ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --

Parsons Evergreene, LLC

Under Contract No. FA8903-04-D-8703

APPEARANCES FOR THE APPELLANT:

ASBCA No. 58634

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APPEARANCES FOR THE GOVERNMENT:

Jeffrey P. Hildebrant, Esq. Air Force Deputy Chief Trial Attorney Michelle D. Coleman, Esq. Trial Attorney

OPINION BY ADMINISTRATIVE JUDGE CLARKE

This appeal¹ involves the design and construction of a Temporary Lodging Facility and Visitor Quarters at McGuire Air Force Base (MAFB), New Jersey. The project was a "Design-Build Plus" arrangement having two phases: the concept definition phase and the completion of design and construction phase. Appellant, Parsons Evergreene, LLC's (PE's or Parsons'), claims arise out of the second phase. PE claims \$28,843,173 based on a variety of problems it experienced. As discussed at the end of this decision, we have jurisdiction pursuant to the Contract Disputes Act of 1978 (CDA), 41 U.S.C. §§ 7101-7109. We sustain in part and deny in part. We sustain in the amount of \$10,519,082.

FINDINGS OF FACT

Temporary Lodging Facility (TLF) & Visiting Quarters (VQ) Project at MAFB

1. The TLF/VQ project is located on MAFB. The TLF facility provides a 50-unit transitional housing facility for military and civilian personnel until permanent

¹ For reasons of judicial efficiency and clarity, pursuant to a separate order issued today, we address the subject of government liability for costs associated with allegedly tardy requests for payroll records in a separate opinion under a new appeal number, ASBCA No. 61784, though it was fully litigated under the present appeal.

housing can be obtained. It includes one and two bedroom units with living room, dining/kitchen, bath and storage. The VQ is a 175-unit facility similar to a hotel with individual rooms with private baths. (R4, tab 7 at 20²) The project employed a "Design-Build-Plus 03"³ (DBP03) process that integrated the DBP03 contractor, a contractor with experience in construction, with the concept definition contractor, a contractor with experience in architectural design (*id.* at 19, 21).

*Concept Definition (CD)*⁴

2. The CD contractor for the MAFB TLF/VQ project was Michael Baker & Associates (Baker)⁵ (tr. 5/8-10, 11/60; R4, tab 20C at 10).⁶ The CD effort focused on "site, civil and architectural" design with "varied levels of development within structural, mechanical, electrical and fire protection/detection" (*id.*). The objective of the CD phase was to produce a 35% design that would be used to award the design completion and construction contract.

3. Between 4 August 2003 and 27 February 2004, the Air Force Materiel Command (AFMC) issued task orders TG17 and TG31 to Contract No. F41622-02-D-0003 (contract 0003)⁷ in the total amount of \$255,276 for DBP03 services to Parsons Infrastructure & Technology Group Inc., San Antonio, Texas (PI&T) (R4, tab 20 at 1, tab 20A at 1-2, tab 20B at 1, 6, tab 20C at 1-2). PI&T was a business unit of Parsons responsible for management and business growth in Parson's government contracting business. It exists today under a different name not identified in the record. (Tr. 1/110-11) Under TG17 and TG31, PI&T was to provide architectural and engineering services to Baker to develop the 35% design package for the TLF/VQ (tr. 1/121; R4, tab 20C at 8). PI&T was the "DB + A-E" (Design Build Plus - Architectural & Engineering) contractor supporting Baker (R4, tab 20C at 8). Specifically PI&T was to provide "surveys, site analysis, constructability"

² All Rule 4 citations are to the PDF page numbers.

⁷ Contract No. F41622-02-D-0003 is not in the record.

³ Design-Build-Plus 03 is referred to by various acronyms in the record: "DBP03," "DB," "DB+," "DB+A-E" and "DB03Plus."

⁴ This is sometimes referred to in the record as "Concept Design."

⁵ The record does not include a copy of Baker's CD phase contract with the Air Force (AF).

⁶ The documentary record in this case is voluminous consisting of an electronic Rule 4 having 3,443 tabs, many individual tabs having hundreds of pages, and numerous hearing exhibits. The majority of the documents in the record were not cited by the parties. The Board relies mainly on the documents identified by the parties in their collective 1,500 pages of briefs. When we say a document is "not in the record" we mean neither party cited to it or we did not independently identify it. It is not an absolute confirmation that it is not somewhere in the voluminous record.

reviews, design review comments, attendance at conferences for comment resolution, and project cost validation" (*id.* at 9).

CD & Progressive Collapse

4. Mr. Basham is an architect who was accepted by the Board as an expert in design-build contracting for appellant (tr. 1/228, 239). He testified that progressive collapse is a phenomena that occurs when certain members of a building are damaged and weight is transferred to other members that cannot handle the weight and the building starts to collapse (tr. 2/7). A building designed to resist progressive collapse must have a back-up/redundant structural system so that failure is avoided (tr. 2/7, 11/51-52).

5. Mr. Cochran is an architect who was the AF's project manager and design agent on the TLF/VQ contract from June 2003 to November 2004 (tr. 11/6-7). Mr. Cochran explained that the purpose of a "charrette report" is "to present the functional and engineering criteria, design information, procedure and basis of design to document project requirements" (R4, tab 1474 at 5). The charrette report for the VQ was developed by Baker (tr. 11/55). The charrette report summary of the VQ structural design does not specifically mention progressive collapse but does state at the end of section 3.3.4, "Force Protection: The structural needs of the VQ are not affected by force protection if the 25-meter standoff zone is maintained" (R4, tab 1474 at 27).

6. A 9 September 2003 review of the VQ Charrette report by Ms. Hopkins, PI&T, included the following comment, "Ch 3, 3.3.4, pg 34[.] We suggest an alternate masonry wall design using structural brick (e.g., Interstate Atlas Brick). The advantage is a single brick wall system vs. two wall system (8" CMU and 4" brick veneer)" (R4, tab 467 at 2, cmt. 20, tab 1761 at 7). Baker responded to this suggestion with, "Baker has investigated the structural brick systems and do not believe that it is appropriate for this project" (R4, 1761 at 7). Baker went on to explain why it rejected structural brick (*id*.). Mr. Ward, an architect with Baker, with assistance from Baker's engineers, wrote Baker's response (tr. 14/149). Mr. Ward recalled that the use of structural brick was suggested by PI&T and considered by Baker during the 35% design phase but for a variety of reasons was not used (tr. 14/143, 149-53). Mr. Cochran recalled "some discussion on structural brick" during the 35% design phase but he did not recall receiving information on constructability, cost analysis, product specifications, etc. of the structural brick design (tr. 11/64).

7. Ms. Willingham, Non-Appropriated Fund (NAF) program manager, reviewed the VQ Charrette report. Her 10 September 2003 comments, number nine, states: "3.3.4. The position taken by the designer that the 'structural needs of the VQ are not affected by force protection if the 25-meter standoff zone is maintained' is an incorrect assumption. The structure does have to be designed to resist progressive collapse (Ref. UFC4-010-01, Standard 7) please re-evaluate." (R4, tab 468)⁸

⁸ On this document the "ACTION" column is blank.

8. Mr. Cochran also reviewed the VQ Charrette report. An entry on the Charrette Report review, dated 12 September 2003, reads:

[Comment] Chapter 3, Section 3.3.4, page 34, Structural[.] This paragraph notes force protection is not a consideration for structural needs. The charrette report should identity the threat level, and the structural system designed accordingly. Verify if the structural system should be designed to prevent progressive collapse.

[Action] Concur. In accordance with UFC 4-010-01, the structure will be designed to resist progressive collapse.

(R4, tab 2 at 753, cmt. 10) Mr. Cochran testified that the 35% design team agreed that the VQ would be designed to resist progressive collapse (tr. 11/58-59). Mr. Cochran testified that PI&T was responsible for validating that the 35% design included resistance to progressive collapse (tr. 11/59).

9. Mr. Williams is an architect and was project manager with AF Services during the VQ/TLF 35% CD phase through completion of the buildings (tr. 14/204, 211). Mr. Williams testified that resistance to progressive collapse was a requirement for the CD phase of the VQ (tr. 14/206). During a meeting in December 2003 with Baker, Mr. Williams told the design team that resistance to progressive collapse was a requirement for the three story VQ (tr. 15/6-7).

10. Mr. Bennett has practiced architecture since 1989 and is the owner of KCB Architecture (tr. 5/6). During the CD phase Mr. Bennett worked for PI&T. He and two other PI&T employees (Mr. Martin and Mr. Binks) worked with Baker during development of the 35% design under a contract with the AF (tr. 5/8-9). Their job was to look at the preliminary design of the project and constructability (tr. 5/9). However, Mr. Bennett was not architect of record for the 35% CD (tr. 5/10). Mr. Bennett testified that he did not recall a detailed discussion of progressive collapse during development of the 35% design, but he recalled it only played in the location and orientation of the building not in the structural design of the VQ. (Tr. 5/94-95) After it was awarded the contract, PE hired Mr. Bennett for its contract to complete the design and construct the TLF and VQ (tr. 1/121). He was the architect of record for the construction project (tr. 5/6-7). Mr. Lengyel, a licensed architect, worked for Mr. Bennett and did the day-to-day design work (tr. 5/7). Mr. Aldave, a structural engineer, also worked on his design team (tr. 4/174-75, 5/7-8).

CD & Utilities

11. Mr. Ward is an architect who worked for Baker and participated in the 35% design of the VQ/TLF (tr. 14/115). He participated in the design charrette (tr. 14/115-16). Mr. Ward recalled that after Baker issued the 35% design they gave the "topographic and utility survey that was done for the TLF and VQ site, in electronic format" to PE (tr. 14/120). He recalled providing three files, the base map, computer-aided tracking, and existing utilities (tr. 14/121-22; R4, tab 1762). The utilities Computer-Aided Design (CAD) file was created based on "GTAB"⁹ files provided by the AF (tr. 14/167-68). Baker did not subcontract for a full utility survey during the 35% design. Baker relied on GTAB utility information from the AF. (Tr. 188-89)

CD 35% Drawings

12. Mr. Williams produced the 35% design drawings for the TLF and VQ (tr. 14/133; R4, tabs 1745, 1746). The "Corrected Final Concept Design" drawings for the VQ are dated 18 May 2004 (R4, tab 1746). Each of the drawings for both buildings include the following note.¹⁰

ALL THE INFORMATION INCLUDED IN THE **REQUEST FOR PROPOSAL (RFP) CONSTRUCTION** DOCUMENTS REPRESENTS A 35% LEVEL OF DESIGN AND IS NOT INTENDED TO REPRESENT A COMPLETE SET OF CONSTRUCTION DOCUMENTS. THIS INFORMATION INCLUDES BUT IS NOT LIMITED TO ALL GRAPHIC INFORMATION AND VERBIAGE (TEXT) INCLUDED IN THE DRAWINGS. SPECIFICATIONS, DESIGN ANALYSIS AS WELL AS CID AND SID INTERIOR PACKAGE. THIS INFORMATION ALSO INCLUDES OUANTITIES AND CAPACITIES INCLUDING, BUT NOT LIMITED TO ALL UTILITY REQUIREMENTS NEEDED TO PROVIDE A FULLY OPERATIONAL FACILITY IN ACCORDANCE WITH ALL APPLICABLE CODES AND DESIGN GUIDELINES OUTLINED IN THE DESIGN ANALYSIS. THE DESIGN-BUILD PLUS (DB+) CONTRACTOR MUST COMPLETE THE DESIGN AND CONSTRUCTION OF THE MCGUIRE VISITING QUARTERS TO A FULLY OPERATIONAL LEVEL OF COMPLETION IN ACCORDANCE WITH THE INTENT

⁹ In the record these are variously referred to as GTAB, G-TAB and G-Tab.

¹⁰ The only difference in this note is that the TLF drawings refer to the TLF and the VQ drawings refer to the VQ.

OF ALL DESIGN(S) REPRESENTED IN THE (RFP) CONSTRUCTION DOCUMENTS. THE DB+ CONTRACTOR MUST MEET ALL DESIGN REQUIREMENTS, CODES AND STANDARDS SET FORTH IN THE RFP AND MUST FOLLOW THE FULL DESIGN INTENT REPRESENTED IN THE RFP CONSTRUCTION DOCUMENTS. IN THE EVENT ANY OF THE REQUEST FOR PROPOSAL INFORMATION REPRESENTED IN THE DRAWINGS, SPECIFICATIONS, DESIGN ANALYSIS OR CID AND SID INTERIOR DESIGN PACKAGE MAY BE IN CONFLICT, THE DB+ CONTRACTOR WILL BE REQUIRED TO PROVIDE THE MOST STRINGENT **REOUIREMENT(S). THIS PROVISION WILL NOT** WARRANT ANY INCREASE IN THE CONSTRUCTION COST LIMIT (CCL) OF THE DESIGN BUILD PLUS CONTRACT AMOUNT.

(R4, tabs 1745-46) Drawing notes for both buildings referred to MAFB architectural standards (R4, tab 1745 at L-101, tab 1746 at L-101, 502). RFP 8234 specified that the "face brick" for the two buildings would be:

Brick: Face brick

1. Red Brick: Richtex Corporation, Type D-80, Shade-223

flashed range wirecut. Size 2-1/4 in. x 3-5/8 in. x 7-5/8 in. ASTM C 216, Grade SW, Type FBS. Or BCE approved equal.

(R4, tab 2 at 465, 1047)

13. VQ 35% drawings C-102, Site Demolition Plan, C-103, Utilities Demolition Plan, C-104, Site Geometry and Paving Plan, C-105, Site Utility Plan, and C-106, Storm Drainage and Grading Plan" each have a version¹¹ of the following note:

1. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ARE APPROXIMATE BASED ON G-TAB MAPPING FROM MCGUIRE AFB CIVIL ENGINEERING SQ. THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION, PARTICULARLY AT NEW PIPE CROSSINGS.

¹¹ Drawings C-102, C-103 and C-104 have slightly different shorter versions of this note.

(R4, tab 1746 at 4-8) Mr. Temchin, vice president of program management with Parsons (tr. 2/96), testified that Parsons went to the base "field shop" where the drawings were maintained and asked for the drawings showing what was in the ground. The base maintained two sets of "G-Tab" drawings, one for active utilities and one for abandoned utilities. The abandoned utilities G-Tab drawings were never given to PE. (Tr. 5/242-43)

14. VQ 35% drawing C-106, Storm Drainage and Grading Plan, includes a stormwater detention basin, sometimes referred to as a "pond," and includes the following note:

3. THE SIZE OF THE STORMWATER DETENTION BASIN WAS APPROXIMATED BASED ON CONTROLLING THE PEAK OF THE 1.5 YEAR STORM EVENT. DURING FINAL DESIGN, A DETAILED HYDRAULIC ANALYSIS SHALL BE CONDUCTED AT THE EXISTING CULVERTS DOWNSTREAM OF THE BASIN OUTFALL (ACROSS MITCHELL ROAD) TO DETERMINE IF A LESS-FREQUENT, HIGHER-MAGNITUDE DESIGN STORM WOULD BE APPROPRIATE. DURING FINAL DESIGN, THE CONTRACTOR MAY CONSIDER OTHER OPTIONS TO ADDRESS THE INCREASED PEAK FLOWS INCLUDING UNDERGROUND DETENTION, OVERSIZED STORM DRAIN PIPES, AND/OR UPGRADING THE MITCHELL ROAD CULVERTS, OR DO NOTHING AND ACCEPT THE CONSEQUENCES OF HIGHER FLOWS. FINAL DETERMINATION **REGARDING SWM SHALL BE MADE DURING FINAL** DESIGN. IF SWM IS DISCARDED, THE STORM DRAIN SYSTEM COULD BE RE-CONFIGURED TO MORE DIRECTLY DISCHARGE INTO THE CHANNEL ALONG MITCHELL ROAD.

(R4, tab 1746 at 8, drawing C-106) The VQ 35% design, drawing C-106, Storm Drainage and Grading Plan, shows a "Stormwater Basin" with "BOTTOM ELEVATION = 106.00" (*id.*). Mr. Morrison, AF Center for Engineering and the Environment (AFCEE)¹² (R4, tab 213 at 337), program manager, testified that the EPA required that stormwater be retained on the site but that a basin was "problematic in or near an airport or an Air Force base because birds collect there and they're problematic for aircraft" (tr. 11/220). He explained that the basin on drawing C-106 was "just a place holder on the low spot on the site" and the

¹² AFCEE provided technical support to the contracting officer (R4, tab 213 at 337).

contractor would have to do a percolation test to see how much water the basin would absorb in a 12 to 24 hour period to design the basin (tr. 11/221).

IDIQ Contract

15. On 12 December 2003 AFMC awarded Parsons Infrastructure and Technology (PI&T), indefinite-delivery, indefinite-quantity (IDIQ) Contract No. FA8903-04-D-8703 (contract 8703) in the total program amount of amount of \$2.1 billion (R4, tab 1 at 1-5). The contract provided that planning and programming (CLIN 1), constructability and parametric estimates (CLIN 2), and construction (CLIN 3) services would be detailed under "subsequent task order Statements of Work (SOW)" (*id.* at 2-5). Contract 8703 incorporated FAR 52.233-1, DISPUTES (JUL 2002) – ALTERNATE I (DEC 1991); and FAR 52.236-2, DIFFERING SITE CONDITIONS (APR 1984) (R4, tab 1 at 24).

Demolition Work

16. The VQ was to be constructed in a location where swimming pools existed that required demolition (R4, tab 1746 at 4, drawing C-102). By email dated 29 April 2004 to Ms. Willingham, Mr. Cochran, AFCEE, expressed concern that the demolition of the pools had to be properly monitored to ensure that select fill was placed in the pool excavation to avoid "unforeseen site conditions" (tr. 11/92-94; R4, tab 4248 at 2). By email dated 14 May 2004 to Mr. Martin, PE's¹³ project manager, 1Lt McAlpine, project manager, Civil Engineer Squadron, MAFB, informed him that another contractor would perform the demolition of the Officer's Club pools and that contractor "would need to ensure the backfill was placed in compacted lifts to ensure it would be suitable for the future building" (R4, tab 3831 at 3). Mr. Martin responded¹⁴ on 16 May 2004 stating that the calculations for structural fill could not be completed until PE received the final DB+ contract and if the fill placed by the demolition contractor did not meet the fill requirements, it would have to be removed and replaced by PE at AF expense (id. at 3). Mr. Cochran responded to Mr. Martin on 17 May 2004 stating that the backfill requirements for the demolition contract were standard specifications on MAFB and should be acceptable for construction and that no additional costs would be expected (id. at 2). Mr. Martin responded on 17 May 2004 stating that had PE been selected to do the demolition the adequacy of the fill would not be an issue (id. at 1).

Novation from PI&T to PE

17. PI&T was involved in Parsons' purchase of "Evergreene" a construction company, renamed Parsons Evergreene (PE) (tr. 1/110-11). Modification No. P00001 to contract 8703, dated 7 September 2004, changed the contractor from PI&T to PE based on a novation (R4, tab 1A).

¹⁴ Mr. Martin's email address was Tony.Martin@parsonsevergreene.com (R4, tab 3831 at 2).

¹³ PI&T had not yet novated the contract to PE.

Request for Proposals (RFP) for 100% Design and Construction Task Order

18. Request for Proposal (RFP) No. FA8903-05-R-8234 (RFP 8234), dated 10 February 2005, solicited proposals for the task order $(TO)^{15}$ under contract 8703 to complete the 100% design (from the 35% design) and construction of the TLF and VQ (R4, tab 2 at 1).¹⁶ The Baker 35% design analysis is the basis for the RFP (tr. 5/62; R4, tab 2 at 692). RFP 8234 included the Independent Government Estimate (IGE) for the VQ of \$17,977,243 and TLF of \$15,373,500 for a total of \$33,350,743 (R4, tab 2 at 2). Award was to be "to the contractor offering the lowest price" (*id.*). RFP 8234 included the SOW for the TLF, PTFL 04-5000, and the VQ, PTFL 02-3004 (*id.* at 1). Bidders were informed "Only upon receipt of the executed TO will you commence work" (*id.* at 2). The notice to proceed (NTP) was to be issued not later than 30 days after award and, "Construction services shall not commence until the bonds have been submitted and approved and a NTP has been issued by the Contracting Officer" (*id.*).

19. RFP 8234 includes a SOW, dated 20 January 2005, for the TLF and VQ that includes the following note to paragraph 3.0 Scope:

Note: Site demolition is not required. The demolition has been accomplished locally by others. The site is clean and ready for construction. Mock-up rooms for the VQ are not required in this project. All references to mockup rooms are not applicable.

(R4, tab 2 at 5)

20. RFP 8234 includes the following concerning the construction site:

1.7 DATABASE: These specifications and accompanying drawings were prepared using data derived from the original construction drawings and from site visits. The construction shown shall not be construed as exact or complete nor are minor variations covered. It is recognized that site conditions referred to vary and that those building and site conditions ordinarily encountered and generally recognized as inherent in work of this character may include variations. The

¹⁵ Task order and delivery order are used interchangeably in the documents.

¹⁶ The PDF page numbers in Rule 4, tab 2, do not match the numbers marked on the pages. There are 1,874 PDF pages in tab 2. The last page number marked on the page is 2,434. The AF brief refers to numbers marked on the pages but we use the PDF page numbers.

contractor shall be responsible for determining the exact conditions at the site and building and shall accept them, as they exist at the time of contract award, regardless of whether or not the contractor visited the site prior to award. The contractor shall verify all measurements of existing conditions before ordering sized materials. If materials are ordered on the basis of what is shown on the construction drawings without verification of existing conditions, the contractor does so at his/her own risk and expense. All existing field conditions shall be accounted for in all required shop drawings. Actual dimensions and elevations take precedence over any shown in the contract drawings.

 $(R4, tab 2 at 287)^{17}$

21. RFP 8234 required submission of a Critical Path Schedule and included an estimated "Design/Construction Schedule" starting with contract award on 15 February 2005 (R4, tab 2 at 294). It also included procedures for submittals:

SECTION 01330 – SUBMITTAL PROCEDURES

1.6 PROCEDURES FOR SUBMITTALS

C. Scheduling

2. Except as specified otherwise, allow review period, beginning with receipt by approving authority, that includes at least 15 working days for submittals for QC [Quality Control] Manager approval and 20 working days for submittals for contracting officer approval. Period of review for submittals with contracting officer approval begins when the Contracting Officer receives submittal from QC organization. Period of review for each resubmittal is the same as for initial submittal.

¹⁷ This paragraph is found on a page identified with the TLF, however, we interpret it to apply equally to the VQ because pages for the VQ and TLF are comingled in RFP 8234 (R4, tab 2 at 350-51).

(R4, tab 2 at 330, 337) The "QC Organization Responsibilities" section requires that the date of receipt from the contractor be noted on each submittal. The QC organization then reviews the submittal (*id.* at 339). When the QC manager is the approving authority, the manager will take the appropriate action in accordance with specification 01330 paragraph J. 6. b. (*id.* at 340). When the contracting officer (CO) is the approving authority, the QC organization will certify that the submittal is acceptable and forward it to the CO (*id.* at 339). RFP 8234 included a list of key personnel identified as located in Texas, Illinois, and New Jersey (*id.* at 1757-58).

22. RFP 8234 included the following concerning the High Temperature Hot Water (HTHW) system:

The proposed high temperature hot water (HTHW) service line will connect to a new HTHW main line, which will connect at the existing main along East Arnold Avenue (just west of the VQ) and extend eastward to Mitchell Road. The new main will service both the new VQ and planned TLF facility on the other side of Mitchell Road. The capacity of the existing system at this point of connection shall be verified during final design.

(R4, tab 2 at 701)

23. RFP 8234, Attachment No. 2 included a clause setting liquidated damages at \$5,043 a day that PE was late in completing the project (R4, tab 2 at 1807). It also included a clause concerning "record drawings":

Record drawings showing existing underground utilities will be provided or made available to the Contractor. <u>Record</u> <u>Drawings shall be made available by the base C.E. at</u> <u>McGuire AFB, NJ.</u> Any utility-line shown on the record drawings (or made known to the contractor) and damaged during construction work, will be repaired immediately by the contractor at no cost to the Government

(*Id.* at 1808)

24. RFP 8234, Attachment #4 was Davis-Bacon Wage Determination No. J20030002 dated 21 January 2005 (R4, tab 2 at 1811-34).

RFP 8234 - Standing Seam Metal Roof

25. RFP 8234 required a standing seam metal roof (SSMR) for the TLF and VQ (R4, tab 2 at 506, 1089). Specification Section 07411 Metal Roof Panels (SSSMR),¹⁷ paragraph 1.6, "PRODUCTS," A.5. required, "Panels shall be manufactured of adequate metal gauge and rigidity to eliminate any 'oil canning' effect" (R4, tab 2 at 507, 1090). Oil canning is a waviness in the metal roofs (R4, tab 116 at 14).

26. When PE contacted subcontractors to bid on the SSMR, they all took exception to the requirement to "eliminate" oil canning stating that it could not be eliminated (tr. 3/87-88). Mr. Temchin, PE's vice president, testified that the first RFP language made "no sense" because it was impossible to "eliminate oil canning" (tr. 6/174). On 24 March 2005 Amendment No. 1 to RFP 8234 was issued (R4, tab 2A at 1). The language concerning the SSMR was changed:

5. COMPONENTS: SSSMR panels shall be 13 inches to 19 inches in width and standing seams shall be a minimum of 2-1/2 inches in height. Though "oil canning" is inherent in sheet metal formed panels. [sic] The panels shall be manufactured of adequate metal gauge and rigidity to eliminate or seriously minimize any "oil canning" effect. The Government will not release any Contractor/ Manufacturer liability for rejecting SSSMR panels on the basis of the "oil canning" effect on the final installed system. All fasteners shall be concealed and applied sealants shall be the same color of the SSSMR system.

(R4, tab 2A at 20) Liquidated damages were reduced from \$5,043 to \$1,347 per day. The estimated construction costs were revised to VQ - \$18,053,320 and TLF - \$15,525,546. (*Id.* at 1-2)

RFP 8234 – Amendment No. 2

27. On 5 April 2005 Amendment No. 2 to RFP 8234 was issued (R4, tab 2B at 1). The amendment replaced the SOW with a revised version dated 31 March 2005¹⁸ that included the following:

¹⁷ "SSSMR" stand for Structural Standing-Seam Metal Roof Panels (R4, tab 2 at 507). We use Standing Seam Metal Roof (SSMR).

¹⁸ All future reference to the SOW refer to the 31 March 2005 version.

2.0 Purpose:

[delete]

Construct a 175 room multi-story Visitors Quarters (VQ), a 50 unit Temporary Lodging Facility (TLF), and all support facilities as identified and Needs Assessment Study. The two projects will be interconnected and constructed on adjacent sites.^[19]

[substitute]

The contractor will utilize the attached concept design to generate the construction drawings and build a 175 room multi-story Visitors Quarters (VQ), a 50 unit Temporary Lodging Facility (TLF) on adjacent sites.

3.0 <u>Scope:</u>

Note: Site demolition is not required. The demolition of the houses and swimming pools has been accomplished locally by others: <u>remaining site work and utility work per</u> <u>the drawings is required</u>. <u>Electrical lines must be relocated</u> <u>and transformers removed and turned in to the base</u>. The site is clean and ready for construction. Mockup rooms for the VQ are not required in this project. All references to mockup rooms are not applicable.

(R4, tab 2B at 6)²⁰ The SOW listed the attachments as, "Concept Design Documents (2 CDs): TLF, VQ dated 5/18/2004, Rickenbacker October 2004" (*id.* at 11). The 35% drawings are dated 18 May 2004 (R4, tabs 1745-46). Mr. Morrison was the AF construction manager and contracting officer's representative (COR) for the TLF/VQ project from January 2004 to September 2005 (tr. 11/153, 227). He drafted Amendment No. 2 (tr. 11/165). He explained the change to the note was a response to questions from bidders and the fact that "we realized that it might [be] clearer to say that the demo had

¹⁹ This lined through language was not shown in the amendment, it was simply deleted. We show it lined out here to enable comparison.

²⁰ The words in bold/strikethrough were deleted (tr. 1/179-80). The words in italics and underlined were added.

been accomplished but there still remains some utilities and electrical transformers, et cetera, in that area. Again, the – the fill dirt was supposed to be clean, but we realized there was some subsurface utilities that need to be dealt with." (Tr. 11/165)

28. SOW paragraph 3.2.2.2, Working Drawings, Construction, Delivery and Warranty, reads:

At the conclusion of the CD phase, the Government will issue a separate task order with a RFP or RFQ and thus, transition from the Concept Definition Phase to the Construction Phase. During the Construction Phase, design completion, construction, and the delivery and warranting of the project/facility takes place. It is the intent of the Government to require the DBP03 contractor to use the results of studies and investigations conducted during the CD Phase by the same or a different DBP03 contractor. *If the same DBP03 contractor performs these studies and investigations during the CD Phase and is awarded the Construction Phase task order for essentially the same project, then the DBP03 contractor is responsible for the results of its efforts during the CD Phase*. See paragraph 7 for possible Construction Phase tasks at the task order level.

(R4, tab 2B at 7) (Emphasis added)

Pre-Bid Questions and Answers

29. The record contains three sets of pre-bid questions and answers (R4, tabs 4,²¹ 52, 25²²). We consider them in chronological order. A pre-proposal conference was held on 2 March 2005. Attendees submitted questions in the form of Requests for Information (RFIs). Answers to the RFIs were provided in a 22 March 2005 memorandum by CO Macdecy²³ (R4, tab 52). Three of the RFI's and answers are:

6. RFI: It appears the VQ structure was designed without a provision for progressive collapse. Is this feature not required for this facility?

²¹ This document is also at Rule 4, tabs 24, 513.

<sup>These same questions and answers were emailed to bidders on 20 April 2005 (R4, tab 518).
Between 2004 and late 2005, Mr. Macdecy was the CO on the MAFB TLF/VQ contract</sup>

⁽tr. 10/161-62).

Answer: Yes, progressive collapse features are required for VQ! The architect of record resulting from the award of a task order under the DBP03 concept will be expected to include this feature in the final stamped drawings.

8. RFI: Has any environmental testing been accomplished post demolition and has an environmental baseline of the site been established? If so, is it available?

Answer: No to all three questions. The site is clean and ready for construction. The SOW utilized by the base in the demolition contract did not require compaction of fill dirt.

13. RFI: Will copies of fill reports and geotech reports on the demo'd pools be provided?

Answer: No. A Geotech report for the swimming pools does not exist. It should be assumed that soil content is at least equivalent to the worst condition level permitted in the Base Demo contract requirements.

(R4, tab 52 at 2, 3) Mr. Morrison, the AFCEE Program Manager, testified that the base assured him that the backfill would be clean but not compacted (tr. 11/161, 163-64).

30. On 7 April 2005 PE received AF answers to various additional questions (R4, tab 25 at 1). In an email dated 20 April 2005 to PE, with a copy sent to CO Macdecy, Mr. Hillestad who worked as a contracted contract specialist for the government during the RFP phase (tr. 10/114), sent out the same set of questions and answers (R4, tab 518). Concerning the VQ, question and answer number 3 is as follows:

> 3. Concerns continue to exist regarding the adequacy of the structure as shown in the 35% documents to satisfy the progressive collapse requirements. Confirm the structural adequacy of the pre-cast has been confirmed in the 35% submittal calculations. All roof loads and the

line load of the third floor are transferred to the third floor hollow core planks (See Section 2 / A-302). Are we allowed to substitute assemblies and structural systems in order to be compliant with the progressive collapse requirement provided the performance requirements and appearance of the building are satisfied. Yes, the drawings are concept only. You have the responsibility to generate the construction details and drawings. Tim Morrison, AFCEE/HDM

Note^[24]: A design to provide a facility compliant with the Progressive Collapse criteria would require substantial work at a considerable additional compensation.

(R4, tab 25 at 3) A copy was sent to CO Macdecy (R4, tab 518 at 1). Drawing A-302 is an architectural drawing that shows the Baker double wall design (R4, tab 1746 at A-302). This question specifically points to Wall Section 2 on drawing A-302 where the third floor roof load is transferred to the third floor hollow core plank instead of the second floor reinforced concrete masonry wall. We find that this is at least one place in the design where the progressive collapse problem is found. Neither party presented testimony on the meaning of the note warning of substantial work at considerable expense to provide a VQ that meets progressive collapse. Mr. Bennett testified that this question and answer demonstrated that the 35% design "was a concept that therefore needed to be fully fleshed out and developed with the responsibility of the Design-Build team to do that very thing to bring the design to the completion" (tr. 5/23).

31. There were a total of 32 questions and answers in the memo and the statement (or words to that effect) "The drawings are concept only. You have the responsibility to generate the construction details and drawings. Tim Morrison, AFCEE/HDM" was used 7 times therein in the responses to questions (TLF) Nos. 2, 3 (VQ) Nos. 1, 3, 12 (TLF/VQ) Nos. 6, 7. (R4, tab 25 at 2-6)

32. A 5 April 2005 memo by CO Macdecy containing a set of consolidated questions and answers was sent to the bidders on 7 April 2005 (answer in bold italics):

 Page 6- The second paragraph references Buildings 33 and 35. These buildings do not appear anywhere near the Sanitary POC on C-104. The scope of the recommended "downstream survey" is hard to finitely

²⁴ This note was part of the original question (R4, tab 4363 at 4).

estimate until a copy of the Base "G-Tabs"^[25] is received.

Refer to attached "G-Tab" files that were provided to the Title I A/E. DB+ contractor needs to verify that these are the most up to date G-Tabs available.

15. Page 82- Item #8- Has the "Note 2" on C-104 been modified to indicate the capacity of all utilities are adequate as per response provided?

A site utility survey was not performed by Baker. All capacities were derived from G-Tab information or were provided by Base CE.

21. It is assumed that the location and elevation of all utility "capped" locations "By Others" will be documented, physically marked, and provided to successful offeror.

No information is available. Lines are capped at the main and abandoned in place. Only the electrical service must be relocated as part of this project per the drawings.

42. Page 6- Para 2.5- Should the service line from the new HTHW main be tied into the main with a manhole and valves? (See also question 13 above)

This is to be determined during final design. The DB+ contractor shall be required to address this.

²⁵ "G-Tab" drawings are a base map that purports to show all of the utilities and their location and identification (tr. 11/166). It was provided to all bidders (*id.*). Mr. Morrison testified that the G-Tabs would show all of the locations accurately (tr. 11/169).

A minimum of two (2) new HTHW manholes^[26] shall be required, one at the tee for the VQ and a second on the TLF site POC. Note to all contractors there are a lot of existing utilities along East Arnold gas, phone, water, etc. (both sides). Extreme care will be required when approaching and crossing east Arnold with the HTHW lines.

43. Page 6- Para 2.5- What is the capacity of the existing HTHW system at the proposed tie-in point?

Refer to the drawings (H-201). This will have to be verified by the DB+ contractor.

46. Page 28-Para 5.7.1 - Last bullet- Ceilings in corridors are indicated as GWB and at 9' -0". These will need to be lowered to 8'-0" and revised to acoustical ceiling to facilitate necessary water, electrical and communication rough in for each floor.

The space above the corridors was designed around a 9'-0" corridor ceiling height. This is only a 35% level of design, so not every access panel is shown. There are alternative design solutions that the DB+ contractor may have to implement in order to achieve the design intent of the RFP drawings. The end user and the VQ design guides both specified the need for gyp. board in the corridors and to have a 9'-0" ceiling height. If the contractor feels they need to deviate from this requirement, then the base will have to authorize this change.

48. Page 32 – Civil – Are the results of the "key manhole study" available yet?

²⁶ Neither party submitted evidence of the location of the two new manholes; however, one is "on the TLF site" and we found the other on VQ 100% drawing C-107 where the new HTHW line divides into two lines for the VQ and TLF, i.e., the "tee" (R4, tab 1755 at sheet 9, drawing C-107).

A key manhole study was never performed. The design was based on information taken from the base map/G-tab data.

51. Page 82- Item 1- Is the scope of all required utility demolition indicated on C-103 or will the Gov't use the "catch all" notes to require additional demolition without additional reimbursement?

It remains the responsibility of the DB03Plus Contractor to determine requirements utilizing existing documentation and drawings to complete the final designs and project requirements. Should changes occur involving additional and/or unanticipated work post mobilization, the Contractor has recourse under various provisions of the contract.

61. Dwg. C-102 & C-103 – Site visit revealed that some of the demolition indicated on this drawing has been accomplished. It is assumed that all demolition below grade has been completed in accordance with contract requirements and that all backfill is compacted in accordance with contract requirements. What items indicated on this drawing have not been accomplished and remain part of this contract? Are demolished utilities physically marked at capped locations?

See the attached base demolition SOW to amendment #1. The backfill is clean but not compacted. Use the worst soil boring sample for calculations. Utilities are capped at the mains and lines abandoned in place. Electrical system must be re-routed and transformers removed and turned in to the base.

68. Dwg. C-105 -Are there any HTHW manholes required?

The DB+ Contractor will need to make this determination. However, a (minimum) of two (2) new HTHW manholes shall be required, one at the tee for the VQ and a second on the TLF site POC. Note to all contractors there are a lot of existing utilities along East Arnold gas, phone, water, etc. (both sides). Extreme care will be required when approaching and crossing east Arnold with the HTHW lines.

70. Dwg. C-106 – Location of proposed HTHW line is drawn through proposed storm drain lines, headwalls, and catch basins. It is assumed that the location of the new HTHW can be relocated south to avoid these structures.

DB contractor shall be required to provide new routing for all new utilities to avoid existing/new structures, utilities, trees, etc.

(R4, tab 4 at 3-5, 7-10) Mr. Morrison testified about the answer to question 68:

In our preliminary design, we determined that it looks like it's going to take two-two new manholes and the lines would have to connect over East Arnold and there is athere are a lot of utilities located there on both sides of the street, causing impact to that design, and allowing the contractor to decide whether to go above or below those existing utilities.

(Tr. 11/174-75)

33. Mr. Morrison testified about the answer to RFI No. 46:

We've spent years coming up with these design guides through committees and policy groups where we decide how big the rooms are to be, what the ceiling height should be and the quality-the standard of living we want to provide our troops and their families and the nine foot ceiling height is what we've decided is appropriate.

And we expect the contractor to accommodate the nine foot ceiling height and his utilities will have to go above that.

(Tr. 11/171-72) Mr. Morrison testified that the AF's "requirements are much more restrictive and stringent and makes some of our customers hard to work with. We have a lot of details and we know what we're looking for and what we're willing to pay for. So we don't—we don't leave a lot of flexibility." (Tr. 11/173)

34. Mr. Temchin has a civil geotechnical professional license in New Jersey (tr. 2/97). He spent half of his time on the MAFB project after April 2006 (tr. 2/99, 104, 116). Mr. Temchin interpreted the response to RFI No. 61 to "put the representation of the clean site" back into the contract (tr. 7/144). He agreed that the AF indicated that the backfill was not compacted (tr. 7/145). He testified that PE relied on this response to believe that the backfill was clean (tr. 2/261). Mr. Radin, PE's senior vice president of contract & procurement, testified that PE expected that the construction site would be ready for construction (tr. 1/103, 129, 225).

35. By internal AF email to Mr. Williams, copy furnished to CO Macdecy, dated 14 April 2005, Mr. Hillestad furnished all of the questions from bidders answered in the memo provided to PE on 7 April 2005 (R4, tab 25). The copy attached to the email did not include the answers provided on 7 April 2005 (R4, tab 4363 at 3-7). In his email, Mr. Hillestad stated:

The attached has all the markings of a show stopper! My PM is TDY through Friday so I am unable to get a professional opinion on the merits of the issues MWH is raising.

From our standpoint, there is a question as to what latitude, if any, we are willing to allow the contractor in departing from <u>specific</u> criteria provided in the concept design? For example where an STC rating is specified or a wall type mandated in the concept, can the contractor/designer depart from that callout or wall type and go another direction? If we allow that, where do we put on the brakes in the extent of departure from the concept designs? On the other hand, if he can deviate and still meet code and our outcome expectations, should we back off and let him run? We need technical input in evaluating the issues raised.

(R4, tab 4363 at 1) Although Mr. Hillestad testified at the hearing, he was not asked to provide clarification as to what he intended by this email or if there was any discussion of his concern or any response (tr. 10/143-147).

 21^{-1}

36. By email dated 15 April 2005 to bidders, Mr. Hillestad wrote:

NOTICE TO ALL:

Effective this date the time for submittal of additional questions is now closed. You are reminded that this project is being solicited and awarded under the DBP03 procedures. The contractor receiving the award will be required to complete the design process based on the 35% design criteria provided. Finished designs will comply with all applicable national codes, Laws, Rules & Regulations in a matter that meets or exceeds accepted standards of the industry. Ambiguities and/or patently obvious errors in the concept design criteria will henceforth be resolved after receipt of proposals and prior to award.

(R4, tab 2 at 1836)

RFP 8234 – *Progressive Collapse*

37. RFP 8234 also includes various AF review comments with responses from Baker/PI&T from the CD phase. It includes the entry dated 12 September 2003 relating to the review of the "Preliminary Design/Charrette Report" by Mr. Tom Cochran, discussed above (finding 8), that states the VQ design must resist progressive collapse. (R4, tab 2 at 753)

38. RFP 8234 SOW included the final Conceptual Design documents for the TLF and VQ dated May 2004 (R4 tab 2 at 11, 692). The CD for the VQ incorporated UFC 4-010-01, DoD Minimum Antiterrorism Standards for Buildings, 8 October 2004²⁷ (*id.* at 697).²⁸ The Unified Facilities Criteria (UFC) for design build technical requirements provides guidance to military departments (R4, tab 505 at 3). The TLF/VQ project was a "full criteria" project that is the most "prescriptive approach" in the UFC (tr. 11/22-24; R4, tab 505 at 14). Prescriptive means having the most identification of requirements in the UFC (tr. 11/24). UFC 4-010-01 (*see* footnote 28) included the following:

²⁷ PE states that by the time RFP 8234 was issued on 10 February 2005, a new and much more comprehensive UFC 4-023-03, dated 25 January 2005, entitled "Design of Buildings to Resist Progressive Collapse" had been issued, but that UFC is not in the RFP.

²⁸ UFC 4-010-01 is not in the record but is available at http://digital.library.unt.edu/ark%3A/67531/metadc15548/. B-2 STRUCTURAL DESIGN. If the minimum standoff distances are achieved, conventional construction should minimize the risk of mass casualties from a terrorist attack. Even if those standoff distances can be achieved, however, incorporate the following additional structural issues that must be incorporated into building designs to ensure that buildings do not experience progressive collapse.

B-2.1 Standard 6. Progressive Collapse Avoidance.

Progressive collapse is considered to be significant risk for buildings of three or more stories.... For all new and existing inhabited buildings of three stories or more, design the superstructure to sustain local damage with the structural system as a whole remaining stable and not being damaged to an extent disproportionate to the original local damage. Achieve this through an arrangement of the structural elements that provides stability to the entire structural system by transferring loads from any locally damaged region to adjacent regions capable of resisting those loads without collapse.

39. By email dated 19 April 2005 to the bidders, Mr. Hillestad wrote the following:

NOTICE TO ALL:

In order to assure that everyone is basing their proposals on the same overall requirements, the following clarifications are provided:

(2) When addressing the progressive collapse design requirements for the VQ at McGuire, the specified threat level is "LOW".

Further clarification should not be required. To the extent mis-information, erroneous, or misleading direction is contained in the RFP, appropriate corrections shall be accomplished in the award document(s).

(Tr. 11/217-18; R4, tab 92 at 2, tab 287)

40. Mr. Cochran testified that the Baker 35% design did not meet the requirements for resisting progressive collapse (tr. 11/140-41). He added that the structural system was not totally designed in the 35% design (tr. 11/141). Mr. Basham reviewed Michael Baker's

35% design and found that it was not designed to resist progressive collapse (tr. 2/7-9, 86-87). PE agrees that the Baker 35% design did not account for progressive collapse (app. br. at 93).²⁹

RFP 8234 – Triarch

41. RFP 8234 included the Temporary Lodging Facility "CID^[30] CORRECTED FINAL SUBMISSION," May 2004 (R4, tab 2 at 11). This document included Specification Section 09911, Painting (Consumer Line Products), for the TLF that specified "Duroplex –Triarch Industries" and "Plexture – Triarch Industries" for interior paints (tr. 10/117; R4, tab 2 at 569-70). Section 09911, paragraph 1.1 A., stated "Refer to CID package for selected Interior Paints(s)" (R4, tab 2 at 569). The TLF CID Interior Finish Schedule and Color Materials Schedule specified Triarch Antiqua DS II for the walls and ceilings (*id.* at 19, 21).

