construction limits of the groin area;

10) The lack of adequate floatation space to shelter barges and other marine equipment within the construction limits of the groin area existed pre-bid at both the groin location in the original contract as well as the location directed for groin construction by Modification 1;

11) The solicitation drawings were changed by hand, and the hump was "clipped out" and replaced by a gradual sloping, even though the hump existed in every pre-bid data. Transcript, Vol. 1 at 74-81. However, the witness stated he did not know who "clipped out" the hump or the reasons for the difference or the data that caused it to be removed, and he never found data supporting the removal of the hump. *Id.* at 141.

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the original plan drawings and they we could never recreate them. We never found a data set for those.

Transcript, Vol. 1 at 77.

Appellant's Delay and Disruption Expert's Testimony as to Entitlement and Quantum

With regard to the claim, its preparation, basis of entitlement, and quantum, appellant offered testimony at the hearing from Mr. Connole, the professional engineer, as an expert on delay and disruption analysis and costs. He testified at the hearing, explaining a report dated May 30, 2014, that he prepared, which consisted of a narrative and documentation with regard to his opinion as to entitlement[46] and quantum.[47] Appellant's Supp. Appeal File, Vol. 6. His conclusions were based in part on appellant's contention that the length of the groin and the water depths depicted in the solicitation near the groin would have allowed appellant to fleet up to eight barges[48] of rock north of the groin after the groin was built, which would have facilitated contract performance by having rock available to build the breakwaters. Transcript, Vol. 3 at 99-105.

Mr. Connole's summary conclusion as to entitlement is stated as follows in his report:

> Although the NRCS awarded the contract on September 9, 2005, it did not issue a Notice to Proceed until December 12. Surveys taken after award of the contract to Choctaw were used to redesign the Groin and prepare [Modification] No. 1 to correct defects in the contract plans; thereby delaying a Notice to Proceed. This delay caused work to commence in January and arises from defective specifications.
>
> Even after surveys taken by the NRCS in the fall of 2005 confirmed that the contract plans were in error, the NRCS represented to Choctaw that the site conditions were essentially the same as represented in the contract plans. Choctaw mobilized to the job site in January unaware of the differing site conditions, and spent over a month operating in unsafe conditions unable to

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[46] When questioned on *voir dire* by respondent's counsel as to his expertise to determine entitlement, Mr. Conolle explained that he bases his quantum determination on his initial determination of entitlement to costs, but acknowledged that entitlement is the ultimate issue to be determined by the Board. Transcript, Vol. 3 at 32.

[47] Mr. Zelenka testified that Mr. Connole calculated the quantum. As it is "just a math function," Mr. Zelenka did not get involved in that process. Transcript, Vol. 2 at 70.

[48] Apparently, Mr. Connole based this determination on Mr. McCoy's calculation that eight barges could be fleeted behind the groin. As mentioned previously, Mr. Ford and Mr. Zelenka had differing opinions as to how many barges were intended to be fleeted behind the groin at a given time.

> accomplish productive work. This wasted and costly effort was caused by the defective specifications and the failure of the NRCS to disclose critical information about the jobsite.
>
> Had a timely Notice to Proceed been issued in September, Choctaw could have mobilized and delivered rock to the jobsite in 2005. Choctaw could have also built a segment of the Groin large enough for the safe harbor it sought to stage barges and stockpile rock in 2005 before the winter season precluded work. Based on my delay analysis, I find that the project, as originally designed, would have been completed by September 14, 2006. Therefore, all work performed and cost incurred after September 14, 2006 was caused by the defective plans and specifications, and is compensable.

Appellant's Supp. Appeal File, Vol. 6 at 2974-75.

Appellant's counsel summarized Mr. Connole's methodology for determining entitlement and quantum, citing Mr. Connole's report and his testimony at the hearing.[49] This summary reads, in part, as follows:

> Mr. Connole evaluated and determined when the Appellant would have completed the contract work but for what he characterized as the misrepresentations in the solicitation and drawings as to bathymetric conditions, the shortening of the Groin due to the Respondent's error as corrected by Modification Number 1 and the narrowing of the work limits as ordered by Modification Number 1.
>
> Mr. Connole's analysis correlated the loss of *the protected fleeting area behind the Groin* to the large delays and disruption incurred by the Appellant. . . . This loss of the protected area plagued the project for the entirety of construction. . . .
>
> In order to evaluate the work, Mr. Connole prepared a database for comparison of the NRCS, Choctaw and Bertucci daily logs/reports for each day so that each could be compared side-by-side. (Transcript, Vol. 3 at 61-62) (Appellant's Supp. Appeal File, Vol. 6, Exhibit 94, Attachments 7 and 8). Then Mr. Connole determined the days, or partial days, on which the Appellant

[49] Appellant's citations to the record have been conformed to the Board's citation style.

could have placed rock (or additional rock) *had the conditions been as represented in the solicitation.* (Transcript, Vol. 3 at 65-68)

Mr. Connole was able to isolate a number of days on which work could have been performed if the Appellant had *the protection of the Groin as represented in the solicitation and drawings*, when they were otherwise prevented from making progress. (Transcript, Vol. 3 at 65-68). This included days when the Appellant could have worked on the leeward end of the Groin from behind the protection of the partially constructed Groin on days when work on the Breakwaters was prohibited by wave action. (Appellant's Supplemental Appeal File, Vol. 6, Exhibit 94 at 2968).

Mr. Connole's analysis also included the additional concurrent progress that would have been made had Appellant been given *the ability to store rock behind the Groin in order to take advantage of shorter windows of good weather*. It would have taken approximately three hours to unload a half-loaded rock barge into either the Groin or a Breakwater. (Appellant's Supp. Appeal File, Vol. 6, Exhibit 94 at 2969). However, the Appellant could have supplied the Breakwaters with these half-loaded barges in one hour increments (roundtrip) as opposed to the four hour roundtrip which was actually required to supply rock to the Breakwaters from Whiskey Island. (*Id.*) (Transcript, Vol. 3 at 131). Naturally, rock stored at the Groin would have been immediately available for placement on the Groin as opposed to requiring the same three to four hour supply time from Whiskey Island. . . .

Mr. Connole's analysis was also conditioned upon the following assumptions stated in his report:

1. The original Groin construction limits and access *allowed for flotation to Station 7+15.*

2. The Appellant *could have staged barges behind the Groin within the construction limits*.

3. Work on the Groin could have been accomplished from the north side of the Groin in accordance with the solicitation.

4. The Appellant could supply rock to the job as they did in January 2006.

> 5. The Appellant *could have worked on the Groin from the protected area behind the Groin* even when weather and marine conditions prevented work on the Breakwaters.
>
> 6. Given the *anticipated protected area behind the Groin*, the weather and marine conditions which forced the placement barges at Whiskey Island of Cocodrie would not have affected the Groin construction from the north side of the Groin. [emphasis added]. Appellant's Supp. Appeal File, Vol. 6, Exhibit 94 at 2970-71.
>
> Succinctly put, Mr. Connole evaluated when the Appellant would have been able to complete the contract work as bid with the exception that he used the increased, actual quantities required to complete the Breakwaters.
>
> Mr. Connole did not claim that the Appellant could have worked on days with poor weather conditions. He evaluated the impact of the actual weather by determining whether the Appellant could have placed rock or more rock on an actual non-work day if the weather was good enough for the Appellant to place rock if the rock was available on site at or staged behind the groin. (Transcript, Vol. 3 at 65-68).

