



UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

GRANTED IN PART: January 4, 2013

CBCA 2391

DRENNON CONSTRUCTION & CONSULTING, INC.,

Appellant,

v.

DEPARTMENT OF THE INTERIOR,

Respondent.

Traeger Machetanz and Jessy J. Vasquez of Oles Morrison Rinker & Baker LLP, Anchorage, AK, counsel for Appellant.

Eric R. Trew, Office of the Regional Solicitor, Department of the Interior, Lakewood, CO, counsel for Respondent.

Before Board Judges **DANIELS** (Chairman), **WALTERS**, and **ZISCHKAU**.

DANIELS, Board Judge.

The Department of the Interior's Bureau of Land Management (BLM) contracted with Drennon Construction & Consulting, Inc. (Drennon) to widen a road to a campground in central Alaska. The project required the contractor to excavate a hillside and build a gabion wall along it. As Drennon excavated, the hillside slopes collapsed. Both parties agreed that work should cease until a solution to the problem could be devised. Ultimately, the project was scaled back; the wall was not built and the road was not widened.

Why did the hillside slopes collapse? Drennon contends that the design of the project was defective and that the geotechnical information provided in the solicitation, on which it relied in pricing the job, was flawed. Consequently, the contractor claims, it is entitled to recover costs it incurred during the suspension of work and costs it incurred to buy and assemble gabions which were of no use due to the way in which the project was ultimately completed. BLM maintains, to the contrary, that the cause of the problems encountered was the contractor's inappropriate approach to the project, which was not in accord with the recommendations of the engineers who prepared the geotechnical information. BLM also notes that the contract required Drennon to design, as well as build, the gabion wall, and the agency urges that the contractor's design was faulty. The agency concludes that the contractor is therefore not entitled to any recovery.

Our view is in line with the contractor's. Although Drennon's technique for excavating the hillside may not have been ideal, due to the defects in the design of the project and significant differences between the geotechnical information provided and the actual soil composition, the hillside would have collapsed no matter what technique the contractor had used. Whether the contractor's design for the wall (which was approved by the agency) would have succeeded is irrelevant; the virtue of the design was not tested, since the project was truncated before the wall was built. We grant the appeal, excluding from the award only the contractor's profit on its suspension of work claim.¹

Findings of Fact

The Tangle Lakes Campground is operated by BLM. The campground is reached by land over a half-mile-long gravel road from the Denali Highway. For two decades, BLM had wanted to have the road widened from one lane to two and to have a blind curve in the road eliminated. After enactment of the American Recovery and Reinvestment Act of 2009, Public Law 111-5, the agency allocated money provided through that legislation to contract for achieving these objectives. Only limited funds were so allocated, however, and this fact had implications which will be noted in this decision.

In August 2009, BLM awarded a contract to the engineering firm USKH Inc. in the amount of \$127,688.23 to design this project. USKH's contract was to "provide the documentation, drawings, and supplemental specifications necessary to construct the project

¹ The author of this opinion also wishes to thank counsel for both parties for the courteous way in which they dealt with each other and with the witnesses in bringing this case before the Board. In more than twenty-five years on the bench, the author has rarely experienced such cooperation by counsel.

within the budgetary requirements and timing constraints provided.” The engineering firm was to “continue the design to 100% level,” “includ[ing] all drawings and specifications.”

The BLM construction budget which served as one of the constraints on USKH’s efforts was \$500,000. As explained at our hearing by Darrin McLeod, the BLM civil engineer who was responsible for the design contract and oversaw construction in his capacity as the contracting officer’s representative, “[O]ur construction budget was fixed and so we had to keep modifying the scope of the work to fit within that construction budget.”

USKH’s design was included in the solicitation against which Drennon bid and the contract which BLM awarded to that company for construction of the project. The design included a twenty-foot-wide road between the Delta River and a hill, with a three-foot shoulder on the hill side of the road. The drawings showed a need to excavate into the hillside to widen the road. Between the hill and the shoulder was to be a wall constructed of gabions – wire baskets to be filled with rocks and soil. The height of the gabions was shown as “approx. 9' max.” at the “steepest stable slope” of the hill. The baskets were to be stair-stepped with a minimum of twelve inches per step so that native plants, secured from the excavated hillside and with a minimum height of four feet, would be placed in each step. The purpose of including these plants was to “green” the wall – to make it appear to blend into its surroundings. The planting requirement was imposed to implement BLM’s desire that the roadway entrance to the campground preserve as much as possible of the natural conditions. The solicitation and contract included a USKH estimate that 420 cubic yards of gabions would be required to build the wall.