42. RFP 8234 includes the "Corrected Final Concept Design for Visiting Quarters - DESIGN ANALYSIS," May 2004³¹ (R4, tab 2 at 692). This document includes Specification Section 09911, Painting (Consumer Line Products), for the VQ that specified "Duroplex –Triarch Industries" and "Plexture – Triarch Industries" for interior paints (tr. 10/117; R4, tab 2 at 1154-55). This document does not include an Interior Finish Schedule as did the CID for the TLF.

43. The 35% drawings for the TLF and VQ include finish schedules. The 35% drawings for the TLF, dated May 2004, required "paint" identified as "TRIARCH INDUSTRIES ANTIQUA DS II" for the guest rooms (R4, tab 1745, drawing I-301). The 35% drawings for the VQ, dated 18 May 2004, required "paint" identified as "Sherwin Williams" for the guest rooms (R4, tab 1746, drawing ID-401).

44. RFP 8234 included the following specification paragraph for the VQ in "SECTION 01012 – SPECIAL CONDITIONS":

1.2 INTERPRETATION OF THE DRAWINGS AND SPECIFICATIONS:

- A. It shall be understood that concept design specifications and drawings are complementary and are to be taken
- ²⁹ We disagree with PE's characterization that the AF "added a major structural design change referred to as 'progressive collapse'" during the RFP process (app. br. at 93, 166). It was a requirement of the CD contract but was not incorporated in the design.

³⁰ Comprehensive Interior Design (CID) (app. br. at 222).

³¹ This document was not entitled "CID" but is very similar to the "CID" for the TLF but does not have a finish schedule and color and materials schedule (R4, tab 2 at 11-688).

together for a complete interpretation of the work. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. *In case of a difference between the drawings and specifications, the specifications shall govern.* In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall promptly be submitted to the CO who shall, in consultation with CE, promptly render a decision in writing. Normally, the items of higher standard shall govern. See FAR 52.236-21.

(R4, tab 2 at 882) (Emphasis added)

45. The 5 April 2005 consolidated questions and answers sent to the bidders on 7 April 2005 included the following questions:

44. Page 22 – Para $5.2.3 - 3^{rd}$ bullet – CID package similar to the one provided for the TLF was not provided for the VQ.

Yes see attachment to amendment #1 to the RFP.

59. Page 50 – Item 20 – Is CID available?

Yes, see amendment #1 to the RFP.

(R4, tab 4 at 7, 9) Amendment No. 1 to RFP 8234 does not include the CID for the VQ (R4, tab 2A). There was no CID pamphlet for the VQ in the RFP 8234 (tr. 5/163, 210). Based on the 5 April 2005 questions and answers for #44 and #59 and the fact that RFP 8234 Amendment No. 1 does not have the VQ CID as indicated in the answers to these questions, we find that the bidders did not have the VQ CID.

46. By email dated 12 April 2005 to prospective bidders, Mr. Hillestad sent the following:

The paint spec for subject project remains as is for both facilities. A review of the paint spec for each facility confirms they are identical. Proceed with your proposal preparation accordingly.

(Tr. 10/115-16; R4, tab 286)

47. By internal email dated 13 April 2005 to Mr. Morrison, Mr. Hillestad wrote:

Confusion on the paint issue reigneth, at least in my mind. When I look at the paint spec in section 09911 for both the TLF & VQ dtd 5/18/04, both specs call for Duroplex & Plexture by Triarch Industries (\$4.00 per sq ft per Don Hallett). When I looked at the CID for the TLF it calls for the Triarch paint while the CID for the VQ calls for the Sherwin Williams product throughout. Dunno guy, I think we got a problem, Hallett is standing firm on the difference. In your absence I will go back to Steve Lyman and Dave Williams to see if I can get a consensus on the subject. Evidently there is a great price differential between the two products. i.e., \$4.00 p/g (low side est) for the Sherwin Williams to \$4.00 per S/F(Per EarthTech) for the Triarch paint product.

(R4, tab 4364 at 2)

48. In another internal email dated 13 April 2005 to Mr. Williams, copy to Mr. Macdecy, Mr. Hillestad further explained the problem:

This is a subject that is not going away! We need to reach a consensus ASAP. Here's what I have, please compare with your notes or documents and let's talk. When looking at the Paint section of the specs, Section 09911 dtd 5/18/04, the interior paints called out for both facilities is the Triarch Product. Now go to the CID documents for the facilities and you will find that the VQ finish specified is a Sherwin Williams product while the CID for the TLF calls for the Triarch product. We are being called on the variance in the specs by the contractors. Apparently there is a significant price difference in the two paint products. We need to send a clear message on what precisely it is we want in the finished product. My project Manager, Tim Morrison, is TDY this week and is trying to provide guidance, but he is delayed by a day in getting back to me. Please take a look and see if we can solve this before the day is out. Thanks.

(R4, tab 4362 at 1-2) Mr. Williams responded on the same day stating, "What HQ AFSVA wants is what is specified In Section 09911 (the Triarch Product)" (*id.* at 1).

49. By email dated 19 April 2005 to the bidders, Mr. Hillestad wrote the following:

NOTICE TO ALL:

In order to assure that everyone is basing their proposals on the same overall requirements, the following clarifications are provided

(1) The interior paint specification shall be construed as "BRAND NAME OR EQUAL." Substitutions for the Brand name "TRIARCH Architectural Finishes" shall meet or exceed the salient characteristics established in par 1.4 A., in Section 09911 - Painting (Consumer Line Products)- dated 5/18/2004 set forth in the specifications provided.

••••

Further clarification should not be required. To the extent mis-information, erroneous, or misleading direction is contained in the RFP, appropriate corrections shall be accomplished in the award document(s).

(Tr. 11/217-18; R4, 92 at 2, tab 287) The "interior paint specification" Mr. Hillestad was referring to was RFP 8234 Specification Section 09911, Painting (Consumer Line Products) (tr. 10/116-17). By another email dated 19 April 2005, to the bidders, Mr. Hillestad stated:

Subject: McGuire - VQ/TLF - Paint issue

To All:

A further note re: interior paint specs for above projects.

The Triarch or equal product will only be applied to the interior walls of the structures. A satin finish paint in the color specified shall be applied to the ceilings. This should conclude the interior paint products questions.

(Tr. 10/118; R4, tab 288) PE acknowledged receipt of these "Additional clarifications" (R4, tab 92 at 1).

50. Mr. Tengler, PE's chief estimator, testified that in developing its bid for interior finishes, PE used a bid from Testino's that omitted "wall coverings" for the VQ (tr. 4/80). PE had a higher bid from Pro-Spec for the VQ that included wall coverings that was not used (tr. 4/81). We find this mistake likely caused PE to under-bid the wall finish work for the VQ.

RFP 8234 - StormWater Detention Pond

51. RFP 8234 included various meeting minutes. The minutes from the "Intermediate Design Review" meeting held on 7 November 2003 included a discussion of storm-water management:

[Action Item] Base CE raised concerns regarding the proposed stormwater management pond that the pond would hold water for extended periods and be a bird attractant close to a runway and that it would turn into a "marsh". Baker indicated [its] concern for potential increased frequency of flooding along and over Mitchell Road if surface runoff from the project was not controlled. A detailed hydraulic analysis for proposed conditions would certainly need to be conducted if no storm water management was provided to determine the increased frequency of flooding over Mitchell Road. Following further discussions, it was decided that storm water management would be shown with options:

-- Open SWM Pond (as shown on intermediate plans) – Base Bid

-- Underground SWM System - Optional

-- Replace Mitchell Road Culvert system - Optional -- Do nothing and allow increased frequency of flooding over Mitchell Road. If the 3rd or 4th options are pursued, a detailed and comprehensive hydraulic analysis must be conducted.

[Status] Hydrant Flow Test provided 11/4/03. Design solution pending

(R4, tab 2 at 734)

52. A final design review meeting was held on 14 January 2004 (R4, tab 2 at 743). RFP 8234 includes minutes of the meeting including the following:

3. Baker was given direction to remove the retaining pond from the project. Alternative solutions will be investigated.

Responsible Party: Joe Bellini - Civil Status: Completed

(R4, tab 2 at 743)

53. RFP 8234 includes an entry dated 6 January 2004 relating to "General" and "100% RFP" from Ms. Willingham, HQ AMC, Scott AFB, reads:

[Comment] Detention Pond. For the last two years McGuire has experienced greater saturation of the soil so problems have occurred with drainage. Please make provisions to insure the detention pond has the correct capacity and design.

[Action] The intent with the detention basin is to store increased runoff temporarily during the rainfall event to control peak flows. The size of the detention basin shown on the grading plan was approximated to control the 1.5-year storm per LEEDS recommendations. The size may increase if it is determined during final design that the runoff will increase in frequency and magnitude of flooding over Mitchell Road.

(R4, tab 2 at 760)

54. RFP 8234 includes another entry dated 7 January 2004 relating to "Architecture" and "Final Design (95%)" from Mr. Bennett, PE:

[Comment] If the north parking can have storm water feed directly into the culvert, can the central parking do the same as well? This is a LEEDS issue as to how much water goes through the detention basin before entering downstream. Where do we stand on this issue? We would like to simplify the storm drainage piping from the central entry parking lots to the south parking lots,

[Response/Action] Consensus was reached to leave the basin in the project so the costs could be captured if deemed necessary. We have a note on sheet C-106 that provides several alternatives to the basin (including eliminating storm-water detention all together) and indicates that a final determination on the basin shall be made during final design. The note also indicates that if it is determined during final design that the storm-water basin could be eliminated, the storm drain system could be re-routed to more directly connect to the Mitchell Road channel. The north parking area was allowed to discharge directly into the channel because an existing impervious area just west of the VQ, roughly equivalent in area, is draining to the basin to compensate for bypassing runoff from the new north parking area.

(R4, tab 2 at 763-64)

55. RFP 8234 includes a very similar entry dated 13 January 2004 relating to "Civil Engineer Squadron" MAFB and "Final Design (95%)" from 1Lt McAlpine:

[Comment] The retention pond needs to be removed from the project. Another alternative for storm water drainage must be determined.

[Response/Action] Do not concur. Consensus was reached to leave the basin in the project so the costs could be captured if deemed necessary. We have a note on sheet C-106 that provides several alternatives to the basin (including eliminating storm water detention all together) and indicates that a final determination on the basin status shall be made during final design.

(R4, tab 2 at 777) Mr. Williams testified that the AF knew the base did not want a detention pond but did not have the detention pond removed from the 35% design because it was too expensive to go to underground storage (tr. 15/94-95).

RFP 8234 Utilities

56. RFP 8234 included 6 January 2004 review comments by Parsons relating to utilities with AF responses (R4, tab 2 at 244):

26 CS101 Need to show all existing utilities, sizes and invert elevations.

RESP: Noted.

The survey base mapping shows existing utilities, including sizes and invert elevations for all gravity systems (sanitary and storm).

27 CD101 Need to show all existing utilities to be removed and/or relocated with existing sizes and invert elevations.

RESP: Noted.

Existing utilities to be removed is shown on the Demolition Plan and is as complete and accurate as the survey. Sizes and invert elevations of existing systems are also shown to the extent they are shown on the survey.

29 CU101 All proposed utility systems need to be identified with invert elevations, sizes, locations, type of materials, Communications lines need to be included.

RESP: Noted.

All proposed utilities are shown on the Site Utility Plan. Invert elevations, pipe sizes, and material types are outside the scope of the RFP design documents.

(R4, tab 2 at 245)

RFP 8234 Geotechnical Report

57. RPF 8234 included a copy of Professional Service Industries, Inc. (PSI) Geotechnical Engineering Services Report for the MAFB VQ, dated 24 November 2003 (R4, tab 2 at 809-10, 822-37). The report indicated it was prepared for "Parsons Engineering Science" San Antonio, Texas (*id.* at 810). The report included soil boring logs at 12 boring locations (*id.* at 824-37). The boring locations and depths were selected by Parsons Engineering (*id.* at 814). The written summary of the subsurface conditions beneath the VQ identified, "tan, brown. gray Sand (SP) and Silty Sand (SM) with Silt (ML) and Clay (CL) strata of varying thickness and at varying depths" (*id.*). Although there was no mention of organic material in the narrative results, boring log B-01A indicated "Trace amounts of organics observed at 10 ft" (*id.* at 825). The "Geotechnical Discussion" included:

> The data developed during this study indicate that the soil and groundwater conditions at the proposed site of the Visiting Quarters are generally considered suitable for the construction of the proposed structures and pavements areas provided that recommendations presented in this report are implemented.

(R4, tab 2 at 815) The "Water Level Measurements" section of the report stated: "Free groundwater was observed between 6 and 13 feet $bgs^{[32]}$ the borings upon completion. Please note that groundwater levels can vary depending on climatic and rainfall conditions." (*Id.* at 815)

³² "Bgs" refers to "below ground surface" (gov't br. at 40).

PE's Executive Proposal Review

58. Prior to submitting its proposal, PE conducted an Executive Proposal Review (EPR). The results of the EPR were presented in a document by the same name dated 31 March 2005 (R4, tab 1759).³³ The "Executing Organizations" were identified:

5. Executing Organization

Global Business Unit:	PI&T
Division:	PI&T – FERM
Sector:	FERM – Infrastructure
Office:	Parsons Evergreene, Salt
	Lake City Utah
Parsons Entity:	PARCOMM (Parsons
	Evergreene

(*Id.* at 5) The pricing strategy was identified:

7. Pricing and Execution Strategy

Pricing for this task order for review purposes will be derived using a combination of current subcontractor pricing of unit rates, detailed take off quantities, and the recent historical pricing data as part of the 35% design. The final pricing for bid submittal purposes will consist of firm fixed pricing from subcontractors based on a defined scope; with Parsons Terms and Conditions, and prime contract flow down provisions incorporated. PE will also collect one or more firm fixed price bids for the entire work scope from one or more local general contractors.

Since Parsons preformed the 35% design, this has allowed more precise scope definition, limiting our overall liability for scope gaps in the final project pricing.

(*Id.*) (Emphasis added) Several times in the EPR, PE stated that it preformed/completed the 35% design (*id.* at 5-7). PE planned to "require that all subcontractors/vendors hold their pricing for 120 days" and require a subcontractor release "or we will require a price adjustment to account for any inflation in cost" (*id.* at 79). PE planned to include the

³³ Neither party presented testimony about this document at the hearing. PE objected to its use by the AF, an objection we overruled in the preliminary matters section of this decision.

majority of material costs in firm-fixed-price subcontracts and that "volatile materials such as concrete and steel" would be purchased within the 120 days and stored either on site or in bonded and insured warehouses (*id.* at 100). The EPR included a risk management section that among other risks, identified "Quality of subcontractor pricing at the 35% design stage," and "price escalation of materials prior to buy-out" and "Completion of plans from 35% to 100% – managing to scope and cost" (*id.* at 177).

PE's Proposal

59. In April 2005, Mr. Tengler was PE's chief estimator (tr. 4/6). He computed PE's bid of \$33,566,277 (tr. 4/30; R4, tab 3732 at 343). Mr. Booth is also an estimator for PE (tr. 7/9). He first became involved in the TLF/VQ project in March 2005 (tr. 7/11). Mr. Booth prepared a "check estimate" on the TLF/VQ project (tr. 7/12; R4, tab 506). The purpose was to conduct an independent estimate to check the "ball park" validity of Mr. Tengler's estimate and "flesh out any scope items" added since the prior estimate (tr. 7/13, 29). He was given only the Baker drawings, the RFP, specifications and drawings (tr. 7/14-15; R4, tab 506 at 1). The estimate was based on the assumption that the "site will be delivered clean, per the RFP" (R4, tab 506 at 1). He didn't do "takeoff's" from the drawings, but used "RS Means" values per square foot of the various systems in the building (tr. 7/25-27). The estimate for the VQ was \$18,182,698 (R4, tab 506 at 19) and the TLF was \$15,160,521 (*id.* at 33) for a total of \$33,343,219.

60. PE signed and submitted its "Price Proposals" on 27 April 2005 in the total amount of \$33,566,277 (R4, tab 5). The offer had an acceptance period of 120 calendar days from the date of the signed offer³⁴ (*id.* at 1). Before award the AF contacted PE and asked PE to confirm its bid. The AF did not suggest that the bid was too low compared to the other bids. (Tr. 1/114-15) PE held an executive level meeting to discuss the AF's request. Mr. Radin recalled they discussed the three different estimates supporting the bid: (1) the original \$33,566,277 estimate by Mr. Tengler used for the bid (tr. 1/117; R4, tab 506 at 3), (2) the \$33,343,219 check estimate by Mr. Booth that used RS Means (tr. 1/117-19; R4, tab 506 at 6, 19, 33) and (3) the U.S. Cost estimate of \$29,514,000 (tr. 1/116; R4, tab 506 at 36, 51). As a result of this meeting PE decided it was a good bid and they would stand by it (*id.*).

AF Price Competition Memorandum

61. The Price Competition Memorandum (PCM) for RFP 8234, signed by Mr. Hillestad, Mr. Brackett and CO Macdecy, all from AFCEE, lists the Construction Cost Limitation (CCL),³⁵ IGE, and bids from the three bidders, MWH, Caddell and PE:

³⁴ One hundred and twenty (120) days from 27 April 2005 is 25 August 2005.

³⁵ The CCL sets the maximum price authorized at the time.

TLF	CCL	IGE	MWH	Caddell	PE
Base Bid	\$15,373,202	\$12,936,476	\$19,128,036	\$17,456,748	\$15.373.202
Equip't	\$192,046	\$176,994	\$204,302	\$159,106	\$159.755
VQ					
Base Bid	\$17,977,243	\$16,160,367	\$28.229,644	\$27.429,776	\$17,977.243
Equip't	\$56,077	\$69.239	\$106,902	\$137,434	\$56.077
TOTAL	\$33,598,568	\$29,343,076	\$47,668,884	\$45,183,064	\$33,566,277

(R4, tab 3743 at 1)

62. Part of the Introductory Summary to the PCM reads:

A total of three (3) offers were timely received. All three exceeded the CCL. The MWH and Caddell Offers were too far out of range to allow further consideration. The Parson Offer was determined to be salvageable with discussions. Following a series of discussions it was determined that Parsons-Evergreene was willing to revise their original offer to an extent that would assure an acceptable proposed (Price/Cost) for this acquisition. Parson's representatives advised they had been able to utilize knowledge acquired during the Constructability Review to gain assurance that the project was doable at their final figure. Their proposed offer was affirmed in writing by The Corporate President, Mr. Christopher Nielson. Additionally, they were confident that there would be no problem in obtaining subcontractors during the work progression. Despite their organizational HQ location in Salt Lake City, Parsons has maintained a strong presence on the Eastern Seaboard. These assurances are deemed adequate to substantiate the decision to award to Parsons-Evergreene, LLC.

(R4, tab 3743 at 3)

63. The PCM Evaluation Summary read:

a. <u>Reasonableness</u>

The three proposals received were compared to each other and with the Independent Government Estimate (IGE) and the Construction Cost Limitation (CCL). The proposals received from MWH Americas and Caddell Construction, Inc. were deemed irreparably high when compared with the CCL, the IGE and the offer from Parsons. MWH and Caddell offers were rejected out of hand. The Parsons offer was less than .07% higher than the CCL and approximately 16% above the IGE. The IGE was a Year old at the time of comparison. Given rapidly fluctuating prices resulting from high oil prices and other market influences, the CCL was given heavier comparative weight. The Parsons offer was determined to be sufficiently within range to attempt a satisfactory resolution. Following a series of telephonic and electronic discussions, Parsons submitted an offer that allowed award within the funds set forth in the CCL. A final decision was made to proceed with the award to Parsons.

 $(R^4, tab 3743 at 6)^+$

64. The Determination of Adequate Price Competition, attached to the PCM, reads in part:

Considering all factors, the offered price selected (see attachment 2 to the PCM) is determined to be fair and reasonable based on adequate price competition....

(R4, tab 3743 at 9)

Delivery Order No. 0013 for 100% Design and Construction

65. Delivery Order No. 0013 (DO 13) was issued to PE on 13 July 2005 (R4, tab 7 at 1). DO 13, CLIN 0003AA was for "DESIGN & CONSTRUCT TLF" at a fixed price of \$15,269,702.00 (*id.* at 2). DO 13, CLIN 0003AB was for "DESIGN & CONSTRUCT VQ" at a fixed price of \$17,859,043.00 (*id.*). The completion date for both the TLF and VQ was 5 March 2007 (*id.* at 5) for a total period from award to finish of 600 days. PE was the "Design-Build-Plus 03 (DBP03)" contractor for this project (*id.* at 20).

66. DO 13 required construction of the TLF and VQ in accordance with the SOW which was Attachment 1, entitled, "Temporary Lodging Facility (PTFL 04-5000) & Visiting Quarters (PTFL 02-3004) McGuire AFB, NJ" dated 31 March 2005 (R4, tab 7 at 2). The SOW was the same one found in RFP 8234 (R4, tab 2B at 3, tab 7 at 17). The SOW incorporated the 18 May 2004 concept design documents for the TLF and VQ on two compact disks (R4, tab 7 at 25).

Project Management Plan (PMP)

67. By email dated 25 July 2005 to Mr. Binks, one of PE's Project Managers, and a number of AF personnel, Mr. Morrison forwarded the AF's PMP, dated 17 May 2005 (R4, tab 528). The PMP defines the roles and responsibilities for the following AF organizations: Headquarters Air Mobility Command (HQ AMC); Headquarters AF Services Agency (HQ AFSVA); 305th CES, Civil Engineer Squadron, MAFB; 305th SVS, Services Squadron, MAFB; and Title II Contractor Services Support (*id.*). The PMP informed PE of the following:

> As minimum the Title II contractor, Base Civil Engineer and Services Representatives, HQ AMC Services, HQ AFSVA, CM, CA, and any other organization interested will participate in all final acceptance inspections The DB+ contractor will schedule the final acceptance inspection through the Title II contractor with sufficient advance notice for maximum participation by interested parties.

(R4, tab 528 at 13)

27 July 2005 "Kick-Off" Meeting & Initial Notice to Proceed (NTP)

68. A "Pre-Construction and Pre-Work Conference" was held on 27 July 2005 R4, tab 3004 at 110). Even though there was no requirement for an NTP for design (R4, tab 2 at 565; tr. 10/170), the AF issued an NTP on the "design completion phase" just prior to this meeting. It was signed by CO Macdecy on 25 July 2005 with an "effective date" of 13 July 2005 (tr. 7/229-30; R4, tab 3004 at 108). Mr. Binks signed acknowledging receipt on 26 July 2005 (R4, tab 27). Mr. Evans, PE's expert in scheduling issues, testified that the government initially "backdated" the NTP to 13 July 2005 but changing the date to 27 July 2005 was discussed during the 26 July 2005 meeting (tr. 7/230-32; R4, tab 3004 at 111). Notes of the meeting include the following:

NTP presented to Parsons Evergreene was dated 13 July 2005, twelve (12) days prior to actual receipt. Issue date needs to reflect date of this meeting, 27 July 2005, which would then be the official start of the six hundred (600) days allotted in the FNA for construction.

(R4, tab 3004 at 111) Mr. Hillestad attended the 27 July 2005 "kick-off" meeting (tr. 10/128-29, 153-54). He disagreed with the above-quoted meeting notes, testifying that he and Mr. Binks agreed that the NTP date would be 13 July 2005 (tr. 10/119-22, 130; R4, tab 525 at 1-2).

69. Mr. Bennett recalled that at the 27 July 2005 kick-off meeting he explained to the government representatives that design-build allowed PE the flexibility to make changes so long as the overall intent of the building was satisfied (tr. 5/24).

PE's Initial Schedule

70. PE's initial as-planed Critical Path Method (CPM) schedule for the VQ and TLF, dated 11 August 2005, was submitted to CO Macdecy on 12 August 2005 (R4, tab 1562, tab 538; tr. 16/135). The schedule includes a "Delay of NTP" from 12 May 2005 to 13 July 2005 (R4, tab 1562 at 3). The schedule indicates PE would buy out all of its subcontracts for the VQ and TLF between 11 August 2005 and 3 November 2005 (*id.* at 3-4, 20-21). Although there is little evidence in the record explaining this schedule, it shows the critical path (red bars) running through the foundation work for Wing A of the VQ (*id.* at 6).

August – September 2005 Communications & Meetings

71. By letter dated 23 August 2005 entitled "Memo of Understanding: Design/Build Procedures" from Mr. Richardson, Parsons Regional Construction Manager³⁶ (tr. 2/104), to CO Macdecy, Mr. Richardson expressed PE's "understanding of recent discussions concerning construction means and methods to be used for the design and construction of the Temporary Lodging Facility and Visitors Quarters at McGuire AFB" (R4, tab 4609). The letter read in pertinent part:

> In the particular case of the McGuire AFB VQ and TLF. Parsons Evergreene was the DBP03 contractor during the CD phase and thus is very much aware that the designs produced during the CD phase were "conceptual" in nature by the government. It was repeatedly discussed, that beyond specific design elements, the DBP03 contractor of record had the ability to modify design elements in order to keep the project within budget and schedule, as long as the overall intent of the end user was not compromised and the design meets all applicable building codes and government design criteria.

1. Overall concept and expression of the building will follow the 35% design. (Materials, and design details

³⁶ The PDF version of the letter is not signed, but there was no objection from the government when it was used at the hearing and we assume it was signed, sent and received (tr. 5/25-27).

will be further developed and designed through the 64% and 95% design.)

2. Floor plan layout and interior design have been established as final and are to be per conceptual drawings.

5. Structural systems have not been designed or stamped and therefore will be advanced, changed or otherwise "designed" to meet constructability reviews, code reviews, AF design guideline reviews and to work with the required conceptual architectural, mechanical, and electrical items as set forth in the RFP. It will be the responsibility of Parsons Evergreene to determine the structural system that meets the codes and AG design guideline.

(R4, tab 4609 at 1, 2)

72. A contract coordination meeting was held on 1 September 2005 between Mr. Romano, PE's project manager and Messrs. Morrison and Hillestad from AFCEE contracting (R4, tab 3016 at 1). PE's notes of the meeting included:

The group discussed the idea of "conceptual" drawings and design build. Everyone agreed that Parsons has the opportunity to improve on the conceptual drawings in the less developed portions of the drawings such as electrical, mechanical, structural, and civil. Architectural drawings are much more developed and the expectation is that the floor plans and room layouts are fixed and will not change. Parsons agrees with this understanding.

(*Id.* at 1-2) Mr. Bennett, PE's Architect, testified that the structural drawings in the 35% drawings was basic, but did not account for lateral design, seismic design, wind loads, and full sheer and connection details (tr. 5/29-30). He testified that progressive collapse was "not even part of that original discussion" (tr. 5/30). The notes of the meeting indicate that after the meeting Mr. Romano asked if the area where houses and a swimming pool had been demolished had been backfilled with engineered fill. He asked for test reports documenting the fill and if an environmental site assessment had been completed for these areas. (*Id.* at 2)

Structural Brick Proposal

73. On 5 October 2005, Mr. Bennett sent a letter to Mr. Romano, PE, suggesting a change in the structural design of the VQ (R4, tab 3885 at 7-8). The letter listed six design "issues" and "solutions" including use of structural brick walls (*id*.). Mr. Bennett testified that this design change was intended, in part, to address progressive collapse (tr. 5/31). On 10 October 2005, Mr. Romano, submitted to the AF a "Notice of Intent to Modify Structural Design" for the VQ (R4, tab 3885 at 9-10). In the letter PE explains that the structural design embodied in the 35% design was "incapable of being utilized as shown AND remain able to maintain the integrity of the desired architectural elements" (*id.* at 9). Mr. Lengyel worked on the change and testified that they (PE) recommended changing from the double wall concept to a single wall made of structural brick with an "open web metal joist and metal B-deck with concrete topping" (tr. 4/188). Mr. Lengyel testified that the 35% design did not address "progressive collapse" and that, once they (PE) put that criteria in the design, the VQ "became inordinately heavy and difficult to detail" (tr. 4/190-91).

74. On 16 November 2005, Ms. Kite, PE contracts manager, sent CO Macdecy a letter entitled, "Request to Proceed with Structural Brick system" (R4, tab 557). The letter included as Attachment 1 a copy of another 16 November 2005 letter to CO Macdecy answering various questions and Appendices A through F presenting information about structural brick. Attachment 1 included:

The color of brick has not been finalized at this time. The manufacturer we are negotiating with has been finding various brick colors for us to analyze. If necessary, we will have a custom color brick fabricated to match the base standard. Parsons understands that the brick color must meet the base standard and will submit the brick color during the submittal process.

(*Id.* at 3) Ms. Kite also stated PE could match the brick size required by the Base Architectural Compatibility Guide (*id.*). Ms. Kite stated that the Appendices included sufficient information to answer CO Macdecy's questions in his 21 October 2005^{37} letter and she asked for permission to proceed with the structural brick solution (*id.* at 1).

75. On 8 December 2005 the parties held a coordination meeting (R4, tab 239). Minutes of the meeting document that the parties discussed PE's desire to change the design of the VQ to structural brick. The AF expressed its desire to stick to the 35% design and that only "undeveloped areas" of the 35% design were subject to change by PE. The AF directed PE "to discontinue structural brick design," but PE expressed concern that the 35% design could not be built without significant modifications to

³⁷ This letter is not in the Rule 4 index.

address progressive collapse. The AF agreed to consider "additional information and supporting documentation outlining" PE's concerns. (*Id.* at 2-3)

76. Ms. Brown became the CO for the VQ/TLF contract in December 2005 when Mr. Macdecy left (tr. 11/255; R4, tab 7A at 2). In a 14 December 2005 email to CO Brown, Mr. Williams stated that the RFP/35% design did not have shear walls that lined up in the Admin/Housekeeping wing of the VQ that will "require additional structural members to be installed that will impact the design in an adverse way" (R4, tab 4379 at 2). Mr. Williams wrote:

Can the RFP design be built? Yes. However, if the government takes the position that the DB contractor cannot deviate from the RFP at all then we will have clearance problems between the ceiling and structure. That would leave only two option as I can see it at this time: 1) increase the floor to floor height or 2) lower the ceiling height. HQ AFSVA does not support the second option.

The requested structural change [structural brick] appears to resolve these issues of clearance and improves AT/FP.

(R4, tab 4379 at 2) Mr. Williams supported the change to structural brick suggested by PE stating, "Please ensure Parsons makes the proper request for the structural system only and modify the contract as required (*id.* at 3; tr. 15/47).

77. By letter dated 15 December 2005 to PE, Subject "Sixty-five Percent Design Submittal Requirements, Contract No. FA8903-04-D-8703, Task Order 0013," CO Brown expressed the AF's concern over PE's proposed change to structural brick:

1. The Government is seriously concerned about the direction that Parsons Evergreene has chosen to take with respect to the design of the subject task order. That task order identifies the controlling contractual documents, including the statement of work, specifications and drawings. These documents provide the legal framework for the basic design as represented by the 35% design for these projects.

2. You have a contractual obligation to comply with all contractual documents, including the designs that are indicated in the specifications and drawings. If you find during the continuation of your design that the initial design work includes errors or other deficiencies, it is your affirmative obligation under the task order to identify the

error or deficiency, specifically referencing the applicable portion of the task order, include specific data substantiating the existence of the error or deficiency, and identify any proposed solution to the design error or deficiency. That information will be used to evaluate the proposed solution and either incorporate your design changes into the task order or advise that the solution is not acceptable to the Government.

3. What has occurred, essentially, in the current situation concerning the structural brick is that you have identified that there are structural problems and you have proposed a significant redirection on several structural components. This contention is without sufficient rationale to substantiate that there is indeed a problem that cannot be resolved through design development of the task order documents. The "Structural Brick Proposal" is considered an incomplete and unacceptable method to identify a design solution. Ideally, we seek a solution that most closely reflects the structural character that is on contract.

(R4, tab 32 at 1) CO Brown directed PE to provide a "comprehensive and concise list of errors, deficiencies, or other specific issues that you have identified with the original design" (*id.*). Mr. Lengyel testified that such information was included in the information submitted to the AF in the October 2005 letter (tr. 4/202). CO Brown also directed PE to submit recommendations that "more closely resembles the structural system that is in the task order" (R4, tab 32 at 1-2).

78. PE responded to CO Brown's 15 December 2005 memorandum on 22 December 2005 (R4, tab 36). PE began the letter with, "Parsons Evergreene (PE) is also very concerned about this project, but specifically with our inability to make progress on our structural design using what we consider necessary and appropriate alternative systems" (id.). PE elaborated on three "primary issues in the current concept design that need to be addressed" (id.). The issues were: (1) Inadequate Shear Walls and Beams on the second and third floors in the business center wing and interior lobby that do not line up with the main floor that will require larger beams that will interfere with ceiling heights and mechanical runs; (2) Inadequate Mechanical Plenum Space caused by the concrete floor plank system that does not allow space for ducts and lighting fixtures; and (3) Progressive Collapse and Structural Redundancy is not accounted for in the 35% design (*id.* at 1-2). Mr. Lengyel testified that it was impossible to build the 35% design the way it was depicted with the double wall design and meet the nine-foot ceiling clearances and other architectural details in the design (tr. 4/205). Mr. Bennett testified that the 35% design was deficient because it did not account for progressive collapse (tr. 5/36). In the 22 December 2005 letter, PE went on to explain how its structural brick

design would solve these problems. It also quoted the pre-bid question and answer that questioned the adequacy of the 35% design to satisfy the progressive collapse requirement, including "[a]re we allowed to substitute assemblies and structural systems in order to be compliant with the progressive collapses requirement provided the performance requirements and appearance of the building are satisfied?" (*id.* at 4). The question also noted that providing "*a facility compliant with the Progressive Collapse criteria would require substantial work at a considerable additional compensation*" (*id.*). PE included the AF's answer:

Yes, the drawings are concept only. You have the responsibility to generate the construction details and drawings. Tim Morrison, AFCEE/HDM

(R4, tab 36 at 4)

79. The AF commissioned a review of structural systems for the VQ by Jaster Quintanilla & Associates (JQA) (R4, tab 588 at 1). The resulting report, dated 7 January 2006, included the following:

The configuration of the load-bearing masonry walls and structural steel beams at this level should be similar to that indicated on Sheet S-105 (Third Floor Framing Area A). Because the interior walls in the north-south direction on the Second Floor do not align with the walls on the First Floor, it is likely that a structural steel frame will be required at these locations on the First Floor to adequately resist the lateral forces. This condition can be readily addressed through proper structural design and detailing.

At this time, it does not appear that the structural system indicated in the 35% Level of Design Documents has been designed and detailed to meet the requirements to resist progressive collapse. However, there is nothing that suggests that the primary structural system selected (load-bearing concrete masonry with hollow core concrete planks) cannot be adequately designed, reinforced, and detailed to meet those requirements.

(R4, tab 588 at 1-2) Mr. Radin testified that this report disclosed design flaws in the 35% design, and the structural brick design suggested by PE was an attempt to fix this problem (tr. 1/219-20). Mr. Lengyel testified that JQA agreed with PE that the 35% design would require structural changes (tr. 4/219).

80. The government responded to PE's 22 December 2005 letter on 12 January 2006 (R4, tab 3913 at 6). The memorandum criticizes PE for continuing to advocate for its structural brick design stating "On 21 October 2005, the government formally rejected Parsons alternative design proposal (specifically the structural brick) and directed Parsons on proper process for submission of requests for contract changes" (*id.*). The government responded to the three technical issues raised by PE stating that: (1) Inadequate Shear Walls and Beams can be resolved with structural design of any needed beams and changes to floor plans; (2) Inadequate Mechanical Plenum Space can be resolved by "slightly lowering the ceiling height, reshaping the duct work, or as a last resort, slightly raising the building height"; (3) Progressive Collapse and Structural Redundancy can be resolved by adding additional reinforcement to the 35% design to meet the minimum progressive collapse criteria (id. at 7). The government also revealed that it had employed JQA to analyze the 35% design. The AF informed PE that JQA reported that the progressive collapse requirement could be met with the 35% design "with the proper detailing and design completion" (id.). With regard to the prebid question and answer the government stated that "[n]otwithstanding Government responses to RFI questions during the RFP process" PE was required to comply with the specifications and drawings, but should notify the government of design deficiencies for government consideration (id. at 8).

81. On 17 January 2006 PE submitted to the AF a PDF "Binder" including a cover summary letter entitled "Request to Proceed with Structural Brick system," supported by 148 pages of backup (tr. 4/197-98, 5/32-33; R4, tab 592). This submission provided the information requested in CO Brown's 15 December 2005 letter. Mr. Lengyel worked on putting the binder together and he testified that it addressed the AF's concerns over brick size, and acoustical and fire ratings (tr. 4/198). Mr. Lengyel developed drawings of the wall sections to show how the new wall design would work (tr. 4/199). The binder also included a report from a structural engineer indicating that the structural brick wall was stronger than the CMU wall (tr. 4/200; R4, tab 592 at 120, 200-01). Mr. Lengyel testified that the manufacturer of the structural brick, Atlas Brick, could provide different size and color brick so size and color would not be a valid reason for rejecting the structural brick (tr. 4/192-94). He testified that the structural brick met MAFB architectural standards for brick (tr. 4/195-96; R4, tab 833 at 18). Mr. Rola, AF senior civil engineer, agreed that PE offered to provide structural brick that met the base architectural standard or the brick specified in Baker's 35% design (tr. 15/121-22). In PE's structural brick proposal it used four by four by eight inch closure face brick that was the base standard (tr. 5/89-90; R4, tab 833 at 8). PE proposed two different wall assemblies, each performed better than the CMU with veneer brick in the RFP (tr. 4/196-97).

82. CO Brown agreed that one problem with the 35% design was that "the shear walls in the different floors didn't line up and they had to be moved in order to carry the loads down and meet the progressive collapse requirements" (tr. 12/109-10). She agreed

that the structural brick design would solve the progressive collapse problem with the 35% design (tr. 12/110).

83. CO Brown testified that PE told her that the Baker design "would be near to impossible to build" due to many technical problems (tr. 12/14). She asked her technical support people about PE's concerns. She was told there were some problems with the Baker design but they could be corrected "by somebody that knew what they were doing." (Tr. 12/15)

84. CO Brown convened a "summit meeting" in San Antonio, Texas, on 25 January 2006. CO Brown started the meeting with a discussion of the design build process:

> The premise comes down to the contractual document; what ever documents we start the process with is what drives the design. If there is something in the basic contract that is incorrect the contractor has the responsibility to propose solutions. However, in order to change the contract there must be consideration with respect to cost either positive or negative.

(R4, tab 38 at 1) Mr. Bennett attended and the meeting minutes document that Mr. Bennett said the following:

f) Keith Bennett responded to above comments by stating that early in the bid process concerns with the structure were voiced and requests were made for liberty to substitute structural systems within the same architecture. Keith Bennett stated that it was never portrayed that the exact structure or the exactness of the drawings was what they would be held to. Therefore they did not feel it was necessary to point out specific deficiencies with the 35% because they felt it clearly stated they could look at other options. I know contractually that may be messy but that was what was portrayed at the 35% review pre going out on the street.

(*Id.* at 2) Mr. Bennett stated that PE was "okay with being told the 'Structural Brick' is off the table we can move on, but it needs to be clear that there will be cost impacts that will need to be looked at regarding solutions to deficiencies" (tr. 4/207, 209; R4, tab 38 at 2). He explained that the structural brick design would solve the problems with the 35% design and not "have a cost implication" (*id.* at 2). Mr. Bennett affirmed what he said in his testimony at the hearing (tr. 5/46, 48-49). Mr. Romano stated that "Parsons never said they couldn't build this [35%] design," however, the structural brick approach was an

attempt to keep the project within budget (R4, tab 38 at 4). Mr. Aldave, PE's structural design engineer, explained that the structural brick design was necessitated by the requirement to design to avoid progressive collapse (id. at 2-3). He stated that the Baker 35% design did not satisfy the requirement to avoid progressive collapse (id. at 4). There was discussion of pre-bid questions, "Brian Lamont respond that if you go back to the pre-bid Q and A notes, one of the comments was that a design to provide a progressive collapse compliant facility will require substantial work at a considerable additional cost" (id. at 5). AF representatives from the Air Mobility Command (AMC) and MAFB stated that "architectural compatibility" (matching surrounding buildings brick) was the "main issue" that caused them to stick with the concrete masonry unit (CMU) and brick veneer of the 35% design (id. at 5). Mr. Romano stated that they could match the brick in the surrounding buildings with the structural brick (id.). CO Brown directed PE to proceed with the 35% design (id. at 7; tr. 15/52). The structural brick design was finally rejected by Ms. Brown during the 25 January 2006 meeting (tr. 2/231, 12/15). Mr. Lengyel recalled that at the end of the meeting PE understood that the structural brick design was a dead issue and they were to build to the 35% design (tr. 4/217-18). PE had developed the 65% design using structural brick and when the decision to use the Baker 35% design was issued, PE had to "go backwards and redo the 65 percent design" (tr. 2/193).

85. Mr. Basham testified that PE's structural brick design would solve the lack of progressive collapse protection in the 35% design. Since the AF would not accept the structural brick, PE had to change the double wall design to account for progressive collapse. PE realigned some structural systems to line up the columns on the second floor with those on the third floor and the ceilings had to be lowered. (Tr. 2/92-94) Hollow core planks are not industry standard when progressive collapse is involved (tr. 5/87). PE used the hollow core planks in the VQ but as a result had to add substantial reinforcement in the 35% design (tr. 5/87-88).

86. Mr. Temchin testified that after the January meeting, PE had to redesign the double-wall 35% design (tr. 7/191-92). PE designed and built a steel frame inside the VQ to prevent progressive collapse because the brick veneer facing would not carry the loads (tr. 2/246). Staying with the 35% double wall design required "an entire interior redesign" involving realignment of the vertical columns, shear columns and creation of a new joint system for the hollow core planks (tr. 7/191-92). PE had to add "a moment frame and structural steel to the VQ" because they were not able to provide protection from progressive collapse using the original wall design (tr. 2/142). Mr. Tengler estimated that use of the structural brick would have saved \$1,906,401³⁸ in construction costs (tr. 4/98; R4, tab 3154 at 2).

87. By letter dated 6 February 2006 to CO Brown, Mr. Dukes, PE's senior procurement manager (tr. 2/106), acknowledged CO Brown's direction to discontinue development of the structural brick alternative. Mr. Dukes informed CO Brown that PE

³⁸ The estimate is dated 6 October 2014 (R4, tab 3154).

considered this direction to be a constructive change and that as a result PE would incur "additional design expense and the loss of performance time." (R4, tab 3926 at 2; tr. 4/222-23)

Submission of TLF & VQ 65% Drawings and Specifications

88. PE submitted for approval its 65% drawings and specifications for the TLF and VQ on 27 February 2006 (R4, tabs 8, 9). The drawings included 100% of the civil and structural and at least 50% of the architectural, mechanical, and electrical design (tr. 12/125; R4, tab 2 at 294, tab 3923).

27 March 2006 Limited NTP

89. On 27 March 2006, CO Brown issued a limited notice to proceed (LNTP) for sedimentation and erosion control, stripping top soil, and cutting and filling the site to proposed rough grades (R4, tab 623 at 3; tr. 8/24-25).

Approved of Site Civil/Structural 100% for Construction Drawings for TLF & VQ

90. The Site Civil/Structural 100% for Construction Drawings for the TLF are dated 17 April 2006 (R4, tab 1750). These drawings include the final design of the TLF foundations (*id.*, drawings S-101.a, b, S-501). The Site Civil/Structural 100% Drawings for Construction for the VQ are dated 27 April 2006 (R4, tab 1751). These drawings include the final design of the VQ foundations (*id.*, drawings S-100, -100A, -101, -102, -501).³⁹

Modification No. 02

91. By letter dated 25 April 2006 to CO Brown, Mr. Dukes offered two alternatives to resolving "the remaining contractual aspects of the impasse that has been resolved in regards to the structural brick" (R4, tab 4504 at 2). PE was willing to accept either a 120-day extension plus \$100,000 or a six-month extension with no money (*id*.). The letter includes, "To add greater detail to the understanding of this agreement, Parsons is estimating the following impacts that have been absorbed to date and will have to be absorbed with the execution of a contract modification under the proposed resolution modification" (*id*. at 2-3). PE listed "\$100,000.00 in actual redesign expenses," \$500,000.00 in increased construction costs to follow the original 35% design, and \$700,000.00 "[i]n consideration for signing a release of claims for the direction given on the design effort to date" (*id*. at 3).⁴⁰

³⁹ We infer that these are the approved versions of the 100% civil drawings submitted on 27 February 2006 (finding 88).