Appellant's Post-Trial Brief at 43-47.

Mr. Connole's Quantum Determination

Mr. Connole's quantum calculation was based on the time periods of performance on the project. Each period was designated as compensable or non-compensable, as described by appellant:

December 2005 to February 23, 2006. Mr. Connole found this period to be compensable, as the contractor would not have commenced work during these winter conditions had the contract plans accurately depicted the actual site conditions. Moreover, had the contract plans accurately depicted the shallow water depth surrounding the groin, appellant would not have anticipated or even attempted to perform the work utilizing the as-bid means and methods. Appellant's Post-Trial Brief at 40-41.[50]

[50] Mr. Connole calculates compensable costs for this first period of performance for both Choctaw and Bertucci to be $1,236,160. For the following periods of performance, for those that Mr. Connole believes are compensable, he calculates total costs for both Choctaw and Bertucci of $3,126,093. Appellant's Post-Trial Brief at 55.

February 23 to April 30, 2006. Mr. Connole found this period to be non-compensable, as appellant was granted a time extension by the contracting officer during this period for unsafe conditions and as such was not working during this period. Mr. Connole determined this period to be a non-work period which is not chargeable to respondent. Appellant's Post-Trial Brief at 41; Transcript, Vol. 3 at 162-63.

May 1 to June 11, 2006. Mr. Connole found this period to be non-compensable. Although the time extension granted by the contracting officer only extended to April 30, 2006, appellant was not performing work on this contract from May 1 until June 11, 2006. Therefore this was determined by Mr. Connole to be a non-work period for which respondent was not charged and no damages were claimed. Appellant's Post-Trial Brief at 41; Transcript, Vol. 3 at 163-64.

June 12 to September 15, 2006. Mr. Connole found this period to be non-compensable. Appellant performed contract work from June 12 through November 11, 2006. Mr. Connole determined that the contract work could and would have been commenced by appellant on June 12, 2006, and should have been completed by September 15, 2006, had the conditions been as represented in the original contract plans. This is the time period which is referred to as the contract work period. Costs during this period of time are not being claimed by appellant and were not included in Mr. Connole's analysis and determination of quantum. Appellant's Post-Trial Brief at 42; Transcript, Vol. 3 at 164-65.

September 16 to November 11, 2006. Mr. Connole found this period to be compensable. Appellant continued to pursue the work from September 15 until November 11, 2006,when appellant demobilized due to rough seas and winter weather. This period of time is work and expense which the appellant would not have incurred had the representations in the solicitation been correct. Consequently, Mr. Connole determined this period of time was an extended performance period. Mr. Connole did give respondent credit for costs for Choctaw's demobilization from September 15 to 30, 2006. Appellant's Post-Trial Brief at 42; Transcript Vol. 3 at 165.

November 12 to June 30, 2007. Mr. Connole found this period to be non-compensable. During this period appellant was not working on the contract. This was determined to be a non-work period. Appellant's Post-Trial Brief at 43; Transcript, Vol. 3 at 166.

July 1 to September 17, 2007. Mr. Connole found this period to be compensable. During this period, the appellant completed the work prescribed by the contract. As appellant should have completed the work in September 2006, this period is considered an extended work period. Appellant's Post-Trial Brief at 43; Transcript, Vol. 3 at 166.

Mr. Connole's Use of the Total Cost Methodology

During the hearing, the Board asked Mr. Connole whether he understood the concept of the computation of a claim on a total cost basis and whether or not he calculated appellant's quantum on that basis. Mr. Connole explained that he understood the concept of calculating a claim on a total cost basis and why he believed the claim was not so calculated. The Board then inquired as to whether Mr. Connole had calculated appellant's costs for the period of contract work prior to the projected completion date of September 15, 2006, for which appellant was not claiming extra costs. Mr. Connole stated at the time of the inquiry that he had not made these specific calculations. Transcript, Vol. 3 at 231-33.

At the conclusion of the hearing, appellant recalled Mr. Connole as a rebuttal witness. Appellant's counsel asked Mr. Connole if he had, after his previous testimony, calculated appellant's costs for the period of contract work prior to the projected completion date of September 15, 2006. While this inquiry was beyond the scope of rebuttal, government counsel did not raise an objection to the testimony. Mr. Connole stated that he had in the interim calculated Choctaw's costs for the period of contract work prior to the projected completion date, and that amount was approximately $2,238,812, inclusive of materials, general and administrative expenses, profit, and bond costs. He testified further that he had not calculated Bertucci's costs for that same period, because he did not have the information available, but he stated an opinion, based upon Bertucci's cost proposal (which he did have available), that Bertucci's cost for the same period would have been similar. Transcript, Vol. 5 at 60-64.[51] Thus, the total costs expended by the appellant during the "contract period"–approximately $4,450,000–were approximately 10% more than the original contract price–$4,056,032.50–and the total claim in the amount of $4,144,191.20 was approximately equal to the contract price. As discussed later in this opinion, this testimony indicates that, despite Mr. Connole's assertion, the claim was calculated on a total cost basis.

Respondent's counsel cross-examined Mr. Connole, but did not offer any opposing expert testimony.

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[51] Mr. Connole referred to handwritten notes during this testimony, but this information was not proffered as a hearing exhibit or otherwise included in the record. Transcript, Vol. 5 at 63-64. Mr. Zelenka testified that Bertucci's claim costs were "the excess costs over and above what the cost should have been had we been able to perform the work as we bid it." Transcript, Vol. 2 at 112.

Discussion

Factual Summary

In July 2005, Choctaw, and its subcontractor, Bertucci, reviewed a solicitation in preparation for appellant's bid on the project at Raccoon Island, off the Louisiana Coast in the Gulf of Mexico. The solicitation contained a scope of work to construct eight new breakwaters south of the island and a groin connecting the eastern end of the island with an existing breakwater previously constructed by Bertucci in 1997 pursuant to a contract under which Bertucci had constructed eight breakwaters. Bertucci therefore had experience operating in the area of the project. During that previous contract, Bertucci had encountered water depths that shallowed significantly from the time period that contract was bid and later performed.

The specifications and drawings contained information concerning water depths at the site near the breakwaters and groin to be constructed. The groin to be constructed was indicated to be 1084 feet in length, from the eastern end of the island to where it connected with the existing breakwater. Bidders were clearly notified by notes on the drawings and specifications that the project site was in a dynamic environment–that bottom elevations may change due to the dynamics of the environment, that tidal fluctuations would occur, and that access to the site may be impeded due to shallow water conditions. While the solicitation drawings contained contour lines indicating water depths, these drawings noted that they were based on surveys taken in July 2004 and 2003, one to two years before the solicitation was issued.