In creating this design, USKH worked from a digital terrain model which was based on earlier photogrammetric mapping of the area provided by BLM. USKH realized, as it performed its design work, that this model contained inaccurate control points. The engineering firm asked BLM for an additional \$25,000 to perform a survey on the basis of which an accurate design could be made. BLM’s Mr. McLeod rejected the request, believing that the model was sufficiently accurate for the engineering firm to do its work. A USKH engineer then proposed that “weasel words” (his phrase) be placed in the solicitation for construction work to warn potential bidders of possible inaccuracies in the model. Mr. McLeod agreed, thinking that this would avoid additional costs resulting from whatever inaccuracies existed. The solicitation for construction work required the construction contractor to perform a survey before doing other work at the site.

Among USKH’s tasks under the design contract was to conduct a geotechnical investigation of the site. USKH engaged another firm, Shannon & Wilson, Inc. (S&W), to conduct subsurface explorations, including making soil borings, geotechnical analyses, and the “preparation of a geotechnical design and construction report.”

S&W's geotechnical report was included in the solicitation. The report noted that the hill into which the construction contractor would have to excavate was an esker – a “sinuous ridge[] of assorted, somewhat stratified sand and gravel believed to represent fillings of superglacial, englacial, or subglacial stream channels.” This report contained information about eight soil borings that S&W had taken under the existing road. Of the eight borings, seven were described as containing silt, and the percentage of fines (material passing through sieve size #200) in those borings ranged from 5.1% to 10.7%. S&W stated, “In general, the soils directly underlying the road surface consisted of medium-dense, slightly silty, sandy, cobbly gravel. Based on our site observations and understanding of the geology of the area, we believe the esker is composed of similar soils.”

The S&W report stated additionally that “[s]lopes of the esker range from 32 degrees to 38 degrees” and “anticipate[d] the esker soils are near their angle of repose.” The report also concluded that “[s]hort sections of oversteepened slopes may stand at slopes in the range of 45 degrees to 50 degrees and steeper if small amounts of fine-grained matrix are present.” The borings showed that “small amounts of fine-grained matrix” were present under the road, and the report contained S&W's belief that the hillside was “composed of similar soils” to those in the borings. But the report also hedged by describing esker soils as “non-cohesive” and saying, “Although temporary excavation slopes may initially stand steep they may slough and cave if they become wet, dry out, or are subjected to equipment vibrations.”

S&W addressed construction techniques as well in its report. It stated, “[T]he slope may fail if the entire wall length is cut at once; therefore, we recommend site preparation and construction be done in short sections and backfilled as work progresses.” S&W also recommended that the excavated area be compacted “with equipment able to reach into the excavation, such as a hoe-pack.” This last recommendation is rather curious in light of the caution that “temporary excavation slopes . . . may slough and cave if they . . . are subjected to equipment vibrations,” since a hoepack is an object which beats into the ground and creates a significant amount of vibration.

In addition to the drawings and specifications drafted by USKH and the report written by S&W, the solicitation and contract included various standard government contract clauses. These clauses included Federal Acquisition Regulation (FAR) 52.236-2, Differing Site Conditions (Apr 1984); FAR 52.242-14, Suspension of Work (Apr 1984); FAR 52.243-4, Changes (June 2007); and FAR 52.249-2, Termination for the Convenience of the Government (Fixed-Price) – Alternate I (Sep 1996). The solicitation and contract also specified that the gabion wall had to be designed, as well as built, by the contractor. The contracting officer explained accurately at our hearing that “the design build portion of the retaining walls was rather a bit of a subset of the rest of the contract.”

Drennon is a small construction company which typically performs projects in the \$300,000 to \$1,500,000 range, often in park areas in central Alaska. The company's president and general manager, Roy Drennon, has thirty years of experience in road construction. On May 7, 2010, Drennon submitted a bid of \$428,175 to perform the work mandated by the contract, including all options. In preparing the bid, Mr. Drennon reviewed the plans and specifications, the S&W geotechnical report, and manufacturers' recommendations for gabion baskets. Both the BLM contracting officer and his on-site representative, Mr. McLeod, testified that this was what they expected a prudent contractor would do. Mr. Drennon and other prospective bidders were unable to inspect the site prior to bidding because the road was closed and three or four feet of snow were on the ground.