⁴⁰ No testimony was presented by either party at the hearing to explain exactly the meaning of this language in the letter.

92. Modification No. 02 (Mod. 2) to DO 13, dated 6 June 2006, extended the period of performance by 126 days from 5 March 2007 to 9 July 2007. This accounted for a 126-day delay associated with the structural brick discussion that occurred from 22 September 2005 to 25 January 2006.⁴¹ Mod. 2 included the following release:

2. Release of Claims: In consideration of the modification agreed to herein as complete equitable adjustment for any delays or costs rising from varying design approaches, including delays in reviewing approaches, the contractor hereby releases the government from any liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to this contract modification.

(R4, tab 7B at 2) CO Brown believes the release includes what PE claims in this appeal for the increase in cost of constructing the VQ to the Baker 35% design (tr. 12/18). Mr. Temchin believes the release covered the four months of design costs associated with its attempt to convince the AF to use the structural brick design, not the increases in construction costs incurred later to incorporate resistance to progressive collapse in the Baker double wall design (tr. 2/196).

93. CO Brown signed a Memo for Record, dated 12 June 2006, explaining Mod. 2 (R4, tab 1514 at 8-9). After reciting some background, CO Brown concluded, "The period of performance will be changed from 05 March 2007 to 09 July 2007 with no increase to the total amount. The contractor agreed to the extension and agreed to sign a release of claims for the additional time consideration." (*Id.* at 9)

LNTP – *Underground Utilities*

94. The AF issued an LNTP on 6 June 2006 for:

[W]ork affecting underground utilities and some related items including but not limit[ed] to the following: site storm and sanitary sewerage, piping and structures, taps, and tieins, site domestic water piping, taps, tie-ins including metering and vaults, site telecommunication and data to include any duct banks, below grade HTHW, metering and vaults, taps, and tie-ins, high and low voltage electrical underground.

⁴¹ Mr. Evans, PE's scheduling expert, started his 126-day delay on 13 July 2005 (R4, tab 3290 at 6, item 1).

(R4, tab 3948 at 2) Mr. Temchin testified that this LNTP was equivalent to the "1 June 2005 NTP civil site work package" (tr. 2/141). The civil site work is referred to as "horizontal" work (tr. 1/129). The LNTP did not allow PE to start foundation work (tr. 8/32-33).

PE Stop-Work Order/Concerns over Environmental Contamination

95. A coordination meeting between the government and PE was held on 27 June 2006. During the meeting, PE requested a "Certificate of Clean Site" for areas where the AF had contracted for the demolition of two swimming pools and other buildings. (Tr. 6/52, 54; R4, tab 56 at 4) The meeting notes state that the requested documents did not exist (*id.*).

96. On 5 July 2006 PE's subcontractors Giberson Plumbing & Excavating, Inc. (Giberson) and S&C Construction, LLC (S&C) were setting up equipment to start work on footings (ex. A-3 at 130).⁴² On 7 July 2006 PE sent S&C a letter instructing it to stop work on the TLF and VQ footings "at the point in time where you are starting to pour concrete for the footings for these buildings" because of "questions about the condition of the subsurface" (R4, tab 58; ex. A-3 at 134). The daily log for 7 July 2006 indicates that subcontractor S&C was working on footings at the VQ site and had to stop work because it encountered "issues revolving around the soils and testing from prior demo work" (R4, tab 3744 at 63-64).

97. By letter dated 14 July 2006 to CO Brown, Mr. Dukes informed the AF the following:

Since the Air Force cannot provide any documentation as to either the condition of the site prior to demolition, the actual scope of demolition carried out, or the adherence of the demolition contractor to the demolition statement of work, we have to project based on what we understand was done that the potential for asbestos pollution, mercury contamination, and other forms of improper fill materials (such as fluorescent light ballasts) may exist in the site.

(R4, tab 62 at 1) Mr. Temchin testified that at this time PE was very concerned with the condition of the construction site (tr. 3/32).

⁴² Also on 5 July 2006, PE sent a letter to CO Brown complaining about the lack of an unlimited NTP (R4, tab 3004 at 140). However, this letter doesn't square with PE's subcontractor commencing foundation excavation on 5 July 2006.

Unlimited Notice to Proceed (NTP)

98. By letter dated 5 July 2006 to CO Brown, Mr. Dukes complained about the government's use of "limited" notices to proceed and that PE had not yet been given a NTP for the foundations. Mr. Dukes estimated that this practice had delayed construction "approximately 60 days" and he requested an unlimited NTP be issued. (R4, tab 3004 at 140-41; tr. 8/33-34) The AF issued an unlimited NTP on 10 July 2006 (R4, tab 3973 at 2).⁴³ PE started working on the complete project after this NTP (tr. 2/150).

PE's Concerns over Environmental Contamination Resolved/100% Drawings

99. On 21 July 2006 PE sent S&C a letter lifting the stop-work order for excavation at the TLF site (R4, tab 1558 at 43). The stop-work order for the VQ remained in effect. PE completed and received approval of the "100% for construction" drawings for the TLF and VQ dated 24 July 2006. (R4, tabs 1754-55)

100. By early August 2006 PE had completed its review of various documents provided by the AF concerning the demolition of houses and pools in the VQ areas. By letter dated 4 August 2006, PE notified CO Brown that it had concluded that the VQ site was environmentally "clean" and ready for construction (R4, tab 65 at 4-5). PE decided to "immediately proceed with the geotechnical investigation of the in-situ conditions of the backfill within these demolition sites" (*id.* at 1, 5). A total of 28 days of delay occurred between 7 July 2006 when PE stopped work and 4 August 2006 when PE lifted its stop-work order at the VQ.⁴⁴

First Cure Notice

101. On 9 August 2006 the government issued the first cure notice to PE (R4, tab 3982 at 2; tr. 1/132). In this cure notice the AF cited PE's failure to develop a project schedule, lack of cut and fill calculations, lack of sufficient labor, lack of responsiveness relating to TLF subsurface conditions, design deficiencies relating to parking lot, failure to give notice of steel delays, and failure to provide pricing for the changes to be incorporated into the design, i.e., the "shopping list" (R4, tab 3982 at 2). The "shopping list" was a list of out-of-scope items that the government wanted priced so it could decide whether to purchase them or not (tr. 5/219-20, 12/20-21). The shopping list was supposed to consist of "credits and debits" to be developed by PE so that the cost of the contract would not increase (tr. 13/50, 14/234-35). The two major items on the list were parking lot lighting and landscaping (tr. 5/220).

⁴³ The letter was erroneously identified as a limited NTP, but PE understood it to be an unlimited NTP (tr. 8/35).

⁴⁴ Mr. Evans seems to combine the contaminated fill issue with the unsuitable fill issue in his Delay Review Period 3 (R4, tab 3004 at 25-26). We consider them separately.

102. PE submitted its detailed response to the 9 August 2006 cure notice on 24 August 2006 (tr. 2/247; R4, tab 1499 at 13). By letter dated 10 October 2006 to CO Brown, Mr. Dukes noted that the AF had not yet responded to PE's cure notice recovery plan and advised that not having a response "has the potential of causing an adverse impact on the progress of the project" (R4, tab 4565 at 1).

Unsuitable Fill

103. PE hired PSI to do a test pit exploration of the TLF/VQ footprint areas. PSI excavated ten test pits on 16 and 17 August 2006 (R4, tab 796 at 2). Test pits 1, 2, and 3 were at the VQ where demolition had occurred (tr. 6/238; R4, tab 796 at 6). PSI reported its results to PE by letter dated 27 September 2006 (R4, tab 796 at 1). The log for test pits 1, 2, and 3 indicate that construction debris was found in pits 1 and 2 and "trace" debris in pit 3 (tr. 6/239-40; R4, tab 796 at 8-10). The "construction-type debris" found is shown in a picture date stamped "08/17/2006" (tr. 3/9; R4, tab 4675 at 4).

104. By email dated 16 August 2006 to CO Brown, PE provided notice of a differing site condition after finding "wood, concrete rubble, metal, wire, charred debris and other construction debris" that indicated that the previous demolition contractor did not back fill with clean fill (R4, tab 68). The topic of the construction debris was discussed during a meeting on 22 August 2006. PE was to remove the unsuitable material and CO Brown stated MAFB was responsible for paying for the work. (R4, tab 3058 at 3) Also on 22 August 2006, PE emailed S&C a stop-work order for foundation work at the VQ due to concerns over subsurface conditions⁴⁵ (R4, tab 69). This order did not affect the work at the TLF. Mr. Shockley testified that the unsuitable fill issue applied to the VQ only (tr. 6/117).

105. In a 14 September 2006 internal email, CO Brown acknowledged "probably unforeseen site conditions that can cost the government to remediate some of the soil" but that she did not have funding to enable her to direct PE to do the work (R4, tab 4403 at 1). By 2 November 2006 CO Brown had funding and issued a NTP for disposal of the unsuitable material and backfilling, but she imposed a not-to-exceed (NTE) amount of \$70,000 (tr. 12/151, 221-22, 277; R4, tab 4447). A total of 72 days of

⁴⁵ Mr. Evans seems to misconstrue the "contaminated soil" delay and the "unsuitable fill" delay. He writes, "On August 21, 2006, Parsons issued a Stop Work Order for the VQ and marks the end of the delay for unsuitable fill and starts the new delay for the organic layer" (R4, tab 3004 at 28). As we read the record, 4 August 2006 marks the end of the contaminated soil delay (R4, tab 65 at 4-5) and 21 August 2006 marks the beginning of the unsuitable fill delay.

delay occurred between 22 August 2006 when PE stopped work at the VQ and 6 August 2006 when CO Brown issued the NTP to remove the unsuitable fill.⁴⁶

106. On 15 November 2006 the 27 September 2006 PSI report was emailed to CO Brown (R4, tab 846 at 47). On 16 November 2006 the PSI report was forwarded to Mr. Williams, who wrote in a 29 November 2006 email to CO Brown the following:

I am also disappointed it took so long for this report to reach us. However, if I interpret the report correctly, I don't understand how the contractor that demolished the existing facilities was allowed to leave so much large construction debris on site and cover it with a shallow layer of dirt. Six of the ten tests contained construction debris and one of those had the "green" soil. Two additional test sites contained the "green" soil. Only two of the tests seem to be Ok.

Yes, this report is disturbing

(R4, tab 3999 at 1-2)

Organic Layer/"Transite" Asbestos Pipe

107. By email dated 23 August 2006 to CO Brown, PE stated that on 22 August 2006 PSI found "organic material" in two of the test pits they had dug that day at the VQ site (R4, tab 3988). PE also stated, "Based on this discovery, we will not be placing concrete or excavating on the VQ side this week" (*id.*). PE had PSI take small diameter borings to map out the organic layer under VQ wing A (tr. 3/18; R4, tab 4675 at 13). PE also had PSI do some large diameter borings (tr. 3/19-20). PSI identified the location of the organic layer overlaid on the VQ footprint with the black "crosshatched" area on slide 13 in a 18 December 2014 PowerPoint presentation (tr. 3/20-21; R4, tab 4675 at 13). Slide 15 shows a picture of what the material in the organic layer looks like (tr. 3/22; R4, tab 4675 at 15). Slide 16 shows a tree trunk and organic layer material encountered during excavation (tr. 3/23; R4, tab 4675 at 16). The material PE uncovered could not be characterized as "trace" organic material (tr. 3/24-25).⁴⁷

108. By letter dated 19 October 2006 to Mr. Dukes, PSI reported the results of its settlement investigation at the VQ due to "organic laden stratum," i.e., organic layer. PSI recommended that the organic layer be removed in the northwest corner of VQ

⁴⁷ The original RFP 8234 boring logs identified "trace" organic material (R4, tab 2 at 825).

⁴⁶ We need not determine how long it took to remove and replace the unsuitable fill because this delay was concurrent with the organic layer/asbestos pipe delay discussed below. For our purposes it is the 22 August 2006 stop-work date that is important.

wing A. (Tr. 3/25-26, 125-26; R4, tab 74) The PSI report was provided to the AF, but the AF did not respond (tr. 3/26-28, 127).

109. Mr. Temchin testified that the organic layer material is "made up of grasses and other materials that will decompose over time and create voids or cavities in the substrata under the building if it were left under the building" (tr. 3/18-19). The organic layer was at a depth of about twelve feet and the building's footing was seven feet, so the organic layer was five feet below the footing and that was "significant to our structural engineers" (tr. 3/126). PE determined that the organic layer needed to be removed because of differential settlement to insure long-term stability of the foundation (tr. 3/50).

110. By email dated 3 November 2006 to CO Brown, Mr. Thomas, PE's vice president and project manager, notified CO Brown that, while excavating to remove the organic layer, PE encountered another differing site condition in the form of "old pipe with asbestos insulation"⁴⁸ and "immediately stopped work" and notified Mr. Rola (tr. 2/103, 3/131-32; R4, tab 81 at 1). The email was followed up by a 7 November 2006 letter to CO Brown notifying the AF of the differing site condition (R4, tab 841). Asbestos removal was not within the scope of PE's contract (tr. 7/43-44, 5/235-36; R4, tab 838).

111. Meanwhile, Mr. Rola told PE that the organic layer did not need to be removed (tr. 3/127, 6/245-46). Mr. Temchin testified that Mr. Rola's position was "totally ridiculous" (tr. 6/246). In her 9 November 2006 email to Mr. Rola and others, CO Brown expressed her opinion that PE was entitled to rely on PSI's recommendation to remove the layer:

If they [PE] trusted us and built on the site and the building had structural cracks in the foundation later because of

⁴⁸ Mr. Temchin testified that the asbestos insulated pipe was "transite" pipe that is a clay pipe with asbestos in it. It was also identified as "transite" in a 22 February 2007 meeting (R4, tab 3067 at 3). There is some confusion over whether the pipe was shown on drawings given to PE. The AF provided PE with drawings of active utilities. However, the AF had drawings that showed abandoned utilities that the AF did not provide to PE. (Tr. 3/56-57, 5/242-43) Mr. Temchin testified that the transite pipe was not shown on any of the drawings provided to PE (tr. 3/131-32). However, there is also evidence that this pipe was shown on the 35% drawings. There is existing HTHW pipe that is to be removed shown on drawing C-103 (R4, tab 1746, sheet 5). We resolve this confusion based on PE's reply brief where it admits that the drawings showed the HTHW pipe to be removed, "In PFFs 728-729, the AF points out that PE should have planned to remove the old HTHW line, and that point is undisputed" (app. reply br. at 109). We infer that PE's point is that even if the HTHW pipe was disclosed on the drawings, the fact that it was "transite" insulated with asbestos was not. Therefore, we find that the differing site condition is not the old HTHW pipe but the fact that it was "transite" pipe insulated with asbestos.

settling from the organic layer, what do you think the chances are that the government would step up and say "that's okay, we told them it was okay to build on." Heck no! We would go after them with a vengeance.

(Tr. 12/151; R4, tab 4296 at 3) By email dated 22 November 2006 to Mr. Thomas, PE, Mr. Rola requested "complete calculations of the Settlement Analysis" and asked various questions about why the organic soil should be removed (R4, tab 855 at 1).

112. Apparently PE was able to continue removal of the organic layer in locations unaffected by the asbestos pipe because by letter dated 29 November 2006 to PE, PSI reported that backfill in the area where the organic layer had been removed was accomplished on 10 and 11 November 2006. PSI conducted field compaction tests and verified the compaction requirements of 95% were met. However, PSI determined that the backfill had been placed in "about 12 inch" lifts that exceeded the lift thickness required by the contract. (R4, tab 79 at 1) The contract required that backfill be placed in 6-inch layers (lifts) (R4, tab 16 at 104). Apparently the backfill associated with the organic layer excavation was placed in thicker layers (lifts) (R4, tab 1573 at 39). Mr. Temchin agreed that PE's subcontractor did not comply with the 6-inch lift requirement⁴⁹ (tr. 5/230).

113. Meanwhile, Mr. Rola took the position that the asbestos insulated pipe was not a differing site condition (R4, tab 4298 at 1-2). In four emails, dated 30 November 2006, between Mr. Rola and CO Brown, the CO disagreed:

[Rola to Brown 9:36 AM] The Base cannot justify Parsons' claim of a differing site condition. Please see attached.

[Brown to Rola 11:07 AM] If we did not identify asbestos as being applicable to this site, then IAW FAR 52.236-2(a)(2), this is a differing site condition and was not anticipated in our "clean site."

[Rola to Brown 1:20 PM] Did you receive this attachment? Our position is well supported in Construction Claims Monthly (January 1995 issue).

[Brown to Rola 2:59 PM] Yes, but I will reiterate that you have a cancer-causing agent in the site and it requires remediation. You did not identify asbestos on the project.

⁴⁹ Mr. Temchin's testimony was in response to a question that PE's subcontractor backfilled in 12-inch lifts rather than 8-inch lifts (tr. 5/230).

They did not therefore identify the costs for remediation in the proposal. We will LOSE this if they submit a claim.

(R4, tab 4298 at 1-2)

114. By email dated 1 December 2006, Mr. Dukes sent PSI's settlement calculations to Mr. Thomas and Mr. Temchin (R4, tab 862). On the top of the email is a handwritten note by Mr. Rola, "2/23/07 Provided by Myron Temchin" (*id.* at 1; tr. 13/197). In September 2014, Mr. Rola wrote a summary of his 2006 evaluation of PSI's organic soils calculations wherein he disagreed with PSI's recommendation to remove organic soil (tr. 13/190, 193-94; R4, tab 1452). Another technical analysis dated 9 September 2014 from Versar, hired for purposes of the claim defense, agreed with Mr. Rola's opinion that the organic layer did not have to be removed (tr. 13/215; R4, tab 962).

115. Mr. Temchin testified that PE had the risk associated with settlement and as design-build contractor should have the right to decide how to construct the building (tr. 7/39, 44). Since PE was the engineer of record, it decided to remove the organic layer without AF approval (tr. 3/127-28).

116. By letter dated 18 December 2006 to PE, CO Brown requested more information supporting PE's position that the organic layer should be removed (R4, tab 254). By email dated 31 January 2007 to PE, Mr. Rola continued to take the position that the organic layer did not need removal and that PE would remove it at its own risk (tr. 3/50, 7/36; R4, tab 4018 at 1).

117. Concerning the nonconforming backfill, by letter dated 18 December 2006 CO Brown notified PE that its backfill was not placed in 6-inch layers and directed PE to provide additional testing to show that proper compaction was achieved (R4, tab 878). Mr. Temchin testified that the AF "wanted" PE to remove the backfill and install it in 6-inch lifts (tr. 5/231). The AF does not agree that it ordered the removal of the noncompliant backfill, but instead asked PE to conduct additional testing to prove the compaction was correct (gov't br. at 159-60).

118. As of 21 December 2006 the AF had not authorized the removal and remediation of the "transite" asbestos pipe:

Final Update and Result 12/21: 1) Asbestos Removal – Parsons preparing T&M ROM for review and acceptance by the Government – NOTE: Area A of the VQ site remains at a standstill. (R4, tab 3058 at 3) PE submitted its rough order of magnitude (ROM) estimate on 28 December 2006 however Mr. Rola continued to argue that the asbestos pipe was not a differing site condition (R4, tab 4391 at 1-2). CO Brown continued to disagree:

We had discussed it with our legal gurus and cannot concur. If we, the government, had not emphatically and repeatedly told the contractor that it was a clean site, your argument would have merit. However, because we, the government, did, we have a differing site condition.

(*Id.* at 1)

119. After verifying that the pipe contained asbestos, the AF issued an NTP on 28 December 2006 for the remediation of the asbestos pipe with a not-to-exceed amount of \$27,000 (tr. 3/135; R4, tab 85 at 1). The pipe is shown in pictures in the record (tr. 3/30-31; R4, tabs 83, 4675 at 26). PE hired Horizon Environmental Group to perform the asbestos abatement which was completed between 25 January 2007 and 1 February 2007 (R4, tab 1533 at 19, tab 3067 at 2, item 22.2). The delay associated with the asbestos is 90 days, 3 November 2006 to 1 February 2007, which was concurrent with the delay for the organic layer. After remediation of the asbestos insulated pipe, PE was able to restart removal of the organic layer material and then move forward with the footings (R4, tab 3067 at 3). Mr. Evans' as-built schedule indicates that "Removal & Replace Remaining Organic Layer" ended on 28 February 2007 (R4, tab 3004 at 29).

120. Concerning the fill placed in nonconforming lifts, PE removed and replaced it in conforming lifts and compaction. According to daily reports the work starting on 2 January 2007 was sporadic due to winter weather. The work occurred between 2 to 4 January 2007, 17 to 19 January 2007 and 26 to 28 February 2007 for nine days of work. (Ex. A-4 at 1-6, 26-29, 86-90)

121. Mr. Temchin testified that the three differing site conditions identified as "unsuitable fill," "organic layer," and "asbestos pipe" prevented PE from starting work on VQ Wing A foundation (tr. 2/178-80). Notes from a 22 February 2007 Contracting-Contractor Coordination meeting, that Mr. Temchin attended, contain a chronology of the asbestos pipe and organic layer work at note 22.2 (tr. 7/165-68; R4, tab 3067 at 2). Based on our review of the record we find Mr. Evans' as-built timeline for the organic layer and asbestos pipe delays to be credible (R4, tab 3004 at 29). The total delay was from 21 August 2006 to 28 February 2007 or 191 days (*id.*). From this we subtract the 9 days taken by PE to remove and replace the fill that was improperly installed in lifts exceeding 6 inches, resulting in a delay of 182 days. We do not accept Mr. Evans' conclusion that the "unsuitable fill" delay occurred before the organic layer delay because they were both discovered on or about 21 August 2006 (R4, tabs 69, 3988). The unsuitable fill delay ran concurrently with the organic layer/asbestos pipe

delay. Therefore, the total delay caused by the unsuitable fill, organic layer and asbestos pipe was 182 days.⁵⁰

AF Considers Termination/PE Accelerates Performance

122. The record includes minutes of a 7 March 2007 meeting to discuss termination (tr. 12/50-51). The PowerPoint presentation used during the meeting was prepared by PE (tr. 12/53). Slide #4 "Impacts to Our Project" listed:

- Subsurface Conditions
 - Unsuitable Fill Completed
 - Organic Layer Completed
 - Asbestos Pipe Completed
- Hollow Core Plank Issue Active Correction
- Unusually Severe Weather Over (hopefully)
- Water Pipeline Relocation Completed Acceleration to Recover

(R4, tab 937 at 4) The hollow core plank issue was that PE ordered planks that were too short (tr. 12/54). Slide #5 "Reasons for Acceleration" listed:

• Impacts

Unsuitable Fill, Organic Layer, and Asbestos Impacts Schedule to 21 March 2008 Project Completion

Hollow Core Plank (Parsons Delay) Reduces Impacts to 22 February 2008 Completion

Parsons Is Accelerating Our Operations

- Additional Resources
- 6 Day Week Accelerated Work
- Acceleration of Schedule Logic

(R4, tab 937 at 5) CO Brown recalled that PE was going to accelerate work to meet the 27 December 2007 completion date, to be established in Modification No. 03, and the AF decided not to terminate (tr. 12/51-52, 56).

⁵⁰ The AF's scheduling expert, Mr. Ockman, believes that the construction debris, organic layer and asbestos pipe were differing site conditions, but that PE is not entitled to any time extension (tr. 18/61). We reject this position.

Modification No. 03 (Mod. 3)

123. Leading up to Mod. 3, by letter dated 13 December 2006 to CO Brown, PE agreed to "pay 171 days of value equivalent to the liquidated damages rate (\$1347/day times 171 = \$230,337) as consideration for the revised contractual completion date of 27 Dec 07" (R4, tab 4007 at 2). PE made it clear that it intended to "seek recovery of this payment" because it believed REAs it intended to submit would "account for and absorb most, if not all, of these 171 days" (*id.*). By letter dated 8 March 2007 to CO Brown, PE listed seven claims (REAs) that were to be excluded from a release PE agreed to sign in upcoming Mod. 3:

- 1. [T]he proposal for unsuitable fills submitted 7 Mar 2007,
- 2. the proposal for the organic layer submitted 7 Mar 2007,
- 3. the proposal for the remediation of the asbestos pipe submitted 7 Mar 2007,
- 4. any condition related to unusually severe weather during the time period 1 Nov 2006 to 1 Mar 2007,
- 5. any conditions related to delays in issuance of the notice to proceeds during the design stage of the project,
- 6. any conditions relating to the delays resulting from the Air Force failure to promptly process submittal requests within agreed to time frames,
- 7. any conditions relating to delays as a result of the submittal approval process for the roofing requirements of this project.

(R4, tab 3004 at 134)

124. Bilateral Mod. 3, dated 20 March 2007, was signed by Mr. Radin (R4, tab 7C at 1). Mod. 3 extended the period of performance of DO 13 by 171 days from 9 July 2007 to 27 December 2007 and decreased the total contract amount by \$230,337 (R4, tab 7C at 2). This accounted for the 171-day delay in starting horizontal work (foundations 83 days) and unsuitable fill (88 days) that occurred from 18 April 2006 to 9 October 2006 (tr. 7/214, 233-34; R4, tab 3004 at 134-38). Mr. Radin testified that a time extension was needed for the unsuitable fill, organic layer and asbestos pipe differing site conditions that was causing PE delay (tr. 1/130, 132-33). Mod. 3 included a qualified release:

6. In consideration of the modification agreed to herein as complete equitable adjustments for the extended period of performance, the contractor hereby releases the government from any and all liability under this cont[r]act for further equitable adjustments attributable to such factors or circumstances giving rise to this contract

modification (except for the items listed on Parsons letter dated 8 Mar 07, Subject: Release of Claims Wording, Modification 03, McGuire TLF/VQ, FA8903-04-D-8703-0013 (version 3)).

(R4, tab 7C at 4) PE put the limiting language in the release to preserve its rights to submit a claim for the \$230,337 in order to recover it in the future (tr. 1/105, 132, 134, 7/214, 233-34; R4, tab 4007 at 2). PE agreed to Mod. 3 to resolve the August cure notice (tr. 1/133-35). The 9 August 2006 cure notice was closed on 20 March 2007, the date of Mod. 3 (R4, tab 4028 at 7; tr. 1/136).

24 May 2007 Partnering Meeting/VQ Truss Delay

125. On 24 May 2007 the parties held a partnering meeting to discuss the status of the project. The record includes minutes from the meeting (tr. 12/61; R4, tab 983), and slides that were used during the meeting (tr. 12/60; R4, tab 984). The minutes stated that, "based on a worst case scenario" there appeared to be a five-week delay in the completion date of the VQ and the "[m]ain reason for the slip in completion date on the VQ is truss delivery" (R4, tab 983 at 2). However, the slides indicate a twelve workday delay in the completion of the VQ (R4, tab 984 at 21). The truss problem was caused by a redesign from the 35% to the 100% design that caused a conflict between the truss shop drawings and the elevator shop drawings and the trusses could not be ordered until the design issues were corrected and shop drawings accepted (*id.* at 3). CO Brown recalled that during the meeting PE acknowledged that the truss problem was PE's responsibility (tr. 12/63).

Second Cure Notice

126. On 31 May 2007 the government issued Cure Notice Number Two for the following deficiencies:

- (a) Failure to provide a proposal as outlined in the Request for Proposal (RFP), dated 1 Nov 06 for Shopping List Items
- (b) Delays in the schedule
- (c) Failure to ensure timely delivery of the steel trusses for the VQ in a timely matter

(R4, tab 4039 at 2; tr. 1/138) The government issued the cure notice to PE "because we couldn't get any reaction out of Parsons" on pricing the shopping list items (tr. 13/51-54). Assembling the quotes for the shopping list was a lot of work and Mr. Radin felt that the use of a cure notice for the shopping list was a "very big misuse of the cure notice" (tr. 1/139-41). PE responded on 29 June 2007 stating that it had submitted updated pricing

for the "shopping list" on 19 June 2007⁵¹, accelerated the schedule by adding five management staff and that the trusses had arrived on site (R4, tab 1499 at 631).

High Temperature Hot Water (HTHW) Differing Site Conditions

127. The VQ 35% design drawing include drawing C-101 Existing Condition Plan and C-103 Utilities Demolition Plan, however, these drawings do not extend to East Arnold Avenue, a road west of the VQ site (R4, tab 1746, drawings C-101, -103). The 24 July 2006 100% VQ "for construction" drawing package, drawing C-104, General Site Layout Plan, depicts the TLF and VQ adjacent to but on opposite sides of Mitchell Road. On the drawing, the TLF is "above" (north) and the VQ is "below" (south) Mitchell Road. (R4, tab 1755, drawing C-104) East Arnold Avenue is below the VQ on C-107. Drawing C-107, Site Utility Plan, shows the "proposed" new HTHW⁵² line running from manhole #35 just below East Arnold Avenue up through manhole #35A to a new manhole where the HTHW line divides going right to the VQ and further north and under Mitchell Road to the TLF. (*Id.*, drawing C-107)

128. The 100% VQ drawings include four drawings that provide information on utilities: drawings C-101, Overall Existing Conditions Plan; C-102, Overall Existing Conditions Plan; C-103, Demolition Plan; and C-107, Site Utility Plan⁵³ (R4, tab 1755, drawings C-101, -102, -103). These drawings all have the following note:

UNDERGROUND UTILITIES SHOWN HEREON WERE FIELD LOCATED BY MASTER LOCATORS, INC. BETWEEN 08/23/05 & 08/31/05.^[54] THE CONTRACTOR SHALL PHYSICALLY VERIFY ALL LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES PRIOR TO STARTING CONSTRUCTION.

(*Id.*) Mr. Temchin testified that in his experience this note required PE to verify the utilities shown on the drawing, but does not obligate PE to locate every other utility on the site that is not indicated on the drawing (tr. 3/63).

- ⁵² The HTHW system was a loop that provided hot water to heat buildings on MAFB (tr. 3/144).
- ⁵³ There is no drawing C-107 in the 35% drawing package.
- ⁵⁴ While the parties referenced this note (gov't br. at 176; app. reply br. at 136), neither party included evidence explaining who hired Master Locators or the work performed between 23 August and 31 August 2005 which was after award of DO 13 on 13 July 2005.

 ⁵¹ Parson's proposal for the shopping list is actually dated 20 June 2007 (R4, tab 1013 at 1; tr. 1/208). The most costly item is the additional site lighting at \$593,698 (R4, tab 1013 at 5).

129. The 100% VQ drawing C-107 included the following note:

UTILITY LOCATIONS AND INVERTS ARE BASED UPON FIELD SURVEY AND BEST AVAILABLE DATA. THE CONTRACTOR IS TO VERIFY ALL UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. IF ANY DISCREPANCIES ARE FOUND THE CONTRACTOR IS TO CONTACT THE DESIGN ENGINEER IMMEDIATELY.

(R4, tab 1755, drawing C-107)

130. Before PE could start digging it had to get a dig permit from the base (tr. 3/159). The dig permit provides that all utilities be marked by the base. Various "shops" from the base came out and marked utilities using different color paint indicating the type of utility but they were unable to detect everything. (Tr. 3/64, 159-60, 6/81-82, 18/296-97)

131. PE's subcontractor began installing the HTHW line to the VQ on 24 July 2007 (R4, tab 1574 at 93). Mr. Burdick, PE "tiger team" member, was assigned to manage installation of the new HTHW system (tr. 3/138, 141-43). PE took pictures of obstructions encountered during installation of the new HTHW line that it considered differing site conditions. The pictures are identified numerically and some are dated:

- DC #1: Picture dated 11/24/2007. "Existing HTHW Expansion Loop" encased in concrete not shown on drawings^[55] or marked out. (R4, tab 1538 at 74, tab 21 at 38; tr. 3/146-47, 158-59, 184-85)
- DC #2: No date. "Two Chilled Water Lines 30' Away From Design Drawing Location." (R4, tab 1538 at 75, tab 21 at 38; tr. 3/161-62)
- DC #3: Picture dated 11/24/2007. "20" Storm Drain Not Shown On Design Drawing." (R4, tab 1538 at 76, tab 21 at 38; tr. 3/165-67)
- DC #4: Picture dated 11/24/2007. "Ruptured Terra-Cotta Sewer Line Running North To South" not shown on drawing or marked out. (R4, tab 1538 at 77, tab 21 at 38-39; tr. 3/167-69, 187)
- DC #5: Picture not dated. "Two Metal 1 Inch Diameter Conduits Thought To Be Parking Lot Power Feeds Not Shown On Design Drawings." (R4, tab 1538 at 78, tab 21 at 39; tr. 3/169-72)
- DC #6: Picture not dated. "20" Inch Storm Drain On The South Side Of The Excavation Beyond The Sanitary Sewer Line." (R4, tab 1538 at 79, tab 21 at 39; tr. 3/174-75)
- DC #7: Condition removed (R4, tab 21 at 39).

⁵⁵ At a later date the base produced a drawing that showed this feature (tr. 3/186).

- DC #8: Picture dated 12/01/2007. "24 Inch Storm Drain Beyond The Road Crossing." (R4, tab 1538 at 80, tab 21 at 39; tr. 3/175)
- DC #9: Picture dated 12/01/2007. "Rerouting Of The HTHW To Meet The New Manhole 35B Location" because manhole #35 was not big enough to connect new HTHW line. (R4, tab 1538 at 81, tab 21 at 39, tab 3015 at 190-91; tr. 3/147-49, 176-77, 6/80-82)
- DC #10: Picture dated 11/30/2007. "Temporary Removal And Replacement Of Sign At Community Center" caused by DC #1. (R4, tab 1538 at 82, tab 21 at 40; tr. 3/179-80)
- DC #11: Picture dated 12/03/2007. "HTHW Loop Just Beyond Arnold Road Crossing."^[56] (R4, tab 1538 at 83, tab 21 at 40; tr. 3/181)

According to PE, these differing site conditions caused additional time and costs for hand digging, additional HTHW pipe, additional welding, additional backhoe time, and rerouting HTHW lines (tr. 3/182-83). PE planned to connect to the existing HTHW system in manhole #35, however, with the existing piping in the manhole it was not big enough and PE had to reroute the HTHW line, DC #9 above, and install a new manhole #35B (tr. 3/147-50, 6/80-82; R4, tab 3015 at 190-91). The new manhole #35B was adjacent to #35 (tr. 3/150). On cross-examination, however, Mr. Burdick agreed that if one looked in manhole #35 it was immediately apparent there was not enough room to make the new HTHW connection (tr. 3/203; R4, tab 3015 at 190-91).

132. PE marked the locations of these numbered pictures on a copy of 100% VQ drawing C-107 (tr. 3/181-82; R4, tab 1538 at 73^{57}) and they were annotated during the trial in red ink on drawing C-107 (R4, tab 1755 at C-107). We compared the locations of the pictures with the utilities shown on C-107. There are no utilities shown on C-107 crossing the HTHW line for pictures #1, #4, #5 and #6. Pictures #2, #3, and #10 are in the vicinity where the HTHW line crosses telephone and storm sewer lines. Pictures #2 and #10 do not involve telephone lines or the storm sewer. Picture #8 is in the vicinity of where the HTHW line crosses a water line but picture #8 shows a storm sewer. Picture #9 shows the existing HTHW line at manhole #35 where the new HTHW line had to be rerouted to the new manhole. Picture #11 shows a concrete encased abandoned HTHW line not shown on C-107.

133. We discuss picture #3 separately. In its brief, PE identifies the utilities shown in picture #3 as two chilled water lines, a 20" storm drain, and phone and communication conduit lines (app. br. at 207-08). PE argues that all it had was the Baker 35% drawings and the base colored utility markings to go by and they do not show the utilities shown in picture #3 (*id.* at 208-09). PE is correct that the 35% VQ drawings do not show what is seen in picture #3 because those drawings do not extend

⁵⁶ After the expansion loop was discovered the base located a drawing indicating it was an active HTHW line (tr. 3/189).

⁵⁷ This is incorrectly identified in the transcript at page 76 (tr. 3/181-82).

down to East Arnold Avenue (R4, tab 1746, drawings C-101 to -103). But we rely on the 100% for construction drawings, not the 35% drawings. Looking closely at VQ 100% drawing C-107 in the vicinity of picture #3 we see lines marked "ST" and "T" crossing the path of the new HTHW line (R4, tab 1755 at sheet 9). Drawing C-107's legend identified "ST" ⁵⁸ as storm sewer and "T" as telephone line (*id*.). We see in picture #3 the telephone lines and the storm sewer, just where they are supposed to be. PE's argument is inconsistent with what we see on C-107. PE drafted C-107 and must have gotten the locations of the utilities around East Arnold Avenue from somewhere, but PE does not explain where. Also, neither party explains the drawing note that state, "UNDERGROUND UTILITIES SHOWN HEREON WERE FIELD LOCATED BY MASTER LOCATORS, INC. BETWEEN 08/23/05 & 08/31/05." (R4, tab 1755, drawings C-101 to -103) In any event, we are left with many questions, but find that the 20" storm drain that PE contends is a differing site condition, DC #3, was shown on C-107 in the path of the new HTHW.

134. According to Mr. Morrison, the utilities that PE contends are differing site conditions shown in the numbered pictures and annotated on drawing C-107 were identified on the AF "G-Tab" drawings (tr. 11/176-77; R4, tab 1406⁵⁹ at 36). Mr. Morrison testified that he received the G-Tabs from Mr. Ward and gave them to the bidders (tr. 11/178, 196-97). Mr. Lengyel testified that PE received G-Tab drawings which are AutoCAD files that showed utilities on MAFB (tr. 4/224). The record included an example of a G-Tab⁶⁰ that shows the locations of existing utilities, abandoned utilities and the new HTHW line (tr. 4/229; R4, tab 4678).⁶¹ Mr. Lengyel testified that this G-Tab showed the utilities that existed before the demolition of the pools and someone from PE overlaid the footprint of the VQ and the new HTHW line on it (tr. 4/229). The G-Tab identifies utilities by colors: purple is "G-Tab water," tan is "G-Tab sewer," light blue is "G-Tab storm drain," yellow is "G-Tab Electrical," green is "G-Tab [existing] HTHW,"

⁵⁸ There is a conflict on C-107 in that the symbol "ST" is the same for "existing storm sewer" and "proposed storm sewer." Because the line we see crossing the new HTHW connects "existing storm grates" and "existing headwall," we conclude that the storm sewer line at this location was an existing and not a proposed sewer line. We also believe that the new utilities were meant to be shown in bold as many are and it may be a problem with reproduction of the drawing. The parties did not present any evidence to assist us in resolving this conflict.

⁵⁹ Rule 4, tab 1406 at 36 is the same document with the marked drawing C-107 that is at Rule 4, tab 1538 at 73.

⁶⁰ This G-Tab was produced for the first time at the hearing. The government was given the opportunity to verify the accuracy of PE's composite utility map after the hearing but did not report back to the Board that it was inaccurate. (Tr. 18/291-93)

⁶¹ Another G-Tab is at appellant's exhibit 17 (tr. 19/272), however, although we can make out the general location, exhibit 17 is illegible, and no detailed testimony was presented on this G-Tab.

and violet is "new HTHW" (R4, tab 4678). PE created hearing exhibit 15 where it annotated the G-Tab with the locations of the numbered pictures as it had on drawing C-107 and included the pictures associated with each G-Tab location (ex. A-15; app. br. at 219).⁶² In evaluating this evidence, we compared the path of the new HTHW line on the G-Tab with that on C-107 and they are obviously different.⁶³ On the G-Tab the new HTHW line is generally shown on the right side of the existing HTHW line but on C-107 it is shown parallel to but on the left side of the existing HTHW line. The G-Tab path of the new HTHW line (violet) shows an expansion joint directly over manhole #35A on the existing HTHW line (green), an expansion joint on the existing line that is not shown on C-107, and the line going directly through manhole #35. Also, we took into account that PE initially marked the locations of the numbered pictures on the new HTHW line shown on C-107. (R4, tab 2538 at 73) Therefore, absent evidence to the contrary, we rely on the location of the new HTHW line as shown on C-107 and not the location on the G-Tab. We approximated the path of the HTHW line shown on C-107 on the G-Tab, and looked to see if the obstructions PE encountered were shown on the G-Tab. While we are able to see utilities shown on both the G-Tab and C-107, as best as we can decipher and contrary to Mr. Morrison's testimony⁶⁴, the obstructions shown in PE's pictures are not shown on the G-Tab except for the storm sewer seen in picture #3 we discussed above (R4, tab 4678; ex. A-15 at 6).

135. The differing site conditions are identified above as numbers 1, 2, 4, 5, 6, 8, 10, and 11. PE does not contend that there is critical path delay. We deal with this further in the quantum section of this decision.

Temporary Heat

136. Mr. Burdick was asked by Mr. Temchin to be part of a tiger team to assess progress on the contract (tr. 3/138). He started in June 2007 (tr. 3/139). Mr. Burdick testified that PE planned to install the HTHW system in the summer of 2007 but it was pushed into the fall and winter due to delays in approval of documents so they had to provide heat to the buildings (tr. 3/196-97).

⁶² We are a bit confused because the colors are not the same on exhibit 15 and the G-Tab we believe it is based on, i.e., storm drain is light blue on the G-Tab and dark blue on exhibit 15. Additionally there is a gas line on exhibit 15 we do not see on the G-Tab. (Ex. A-15; R4, tab 4678)

⁶³ There was no testimony or argument in the parties' briefs recognizing this obvious discrepancy. If, in fact, PE's installation of the new HTHW deviated from the path required on C-107, it should have been explained in the record.

⁶⁴ If in fact this or some other G-Tab contradicts PE's differing site conditions, we would have expected the AF to present specific evidence on each differing site condition actually identified on the G-Tab.

137. Ms. Mendez is a CO who started work with AFCEE on 1 October 2009 (tr. 15/246-47). She testified that the 100% design specification for the VQ, paragraph 1.15, provided that the government would provide "domestic water and electricity." Heat was not provided because if it was on during construction the ducting and equipment would take in construction dust and debris. (Tr. 15/248-49; R4, tab 16 at 19)

138. Mr. Temchin testified that PE planned to use the HTHW to heat the buildings. The restriction CO Mendez testified about is not in the contract. PE could work around the restriction to heat the buildings. (Tr. 18/298-99) PE planned to hook up the HTHW in the warm months and do a "cold tap" but due to delays putting the hook-up in the winter months, PE had to do a "hot tap" that was completed in February 2008 (tr. 3/193-94; R4, tab 3014 at 4-11). The record includes pictures of work being performed in snow (R4, tab 3014 at 12-16). PE purchased and rented heaters and generators to heat the TLF and VQ during construction (tr. 3/195-96).

Stormwater Detention Pond and Underground Storage

139. The Baker 35% design, drawing C-106, included a stormwater "detention basin" at the VQ (tr. 2/197-200; R4, tab 1746 at sheet 8). The NAF made the decision to use an open pond to control stormwater runoff (tr. 2/204). PE hired Everland Shourds & Associates (ESA), a geotechnical consultant, to help complete the design for the 100% drawings (tr. 2/202).

140. The VQ 100% design drawing package "for construction" is dated 24 July 2006 (R4, tab 1755). The 100% design included drawing C-106, "GRADING & DRAINAGE PLAN," that showed the pond. Drawing C-106 included a Soil Boring Log that indicated groundwater at 114".⁶⁵ The depth of the boring was 114" and it was adjacent to the pond at elevation 110.40. (R4, tab 1755 at sheet 8) The Soil Boring Log on Drawing C-106 indicates that groundwater was approximately 5 feet below the bottom of the pond (tr. 18/304-05; ex. A-16 at 2). Mr. Temchin testified this depth was consistent with the 5 to 7 feet groundwater depth found in the 2003⁶⁶ PSI geotechnical report (tr. 18/305-06). MAFB, including Mr. Rola, base civil engineer, approved the 100% drawings with the surface retention pond design (tr. 2/212). PE built the pond as it was designed and approved (tr. 2/203, 205, 212; R4, tab 1755 at sheet 8).