Choctaw's Mr. Ford and Bertucci's Mr. Zelenka both testified at the hearing that they had reviewed the plans and specifications and were aware of the warning with regard to the dynamic environment and shallow water. Even so, despite these indications in the solicitation, and Mr. Zelenka's prior experience of changing water depths during performance of Bertucci's previous contract, Mr. Ford and Mr. Zelenka testified that they heavily relied on one solicitation drawing, sheet 5 of 19, with reference to the groin. That drawing indicated the constructed length of the groin as 1084 feet and the water depths surrounding it. They testified that at the time of bid they both interpreted the solicitation, taking into consideration the length of the groin and water depths indicated near the groin, that once the groin was constructed, there would consistently be sufficient water depths north of the groin to allow barges loaded with rock to be fleeted, in order to stockpile rock for placement at the breakwaters. Mr. Zelenka testified that the solicitation did not specifically state that the area could be used to fleet barges, but he believed it could be. Appellant and its expert Mr. Connole refer to this interpretation of the solicitation as indicating an "onsite protected staging area" for fleeting barges behind the groin. Mr. Connole's opinion as to

both entitlement and quantum is predicated on his accepting this interpretation of the plans and specifications of the solicitation as reasonable.

Representatives of Choctaw and Bertucci made pre-bid site visits to the project site in July 2005, checked water depths with a fathometer, and based their combined bid on their site visits. According to Mr. Zelenka, their site visit confirmed that water depths permitted access to the eastern half of the groin by fully-loaded rock barges and pushboats. According to Mr. Ford, the information they gathered in their site visit was sufficient upon which to base their bid.

Appellant submitted its bid on August 3, 2005. Hurricane Katrina struck the Louisiana coast on August 29, 2005. The contract was awarded shortly thereafter, on September 5, 2005. Appellant expected to receive a notice to proceed with the contract work shortly after award, to perform the work before the onset of winter weather, which would make performance more difficult. On September 25, 2005, nearly three weeks after contract award, Hurricane Rita struck the Louisiana Coast, and on October 15, 2005, Hurricane Wilma entered the Gulf. Respondent re-surveyed the project site after the hurricanes, and on December 12, 2005, issued both the notice to proceed and modification 1 to the contract.

The changes in modification 1 included a change in work sequence, requiring that the groin be constructed first. Mr. Zelenka testified during the hearing that the planned work sequence had always been to begin work on the groin first. Modification 1 also required a shortening and realignment of the groin and changes to the breakwaters to be built, including a change in quantities of riprap and geotextile material. According to modification 1, the groin still was to be built from the island to the existing breakwater; however, the modification now indicated that the groin would be 926 feet long, not 1084 feet as indicated in the solicitation. The revised drawings and specifications that were issued with modification 1 contained the same warnings with regard to the dynamic environment and changing water depths, and also changed the access route to the project site. A revised drawing indicated a sandbar-hump near the groin not previously shown in the solicitation drawings.

While the modification stated that the changes to the alignment of the groin were because of "water bottom changes as a result of the hurricane," government personnel, including the contracting officer, testified at the hearing that the changes ordered by modification 1 were not the result of the hurricanes, but were issued to correct errors in the solicitation that were identified when the project site was re-surveyed. Specifically, the survey found that incorrect coordinates were indicated for the position of the groin in the solicitation, resulting in an incorrect length of the groin being stated in the solicitation, and

that the sandbar-hump that had existed before the hurricane had not been shown on the solicitation drawings.

Even though the Government had erroneously indicated that the changes in modification 1 were the result of the hurricanes, rather than the Government's own errors, appellant was clearly apprised of the changes to the work required by modification 1 before beginning contract performance. While the contracting officer requested a price proposal from appellant when modification 1 was issued, appellant did not submit a proposal at that time, but proceeded with the work. Mr. Zelenka testified at the hearing that the proper procedure would have been to negotiate a change order price before performance began. However, he offered no explanation as to why appellant did not submit a cost proposal before performance began, or otherwise indicate that additional costs or efforts would be incurred in order to comply with modification 1.

The performance period of the contract was 193 calendar days, more than six months. Appellant alleges it intended to begin the work in September 2005 and complete the work by the end of December 2005, in four months. Appellant further alleges that the notice to proceed was unreasonably delayed and was a directive to begin work during the winter season, when the weather was not hospitable to marine contracting work. However, appellant submitted a proposed schedule to commence in December 2005 and continue through March 2006.

Choctaw and Bertucci mobilized in December 2005 and arrived at the project site in January 2006. Even though modification 1 clearly indicated that the length of the groin to be constructed was 926 feet, Mr. Zelenka stated he did not realize the groin was to be shorter than indicated in the original solicitation until his personnel arrived on site and attempted to "get barges in there." He stated that this was a common occurrence, as a plan to fleet barges is not understood until the barges actually arrive on site. At this point, the groin was not constructed.

When contract performance began in January 2006, appellant began to experience the conditions that both the solicitation and modification 1 indicated–a dynamic environment and changing water depths. These conditions were also compounded by severe weather. Appellant and its subcontractor mobilized in December 2005 and worked until February 22, 2006, completing approximately two percent of the contract work in fifty-three percent of the allegedly planned performance time. Appellant demobilized and thereafter returned to the project site, working in the spring through fall, alleging it was not able to accomplish productive work during the winter, despite Mr. Sanders' four-month schedule the indicated the intent to complete the performance of the contract in March 2006.

During construction, appellant alleged delays as the result of severe weather and fog. Appellant also reported changing water depths from day to day. These changing water depths were characterized as extremely shallow water conditions where deeper water had been earlier. Contemporaneous documentation described sand filling in behind the construction near the groin and in the access channels. Also, appellant's letters to the contracting officer described rapidly changing site conditions due to the volatility of the weather and the environment around the jobsite. The contracting officer issued time extensions to allow for the delays encountered.

While various allegations of "differing site conditions" and "different site conditions" were asserted in appellant's correspondence and job records, the record of this appeal does not contain any contemporaneous written allegation during the entire period of performance that any of the difficulties encountered were the result of the shortening of the groin in modification 1 or the alleged inability to fleet barges behind the groin once it was constructed. There is also no specific written allegation as to delay caused specifically by the sandbar-hump.

In a letter dated September 26, 2006, Choctaw informed the contracting officer that a proposal for additional costs would be submitted "once physical work is completed." The contract work was completed almost a year later, on September 17, 2007. Two and a half years after contract completion, in January 2010, appellant submitted a cost proposal for the alleged cost impact of modification 1, on behalf of itself and its subcontractor. Bertucci's narrative submitted with this cost proposal contains the first mention of the groin "providing additional protection from the Gulf seas." During the following year, appellant and respondent attempted to resolve the cost proposal but were not successful. In a letter dated September 28, 2010, Choctaw for the first time mentions the reduction of the length of the groin. On January 10, 2011, appellant submitted a certified claim and received two contracting officer decisions denying the claim and assessing damages against appellant.