Mr. Drennon planned on needing 420 cubic yards of gabion baskets to construct the wall, assuming that the USKH estimate "would be in the ballpark." He explained at the hearing that "[a]s a small contractor, I can't spend \$5000 to have a design done that was supposedly already done by the . . . owner. . . . We may bid 20 jobs before we get one. We can't spend \$5000 on every job, trying to get in." Mr. Drennon relied on the boring logs contained in the S&W report in planning to do excavation work on the hillside. He understood from the logs that the soil would contain between five and ten percent fines; because the soil was "medium-dense, slightly silty," as the report described it, he accepted as reasonable the report's projection that the hill would stand in an oversteepened condition. He did not know the meaning of the term "esker" at this time.

Were Mr. Drennon's expectations reasonable? The record contains differing views on this matter. BLM's expert witness, Thomas G. Krzewinski, an internationally recognized expert in the field of cold regions geotechnical engineering, believes that the question should be answered in the negative. Mr. Krzewinski emphasized the disclaimers made by S&W in its report. He testified that the silts at the Tangle Lakes site, like those in most eskers, are rock flour material, which has no cohesion. The hillside was consequently "quasi-stable" and should have been expected to ravel back to its angle of repose when cut at slopes greater than thirty-eight degrees. Drennon's expert witness, geotechnical engineer Anil Butail, agreed that esker soils are inherently marginally unstable, but testified that he would not expect a contractor to know the technical definition and significance of the term "esker." Rather, he would expect a contractor to plan his work based on the detailed description and soil boring data included in the report. The testimony of Patrick LeMay, the civil engineer who was hired by Drennon to design the gabion wall, gives credence to Mr. Butail's opinion. Mr. LeMay said that "esker" is a geotechnical term, not a civil engineering term, and that he did not know the meaning of the term "esker" and relied on the representations in the S&W report in designing the wall. In Mr. Butail's view, it would be reasonable for a contractor on a small project like this to rely on a geotechnical report where one has been prepared and provided by the owner, rather than paying for his own report and soil borings.

BLM awarded the contract to Drennon in the amount bid (including all options) on May 18, 2010. The agency issued a notice to proceed on June 11.

After award, as required by the contract, Drennon had the project area surveyed. As USKH had warned BLM might well happen, the survey demonstrated that the road could not be built as shown on the contract drawings. Those drawings would have required the road to be built two or three feet beyond the guard rail on the river side, and filling in the river to accomplish this design was impermissible because the Delta River was a designated wild and scenic river. The road had to be shifted in the opposite direction – into the hillside. This required significantly more excavation of the hill than anticipated. It consequently also required building a much higher wall than anticipated, to restrain the contents of the hill from falling onto the road. The wall design which Mr. LeMay prepared, and which BLM's Mr. McLeod approved on July 27, was fifteen feet high, not "approx. 9' max." as shown on the contract drawings, and used 778 cubic yards of gabions, not the 420 estimated in the contract. As Mr. McLeod acknowledged in an e-mail message to the contracting officer, a fifteen-foot-high wall "is a different animal altogether" from a nine-foot-high wall. It "requires different equipment/labor, more staging, etc." The increase in the height of the wall also magnified the difficulty of construction, Mr. McLeod testified. And because the contract specified payment for gabions on a per-unit basis, this difference also significantly increased the cost of the contract to the agency, consuming virtually all of the \$500,000 budgeted for construction.

Once the gabion wall design was approved, Drennon ordered the materials necessary to construct the wall, and once those materials were on site, it began to assemble the baskets so that it could install them as quickly as possible once excavation had proceeded. The contractor also decided that because it would need nearly twice as much aggregate as planned to fill the baskets, bringing in aggregate from elsewhere would not be cost-effective. Instead, Drennon purchased and brought onto the site a "screening plant" – a machine which could sort aggregate removed from the hillside, separating out the materials of appropriate size for filling baskets.

Toward the end of July, Drennon began clearing and grubbing vegetation from the hillside, for the purpose of securing plants to incorporate into the "green" design of the gabion wall. As noted in daily reports by Mark Paprocki, the BLM civil engineer who was the project inspector at the outset of contract work, this task proved far more complicated than expected. The contractor had to use mechanical means for digging. The roots of the plants were "going uphill and all over the place. The shrub roots are all tangled up with other shrub roots. Very difficult to get a good root ball if not impossible." Mr. Paprocki wrote in an e-mail message to others in BLM, "[I]t is a total mess when digging up the shrubs. I think the contractor is doing the best he can." Mr. Paprocki urged that the contract be modified

to permit Drennon to use smaller shrubs, so as to make the clearing and grubbing effort simpler, but such a modification was never made. As late as August 5, despite the contractor's best efforts, Mr. Paprocki estimated that about 150 more shrubs would be necessary to populate the gabions.