141. In the fall of 2006 there was a "hundred year storm" that filled the pond with water (tr. 2/205-06). By email dated 8 September 2006 to Mr. Ward, PE, Mr. Rola stated that he had observed an "apparent deficiency in the construction of the stormwater detention basin" in that the basin had not drained after 36 hours (R4, tab 4537). The

⁶⁵ There is a note that indicates groundwater at 112", but the actual boring log indicates 114" and that is what we rely on (R4, tab 1755 at sheet 8).

⁶⁶ In transcript, volume 18, page 305, the question incorrectly refers to the report as being from 2005, but the answer correctly identifies it as from 2003 (tr. 18/306).

stormwater detention pond was required by the New Jersey Pinelands Commission, a state organization (R4, tab 2A at 9) and was supposed to drain into the aquifer within 72 hours (tr. 13/223). PE, in its brief, accepts this 72-hour requirement (app. br. at 257). The pond did not drain the way it was designed to drain (tr. 13/224). When the detention pond did not drain PE had ESA investigate. By letter dated 10 July 2007, ESA reported its results. ESA found groundwater 10 inches below the bottom of the pond, a little over 4 feet higher than found in the PSA report and ESA's boring on drawing C-106. (Tr. 18/306-08; ex. A-16 at 15-17) Mr. Temchin testified the pond did not drain because the water table was higher than indicated on the original boring, which PE says is a differing site condition (tr. 18/307-10). ESA suggested a solution at additional expense but took the position that it was not its responsibility⁶⁷ because of the unforeseen field conditions (tr. 2/208-09, 7/170-74; R4, tab 4049 at 3-4).

142. Mr. Temchin recalls a face-to-face meeting with an AF environmental attorney from MAFB where he was informed that an open pond for stormwater runoff with freestanding water was a violation of base regulations due to bird hazards near runways (tr. 2/204-05, 2/211). In a 19 July 2007 joint coordination meeting Mr. Rola stated that MAFB has a "no ponds - no birds - no standing water" requirement and that the basin had to "drain constantly" (R4, tab 3103 at 3). In a 25 July 2007 email to Mr. Richardson, PE, Ms. Ampula, PE, documented a meeting with "Alice" the base environmental attorney where "Alice" said the Base no longer allowed retention ponds (R4, tab 4649 at 1). Since MAFB did not allow surface retention ponds, PE/ESA had to design and install an undergroundwater storage and draining "tank farm" consisting of large corrugated pipes (tr. 2/207-08). On 28 September 2007 ESA submitted an addendum to the Stormwater Management Report that documented modifications to the retention basin to construct an underground retention system (R4, tab 4654 at 2, 4). Mr. Temchin testified that the change was caused by the differing site condition (high water table) and new set of regulations (tr. 7/174-77). PE "went out and installed the underground pipe storage tank gravel liner pond, without any formal approval or funding given to us or without any recognition of a differing site condition" (tr. 2/222-23; R4, tab 3982 at 2). PE contracted with Robert E. Haas, Inc., excavation subcontractor, to install the underground retention system for a price of \$248,390.00 (R4, tab 4282 at 1, 11-13, 19).

Architect's Supplemental Instruction No. 13

143. After award of DO 13 in July 2005, the AF continued to create confusion concerning the use of Sherman Williams paint on walls of the VQ (R4, tab 293 at 1-2, 16). The 100% Room Finish drawing I-301 for the TLF, dated 24 July 2006, was the same as the 35% drawing requiring "paint" identified as "TRIARCH INDUSTRIES ANTIQUA DS II" for the guest rooms (R4, tab 1754, drawing I-301). The 100% Room

⁶⁷ Mr. Shockley, PE's general superintendent, testified that ESA accepted responsibility for \$15,917.50 in work related to resolution of the drainage problem with the stormwater retention pond (tr. 6/45,125; R4, tab 3011 at 4).

Finish drawing ID-401 for the VQ, dated 24 July 2006, was the same as the 35% drawings requiring "paint" identified as "Sherwin Williams" for the guest rooms (R4, tab 1755, drawing ID-401). The AF failed to correct the error in the VQ 35% drawings when it approved the 100% drawings.

144. In RFI No. 43, 7 November 2006, concerning the VQ, PE asked, "[i]t was mentioned by Ann Mongiovi, that the designers at AMC do not like the Triarch paint that is specified and that it is difficult to patch if damaged. Is there an alternative that the client would like to use instead." (R4, tab 96 at 1) The response listed Sherwin Williams paint:

ITEM	REFERENCE	COMMENTS
1	Drawing ID-401	Finish and Material Schedules.
		Please correct the schedules according to the following:

2. Change the wall finish in all other guest rooms to PNT-3 throughout (including the entries and bathrooms)

 Change PNT-1 to Sherwin Williams SW 6098 Pacer White.
 Change PNT-2 to Sherwin Williams SW 6099 Sand Dollar.
 Change PNT-3 to Sherwin Williams SW 6126 Navajo White.
 Change PNT-5 to Sherwin Williams SW 7027 Well-Bred Brown
 Delete PNT6

(*Id.* at 3) The only change was to the color of the Sherwin Williams paint. Mr. Temchin testified that this response directed the use of Sherwin Williams paint even though this direction conflicted with Mr. Williams, of AFCEE, who wanted Triarch to be used in the VQ (tr. 5/255-58).

145. Mr. Temchin testified that there was confusion over how the AF wanted the VQ and TLF painted (tr. 3/69). To resolve this confusion, PE wrote Architect's

Supplemental Instruction⁶⁸ (ASI) No. 13 to clarify what wall covering to apply in the VQ and TLF (tr. 3/69, 5/260-62). ASI No. 13, dated 27 August 2007, signed by Mr. Bennett, KCB Architect, included the following:

DESCRIPTION:

Attached are revised specifications for PAINTING 09911 (for both the VQ and TLF) and new specifications for TEXTURED ACRYLIC COATING 09960 (for the TLF).

Also, the following is a clarification of the Duroplex -Triarch Industries product indicated on the Material Schedule of the Interior Design Package for the TLF (Sheet 1301):

PNT-1 "Pasta" indicates Duroplex-Triarch 525 for ceiling locations. This is to be changed to have all ceilings to be painted with standard satin paint matching "Pasta" 525 in color.

PNT-2 "Limestone – eggshell" indicates Duroplex-Triarch 555 for wall locations in living room, bedroom and closets. This is correct. The eggshell finish is the natural finish for the Duroplex product.

PNT-3 "Limestone - semi-gloss" indicated Duroplex-Triarch 555 for wall locations in kitchen, dining, bath and trim locations. This is correct. The semi-gloss finish is a clear sealant application by Duroplex for wet-washable wall areas.

EXPLANATION:

The specification section PAINT 09911, as indicated in the RFP and subsequently in the 100% documents for both the VQ and TLF, was specifically for the Duroplex-Triarch material, not paint in general. There was no paint specification for general painting applications. Thus, the paint specification 09911 has been revised and is reissued per this ASI for general painting applications (both TLF and

⁶⁸ An ASI is an Architect's Supplemental Instruction that is similar to an RFI except for architectural questions (tr. 2/107).

VQ), while the Duroplex-Triarch material has been clarified properly as 09960 TEXTURED ACRYLIC COATING (for just the TLF. NOTE: there is no Duroplex system specified for the VQ).

The owner clarified that the ceilings in the TLF will be painted only (no textured coating) with the color to match the PNT-1 "Pasta 525" color. This ASI formalizes this clarification.

(R4, tab 4088 at 7-8) ASI No. 13 was approved by CO Brown on 19 September 2007 (tr. 5/263, 6/158; R4, tab 4088 at 6). PE understood that it was to apply Duroplex-Triarch to the walls of the TLF and Sherwin Williams paint to the walls of the VQ (tr. 3/78). Mr. Cardinale was PE's project manager on the TLF/VQ project from the end of 2007 through November 2008 (tr. 5/99). Mr. Cardinale testified that ASI No. 13 indicated that no Triarch would be used in the VQ (tr. 5/208). After approval of ASI No. 13, PE directed its painting subcontractor, Pro-Spec, to start applying Sherwin Williams paint to the walls of the VQ (tr. 3/70).⁶⁹

146. By letter dated 25 January 2008 to PE, CO Elizalde stated that Specification Section 09911 required that Triarch be applied to the walls of the VQ. The letter acknowledged that Triarch was not specified in 100% VQ drawing ID-401 but stated that according to the contract, specifications take precedence over drawings. (R4, tab 316 at 2) PE responded by letter on 1 February 2008 stating that it issued ASI No. 13 to resolve concerns over "discrepancies between and the Government revised painting schedule shown on Drawing ID401 and the requirements of Technical Specification Section 09911" (R4, tab 4629 at 3). PE went on to write:

> ASI-13 offers clarification and revises the requirements of Technical Specification Section 09911, Painting dated 24 July 2006 by eliminating Duroplex coatings by Triarch Industries from the VQ and revises Technical Specification Section 9960, Textured Acrylic Coating by defining requirements for Duroplex Triarch for use only in the TLF. The Government reviewed ASI-13 and the Contracting Officer approved it on 19 September 2007 ([attach.] 2, page 1). Since that approval, Parsons has completed our subcontracting process, mobilized resources to the site and is currently painting in the TLF and VQ.

⁶⁹ We cannot reconcile this testimony with Mr. Evans' Delay Review Period 9 as-built schedule that shows that painting in the VQ started on 26 January 2008 (R4, tab 3004 at 47).

(*Id.*) Mr. Cruz took CO Brown's place as CO at the end of 2007 and served as CO through a portion of 2008 (tr. 2/252). On 1 February 2008 CO Cruz called Mr. Dukes disagreeing with the letter and stating he expected Triarch to be used in the VQ (R4, tab 4629 at 1). ASI No. 13 authorized Sherwin Williams paint, not Triarch, in the VQ.⁷⁰

147. By letter dated 4 February 2008, CO Brown confirmed her verbal direction that PE was to "paint the VQ in accordance with Section 09911 – Painting" that specified Duroplex by Triarch Industries (R4, tab 318). By letter dated 8 February 2008, PE responded to the 4 February 2008 letter contending that the direction was a constructive suspension (R4, tab 104). By letter dated 15 February 2008 to PE, CO Cruz rescinded ASI No. 13 and directed PE to follow TLF specification Sections 09911 Painting and 09960 Textured Acrylic Coating for both the TLF and VQ and directed that a Triarch Duroplex finish be applied to the interior walls of both the TLF and VQ (tr. 3/71; R4, 105 at 2)⁷¹. Mr. Williams was the person who insisted that ASI No. 13 be rescinded because Triarch was an AF lodging standard and could not be taken out of the contract (tr. 15/26-27). PE responded to CO Cruz's 15 February 2008 letter on 19 February 2008 stating that the direction in the letter created an "impossibility of performance" and "constructive suspension" at the VQ and TLF until certain issues, itemized in the letter, were clarified (R4, tab 107). Mr. Temchin testified that the direction to use Triarch cost PE additional time and expense (tr. 3/84).

148. PE subcontracted with Pro-Spec to apply Triarch in the VQ. Mr. Cardinale, PE, recalled that Pro-Spec's overall performance was "poor" (tr. 5/101). The Triarch VP, Mr. Wingate, looked at Pro-Spec's application of Triarch in the sample room and said it was not acceptable (tr. 5/102-03). PE terminated Pro-Spec (tr. 5/104). PE hired two contractors, KLM and Fromkin Brothers, to replace Pro-Spec (tr. 3/79-80, 5/104). Fromkin installed Triarch in the TLF, and KLM installed Triarch in the VQ (tr. 5/105). A total of 149 days elapsed between CO Brown's approval of ASI No. 13 on 19 September 2007 and CO Cruz's rescinding ASI No. 13 on 15 February 2008.

Modification No. 05 (Mod. 5)

149. Bilateral Mod. 5, 23 June 2008, incorporated the agreed upon "shopping list" and increased the contract price by \$499,441.00 (R4, tab 7E). The modification included a release for "any and all liability under this modification for further equitable

⁷⁰ In its reply brief PE contends that ASI No. 13 did not change Triarch to paint (app. reply br. at 170-71), but that is based on its argument that VQ Section 09911 specifies paint not Triarch, an interpretation we do not agree with. It is also inconsistent with PE's 1 February 2008 letter.

⁷¹ Mr. Evans' as-built schedule for Delay Review Period 9 shows the Triarch being installed in the VQ between 3 March 2008 and 24 March 2008 (Areas B & C) and 3 March 2008 to 22 April 2008 (Area A) (R4, tab 3004 at 47).

adjustments attributable to such facts or circumstances giving rise to the 'proposal(s) for adjustment' (except for <u>None</u>)" (*id.* at 3). The release also included a statement that PE "will not release the government in a 'blanket' fashion for all events that have occurred on the project to date" (*id.*).

Standing Seam Metal Roof (SSMR)

150. Both the TLF and VQ have SSMR's (R4, tab 2 at 506, 1089). These types of roofs are subject to "oil canning" that is a "perceived waviness in the flat areas of metal roofing" that is "an inherent part of light gauge cold formed metal products" (R4, tab 116 at 14). After RFP 8234 Amendment No. 1, the requirement for the SSMR was, "The panels shall be manufactured of adequate metal gauge and rigidity to eliminate or seriously minimize any 'oil canning' effect" (R4, tab 2A at 20).

151. The submittal log for the SSMR indicates that PE's initial submittal was made on 16 February 2006 (R4, tab 361 at 1). The submittal was disapproved and PE was told to revise and resubmit (*id.*). The SSMR submittal was resubmitted on or about 15 August 2006 and on 4 October 2006 was again disapproved (R4, tab 116 at 34). The reason was explained by Mr. Rola:

1. The Fabral system notes indicate, "Oil-canning in panels is common to the industry and shall not be cause for product refusal." The Base standard and the Parsons specification (spec 07411 1.6A (5)) say, "Panels shall be manufactured of adequate gauge and rigidity to eliminate any 'oil-canning' effect. The Government will not release any Contractor/Manufacturer from liability for rejecting SSMR panels on the basis of the 'oil-canning' effect on the final system." Therefore, Fabral does not meet the specification for oil-canning.

(Id. at 16, 35)

152. By letter dated 23 October 2006 to PE, the SSMR installer, Warburton's, Inc., responded to the AF's disapproval of the SSMR submittal and included a letter from Fabral, the manufacturer of the SSMR panels, discussing oil canning (R4, tab 116 at 18-20). Citing, and attaching to the letter, the Metal Construction Association's technical bulletin covering oil canning, Fabral explained, "we agree with the industry position that no manufacturer can guaranty that oil canning will not occur" (*id.* at 20).

153. On 30 November 2006 PE resubmitted its SSMR submittal and on 11 January 2007 it was again disapproved by CO Brown (R4, tab 116 at 43). One of the reasons for the disapproval was, "Manufacturer should insure that material will not oil can" (*id.* at 44). The disapproval apparently relied on an email exchange on 4 December 2006 where Mr. Lyman, MAFB design chief, and Mr. Rola agreed that the submission should be disapproved because the manufacturer, Fabral, would not say there will be no oil canning (R4, tab 4306 at 1-2). Mr. Lengyel testified that Mr. Rola refused to approve metal roof submittals that did not include a guarantee against oil canning. However, he also testified that it was not possible to eliminate oil canning and the disapproval caused delay in installing the roof. (Tr. 4/261-62)

154. On 5 March 2007, Mr. Slade, AF contract inspector, emailed his roofing submittal comments to Mr. Thomas. Comment No. 5 reads, "Identify how this system shall be manufactured and installed to elimate [sic] 'oil canning.'" (R4, tab 116 at 62)

155. On 27 March 2007 PE resubmitted its SSMR submittal (R4, tab 370 at 1). In a 12 April 2007 internal email, Mr. Rola wrote:

> Also, we all need to understand that the FABRAL system was initially rejected because FABRAL could not warrantee "oil-canning" as required in the spec. Parsons continued to make the same submittal (three times) and assured us that they would do everything possible to minimize oil canning. So we caved in and said OK.

(R4, tab 367 at 2) During a 12 April 2007 meeting Mr. Thomas stated that the SSMR was on the critical path (R4, tab 368 at 1, 3). On 18 April 2007, CO Brown formally approved PE's submittal for the SSMR (R4, tab 370 at 1).

156. On 27 April 2007 a meeting was held to discuss the acceptability criteria for the SSMR (R4, tab 371 at 1). Oil canning was discussed and Mr. Lyman asked if the thickness of the roof material (24 gauge) might be a problem (*id.* at 2). Mr. Rola asked if a thicker 22 gauge would be better (*id.* at 2-3). PE agreed to "look at" 22 gauge and the Fabral representative at the meeting agreed to provide a quote for 22 gauge material (*id.* at 3). After learning of the increased cost for the thicker 22 gauge material, CO Brown formally approved the 24 gauge material in her 7 May 2007 letter to PE (R4, tab 116 at 91). Installation of the SSMR began on or about 17 May 2007 (R4, tab 3084 at 3, ¶ 59.2).

157. Mr. Shockley testified that the government's refusal to approve the standing metal roof contractor without a commitment to eliminate "oil canning" caused delay and moved the work into the rainy season resulting in leaks and damage to wallboard (tr. 6/99). Mr. Temchin testified that the delay in approving the SSMR caused by the "oil canning" issue resulted in leaks (tr. 6/176). Because of the leaks, PE incurred additional costs to change to all weather (mold resistant) sheetrock (tr. 6/176-77, 7/125-26).

Exterior Insulation and Finish System (EIFS)⁷²

158. On 9 May 2007 Mr. Bennett issued an ASI No. 8 correcting a problem with the 100% construction drawings for the TLF and VQ (R4, tab 4603). The drawings specified that stucco was to be installed on rigid insulation that was contrary to the manufacturer's recommendations and warranty requirements (*id.* at 1). The ASI changed the application of the stucco to solid substrate, not rigid insulation⁷³ (*id.*). EIFS was mentioned in ASI No. 8 but was not part of the recommended change (*id.*).

159. In a 31 May 2007 email, Mr. Rola criticized ASI No. 8 stating that it was taken to be an RFI (R4, tab 992). In a 30 August 2007 internal email Mr. Bennett stated that PE originally intended to use EIFS but changed to stucco during the 65% design phase (R4, tab 4605). Also, in that email Mr. Bennett complained that Mr. Rola was not referring to RFP 8234:

Andy Rola is comparing our 100-percent drawings with the ASI 8. He is not comparing our ASI 8 with the RFP. If he were to do so, he would find that there is no way to measure whether we are in compliance or not, thus we are being penalized by our own design which isn't contractually correct and Cheryl Brown needs to be told so. All that can be enforced is the code and the RFP. If we meet that, including the design details, then how we come up with the R-values is part of the design they hired us to do.

(R4, tab 4605) Mr. Bennett recommended returning to EIFS (*id.*).

160. The next mention of EIFS in the record is a series of emails on 31 August 2007 (R4, tab 117 at 2-3). Apparently there was a problem with window clearance, "What I think we are looking at here is that the EIFS window 1-1/2" return detail did not get incorporated in ASI 8 and we now have a dimension bust as a result" (*id.* at 5). Apparently ASI No. 8 caused this problem, "ASI 8 is the problem. Therein lies the bust because that is where the thickness change occurred." (*Id.* at 4) In a 4 October 2007 internal email from Mr. Bennett, he stated, "I have just received a verbal commitment from David Williams that EIFS CAN and WILL be used on the TLF, not the stucco, and that this will solve the window trim issue!" (*id.*). On 17 October 2007 PE's submittal for "EIFS System vs. Stucco System" was approved by CO Cruz (R4, tab 375).

⁷² There was almost no discussion of this issue at the hearing.

⁷³ In its brief PE incorrectly states that ASI No. 8 "proposed utilizing an exterior coating system known as Exterior Insulation and Finish System (EIFS) in lieu of stucco" (app. br. at 308).

161. In its brief PE, continues to argue that as the design-build contractor it should have the unilateral right to make EIFS design changes: "Meanwhile, the delay continued, and [PE] continued to invest staff time in trying to get approval of a design correction that it should have had unilateral authority to implement under the design build contract" (app. br. at 310).

Liquidated Damages

162. By letter dated 27 December 2007 to PE, CO Brown stated the TLF and VQ were scheduled to be 100% complete on 27 December 2007 but were 82.1% and 73.4% complete respectively and the government would start assessing liquidated damages in the daily amount of \$1,347 on 28 December 2007 (R4, tab 4079).

Subcontractor Buyout Overruns

163. Mr. Temchin explained that "subcontractor buy-out" is "the procurement of the subcontract services required to complete Parsons' prime contract.... When we have 100 percent of all the subcontract services procured and under contract, then our job is bought out." (Tr. 2/177-78) The subcontract bids were not indefinite and most subcontractors said if costs increased they would pass the costs on to PE (tr. 2/186-87). According to Mr. Temchin, PE could not lock in fixed prices with the subcontractors until the 100% design for construction was approved by the government:

So we needed the fixed scope of work to procure fixed price services from the subcontractors, because that was our methodology of controlling cost. If we had a lump sum or a fixed price to do a piece of work and we had a scope of work, we held the subcontractor for that fixed price, so that they wouldn't embellish the job or try to overrun the job.

(Tr. 2/177) Mr. Temchin also testified, "So because we didn't have -- because the design was broken into releases of little pieces of work, we never got to the full scope of the vertical package until the final release in the end of June or early July [2006]" (tr. 2/178).

164. Mr. Rosenfeld is a partner in the accounting firm the Sutor Group (tr. 9/7) and was recognized by the Board as an expert in construction cost accounting and claim calculations (tr. 9/8, 11). Mr. Tengler worked with Mr. Rosenfeld to calculate the subcontract buyout claim (tr. 9/125). The buyout claim is summarized in two spreadsheets in Rule 4, tab 3003 at 198-99 and tab 3009 (tr. 9/147, 150). These summaries have similar columns, however, Rule 4, tab 3009, has the column "Government Buyout Overrun" that explains the claimed amount of \$4,068,497, so we use tab 3009. The subcontractors are listed in column 1. Column 6, "Original Subcontract" lists the "initial subcontract agreements with each one of these subcontractors" (tr. 9/147-48). Column 5, "Date" was

not explained during the hearing or in PE's briefs. Since the "Date" column is adjacent to the "Original Subcontract" column we interpret it to be the date of the "Original Subcontract." There are no other dates on the spreadsheet and since the dates range from 31 October 2005 (Giberson2 (earthwork)) to 9 October 2008 (Giberson Plumbing (Finish Carpentry)) we interpret these to be the original buyout dates. A rough count indicates buyouts by year as: 3 in 2005, 16 in 2006, 17 in 2007 and 9 in 2008 (R4, tab 3009). Column 7, "MODS Re: Original Scope" list the amount of modifications to the original subcontract scope (tr. 9/148). Column 8, "Adjust. Base Subcontract" is the sum of columns 6 and 7. Column 9, "Estimate Amount" is PE's original price estimates included in its bid based on subcontract and PE's estimate (bid) or the overrun that PE then assigns responsibility for, either to the government or PE or it splits responsibility.

R4, tab	TLF/VQ	%	PAGES	DATE
1748	TLF	65%/100% FOOTING &	83	14 NOV 05
		FOUNDATION REVIEW SET		
1749	VQ .	65%/100% CIVIL/STRUCTURAL	105	14 NOV 05
		FOR REVIEW		
1750	TLF	65%/100% CIVIL/STRUCTURAL	30	17 APR 06
		FOR CONSTRUCTION		
1751	VQ	65%/100% CIVIL STRUCTURAL	32	27 APR 06
1752	TLF	95%	97	17 MAY 06
1753	VQ	95%	130	17 MAY 06
1754	TLF	100% FOR CONSTRUCTION	109	24 JUL 06
1755	VQ	100% FOR CONSTRUCTION	140	24 JUL 06

165. The record includes the following actual dates for design drawings:

166. At the hearing Mr. Temchin explained that three major earthwork delays (unsuitable fill, organic soil, and asbestos pipe) had "a significant negative effect in our ability to buy-out the packages" (tr. 2/179). He testified:

That six months...precluded us from buying out the contracts, because although we had a scope of work, we didn't have a schedule as to when we could start construction again. Without the schedule, we couldn't lock in the contract.

(Tr. 2/179-80) Mr. Temchin also testified that costs escalated due to Hurricane Katrina and demand for material from China (tr. 2/181). The AF's expert, Mr. Rushing, was accepted by the Board as an expert in design-build, design-build-plus and design-build-plus-3 used by the AF (tr. 18/112). Mr. Rushing, wrote in his expert report that in 2004-2005 the construction

industry "was experiencing a significant amount of escalation in both materials and labor costs" (tr. 18/113; R4, tab 1449 at 8).

Subcontract Change Orders Paid (\$5,672,525)

167. This aspect of PE's claim is based on a review of subcontract change orders by Mr. Rosenfeld and Mr. Cardinale. They went "change order by change order" for every subcontractor and allocated responsibility between PE and the AF. The results of their effort are reported on spreadsheets. (Tr. 5/146, 9/153; R4, tab 3003 at 203-212, tab 3010) PE chose not to present detailed testimony at the hearing on each of the 118 changes allocated to the AF⁷⁴ (app. br. at 262-64). PE characterized the changes in six categories as follows:

- Design & Other Changes The largest category (\$3,316,701) allocated to Air Force, which is typically related to constructive changes that affected either scope of the required work. (Attachment 3)
- Unanticipated Overtime Constructive Acceleration

 The next category (\$628,599) represents charges by subcontractors who were required to incur premium wages for extended hours or work weeks to mitigate delays arising primarily from differing site conditions but also from the other delays alleged in this appeal.
- Trade Stacking The third category (\$164,093) includes change orders paid to compensate subcontractors for increased crew sizes and congestion that occurred when the project was constructively accelerated.
- Unplanned Winter Work The fourth category (\$354,032) includes a change orders paid to cover costs of unplanned winter work in the 2007-08 season (when the buildings were reasonably planned to be complete or at least fully enclosed and hooked up to the permanent heating system). (Attachment 3)

⁷⁴ Consequently, absent extensive testimony, we have examined the documentary record along with such testimony as was presented and determine the changes and costs claimed that have been proven by PE. The results are presented in tabular form, by category, with reference to the record evidence we rely on.

- 5. Delay Resulting from Differing Site Conditions The fifth category (\$1,126,815) includes change orders compensating subcontractors for delay and/or
) prolongation of work due to the differing site conditions and other claimed delays.
- 6. Delay Related Increases in Material Costs The last category (\$81,285) includes change orders paid to four subcontractors for (delay-related) increases in material costs. Again, the claimed subcontract change order payments have been extracted from a substantially larger pool of subcontract change orders, many of which Parsons allocated to its own account (as shown in R4, tab 3003 at 203 et seq.)

(App. br. at 264; ex. A-10) We do not accept these categories as proof of what work was actually done for each change order. Testimony about the change orders is cryptic and generally of little use. To the extent the record includes actual work "tickets" for each change order, PE fails to cite us to those documents.

168. In its brief PE addresses each change by contractor in alphabetical order.⁷⁵ We look at each change order and supporting material. We list them by category number addressing all Category 1 change orders first etc. We consider if the change order should be the responsibility of PE and if so will indicate "Deny." An example of this is where the change order is caused by changes to the 35% or 65% design to reach the 100% design. Except for costs associated with progressive collapse, PE is responsible for completing the design. Next, we look to see if the record supports AF liability and if so we indicate "Agree." An example of this is costs incurred for winter heat. If there is a question about the documentary evidence and there is no testimony to clear it up, we indicate that we find a failure of proof (FOP). So, for each change order we will annotate "Deny" meaning the AF is not liable, "Agree" meaning the AF is liable, or "FOP" meaning we are not sure and PE did not satisfy its burden of proof, i.e., AF not liable.

⁷⁵ We consider this approach to be essentially a record submission, with some supporting testimony.

Category	Contractor	Change	Amount ^[76]	Comments
	<u> </u>	Order (CO) #		
1	ABJ Sprinkler	5	\$43,893	Agree: CO signed, no comment from AF, acceleration (R4, 3194 at 5-16).
1	American Masonry-2	9	\$115,655	Deny : 65% to 100% design change is PE responsibility (gov't br. at 317-18; R4, tab 3204 at 3).
1	B&S Sheet Metal	. 14	\$63,836	Agree: Latent defect in 35% design (size of toilets, R4, tab 1216, tab 1746 at ID-203, -204), no AF testimony (R4, tab 3208).
1	Black Horse Pike Plumbing	3	\$10,600	Agree: Acceleration, latent defect, see B&S. (R4, tab 3261).
1	Eastern Construction	2 /	\$12,500	Deny: See decision on differing site conditions, DC#9 - manhole.
1	Eastern Construction	6	\$12,000	FOP : No testimony (R4, tab 3215 at 9-10).
1	ERCO	1	\$8,571	Agree: CO dated after 100% design, No comment from AF (R4, DVD tab 3286 at PDF 1)
1	ERCO	2	\$5,940	Agree: CO dated after 100% design, no comment from AF (R4, tab 3286 at 3).
1	Gaudelli Brothers-2	3	\$36,700	Agree: No comment from AF, see decision on structural brick (R4, tab 3217 at 1).
1	Giberson Plumbing & Excavating-2	3	\$13,650	FOP : Complete design from 35% to 100%, no testimony. (R4, tab 3228 at 1-10).
1	Giberson Plumbing & Excavating-2	4	\$41,008	Agree: Testimony re differing site condition, no comment from AF (R4, tab 3228 at 11; tr. 18/173-74).

⁷⁶ The amounts are those listed in PE's brief and may differ from the amounts on the change orders (app. br. at 266-88).

1	Giberson Plumbing	5	\$2,578	Agree: Differing site condition, no comment from AF (R4, tab	
	& Excavating-2			3228 at 12).	
1	Giberson Plumbing & Excavating-2	.6	\$114,700	FOP : ^[77] No testimony (R4, tab 3228 at 13-27).	
1	Giberson Plumbing & Excavating-2	7	\$5,224	FOP : No testimony, change to "required grade" (R4, tab 3228 at 28).	
1	Giberson Plumbing & Excavating-2	8	\$ 130,643	Agree: CO dated after 100% design approval on 6 July shopping list, no testimony (R4, tab 3228 at 30).	
1	Giberson Plumbing & Excavating-2	10	\$17,586	FOP: Requirement of 100% design, no testimony (R4, tab 3228 at 35-37).	
1	Giberson Plumbing & Excavating-2	11	(\$36,878)	Agreed: Deductive CO (R4, tab 3228 at 39).	
1	Giberson Plumbing & Excavating-2	14	\$3,727	FOP : Requirement of 100% design, no testimony (R4, tab 3228 at 41).	
1	Giberson Plumbing & Excavating-2	20	\$9,000	Agree: Continual draining change, no comment from AF (R4, tab 3228 at 55-58).	
1	Giberson Plumbing & Excavating-2	22	\$11,725	FOP: Concrete pavers shown on VQ 100% A-402, no testimony (R4, tab 3228 at 5967)	
1.	Giberson Plumbing & Excavating-2	24	\$10,000	FOP: Shopping list not on CO 24, no testimony, Mod. 5 in 2008 (R4, tab 3228 at 69).	
1	Kepple's Carpet	4	\$42,500	Deny: PE responsible for mistake in 100% design (R4, tab 3234 at 7).	
1/2	Kepple's Carpet	7	\$15,941	FOP: No testimony explaining supporting documents and liability (R4, tab 3234 at 10-17).	

⁷⁷ The AF's brief (gov't br. at 288-90) and PE's reply brief (app. reply br. at 217-18) discussed change order No. 6 in some detail. RFP 8234 required at least six inches of "Compacted Graded Aggregate Base Course" under pavement (R4, tab 2 at 698, 819). PE does not explain how the "dense graded aggregate" in change order No. 6 is a change to what was required nor does it refer us to the 100% design in support of its claim.

1	KRN Painting-1	1	(\$12,700)	Agree : Credit (R4, tab 3257 at 32).	
1	KRN Painting-1	6	\$5,944	Agree: No comment by AF/not warranty (R4, tab 3257 at 84).	
1	Miller Metal Fab.	3	\$110,480	FOP : ^[78] Mod for both VQ & TLF, no progressive collapse in TLF, no testimony on this point (R4, tab 3236 at 1).	
1	Miller Metal Fab.	8	\$22,577	Agreed: Structure required to account for progressive collapse interfered with catwalk (R4, tab 21 at 70, tab 3235 at 1, 9-10).	
1	NIC Construction-1	20	\$15,930	Agreed: Accelerated constr., winter (R4, tab 3238 at 1).	
1	NIC Construction-2	18	\$23,634	FOP : No proof CO related to progressive collapse, no testimony (R4, tab 3238 at 7-8).	
1	NIC Construction-2	21	\$14,888	FOP: No proof CO related to progressive collapse, no testimony (R4, tab 3238 at 12-13)	
1/2	Prime Design-1	2	\$32,620	FOP: Design changes (\$25,340) Agreed: Acceleration, no comment from AF (\$7,280) (R4, tab 3251 at 1).	
1	RC Fabricators-1	1	\$65,500	Deny : Mod 5 paid for shopping list w/release, "no cost" email (R4, tab 1665 at 3, tab 7E; <i>see</i> gov't br. at 301).	
1	RC Fabricators-1	5	\$39,000	FOP : (See gov't br. at 303-10).	
1	RC Fabricators-2	1	\$35,660	FOP: No testimony (R4, tab 3255 at 57).	
1	Ridgeline-1	1	\$377,946	FOP : Trusses for TLF, PE cites progressive collapse in CO justification (app. br. at 280). Progressive collapse not relevant	

⁷⁸ We have found that PE may recover for modifying the 35% VQ design to account for progressive collapse. However, this CO refers to a "design change to the shear wall connection details at both the VQ and TLF" (R4, tab 3236 at 1). Progressive collapse does not apply to the TLF. PE failed to explain how this was related to progressive collapse at the VQ and therefore we find a FOP.

				to TLF. Changes from 65% to 100% PE's responsibility (R4, tab 3185 at 1).
1	Ridgeline-2	1 ^[79]	\$350,899	Agree : Trusses for VQ, we infer that they relate to addressing progressive collapse (R4, tab 3185 at 48).
1	Robert Haas	1	\$4,625	FOP : ^[80] No testimony (R4, tab 4281 at 1).
1	Roger Appliances	3	\$24,020	FOP : No testimony on stacked models (R4, tab 3262 at 5).
1	Roger Appliances	4	\$15,079	FOP : Documents indicate violation of Buy America Act, no testimony (R4, tab 3262 at 9, tabs 4100, 4104, 4107, 4112).
1	S&C Construction-1	2	\$1,851	Agree : AF liable for unsuitable fill (R4, tab 3266 at 1).
. 1	Schindler Elevator	5	\$5,092	FOP : No testimony, documents do not support stated reason (R4, tab 3270 at 29-33).
1	Sodon's Electric	4	\$6,775	Agree: Organic layer differing site cond. (R4, tab 3276 at 1-11).
1	Sodon's Electric	9	\$1,378,000	Deny: See discussion at end of table.
1	Sodon's Electric	15	\$21,149	Agree : differing site condition (R4, tab 3276 at 131-38).
1	Sodon's Electric	24	\$8,322	Agree: \$2,522 winter heat. FOP \$5,800 no testimony (R4, tab 3276 at 161).
1	Sodon's Electric	30	\$15,950	FOP : Documents vague, No testimony (R4, tab 3276 at 180).
. 1	Sodon's Electric	32	\$70,000	FOP : Documents vague, No testimony (R4, tab 3276 at 206).
1	Wel Tec	1	\$15,987	FOP: No testimony (R4, tab 3273 at 3).
2	Gaudelli Brothers-3	6	\$7,653	Denied : No testimony, see decision on differing site

⁷⁹ The copy in the record is unsigned, but the AF does not contend it was never signed.

⁸⁰ We found the AF liable for the underground detention system and if this were proven to be part of that effort we would have agreed with it, however, nothing on the face of Haas change order No. 1 refers to the underground system and there is no sworn testimony supporting PE's characterization.

				conditions, DC #9 – manhole 35 (R4, tab 3217 at 12).	
2	ABJ Sprinkler	3	\$35,658	Agree: No comment from AF, acceleration (R4, 3194 at 1-4).	
2	American Masonry-2	11	\$56,374	Agree: No comment from AF, acceleration (R4, tab 3204 at 4).	
2	American Masonry-2	12	\$6,313.38	Agree: No comment from AF, acceleration (R4, tab 3204 at 5-6).	
2	Cardinal Paving-1	4	\$62,669	Agree: Testimony/acceleration (app. br. at 467), no comment from AF (R4, tab 3212 at 4-12).	
2	Kepple's Carpet	1	\$34,500	Agree: Acceleration, no comment from AF (R4, tab 3234 at 1).	
2	Kepple's Carpet	2	\$1,035	Agree: Acceleration, no comment from AF (R4, tab 3234 at 2).	
2	Kepple's Carpet	6	\$40,000	Agree: Acceleration, no comment from AF (R4, tab 3234 at 9).	
2	Kepple's Carpet	10	\$6,695	Agree: Acceleration, no comment from AF (R4, tab 3234 at 18).	
2	Kepple's Carpet	11	\$34,089	Agree: Acceleration, no comment from AF (R4, tab 3234 at 22).	
2	KRN Painting-2	2	\$1,600		
2	KRN Painting-2	4	\$13,490		
2	KRN Painting-2	5	\$7,330	Agree: Acceleration, no comment from AF (R4, tab 3257 at 18, 21, 23).	
2	KRN Painting-1	4	\$2,700	Agree: Acceleration, no comment from AF (R4, tab 3257 at 74, 78).	
2	NIC Construction-2	19	\$20,000	Agree: Acceleration, no comment from AF (R4, tab 1238 at 9).	

2	Oldcastle Precast	1	\$12,500	Agree: Acceleration, no comment from AF (R4, tab 3250 at 1).	
2	Pillar Construction	3	\$20,000	Agree: Acceleration, no comment from AF (R4, tab 3258 at 21).	
2	Pillar Construction	6	\$30,000	Agree: Acceleration, no comment from AF (R4, tab 3258 at 33).	
2	Pillar Construction	7	\$42,303	Denied : See decision denying EIFS claim.	
2.	Pillar Construction	8	\$17,962	Denied : See decision denying EIFS claim.	
2	Prime Design-1	3	\$67,061	Agree: Acceleration, no comment from AF (R4, tab 3251 at 3).	
2	Prime Design-1	6	\$18,750		
2	Prime Design-2	. 1	\$20,865	Agree: Acceleration, no comment from AF (R4, tab 3251 at 8).	
2	S&C Construction-2	19	\$34,077	Agree: Acceleration, no comment from AF (R4, tab 3266 at 8).	
2	Sodon's Electric	27	\$787	Agree: Winter heat (R4, tab 3276 at 175).	
2	Sodon's Electric	31	\$16,300	Agree: \$16,128 (reduced in brief) Acceleration (R4, tab 3276 at 184).	
3	Black Horse Pike Plumbing	11	\$18,298	Agree: No comment from AF, acceleration (R4, DVD tab 3261 at PDF 3)	
3	NIC Construction-2	11	\$6,080	Agree: Acceleration, trade stacking, no comment from AF (R4, tab 3238 at 3).	
. 3	Prime Design-1	5	\$164,093	Deny : Punch list item (\$119,662.80); FOP : See gov't br. at 310-11 (\$44,429.99) (R4, tab 3251 at 4-5).	
4	ABJ Sprinkler	8	\$1,732	FOP : CO unsigned, no testimony, no invoice (R4, tab 3194 at 17-20).	

82.

4	American Masonry-2	3	\$4,003	Agree: No comment from AF (R4, tab 3204 at 1).	
4	Eastern Construction	1	\$7,916	FOP : CO appears to be permanent installation, not temporary, no testimony (R4, tab 3215 at 1).	
4	Giberson Plumbing & Excavating-2	26	\$30,000	Agree: Reset cmty. sign due to differing site cond./acceleration/ snow removal (R4, tab 3228 at 71-75; tr. 6/105-06).	
4	Giberson Plumbing & Excavating-2	27	\$48,000	Agree: Acceleration/snow removal (R4, tab 3228 at 76; tr. 6/106-07).	
4	Giberson Plumbing & Excavating-2	28	\$50,000	Agree: Acceleration/snow removal (R4, tab 3228 at 77; tr. 6/107).	
4	Giberson Plumbing & Excavating-2	29	\$50,000	Agree: Acceleration/snow removal (R4, tab 3228 at 78; tr. 6/108-09).	
4	Kepple's Carpet	3	\$1,530	Agree: Acceleration, no comment from AF (R4, tab 3234 at 3).	
4	Kepple's Carpet	5	\$3,315	Agree: Acceleration, no comment from AF (R4, tab 3234 at 8).	
4	NIC Construction-2	15	\$36,120	Agree: Acceleration, no comment from AF (R4, tab 3238 at 5).	
4	Pillar Construction	1	\$150,600	Denied : See decision denying EIFS claim.	
. 4	Pillar Construction	5	\$80,802	Denied : ^[81] See decision denying EIFS claim.	
4	S&C Construction-2	13	\$6,963	Agree: AF delay (R4, tab 3266 at 6).	
4	S&C Construction-2	14	\$10,000	Agree : AF delay (R4, tab 3266 at 7).	
4/2	Sodon's Electric	16	\$5,309	Agree: Winter heat (R4, tab 3276 at 139).	
4	Sodon's Electric	21	\$6,272	Agree: Winter heat (R4, tab 3276 at 146).	

⁸¹ This is a credit to change order No. 1. Since change order No. 1 was denied, this credit will not be available to the AF.

4	Sodon's Electric	22	\$6,647	Agree: Winter heat (R4, tab
5	Giberson Plumbing & Excavating-2	16 ^[82]	\$150,000 (\$142,800 site work + \$7,200 lawn	3276 at 149). FOP ^[83] : Nature of work not explained, insufficient testimony. Agree : \$7200 grass cutting caused by compensable delay (R4, tab 3228 at 43).
	·		cutting)	
5	Giberson Plumbing & Excavating-2	17	\$150,000	Agree: We agree that temporary windows were required to enclose buildings during winter acceleration (R4, tab 3228 at 54; tr. 6/102).
5.	Giberson Plumbing & Excavating-2	21	\$30,000	FOP: No testimony/no evidence of actual work/lawn mowing not separately identified (R4, tab 3228 at 58).
5	Giberson Plumbing & Excavating-2	23	\$40,000	FOP : No testimony/no evidence of actual work/lawn mowing not

PE lists change order Nos. 16, 17, 21, 23, 25, 30, 31, 34, 35, and 36 together as category 5 changes resulting from differing site condition delays. There is very little discussion of the individual changes and PE points to its hearing exhibits 7 and 8 in support for its claims. Exhibit 7 consists of 274 pages of cost documents that have no obvious relationship to individual change orders. Mr. Temchin testified there was a "ticket" for every dollar Giberson spent (tr. 6/145) but PE fails to direct the Board's attention to these individual documents, if they are in exhibit 7, that support each change order. Without such assistance from PE, we find hearing exhibit 7 essentially useless. We also note that PE's hearing exhibit 8, which it explains is a summary of Giberson invoices identified all but one of the payments to Giberson as "earthwork" which is not explained. The meager testimony presented on these change orders does not assist us. Without some documentary evidence of what work these change orders funded that persuades us that they are caused by the compensable delays we indicate FOP.

⁸³ While Mr. Shockley testified that change order No. 16 was caused by the earlier delays (tr. 6/101) he failed to go into any detail. We agree there is compensable delay, however, we see that the majority of the work was hauling fill dirt off base with some bringing DGA (stone) onto the site (R4, tab 3228 at 43-53). These documents do not square with the testimony. This work does not appear to us to be caused by the delay as opposed to work needed to complete the job. PE fails to explain how hauling off dirt is caused by acceleration. We agree that additional grass cutting is the type of work caused by the delay.

				separately identified (R4, tab 3228 at 68).
5	Giberson Plumbing & Excavating-2	25	\$25,000	FOP : No testimony/no evidence of actual work/lawn mowing not separately identified (R4, tab 3228 at 70).
5	Giberson Plumbing & Excavating-2	30 ^[84]	\$100,000	Deny : Punch list items (R4, tab 3228 at 79).
5	Giberson Plumbing & Excavating-2	31	\$50,000	Deny : Punch list items (R4, tab 3228 at 80).
5	Giberson Plumbing & Excavating-2	34	\$15,000	Deny : Punch list items (R4, tab 3228 at 81).
5	Giberson Plumbing & Excavating-2	35	\$10,000	Deny : Punch list items (R4, tab 3228 at 82).
5	Giberson Plumbing & Excavating-2	36	\$15,000	Deny : Punch list items (R4, tab 3228 at 84).
5	Pillar Construction	4	\$107,389	FOP: No testimony, PE failed to prove this delay was not related to EFIS, EFIS claim denied
5	Roger Appliances	1	\$21,903	Deny : See buyout decision, no testimony (R4, tab 3262 at 1).
5	Schindler Elevator	2	\$22,500	FOP : No testimony why AF liable for operators to move material (R4, tab 3270 at 1-18).
5	Schindler Elevator	3	\$7,200	FOP : No testimony why AF liable for operators to move material/appliances (R4, tab 3270 at 19-28).
5	Schindler Elevator	6	\$1,200	FOP : No testimony why AF liable for operators for "hatch work" (R4, tab.3270 at 34-38).