Appellant appealed both decisions to this Board. During a hearing on the merits, respondent withdrew its claim for damages against appellant. The focus of the hearing was the entitlement to additional costs arising from the changes issued in modification 1– changes in the work sequence and alignment to changes in the groin and the breakwaters to be constructed, with resulting changes in quantities of rock and geotextile material. Also, changes in the work limits and access routes were specified.

Appellant's Burden of Proof

Appellant has the burden of proving *de novo* the fundamental facts of liability and damages. *See Servidone Construction Corp. v. United States*, 931 F.2d 860, 861 (Fed. Cir. 1991); *See William F. Klingensmith, Inc. v. United States*, 731 F.2d 805, 809 (Fed. Cir. 1984); *See Blinderman Construction. Co., Inc. v. United States*, 695 F.2d 552, 559 (Fed. Cir. 1982). Appellant chose not to submit a price proposal upon receipt of modification 1, but proceeded to perform the work as changed. During performance, appellant informed respondent it would send a proposal after completion of the work. Appellant's claim, which is the subject of this appeal, was submitted two and one-half years after contract completion.

Allegations of Superior Knowledge, Intentional Misrepresentation, Defective Specifications, and Breach of the Duty of Good Faith and Fair Dealing

We must first address appellant's allegation that respondent had superior knowledge, made intentional misrepresentations, issued defective specifications, and breached the duty of good faith and fair dealing. These allegations are based upon respondent's erroneous statement in modification 1 that the alignment changes in the groin and the breakwaters were the result of "bottom changes as the result of the hurricane" and the contracting officer's erroneous assertion in the final decision denying appellant's claim that the changes resulting from modification 1 were minor and the result of intervening natural events that occurred after contract award.

Government personnel, including the contracting officer, testified at the hearing that the length of the groin was changed because the original solicitation contained incorrect coordinates that caused the designers to indicate that the length would be 1084 feet, when the distance from the end of the island to breakwater zero was only 922 feet, and this was not the result of the hurricane. This change in length was not the result of bottom changes due to the hurricane. The assertion that the alignment of the groin and the breakwaters was due to water bottom changes as the result of the hurricanes was not correct and apparently known to government personnel to be incorrect when modification 1 was issued. None of respondent's witnesses attempted to explain why this incorrect assertion was made, in modification 1 and the contracting officer's decision denying appellant's claim.

The doctrine of superior knowledge applies when the contractor proceeds without knowledge withheld by the Government. In *CAE USA, Inc. v. Department of Homeland Security*, CBCA 4776, 16-1 BCA ¶ 36,377, we stated:

> The superior knowledge doctrine only applies "in limited circumstances." *GAF Corp.*[*v. United States*], 932 F.2d 947 at 949 (Fed. Cir 1991). To show a

contract breach under the superior knowledge doctrine, a contractor claiming a breach by non-disclosure must establish the following:

> The doctrine of superior knowledge is generally applied to situations where: (1) a contractor undertook to perform without vital knowledge of a fact that affects performance costs or duration; (2) the government was aware the contractor had no knowledge of and had no reason to obtain such information; (3) any contract specification supplied misled the contractor or did not put it on notice to inquire; and (4) the government failed to provide the relevant information. *Giesler v. United States*, 232 F.3d 864, 876 (Fed. Cir. 2000).

16-1 BCA at 177,350-51.

Appellant was required pursuant to the Site Investigations and Conditions Affecting the Work clause "to take steps reasonably necessary to ascertain the nature and location of the work." Appellant's pre-bid site investigation confirmed the existing water depths with a fathometer. At that time, appellant also had the opportunity during the site visit to measure the distance from the island to breakwater zero, which was to be the length of the groin, the dimension that was allegedly critical to appellant's plan to fleet barges behind the constructed groin. Therefore, before bidding, appellant had its own information as to water depths near the sandbar-hump and the opportunity to verify the length of the groin. When modification 1 was issued after contract award, appellant had already verified the sufficiency of the water depths and the modification itself clearly showed the revised length of the groin. As appellant had verified the water depths and knew the revised length of the groin before it undertook to perform the contract work, the doctrine of superior knowledge does not apply.

There is no evidence that government personnel were aware at the time the solicitation was issued that the solicitation contained errors. Accordingly, there is no evidence of intentional misrepresentation of information in the solicitation. The errors discovered thereafter were corrected when respondent issued modification 1, which clearly disclosed the corrected information to appellant before performance of the work began. The correction of these errors by modification 1 before performance commenced, with a request for a price proposal from the appellant, also vitiates the allegation of defective specifications.

Appellant also asserts that respondent breached the duty of good faith and fair dealing. The duty of good faith and fair dealing requires the Government, as well as other parties to contracts, not only to avoid actions that unreasonably cause delay or hindrance to contract performance, but also to do whatever is reasonably necessary to enable the other party to

perform. *Kiewit-Turner, a Joint Venture v. Department of Veterans Affairs*, CBCA 3450, 15-1 BCA ¶ 35,820 at 175,176. Respondent's issuance of modification 1 prior to contract performance to correct the errors and the solicitation and request a price proposal for the changes in the modification did not delay or hinder contract performance, but was done so as to enable appellant to perform.

Government witnesses admitted that respondent stated erroneous reasons in modification 1 and the contracting officer's decision for these changes, and did not explain why they did not admit that the changes were the result of errors in the original solicitation. Even so, this lack of truthfulness as to the reasons for the changes does not in itself give rise to entitlement for increased costs. Respondent did request a price proposal in modification 1, acknowledging that the changes might result in increased costs. Appellant was fully aware of the parameters of the changes in the work ordered in modification 1 before contract performance commenced, and appellant must prove that it incurred increased costs to perform the work as changed.

Credibility Issue Raised After the Hearing

Respondent's counsel raised an issue of credibility in respondent's post-hearing briefs–whether appellant had planned, as its means and methods of operation, to fleet barges behind the groin during contract performance, and based its bid upon this methodology. Respondent asserts that appellant's plan to fleet barges was devised only during claim preparation, after contract completion, as this plan was mentioned for the first time in appellant's cost proposal for Modification 1 submitted on February 11, 2010.[52] Respondent's Post-Trial Brief at 5; Respondent's Sur-Reply Brief at 2-3.