Acting in accordance with a schedule that had been approved by Mr. McLeod, once the clearing and grubbing had nearly been completed, Drennon turned its attention to excavating the hillside. Mr. Drennon quickly determined that because the wall had to be so much higher than anyone had expected, he would be unable to excavate the hillside with his equipment if he placed that equipment on the road; the excavator's boom would not reach the necessary heights. Instead, he cut a bench into the hillside, about eight feet above the roadway, and worked from there. The bench would serve two purposes. It would allow him to extend the boom of his excavator high enough to excavate portions of the hillside where the top of the wall would meet the hill, and ultimately to install gabions at the top of the wall. The bench would also stabilize the toe of the slope.

On August 10, Drennon began the excavation work in earnest. For the first segment of the effort – variously described by Mr. Drennon as seventy-five to one hundred or fifty to one hundred feet in length – no problems were encountered. After that, however, when the contractor cut into the hillside, the soil would collapse, sliding the hill and falling onto the bench. Mr. Drennon told Mr. McLeod, who was now on site, about his difficulties. The BLM representative wrote in his diary, “Contractor . . . having trouble with material sloughing down from above.” He understood that Mr. Drennon was explaining that the falling material was of great concern and had not been anticipated.

The next day, Mr. McLeod met with representatives from USKH and S&W. They all concluded, and informed Mr. Drennon, that the problems were caused by the contractor's having failed to follow the S&W recommendations for doing construction in short sections. Nevertheless, Mr. McLeod told the contracting officer by e-mail, “The material is at or near [its] angle of repose, so every scoopful that is excavated from the slope causes a landslide of material from above.”

Drennon continued its efforts. By August 12, the contractor had completed about 250 linear feet of excavation. Mr. McLeod observed much more sloughing of material than he had on the 10th, and some of it was much higher than Drennon could reach with its excavating equipment. Mr. Drennon testified, “Initially we thought, . . . this is one little valley . . . and we can work our way through that. But it just continued on.” Mr. McLeod's take on the problem, as enunciated in an e-mail message he sent to the contracting officer, was, “The high cut slope was not anticipated (by anyone I think) and is going to be a maintenance problem and a safety problem for BLM.”

Drennon stopped work of its own accord at about noon on August 12. Mr. Drennon testified, “We decided that the hill was not going to stabilize. [I]t bec[a]me apparent that this was not just an isolated small area in the hill, that the hill was going to continue to unravel, and that essentially this was not going to be built as it was designed.”

On August 13, Mr. McLeod, with authorization from the contracting officer, issued a stop work order. He testified that the situation posed a “great safety hazard to everyone and conditions that we couldn’t allow to continue.” Later on August 13, Mr. Drennon sent a letter to the contracting officer, stating that differing site conditions and defective specifications impacted his company’s ability to continue its work safely.

On August 17, Mr. Drennon, Mr. McLeod, and representatives of USKH and S&W met at the site to discuss solutions to the problems which had developed. The next day, Mr. McLeod asked Mr. Drennon for a proposal for further action. On August 19, Mr. Drennon gave BLM three alternate proposals. The contractor asked for additional payment for each of the proposals – \$115,278, \$173,680, or \$279,551, depending on which option was selected by the agency. Mr. McLeod had not been expecting extra costs and was shocked that the prices were so high. He told Mr. Drennon that BLM could not accept any of the proposals because the agency had a limited budget for construction of the project and even the least expensive of the choices was outside that budget. Additionally, he said, the proposals involved more road closures than were possible, given the need for access to the area by subsistence hunters. Mr. McLeod testified that other reasons for rejecting the proposals were that he was not confident that proceeding in accordance with any of them would improve the situation and that agency management was concerned about more damage to the natural resources.

Ultimately, BLM scaled back the project. On August 26, Mr. McLeod directed Drennon to simply place a single row of gabions along the roadway to catch any loose material that might slide down the hillside. The contractor installed 108 cubic yards of gabions and was paid for them at the contract’s per-unit price.

On October 8, 2010, Drennon submitted to the contracting officer the two claims which are at issue in this case. (Drennon submitted other claims, as well; they have been settled by the parties. *See Drennon Construction & Consulting, Inc. v. Department of the Interior*, CBCA 2521, et al. (Dec. 2, 2011) (dismissal order)). What has been termed the “gabion claim” demanded payment of \$80,686.47 as the costs incurred to purchase, transport, assemble, and dispose of gabions which were not used on the project (and had to be scrapped), and to screen rock to put into those gabions. At hearing, Drennon amended the claim to be for \$112,192.20, and Mr. Drennon explained the elements of the claim, which were supported in detail by an exhibit he presented. What has been termed the “suspension

of work claim” demanded \$86,918.57 for the costs incurred for equipment and manpower that were idle during the period from August 13 to August 26, while work was suspended by BLM. At hearing, Drennon amended the claim to be for \$87,455.43, and Mr. Drennon explained the elements of the claim, which were supported in detail by an exhibit he presented. BLM neither cross-examined Mr. Drennon as to the amounts and elements of these claims, nor introduced any evidence regarding them.