⁸⁴ We accept Mr. Temchin's testimony (tr. 6/137-39) that change orders to Giberson starting in about April 2008 were needed to deal with punch list items. However, these change orders pay for the correction of punch list items and PE has not objected to the accuracy of the individual punch list items (tr. 5/174, 176; app. br. at 336). PE objects to the 28 inspections and time it took to get to beneficial occupancy date (BOD). As discussed herein, we agree with PE and find compensable delay associated with the inspections, but we do not agree to compensate PE for correcting the punch list items it does not challenge. Therefore, we deny the Category 5 change orders s that corrected punch list items.

5	Sodon's Electric	7	\$86,630	FOP: ^[85] No testimony,
				inconsistent and confusing
				justification (R4, tab 3276 at
			¢122.000	12-14).
5	Sodon's Electric	23	\$123,989	Agree: ^[86] Caused by differing
				site conditions delay (R4, tab
				3276 at 155).
5	Sodon's Electric	26	\$53,559	Agree: See CO 23 (R4,
				tab 3276 at 171).
5	Sodon's Electric	29	\$57,350	Agree: See CO 23 (R4,
				tab 3276 at 178).
5	Sodon's Electric	30	\$63,700	Agree: Differing site conditions
				delay (R4, tab 3276 at 180).
6	Cardinal Paving-1	2	\$34,657	Deny : See buyout decision ^[87]
				(R4, tab 3212 at 1).
6	Giberson Plumbing	37	(\$9,648)	Agree: Credit (R4, tab 3228 at
	& Excavating-2			85).
6/1	Glass Artistry	1	\$47,501	Deny: 35% to 100% design
				responsibility of PE, See
				contract buyout decision on price
				escalation, testimony insufficient
				(R4, tab 3231).

Concerning CO #9 (Sodon), we looked very closely at the solid brass bathroom light fixture portion of change order No. 9. The VQ 35% Architectural drawings specified "VANITY LIGHT RE: CID PACKAGE (VL-1)" and recessed lighting in the bathrooms (R4, tab 1746 at A-401). The VQ 35% Electrical drawings specified "C - Incandescent Vanity Wall Fixture" (*id.* at E-101). The 35% drawings did not specify a specific fixture. The AF's

- ⁸⁵ The problem with this claim is that PE calculated the \$188,370 it "took responsibility for" using a daily rate of \$1,495 for Mod. 2 for 126 days not actual costs. We do not know where this daily rate came from, the LD rate is \$1,347. We could substitute the correct LD rate, but we do not know why using the LD rate is logical. Also, Mod. 2 was for the structural brick delay not differing site conditions. PE then allocated the remaining actual costs to the AF. The stated reason for change order No. 7 was the cost of extending performance to 27 December 2007 which was done by Mod. 3 not Mod. 2. Even if we agreed that Sodon's was entitled to some amount for extended performance, this method of quantification is completely unexplained and therefore unreliable.
- ⁸⁶ Even though Mod. 23 refers to Mod. 7 which we found FOP, we understand it and rely on Mr. Chavan's testimony to agree.
- ⁸⁷ Both Cardinal Paving 1 & 2 were bought-out on 14 May 2007 (R4, tab 3009 at 1). Therefore we are unable to determine if the escalation costs were caused by the delayed buyout or by compensable delay.

failure to include the VQ CID in RFP 8234 allowed Sodon's Electric to formulate its bid based on best commercial practices (tr. 5/163-64) which we find it did. The VQ 100% For Construction Architectural drawings likewise specified "VANITY LIGHT RE: CID PACKAGE (VL-1)" (no manufacture model number) and recessed lighting in the bathrooms (R4, tab 1755 at A-401). The 100% For Construction Electrical drawings, developed by Morris Johnson & Associates (MJA), specified Nessen brushed brass/white frosted glass vanity light (NAW535-OB) in the VQ, the same fixture specified in the TLF CID (R4, tab 1755 at E-01, E-08, tab 2 at 33, item 29). The only other lights in the bathrooms were a heat lamp and fluorescent lights (R4, tab 1755 at E-01, E-08). The specification sheet for the Nessen fixture in the TLF CID does not say solid brass (R4, tab 2 at 67). If it is solid brass then it was required by the VQ 100% For Construction drawings, however, it was also a change to Sodon's bid. Importantly, we see no evidence that the AF was involved in the identification of the Nessen fixture. The only document PE points to as proof of an AF constructive change supporting its claim is a "VQ finish schedule" dated 9 February 2004 that PE says was "belatedly issued on or about December 15, 2006 (R4, tab 877 at 13 & 14)" (app. br. at 284). The problem with that document is that the only fixture priced over \$400.00 is the Meltemi Wall Sconce but the quantity is only nine and they are not used in the bathrooms (R4, tab 1746 at A-104, tab 1755 at E-01, E-08). It does list the VL-1 Challenger bathroom vanity lights having a unit price of \$96.09 and a quantity of 350 (R4, tab 877 at 13). None of this is explained by PE. We find that the VQ 100% For Construction drawings required the Nessen vanity light because that is identified on drawing E-01. We have no idea if that fixture is solid brass or not. Mr. Dukes wrote a memo explaining Sodon's change order No. 9 and stated that the MJA in the 100% for construction design specified solid brass light fixtures in the bathrooms costing \$440.00 each resulting in an increase in \$450,000 over Sodon's bid (R4, tab 1044 at 13). This doesn't square with the \$96.09 Challenger fixture in the finish schedule PE points us to. Mr. Temchin explained that since there was no CID for the VQ they "just took what was specified from the TLF and moved it over to the VQ" (tr. 5/218). Based on the VQ 35% drawings Sodon had the right to bid based on commercial practice. If the Nessen fixture is solid brass it was a change to the fixture Sodon bid. PE would have to prove the AF somehow directed that change. We are sympathetic to the solid brass fixture claim but cannot find evidence of AF involvement and if there is PE-failed to clearly guide us to that evidence. We cannot hold the AF responsible for the brass fixture claim without evidence that the AF directed the change. We see no evidence that the AF was ever given a chance to agree to accept the fixtures Sodon bid or pay more for solid brass fixtures. As Mr. Dukes said in his memo "In essence, P/E passed along all the risk of increases in the cost of building the project to the subcontractor [Sodon], without promise of equitable adjustment" (R4, tab 1044 at 13). We are mindful that the AF's error in failing to include the VQ CID in the RFP contributed to this problem, but we cannot hold the AF ultimately liable without more. As for the over-designed transformer, we are confused about the fact that it appears to be in change order No. 9 (app. br. at 283) but there is also a \$412,656 "credit" for it that was "removed from the claim" (app. reply br. at 222). All of the remaining changes discussed are requirements of the 35% to 100% design effort. Therefore, we deny change

order No. 9. The total in "agreed" change orders is \$2,068,652. Subtracting \$59,226 in "credits" results in a total of \$2,009,426.

Winter Work Costs - HTHW

169. PE includes this section as part of the Subcontractor Change Order section (app. br. at 289-94). It claims generally that it was delayed by the AF's untimely approvals of submittals, the differing site conditions encountered when installing the HTHW pipe, and the fact that PE assumed it would be allowed to use the HTHW system to heat the buildings. The HTHW differing site condition is discussed earlier in PE's brief in great detail (app. br. at 195-221). We agreed that it was appropriate to approve subcontractor change orders relating to providing winter heat.

Extra Work Coded During Project (\$2,593,064)

170. PE presents nine categories of costs under the umbrella description "Extra Work Coded During Project":

Category	Cos	t Code	Payment
1. Claim Preparation	R4, tab 3003	3 at 179	\$1,840,112
2. Response to Cure Notic	ces	1704	\$71,015
3. Delays in Issuance of N	NTPs	20030	\$63,021
4. Tiger Team Recovery I	Efforts	20070	\$230,342
5. Increase Mgmt. of Acc	eleration	20050	\$107,181
6. Preparation of Revisior	is to REAs	20120	\$51,695
7. Extra Warranty Work		1990	\$154,918
8. Response to Noise Lev	el Concerns	20140	\$72,500
9. Miscellaneous other W	ork		\$2,280
Total:			\$2,593,064

(App. br. at 314)

171. PE includes a short explanation for each category in its brief. Except for the noise claim, the record supporting these claims is sparse. Claim Preparation:

1. **Claim Preparation:** The largest component in this claim category is \$1,840,112 in claim preparation costs incurred before Appellant's claim was certified and submitted to the Contracting Officer on June 29, 2012. The reasonableness of those costs was never challenged in this appeal, and their award is authorized pursuant to FAR 31.205-33.

(App. br. at 314)

172. Response to Cure Notices:

2. **Response to Cure Notices:** The second item cost of \$71,015 was coded costs associated with responding to Air Force cure notices, which were primarily based on complaints that Parsons was falling behind schedule or failing to provide "shopping list" pricing fast enough. Appellant believes such complaints were unreasonable, because the Air Force was asking Parsons to bear the costs of making up for delays that were excusable under the contract (e.g., associated with admitted differing site conditions or with documented Government delays).

(App. br. at 314)

173. Delays in Issuance of NTPs:

3. Delays in Issuance of NTPs: The third coded cost was \$63,021 arising from delays in the Air Force's issuance of notices to proceed for construction. As discussed elsewhere in this brief, the Air Force should have issued a full NTP for construction promptly after Parsons submitted drawings that incorporated the Government's comments on the 95% design (mid-April 2006), but that NTP was in fact delayed until almost mid-July of that year.

(App. br. at 314)

174. "Tiger Team" Recovery Efforts:

4. **"Tiger Team" Recovery Efforts:** The next coded extra work cost of \$230,342 is for the "Tiger Team" that was brought in by Parsons to handle rescheduling, acceleration, and other added management required to deal with major excusable project delays, unreasonable cure notices, and their many disruptive effects on the orderly administration of the TLF/VQ project. Neither the DCAA nor the Air Force hearing witnesses challenged the reasonableness of these costs.

(App. br. at 315)

175. Increased PE's Management of Acceleration:

5. Increased Parsons Management of Acceleration: The next coded extra work was Parsons' own cost in connection with acceleration (\$107,181), which was in addition to the substantial costs that Parsons had to incur in paying change orders to accelerating subcontractors. This constructive acceleration arose from the Air Force's persistent cure notices (demanding faster completion) coupled with its failure to grant equitable time extensions for excusable delays, including the major earthwork differing site conditions for which the Air Force later admitted entitlement.

(App. br. at 314-15)

176. Preparation of Revisions to REAs:

6. Preparation of Revisions to REAs: The next extra work item is \$51,695 in costs to prepare the revised versions of REA's 4, 5 and 6 that were submitted to the Air Force in December 2008. ([S]ee R4, tabs 1536, 1537 and 1538) Those costs were not questioned and should be allowed if the Board finds entitlement on these subjects.

(App. br. at 315)

177. Extra Warranty Work:

7. Extra Warranty Work: The next extra work item is \$154,918 that were contemporaneously identified as "warranty" work that was not properly within Parsons' original scope and recorded under cost code 01990.

(App. br. at 315)

178. Response to Noise Levels:

8. **Response to Noise [L]evel Concerns:** The next extra work item is \$72,500, coded for extra work in attempting to satisfy Air Force concerns about noise levels in TLF Room 206 (see discussion below). (App. br. at 315) With respect to this issue, there is a mechanical room on the first floor of the TLF and it is below a guest room (tr. 5/123). There are two contract requirements relating to sound transmission. TLF 100% for construction drawing M-01 has the following note:

VIBRATION ISOLATION & SEISMIC RESTRAINTS

AS DESCRIBED BELOW AND IN THE SPECIFICATION, MECHANICAL SYSTEMS SHALL BE INSTALLED WITH THE SEISMIC RESTRAINTS AND VIBRATION ISOLATORS TO PREVENT THE TRANSMISSION OF VIBRATION AND MECHANICALLY TRANSMITTED SOUND TO THE BUILDING STRUCTURE.

(R4, tab 1754, drawing M-01) Mr. Cochran testified that spring isolation was to be provided for all vibrating mechanical equipment to reduce vibration through the building (tr. 11/73; R4, tab 2 at 740, #121). The TLF design analysis includes a requirement on acoustics:

Careful attention to acoustic design is essential for lodging facilities to ensure a high degree of privacy for residents within their living units. Walls between units and corridors shall have a Sound Transmission Class (STC) of 55. Isolation of noise from a variety of sources must be addressed, including adjacent living units, units on a floor level above or below, hallways, mechanical rooms and systems, service areas, employee areas, supply/delivery pick-up points, and externally generated sound such as aircraft and automobile noise.

(R4, tab 2 at 200)

179. Mr. Rola was concerned about excessive noise from the mechanical room in the guest quarters above. Mr. Cardinale testified that the "Base environmental folks came in with a measuring device. They thought it was okay." (Tr. 5/122) However, Mr. Rola also took a measurement of the noise in the room above the mechanical room and was concerned that the noise level was too high (tr. 5/123). In a 23 July 2008 internal email, Mr. Rola stated that the noise level in the room over the mechanical level was "noticeably louder than in other rooms" and that PE "should have designed soundproofing beneath this room." (R4, tab 4186 at 1) Mr. Kissler, COR, responded, "it was not in Parsons['] contract to insulate the room [sic] mechanical room in the TLF so we need to drop this issue" (*id.*). Mr. Rola continued to complain about the noise level in the room above the mechanical room (R4, tab 4543). Finally after nine months

without complaints about noise in the room from residents, the issue was dropped (tr. 5/123). PE created a separate cost code for work on the mechanical room noise issue to which people working on this issue charged their time (tr. 4/121-22).

180. Miscellaneous Other Work:

8. Miscellaneous Other Work: There is also a miscellaneous "extra work" account in which \$2,280 was recorded.

(App. br. at 315)

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Increased General Condition Costs

181. PE's claim includes the following general condition costs (app. br. at 318-21):

COST	AMOUNT	CODE
Office Labor	\$2,164,484	L
Field Labor	\$157,397	FL
Lodging/Meals/Subsistence	\$802,119	S
Total Labor Items	\$3,124,000	
Legal (REA Prep)	\$430	A
Office Expense/ODC's	\$156,387	0
Sanitary Facilities	\$33,855	HB
Final Cleaning	\$280,600	FC
Equipment	\$146,388	E
Winter Heat	\$493,196	
2 nd Winter Fencing	\$27,153	
Office Trailer	\$37,185	ОТ
Consulting	\$117,304	C
Dumpsters	\$68,613	D
Material	\$129,326	М
Rounding	\$1	
TOTAL	\$4,614,438	

Added Costs Due To Rejection of "Structural Brick" Design (\$1,906,401)

182. In its brief PE states that the decision to use the 35% double wall design, "forced Parsons and its structural engineers to develop a series of costly changes to

other parts of the VQ building to support the (unnecessarily) heavy structure against potential progressive collapse" (app. br. at 323). The \$1,906,401 is derived from a 2014 estimate done by Mr. Tengler entitled, "Structural Brick in Lieu of Double Wythe System – Total Cost Savings" (R4, tab 3154). Mr. Tengler testified he used "RSMeans database" to calculate the savings (tr. 4/98).

Project Closeout

183. PE's contract SOW, paragraph 3.2.2.2.2.2, Pre-Final Inspection, required PE to conduct a pre-final inspection and publish a pre-final inspection report (R4, tab 2 at 7, tab 7 at 22). SOW paragraph 3.2.2.2.2.3 Final Inspection, required PE to conduct a final inspection and publish a final inspection report. "The [final] inspection shall concentrate on the items identified at the pre-final inspection and recorded in the pre-final report." (*Id.*) At the final inspection PE was to "present a completed DD Form 1354, Transfer and Acceptance of Real Property to the Base Civil Engineer (BCE) for signature and acceptance" (*id.*). Paragraph 3.2.2.2.2 Delivery/Warranty reads:

3.2.2.2.2^[88] **Delivery/Warranty:** The DBP03 contractor shall complete all inspection and commissioning requirements prior to final inspection. Following final inspection, the DBP03 contractor shall deliver to the Government the as-built drawings in the format and media as required by the task order. Further details regarding project closeout will be provided at the task order level. The warranty shall be issued in accordance with FAR 52.246-21. Extended warranties offered by the DBP03 contractor and its subcontractors or suppliers may be accepted by the Government at its discretion.

(R4, tab 2 at 7, tab 7 at 22)

184. A "Contracting – Contractor Coordination" meeting was held on 3 April 2008 to discuss, among various things, closeout procedures (R4, tab 128). Attached to the meeting minutes was a draft TLF/VQ Closeout Schedule prepared by PE⁸⁹ dated 3 April 2008 (*id.* at 7). According to the schedule the "Commissioning and Final Report" and TAB was to be submitted by 29 April 2008, the AF pre-final inspection

⁸⁹ There is nothing on the schedule or in the minutes that indicates PE prepared the schedule, however, the AF stated that PE did (gov't br. at 318, ¶ 1564) and PE's response to paragraph 1564 agrees that PE prepared the schedule (app. reply br. at 238).

⁸⁸ This paragraph number appears to be in error since the preceding paragraph is 3.2.2.2.2.3.

was to occur between 5 and 9 May 2008, the final inspection was to be completed on 19 May 2008 and beneficial occupancy was to occur on 22 May 2008 (*id.*).

185. In April 2008 the AF appointed a new COR, Mr. Kissler, to participate in the final inspection (tr. 14/79-81). By email dated 27 April 2008 to COR Kissler, Mr. Cardinale transmitted the TLF pre-final punch list containing 1440 items (R4, tab 417). Mr. Cardinale recalled that PE had the punch list "down to 50 in about two weeks" (tr. 5/110). PE initially planned on doing the pre-final for the TLF and VQ at the same time. However, since progress on the TLF was ahead of the VQ, PE provided notice for the TLF first so they could stop incurring liquidated damages. (Tr. 5/106-07)

186. By email dated 29 April 2008 to CO Brown, Mr. Williams stated that because the furniture for the TLF and VQ had not yet been ordered, "there is no rush to accomplish the pre-final on the TLF" (R4, tab 4135). He also stated, "Bottom-line, we need to go back to Parsons thanking them for the notice but informing them that the pre-final for the TLF will not occur until the VQ is also ready" (*id.*).

187. By letter dated 29 April 2008 to PE, CO Brown acknowledged receipt of PE's "formal 14 day notice for the pre-final inspection for the TLF" (R4, tab 145). CO Brown stated that the notice was "pre-mature" that the AF projected that the "earliest" the inspection could be conducted was on 15 May 2008 due to travel schedules for off-site AF "principles" that were required to attend. She stated that to keep travel at a minimum "the pre-final for the TLF will not occur until the VQ is also ready." (*Id.*)

188. By letter dated 5 May 2008 to CO Brown, Mr. Cardinale provided "the required 14 day notice for the pre final inspection for the VQ" (R4, tab 147). By letter dated 8 May 2008 to PE, CO Brown stated the 5 May 2008 notice was "pre-mature" based on a "cursory site tour" by AFCEE Project Management personnel (R4, tab 148). No further detail was provided in the letter. CO Brown reminded PE that SOW paragraph 3.2.2.2.2 of the basic task order required PE to provide the Commissioning Final Report, the Test and Balance Report and PE's Pre-Final Inspection Report before submitting the 14-day notice. She stated, "We will continue to monitor Parson's progress on the requested reports and continue to be in daily correspondence with Parson's On-Site Project Management through AFCEE Project Management personnel or On-Site Title II personnel" (*id.*).

189. In an internal email dated 8 May 2008, Mr. Cardinale reported that he talked to Mr. Kissler that afternoon and asked him who would run the final inspection. Mr. Kissler replied, "there will be a cast of thousands." (R4, tab 149) Mr. Cardinale testified that based on a review of his emails he determined there were at least 28 separate inspections during closeout lasting from April through the end of August 2008

(tr. 5/114). Mr. Rothwell, AF Title II⁹⁰, agreed that they did multiple inspections over a four-month period of time at the end of the contract (tr. 14/72-75). Mr. Rothwell agreed that the final inspection team included AFCEE, services, base shop, base engineers and Title II (tr. 14/81). Mr. Rothwell testified if everyone was coordinated and the work was complete, the government team should be able to inspect and have a consolidated punch list in "approximately a week" (tr. 14/98).

190. Mr. Rothwell identified a consolidated TLF/VQ Action Item List as of 3 June 2008 as a "punch list" of 324 items that needed correction (tr. 14/26, 59; R4, tab 4591) The record includes documents evidencing AF punch lists on 18 June 2008 (R4, tabs 150, 151) and 25 June 2008 (R4, tab 152). In a 25 June 2008 email to CO Brown, Mr. Cardinale wrote:

> Dick Cardinale received this from Tracy today. Are we to understand this is the complete, final, pre-final list of items the AF has identified as needing attention?

If so, then do we also understand correctly that the AF inspection phase is complete or will there continue to be additional inspections accomplished? Since none of this follows the pre-final and final inspection criteria from the specifications, we are trying to understand what exactly to expect from the AF inspections.

(R4, tab 152 at 1)

191. By letter dated 30 June 2008 to PE, CO Brown submitted the AF's consolidated punch list of 113 items for the TLF/VQ (R4, tab 153). CO Brown requested that all deficiencies be corrected no later than 15 July 2008 (*id.*). As of 14 July 2008, Mr. Cardinale counted 19 items left on the AF punch list (R4, tab 158). As of 25 July 2008 Mr. Cardinale reported PE was working on 5 items on the AF punch list (R4, tab 159). A 28 July 2008 email to AF and PE's employees from "McGuire Title II" identified a pre-final punch list "as of 7-28-08" that listed "still outstanding" and "additional items" that needed to be resolved before the beneficial occupancy date (BOD) (tr. 14/61; R4, tab 1300 at 4). By email dated 29 July 2008, Mr. Kissler recommended beneficial occupancy if the commissioning report was acceptable leaving the remaining punch list items to be corrected after the furniture arrived (R4, tab 160 at 1).

192. Mr. Temchin testified about a chronological "sail" diagram of the closeout activities including the various inspection and number of items on the punch list. A graph at the bottom of the diagram summarizes the number of punch list items between

⁹⁰ AF Title II refers to the contract to provide inspectors construction oversight (R4, tab 528 at 9).

April 2008 and BOD on 11 September 2008. The number fluctuated from around 40 in April 2008 to 90, to 240, to 110, to 293, to 70 in June 2008 and then tapered off through September 2008. (Tr. 6/139-144; R4, tab 4673 at 6)

193. By email dated 14 August 2008, Mr. Dukes reported that CO Brown told him what needed to be completed for BOD was a "resolution of why the chiller is freezing the line and a clean, completed commissioning report" and that "all other items that are being brought up will be handled as warranty items for correction" (R4, tab 1536 at 120).

194. By internal email dated 19 August 2008, Mr. Cardinale reported that Mr. Rola was complaining about noise from the TLF mechanical room affecting the guest quarters above (R4, tab 161 at 1). By email dated 25 August 2008 to CO Brown, Mr. Cardinale stated, "We are ready to turn the McGuire TLF and VQ over to the government and have been, in our opinion, for a long time" (R4, tab 162 at 1). He identified two items PE intended to resolve before transfer to the AF and other items that could be completed as punch list items after BOD (*id*.).

195. By internal email dated 3 September 2008, Mr. Dukes reported a conversation he had with CO Brown (R4, tab 163). CO Brown stated that the AF would accept the TLF and establish BOD upon receipt of the HTHW certificate from the manufacturer (*id.* at 1). The AF would not accept the VQ because it had heard there was a glycol leak in the HVAC system. Mr. Dukes wrote that he was unaware of a glycol leak. (*Id.*)

196. In a series of emails dated 9 and 10 September 2008, between PE and the AF, the parties discussed Mr. Rola's measurement of sound from the mechanical room in the unit directly above (R4, tab 164 at 1-5). PE questioned what criteria Mr. Rola used to evaluate the results (*id.* at 2). CO Brown stated to Mr. Dukes that she had the BOD ready but could not get approval to release it (*id.* at 1).

197. By letter dated 11 September 2008 CO Brown acknowledged that the government accepted the TLF and VQ for "beneficial use" as of 11 September 2008 (R4, tab 3004 at 246; tr. 8/96). On 12 September 2008 Mr. Dukes signed the acknowledgement that PE received the AF's notification of beneficial use of the TLF and VQ the day before (R4, tab 165 at 2). There was a punch list attached to the BOD notification that PE would treat as warranty work (*id.* at 1).

198. The record includes a table prepared by Mr. Scott of PE that contains a chronological list of punch list related emails between 9 April 2008 and BOD on 11 September 2008. The table shows that between 9 April and 17 June 2008 the number of deficiencies rose from 26 to 238.⁹¹ Thereafter from 26 June to 9 September 2008 the number of deficiencies gradually reduced to 2. Attached to the 11 September 2008 notice

⁹¹ PE's "sail" diagram identified the 238 number with Rule 4, tab 4592 (R4, tab 4673 at 3). Rule 4, tab 4592 is a table having less than 100 punch list items (R4, tab 4592 at 1-9).

of BOD were an additional 44 punch list items. (R4, tab 125) Mr. Cardinale testified that most of the punch list items were "not unreasonable" (tr. 5/174, 176). In its brief PE argues that it is not so concerned about the number of inspectors that conducted the inspections, it is that the inspections took so long – over four months (app. br. at 336). The length of time to conduct multiple inspections by multiple organizations caused inefficiency and additional expense incurred by the subcontractors PE used to correct the punch list items (tr. 5/120-21, 6/138-41).

Davis-Bacon Act Compliance & Office of Special Investigations (OSI) Report

199. IDIQ contract 8703, DO 13, obligated PE to comply with the Davis-Bacon Act (DBA) (R4, tab 7 at 8). As such contract 8703 incorporated by reference DBA-related clauses FAR 52.222-1 through 16 (R4, tab 1 at 23). PE was obligated to pay its workers in accordance with applicable wage determinations (WDs). FAR 52.222-6(b)(1). PE was obligated to submit payrolls to the AF CO on a weekly basis. FAR 52.222-8(b)(1).

200. FAR 22.404 provides guidance concerning DBA wage determinations. FAR 22.404-2 General requirements, directs the CO to incorporate "only the appropriate wage determinations in solicitations and contracts." FAR 22.404-2(a). FAR 22.404-3 Procedures, for requesting wage determinations (WD) directs the contracting agency to examine the WD "immediately upon receipt" and inform DOL of any changes needed to correct errors. FAR 22.404-3(d).

201. FAR Part 22, "APPLICATION OF LABOR LAWS TO GOVERNMENT ACQUISITIONS," provides relevant guidance. FAR 22.404-2 and FAR 22.404-3 direct the CO to incorporate the appropriate WD in the solicitation and contract and ensure the WD is correct. If the CO determines that the WD is not correct, the CO may ask the Department of Labor (DOL) to correct the WD. FAR 22.404-7. FAR 22.406 Administration and enforcement, includes 22.406-1 Policy, that requires:

> (a) General. Contracting agencies are responsible for ensuring the full and impartial enforcement of labor standards in the administration of construction contracts. Contracting agencies shall maintain an effective program and shall include—

> (1) Ensuring that contractors and subcontractors are informed, before commencement of work, of their obligations under the labor standards clauses of the contract;

(2) Adequate payroll reviews, on-site inspections, and employee interviews to determine compliance by the contractor and subcontractors, and prompt initiation of corrective action when required; (3) Prompt investigation and disposition of complaints; and

(4) Prompt submission of all reports required by this subpart.

FAR 22.406-1.

Wage Determination (WD) NJ20030002 and Payrolls

202. DO 13 included WD NJ20030002 dated 21 January 2005 (R4, tab 7 at 9). According to the PE, it didn't notice that the WD was missing classifications until late 2008 (tr. 4/129), however, as we discuss below, the 4 April 2008 Memorandum to PE reporting results from an AF payroll review listed payroll classifications that were not in WD NJ20030002 (R4, tab 1526 at 1-3).

203. Mr. Loftis testified that PE and its subcontractors submitted certified payrolls from the beginning of the project in 2005 (tr. 4/122). There were errors that were corrected but no major problems with the payrolls were identified by the AF until around April 2008 (tr. 4/123). Ms. Fernandez, contract specialist, testified that PE submitted weekly payrolls and the AF would sample them to make sure everything was correct (tr. 13/49, 71). The first labor interviews were conducted by Ms. Fernandez on 6 December 2007 (tr. 13/73; ex. G-1). She found discrepancies between the payrolls and what she learned from the interviews (tr. 13/71-73). This caused the AF to take a closer look at the payrolls (tr. 13/72-74, 79). Around March 2008 the AF asked PE to resubmit all of the payrolls all the way back to the beginning of the project in 2005 (tr. 4/123-24).⁹² Mr. Loftis testified that complying with this request was "extremely difficult" (tr. 4/124). He explained:

It was just an extremely difficult process. I mean, as you can imagine three years after, two, three years after the project started, many of them [subcontractors] had already left. Some of the employees of some of the subcontractors had already left the company. And I know at least one company went bankrupt.

⁹² CO Mendez testified that PE did not submit payrolls in 2006 and 2007 (tr. 16/59). She explained this was the reason the government asked for old payrolls (tr. 16/63-64). However, she was not on the project in 2006 and 2007 (tr. 16/59) and in its brief the AF does not contend that PE failed to submit payrolls for 2006 and 2007 (gov't br. at 242-44). We find that Ms. Mendez's testimony that PE failed to submit the 2006 and 2007 payrolls is not as credible as Mr. Loftis' testimony on the subject

(Tr. 4/125) The task of getting all of the subcontractors to cooperate was "extremely difficult" (tr. 4/124, 141-42).

204. By memorandum dated 4 April 2008 to PE, CO Brown listed "concerns" based on a "review of payrolls submitted for the pay period commencing on the [sic] 22 Sep 06 through 15 Mar 08" for the TLF/VQ contract (R4, tab 1526 at 1-3)⁹³. For these payrolls she found problems with deductions, unpaid fringe benefits, unidentified "other" deductions, unpaid overtime, and employees classified as carpenters not found on WD NJ20030002 (*id.*).

205. By memorandum dated 7 April 2008 to PE, CO Brown provided a spreadsheet listing the problems found with payrolls (R4, tab 1226 at 2, 4-7)⁹⁴. For PE's subcontractors she found incomplete/missing payrolls, classifications missing from WD NJ20030002 (Carpenter, Plumber, Journeyman, Pipefitter), missing statement of compliance, unidentified "other" deductions and missing apprentice documentation (tr. 13/91-93; R4, tab 1226 at 2-7). CO Brown requested that PE provide the information so that the AF can complete its payroll review (*id.* at 3). By letter dated 2 July 2008 to PE, CO Brown submitted another spreadsheet listing various problems requiring correction (R4, tab 1280). The 2 July 2008 spreadsheet included unidentified "other" deductions, missing apprentice documentation, missing statement of compliance, and work classifications listed on payrolls not in WD NJ20030002 (*id.*).

206. The AF continued to review payrolls after the BOD on 11 September 2008 (tr. 16/74). By letter dated 15 October 2008 to PE, CO Brown provided another list of problems with payrolls and notified PE that "no payments will be made until we receive all the requested payroll information" (R4, tab 1526 at 8). Ms. Fernandez conducted 15 to 20 such reviews before she left the project in 2010 (tr. 13/93). They found similar problems in all reviews and "a lot of people that they're not being paid the minimum wages that they were entitled to so we had to have the subcontractors or even Parsons pay restitution to those individuals" (tr. 13/94).

207. By letter dated 16 March 2009 to Mr. De Quiroga, AF labor advisor, PE requested his assistance initiating a letter of inadvertences to correct the omission of work classifications to WD NJ20030002 (R4, tab 173). A letter of inadvertency is used when a DOL classification exists but was "inadvertently" omitted from a WD (tr. 15/159-60). On 4 May 2009, Ms. Carson, PE, called Ms. Myers, AF, requesting assistance in resolving payroll issues because the AF was withholding over \$3 million in final payment until the issues were resolved. Ms. Myers forwarded the inquiry to AF labor advisors Mr. De Quiroga

⁹³ The 4 April 2008 memorandum in the Rule 4 file is incomplete.

⁹⁴ The spreadsheet was updated over time (tr. 15/261-62; R4, tabs 439, 441, 1429).

and Ms. Gillam. (R4, tab 174) On 25 March 2010⁹⁵ the DOL sent similar letters of inadvertence to CO Robarge and CO Muniz, AFCEE (R4, tabs 166-67), identifying errors in WD NJ20030002 that omitted thirteen wage classifications (bricklayers, stonemasons, marble masons, cement masons, plasters, tile layers, terrazzo workers, elevator mechanics, carpenters, insulators, millwrights, soft floor layers, and drywall finishers/tapers). (R4, tabs 166, 167) CO Muniz signed an AF 1444 on 16 April 2010 requesting that a drywall hanger be added to WD NJ20030002, Mod. 12 (R4, tab 1566 at 11). By letter dated 19 April 2010 the DOL approved the request for the added classification of drywall hanger (R4, tab168). Ms. Mendez stopped payroll review in August 2012 even though they had not achieved 100% review (tr. 16/33). A total of 3,690 payrolls were received by the AF from PE (R4, tab 1745 at 3). Ms. Mendez had a spreadsheet documenting restitution that indicates PE paid \$88,510.66 in restitution (tr. 16/34-35; R4, tab 1735 at 1-2).

OSI Investigation

208. Ms. Horn is an agent with the AF Office of Special Investigations (OSI) (tr. 14/6). Just after she became an agent at MAFB in December 2010 she was assigned to an investigation concerning the VQ/TLF project (tr. 14/6, 8). Ms. Horn wrote the final report of investigation (ROI) dated 20 January 2012 dealing with the VQ/TLF project (tr. 14/7; R4, tab 1437). Ms. Horn would not identify the confidential sources who initiated the investigation in 2007, but she testified they were not "on the government" side (tr. 14/9, 22; R4, tab 1437 at 8). In February 2008 OSI received information from another confidential source about payroll discrepancies (tr. 14/13-14).

209. Citing the AF OSI Report of Investigation, dated 20 January 2012, PE argues:

Even though the first onsite AF employee interview was conducted in December 2007, the Government was slow to follow through. Rather than quickly notifying the contractor of any problem, AFCEE instead contacted OSI, which added a payroll investigation to its existing investigation. (See R4, tab 1437)

(App. br. at 391) The report, however, states:

This case was initiated based upon information provided by Confidential Source (CS) 1 in Fall of 2007. CS 1 indicated Parsons might have been engaging in potential fraudulent activities within the realms of the TLF and VQ project on JBMDI, NJ.... The allegation brought forth by CS 1 was

⁹⁵ Only one of the letters, the one to CO Muniz, is dated (R4, tab 167). We have no idea why these letters were issued in March 2010 well past the BOD of 11 September 2008 and a year past PE's request to Mr. De Quiroga.

that Parsons was violating the Davis Bacon Act (DBA) in the payment of employees, and then committing Title 18 USC § 1001, False Statements, and Title 18 USC § 287, False Claims, when certifying those payrolls and forwarding then to AFCEE for processing and payment.

(R4, tab 1437 at 8) We find that the OSI investigation of PE was not initiated by OSI at the request of the government but rather due to information received from nongovernmental confidential sources.

PE's Claim

210. By letter dated 29 June 2012, PE submitted its claim in the amount of \$33,826,872, plus \$1,834,072 in unpaid contract balance⁹⁶ (R4, tab 21 at 1, 8). PE claimed Design Impact, \$775,776; Earthwork Differing Site Conditions, \$369,486; High Temperature Hot Water, \$597,899; Triarch Coating, \$99,972; Closure Inspections, \$232,321; Certified Payroll, \$1,090,098; Schedule Delay/Extended OH, \$2,503,326; and Modified Total Cost Method, \$28,157,994 (*id.* at 8).

DCAA Audit

211. DCAA conducted an audit of PE's \$33,826,872 claim and issued an audit report on 18 January 2013 (R4, tab 213). DCAA questioned all but \$135,305 of the claim (*id.* at 6). In denying the claims, DCAA relied on technical evaluations provided by the AF (AFCEE/EXA) (*id.* at 7). DCAA found that the claimed costs had been incurred, but did not challenge the reasonableness of the costs (*id.* at 5-6, 8-9, 13-15, 18-19, 22, 27, 31, 34).

212. DCAA listed "SIGNIFICANT ISSUES" at the start of its audit report:

The contractor included a significant amount of unallowable and unallocable costs including:

a. PE's incorrect use of the Modified Total Cost Method (MTCM) to calculate Claim V. Both the DCAA and Air Force Center of Engineering and the Environment-Strategic Executive Branch (AFCEE/EXA) determined the MTCM should not be utilized. In order to calculate a claim using the MTCM, a contractor needs to meet the four specified criteria namely (i) ability to separate costs, (ii) realistic bid; (iii) reasonable costs; and (iv) Government responsibility for additional costs,

⁹⁶ This was reduced to \$347,526 in PE's Quantum argument (app. br. at 487).

which have been set forth in precedent court cases. We determined PE did not meet the requirements.

- b. The contractor claimed schedule delay and extended jobsite overhead in its claims. The AFCEE/EXA technical evaluations found both the number of days and daily general conditions rate used in the calculation of Claim VIII to be overstated.
- c. AFCEE/EXA found the costs in multiple claims to be unwarranted and not substantiated. We questioned the costs, based on the recommendations of AFCEE/EXA.

(R4, tab 213 at 4)

213. Claim I is Design Impacts (R4, tab 213 at 7). The claimed amount after markups is \$775,776 (*id.*). DCAA described how this amount was calculated:

PE calculated the net design cost by summing design labor cost, design labor burden, third party cost, blueprints/reproductions, and client directed design changes and then subtracting estimated design costs, and budget drawing allowance. Estimated design costs and budget drawing allowance are based on PE's original budget for the task and amounts PE claims it would have incurred without unforeseen costs caused by additional Government requirements and delays. To finish the calculation, the contractor also subtracted the allowance for modification 2 design costs, which were based on actual costs incurred. The allowance for modification 2 design costs were subtracted, because the costs were funded by modification 2 and were not being claimed by PE as costs caused by the Government.

(R4, tab 213 at 8) PE claims markups for bond, GL & BR insurance, G&A, and profit. DCAA "[took] no exception to the bond, profit and composite G&A claimed rates" but found a calculation error in PE's GL & BR insurance markup of 1.31%. DCAA questioned 0.4784% of the 1.31% for a rate of 0.8316%. (*Id.* at 9, 10) The individual costs were Design Labor, Design Labor Burden, Third Party Cost⁹⁷, Blueprints/Reproductions and Client Directed Design Changes with adjustments (*id.* at 8). DCAA questioned all of Claim

⁹⁷ Third-party design costs relate in large part to engineering and architecture subcontracts (R4, tab 3003 at 26-30).

I based on the AF's technical evaluation (*id.* at 7). However, at the CO's request, DCAA determined that the Claim I design costs were incurred:

We determined the claimed costs were incurred based on our review of the contractor's accounting records and source documents. In addition, we reviewed the calculations and documentation for the estimated design, budgeted drawing allowance and allowance for modification 2 design costs and determined the calculations and documentation support the costs in its claim.

(*Id.* at 8-9) DCAA did not independently evaluate the reasonableness of the claimed costs. CO Santiago issued his final decision (COFD) on 27 March 2013 (R4, tab 214). The COFD denied Claim I in its entirety (*id.* at 15).

214. Claim II, Differing Site Conditions in Earthwork Costs, consists of three claims for unsuitable fill, organic layer, and asbestos contamination (R4, tab 213 at 11). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 6). The post-markup corrected results for all three claims were:

Claimed Amount	Audit Amount	Questioned Amount
\$369,486	\$95,241	\$274,246

(R4, tab 213 at 16) The allowed amount of \$95,241 and questioned costs were based on the AF's technical evaluation (*id.* at 12-15). DCAA found that the costs had been incurred for all three of these claims (*id.* at 13-15). DCAA did not independently evaluate the reasonableness of the claimed costs. The COFD accepted liability for the unsuitable fill claim, "valid costs applicable to the removal and haul-off of unsuitable soil, replacement with 'clean-fill' material and compaction of clean backfill" (R4, tab 214 at 24). The COFD allowed a total of \$37,331 for the unsuitable soil claim (*id.* at 26). The COFD denied the organic layer claim in its entirety (*id.* at 30). The COFD agreed that the asbestos pipe was a Type I differing site condition (*id.* at 31). However, the COFD found PE costs were unreasonable and made changes to PE's labor hours:

- FYs 2006 & 2008 labor hours deleted because asbestos pipe did not occur during this timeframe.
- Labor hours with no labor categories assigned were removed.
- Contract management hours reduced to 9.5 hours.
- Project Engineer hours removed as the work was subcontracted.
- On-Site Project Manager hours removed as the work was subcontracted.
- Submittal Engineer hours removed as not required for this task.

(*Id.* at 31-32) The COFD allowed a total of \$51,940.08 for the asbestos pipe claim (*id.* at 33). The total allowed for these three differing site conditions claims was \$89,271 (*id.*).

215. Claim III is Impacts from Differing Site Conditions at High Temperature Hot Water Line (R4, tab 213 at 17). The total claimed costs after markup was \$597,899 (*id.*). DCAA questioned all costs based on the AF's technical evaluation (*id.*). DCAA found that the costs were incurred (*id.* at 19). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 20). DCAA did not independently evaluate the reasonableness of the claimed costs. The COFD denied Claim III in its entirety (R4, tab 214 at 39).

216. Claim IV relates to the Triarch Coating (R4, tab 213 at 21). The total claimed costs after markup was \$99,972 (*id.*). DCAA questioned all costs based on the AF's technical evaluation (*id.*). DCAA found that the costs were incurred (*id.* at 22). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 23). DCAA did not independently evaluate the reasonableness of the claimed costs. The COFD denied Claim IV in its entirety (R4, tab 214 at 58).

217. Claim V is Government Management and Administration of the Design-Build Process During the Build Phase (R4, tab 213 at 24). This claim was a modified total cost method (MTCM) claim in the amount of \$28,157,994 (*id.*). DCAA determined that the total job cost ledger (cost incurred) was valued at \$65,234,583, i.e., a 100% overrun from the bid (*id.* at 27). DCAA determined none of the elements of a MTCM were satisfied and questioned all of the costs claimed based in part on the AF technical evaluation (*id.* at 25-27):

- Ability to Separate Costs: DCAA concluded PE's accounting system was capable of separating various claimed costs (*id.* at 25-26).
- Bid is Realistic: DCAA concluded that PE's bid was unrealistic for two reasons. First it was about 38% lower than the other two bidders.⁹⁸ Second, since the AF technical analysis found no "cardinal change" directing work outside the scope of the contract, the 100% overrun indicates an unrealistic bid. (*Id.* at 26)
- Reasonable Costs: DCAA found that since the AF technical analysis found no "cardinal change" the 100% overrun indicates costs are not reasonable (*id.* at 26-27).

⁹⁸ Caddell Construction, a competitor for the project, bid \$45,183,064 (tr. 4/96; R4, tab 3731 at 6). Mr. Tengler testified that it was not unusual for these types of jobs to have "considerable differences" in the PE's bid and Caddell's bid does not mean there was a problem with PE's bid (tr. 4/96-97). Mr. Tengler believes PE's bid was reasonable (tr. 4/97).

• Government is Clearly Responsible: DCAA found that the AF was not responsible based on the AF's technical analysis (*id.* at 27).

DCAA conducted a "dollar unit statistical sample" and determined that the costs were incurred (*id.* at 27). The COFD denied Claim V in its entirety (R4, tab 214 at 110).