Appellant rebuts respondent's questioning of the timing of the origin of its fleeting plan by referring to a November 12, 2005, email message from Bertucci to Choctaw which mentions beginning work on the breakwaters and the seaward end of the groin. Appellant also refers to the sworn testimony of Mr. Ford and Mr. Zelenka as to the intent of the plan and shipment of fifteen loaded barges of riprap to the site in January 2006, allegedly

[52] We do not find specific mention of fleeting behind the groin in the February 11, 2010, cost proposal. However, Choctaw's letter dated September 28, 2010 mentions that in a meeting on August 17, 2010, Choctaw explained to NRCS personnel that it "planned on using the seaward end of the new groin as a fleeting area and protection from the gulf seas." The plan to fleet eight barges in a specific configuration was not explained until the hearing on the merits, and Mr. Zelenka and Mr. Ford had differing recollections as to how many barges they intended to fleet behind the groin.

demonstrating that "[appellant] was preparing to execute the very plan of operations described in the undisputed testimony." Further, appellant asserts that there is no requirement that appellant document its plan of operations, so the fact that there is no mention of fleeting behind the groin prior to the February 11, 2010, cost proposal is not supportive of respondent's questioning of the timing of the origin of the plan. Rather, appellant states, "[e]xcept for this email confirming that work would start on the seaward end of the groin, the record contains no documentation as to Appellant's intended means of performance, nor should it"; "the unrefuted evidence at trial was that Appellant intended to utilize the protection behind the groin." Appellant's Post-Hearing Reply Brief at 1-3.

As appellant's claim is based on the alleged impact to means and methods of performance, appellant's counsel's statement that the record need not include documentation of the intended means and method of performance ignores the notice requirements of both the Changes and Differing Site Conditions clauses. Further, the lack of any mention of the alleged plan to fleet behind the groin until several years after contract performance does present an issue of credibility as to whether appellant did in fact intend to employ this means and methods of performance. A critical component of the plan to fleet barges behind the groin is the 1084-foot length of the groin indicated in the solicitation. The revised, shorter length of the groin, which allegedly was partially responsible for thwarting this plan, was clearly indicated in modification 1 and must have been apparent when the barges first arrived at the project site. Yet, while appellant referenced the problem of water depths in its correspondence and job records, there is no mention of the shortening of the groin during performance or the alleged plan to fleet barges behind the groin until the cost proposal for modification 1 was submitted several years after performance was complete. While these concept are later discussed in the reports of Mr. Connole and Mr. McCoy, these witnesses have no personal knowledge of Mr. Ford's or Mr. Zelenka's intent during the bidding or performance phase.

We are not convinced that appellant based its bid on the alleged fleeting plan.[53] There is a lack of documentation contemporaneous with the bidding phase and the period of contract performance containing pricing for or mentioning appellant's plan to fleet barges behind the groin. Additionally, Mr. Zelenka and Mr. Ford testified inconsistently as to the number of barges appellant intended to fleet behind the groin. There is also a lack of documentation contemporaneous with contract performance mentioning or complaining of the reduced length of the groin, a critical element that allegedly thwarted the appellant's fleeting plan. Even so, we proceed to analyze appellant's claim on the basis of Mr. Ford's

[53] Mr. Zelenka testified that during the claim preparation process appellant developed "new theories of understanding how we were damaged." Transcript, Vol. 2 at 111.

and Mr. Zelenka's testimony that the fleeting plan was conceived in the pre-bid stage. Regardless of when this fleeting plan was actually conceived, as discussed herein, we find that appellant has failed to meet its burden of proof of both entitlement and quantum.

Mr. Connole's Opinion as to Entitlement Does Not Rest Upon a Reliable Foundation

Before we analyze the merits of appellant's claim, we address the viability of Mr. Connole's opinion testimony as to entitlement. Respondent did not present rebuttal expert testimony, and appellant urges the Board to accept Mr. Connole's "unrefuted" expert testimony.

Federal Rule of Evidence 702 reads as follows:

> Testimony by Expert Witnesses
> A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if:
> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;
> (b) the testimony is based on sufficient facts or data;
> (c) the testimony is the product of reliable principles and methods; and
> (d) the expert has reliably applied the principles and methods to the facts of the case.

In general, this rule is viewed as requiring the trial judge to ensure that the proffered expert testimony is both reliable and relevant. *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 147 (1999) (citing *Daubert v. Merrell Dow Pharmaceuticals*, *Inc*., 509 U.S. 579, 589-90, (1993). While the Board allowed Mr. Connole to testify, his testimony included his conclusion on legal entitlement which was beyond his role as an expert. Courts are consistently reluctant to admit an expert's opinions of law. *See, e.g., Mendenhall v. Cedarapids, Inc.*, 5 F.3d 1557, 1574 (Fed. Cir. 1993); *Avia Group International , Inc. v. L.A. Gear California, Inc.*, 853 F.2d 1557, 1564 (Fed. Cir. 1988).

We do not consider Mr. Connole's legal analysis and opinion on the reasonableness of appellant's interpretation of the solicitation, which is the basis of his entitlement determination, to be reliable or relevant, nor do we find it to be helpful evidence. As we explain in detail below, Mr. Connole's determination of entitlement is based upon his erroneous opinion as to the legal issues–a misreading of the plain meaning of the solicitation and the contract; appellant's unreasonable reliance in particular on one solicitation drawing

without considering warnings of changing water depths on other drawings; an incorrect assumption of static water depths; an erroneous conclusion that the changing, dynamic water depths actually encountered were differing site conditions; and an erroneous determination that the solicitation indicated a "protected onsite staging area" for barges. Because Mr. Connole's opinion as to entitlement is premised upon an incorrect legal determination, it therefore intrinsically lacks a reliable foundation. *See*, *e.g.*, *Hensel Phelps Construction Co*., ASBCA 49270, 99-2 BCA ¶ 30,531, at 150,796 (citing *Sternberger v. United States*, 401 F.2d 1012, 1016 (Ct. C1. 1968) and *Daubert*).

The Realignment and Shortening of the Groin In Modification 1 Was a Change to the Contract

The realignment and shortening of the groin was clearly apparent from drawing sheet 5M of 19 of modification 1. While the contracting officer testified that he believed the shortening of the groin would have impacted appellant's means and methods of performance, appellant must prove the impact and resulting change in costs. Therefore, to the extent that appellant can prove overall additional costs as the result of relying upon the length of the groin as originally indicated in the solicitation, and the impact of the shortening of the groin in modification 1, appellant would be entitled to such costs.

The realignment and shortening of the groin by modification 1 was a change to the contract pursuant to the Changes clause and not a differing site condition, as modification 1 was issued before contract work commenced. Appellant therefore was aware, or at least should have been aware, of these changes to the groin before contract performance commenced. Despite the fact that the modification clearly showed the revised length of the groin to be 926 feet, Mr. Zelenka testified that he did not realize the length of the groin had been revised until his work forces arrived at the project site. Even then, during the first winter months of contract performance, appellant did not give notice to the contracting officer, as required by the Changes clause, that the shortening of the groin was impacting contract performance. Rather, the contemporaneous records noted constantly changing water depths and severe weather.

According to modification 1, the change in the groin resulted in changed quantities of rock and geotextile material. Testimony at the hearing alleged that these quantities decreased, and the shortening of the groin resulted in the loss of "profitable work." This cost impact of the realignment and shortening of the groin is not specifically allocated in the claim. Appellant has not demonstrated that the shortening of the groin increased its costs of performance directly or indirectly. Rather, appellant's claim and Mr. Connole's entitlement analysis are predicated in large part on appellant's assertions that actual water depths encountered at the project site, including encountering the sandbar-hump and the reduction

in the length of the groin, resulted in the loss of what appellant calls an "onsite protected staging area" for fleeting barges behind the groin. We treat these assertions next.