The contracting officer, who never visited the site, asked Mr. McLeod for his advice regarding the claims. In e-mail messages sent in October and December of 2010 and January of 2011, he provided the following opinions: BLM should make a reasonable payment on the gabion claim to reimburse the contractor for expenses it incurred to purchase, assemble, and dispose of baskets which were not used on the project. This payment should be “at a much lower cost” than the amount of the claim. (Ultimately, he suggested a payment of \$26,188.29.) The suspension of work claim should be denied because the agency and its design team addressed promptly the problems caused by the contractor’s having excavated the hillside unwisely.

The contracting officer denied the claims by decision dated February 10, 2011. He believed that the problems on the project were caused by the contractor’s “method and manner in performing the work.” The contractor, he said, “bears full responsibility for survey, design, layout and construction of the gabion retaining wall.” The suspension, according to the contracting officer, was necessary to correct unsafe conditions created by the contractor.

A year after the project was completed, in August 2011, Drennon’s expert witness, Mr. Butail, visited the site and took three soil samples from the hillside. Mr. Butail used a twenty-four inch wide bucket to take the samples. He found, in an undisturbed area, that “[e]very time the bucket takes a scoop, there’s more dirt that falls in immediately behind.” The samples were tested and found to contain 0.5%, 0.6%, and 3.1% fines. Mr. Butail testified, “[T]hese soils are very, very clean. They’re clean sands and gravel. They have virtually no fines in them in which to provide any kind of additional cohesion and they’re not capable of standing at any inclination steeper than . . . what’s called the natural angle of repose for this kind of material.” The soil’s stability was “pretty close to failure,” he said, as soon as he cut into it. Mr. Butail also determined that some of the slopes were at angles greater than the thirty-eight degree maximum angle of repose. BLM’s expert, Mr. Krzewinski, agreed that the angles were as Mr. Butail described in several, albeit short, areas.

Discussion

We agree with Drennon that the specifications issued by BLM for this project were defective and that the site conditions differed significantly from those described in the solicitation materials provided by the agency to bidders.

“When the Government provides a contractor with design specifications, such that the contractor is bound by contract to build according to the specifications, the contract carries an implied warranty that the specifications are free from design defects. *United States v. Spearin*, 248 U.S. 132, 136 . . . (1918).” *White v. Edsall Construction Co.*, 296 F.3d 1081, 1084 (Fed. Cir. 2002). There are limitations on this implied warranty, however. It attaches to design specifications, but not to performance specifications. Further, it applies to flaws which cannot be determined by a contractor before bidding; general disclaimers do not overcome it. The implied warranty does not apply, however, to ambiguities, inconsistencies, or mistakes which are patent. *Id.* at 1084-85.

As related in our findings of fact, the design created by USKH and adopted by BLM was flawed, and both USKH and BLM knew this even before the solicitation which led to Drennon’s contract was put out for bid. The design was based on a digital terrain model which in turn was based on a photogrammetric map of the area. The design called for the road to be widened over the guard rail separating the road from a river, and that was impermissible given the wild and scenic designation of the river. USKH called the likely problem to BLM’s attention, but the agency’s solution was simply to put “weasel words” into the solicitation and make corrections to the design later, after a contractor had been selected and it had had the area surveyed. The correction involved moving the road into the hill on the opposite side from the river.

The design also mandated that the contractor design (within the outline contained on a contract drawing) a gabion wall to restrain the hillside from falling onto the road, and then build that wall. The solicitation and contract said that the wall would be approximately nine feet high at most, and that about 420 cubic yards of gabions would be needed to build it. Because the road was moved into the hill, the contractor had to excavate much more of the hillside than anticipated, and the wall needed to be fifteen feet high (not nine) and consume 778 cubic yards of gabions (not 420). BLM’s contracting officer’s representative acknowledged that these differences required Drennon to use “different equipment/labor, more staging, etc.” to deal with the topography. The contractor had to build into the hillside, for example, a bench from which the boom on its excavator could reach portions of the hill which would not have had to be accessed if the original design had been correct.