218. Claim VI is Closure Inspection process (R4, tab 213 at 30). The total claimed costs after markup was \$232,321 (*id.*). DCAA questioned all costs based on the AF's technical evaluation (*id.*). DCAA found that the costs were incurred (*id.* at 31). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 32). The COFD denied Claim VI in its entirety (R4, tab 214 at 127).

219. Claim VII is Incomplete Wage Determination and Processing of Payrolls (R4, tab 213 at 33). The total claimed costs after markup was \$1,090,098 (*id.*). DCAA questioned all costs because violations of the Davis-Bacon Act are PE's responsibility (*id.* at 34). DCAA found that the costs were incurred (*id.*). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 35). The COFD denied Claim VII in its entirety (R4, tab 214 at 133).

220. Claim VIII is Schedule Delay and Extended Jobsite Overhead (R4, tab 213 at 36). The total claimed costs after markup was \$2,503,326 (*id.*). DCAA questioned all but \$40,065, after markup, of the costs based on the AF's technical evaluation (*id.*). DCAA relied on the AF's technical evaluation that found that PE's daily General Conditions (GC) rate of \$7,298 was excessive and applied a rate of \$833⁹⁹ per day (*id.* at 37-38). The AF technical evaluation found 42 days of delay and \$833 multiplied by 42 equals \$34,986 which is \$40,065 after markups (*id.* at 36-38). DCAA found the same calculation error in PE's GL & BR insurance markup of 1.31% (*id.* at 39). The COFD denied Claim VIII in its entirety (R4, tab 214 at 141).

PE Replaces MTCM Claim with "Balance of Construction Phase" Claim

221. As explained it its brief, PE responded to the DCAA's & AF's criticism and "replaced" the \$28,157,994 modified total cost method (MTCM) claim with a "balance of construction phase" claim. This was done after the DCAA audit so we do not have an audit of the discrete elements of the Balance of Construction Phase Claim. However, we know that these costs were incurred by PE because they are the same costs in the MTCM claim. The Balance of Construction Phase Claim we consider in this decision is as follows:

⁹⁹ DCAA quoted the AF's technical evaluation, "Parsons was requesting only \$833 per day in 2006, when they were fully mobilized to the jobsite" (R4, tab 213 at 37).

		<u>Cost</u>
1.	Selected overruns in subcontractor buyouts:	\$4,068,798
2.	Selected subcontract change orders:	\$5,672,525
3.	Misc. Construction cost credits:	(\$800,506)
4.	Other extra work coded during the project:	\$2,593,064
5.	Increased General Conditions costs not	
	reimbursed by change orders or settled on Mod. 2:	\$4,614,438
6.	Construction costs added by AF rejection	
	of "structural brick" design and requirement	
	to accommodate heavy building design with	
	added reinforcement, etc.:	\$1,906,401
	Subtotal	\$18,054,720
	Add (undisputed) markups at 14.524%	\$2,622,270
	Total in claim	\$20,676,990

(App. br. at 234)

AF's Expert in Construction Accounting

222. The Board accepted Mr. McGeehin, FTI Consulting, as an AF expert in construction accounting and pricing of damages (tr. 17/12). Mr. McGeehin testified that he did not question that the \$65,000,000 PE spent on this contract was "incurred and was recorded and charged to this project" (tr. 17/21). He does not question that PE incurred the costs it claims (tr. 17/59). He does not question markups for bonds, G&A and insurance because they were not questioned by DCAA (tr. 17/49, 97-98). He found that PE did not double count (tr. 17/58).

223. PE calculated its extended site overhead based on four time periods because "[t]he jobsite overhead requirements varied substantially between those periods" (app. br. at 482; R4, tab 3012 at 12). Mr. McGeehin evaluated PE's daily rate and made adjustments (tr. 17/39-42). He reported his results in an 18 June 2014 Expert Report. In this report he explained that certain time-related general condition costs were included in PE's discrete claims and should be removed (R4, tab 1451 at 18-21). He did not otherwise challenge PE's calculation of its daily rates (*id*.). Mr. McGeehin developed slide 106 of his PowerPoint presentation to summarize his work (ex. G-4 at 107). The table below shows slide 106 with the time periods for each daily rate added in by the Board:

	Deter		FTI Daily	FTI Daily
~ /	Dates	~~ ~	Rates/Time	Rates/Removal
Period /		PE Daily	Related	of Non-Time
Description		Rates ^[100]	Amounts	Related
	· · · · · · · · · · · · · · · · · · ·			Amounts
Design	13 July 2005 to 31 July 2006	\$1,696	\$1,887	\$1,732
Period				
Horizontal	1 Aug 2006 to 31 Aug 2007	\$7,712	\$7,949	\$7,353
Construction				
			-	
Acceleration	1 Sept 2007 to 31 May 2008	\$13,548	\$14,081	\$13,761
Vertical	· _ ·		,	
Constr.				
Closeout	1 June 2008 to 31 Oct. 2008	\$4,688	\$5,863	\$5,851

(Ex. G-4 at 107; R4, tab 3012 at 12) Mr. McGeehin also developed handouts to further explain how he arrived at the daily rates in the three columns on slide 106^{101} (tr. 17/44-49; Handout Schedules A, B, C, D).

Delay Analysis Expert Witnesses

224. The Board accepted Mr. Ockman as an AF expert in construction scheduling and estimating (tr. 16/128-29). Mr. Ockman used a "time impact study" to analyze the delays (tr. 8/100-101, 16/134, 209; R4, tab 1764). Mr. Ockman used PE's baseline schedule, dated 11 August 2005, but he did not have the electronic version, he had a PDF version so he couldn't see some information (tr. 16/135, 215, 18/6-7, 9-10; R4, tabs 538, 3873).

225. The Board accepted Mr. Evans as PE's expert in scheduling issues and delay analysis (tr. 7/202). Mr. Evans used a delay analysis using as-planned and as-built activities (tr. 7/203). Mr. Evans used the as-planned schedule dated 27 October 2006 that was approved by the government (tr. 7/210, 212; R4, tab 3004 at 90). The critical path ran through the VQ not the TLF because the TLF was not affected by the differing site conditions at the VQ (tr. 7/216). Mr. Evans' as-built schedules are derived from daily reports and other documentation that provides actual starts and finishes (tr. 7/206, 218-20).

¹⁰⁰ PE's daily rates did not include mark-ups (ex. A-19 at 27; R4, tab 3012 at 11).

¹⁰¹ AF counsel asked Mr. McGeehin if he "mirrored what Mr. Rosenfeld [PE's expert] did in his report" and Mr. McGeehin answered "That's correct" (tr. 17/49). We have no idea what this testimony is supposed to mean because we did not see it explained in the AF's brief. We found no discussion of daily rates to assist us in the AF's brief so we adopt PE's rates.

226. The main difference between Mr. Evans' method and Mr. Ockman's method is that Mr. Evans measured critical path delay in terms of how much later the critical work actually began as opposed to a predicted start (tr. 8/119-20). Mr. Evans testified that in developing the CPM schedule "[y]ou want to look at the contemporaneous documents to find out what actually happened" (tr. 8/129). Mr. Evans' analysis uses the actual as-built information whereas Mr. Ockman's time-impact analysis uses forecasts (tr. 18/211-12).

227. While the competing expert reports used different approaches, we need not go into the relative merits of each expert's approach because they both generally agree the VQ was on the critical path starting with the foundation work at Wing A where the earthwork differing site conditions were encountered. To the extent the experts provide opinions as to which party is responsible for delays or other questions of law, such opinions exceed the scope of expert evidence and are inadmissible. *Parsons-UXB Joint Venture*, ASBCA No. 56481, 12-1 BCA ¶ 34,919 at 171,695 (expert testimony pertaining to issues of law is inadmissible).

Appeal & Docketing

228. PE timely appealed the 27 March 2013 COFD to the Board on 22 April 2013. The Board docketed the appeal as ASBCA No. 58634 on 24 April 2013.

DECISION

Preliminary Matters

The parties insisted that the Board decide both entitlement and quantum. The Board agreed. However, we have unanswered questions about both parties' quantum presentations. PE discussed discrete entitlement facts that were not separately discussed in its quantum section, and made quantum arguments that were not easily traceable to its unnumbered entitlement facts. The AF responded in general terms to PE's quantum arguments but chose not to individually address the itemized arguments in Section K of PE's quantum section. Additionally, because we agreed to decide quantum, there are several areas where we agreed PE was entitled to recover but because our decision varied from PE's quantum presentation we could not calculate an amount for PE.

35% Design

In numerous places in its brief PE refers to RFP 8234 35% design as if the 35% design survived the approval of PE's 100% for construction design. We address that argument here rather than each time it appears. The 35% design was used in the contract solicitation and bidding process (finding 18). After award, PE was required to complete the design and construct the buildings. PE's 100% Site Civil/Structural drawings for the TLF (17 April 2006) and VQ (27 April 2006) completed the design for the foundations (finding 90). PE's 100% for construction drawings for the entire project

were approved on 24 July 2006 (finding 99). Thereafter, the 35% drawings become irrelevant to the construction of the buildings. For the reasons stated in this decision, the only exception relates to progressive collapse.

"New Arguments"

PE includes Addendum A, PFF Analysis, to its reply brief. In it PE lists and comments upon every numbered Proposed Finding of Fact (PFF) in the AF's brief. One column in the Addendum is titled "New Argument" where "X" indicates the PFF is an argument PE has not seen before. PE asks the Board to reject these new arguments:

NEW ARGUMENTS. Government counsel have combed selectively through the contract documents and exhibits and come up with a number of completely new arguments and interpretations. We ask the Board to reject such new defenses as untimely, and because Appellant never had an opportunity to challenge them either through cross-examination or through its own witnesses at trial.

(Addendum A at 1) The problem with PE's request is that all the documents used by the AF in these "new arguments" were admitted into the record without objection from PE. Such argument is acceptable. *See, e.g., United Technologies Corp.*, ASBCA No. 25501, 86-3 BCA ¶ 19,171 at 96,920 ("Attachment A to the Government's brief presents arguments of data contained in Rule 4, tab 44, Exhibits G-15 and G-5, tab C. Arguments of evidence in the record are permissible. Attachment [A] shall remain in the brief.").¹⁰² The record in this case includes over 3,000 Rule 4 tabs, some tabs having hundreds and a few over a thousand pages. It is clear to us that this is a danger associated with extensive electronic Rule 4 files. With electronic files, it is easy for the parties to "dump" so many documents into evidence that they simply do not know what is in the record and certainly cannot use them all. Nevertheless, in the circumstances before us here, the documents PE complains about are in the record, they are fair game for use by either party. We deny PE's request that we "reject" these "new arguments."

FAR 31.201-2 Determining Allowability

PE accurately identifies the elements listed in FAR 31.201-2 required to determine that a cost is allowable:

 ¹⁰² Changes to spreadsheets attached to the government's brief that had previously been introduced into evidence were not allowed. United Technologies, 86-3 BCA ¶ 19,171 at 96,923. Summaries of voluminous documents (invoices) without citation to the record have likewise been stricken for lack of authentication. Versar, Inc., ASBCA No. 56857 et al., 12-1 BCA ¶ 35,025 at 172,118.

(1) Reasonableness.

(2) Allocability.

(3) Standards promulgated by the CAS Board, if applicable, generally accepted accounting principles and practices appropriate to the circumstances.

(4) Terms of the contract.

(5) Any limitations set forth in this subpart.

(App. br. at 427-30) In its brief the AF identifies which of the elements it contests, "What Respondent contests is the allegation that the incurred costs were caused by Respondent or were reasonable in amount" (gov't br. at 475). This narrows our inquiry to reasonableness and causation.

PE's Claimed Costs were Incurred

At the request of the AF, DCAA verified that the claimed costs were incurred (findings 211, 213-19). Mr. McGeehin found that all of PE's claimed costs were actually incurred (tr. 17/59). The AF does not take issue with DCAA's finding, "The fact that Appellant incurred its claimed costs is not at issue in the litigation – Respondent concedes that Appellant incurred costs" (gov't br. at 475).

PE's Incurred Costs are Allocable to DO 13

Mr. McGeehin found that all of the incurred costs were allocable to the contract (tr. 17/59-60). The AF does not contest that PE's claimed costs are allocable.

PE's Bid was Reasonable

Even though we do not see this as a modified total cost claim, we feel we need to deal with this point. We evaluate bid reasonableness primarily based on what was known before award. PE discusses the process it went through to arrive at its bid consisting of Mr. Tengler's calculation of the bid, Mr. Booth's "check estimate," the U.S. Cost estimate and the executive review meeting (app. br. at 435-40; findings 59, 60). The AF responds with various facts in support of its argument that the bid was unreasonable (gov't br. at 477-81). The AF argues that because PE failed to implement its mitigation strategy to

address cost escalation¹⁰³ after award its bid must have been unreasonable (*id.* at 479). We disagree.

Whether a cost is reasonable is a question of fact. *Kellogg Brown & Root Services, Inc.*, ASBCA No. 58081, 17-1 BCA ¶ 36,595 at 178,240 (The Federal Circuit additionally noted that cost reasonableness "is a question of fact."). We understand the same to be true for the reasonableness of a bid. In *Ingalls Shipbuilding Division, Litton Systems, Inc.*, ASBCA No. 17579, 78-1 BCA ¶ 13,038, we explained that "the purpose of an accurate bid or estimate is to enable us to determine with some degree of reliability what portion of the actual cost exceeds what it properly should have cost." *Id.* at 63,671. While we agree with PE that the process it used to reach its bid price was logical, that is only one factor we consider in arriving at our conclusion that the \$33,566,277 bid was reasonable.

We consider the unusual way the bids were solicited and evaluated. RFP 8234 informed bidders that contract award would be "to the contractor offering the lowest price" (finding 18). RFP 8234 included the AF's IGE for the VQ of \$17,977,243.00 and TLF of \$15,373,500 for a total of \$33,350,743 (*id.*). There was also something called the Construction Cost Limitation (CCL) that was mentioned in a note on the 35% drawings (finding 12). However, the amount of the CCL of \$33,598,568 was not disclosed in RPF 8234 but was discussed in the Price Competition Memorandum (PCM) (finding 61). The CCL was only about \$250,000 greater than the IGE. The CCL appears to be a price cap imposed by the AF on the award of the contract. We come to this conclusion based on the PCM that stated the two other bidders, MWH and Caddell, were "too far out of range [over the CCL] to allow further consideration" and "were deemed irreparably high when compared with the CCL, the IGE and the offer from Parsons" and were "rejected out of hand" (findings 62-63). The AF then negotiated with PE to allow "award within the funds set forth in the CCL" (finding 63). The AF then found that PE's bid was reasonable based on "adequate price competition" (finding 64).¹⁰⁴

We are not convinced that the AF acted appropriately in its pre-award dealings with PE. If there was truly price competition we would expect the record to reflect AF concern that PE's bid might be mistaken. We understand that the AF asked PE if it would confirm its bid but did not point out the disparity between PE's bid and the other two bids (finding 60). To the contrary, the AF rejected the other two bids "out of hand"

¹⁰³ PE planned to require subcontractors to hold their bids for 120 days, that bids would include material costs, that "volatile materials such as concrete and steel" were to be purchased within that 120 days and "stored either on site or in bonded and insured warehouses" (finding 58).

¹⁰⁴ We recognize that the government's pre-award assessment that a bid was reasonable is not binding on the Board. *Grumman Aerospace Corp.*, ASBCA No. 48006, 06-1 BCA ¶ 33,216 at 164,620-21.

and focused solely on getting PE within the CCL. We understand we are not dealing with a mistake in bid/reformation case because PE defends its bid. However, FAR imposes an obligation on the government to guard against mistakes in bid.¹⁰⁵ This obligation is not diminished by the fact that award is based on price alone. There is no evidence in the record that the AF ever considered alerting PE to a possible mistake. The record convinces us that the only thing the AF was interested in was getting PE's bid at or below the CCL, mistaken or not.¹⁰⁶ Now, when it suits the AF's purposes, it argues that the two higher bids are proof that PE's bid is unreasonable (gov't br. at 477-78). We will not give any weight to this argument given the AF's completely contradictory behavior before award.

We also consider the fact that DCAA's conclusion that PE's bid was unreasonable was based on the AFCEE's technical evaluation of the claims. DCAA noted that since the AFCEE technical evaluation found there was no "cardinal change,"¹⁰⁷ the 100% overrun indicates the bid was unreasonable (finding 217). We do not agree with DCAA's conclusion because, contrary to the AF's technical evaluation, we find in this decision substantial changes and delays that increased the cost of performance for which the AF is responsible. Other post-award factors such as commodity and labor price escalation and PE's failure to execute its pre-award mitigation plans, do not support the conclusion that PE's bid itself was unreasonable. By way of example, if the fair market price for concrete was \$10.00 a unit before award and \$20.00 a unit when it was purchased, both prices were reasonable. We find that PE's bid was reasonable.

PE's Costs are Reasonable

It is PE's burden to prove its claimed costs are reasonable. PE argues its costs are reasonable because, "The Contracting Officer asked DCAA to verify that Parson's actual incurred costs were reasonable, and the DCAA audit report did not question the reasonableness of those costs (R4, tab 213 at 109-112)" (app. br. at 427). This is not accurate. The record cite provided by PE does not support PE's argument. The DCAA audit report indicates that the contracting officer asked DCAA to verify that the claimed costs were incurred. In response, DCAA traced the applicable costs in job cost ledgers to supporting accounting records and source documents and found that the claimed costs

- ¹⁰⁶ The AF's expert, Mr. Rushing, seems to reach the same conclusion, "It appears this discussion effort was geared more toward getting the Parsons team to the CCL than with clarifying their understanding of the RFP requirements" (R4, tab 1449 at 7).
 ¹⁰⁷ We have no idea why AECEE and DCAA forward on a "coordinal change."
- ¹⁰⁷ We have no idea why AFCEE and DCAA focused on a "cardinal change."

¹⁰⁵ FAR 14.407-1 requires that when a "contracting officer has reason to believe that a mistake may have been made, the contracting officer shall request from the bidder a verification of the bid, calling attention to the suspected mistake." We discussed this obligation in *Orion Technology, Inc.*, ASBCA No. 54608, 06-1 BCA ¶ 33,266 at 164,854-55.

were incurred. (Findings 211-20) In its audit, DCAA did not challenge the reasonableness of any specific costs. DCAA generally questioned all costs based on the AF's flawed technical review basically finding no entitlement.

The AF argues that PE's claimed costs were not reasonable because it "failed to perform in accordance with its bid plans" and failed to hold subcontractors to fixed price bids, and failed to implement its mitigation plan (gov't br. at 481-82). We agree that PE failed to fully execute its plans, but we fail to see how this relates to the reasonableness of specific incurred costs.

PE's costs are not presumed reasonable just because they were incurred. Northrop Worldwide Aircraft Services, Inc., ASBCA Nos. 45216, 45877, 96-2 BCA \P 28,574 at 142,628-29. Although the AF accurately quotes FAR 31.201-3(a) (gov't br. at 476-77), it fails to properly interpret the clause. We focus on the following language:

Reasonableness of *specific costs* must be examined with particular care in connection with firms or their separate divisions that may not be subject to effective competitive restraints. No presumption of reasonableness shall be attached to the incurrence of costs by a contractor. If an *initial review of the facts* results in a challenge of *a specific cost* by the contracting officer or the contracting officer's representative, the burden of proof shall be upon the contractor to establish that such cost is reasonable.

FAR 31.201-3(a) (Emphasis added) When interpreting a procurement regulation, "we seek an interpretation consistent with the plain terms provided; it is not our prerogative to insert additional words or phrases to alter an otherwise plain and clear meaning." *Raytheon Company*, ASBCA No. 57576 *et al.*, 15-1 BCA ¶ 36,043 at 176,050. The critical language is, "If an initial review of the facts results in a challenge of a specific cost by the contracting officer or the contracting officer's representative, the burden of proof shall be upon the contractor to establish that such cost is reasonable." This language in FAR 31.201-3(a) is unambiguous. It requires two actions by the government: (1) it must perform an "initial review of the facts," and (2) that review results in a "challenge" to "specific costs." It is the contractor's burden to prove the reasonableness of the challenged specific costs.

We interpreted FAR 31.201-3(a) in our recent case of *Kellogg Brown & Root*, 17-1 BCA ¶ 36,595, where we recognized that contesting reasonableness "is significant because it shifts the burden of proof" to the contractor. *Id.* at 178,240. We went on to hold that a general assertion that all costs are unreasonable is insufficient to require the contractor to do more to prove reasonableness: [T]he Navy also asserts that the disallowed costs are *all improper* on a price reasonableness basis. However, the Navy does *not cite any specific evidence challenging the reasonableness of these costs, instead simply asserting that the costs are unreasonable.* Based upon the evidence presented, including KBR's testimony that BE&K was the only offeror able to provide the required labor, and was the lowest bidder with the prices of the two other offerors being roughly 50% higher (finding 95), the Board finds that the cited costs were reasonable.

Id. at 178,250 (Emphasis added).

We must consider if the AF satisfied FAR 31.201-3(a). The CO requested a DCAA audit of PE's claim. We hold that DCAA's audit satisfies the requirement for an "initial review of the facts." However, although DCAA found that PE's claimed costs were incurred, it relied on the AFCEE's technical review to question all of the costs in PE's claim. As is obvious from this decision, AFCEE's technical review was wrong. Neither DCAA nor the AF challenged the reasonableness of any "specific costs" in the claims. (Findings 211-20)

During the course of this litigation the Board ordered PE to file a Statement of Costs (SOC). PE did so on 14 March 2014 (R4, tab 3001). The AF then had the opportunity to audit the SOC. The AF did not request a DCAA audit of the SOC. Mr. McGeehin is the AF's construction accounting and pricing of damages expert (finding 222). Mr. McGeehin reviewed the SOC and issued a report on 13 August 2014 (R4, tab 1447). This also satisfies the FAR 31.201-3(a) requirement for an "initial review." Mr. McGeehin found that the SOC did not provide sufficient information to determine the reasonableness of PE's estimate (bid) (id. at 9). The reasonableness of the pre-award bid is separate and distinct from the reasonableness of SOC costs incurred after award. Mr. McGeehin did not "question" mark-up rates for Bond, GL & BR Insurance, Composite G&A and 10% profit (id. at 11). He did not take "exception" to Labor and other Direct Costs (id. at 6-7), Labor Burden (id. at 7-8), and Subcontractor costs (id. at 8). He found that "Timberline" and "Prism," accounting software used by PE to maintain its books and records, was "widely used in the construction industry" (id. at 9). Mr. McGeehin also issued an expert report, dated 18 June 2014, responding to Mr. Rosenfeld's updated expert report (R4, tab 1451). He again questioned certain estimates, but did not challenge any of the underlying incurred costs as unreasonable (*id.*). Additionally, we carefully read all of Mr. McGeehin's testimony; we did not see testimony that specific costs identified in the SOC were unreasonable (tr. 17/5-100). Likewise, the

PowerPoint version of his expert report used during the hearing does not address reasonableness of PE's costs in any detail (ex. G-4).¹⁰⁸

Just as in *Kellogg Brown & Root Services*, the DCAA's audit of PE's claim and Mr. McGeehin's review of PE's SOC challenged all costs based on the AFCEE's flawed technical review, but failed to challenge the reasonableness of any specific costs in the claim. Such a blanket challenge to all costs is insufficient to satisfy FAR 31.201-3(a). Therefore, we hold that PE has satisfied its burden to prove that its claimed costs are reasonable.

Causation

Having found that PE's claimed costs were incurred, are allocable to DO 13 and reasonable and there being no other assertions that the elements of FAR 31.201-2, Determining allowability, are not met, our quantum analysis boils down to causation, or which party is responsible for the cost. The importance of this conclusion is not lost on the Board. It means that if we find that the AF caused a claimed cost, we will accept PE's claimed amounts.

Design Impact Claim (\$772,176)

This claim in large part is to compensate PE for structural design work to make the VQ resist progressive collapse. We start by addressing the obvious question of why would PE be entitled to additional compensation for designing the VQ to resist progressive collapse when that requirement was in RFP 8234? (Findings 29, 37-39) As explained below, the answer is that PE was entitled to bid believing it had the right to make unilateral changes to the VQ 35% design. In pre-bid questions and answers the AF was warned that modifying the Baker double wall design to resist progressive collapse would cost more (finding 30).

PE devotes 110 pages to the design impact portion of its entitlement Section IV, A. (app. br. at 62-172). As is made clearer in PE's four-page quantum discussion (*id.* at 446-50), this claim deals with design costs not construction costs. However, in order for us to decide this design impact claim we must deal with topics relating to construction.

PE claims that it was improperly prohibited from exercising its inherent rights as the DBP03 contractor to change the structural design from Baker's double wall design to PE's single wall structural brick design (app. br. at 162). PE argues the AF should be responsible for all the additional costs and delays caused by its direction that PE build to Baker's design. The AF counters that there is no authority for such design flexibility in the contract and, in any event, the claim is barred by the release in Mod. 2 (gov't br. at

¹⁰⁸ The AF does not refer to Mr. McGeehin's reports or testimony in support of its quantum argument (gov't br. at 481-82).

347-350). PE agrees Mod. 2 settled both time and PE's general condition costs and design costs associated with the structural brick proposal. However, PE contends Mod. 2's release does not cover the cost to correct the deficiencies in Baker's 35% design (app. br. at 169-72).

We start by considering what was required in Baker's CD contract as regards progressive collapse. This is relevant because the contract required Baker to account for progressive collapse and because PI&T, part of Parsons, participated as an AF contractor. Baker was the CD prime contractor with support from PI&T, not as a Baker subcontractor, but as an AF contractor (findings 2, 3). We were not able to find Baker's contract with the AF in the record (finding 2 n.3). PI&T's contract with the AF is in the record (finding 3). PI&T was responsible for, "surveys, site analysis, constructability reviews, design review comments, attendance at conferences for comment resolution, and project cost validation" (finding 3). However, Baker was the prime CD contractor and architect of record and as such was ultimately responsible for the 35% design.

It appears that initially Baker did not intend to include structural design to resist progressive collapse because the "25-meter standoff zone is maintained" (finding 5). This fact is corroborated by Mr. Bennett who worked for PI&T and testified that progressive collapse requirement was in the SOW for the Baker 35% design but it only played in the location and orientation of the VQ not in the structural design (finding 10). However there is ample evidence that the AF informed Baker and Baker agreed that it was required to account for progressive collapse in its 35% structural design (findings 7-9). It was also made clear in RFP 8234 that the VQ must be designed to resist progressive collapse (findings 29-30, 37-39). The preponderance of the evidence before us leads us to find that the CD contract required Baker's 35% structural design to resist progressive collapse and not simply through the location of the VQ.

Next we consider the relationship between PI&T and PE. PE would have us find that PI&T and PE were completely separate entities. PI&T was the DBP03 contractor supporting Baker during the CD contract (finding 3). PI&T and PE were both part of Parsons. Sometime before 7 September 2004, PI&T novated IDIQ contract 8703 to PE (finding 17). As early as May 2004, well before the novation, PE was involved in the project (finding 16). In PE's Executive Proposal Review/EPR it stated several times that it performed/completed the 35% design (finding 58). PE was the DBP03 contractor for the final design and construction contract (findings 65-66). Mr. Bennett was the architect for both PI&T and PE during both Baker's CD contract and PE's construction contract (finding 10). In August 2005 PE represented to the AF that "Parsons Evergreene was the DBP03 contractor during the CD phase" (finding 71). Based on these facts we consider PE to be effectively the same DBP03 for both contracts. We find that PI&T and PE are the same entity. This conclusion raises another question. SOW paragraph 3.2.2.2, Working Drawings, Construction, Delivery and Warranty states, "If the same DBP03 contractor performs these studies and investigations during the CD Phase and is awarded the Construction Phase task order for essentially the same project, then the DBP03

contractor is responsible for the results of its efforts during the CD Phase" (finding 28). Although we consider PE to be the "same DBP03" contractor during both the CD and construction phase, we do not hold PE responsible for Baker's flawed double wall design for two reasons. First, PI&T attempted to persuade Baker to abandon the double wall design in favor of the structural brick design during the CD phase (finding 6). Second, PI&T was not the architect of record and the scope of PI&T's contract was limited to "surveys, site analysis, constructability reviews, design review comments, attendance at conferences for comment resolution, and project cost validation" (finding 3). Therefore, the double wall design was not the "results of its [PE's] efforts during the CD Phase" and PE is not responsible for the failure of Baker's 35% design to account for progressive collapse.

Next we deal with PE's contention that, as DBP03 contractor it had the unilateral right to change the wall design from Baker's double wall to a single structural brick wall. In a letter entitled "Memo of Understanding Design/Build Procedures" dated 23 August 2005, PE seemed to agree it would follow the Baker double wall design by stating the "Overall concept and expression of the building will follow the 35% design. (Materials. and design details will be further developed and designed through the 64% and 95% design.)." (Finding 71) Likewise, in notes from a meeting held on 1 September 2005, the parties "agreed that Parsons has the opportunity to improve on the conceptual drawings in the less developed portions of the drawings such as electrical, mechanical, structural, and civil. Architectural drawings are much more developed and the expectation is that the floor plans and room layouts are fixed and will not change. Parsons agrees with this understanding." (Finding 72) The Baker double wall design is shown on the architectural drawings (finding 30). The VQ 35% drawings included a note that required the contractor to complete design and construction "in accordance with the intent of all design(s) represented in the (RFP) construction documents" and "must follow the full design intent represented in the RFP construction documents" (finding 12). We consider this drawing note clear and unambiguous and dispositive of this issue. We find that Baker's double wall design as shown on the 35% construction drawings was the "design intent represented in the RFP construction documents." We interpret this note to require PE to adhere to Baker's double wall hollow core plank design.¹⁰⁹ Without more, PE was not free to vary from Baker's design without AF approval. However, we must also consider if pre-bid communications affect our interpretation of the drawing note.

During the bidding period there were a series of pre-bid questions and answers that dealt with progressive collapse and other design matters. A 22 March 2005 memo

¹⁰⁹ We considered PE's witness testimony, including expert testimony, urging us to find that a design-build contractor has the right to select the design it prefers. We find this testimony unpersuasive when faced with explicit language on the 35% drawings that require PE to follow the "full design intent represented in the RFP construction documents," i.e., the Baker design (finding 12).

included question No. 6 asking that, since the VQ 35% design did not address progressive collapse, was it required in the final design. The answer was:

Yes, progressive collapse features are required for VQ! The architect of record resulting from the award of a task order under the DBP03 concept will be expected to include this feature in the final stamped drawings.

(Finding 29)

Another set of questions and answers sent to PE on 7 and 20 April 2005 included question No. 3 that expressed concern over the adequacy of the 35% drawings to "satisfy the progressive collapse requirements" and asked, "Are we allowed to substitute assemblies and structural systems in order to be compliant with the progressive collapse requirement provided the performance requirements and appearance of the building are satisfied." This question specifically points to Section 2 on drawing A-302 where the third floor roof load is transferred to the third floor hollow core plank instead of the second floor reinforced concrete masonry wall. This design was at least one example of the 35% design's failure to address progressive collapse. The question included the note, "A design to provide a facility compliant with the Progressive Collapse criteria would require substantial work at a considerable additional compensation." The AF's answer was:

Yes, the drawings are concept only. You have the responsibility to generate the construction details and drawings. Tim Morrison, AFCEE/HDM

(Finding 30) A copy of the 20 April 2005 email was sent to CO Macdecy (*id*.). This or a similar answer was repeated many times in the pre-award questions and answers (finding 31). There was no testimony or other evidence in the record about the parties' understanding or communications about the note warning "substantial work at a considerable additional compensation" would be required to make the VQ compliant with progressive collapse. In interpreting the question we read the question and note together. *NVT Technologies Inc. v. United States*, 370 F.3d 1153, 1159 (Fed. Cir. 2004) (When interpreting the contract, the document must be considered as a whole and interpreted so as to harmonize and give reasonable meaning to all of its parts.). Taken as a whole, question No. 3 asks if bidders can substitute a different design to resist progressive collapse and if not, it would cost a lot more to do so with the Baker double wall design. The AF's answer clearly told the bidders that they could choose a different design. It specifically did not say only with AF approval. We have a conflict between the drawing note requiring PE to adhere to the Baker 35% double wall design and the AF's answers to pre-bid questions. Mr. Hillestad recognized this conflict and expressed concern over the bidder's questions in a 14 April 2005 email, "what latitude, if any, we are willing to allow the contractor in departing from <u>specific</u> criteria provided in the concept design" (finding 35). The record does not include further evidence of any response to or discussion of Mr. Hillestad's concern. We conclude the issue raised by the questions was understood within the AF when the answers were sent to bidders.

On 15 April 2005, Mr. Hillestad sent out an email to bidders that stated:

Effective this date the time for submittal of additional questions is now closed.... Ambiguities and/or patently 'obvious errors in the concept design criteria will henceforth be resolved after receipt of proposals and prior to award.

(Finding 36) We find that because the bidders recognized that Baker's 35% design failed to resist progressive collapse, there was a "patently obvious error in the concept design" that was not "resolved prior to award."

In a final email before award, dated 19 April 2005, addressing progressive collapse, Mr. Hillestad stated:

(2) When addressing the progressive collapse design requirements for the VQ at McGuire, the specified threat level is "LOW".

Further clarification should not be required. To the extent mis-information, erroneous, or misleading direction is contained in the RFP, appropriate corrections shall be accomplished in the award document(s).

(Finding 39) This email did nothing to clarify the confusion relating to how to deal with progressive collapse.

There is no question that RFP 8234 required the VQ to be designed to resist progressive collapse (findings 29-30, 37-39). Above, we interpreted the drawing note on the VQ 35% drawings to require PE to adhere to Baker's double wall design. However, the AF's repeated statement in responses to pre-bid questions and answers that "the drawings are concept only. You have the responsibility to generate the construction details and drawings" is a concern. (Findings 30-31) This is especially true of question No. 3 that specifically questions the 35% structural design ability to resist progressive collapse and warns that "substantial work at a considerable additional compensation" if the Baker double wall design was followed (finding 30). We have held that pre-bid questions and answers are not "wiped from the record by formal execution of the contract." *Northwest Marine, Inc.*, ASBCA No. 43502, 94-1 BCA \P 26,521 at 131,999. In *Metcalf Construction*

Co. v. United States, 742 F.3d 984 (Fed. Cir. 2014), the Federal Circuit held that pre-bid. questions and answers used by bidders in estimating and submitting bids are highly relevant to the post award interpretation of contract provisions. Id. at 995-97. In earlier decisions we have held the same. Ogden Allied Services Corp., ASBCA No. 40823, 91-1 BCA ¶ 23,455 at 117,671 (appellant has the right to rely on pre-bid questions and answers as to matters of contract interpretation); Bogue Electric Manufacturing Co., ASBCA No. 16958, 74-1 BCA ¶ 10,513 at 49,794 (questions and answers at a pre-bid conference can properly be referred to for the purpose of evaluating the reasonableness of appellant's interpretation). The Court of Federal Claims follows the same law. Aero Corp., S.A. v. United States, 38 Fed. Cl. 739, 762 (citing Sharpe Refrigeration, Inc. v. United States, 30 Fed. Cl. 735, 739 (1994)) (Official statements made during pre-bid conferences to clarify contract language should be utilized in resolving questions of contract interpretation.). Therefore, contrary to the AF's position that the pre-bid questions are irrelevant (finding 80), we find that PE was entitled to rely on the AF's answers to pre-bid questions that "the drawings are concept only. You have the responsibility to generate the construction details and drawings" and allowed PE to "substitute assemblies and structural systems in order to be compliant with the progressive collapse." (Finding 30) We find that as a result of the pre-bid answers provided by the AF that conflicted with the notes on the 35% drawings, the AF bestowed upon PE the unilateral right to change Baker's double wall design to structural brick.

There is another problem with the AF's arguments. The AF hired a structural engineering consultant, JQA, to evaluate Baker's 35% design. JQA agreed with PE that the Baker design did not resist progressive collapse and would require structural changes (finding 79). It is undisputed that the AF was warned in Question #3, that making the Baker design resist progressive collapse would require "substantial work at a considerable additional compensation" (finding 30). The AF was again warned at the 25 January 2006 "summit" meeting that there would be a cost impact if PE was directed to build the double wall design (finding 84). The record supports our conclusion that PE's structural brick design accounted for progressive collapse at no increase in price (findings 73, 76, 78, 82). Mr. Williams, AF architect and project manager, supported the change to structural brick (finding76). There is evidence in the record that the reason the structural brick design was rejected was the appearance of the brick (finding 84). However, PE assured the AF that the structural brick would meet the base's color and size standards (findings 74, 81, 84). Even Mr. Rola agreed the structural brick could be matched with the brick MAFB wanted (finding 81). In M.A. Mortenson Co., ASBCA No. 39978, 93-3 BCA ¶ 26,189, a case involving a similar design-build contract, we held that the government warranted the adequacy of the 35% "concept submittal" drawings. Id. at 130,367. Therefore, the AF warranted that the Baker 35% double wall design would account for progressive collapse and the record overwhelmingly indicates it did not. Given this warranty, the pre-bid answers, all the facts the AF knew and the right it effectively bestowed on PE to change the 35% design, we conclude there was no right or good reason to reject the structural brick design. Having done so we apply the logic of M.A. Mortenson and allocate the additional cost of design and construction required to make the Baker 35% design resist progressive

collapse to the AF. We must now consider if the release in Mod. 2 affects this allocation of risk.

During the discussions with the AF about structural brick, PE developed the 65% design assuming it would be allowed to use structural brick. When the AF directed PE to build to the Baker 35% design, PE effectively had to start the 65% design over and redesign the entire interior of the VQ necessitating additional time. (Findings 84-87) In Mod. 2. dated 6 June 2006, the parties agreed to extend the period of performance by 126 days to account for the time spent on the structural brick issue (finding 92). Mod. 2 extended the period of performance to 9 July 2007 and included a release. The release covered "any delays or costs rising from varying design approaches, including delays in reviewing approaches" relating to the structural brick issue (finding 92). The AF contends that this release covers all costs claimed by PE to modify the Baker 35% design to resist progressive collapse (gov't br. at 347-50). PE counters that the release is limited to evaluation of the structural brick design not subsequent design and construction costs (app. reply br. at 81-84). PE states that Mod. 2 "was a settlement of both time (4 months of time lost while the parties debated PE's Structural Brick Design solution), PE's General Conditions costs associated with that time, and design costs incurred during that period to support the Structural Brick proposal" (id. at 82). The general principles of contract interpretation apply to release language and if the language is clear and unambiguous it must be given its plain and ordinary meaning. United Launch Services, LLC, ASBCA No. 56850 et al., 16-1 BCA ¶ 36,483 at 177,764. We consider the release in Mod. 2 to be clear and unambiguous. It is limited to "delays and costs arising from varying design approaches including delays in reviewing approaches." This can only be interpreted as referring to the structural brick "design approach" and not the additional costs of correcting the Baker 35% design. We agree with PE's interpretation and are not persuaded by the AF's argument to expand the clear language of the release to cover the cost of fixing the Baker 35% design. The AF is responsible for the additional design and construction costs incurred to change the Baker 35% design to resist progressive collapse.

In the quantum section of its brief PE discusses what design costs are included in the claimed \$772,176 (app. br. at 446-50). Specifically, PE wrote:

Parsons completed its 100% design within its bid budget, but the budget thereafter overran as the contractor was forced to (a) make ongoing design changes to accommodate the heavy structural wall system and hollow core planks floors on which the Air Force insisted and (b) develop design and pricing for multiple iterations of "shopping list" proposals demanded by the Air Force.

(*Id.* at 446)¹¹⁰ We found above that the AF is liable for (a). However, (b) design costs related to the "shopping list," is another matter. The shopping list was formalized in Mod. 5 wherein the parties agreed on a price of \$499,441.00 (finding 149). First, we would expect PE to include its design costs in the price for the shopping list. PE failed to enter evidence on this point in the record or address this in its brief. Second, Mod. 5 includes a release that also included, PE "will not release the government in a 'blanket' fashion for all events that have occurred on the project to date." (Finding 149) Neither party discussed this release. Because of the questions surrounding design costs for the shopping list, we find that PE failed to meet its burden of proof as to AF liability for (b). We will have to apportion the \$772,176 to account for this split in liability. Before we move on to that, we must deal with PE's characterization of its claim.

PE characterizes this claim as using a "Modified Total Cost methodology" (MTCM) (app. br. at 447). We disagree. That is because PE tracked its design costs and calculated the claim on "design costs as booked in the contemporaneous job cost records" (*id.* at 446). That means that all of the costs claimed are for the design work and nothing else. A total cost or modified total cost approach does not specifically track costs for a single effort as was the case for the design effort. We faced a similar situation in *Raytheon Missile Systems Company*, ASBCA No. 59258, 15-1 BCA ¶ 36,102:

The Navy characterizes Raytheon's quantum analysis as a "total cost" claim and structures much of its quantum brief's argument around the elements of proof required to sustain a total cost claim (gov't br. at 27-36). We agree with Raytheon, this is not a total cost claim. See, e.g., Raytheon Co. v. White, 305 F.3d 1354, 1365 (Fed. Cir. 2002) ("Under the total cost method, the measure of damages is the difference between the actual cost of the contract and the contractor's bid."); WRB Corp. v. United States, 183 Ct. Cl. 409, 426 (1968) (total cost claim is difference between actual and estimated expenses). Rather, Raytheon's approach to quantum identifies the number of gallons of fuel priced at \$25.00 that it loaded into Contract 0569 missiles and, with certain other adjustments, simply calculates quantum based on the \$11.00 difference between \$14.00/gallon Raytheon bid and the \$25.00/gallon charged. This approach is a direct quantification of the damage caused by the Navy's breach.

¹¹⁰ Later in its brief PE changed its description to design overruns "attributable to defects in the Government's 35% design, unreasonably protracted approval processes (e.g., standing seam metal roof), and/or ongoing design changes (e.g., the 'shopping list')" (app. br. at 449). We do not understand how the "approval process" for the SSMR would cause design changes so we disregard it.

Id. at 176,260. PE's design claim is also a direct quantification of damages because all of the costs claimed are design costs just as all the costs claimed in *Raytheon* were fuel costs. The fact that PE took responsibility for some of the design costs recorded in its books and records does not make this a MTCM claim. Therefore, we need not go into the elements of a MTCM as PE does in its brief¹¹¹ (app. br. at 447-50). We do however, have to separate design costs for correcting the Baker design from design costs for the "shopping list." We generally understand from the record the relative complexity of the design effort to resolve progressive collapse and the "shopping list" which gives us the ability to estimate relative costs. We conclude that the design for progressive collapse is far more complex than for the shopping list. We estimate that the design cost for the shopping list would be about \$50,000 and subtract that amount from PE's claim. PE is entitled to \$722,176 for its design impact claim.

Delay and Extended Overhead

We are about to consider the first delay claim. There will be other delay claims and also constructive acceleration claims. Before we proceed, we set forth how we will deal with delay and constructive acceleration. A delay claim and constructive acceleration claim are two distinct claims: "A constructive acceleration claim, although arising out of the same facts as a delay claim, has been held to be a separate claim because it requires proof of the additional element of an express or implied Government order to overcome the excusable delay." *Gaffny Corp.*, ASBCA No. 37639 *et al.* 94-1 BCA ¶ 26,522 at 132,012 (citation omitted). Damages are calculated differently for each. Delay damages are based on a daily cost of field overhead multiplied by the number of delay days. *DANAC, Inc.*, ASBCA No. 33394, 97-2 BCA ¶ 29,184 at 145,148. Acceleration damages are the direct costs caused by the acceleration, "Unlike the delay and impact claims, appellant's claim for acceleration, as finally adjusted, comprises principally extra direct costs [with burden] that were incurred during the acceleration period." *Fischbach & Moore International Corp.*, ASBCA No. 18146, 77-1 BCA ¶ 12,300 at 59,241.

Schedule Delay/Extended Site Overhead—Daily Rates

We discussed PE's daily rates in our findings of fact (finding 223). We need not delve deeply into the accounting information in the record because we rely the AF's

¹¹¹ If we did it would not affect the outcome.

expert, Mr. McGeehin's, adjustment to PE's rates increased three out of four of them (*id.*). Accordingly, we will use PE's daily rates for delay as follows:

Time Period	Daily Rate
13 July 2005 to 31 July 2006	\$1,696
1 Aug 2006 to 31 Aug 2007	\$7,712
1 Sept 2007 to 31 May 2008	\$13,548
1 June 2008 to 31 October 2008	\$4,688

(*Id.*) These daily rates do not include mark-up (*id.*).