The Sandbar-Hump in Modification 1 Was a Change to the Contract

The drawings in modification 1 indicated a sandbar-hump in close proximity to the site of the groin. The sandbar-hump was explicitly shown in the drawings issued with modification 1, but not shown in the solicitation drawings.[54] According to the testimony of respondent's witnesses, this sandbar-hump was not indicated in the original solicitation, but existed at the time the solicitation and the modification revision were issued. Accordingly, appellant may not have taken this feature into account when bidding. When modification 1 was issued, the contracting officer treated the existence of the sandbar-hump as a change.

Although government witnesses testified at the hearing that the existence of the sandbar-hump would have impacted appellant's means and methods of performance, they were not specific as to how it could have affected or did affect appellant. Appellant must prove that it incurred increased costs arising from its reliance upon the solicitation that did not indicate the sandbar-hump.

Appellant's pre-bid site investigation is relevant to this issue, as appellant tested the water depths before modification 1 was issued and took actual conditions into consideration for bidding purposes. The testimony during the hearing with regard to the sandbar-hump was contradictory and inconclusive. Mr. Ford stated that the sandbar-hump was not obvious on the plans, and he would not have noticed it during his review of the solicitation and modification 1. Transcript, Vol. 2 at 226. Mr. Ford also testified that the barges encountered the sandbar-hump, but there is no specific mention of this sandbar-hump in correspondence during performance, nor is there evidence that the sandbar-hump itself–as opposed to the overall changing dynamic environment near the project site, i.e, the accretion of sand in the area of the sandbar-hump–hindered performance. Mr. Zelenka has no specific recollection

[54] Mr. McCoy's assertion that someone intentionally changed the CAD output which would have shown the sandbar-hump on the solicitation drawings, to remove it or "clip it out," is speculative and unsupported. While Mr. McCoy alleges that the pre-bid survey data should have generated the sandbar-hump when the solicitation drawing was prepared, this does not prove that someone intentionally altered the output to conceal the sandbar-hump or that there was intent to provide inaccurate data. The fact that Mr. McCoy, whose expertise is the use of CAD software, could not recreate the solicitation drawings from the data set allegedly used to create the drawings does not take into account whether other information was available to create the solicitation drawings.

as to whether the sandbar-hump was shown in the solicitation or contract drawings. He recalls discussing a hump with Mr. Connole, but does not remember if this discussion was before or after the claim was filed. *Id*. at 29-30. When the Board asked if the sandbar-hump could have kept appellant from fleeting barges behind the groin, appellant's CAD expert did not answer responsively. Appellant gave no notice during contract performance under the Changes clause with regard to the sandbar-hump.

There is no specific evidence as to impact of the sandbar-hump, and no allocation of alleged additional costs in the claim attributable specifically to the sandbar-hump. Appellant has failed in its burden of proof with regard to this change in modification 1.

The Shallow Water Depths Encountered Were Not Differing Site Conditions

Appellant asserts that the water depths encountered at the project site were differing site conditions. Pursuant to the Differing Site Conditions clause, appellant must prove that the conditions encountered either 1) differed materially from those indicated in the contract or 2) were 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.

Appellant states:

> Mr. Connole analyzed the solicitation, including the drawings provided therewith, in the course of his investigation. In his analysis he determined that the contractor could reasonably rely upon the representations in the contract drawings, and in particular Sheet 5 of 19 to determine depth.

Appellant's Post-Trial Brief at 31. Apart from being beyond the purview of expert testimony, Mr. Connole's determination that appellant could reasonably rely upon the representations of the contract drawings, and in particular sheet 5 of 19, is not correct, as appellant's alleged reliance is not reasonable. The solicitation contains clear language advising potential bidders that the island is in a dynamic environment, and that bottom elevations may change around the groin. As knowledgeable bidders with experience in the environment, Choctaw and Bertucci should have been well aware that water depths change. This, in fact, was Bertucci's experience on the previous project it performed in 1997.

While drawing sheet 5 of 19 of the solicitation does not contain the note as to the dynamic environment, other drawings showing the cross-section of the groin and the breakwaters prominently contain a note warning the bidder of the changing water depths. To rely on sheet 5 of 19 "in particular," and ignore the clear warnings of changing water

depths elsewhere, is contrary to the principles of contract interpretation, which require the contract to be read as a whole.

Contract interpretation begins with an examination of the plain language of the contract. The contract must be read as a whole, giving reasonable meaning to all its parts. *Airclaims, Inc. v. Department of the Interior*, CBCA 2554, 12-2 BCA ¶ 35,156 at 172,536. Appellant's claim and Mr. Connole's analysis fail to read the contract language as a whole and apply the plain meaning. There is clear language on the cross-section drawings of the groin and with reference to the breakwaters in the solicitation and modification 1, that states "[b]ottom elevations may change due to the dynamics of the environment." Additionally, Special Provision 8 warns of tidal fluctuations, and the construction specifications state that access to sites may be impeded due to shallow conditions. From this language, it is clear in the solicitation and modification 1 that water depths cannot be expected to remain static near the project site–rather, what is foreseeable by a prudent bidder from this language is the condition that appellant ultimately found at the project site–a dynamic, changing environment.

A plain reading of the solicitation and contract drawings, together with Bertucci's prior experience in 1997 at the project site where Bertucci experienced changing water depths, should have sufficiently alerted appellant that the water depths were subject to a dynamic, changing environment. Mr. Zelenka testified that he had informed Mr. Ford of his experience before appellant submitted its bid. Claimant's interpretation of the solicitation and reliance on sheet 5 of 19 requires the water depths as indicated to remain static, contrary to the other clear indications in the drawings and specifications and Bertucci's prior experience.

Mr. Ford and Mr. Zelenka acknowledged that they had seen the notes on the cross-sections of the groin that clearly indicate to bidders that the depths may change because of the dynamic environment. Also, the groin was a structure to be built by appellant. It did not exist when the bid was submitted, and it was to be built in the gap between the island and breakwater zero. Clearly, the Government could neither know nor guarantee what the ultimate water depths behind the groin to be built would be, given the dynamic environment that existed and about which bidders were warned. The water depths indicated in the solicitation were noted as the result of specific surveys taken at a particular time, and were not a prediction that such depths would remain constant.

In addition to emphasizing the dynamic environment, the drawings in the solicitation also noted that the cross-sections near the groin were derived from surveys taken in July 2003 and 2004, one to two years before bidders reviewed the solicitation. It was not prudent for appellant to conclude that such information would remain constant, given the dynamic

environment. *See Hardwick Brothers Co. v. United States*, 36 Fed. Cl. 347, 380 (1996), (holding that the bidder's conclusion that survey information represented conditions that would exist years later was not reasonable or prudent). Rather, it was foreseeable, based on Bertucci's experience and the solicitation's language, that water depths would change, as the solicitation represented conditions based on surveys that were not recent, with express warnings of changing, non-static conditions.