There is no evidence in the record that Drennon should or even could have anticipated these design defects. The area was covered with snow during the period available for bidding, and the solicitation revealed no obvious problems with the design. The disclaimer that the design might have to be adjusted per a contractor-financed survey alerted bidders to the possibility that the design might have required a bit of tweaking, but cannot reasonably be read to impose on the contractor an obligation to construct the project in a manner significantly different from that envisioned in the contract. With regard to the anticipated height of the wall, “[t]he use of the word ‘approximately’ . . . does not render the quantification supplied in the specification a mere estimate for which the Government need accept no responsibility. While it obviously does not mean that the relevant quantity is absolute, or that the leeway which it implies may not vary somewhat according to relevant circumstances, ‘approximately’ implies a reasonable [sic] accurate representation.” *Dayton Construction Co.*, HUDBCA 82-746-C34, 83-2 BCA ¶ 16,809, at 83,548. Nine feet is not a reasonably accurate representation of what turned out to be fifteen feet.

BLM makes much of the fact that the contract required Drennon to design, as well as build, the gabion wall. As the contracting officer understood, however, “the design build portion of the retaining walls was rather a bit of a subset of the rest of the contract.” Drennon had to design the wall within the confines of the USKH design for the entire project, and the design of the wall had nothing to do with the project design flaws described above.

The impact of the design flaws was compounded by the fact that the site conditions were materially different from what was described in the geotechnical report included in the solicitation. This report, prepared by USKH subcontractor S&W, included information about the composition of the ground in which the contractor would have to perform its work.

The Court of Appeals for the Federal Circuit has explained:

In order to prevail on [a differing] site conditions claim, a contractor must establish four elements. First, the contractor must prove that a reasonable contractor reading the contract documents as a whole would interpret them as making a representation as to the site conditions. . . . Second, the contractor must prove that the actual site conditions were not reasonably foreseeable to the contractor, with the information available to the particular contractor outside the contract documents, i.e., that the contractor “reasonably relied” on the representations. . . . Third, the contractor must prove that the particular contractor in fact relied on the contract representations. . . . Fourth, the contractor must prove that the conditions differed materially from those represented and that the contractor suffered damages as a result

International Technology Corp. v. Winter, 523 F.3d 1341, 1348-49 (Fed. Cir. 2008).

We conclude that Drennon has established all four of these elements. First, the S&W report clearly made representations as to site conditions. The report included information about soil borings that the firm had made. The borings were said to contain between 5.1 and 10.7% fines, described the soil (consistent with the boring data) as “slightly silty,” and advised that the hillside would be “composed of similar soils.” The report also stated that the slopes of the hill ranged from thirty-two to thirty-eight degrees and that they were “near their angle of repose.” Nevertheless, S&W concluded, “[s]hort sections of oversteepened slopes may stand at slopes in the range of 45 degrees to 50 degrees and steeper if small amounts of fine-grained matrix are present.” The boring data, combined with the representation that similar soils would be in the hill, conveyed the engineers’ expectation that small amounts of fine-grained matrix would be present, such that short sections of steep slopes would stand temporarily while work was progressing.

The report hedged these specific conclusions by describing esker soils – those present on the hillside – as “non-cohesive.” It also hedged by saying that “[a]lthough temporary excavation slopes may initially stand steep they may slough and cave if they . . . are subjected to equipment vibrations.” The value of this last disclaimer was made dubious, however, by the recommendation that the contractor use equipment which creates a significant amount of vibration. In any event, broad exculpatory language does not relieve the agency, which provided the report to prospective bidders with the expectation that they would rely on it, from liability resulting from conditions which are materially different from those described specifically. *Whiting-Turner/A. L. Johnson Joint Venture v. General Services Administration*, GSBCA 15401, 02-1 BCA ¶ 31,708, at 156,618 (2001); *Clark Concrete Contractors, Inc. v. General Services Administration*, GSBCA 14340, 99-1 BCA ¶ 30,280, at 149,756-57. Soil borings are “considered the most reliable reflection of subsurface conditions,” *United Contractors v. United States*, 368 F.2d 585, 597 (Ct. Cl. 1966), and it has long been held that bidders are entitled to rely on them, *Foster Construction C.A. v. United States*, 435 F.2d 873, 888 (Ct. Cl. 1970).