Delay in Issuing Foundation NTP¹¹²

The TLF Site Civil/Structural 100% for Construction drawings are dated 17 April 2006 (finding 90). The VQ Site Civil/Structural (100%) are dated 27 April 2006 (*id.*). The AF did not issue a limited NTP for foundation work. The unlimited NTP was issued on 10 July 2006 (finding 98). Mr. Evans contends that the 83 days between 18 April 2006 and 10 July 2006 are critical path delays. The AF counters with evidence that PE's designs were not complete and that CO Brown issued the final NTP as soon as the designs were complete (gov't br. at 138-39). PE responds in its reply brief that Mr. Evans "researched the review comments" and found them minor (app. reply br. at 90). As explained below, we need not attempt to sort out if the comments were "minor" or not.

We rely on the actual dates on the drawings. The VQ Site Civil/Structural (100%) drawings are dated 27 April 2006 (finding 90). That means that the foundation design work was completed no later than 27 April 2006. We agree with Mr. Evans that the VQ foundations were on the critical path. We see no reason why the AF could not have issued a LNTP for the VQ foundations on or about 27 April 2006. There are 74 days between 27 April 2006 and 10 July 2006. We give the AF four days in which to issue the foundation LNTP. Therefore, we hold the AF responsible for 70 days of excusable compensable delay.

This 70-day delay falls within period one where the daily rate is 1,696. Therefore the extended overhead is 118,720 (70 x 1,696). We follow DCAA's method of calculating markup (R4, tab 213 at 39):

¹¹² We were confused in that PE identified this as "design impact" delay (app. br. at 483). Mr. Evans delay analysis Review Period 2 explains this is foundation NTP delay (R4, tab 3004 at 20) but also as design delay (*id.* at 21). We think foundation NTP delay is accurate.

Description	Audit Determined Rate	Amount w/ Markup
Extended Overhead		\$118,720
Markups		
Bond	0.6375%	\$757
GL & BR Insurance	0.8316%	\$987
Subtotal		\$120,464
Composite G&A	2.8600%	\$3,445
Expense	•	
Profit	10.0000%	\$12,046
Total		\$135,955

Clean Site Delay¹¹³

In June 2006 PE asked the AF for a Certificate of Clean Site but none was forthcoming (finding 95). In July 2006 PE's subcontractors were working on footings for the VO. Because of concerns over environmental contamination in the area where the swimming pools had been demolished, on 7 July 2006 PE directed its subcontractors to stop work on the VQ footings (finding 96). The AF issued an unlimited NTP on 10 July 2006 (finding 98).¹¹⁴ On 4 August 2006, PE's concerns over VQ site contamination were resolved and PE lifted its stop work order (finding 100). We find that since this was an area where two swimming pools existed and the AF contracted with another contractor to demolish the pools, the AF was responsible for ensuring the area was not contaminated with environmental hazards. PE's concern over environmental contamination was reasonable. We allocate 28 days of delay, from 7 July 2006 to 4 August 2006, to the clean site delay. The AF is responsible for this delay. We agree with Mr. Evans that this foundation work was on the critical path (R4, tab 3004 at 25). Therefore the delay was excusable and compensable. This delay spans two daily rate periods -25 days in July at \$1,696/day and 3 days in August at \$7,712/day for a total of \$65,536 (25 x \$1,696 + 3 x \$7,712). We follow DCAA's calculation for markup:

Description	Audit Determined Rate	Amount w/ Markup
Extended Overhead		\$65,536
Markups		
Bond	0.6375%	\$418
GL & BR Insurance	0.8316%	\$545
Subtotal		\$66,499

¹¹³ There was also confusion concerning this delay because even though Mr. Evans discussed the clean site facts (R4, tab 3004 at 26-27), he did not appear to include it in his schedule analysis (*id.* at 25-26).

¹¹⁴ It is unclear why PE started work on the footings before the unlimited NTP.

Composite G&A	2.8600%	\$1,902	
Expense	· · ·		
Profit	10.0000%	\$6,649	
Total		\$75,050	

Earthwork Differing Site Condition Delay

This section consists of two claims. There is the claim for \$582,375 in direct costs (app. br. at 450-55) and the claim for \$1,995,993 in delay damages (*id.* at 483). We deal with them together. There are three components involved in these two claims: unsuitable fill, organic material, and asbestos pipe.

Unsuitable Fill (\$178,425)

As early as April 2004 PE expressed concern over whether the AF had properly monitored the demolition contractor "to ensure that select fill was placed in the pool excavation to avoid 'unforeseen site conditions'" (finding 16). This concern turned out to be legitimate.

The original SOW in RFP 8234 stated that site demolition was not required and that the site was "clean and ready for construction" (finding 19). Amendment No. 2, dated 5 April 2005, deleted these statements (finding 27). Mr. Morrison, drafter of Amendment No. 2, explained that it was due to the fact that there were electric utilities in the area, but that the fill dirt was still supposed to be clean (finding 27). In a 22 March 2005 memo listing pre-bid questions and answers, the AF's answer to question No. 8 stated "the site is clean and ready for construction" but the fill was not compacted (finding 29). The AF's answer to question No. 13 stated there was no "Geotech report" on the demolished pools and that bidders should assume the soil content is "at least equivalent to the worst condition level permitted in the Base Demo contract requirements" (finding 29). In questions and answers sent to bidders on 7 April 2005 the AF's answer to question No. 61 stated the "backfill is clean but not compacted. Use the worst soil boring sample for calculations" (finding 32). Mr. Temchin and Mr. Radin testified that PE relied on the AF's answers in bidding and believed the backfill would be clean and ready for construction. (Finding 34) We discussed the legal importance of pre-bid questions and answers above in our decision on structural brick. PE is entitled to rely on these pre-bid questions and answers. Therefore, notwithstanding Amendment No. 2's removal of the language, "The site is clean and ready for construction," subsequent answers that the fill dirt was clean did, as Mr. Temchin testified, put the representation that the fill dirt was clean back in the contract (finding 34).

In mid-August 2006 test pits were dug in the TLF and VQ areas (finding 103). On 16 August 2006 PE notified the AF that the test pits had uncovered "wood, concrete rubble, metal, wire, charred debris and other construction debris" that indicated the demolition contractor had not backfilled with clean material (findings 103-04). On

22 August 2006 PE stopped work on excavation at the VQ due to the unsuitable material found in the test pits (finding 104). We find PE was entitled to stop work because that is what the differing site condition clause mandates. Lean Construction and Engineering Co., ASBCA No. 58995, 15-1 BCA ¶ 36,159 at 176,462 ("The clause requires that such notice be given promptly and before the conditions are disturbed."). Due to funding issues the AF did not direct PE to start removing and disposing of the unsuitable materials until 2 November 2006. The direction imposed a \$70,000 price ceiling. (Finding 105) We find that the AF failed to properly supervise the demolition contractor's work. We find that before award the AF represented that the soil would be clean. This is a Type 1 differing site condition in that the AF represented that backfill from the demolition would be "clean" and it was not. PBS&J Constructors, Inc., ASBCA Nos. 57814, 57964, 14-1 BCA ¶ 35,680 at 174,654 ("A Type I differing site condition claim is dependent on what is 'indicated' in the contract."). The AF is responsible for any unreimbursed costs (over the \$70,000), of removing the unsuitable material, replacing it with suitable compacted backfill and the 72 days between 22 August 2006 and 2 November 2006.¹¹⁵ We agree this delayed VO foundation work that was on the critical path (R4, tab 3004 at 24-25, 30-31). We also find that this delay was excepted from the release in Mod. 3 (finding 123). It is excusable compensable delay, however, this 72-day delay runs concurrent with the organic layer delay discussed below and we account for it below. We accept PE's costs; the AF is liable for \$178,425 to resolve the unsuitable soils problem at the site.

Organic Material (\$297,274)

Also on 22 August 2006 PE found organic material in two test pits (finding 107). PE had PSI perform borings to map out the extent of the organic material (*id*.). PSI recommended that the organic layer be removed (finding 108). Even though the organic layer was about five feet below the elevation of the footings, PE concluded it needed to be removed because of possible differential settlement (findings 109, 115). Mr. Rola took the position that the organic layer was deep enough it did not need to be removed (findings 111, 116). CO Brown did not agree with Mr. Rola (finding 111). However, the parties spent valuable time going back and forth discussing the need to remove the organic layer because of Mr. Rola's opposition¹¹⁶ (findings 111, 114, 116). By the end of October 2006 PE decided to remove the organic layer without AF permission. We find that the organic layer was a Type 1¹¹⁷ differing site condition because the geotechnical report did not list organic matter as a subsoil condition (finding 57) and, in the circumstances here, this absence should be construed as a representation that there was no such organic material

- ¹¹⁶ In an apparent attempt to justify Mr. Rola's opposition, the AF included a 2014 report in the record from another contractor, Versar, agreeing that it was not necessary to remove the organic layer (finding 114). We are not persuaded.
- ¹¹⁷ Organic material could also qualify as a Type II differing site condition.

 ¹¹⁵ Mr. Evans shows the unsuitable fill delay running from 27 June 2006 to 21 August 2006 (R4, tab 3004 at 31). This is incorrect and we think Mr. Evans confused unsuitable fil with contaminated fill.

present. The fact that Boring B-01A found "trace amounts of organics" (*id.*) is not enough to put PE on notice of the organic material it found. PE was entitled to rely on the geotechnical report and associated boring logs that indicated what the subsurface soil conditions would be. *PBS&J*, 14-1 BCA ¶ 35,680 at 174,653 (borings are the most significant indication of subsurface conditions). We also find that PE was the engineer of record and bore the risk associated with possible differential settlement that may have been caused by the organic layer. CO Brown recognized PE's risk (finding 111). Accordingly, it was PE's right to decide to remove the organic layer without interference from the AF, which it encountered from Mr. Rola. Right or wrong, Mr. Rola did not have the right to second guess PE that bore the ultimate responsibility for the stability of the VQ. We find the AF responsible for the cost associated with the organic layer and associated critical path delay discussed below. We are satisfied that PE reasonably incurred a cost of \$297,274 for dealing with the organic layer and find the AF liable for that amount.

"Transite" Asbestos Pipe (\$106,676)

On 3 November 2006 when PE started to remove the organic layer it encountered "transite" asbestos insulated pipe. PE notified the AF of a differing site condition and stopped work. (Finding 110) We have determined that while the pipe was shown on drawings, the fact it was "transite" asbestos pipe was not disclosed (*id.* at n.48). At AF direction, PE contracted to have the asbestos pipe removed and the work was completed by 1 February 2007 (finding 119). This was a 90-day delay from 3 November 2006 to 1 February 2007. PE was then able to restart removal of the organic layer material that was finished on 28 February 2007 (*id.*).

Mr. Rola took the position that the asbestos pipe was not a differing site condition (findings 113, 118). CO Brown disagreed (finding 113). We agree with CO Brown. We find that the drawings indicating the location of utilities did not identify the "transite" asbestos pipe. We find that the asbestos insulation is a Type 1 differing site condition because PE was entitled to rely on the AF's drawings that did not indicate the presence of asbestos. The AF is responsible for any unreimbursed cost of abatement of the asbestos insulated pipe and associated delay.

PE's scheduling expert, Mr. Evans, found that the delay of the foundation work at wing A of the VQ that was caused by the unsuitable fill, organic layer and asbestos pipe was on the critical path (app. br. at 365-68). The AF's scheduling expert, Mr. Ockman, used the "time impact analysis" method which is different from the CPM analysis used by Mr. Evans. We do not comment on the relative merits of these to methodologies because we understand both to place the foundation work at VQ Wing A on the critical path. Mr. Ockman, however, assigns responsibility for the contaminated fill (Time Impact No. 5) and "substandard fill"¹¹⁸ and asbestos pipe (Time Impact No. 6) to PE because it failed to

¹¹⁸ Mr. Ockman's "substandard fill" refers to the fill improperly placed in thicker layers, not the construction debris (R4, tab 1739 at 20).

prepare subgrade and locate the asbestos pipe (gov't br. at 323-24). We reject this allocation of responsibility. Also, we did not see the organic layer in Mr. Ockman's Time Impact Nos. 5 and 6. We accept PE's costs of \$106,676 to deal with the asbestos pipe and find the AF liable for that amount.

Cumulative Delay/Earthwork

In our findings of fact, we calculated 191 days of critical path delay for unsuitable fill/organic layer/asbestos pipe from 21 August 2006 to 28 February 2007, deducting nine days for replacing the improper fill, we have 182 days of delay (finding 121). This is excusable compensable delay. This delay is in daily rate period two where the rate is 7,712/day. Therefore, the extended overhead for the earthwork delay is 1,403,584 (182 x 7,712).

Description	Audit Determined Rate	Amount w/ Markup
Extended Overhead		\$1,403,584
Markups		
Bond	0.6375%	\$8,948
GL & BR Insurance	0.8316%	\$11,672
Subtotal		\$1,424,204
Composite G&A	2.8600%	\$40,732
Expense		
Profit	10.0000%	\$142,420
Total		\$1,607,356

Again we follow DCAA's calculation to markup:

Mod. 3

On 20 March 2007 the parties signed Mod. 3 extending the contract by 171 days to 27 December 2007 and decreased the contract price by \$230,337 (finding 124). The \$230,337 was calculated multiplying the liquidated damages daily rate of \$1,347.00 (*id.*) by the 171-day extension. In our prior section, we found 182 days of excusable delay; later in this decision we address concurrent delay that extends the delivery period into June 2008, well beyond 27 December 2007. Therefore, liquidated damages were not running during the 171-day extension in Mod. 3. The release in Mod. 3 was limited by PE's extensive reservation of its right to claim the \$230,337 and reserved claims associated with unsuitable fill, organic layer, asbestos pipe, unusually severe weather, NTPs, delay in approving submittals, and delay in approving roofing (finding 123). Given all of these exclusions, the release essentially has no effect on PE's claims. Given our decision that the 171 days was excusable delay, Mod. 3 is no longer valid. We find PE is entitled to the return of the \$230,337, however, PE "adjusted" this amount in its quantum section to \$228,990 and that is the amount we award to PE.

High Temperature Hot Water (HTHW) Differing Site Condition Claim (\$784,186)

The TLF and VQ were connected to MAFB's HTHW system that required PE to trench and install new HTHW pipe (findings 22, 127). In so doing, PE contends it ran into various differing site conditions such as underground utilities that were not disclosed on AF drawings causing it additional time and expense. It also contends that AF delay pushed the work into winter that also caused additional expense. This contention is supported by dated pictures of some of the conditions encountered by PE which indicate that they were discovered in late November to early December 2007 (finding 131).

RFP 8234 included comments stating that "survey base mapping" and "Site Utility Plan" show utilities (finding 56). However, the 35% drawings do not extend to areas near East Arnold Ave. where many of the obstacles encountered by PE were located (findings 127, 130-33). From this the AF concludes that it "made no representations in the 35% drawings included in the RFP regarding existing utilities beyond those depicted" (gov't br. at 189). According to the AF it cannot be liable for a Type 1 differing site condition because it did not represent the condition of the site. We disagree. The AF must also assume responsibility for the representations of utilities on the G-Tab drawings provided to bidders before award (findings 11, 13, 32, 134), and these G-Tabs, in fact, misrepresented the utility locations. G-Tab drawings were Auto CAD (electronic) "maps" showing all utilities. They were provided to all bidders (finding 134). Mr. Morrison testified that the G-Tab drawings showing the utilities were accurate (finding 32, n.25).

The subject of utilities was addressed in pre-bid questions and answers. In several answers bidders were told that utilities were shown on "G-Tab" drawings made available to the bidders (findings 11, 13, 32). Notes on 35% drawings informed bidders that utility locations are approximate based on "G-TAB MAPPING" (finding 13). Bidders were warned that "there are a lot of existing utilities along East Arnold gas, phone, water, etc. (both sides). Extreme care will be required when approaching and crossing east Arnold with HTHW lines." (Finding 32, #42) When asked about utility demolition, bidders were told to use "existing documentation and drawings to complete the final designs and project requirements" (finding 32, #51). When asked if there are any HTHW manholes required, bidders were told "The DB+ Contractor will need to make this determination" but that two new manholes would be required (finding 32, #68). These new manholes did not include manhole #35B.

After award of DO 13 on 13 July 2005, PE developed the 100% "for construction" drawings for the TLF and VQ dated 24 July 2006 (finding 99). We hold that the 100% drawings embodied the utility locations provided before award on the 35% and G-Tab drawings. Because the G-Tab drawings are Auto CAD they were not in a useable format for us to review. We can however, find a proxy for what was in the G-Tabs by examining the 100% drawings made by PE, which we based on pre-bid information

provided by the AF. Therefore, even though produced by PE after award, we use the 100% drawings in our differing site condition analysis because they incorporated preaward utility information provided by the AF.

We also consider the post award efforts taken to locate all utilities. Of particular interest to us are the notes on 100% VQ drawings C-101, C-102, and C-103 that state, "UNDERGROUND UTILITIES SHOWN HEREON WERE FIELD LOCATED BY MASTER LOCATORS, INC. BETWEEN 08/23/05 & 08/31/05" (finding 128). The note on drawing C-107 states, "UTILITY LOCATIONS AND INVERTS ARE BASED UPON FIELD SURVEY AND BEST AVAILABLE DATA" (finding 129). Neither party presented evidence to explain Master Locators' activities or the "field survey." We take this language at face value and conclude that at some time somebody had Master Locators go to the site to conduct a "field survey" to locate utilities and that information was incorporated into the 100% drawings. We infer that this field survey included use of some device to locate buried utilities such as a magnetometer. We also know that Mr. Temchin testified that PE was never given the G-Tab drawings of abandoned utilities (finding 13). The record is insufficiently developed for us to understand what abandoned utility information was shown on the G-Tab drawings or why the AF would not give them to PE. We cannot speculate on what these G-Tab drawings show and only point out that they were withheld. In addition to the Master Locators' field survey and G-Tab drawings, the AF marked utilities with various colors of paint before issuing a "dig permit" to PE (finding 130). The drawing notes each have a statement requiring PE to verify all utility locations before starting construction (findings 128-29). We find that PE satisfied its obligation to verify utility locations based on the 35% and G-Tab drawings, the survey by Master Locators, and the AF's marking of utilities for the dig permit. We do not know what more PE could have done. To the extent PE encountered utilities not shown on the 100% drawings, we find a Type 1 differing site condition.

PE itemized ten differing site conditions. In our findings of fact we found that 100% VQ drawing C-107 showed the storm sewer and telephone lines that PE contends are differing site conditions (finding 133). Since what is shown in picture DC #3 was also shown on the drawings, DC #3 is not a differing site condition. We also disagree with PE on DC #9 relating to the new manhole #35B (finding 131). RFP 8234 directed that the contractor shall verify and accept the "exact conditions" at the site (findings 11, 13, 20). The existing manhole #35 is not a differing site condition because it was in plain sight and Mr. Burdick admitted that it was obvious that it was not big enough to connect the new HTHW lines (finding 131). Top Painting Co., ASBCA No. 57333, 12-1 BCA ¶ 35,020 at 172,082 ("Visible rust, mold and mildew on the generator housing and AST surfaces when Top submitted its proposal for the contract do not qualify as a DSC under the quoted DSC clause, because they were neither 'subsurface or latent' nor 'unknown.'"). By not looking at manhole #35, PE assumed the risk that it would be too small to connect its new HTHW lines (finding 131). Therefore, we sustain differing site conditions #1, #2, #4, #5, #6, #8, #10 and #11 and deny #3 and #9 (including the cost of manhole #35B). The AF is responsible for the additional cost caused by the differing site conditions we sustain.

PE claims \$784,186 for the differing site condition portion of its claim, which we accept but must reduce to account for our denial of differing site conditions #3 and #9. PE refers to the October 2014 Rosenfeld Rebuttal report for "full original documentation of the HTHW pricing." (App. br. at 455; R4, tab 3003 at 130-47) Most of the cost data does not relate to the specific differing site conditions. As to damages, we conclude from the pictures and drawings that the manhole work was the most expensive and that we can treat the remainder of the differing site conditions as similar in impact. Therefore, we reduce the claimed amount by \$150,000 for the manhole DC #9 and reduce the claimed amount by \$50,000 for DC #3 for a total reduction of \$200,000. We sustain the HTHW differing site condition claim in the amount of \$584,186 (\$784,186-\$200,000).

As for delay, based on the dates on pictures of the differing site conditions they occurred between late November and early December 2007 (finding 131). This is in Mr. Evans' Delay Review Period 8 (16 October 2007 to 25 January 2008) (R4, tab 3004 at 43). Mr. Evans contends that during this period the project was delayed 24 calendar days due to ceiling framing installation, catwalk installation and ceiling paint in Area B in the VQ (*id.* at 44). Mr. Evans does identify "HTHW issues" from 14 November to 28 December 2007 but from CPM Figure 16, Review Period 8, As Planned and As-Built Schedule, the HTHW delay is concurrent with the catwalk delays. Also Mr. Evans does not discuss the "HTHW issues" so we do not know if they are solely related to the differing site conditions. We find that PE failed to prove critical path delays associated with the HTHW differing site conditions.¹¹⁹

Triarch Claim (\$589,405)

PE claims \$589,405 for the "purchase and installation of the Triarch wall coatings in VQ guest room walls after the Air Force revoked its previous approvals for using Sherman Williams paint" (app. br. at 222, 231). PE incorrectly centers its argument on what happened after award. The real question is if RFP 8234 obligated PE to include the cost of Triarch in the VQ in its bid. As explained below we find it did. However, we also find liability on the part of the AF for its indecision on what wall coating it wanted, causing PE to start applying Sherwin Williams paint in the VQ.

RFP 8234, Specification Section 09911 for TLF required that "Duroplex – Triarch Industries" and "Plexture – Triarch Industries" be applied to walls and ceilings of the TLF (finding 41). RFP 8234, Specification Section 09911 for the VQ required "Duroplex –Triarch Industries" and "Plexture – Triarch Industries" for interior paints¹²⁰

¹¹⁹ PE does not appear to claim delay damages for this differing site condition in its claim summary (R4, tab 3149).

¹²⁰ We disagree with PE's contention that VQ Section 09911 "did not clearly mandate either paint or Triarch Duroplex" because of the use of the word "paint" (app. br.

(finding 42). The 35% drawings included in the RFP required Triarch for the TLF, but Sherwin Williams paint for the interior of the VQ (finding 43). Therefore there was a conflict between the 35% drawings and specifications as to the "paint" for the VQ. The conflict is resolved by the RFP's order of precedence clause that reads, "In case of a difference between the drawings and specifications, the specifications shall govern" (finding 44). Therefore, the Specification Section 09911 requiring Triarch in both buildings takes precedence over the 35% drawing (finding 44). *Gosselin World Wide Moving NV*, ASBCA No. 55367, 09-2 BCA ¶ 34,242 at 169,235 ("Nonetheless, appellant is correct that the Order of Precedence clause resolves the inconsistency."). The contract requires Triarch in the VQ.

We must also consider the pre-bid actions of the AF and bidders. In a 5 April 2005 response to questions from bidders about the missing CID for the VQ, the AF twice gave an incorrect answer. The answer was that the VQ CID was attached to Amendment No. 1 to the RFP – it was not. (Finding 45) Mr. Hillestad's 12 April 2005 email to bidders states that the paint specifications are identical and bidders should proceed accordingly (finding 46). This was a true statement about Section 09911 for both the TLF and VQ, but not for the VO 35% drawing DI-401. In his 13 April 2005 internal email, Mr. Hillestad recognized the conflict between the VQ Section 09911 that required Triarch and the VQ CID that required Sherwin Williams paint (finding 47). Mr. Hillestad referred to the VQ CID, but we do not know what he was looking at because the VQ CID was not in RFP 8234 (finding 42). We noted above a similar conflict between the VQ specification and 35% drawing ID-401 that was in RFP 8234. In an apparent attempt to address this conflict, Mr. Hillestad wrote his 19 April 2005 email to bidders. This email, however, did not clarify anything, but rather made matters more confusing in two ways. Armed with the knowledge of the conflict, rather than providing unambiguous clarification, Mr. Hillestad imposed a brand name or equal provision that had nothing to do with the conflict between VQ Section 09911 and drawing ID-401. He ended the email with:

Further clarification should not be required. To the extent mis-information, erroneous, or misleading direction is contained in the RFP, appropriate corrections shall be accomplished in the award document(s).

(Finding 49) This statement makes little sense because, if "mis-information, erroneous, or misleading direction is contained in the RFP," how could clarification be "accomplished in the award document(s)," i.e., before award without "further clarification"? In any event there is nothing in the record that would allow us to interpret it differently – it is just meaningless for our purposes. Contrary to the last paragraph in the first 19 April 2005 email, Mr. Hillestad did provide "further clarification." He sent another email on the topic on 19 April 2005 where he clarified that "Triarch or equal product will only be applied to

at 222). We understand that technically Triarch is not traditional paint but this does not cause the confusion PE suggests.

the interior walls of the structures," not the ceilings. The subject of the email, "McGuire – VQ/TLF – Paint issue" makes it clear that this email applies to both the VQ and TLF. (Finding 49) Therefore, the last email notified bidders again that Triarch was to be used in both buildings. Although the AF created confusion by not providing the VQ CID before award and not unambiguously addressing the issue in the 19 April 2005 emails, this confusion does not change the fact that RFP 8234 required PE to include Triarch for both the TLF and VQ in its bid. This time, pre-award communications do not change the terms of the contract as the Q&As did in the structural brick claim.

Finally, PE contends in its brief that it and its subcontractors were misled into including Sherwin Williams paint for the VQ in their bids:

Meanwhile, paragraph 1.4 A in Section 09911 (R4, tab 89)^[121] continued to call for paint. Parsons and its subcontractor(s) followed that paint specification, although the specification also named a textured wall covering by Triarch. (R4, tab 89) Parsons included paint in its bid for the VQ walls and understood that any "mis-information, or misleading direction in RFP" would be accomplished later.

(App. br. at 224) PE cites to no evidence in the record supporting its contention that PE and its subcontractor(s) bids were misled into bidding based on Sherwin Williams "paint" and not Triarch in the VQ. Also, there are several problems with this argument. Section 09911, paragraph 1.4 A. does not "continue to call for paint." It specified "Duroplex – Triarch Industries." (Finding 42) The word "paint" is not used as narrowly as PE suggests. It is clear that "paint" is used to refer to both Triarch and Sherwin Williams traditional paint. Also, arguing that PE "understood that any 'mis-information, or misleading direction in RFP' would be accomplished later" is itself misleading. The actual language referred to is contained in emails and reads "To the extent mis-information, erroneous, or misleading direction is contained in the RFP, appropriate corrections shall be accomplished in the award document(s)" (finding 39). The words "later" and "in the award document(s)," i.e., at award, are not synonymous. The fact that in its brief the AF seems to accept PE's statement that it bid Sherwin Williams paint (gov't br. at 200) does not change the fact that there is no evidence in the record supporting PE's contention. There is, however, evidence that PE mistakenly under bid the VQ finishes using Testino's incomplete bid rather than Pro-Spec's bid with the complete scope (finding 50). This evidence does not support PE's argument that it and its subcontractors were misled and, as a result, bid Sherwin Williams paint.

Additionally, we consider the conflict between the VQ specification and the drawing to be a patent ambiguity. As such, PE had an affirmative obligation to inquire to the government about it. *NVT Technologies*, 370 F.3d at 1162 (if the ambiguity is

¹²¹ Section 09911, Rule 4, tab 89 is also included in RFP 8234 (R4, tab 2 at 1154).

patent, it triggers a duty to inquire); see also States Roofing Corp. v. Winter, 587 F.3d 1364, 1372 (Fed. Cir. 2009); Triax Pacific, Inc. v. West, 130 F.3d 1469, 1474-75 (Fed. Cir. 1997). If the government's response to an inquiry does not clear up the ambiguity, the duty to inquire continues. Phoenix Management, Inc., ASBCA No. 57234, 11-1 BCA ¶ 34,734 at 171,005 (Furthermore, when an offeror attempts, but the government's response fails, to resolve an ambiguous solicitation provision, the offeror has the duty to continue to seek to resolve that ambiguity.). We see no evidence in this record showing that PE clearly inquired in an attempt to clear up this patent ambiguity. Therefore, PE's interpretation must fail. NVT Technologies, 370 F.3d at 1162 (if an ambiguity is obvious and a bidder fails to inquire with regard to the provision, his interpretation will fail). PE is not entitled to the cost of purchasing and applying Triarch in the VQ.

Having found that RFP 8234 required the use of Triarch in both buildings does not end our analysis. After award the AF continued to create confusion over the use of Sherwin Williams paint in the VQ. The 100% VQ drawing ID401 still specified Sherwin Williams paint (finding 143). In response to RFI No. 43 the AF added to the confusion identifying Sherwin Williams paint be used in the VQ (finding 144). CO Brown approved ASI No. 13, written by PE, on 19 September 2007 identifying Sherwin Williams paint, not Triarch, for the VQ (finding 145). After approval of ASI No. 13, PE directed its painting subcontractor to start applying paint to the walls of the VQ (*id.*). It was not until 4 February 2008 that CO Brown directed the use of Triarch and on 15 February 2008 CO Cruz formally rescinded ASI No. 13 and directed that Triarch be used in both the TLF and VQ (finding 147). As a result of these actions, the AF is liable for all costs and critical path delays associated with its direction to use Sherwin Williams paint in the VQ.

As far as the costs of applying paint to the VQ we are left without any assistance from PE. This is because its "claim seeks only the cost overrun associated with changing VQ walls from paint to Triarch" (app. br. at 458). We carefully read PE's discussion of its Triarch claim in its brief (*id.* at 222-30, 457-59). We know that KLM installed Triarch in the VQ, however, because of PE's approach, there is no information allowing us to estimate the cost of applying the paint to the VQ. Therefore, although PE is entitled to recover the costs of applying paint to the VQ, we cannot determine quantum. This problem is caused by PE's demand that the Board decide both entitlement and quantum.

A total of 149 days elapsed between issuing ASI No. 13 on 19 September 2007 and rescinding it on 15 February 2008. However, we are only interested in the period from the start of painting to the rescinding of ASI No. 13. We believe this is an appropriate period to use for calculation of this delay. According to the Review Period 8 as-built schedule applying paint to the VQ walls in area B started on 26 January 2008¹²² and it was on the critical path (R4, tab 3004 at 44). PE's 1 February 2008 letter states that at

¹²² The as-built schedule for Period 9 changes this to "Paint Ceilings Area B" so we do not know precisely when the wall painting was stopped but painting was on the critical path and preceded the application of Triarch (R4, tab 3004 at 47).

that time painting in the VQ was progressing (finding 146). ASI No. 13 was rescinded on 15 February 2008. There were 20 days between 26 January 2008 and 15 February 2008. Based on the incomplete record before us, we conclude that the AF is responsible for these 20 days of critical path delay caused by the AF's direction to apply Sherwin Williams paint to the VQ.

The 20-day critical path delay between 26 January 2008 and 15 February 2008 falls within period three, Acceleration & Vertical Construction, where the daily rate was \$13,548 (finding 223). The extended overhead is therefore \$270,960 (20 x \$13,548). Again we follow DCAA's calculation to markup:

Description	Audit Determined Rate	Amount w/ Markup
Extended Overhead		\$270,960
Markups		
Bond	0.6375%	\$1,727
GL & BR Insurance	0.8316%	\$2,253
Subtotal		\$274,940
Composite G&A	2.8600%	\$7,863
Expense	·	
Profit	10.0000%	\$27,494
Total		\$310,297

Stormwater Detention Pond and Underground Storage (\$248,390)¹²³

PE contends that the VQ detention pond was properly designed using the 24 November 2003 PSA geotechnical report that located the groundwater at approximately 5 feet below the bottom of the pond. When the pond failed to drain, ESA found that the groundwater had risen to within a foot of the bottom of the pond. PE contends this was a differing site condition that entitles PE to be reimbursed for the additional cost to construct the underground detention system. (App. br. at 257-59) The AF spends little time on this issue in its brief and takes the position that the requirement was a performance specification and that the pond failed to meet the performance requirements due to poor design (gov't br. at 325-26).

During the development of the 35% drawings the stormwater detention pond was discussed (findings 14, 51-55). MAFB engineers expressed concerns about standing water that would attract birds close to the runway (finding 51). There was direction from MAFB that the surface pond be removed from the 35% design (findings 52, 55). However, the AF decided to leave the surface detention pond in the design due to cost considerations (finding 55).

¹²³ This amount was not identified in quantum section K of PE's brief. The amount comes from the entitlement section (app. br. at 249).

The 35% design drawing package, dated 18 May 2004, included drawing C-106, Storm Drainage and Grading Plan, that showed the stormwater detention basin (pond). A note on the drawing states that, during the final design phase, a detailed hydraulic analysis "shall be conducted" and that other options such as underground storage could be considered (finding 14). We conclude that the AF left the surface pond in the 35% design, knowing that the MAFB did not allow such ponds (findings 51-55). Accordingly, bidders were entitled to bid based on the surface detention pond shown on the 35% drawing C-106. Although the drawing note provided that other options could be considered, there is nothing in the note or contract that required the contractor to provide other more costly options at no cost to the AF. We also note that we found nothing in the 35% design requiring that the pond drain within a certain period of time. However, PE seems to agree that the pond was supposed to drain in 72 hours (finding 141) so we find that the pond was supposed to drain within 72 hours.

PE hired ESA to develop the 100% for construction detention pond design (finding 139). ESA's design is shown on 100% design For Construction Drawing C-106 and includes a boring log at one site adjacent to the pond (finding 140). It is important to remember that this boring was done after award of contract 8703. The boring found groundwater at about 5 feet below the bottom of the pond (id.). This was consistent with the findings of site boring samples included in PSI's pre-award 24 November 2003 geotechnical report (finding 57). In the fall of 2006 there was a "hundred year storm" and the pond did not drain (finding 141). ESA determined that the groundwater level was much higher, about a foot under the bottom of the pond (*id*.). PE contends this was a differing site condition for which it is not responsible (app. br. at 258-59). A differing site condition does not apply in this situation because the site condition found after award in the ESA boring was the same as the site condition described before award in the PSI geotechnical report (findings 57, 140). That is, the groundwater was approximately five feet below the bottom elevation of the pond both before and after award. It was not until the "hundred year storm" that the groundwater rose to within a foot of the bottom of the pond apparently preventing the pond from draining properly. The Board has held that a post award "act of God" such as severe weather is not a differing site condition:

> However, "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." *Commercial Contractors Equipment, Inc.*, ASBCA No. 52930 *et al.*, 2003-2 BCA ¶ 32,381 at 160,255. Moreover, the differing site conditions clause protects a contractor from undisclosed or unknown site conditions that predate the contract, not something occurring thereafter. *See John McShain, Inc. v. United States*, 375 F.2d 829, 179 Ct. Cl. 632 (Ct. Cl. 1967) (addressing predecessor changed

conditions clause); Commercial Contractors Equipment, 03-2 BCA ¶ 32,381 at 160,258.

PBS&J, 14-1 BCA ¶ 35,680 at 174,653.

Although PE cannot rely on differing site condition as the cause of the pond's failure to drain, the fact is that MAFB would not allow a surface pond (findings 52, 54-55, 142). Also, after the pond failed to drain, the AF took the position that the pond had to drain "continuously" (finding 142). First, we find that by keeping the surface pond in the design after being told to remove it by MAFB authorities, the AF assumed the risk that the surface pond would not be allowed by MAFB after award of the contract. Second, we find that the AF changed the requirement for a surface pond that would drain in 72 hours to continuous draining. There is no evidence in the record that continuous draining was either possible or acceptable to MAFB.

It is true that PE installed the underground system without AF advance approval (finding 142) but this does not shift liability to PE. It is obvious from this record that the AF would not agree to pay for the underground system. In its brief, the AF mentions note 3 on drawing C-106 that suggests "underground detention" as an option that could be considered during final design (gov't br. at 325; R4, tab 1746, sheet 8). The AF seems to imply, without arguing, that "underground detention" should be a no-cost option. As we stated above, PE was entitled to base its bid on the 35% design surface detention pond and there is nothing in the note or in the contract that required the PE to construct a more costly alternative at no additional cost to the AF. The AF and MAFB put PE in an impossible position, on one hand the AF specifying the surface pond and on the other MAFB prohibiting the surface pond. We find that, under these circumstances, the only reasonable option for PE was to build the underground detention system without AF approval and file a claim. The AF is liable for the additional cost of the underground system.

The underground detention costs are included in PE's buyout claim discussed below. PE subcontracted with Robert E. Haas, Inc., to construct the underwater detention system for \$248,390 (finding 142). PE claims two different amounts for this work, \$248,390 (app. br. at 244, 256) and \$253,015 (*id.* at 249). The difference is a change order for \$4,625 (*id.*). However, in support of the change order, PE cites us to a spreadsheet that is cut off on the left margin so we cannot verify the change order (R4, tab 3003 at 175). Therefore, we accept the \$248,390 as the amount that the AF is liable for PE's building the underground system. Mr. Evans does not contend that the underground detention system caused critical path delay so we find that there was no excusable compensable delay associated with the underground system.

Balance of Construction (\$20,676,990)¹²⁴

This claim is comprised of six separate elements: Subcontractor Buyout Overruns (\$4,068,798); Subcontract Change Orders (\$5,672,525); Miscellaneous Construction Costs Credits (\$800,506); Extra Work Coded During Project (\$2,593,064); Jobsite Overhead/Constructive Acceleration/General Conditions (\$4,614,438); and Added Costs Due to Rejection of "Structural Brick" design (\$1,906,401).¹²⁵ There is also a 29-day delay claim. We consider each of these below.

Subcontractor Buyout Overruns (\$4,068,798)

Subcontractor "buyout" is when PE and its subcontractors agree to final negotiated fixed-price subcontracts (finding 163). PE's EPR recognized risks in quality of subcontractor pricing, material price escalation, price to buyout and managing scope of completion (finding 58). Prior to submitting its proposal PE planned to require its subcontractors to hold their bid open for 120 days and that "volatile materials such as concrete and steel" would be purchased within the 120 days and stored either on site or in bonded and insured warehouses (id.). We find that PE knew about material price escalation before submitting its bid. PE's bid was based on subcontract prices that were not "indefinite" and most subcontractors said if costs increased they would pass the costs on to PE (finding 163). There is no explanation why PE accepted bids with this condition imposed. PE could have insisted on firm bids and allowed the subcontractors to price the risk. PE's initial schedule indicated PE planned to complete all buyouts by 3 November 2005 (finding 70). PE argues it could not adhere to this schedule because of various delays. PE's buyout overrun claims are generally based on the difference between subcontractor's bids and the actual final negotiated subcontract prices (finding 164). These are therefore, total cost claims¹²⁶ that are disfavored by courts. *Custom Blending & Packaging, Inc.*, ASBCA No. 49819, 00-2 BCA ¶ 31,083 at 153,479 ("The total cost method is a disfavored means of measuring a contractor's recovery."). We consider the subcontractors' warning that future increased costs will be "passed on" to PE both inconsistent with fixed-price contracting and an incentive to PE to "buy-out" the subcontracts as soon as possible.

A contractor is entitled to recover for cost escalation if it can prove that government-caused delay pushed performance into a time when costs had escalated. *ADT Construction Group, Inc. by Timothy S. Cory, Chapter 7 Trustee*, ASBCA No. 57322, 15-1 BCA ¶ 35,893 at 175,470-71. However, liability for escalation caused by government caused delay is different from escalation caused by a contractor's failure to lock in fixed-priced contracts (buyout) in a timely manner.

¹²⁴ This amount includes mark-up (app. br. at 234).

¹²⁵ These amounts do not include mark-up.

¹²⁶ We do not consider this inconsistent with our determination in the design impact claim discussed above that the claim was not a MTC claim.

An earlier ADT case dealt with a "buyout" scenario similar to PE's. See ADT Construction Group, Inc. by Timothy S. Cory, Chapter 7 Trustee, ASBCA No. 55358, 13 BCA ¶ 35,307.¹²⁷ This ADT case involved the default of a firm-fixed-price design-build contract. Id. at 173,291. ADT argued that, due to government-caused delay "it was not able to finalize subcontracts in April 2004 but had to wait until late 2004 when costs had risen considerably in southern Nevada." Id. at 173,300. ADT contended it was not able to finalize its subcontracts until it received an approved design in the latter part of 2004. The increased costs at buyout caused ADT to default. The Board denied ADT's appeal. The Board identified "two fundamental questions" in ADT: "The first is whether ADT really had to wait until November and December 2004 to buyout its subcontractors. If it did, the second question is whether that delay increased the cost of the subcontracts, and, if so, to what extent. Appellant has not convinced us that the timing of its subcontracting was solely the result of government actions or that its quantification of the claimed increase in costs is defensible." ADT, 13 BCA ¶ 35,307 at 173,320. We focus on the first question, whether PE really had to wait to enforce buyout on its subcontractors. In ADT, we found that the contractor had not proven that it had to wait as long as it did to buyout subcontractors:

> Based on the record before us, we believe that costs were increasing in southern Nevada in 2004. We also accept the argument that subcontracting before design approval would have left appellant with some uncertainties, but it also included inherent risks it should have contemplated at time of bid. What we are doubtful about is the extent to which it can be said either that appellant was unaware of the apparently rapidly rising costs, Bayou Culvert Mfg., Inc., AGBCA No. 400, 76-1 BCA ¶ 11,796 at 56,306 ("A 'contractor is charged with knowledge of the state of his industry at any given time.""), or that there was no alternative to entering into subcontracts when it did. ADT's May 2003 price and technical proposal listed "named" construction subcontractors and noted that appellant had entered into agreements with them (finding 3). While we understand that the price of those subcontracts may not have been finalized, appellant knew, to some extent, early on who it was going to contract with and what those subcontractors were going to do. We see nothing in the record that demonstrates ADT could not have subcontracted earlier than it did or even moved toward more fixed arrangements with its proposed subcontractors. Cf. Yankee Telecommunication Laboratories, Inc., ASBCA

¹²⁷ Neither party discussed ADT in their briefs.

No. 25240 *et al.*, 85-1 BCA ¶ 17,786 at 88,873 ("The 'notion that a bidder has no responsibility to obtain firm commitments before bidding is not tenable.").

Id. at 173,321. PE had a design-build contract, just as ADT, and we reach the same result.

Inherent in the Board's decision was the recognition that ADT's contract was firm-fixed-price as is PE's. *Lakeshore Engineering Services, Inc. v. United States*, 748 F.3d 1341, 1347 (Fed. Cir. 2014) ("The essence of a firm fixed-price contract is that the contractor, not the government, assumes the risk of unexpected costs."). In *Commissioning Solutions Global, LLC*, ASBCA Nos. 57429, 57494, 13 BCA ¶ 35,355 we stated:

The fixed-price nature of the PO provisions supports the CO's refusal to increase the PO price. See Naughton Energy, Inc., ASBCA No. 33044, 88-2 BCA ¶ 20,800 at 105,073 (contractor bears the risk of fluctuating marketplace prices in a fixed-price type contract); Nedlog Co., ASBCA No. 26034, 82-1 BCA ¶ 15,519 at 76,986 (risk of greatly increased costs, unanticipated and unprovided for in the contract price, is on the contractor in a fixed-price contract).

Id. at 173,531. PE competed for and won a firm-fixed-price contract where only 35% of the design was completed. The trial judge asked Mr. Rusing, the AF design-build expert (tr. 18/112), how such a contract could be priced. Mr. Rusing testified that prime contractors try to deal with subcontractors that are familiar with design-build and give them as much information on the structure and systems as possible and then have them involved in the development of the 100% design (tr. 18/138-39). From our perspective agreeing to a fixed-price construction contract based on only a 35% design has to carry significant risk.

In its brief PE explains "The primary reasons why Appellant seeks reimbursement for these [buyout] overruns" are the delays caused by the structural brick matter, foundation NTP, differing site conditions (unsuitable fill, organic layer, and asbestos pipe), the "shopping list," government design changes, government funding shortfalls, and price escalation due to Hurricane Katrina and the "hot Chinese construction market demand" (app. br. at 235-36, 242).