While the government witnesses testified that some of the depths in the solicitation were incorrect, specifically referring to the sandbar-hump indicated in modification 1, appellant's pre-bid survey of the area with a fathometer confirmed to appellant that it had sufficient information upon which to base its bid. Both Choctaw and Bertucci tested the water depths during their pre-bid visit and found the depths sufficient at that time to accomplish the work as planned. Mr. Zelenka asserted in his initial cost proposal that he found the water depths comported with those in the solicitation prior to bid.

During contract performance, both Choctaw's and Bertucci's daily logs indicate that the area behind the groin was filling in with sediment as rock was being placed, as the result of the dynamic environment warned about in the solicitation and modification 1. A barge that was able to access a particular site two weeks previous was unable to do so later. Areas that were deep one day were shallow the next. Choctaw's Mr. Sanders' correspondence with the contracting officer indicates problems arose because of "low tide, fog, rough seas access problems due to sedimentation"; "instead of a deeper water bottom near the groin, we found it filled with sand"; "site conditions continue to change due to the volatility of the weather and the environment around the jobsite . . . site conditions can change very rapidly in the cross-sectional areas of the groin."[55]

The water depths encountered were not differing site conditions pursuant to the Differing Site Conditions clause. The water depths did not differ materially from those indicated in the solicitation, nor were they 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. Rather, the conditions encountered were clearly indicated in the solicitation–dynamic conditions, reasonably foreseeable, and consistent with the warnings in the plans and specifications that provided no assurances of static water depths. Appellant encountered conditions that were foreseeable from Bertucci's prior experience and the language of the solicitation and modification 1–changing water depths. *See Meyers Cos.v.*

[55] These contemporaneous statements in the job records are contrary to Mr. Ford's testimony that accretion was not an impediment to performance. Transcript, Vol. 5 at 45; Appellant's Post-Trial Brief at 28.

United States, 41 Fed. Cl. 303, 310 (1998) (shallow water depths foreseeable when contract read as a whole).

The Solicitation Drawings Could Not Reasonably be Interpreted to Indicate an Onsite Protected Staging Area

Appellant's claim and Mr. Connole's opinion as to entitlement are premised on appellant's allegation that information in the original solicitation–the length of the groin and the water depths surrounding it–led appellant to believe it would be able to fleet eight fully-loaded barges behind the groin within an "onsite protected staging area." However, Mr. Zelenka testified that the solicitation did not specifically identify any area where he could fleet barges at the project site–this was his interpretation of the solicitation. Appellant states:

> If Appellant had been provided an onsite protected staging area behind the Groin as reflected in the original contract drawings, the Appellant could have worked on the Groin during poor conditions, and could have used even small windows of time to mobilize rock and equipment to the Breakwaters from behind the Groin.

Appellant's Post-Trial Brief at 36 (citing Appellant's Supp. Appeal File, Vol. 6, Exhibit 94 at 2968-69 (Mr. Connole's report)) .

Contrary to the assertions of appellant and Mr. Conolle, there was no onsite protected staging area "reflected in the original contract drawings." As we have held that the water depths encountered were not differing site conditions, we find that it was not reasonable to interpret the solicitation drawings as indicating an "onsite protected staging area."

In order to fleet barges behind the groin, appellant first had to build it. As discussed previously, the contemporaneous job records show that what actually occurred is what the contract drawings predicted would occur–dynamic, constantly changing water depths, with sediment filling in immediately behind the groin as it was being built. The water depths behind the groin filled in quickly as the rock was placed, and appellant found that its AB-4 barge could not navigate where it had previously done so.

There is no evidence that the water depths should have stayed constant during contract performance, nor could anyone have expected that to happen. Mr. McCoy's calculation that eight barges could have been fleeted behind the groin assumes a constant, unchanging depth rather than a dynamic, changing environment. Additionally, Mr. McCoy has no personal knowledge of appellant's bidding process or contract performance, and the fact that he

performed a calculation and then theorized the possibility of fleeting barges behind the groin lacks any evidentiary value as to Choctaw's or Bertucci's thought processes on this issue. There is no evidence that appellant would have successfully fleeted four to six barges (Mr. Ford's alleged plan), or six to eight barges (Mr. Zelenka's alleged plan), behind the groin after it was built, even if the groin's length were as originally indicated in the solicitation. Rather, the evidence from the job logs and correspondence indicates otherwise. Based on the clear warnings in the solicitation of dynamic water conditions, it would have been unreasonable to interpret the solicitation as indicating that there would be an "onsite protected staging area" either before, during, or after the groin was built, even if the actual length of the groin had been as originally indicated in the solicitation.

Severe Weather Was Not a Differing Site Condition

Mr. Connole's analysis and quantum calculation deems compensable those days of idle performance because of weather during what he considers to be the extended performance period, after the conclusion of his predicted completion date. However, the Government issued non-compensable time extensions for some weather delays. Weather delays are not compensable as differing site conditions.

In *Commercial Contractors Equipment, Inc*., ASBCA 52930, et al., 03-2 BCA ¶ 32,381, the Armed Services Board of Contract Appeals held that weather is not a differing site condition, and that non-compensable time extensions for adverse weather is the remedy for adverse weather:

> [T]he law is clear that weather occurring during contract performance, no matter how severe, and other acts of God alone do not fall within the provisions of the Differing Site Conditions . . . clause. *Turnkey Enterprises, Inc. v. United States*, 597 F.2d 750, 759 (Ct. Cl. 1979) (climatic conditions producing unexpected, unanticipated weather conditions affecting contract performance deemed to be acts of God generally not within the purview of the DSC [Differing Site Conditions] clause); *Arundel Corp. v. United States*, 103 Ct. Cl. 688, 711-12 (Ct. Cl.), *cert. den*., 326 U.S. 752 (1945); *Luhr Bros., Inc.*, ASBCA No. 52887, 01-2 BCA ¶ 31,443 at 155,292; *Arundel Corp. v. United States*, 96 Ct. Cl. 77, 116 (1942). *See also Praxis-Assurance Venture*, ASBCA No. 24748, 81-1 BCA ¶ 15,028 at 74,356-57 (abnormally heavy rain during performance damaging work not a DSC); *E. W. Jackson Contracting Co., Inc.*, ASBCA No. 7267, 1962 BCA ¶ 3325 at 17,133 (hurricane causing excessive underground water not a DSC) . . . . Moreover, the contract time was extended by bilateral modifications for all adverse weather delay days that occurred beyond the monthly anticipated adverse weather delay work days.

03-2 BCA at 160,255-56.

Here, Mr. Connole's analysis impermissibly shifts the risk of bad weather to respondent. This serves as a further basis to deny relief.