Second, the actual site conditions were clearly not reasonably foreseeable to the contractor, with the information available to it outside the contract documents. No information was available to Drennon and other prospective bidders, other than what was contained in the contract documents. The area was covered with snow and was inaccessible to bidders during the period of time that bids were accepted. It is true, as BLM points out, that the S&W report characterized the hill as an esker, and as we learned from the agency’s expert witness, the silts in eskers are rock flower material, which has no cohesion. We are persuaded, however, by the testimony of Drennon’s expert witness and civil engineer, that while a geotechnical engineer working in cold regions should possess this understanding of

eskers, it would be unreasonable to expect a construction contractor to have it. Instead, one would expect a contractor to rely on the detailed descriptions and soil boring data prepared by actual geotechnical engineers. “[W] are justified in choosing one expert opinion over another unless the evidence is inherently improbable or discredited by uncontrovertible evidence.” *All Star Metals, LLC v. Department of Transportation*, CBCA 53, 09-1 BCA ¶ 34,039, at 168,355-56 (2008) (citations omitted). Believing Drennon’s expert, whose testimony we find far from “inherently improbable or discredited by uncontrovertible evidence,” we conclude that it was reasonable for the contractor to rely exclusively on the contract documents as to site conditions.

Third, Mr. Drennon testified, without contradiction, that he did so rely in making his firm’s bid.

Fourth, the contractor has demonstrated that the conditions differed materially from those represented. The soil borings did not accurately reflect the nature of the hillside into which excavation was necessary.² The soil samples taken by Drennon’s expert demonstrated that the soils contained virtually no fines. Although most of the hillside’s slopes were within the thirty-two to thirty-eight degrees specified, some were greater than thirty-eight degrees, the greatest angle of repose, and therefore were in a state of incipient failure. Short sections of oversteepened slopes did not stand at slopes in the range of forty-five to fifty degrees and steeper – undoubtedly because these slopes did not contain the soils necessary to provide cohesion. As Drennon’s expert testified, “[I]t’s just impossible to keep the wall of that excavation open for any period of time, even with just a 24-inch bucket. . . . If you can’t even hold a two foot wide section stable, there’s no way you’re going to hold a ten foot wide section stable.”

² BLM’s expert testified that when using a small diameter sampler, as S&W did in making its soil borings, “you’re going to overstate the fines content because you’ve excluded the oversized particles in the profile.” We have no evidence that a construction contractor would have had this understanding, however. Even if we did, the degree to which the fines content was overstated in the S&W report is so extraordinary that no reasonable contractor who had such an understanding could not have anticipated such an overstatement. We note that the report did say, “due to the sampling method and size of the split-spoon samplers (3-inch O.D.), the actual percentage of cobbles may be greater than indicated on the boring logs or gradation curves.” Given the variety of soils shown in the logs, however, a greater-than-indicated percentage of cobbles does not necessarily mean a smaller-than-indicated percentage of fines.

We appreciate BLM's point that the S&W report recommended that "site preparation and construction be done in short sections," and that Drennon does not appear to have done its work in this way. We do not believe, however, that even if Drennon had followed S&W's advice, the project could have been completed successfully. The term "short sections" is not defined in the report. BLM's expert thought sections of not more than twenty feet would have been appropriate. The gabions which the agency approved for the project were each (with rare exceptions) twelve feet long, and per the manufacturer's instructions, they had to be linked together and filled consistently on each level, then stacked in such a way that each basket on each successive level was placed over more than one lower-level basket. Thus, it was not possible, using the plan approved by the agency, to build the wall in sections of as little as twenty feet.³ The sloughing from the hillside was so severe in so many places that the fact that it occurred little in the first fifty to one hundred feet is both surprising and fortunate.

Under the Differing Site Conditions clause of the contract, the contractor is supposed to "promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer" of the subsurface conditions which differ materially from those indicated in the contract. BLM maintains that because Drennon did not write to the contracting officer until three days after beginning excavation, its notice is defective. We do not agree. From the first day of excavation, the agency's contracting officer's representative was aware that the hillside was sloughing and that this was a condition that the contractor had not anticipated. Even if the written notice might be thought to have been late, the agency was not prejudiced by any tardiness. *Cherry Hill Construction, Inc. v. General Services Administration*, GSBCA 11217, 92-3 BCA ¶ 25,179, at 125,477; *Jack Crawford Construction Corp.*, GSBCA 4089, et al., 75-2 BCA ¶ 11,387, at 54,215.