The Changes in Access Routes Were Not Differing Site Conditions

Changes in the access routes were included in modification 1. The difficulty encountered was the water depths. The solicitation and the contract warned that access routes may be affected by shallow conditions and the dynamic environment. There were no water depths indicated for the access routes. Shallow depths in the access routes were not a differing site condition. The contractor has not demonstrated that the actual revision of the access routes increased the costs of performance.

The Change in the Work Sequence Does Not Entitle Appellant to Additional Costs

Finally, while modification 1 changed the work sequence to begin on the groin and then on the breakwaters, Mr. Zelenka testified that appellant's planned sequence had been to construct the groin first. As appellant's bid was based on this sequence of work, appellant has not stated a basis for entitlement to additional costs for this change.

Delayed Notice to Proceed Does Not Entitle Appellant to Relief

Appellant considers the allegedly delayed notice to proceed in mid-December to have been a directive to commence work in the winter season, when weather and sea conditions are typically unfavorable for marine operations. Even so, the original performance period was amended to 193 days in the pre-bid period, which would have extended performance into the winter season. As the notice to proceed with the contract work had not been issued by mid-October 2005, appellant submitted a proposed construction schedule executed by Jamey Sanders, dated October 28, 2005, showing an anticipated start date for contract work on December 1, 2005, and proceeding through the winter months of January, February, and March 2006. There was no indication in the contract that work would not be performed in the winter. While appellant did commence performance in January 2006 and encountered what it alleged as differing site conditions, we have found that the changing water depths and severe weather conditions encountered were not differing site conditions. The appellant has failed to demonstrate that the performance during these months caused it to incur additional costs for which respondent is liable.

Mr. Connole's Opinion as to Quantum Does Not Rest Upon a Reliable Foundation or Method

Mr. Connole's quantum calculation is based on a calculation of a theoretical completion date after which costs incurred are allegedly caused by the impact of the changes in modification 1. The calculation of the completion date is predicated on his erroneous legal opinion that the solicitation could have reasonably been interpreted to allow appellant to fleet up to eight barges behind the groin. As discussed above, this interpretation of the solicitation is unreasonable; the clear, numerous indications in the solicitation of foreseeable dynamic conditions made such expectations unreasonable. As a result, the quantum calculation is based upon an erroneous prediction of a theoretical completion date and an assumption of static water depths, and therefore lacks a reliable foundation. *Kumho*, at 147; *Daubert*, at 589-90. If appellant's bid was premised on having an onsite protected fleeting area, then appellant cannot show that its bid was reasonable or calculate entitlement to excess costs based on the assumption that the modification thwarted that plan.

To further erode the reliability of Mr. Connole's quantum calculation, he initially testified at the hearing that the claim was not calculated on a total cost basis. However, his subsequent, voluntary, and unsolicited testimony confirmed that the claim was in fact calculated on a total cost basis. Mr. Connole, recalled as a rebuttal witness by appellant's counsel, was asked by appellant's counsel to explain quantum calculations that he had performed after his prior testimony during the hearing. Mr. Connole stated that he had since performed cost calculations of performance periods that he had previously not calculated. His calculations confirmed that the claim was in fact calculated on a total cost basis.

As this Board stated in *Moshe Safdie & Associates, Inc. v. General Services Administration*, CBCA 1849, et al., 14-1 BCA ¶ 35,564:

> A total cost approach assumes all costs over what was bid and paid are due to the claimed changes. It is not favored as a means of presenting a claim against the Government . . . . *J.D. Hedin Construction Co. v. United States*, 347 F.2d 235, 246-47 (Ct. Cl. 1965); *Servidone Construction Corp. v. United States*,19 Cl. Ct. 346, 384-86 (1990), *aff'd*, 931 F.2d 860 (Fed. Cir. 1991).

14-1 BCA at 174,300.

Appellant's quantum analysis, based upon the total cost method, assumes, without support, that appellant could have performed for the bid price, and attributes almost all additional costs to respondent. Accordingly, we find that the quantum calculation is not based upon a reliable method. *Kumho,* at 147*; Daubert*, at 589-90 .

Appellant Has Not Met its Burden of Proof

It is appellant's burden to prove entitlement and quantum with regard to its claim arising from modification 1. With regard to appellant's burden of proof, this Board stated in *Moshe Safdie*, with reference to *Electronic & Missile Facilities, Inc. v. United States*, 416 F.2d 1345, 1358 (Ct. Cl. 1969):

> The ascertainment of damages, or of an equitable adjustment, is not an exact science, and where responsibility for damages *is* clear, it is not essential that the amount thereof be ascertainable with absolute exactness or mathematical precision: "It is enough if the evidence adduced is sufficient to enable a court or jury to make a fair and reasonable approximation." *Specialty Assembling & Packing Co. v. United States*, 355 F.2d 554, 572, 174 Ct. Cl. 153, 184 (1966); *WRB Corp. v. United States*, 183 Ct. Cl. 409, 425 (1968). . . .
>
> As the court stated in *Dawco Construction Inc. v. United States*, 18 Cl. Ct. 682, 698 (1989), *aff'd in part*, 930 F.2d 872 (Fed. Cir. 1991), "All that is necessary is a reasonable showing of the extra costs. Defendant cannot be permitted to benefit from its wrong to escape liability under the guise of a lack of a perfect measure. See generally *Dale Construction Co. v. United States*, 161 Ct. Cl. 825 (1963)." In *Dawco*, the court had decided quantum on the basis of a jury verdict, a less-favored approach than total cost. The court stated that it was appropriate to apply a jury verdict approach where it was not possible for the plaintiff to prove its actual damages, but sufficient information existed for the court to arrive at a fair approximation. Similar cases are *Propellex Corp. v. Brownlee*, 342 F.3d 1335 (Fed. Cir. 2003), and *Boyajian v. United States*, 423 F.2d 1231 (Ct. Cl. 1970).

14-1 BCA at 174,300.

Modification 1 requested a price proposal, acknowledging that there could be increased costs associated with the included changes. While government witnesses at the hearing acknowledged that the realignment and shortening of the groin and the inclusion of the sandbar-hump in the modification impacted appellant's performance, there are no specific costs in the claim allocated to these two changes. Instead, appellant's claim as to entitlement is premised upon an incorrect interpretation of the solicitation as indicating a protected onsite fleeting area and allegations of foreseeable water depths and severe weather as differing site conditions. Appellant's quantum calculation predicts a speculative completion date based upon the incorrect interpretation of the solicitation and used a total cost methodology that seeks all costs incurred after that date.

While appellant may have incurred overall additional costs resulting from the changes in modification 1, this Board is unable to arrive at any fair approximation of those costs. Appellant has failed in proving both entitlement and quantum. Accordingly, the appeal in CBCA 2482 is denied.

Decision

CBCA 2482 is **DENIED**. CBCA 2653 is **GRANTED** in the amount of $15,032.19, with interest pursuant to the CDA, 41 U.S.C. § 7109 (2012).

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ALLAN H. GOODMAN
Board Judge

We concur:

_____
STEPHEN M. DANIELS
Board Judge

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JEROME M. DRUMMOND
Board Judge