The damages Drennon alleges that it incurred, consequent to the defective specifications and differing site condition, are those resulting from the suspension of work

³ BLM's expert made two other suggestions for how the gabion wall could have been constructed. He urged that the contractor could have cut the hillside back to the angle of repose behind the wall, to minimize future sloughing. He also suggested that the contractor could have used temporary shoring to hold back the hillside while the wall was being built. We do not believe that either of these methods would have been appropriate here. Cutting back the hillside would have been inconsistent with the agency's goal of making the roadway entrance to the campground look as natural as possible. Temporary shoring would have been unnecessary if steep slopes had held temporarily, as S&W thought they would; and if Drennon's expert is correct, the shoring would have had to be so significant (and expensive) as to make its use impractical for this limited-budget project.

ordered by BLM between August 13 and 26 and the fact that gabions it purchased, transported, and assembled prior to the suspension were rendered useless by the agency's post-suspension revision of the project.

Under the Suspension of Work clause --

If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted . . . by an act of the Contracting Officer . . . , an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly.

BLM asserts that the period of suspension – less than two weeks – was reasonable in length, due to the need to assemble all the relevant parties at the site, discuss the situation, and consider solutions. Thus, says the agency, Drennon is not entitled to any of its claimed suspension costs.

The Court of Appeals for the Federal Circuit has held, however:

When the government provides a contractor with defective specifications, the government is deemed to have breached the implied warranty that satisfactory contract performance will result from adherence to the specifications, and the contractor is entitled to recover all of the costs proximately flowing from the breach. . . . The compensable costs include those attributable to any period of delay that results from the defective specifications. . . . Unlike some situations in which the government has a reasonable time to make changes before it becomes liable for delay, “all delay due to defective or erroneous Government specifications are *per se* unreasonable and hence compensable.” *Chaney & James Constr. Co. v. United States*, . . . 421 F.2d 728, 732 ([Ct. Cl.] 1970); see *Daly Constr., Inc. v. Garrett*, 5 F.3d 520, 522 (Fed. Cir. 1993).

Essex Electro Engineers, Inc. v. Danzig, 224 F.3d 1283, 1289 (Fed. Cir. 2000).

We have concluded that the defective specifications and inaccurate information about site conditions provided by BLM to Drennon were the fundamental cause of the difficulties encountered on this project. Thus, the period of suspension was *per se* unreasonable, and the contractor is entitled to recover the costs it incurred during that period. BLM has not given us any reason to question any of the claimed and documented costs of \$87,455.43. We

consequently award to Drennon all of those costs, less the \$7950.49 claimed as profit, which is precluded by the clause. The total award is \$79,504.94.

Just as the defective specifications and inaccurate site condition information were the cause of the suspension of work, so they were also the cause of the agency's perceived need to truncate the project and not use most of the gabions which the contractor had purchased, transported, and assembled. Drennon has not made clear under which contract clause arises the agency's obligation to pay for the costs incurred by the contractor for the unused baskets. It is immaterial whether the authority is the Changes clause (Government to pay increases in costs resulting from contracting officer-directed changes in the specifications) or the Termination for Convenience clause (Government to pay fair and reasonable costs of work performed by the contractor before Government terminated that work). Under either clause, BLM must reimburse Drennon for the costs it incurred as a result of the agency's determination not to use the gabions.

Drennon's claim for the gabions is in the amount of \$112,192.20 – total costs associated with the baskets (\$128,392.20) less the amount paid for the baskets which were actually used on the project (\$16,200). BLM takes issue with this claim in two regards. First, it urges that because the contract price for the gabions was \$150 per cubic yard (including overhead and profit), the maximum recovery should be only \$100,500 – \$116,700 for the 778 cubic yards of gabions expected less \$16,200 for the 108 cubic yards used and paid for. Second, the agency contends that the equipment rates used in constructing the claim are “inflated” and that the rates used by the contracting officer's representative, Mr. McLeod, in advising the contracting officer are more accurate and should be used instead. We do not find either of these arguments compelling. Where an adjustment to the contract price is to be based on costs, as it is under both the Changes clause and the Termination for Convenience clause, we calculate damages based on costs. We have no basis for concluding that the equipment rates used by Mr. McLeod are more accurate than those used in the claim; neither Mr. McLeod nor any other witness testified about them. The witness who explained the derivation of the numbers in the claim, Mr. Drennon, testified that those numbers are reasonable, and the agency never cross-examined him about them. We award to Drennon the entire amount it claims relating to the gabions, \$112,192.20.

Decision

The appeal is **GRANTED IN PART**. We award to Drennon Construction & Consulting, Inc. \$79,504.94 on its suspension of work claim and \$112,192.20 on its gabion claim. The total amount awarded is \$191,697.14.

STEPHEN M. DANIELS
Board Judge

We concur:

RICHARD C. WALTERS
Board Judge

JONATHAN D. ZISCHKAU
Board Judge