We consider competition from China first. In *ADT* the Board imposed an obligation on ADT to know about the price escalation in Nevada at the time and deal with it. Just as in *ADT*, PE put on no persuasive evidence to support a finding that competition for materials from China was not foreseeable before 27 April 2005 when PE submitted its bid. Indeed, as early as March 2005 PE identified "price escalation of materials prior to buy-out" as a risk in its EPR (finding 58). PE planned to require

subcontractors to leave their bids open for 120 days during which time "volatile materials such as concrete and steel" would be purchased and stored for future use (*id.*). Also, Mr. Rusing documented in his expert report that in 2004 to 2005 the construction industry experienced extreme escalation in material and labor costs (finding 166). We find that PE knew about price escalation before it submitted its bid and should have dealt with it.

Concerning Hurricane Katrina, the AF makes a good point in its reply brief. DO 13 was awarded on 13 July 2005 and Hurricane Katrina occurred less than two months later (gov't br. at 475). The adverse effects of Katrina occurred well before any delays were experienced on the contract. Also Hurricane Katrina was an unforeseeable Act of God. The AF is not liable for price escalation caused by Katrina. *Maggie's Landscaping, Inc.*, ASBCA Nos. 52462, 52463, 04-2 BCA ¶ 32,647 at 161,565 (government not liable for unforeseen circumstances such as an Act of God); *E.W. Jackson Contracting Co.*, ASBCA No. 7267, 1962 BCA ¶ 3325 at 17,133 ("It is a well settled principle of law that neither party is responsible to the other for damages occasioned as a result of an Act of God, unless such obligation is expressly assumed.").

Concerning the structural brick portion of the delay, PE failed to prove that this delay somehow prevented it from buying out its subcontracts in 2006.

Buyout should be dependent on the state of completion of design not actual construction. Mr. Temchin testified that the earthwork delays had "a significant negative effect in our ability to buy-out the packages" and that PE could not buyout subcontracts until a final schedule was agreed to, "Without the schedule, we couldn't lock in the contract" (finding 166). This testimony contradicts his earlier testimony that what was needed for buyout was the 100% design, he made no mention of a final schedule (finding 163). We agree with his earlier testimony. We disagree that a final schedule is needed, because changes in schedule are almost inevitable in construction contracts and increased costs may be dealt with under the changes clause. Also, the chronology of the design work does not support PE's position. The 65% drawings are dated 14 November 2005 and include the 100% civil/structural design (finding 165). Therefore, by November 2005 PE should have bought out all of its contractors involved in horizontal work. The delay associated with clean site (contaminated soil) started on 7 July 2006 (finding 96). The unsuitable fill was not discovered until mid-August 2006 starting the earthwork delays (findings 103-04). Therefore, these delays did not affect buyout of the contractors performing "civil/structural" work that could have been bought out on or before¹²⁸ 14 November 2005. PE was able to buyout "Giberson 2" on 31 October 2005 for "earthwork, underground utilities, storm, site concrete, parking lot subgrade, landscaping, and site furnishings," but there are only two other buyouts in

¹²⁸ We say before because the subcontractors responsible for that work should have been working with PE in developing the drawings.

2005 (finding 164). PE should have dealt with all of its subcontractors as it did with Giberson 2.

The 95% drawings for vertical work are dated 17 May 2006 before the stop-work orders associated with clean site and unsuitable fill (findings 96, 103-04, 165). Since the subcontractors were supposed to be assisting PE in the design there is no evidence that buyouts could not have been completed before the finalization of the 95% design in May 2006. The 100% drawings are dated 24 July 2006 (finding 99) only a couple weeks after the clean site stop work order. We do not agree that PE could not have bought out all of its subcontractors on or before when the 100% designs were completed on 24 July 2006. Indeed, 20 out of the 45 buyouts were completed before the end of 2006 and 25 occurred in 2007 and 2008 (finding 164). The timing of the earthwork delays post-dates the time when we believe PE should have bought-out its subcontractors. PE did not address this timing problem in its testimony or briefs. Essentially, waiting to buyout subcontractors reduces risk to the subcontractors and increases risk to PE, not the AF. It essentially creates what is analogous to cost contracts with PE's subcontractors.

In conclusion, PE represented itself as having experience in design-build contracting. PE signed a fixed-price contract with only 35% of the design completed. We have 65% drawings dated 14 November 2005 and 95% drawings dated 17 May 2006, before the first indication of earthwork delays, and no evidence why buyout could not have been completed in this time frame. PE's buyout activity lasted until October 2008 (finding 164). We have found that escalation problem caused by competition for materials from China was foreseeable and escalation caused by Hurricane Katrina was an Act of God for which the AF is not liable. We do not agree there was no alternative to PE's buying out subcontracts when it did. *ADT*, 13 BCA ¶ 35,307 at 173,320. Based on this conclusion, we need not address PE's other items of delay: the shopping list, AF funding shortfalls, AF design changes, and foundation NTP. This record simply does not support PE's argument that it acted in a prudent manner and the AF should be liable for its buyout overruns. Essentially, PE lost control of its subcontractors and that is not the AF's responsibility. PE's buyout claim is denied except for the stormwater detention matter discussed above.

Subcontract Change Orders (\$5,672,525)

Since PE chose not to introduce testimony on each of these 118 change orders due to time constraints at the hearing, this aspect of its claim is essentially a record submission. PE argues that "its analytical breakdown of the change orders (by cause), accompanied by supporting testimony of Jordan Rosenfeld and Dick Cardinale et al., should be sufficient to establish a prima facie case that the change orders have been properly sorted by their underlying causes, shifting the burden to the Air Force to challenge the contractor's summary" (app. br. at 264). We disagree. Without knowing precisely how Mr. Rosenfeld and Mr. Cardinale arrived at their allocation of liability to the government for each of the 118 change orders, we would have to "take their word for it" that their allocations are correct. This we will not do. The "supporting testimony" is helpful in some cases but not nearly enough to shift the burden of proof. PE's approach to these 118 change orders assumed considerable risk that we would have unanswered questions resulting in our finding of failure of proof (FOP) for many of the change orders. Each change order must stand on its own and we decided if the record, such as it is, supported PE's allocation of responsibility. We reviewed each of the 118 change orders and presented our results in tabular format (finding 168). Our findings corroborate our conclusion that Mr. Rosenfeld's and Mr. Cardinale's allocation of responsibility was not always self-evident. Based on our analysis of individual change orders we found that PE is entitled to \$2,009,426 for its change order claim (*id.*). To that we add markups:

Description	Audit Determined Rate	Amount w/Markup
Overhead/General Cond.		\$2,009,426
Markups		
Bond	0.6375%	\$12,810
GL & BR Insurance	0.8316%	\$16,710
	Subtotal	\$2,038,946
Composite G&A	2.86%	\$58,314
Profit	10.00%	\$203,895
	Total	\$2,301,155

Miscellaneous Construction Cost Credits (\$800,506)

In this section PE explains several credits that it gave to the AF. Since these credits have apparently already been applied (app. br. at 234) we need not address this matter further.

Extra Work Coded During Project (\$2,593,064)

PE's cryptic argument presented very little documentary or testimonial support for this aspect of its claim (app. br. at 313-17). Nevertheless, we find that the AF effectively conceded the matter in its brief. Therefore, we accept the fact that PE accurately captured its costs for these cost codes. We briefly address entitlement in each claim category below.

Claim Preparation (\$1,840,112)

PE argues it is entitled to recover what it characterizes as "claim prepration costs" because they were incurred before its "claim was certified and submitted to the Contracting Officer on June 29, 2012" (app. br. at 314). The date of certification is

hardly the determining factor. Virtually all claim preparation costs are incurred before certification. The inquiry is:

In considering such claims, the Federal Circuit directed the Board to examine the objective reason why the contractor incurred the cost. If the contractor incurred the cost for the purpose of materially furthering the negotiation process, the cost normally is allowable under FAR 31.205-33 as a contract administration cost even if the negotiation ultimately fails. On the other hand, if the cost is incurred to promote the prosecution of a claim, then the costs are unallowable.

Vistas Construction of Illinois, Inc., ASBCA No. 58479 *et al.*, 16-1 BCA ¶ 36,236 at 176,797. PE's "proof" that it is entitled to these costs is "[t]he reasonableness of those costs was never challenged in this appeal, and their award is authorized pursuant to FAR 31.205-33" (app. br. at 314). PE adds nothing more in its page long quantum argument, effectively referring back to its entitlement section quoted above (*id.* at 473-74). PE totally failed to meet its burden of proof that this "claim" cost was incurred "for the purpose of materially furthering the negotiation process." This claim is denied.

Response to Cure Notices (\$71,015)

The record contains two cure notices issued on 9 August 2006 and 31 May 2007 (findings 101, 126). The first notice listed seven deficiencies: failure to develop a project schedule, lack of cut and fill calculations, lack of sufficient labor, lack of responsiveness relating to TLF subsurface conditions, design deficiencies relating to parking lot, failure to give notice of steel delays, and failure to provide pricing for the changes to be incorporated into the design, i.e., the "shopping list" (finding 101). The second cure notice listed three deficiencies: failure to provide a proposal as outlined in the RFP, dated 1 November 2006, for Shopping List Items, delays in the schedule, and failure to ensure timely delivery of the steel trusses for the VQ (finding 126).

As is the case with most cure notices the contractor is warned that the government considers the failure to comply with the terms of the contract to be a condition that is endangering performance of the contract. The problem with these cure notices is that the "shopping list" was not a term of the contract. The AF had no valid reason to include the shopping list in the cure notices. It was an inappropriate use of a cure notice to coerce a contractor to do something that is not required by the contract. We sustain PE's claim, but only for that portion of the amount claimed that relates to the shopping list.

Unfortunately, PE gives us no help in estimating a reasonable amount caused by the shopping list. The only support for this claim provided by PE was reference to a summary

at Rule 4, tab 3146. This is a one-page summary that is identical to that in PE's brief (app. br. at 314). Rule 4 tab 3146 directs us to Note 8, Sutor Schedule 5-1b, which is Mr. Rosenfeld's 10 October 2014 Rebuttal Report. When we go to the report we find Schedule 5-1 (R4, tab 3003 at 170). Although PE provides us no assistance, we tried to fill in the blanks by going page by page through Schedule 5-1 and could not find Schedule 5-1b or Note 8. We have done more than called for given it is PE's burden of proof. Although we found entitlement above, we are unable to determine quantum, and thus make no award.

Delays in Issuance of NTPs (\$63,021)

Although we found that there was no requirement for the AF to issue a design NTP, it in fact issued one on 25 July 2005 with an effective date of 13 July 2005 (finding 68). The AF issued a LNTP for earthwork on 27 March 2006 (finding 89). The next LNTP was issued on 6 June 2006 for work affecting underground utilities and various site work not including foundations (finding 94). The unlimited NTP was issued on 10 July 2006 (finding 98). PE argues that this unlimited NTP should have been issued in April 2006 when the 95% design drawings were finalized. We have already found that PE is entitled to 70 days of compensable delay in issuing the LNTP for the VQ foundation work (see pages 198-99). PE fails to explain its position nor does it cite to any documentary or testimonial evidence in the record in support of this additional NTP claim. PE failed to meet its burden of proof on this aspect of its claim. This NTP claim is denied.

Tiger Team Recovery Efforts (\$230,342)

While we found that there was constructive acceleration and are willing to compensate PE for associated costs, PE failed to develop the record sufficiently for the Board to find that the "Tiger Team" costs were caused by the acceleration. PE only refers to "Tiger Team" in two pages of its brief, pages 314 and 473, without any analysis supported by proof. PE failed to meet its burden of proof for this aspect of its claim. This Tiger Team claim is denied.

Increase Mgmt. of Acceleration (\$107,181)

Having found constructive acceleration, and there being no AF response to this claim we will accept PE's characterization of these costs. We find that the AF is liable for the \$107,181 cost caused by acceleration. We add burden:

Description	Audit Determined Rate	Amount w/Markup
Overhead/General Cond.		\$107,181
Markups		
Bond	0.6375%	\$683
GL & BR Insurance	0.8316%	\$891
	Subtotal	\$108,755

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Composite G&A	2.86%	\$3,110
Profit	10.00%	\$10,876
	Total	\$122,741

Preparation of Revisions to REAs (\$51,697)

This REA claim is similar to the "claim" costs denied above. In *AEI Pacific, Inc.*, ASBCA No. 53806, 08-1 BCA ¶ 33,792, we discussed REA preparation costs:

> The costs of professional and consultant services are unallowable if they are incurred in connection with the prosecution of a claim against the government. FAR 31.205-47(f)(1). In making this determination, we look to see whether the costs were incurred "for the genuine purpose of materially furthering the negotiation process." *Bill Strong Enterprises, Inc. v. Shannon,* 49 F.3d 1541, 1550 (Fed. Cir. 1995), *overruled in part on other grounds by Reflectone, Inc. v. Dalton,* 60 F.3d 1572 (Fed. Cir. 1995).

Id. at 167,284. In *AEI* we decided that because the "REA was submitted long after AEI had ceased work on the contract and AEI has not pointed to any on-going negotiation process between the parties which would require such services" AEI's REA preparation costs were unallowable. *Id.* We follow this logic here. PE's REA's were submitted on 24 December 2008 after BOD (R4, tabs 1536-38). They deal with "Maladministration of the Closure Inspection Process" (R4, tab 1536), "Tri-Arch Paint" (R4, tab 1537) and "Differing Site Conditions along the High Temperature Hot Water Pipeline Alignment" (R4, tab 1538). We denied PE's claim for the cost of Triarch, so those REA costs would not be recoverable. We agreed with PE's claims relating to the HTHW differing site conditions and closure inspection process. However, PE failed to put on any evidence that meets the criteria of *AEI*, that there was an "on-going negotiation process between the parties which would require such services." Therefore, PE failed to meet its burden of proof. This REA claim is denied.

Extra Warranty Work (\$154,918)

PE fails to provide any details of what this work was, nor does it cite to any documentary or testimonial evidence supporting this claim. PE failed to meet its burden of proof. This extra warranty work claim is denied.

Response to Noise Level Concerns (\$72,500)

The contract required PE to provide vibration isolation for mechanical room equipment (finding 178). The contract does not specify a measurable noise level for the guest rooms. Mr. Rola seems to be the only person asserting that the noise level in the

TLF guest room above the mechanical room was unacceptable (finding 179). However, there is no credible, objective proof that such was the case. Mr. Kissler's statement that PE's contract did not require it to insulate the mechanical room was correct – all that is required is "vibration isolation" for the equipment (findings 178-79). There is no allegation that PE did not provide vibration isolation for the equipment in the mechanical room. Ultimately, the AF conceded that there was no noise problem above the mechanical room (finding 179). We find Mr. Rola's concerns were unjustified. The AF is liable for the \$72,500 incurred by PE in attempting to placate Mr. Rola. We apply markup:

Description	Audit Determined Rate	Amount w/Markup
Overhead/General Cond.		\$72,500
Markups		
Bond	0.6375%	\$462
GL & BR Insurance	0.8316%	\$603
	Subtotal	\$73,565
Composite G&A	2.86%	\$2,104
Profit	10.00%	\$7,357
	Total	\$83,026

Miscellaneous Other Work (\$2,280)

PE fails to provide any details of what this work was, nor does it cite to any documentary or testimonial evidence supporting this claim. PE failed to meet its burden of proof. This claim is denied.

Jobsite Overhead/Constructive Acceleration/General Conditions (\$4,614,438)

PE characterized this claim as "increased general condition costs" (app. br. at 474-75), however, we consider only increased general condition costs caused by constructive acceleration. Constructive acceleration occurs when the government requires a contractor to adhere to a performance schedule even though the contractor is entitled to an extension due to excusable delay. *Fraser Construction Co. v. United States*, 384 F.3d 1354, 1361 (Fed. Cir. 2004). There are generally five elements of acceleration:

(1) [T]hat the contractor encountered a delay that is excusable under the contract; (2) that the contractor made a timely and sufficient request for an extension of the contract schedule; (3) that the government denied the contractor's request for an extension or failed to act on it within a reasonable time; (4) that the government insisted on completion of the contract within a period shorter than the period to which the contractor would be entitled by taking into account the period of excusable delay, after which the contractor notified the government that it regarded the alleged order to accelerate as a constructive change in the contract; and (5) that the contractor was required to expend extra resources to compensate for the lost time and remain on schedule.

Id. In *Fraser*, the court cited *Norair Eng'g Corp. v. United States*, 666 F.2d 546, 548 (Ct. Cl. 1981), that compressed "these five requirements into three essential elements excusable delay, an order to accelerate, and acceleration with attendant costs." *Fraser*, 384 F.3d at 1362. An "order to accelerate" is satisfied by the imposition or threat to impose liquidated damages. *States Roofing Corporation*, ASBCA No. 54860 *et al.*, 10-1 BCA ¶ 34,356 at 169,665 (quoting *Norair*, 666 F.2d at 549) (An order to accelerate "need not be couched in terms of a specific command. A request to accelerate, or even an expression of concern about lagging progress, may have the same effect as an order."); *Norair*, 666 F.2d at 549 ("In short, while the Government recognized that some delays were validly excusable, it did not say which, and left it very clear that it disagreed with plaintiff as to the amount; therefore, plaintiff could have been required to accelerate work beyond what it thought was the proper rate (allowing for excusable delays) to avoid the risk of liquidated damages."); *Fischbach & Moore Int'l Corp.*, ASBCA No. 18146, 77-1 BCA ¶ 12,300 at 59,228. We apply the three element test herein.

The AF extended the period of performance from 9 July 2007 to 27 December 2007 by Mod. 3 (finding 124). In our decision above, we found a cumulative excusable/concurrent delay of 332 days (70 days for horizontal NTP, 28 days for clean site concerns, 182 days for unsuitable fill, organic material and asbestos pipe, and 20 days for Sherwin Williams paint application in the VQ, and 32 days¹²⁹ of critical concurrent delay for SSMR/Truss). The 332 days runs concurrently with the 171 days in Mod. 3 so we use 9 July 2007 as the starting point in this analysis. The government may contend that, because of Mod 3's extension of time to perform, the acceleration only occurred after 27 December 2007. However, Mod 3 imposed *de facto* liquidated damages through the credit it required of PE. Therefore, PE was entitled to 332 days excusable delay starting from 9 July 2007 for a delivery date of 5 June 2008. The first element is satisfied. The AF refused to extend the 27 December 2007 delivery date and informed PE that liquidated damages would commence on 28 December 2007 (finding 162). The second element is satisfied. PE claims \$4,614,438 in direct costs it incurred due to the acceleration. The third element is satisfied. We find that PE is entitled to recover an amount for increased jobsite overhead/general condition costs caused by constructive acceleration.

The \$4,614,438 is made up of fourteen costs (three labor and eleven non-labor) resulting from "[t]he ripple effect of multiple delays and impacts [which] forced Parsons to

¹²⁹ See pages 153-54 of this decision.

resequence, accelerate, and incur project management and administration costs far exceeding those reasonably anticipated at bid time" (app. br. at 474). We will not repeat the list here. The primary evidence supporting this claim are Rule 4, tab 3148, and PE's hearing exhibit 19. Rule 4, tab 3148, consists of a summary sheet, twelve sheets of accounting data and two graphs showing man hours and employees from 2005 to 2008. Hearing exhibit 19 is an overall claim summary that includes pages supporting this claim cited by PE in its brief. We held above that PE is entitled to recover increased costs incurred due to the constructive acceleration. The data shown in Rule 4, tab 3148 and hearing exhibit 19 and our finding of constructive acceleration proves that PE suffered damage. The \$4,614,438¹³⁰ is made up of \$3,124,000 in labor costs and \$1,490,438 in non-labor costs (app. br. at 475). We deal with the labor costs first. We rely on one chart in Rule 4, tab 3148 at 14 that shows staffing hours by date. We only allow PE to recover for the costs incurred during the acceleration period. PE identified the acceleration period as from 1 September 2007 to 31 May 2008 (app. br. at 482). The acceleration period is indicated at the bottom of the chart. The chart shows the highest labor hours during the acceleration period. We estimate from the chart that two thirds of the labor was caused by the acceleration.¹³¹ Therefore, we believe a fair and reasonable estimate of the labor costs during the acceleration period is two thirds of the claimed labor costs or \$2,080,584 (.666 x \$3,124,000). As for the non-labor costs we do not have a chart or anything else to assist us is determining fair and reasonable estimate of increased cost incurred during the acceleration period. However the acceleration period included winter months. It is clear to us that the excusable delay caused PE to perform work during winter that it had planned to perform in milder months. Mr. Cardinale testified about heaters "all over both facilities" and scaffolding, tenting and equipment used to heat the buildings so work would proceed (tr. 5/154). Therefore, we deny the non-labor costs except for the winter heat cost of \$493,196. The total amount we allow for jobsite overhead/general conditions is 2,573,780 (2,080,584 + 493,196). We apply the standard markups¹³² to this amount as follows:

Description	Audit Determined Rate	Amount w/Markup	
Overhead/General Cond.		\$2,573,780	
Markups	· · ·		
Bond	0.6375%	\$16,408	
GL & BR Insurance	0.8316%	\$21,404	
	Subtotal	\$2,611,592	
Composite G&A	2.86%	\$74,692	
Profit	10.00%	\$261,159	
	Total	\$2,947,443	

¹³⁰ PE states that this amount is "excluding markups" (app. br. at 474).

¹³¹ If PE believes we have misinterpreted this data, it is because PE failed to adequately explain it to us in its brief.

¹³² PE states that the claimed amount for jobsite overhead excluded markups (app. br. at 474).

Added Costs Due to Rejection of "Structural Brick" Design (\$1,906,401)

Earlier in this decision we found that the AF was liable for the additional cost of design and construction required to make the VQ resist progressive collapse. We found the AF liable for \$722,176 in design costs relating to progressive collapse. In its brief for this part of the claim PE stated its "structural engineers [had] to develop a series of costly changes to other parts of the VQ building to support the (unnecessarily) heavy structure against potential progressive collapse" (app. br. at 323). These construction costs are what we found the AF liable for, but we have yet to arrive at quantum. Rather than tracking these construction costs directly, PE chose to quantify this claim with Mr. Tengler's 6 October 2014 estimate of cost savings for using the structural brick in place of the double wall design (app. br. at 3223; R4, tab 3154). Mr. Tengler used the "RSMeans data base" and took out "quantities of impacted work and applying time savings that would have been realized" (tr. 4/98). We see no logical relationship between such an estimate of cost savings and the actual increased cost of construction solely attributed to what was needed to modify the VQ to resist progressive collapse. We note that the cost savings occasioned by the change to structural brick addressed more than just progressive collapse (finding 78). Mr. Bennett testified that the structural brick design change was intended in part to address progressive collapse (finding 73). PE proved itself capable of tracking costs for differing site conditions (unsuitable fill, organic layer, asbestos pipe and HTHW installation problems) all of which occurred before the structural modifications to the VQ. We do not understand why PE did not do the same for progressive collapse. We do not accept Mr. Tengler's estimate of \$1,906,401 as an accurate quantification of the additional construction costs required to make the VQ resistant to progressive collapse. We agree that PE is entitled to recover these construction costs, but it is PE's burden to prove the amount. Mr. Tengler's estimate does not meet that burden. We have sustained entitlement but deny the quantum claim based on Mr. Tengler's cost savings estimate of \$1,906,401. We are unable to calculate the amount PE is entitled to. This is another situation caused by PE's insistence that we decide entitlement and quantum, while failing to present adequate evidence on quantum.

Balance of Construction Delay

PE claims \$449,943 for a 29-day delay in its quantum section discussing its "Balance of Construction Phase" (app. br. at 483). PE failed to cite us to the location of its discussion of this 29-day delay in its entitlement section. However, we were able to find it in PE's analysis of its delay "Review Periods."¹³³ Apparently the 29 days is made up of 21 days in Review Period 7 (app. br. at 372-73), and 8 days in Review Period 8 (*id.* at 373-75). The 21-day delay was "due to late installation of the standing seam metal roof" (R4, tab 3004 at 43). The delay is depicted in Mr. Evans' Figure 15, Review Period 7

¹³³ These Review Periods correspond to Mr. Evans' expert report (R4, tab 3004).

As-Planned and As-Built Schedule (*id.* at 42). Mr. Evans' expert report attributes this 21-day delay to a labor shortage caused by the delay in approval of the SSMR:

The Air Force apparently failed to consider the criticality of the material approval and how it impacted the planning efforts of Parsons and its metal roof subcontractor, Warburton's, Inc. When the submittal was approved on April 19, 2007, Warburton's craft labor was already committed to other projects, and labor availability for McGuire AFB became an issue. Warburton's personnel stated in an interview that the uncertainty connected to the Air Force's approval of the submittal led to the labor availability issue.

(R4, tab 3004 at 40) Mr. Evans contends that because of the labor shortage, Warburton's crew had to complete the TLF before moving to the VQ (*id.* at 40-41). In his testimony, Mr. Evans adds "getting material" as a reason for the 21-day delay (tr. 8/74-75). The problem with the evidence supporting the 21-day delay is that Mr. Evans' report and testimony is based on only one interview¹³⁴ and is therefore hearsay. Hearsay evidence is admissible before the Board and can be a permissible basis for expert opinion, but where (as here) it has little or no corroborating or indicia of trustworthiness, it is entitled to little, if any, weight. PE directs us to no contemporaneous documents or sworn testimony from Warburton or anyone else to support the assertion that the delay in approving the SSMR caused the labor shortage and that labor from some other source could not be brought in to work on the VQ.¹³⁵ Mr. Evans may be correct in his conclusion, but PE does not meet its burden of proof with the evidence presented. We deny the claim for the 21-day delay.

With respect to the remaining 8-day delay, Mr. Evans attributes it to the removal of the catwalk in VQ wing A and redesign of the catwalks in wings B and C caused by design changes needed to correct the VQ design to resist progressive collapse (app. br. at 374; R4, tab 3004 at 45). In our decision above we found the AF responsible for "the additional cost of design and construction required to make the Baker 35% design resist progressive collapse." This would include compensable delay. Unlike the 21-day delay discussed above, there is record evidence supporting the 8-day delay. In her testimony, CO Brown agreed that "in the 35 percent design, the shear walls in the different floors didn't line up and they had to be moved in order to carry the loads down and meet the progressive collapse requirements" (tr. 12/109). In his testimony Mr. Rosenfeld agreed that the catwalks had to be "redesigned when all that HVAC ducting had to be rerouted into the attic in an effort to repair problems with the 35 percent design" (tr. 10/105).

¹³⁴ In Appendix C to his expert report, Mr. Evans lists subcontractors interviewed. One individual, Mr. Ken Francom, Warburton's SSMR subcontractor, is listed but that is all, no affidavit or even contemporaneous notes of the interview (R4, tab 3004 at 68).
 ¹³⁵ If there is such evidence in the voluminous record PE did not show it to us.

However, we ran across a stumbling block when we looked at other evidence. PE's brief stated, "The redesign [of catwalks] was processed through RFI 247 (R4, tab 400) in the late summer and fall of 2007" (app. br. at 374). When we looked at RFI 247 we noticed it predicted a cost savings stating, "it is our intention to provide the government with a credit commensurate with the reduction in scope requested (R4, tab 400 at 1). A cost savings change does not preclude a claim for delay damages associated with that change. However, the catwalk re-design was discussed in a 25 October 2007 coordination meeting where the following comment was entered in the meeting minutes:

Update 10/25: Chuck corrected last week's statement and explained that with the concept approval in hand, Parsons has completed the SOW and it is presently out for bid. Shop drawings will be the responsibility of successful bidder and once in hand they will be submitted to the Gov for approval. This is no longer on the Critical Path due to the reduction in scope.

(R4, tab 401 at 2) (Bold added) For delay to be compensable, it must be on the critical path. *States Roofing*, 10-1 BCA ¶ 34,356 at 169,661 (citations omitted) (In order to establish entitlement to delay damages, a contractor must demonstrate the extent of the delay, the causal link between the government's alleged wrongful actions and the delay and the resulting injury. The delay normally must be to work on the critical path, the only work that affects overall completion of the contract work.). Since Mr. Evans did not address the comment in the contemporaneous notes that the catwalk was no longer on the critical path we are left with an unrefuted challenge to his allegation. Moreover, Mr. Evans' report gives no reason to believe that the catwalk activity was on the critical path. Accordingly, we must deny PE's claim for the 8 days of compensable delay associated with the catwalks.

HTHW Heat

While PE discusses this topic in its entitlement section, it does not include a specific dollar amount and also does not have a separate section for HTHW heat in its quantum section. The lack of a discussion in the quantum section is confusing. We briefly comment on this topic below, but we conclude that the damages for "HTHW Heat" must be included in other claims.

The contract is silent on PE's use of the HTHW to heat the buildings (findings 137-38). In any event, regardless of any contractual obligation to allow PE to use HTHW for heat, we agree that delays for which the AF is responsible pushed work into winter and the AF is liable for heating required for work to proceed. In the subcontractor change order and acceleration claims we agreed with claims involving enclosure of the buildings and provision of temporary heat.

Standing Seam Metal Roof (SSMR) Approval Delay/Roof Truss Delay

PE experienced a delay caused by a conflict between VQ roof truss design and an elevator shaft design (finding 125). PE estimated a potential delay in the 27 December 2007 delivery date ranging from 12 work days to 5 weeks (id.). A total of 1 year, 2 months and 19 days elapsed between the first SSMR submittal on 16 February 2006 (finding 151) and final approval on 7 May 2007 (finding 156). Although other issues were discussed, we find that the primary cause of the SSMR approval delay was the AF's continued insistence that "oil canning" be eliminated. The requirement that oil canning be eliminated was modified to "seriously minimized" by Amendment No. 1 to RFP 8234, dated 24 March 2005, because it was acknowledged that it is inherent in the product and eliminating oil canning was impossible (finding 150). Therefore, we find that the AF's persistent insistence that oil canning be eliminated, even after Amendment No. 1 (findings 150-56), was unreasonable and the AF is responsible for the critical path delay associated therewith. According to PE's scheduling expert only a small portion of the elapsed time between the first SSMR submittal on 16 February 2006 and final approval on 7 May 2007 was on the critical path. We rely on Mr. Evans' CPM analysis where he identifies 32 days of concurrent delay caused by the SSMR and roof trusses in Review Period 6 (R4, tab 3004 at 38). In its brief PE states, "Exponent ultimately classified the truss and roof delays as concurrent (R4, tab 3004 at 38), so that Parsons would have no right to delay damages but the Air Force would have no right to assess liquidated delay damages for the 32 days at issue in review period 6" (app. br. at 372; tr. 8/71). We adopt that view and extend the performance period by 32 non-compensable days.

Exterior Insulation & Finish Systems (EIFS)¹³⁶

PE claims that the AF was responsible for the delay associated with the use of EIFS. In its brief PE states:

Parsons incurred significant extra expenses when it had to install EIFS in cold winter conditions that would and should have been avoided. The delays to the EIFS decision delayed the start of scaffolding, which further delayed site grading and landscaping around the building. Ultimately Parsons also incurred months of costs for its architect of record and other staff to debate the EIFS solution that was ultimately accepted.

(App. br. at 312-13) (Citation omitted)

We see several problems with PE's argument. First, this entire string of events was caused by two errors made by PE. ASI No. 8 corrected the 100% design that incorrectly

¹³⁶ There was almost no discussion of this issue at the hearing.

required the installation of stucco over rigid insulation (finding 158). However, ASI No. 8 also contained an error relating to the window clearance (finding 160). Contributing to the problem is Mr. Bennett's belief that RFP 8234 took precedence over the approved 100% design developed by PE - it does not. Also, we disagree that the inherent nature of the design-build contract gives PE the right to make unilateral changes to the final AF approved 100% for construction design.¹³⁷ The entire EIFS matter is simply the correction of two mistakes by PE. We deny PE's claim relating to the use of EIFS.

Project Closeout

PE claims \$222,416 in direct costs (app. br. at 478) and \$80,532 for 15 days of compensable delay (*id.* at 483) as a result of what it contends was an unreasonably long closeout inspection to reach BOD on 11 September 2008.¹³⁸

The PMP notified PE that "[a]s minimum" seven AF organizations would "participate in all final acceptance inspections." PE also knew it was responsible for providing "sufficient advance notice for maximum participation by interested parties." (Finding 67) PE was required to conduct both pre-final and final inspections (finding 183). The contract sets up a procedure that envisions the final inspection concentrating on the pre-final inspection results, "The [final] inspection shall concentrate on the items identified at the pre-final inspection and recorded in the pre-final report" (finding 183). We conclude from the record that the procedure envisioned by the contract involved a limited number of joint inspections conducted by PE and the AF. What actually occurred was nothing like what the contract envisioned.

PE submitted its 14-day notice of pre-final inspection, and associated 1440 item punch list, for the TLF on 27 April 2008 (finding 185). PE had intended to provide the notice for both the TLF and VQ, but the TLF was ready before the VQ and PE wanted to end liquidated damages on the TLF (*id.*). CO Brown explained she would not accept the notice because the inspections of the TLF and VQ had to occur together in order to minimize AF travel expenses (finding 187).

PE submitted the 14-day notice of pre-final inspection for the VQ on 5 May 2008 (finding 188). CO Brown explained she would not accept the notice because of a "cursory site tour" by AFCEE personnel (*id*.). There also seems to have been some confusion on CO Brown's part about when SOW paragraph 3.2.2.2.2 required that the Commissioning Final Report, the Test and Balance (TAB) Report be provided (*id*.).

Liquidated damages (LDs) started on 28 December 2007, the day after the completion date set in Mod. 3 (finding 162). Since PE was incurring LDs as of

¹³⁷ This is different from our decision that PE had the right to unilaterally make changes to the 35% design.

¹³⁸ The amounts include markups (app. br. at 478, 483).

28 December 2007, we find that time was of the essence. AmerescoSolutions, Inc., ASBCA No. 56811, 10-2 BCA ¶ 34,606 at 170,549 (construction contracts generally contain a liquidated damages provision, and the assessment of such damages indicates time is of the essence); Keith Crawford & Associates, ASBCA No. 46893, 95-1 BCA ¶ 27,388 at 136,519 (time is of the essence in a government contract when, as here, it contains a fixed date for performance and provides for the assessment of liquidated damages if the fixed date is exceeded); Maysons Piping Contractors. Inc., ASBCA Nos. 28446, 29036, 86-1 BCA ¶ 18,626 at 93,595 (the imposition of liquidated damages is evidence of the government's intent to hold appellant liable for its delayed performance under the contract, i.e., time is of the essence). We conclude that the finding that "time is of the essence" is a two-way street. We see no reason why the government cannot be held accountable for failure to act in a timely manner when time is of the essence. It is clear according to the PMP that seven or more AF organizations had the right to participate in the final acceptance inspections (finding 67). However, it is also clear to us that since time was of the essence, the AF had an affirmative obligation to marshal its organizations and have all interested parties conduct whatever inspection they desire without delay. To the contrary, the record indicates that the AF had absolutely no sense of urgency, whatsoever, in regard to completing closeout and ending LDs. There is nothing in the contract that requires that closeout inspections must wait until both the TLF and VQ are ready. The TLF and the VQ were listed in separate contract CLINs (finding 65). Under these circumstances it would have been appropriate to apportion the LDs between the TLF and VQ and deal with TLF BOD first, separate from the VQ. We did so under similar circumstances in Dick Pacific Construction, Co., ASBCA No. 57675 et al., 16-1 BCA ¶ 36,196 at 176,638.

The demand that both the TLF and VQ be available at the same time violated time being of the essence. The AF's 28 inspections violated time being of the essence (finding 189). The AF's inspection delay in order to minimize travel expenses violated time being of the essence (finding 187). CO Brown's delay based on an unexplained "cursory site tour" violated time being of the essence (finding 188). Mr. Williams statement that because the furniture was not yet delivered "there is no rush to accomplish the pre-final on the TLF" violated time being of the essence (finding 186). Mr. Rola's concerns over mechanical room noise was not based on contract requirements, was unreasonable and violated time being of the essence (findings 194, 196). Fluctuating numerous punch lists violated time being of the essence (findings 190-92, 198). We will not hold PE liable for delay and liquidated damages for the time while it awaited inspection when the AF had no concern over the time it took to complete contract closeout when LDs were accruing.

Fourteen days from 27 April 2008 was a Sunday so the first working day was Monday 12 May 2008. The AF could have started pre-final at the TLF on that day. Fourteen days from 5 May 2008 was Monday 19 May 2008. The AF could have started pre-final at the VQ on that day. The parties agree that BOD is 11 September 2008 (finding 197). We accept Mr. Cardinale's assessment that there had been 28 separate inspections during that time (finding 189). We accept PE's chronology of inspections and punch lists (findings 192, 198). We take into consideration Mr. Rothwell's opinion that, if

everything was coordinated, the AF team should be able to complete an inspection in "approximately a week" (finding 189). We also recognize that PE does not quarrel with the individual punch list items, but rather the excessive time taken during all the inspections by various AF entities from various locations across the country (finding 198; app. br. at 336). We find that the time it took for the AF to complete its inspections and reach BOD was unreasonable and violated its obligation imposed by time being of the essence. A&D Fire Protection, Inc., ASBCA Nos. 53103, 53838, 02-2 BCA ¶ 32,053 at 158,448 (work required by over-zealous inspectors in multiple punch lists is compensable); H.G. Reynolds Co., ASBCA No. 42351 et al., 93-2 BCA ¶ 25,797 at 128,375 (citation omitted) ("The Government is entitled to conduct a strict and intensive inspection to ensure that it is getting what it is entitled to under a construction contract. However, if as in the matter before us, the contractor's work is subject to multiple inspections to differing standards by different officials, an equitable adjustment should be granted for any delay or increased costs occasioned thereby."); Hull-Hazard, Inc., ASBCA No. 34645, 90-3 BCA ¶ 23,173 at 116,306 (quoting W.F. Kilbride Constr., Inc., ASBCA No. 19484, 76-1 BCA ¶ 11,726 at 55,884) ("[I]f inspection procedures are confusing and vacillating, and the contractor's work is subjected to multiple inspections to differing standards by different officials, an equitable adjustment should be granted under the Changes clause for any delay or increased costs.").

PE accepts that the "reasonably allowed duration of the close out" was "April through June 2008" (app. br. at 478). However, we found above that closeout inspections could have started on 12 May 2008 for the TLF and 19 May 6008 for the VQ. Therefore we conclude that the closeout should have run from mid-May 2008 through June 2008. This means that BOD should have occurred at the end of June 2008. PE claims \$222,416 for "general overhead and direct charged costs commencing in July 2008 through final completion in September" (*id.*). We accept this amount as reasonable. The AF is liable for \$222,416 in direct costs for failing to complete closeout in a timely manner.

Now we deal with PE's claim for closeout compensable delay. The first problem we encounter relates to dates. Based on our 332 days of excusable delay the delivery date was 5 June 2008. One could argue that LDs could start on 6 June 2008 unless PE proves more excusable delay. Since PE agrees that BOD should have occurred by 30 June 2008, arguably PE could be liable for LDs from 5 June 2008 to 30 June 2008. However, since BOD in fact occurred on 11 September 2008, arguably there could be 72 days of excusable delay from 1 July 2008 through 11 September 2008. PE asks for 15 days of delay. None of this was litigated or briefed and we do not attempt to sort it out.

PE's brief only adds to the confusion. In its Quantum section, PE clearly claims \$80,532 for 15 days of compensable delay (app. br. at 483). In its entitlement section PE states, "At trial, however, Dick Cardinale explained that the final Test-and-Balance [TAB] and commissioning reports should properly be treated as conditions to final acceptance and not preconditions to BOD" (app. br. at 345). PE then said, "Based on this unchallenged

evidence, Mark Evans revised his analysis by re-characterizing 15 days of concurrent delay as AF delay. (Tr. 8/92:3-10)." (*Id.*) However, we look at Exponent's expert report and see 16 days delay allocated to PE and 15 days of delay allocated to the AF and they do not appear to be concurrent (R4, tab 3004 at 49-50). Later in the entitlement section PE writes, "Under this revised allocation of delays, Parsons believes that Table 14 in the Exponent report (R4, tab 3004 at 50) should be revised so that only 4 days are allocated to Parsons, while the remaining 27 days are allocated to the Air Force in review period 10" (app. br. at 379-80). From this we gather that maybe PE should be claiming for 27 days of compensable delay. We are not, however, responsible for figuring out what PE might have claimed.

In any event, we also see contemporaneous documents establishing that, at the time, both parties believed that the TAB, and Commissioning reports were pre-conditions to BOD. PE developed a schedule that clearly showed this (finding 184). Paragraph 3.2.2.2 Delivery/Warranty states that all inspections and commissioning requirements will be completed before final inspection (finding 183). The as-planned and as-built CPM schedules shown in Exponent's report show TAB and Commissioning reports delivered before BOD (R4, tab 3004 at 49). Therefore, the record does not support Mr. Cardinale's testimony to the contrary. The confusion in the record, particularly PE's argument in its brief that the 15 days was previously considered by its expert to be concurrent delay (app. br. at 345, 377), causes us only more confusion. It is PE's burden to prove this delay claim in a clear and unambiguous manner. PE failed in this regard. We deny PE's claim for compensable closeout delay.

Design Notice to Proceed (NTP)

PE contends that it is entitled to a 14-day delay in issuing the design NTP (app. br. at 362). We disagree. First, there was no requirement for a design NTP (finding 68). Second the NTP issued on 25 July 2005 stated that its effective date was the date of DO 13 which was 13 July 2005 (finding 68). Third, Mr. Binks signed the 25 July 2006 NTP acknowledging receipt and we find Mr. Hillestad's testimony that PE agreed with the effective date credible (finding 68). PE is not entitled to a 14-day delay in the design NTP.

Submittals

PE attributes delay to the AF in approving its submittals. However, PE's analysis is fundamentally flawed. PE contends that submittals have to be processed within 14 calendar days (app. br. at 133). PE relies on a document at the very end of RFP 8234, SOW Attachment 5b, Section 01300 Submittals, Paragraph 3.02 Timing of Submittals, paragraph B, "Allow 14 calendar days for review by the Government of each submittal item" (*id.*; R4, tab 2 at 1787). We, however, rely on Section 01330 – Submittal Procedures. This specification provides that submittals first go to the QC Manager and allows 15 working days for approval. If the submittal requires CO approval, the CO has an additional 20 working days from receipt to approve the submittal. This procedure applies

to resubmittals. (Finding 21) Therefore, the submittal approval requirement, without resubmittal, ranges from 15 working days to at least 35 working days or seven weeks depending on who approves the submittal. Because PE used the incorrect approval times and the lack of testimony on the details of each submittal, including resubmittals, PE failed to meet its burden of proof on all of its submittal delay arguments.

Schedule Delay/Extended Overhead (\$3,184,150)

We addressed the individual components of this claim earlier in this decision. The results are reflected in the table below:

Claim	PE Days	PE Amount	Decision	Decision
			Days	Amount
NTP Delay ^[140]	83	\$161,194	70	• \$135,955
Clean Site Delay		Included in	28	\$75,055
		earthwork		
Earthwork Differing	226	\$1,995,993	182	\$1,607,356
Site Conditions				· · ·
Triarch (paint)	32	\$496,488	20	\$310,297
Balance of Constr.	29	\$449,943	0	. 0
Closeout	15	\$80,532	0	0
	Total	\$3,184,150	Total	\$2,128,663 ^[141]

Incomplete Wage Determination & OSI Investigation (\$393,195)

We have carefully read PE's 37 pages of unnumbered facts in its initial brief, the AF's 277 PFFs in 42 pages in its brief and PE's 17 pages of reply brief – all devoted to the DBA compliance and OSI Investigation issues. We conclude that we need not attempt to delve into this aspect of the appeal in anywhere near that level of detail.

There are three distinct parts of the original claim: (1) Omissions of wage classifications in WD NJ20030002; (2) the AF's review of PE's payrolls¹⁴²; and (3) the OSI investigation. We deal with the OSI investigation first. PE invites us to find a link between the investigation and the AF's review of PE's payrolls, "It is of course difficult to prove what was in the minds of AFCEE or the OSI investigators, but we believe the evidence permits the Board to infer a relationship between those activities" (app. reply br. at 206). PE's argument seems to be that the payroll reviews and investigation were in retaliation for PE's notice that it was going to submit a multi-million dollar claim. However, Ms. Horn's testimony and the ROI persuade us that the investigation was initiated by the OSI as a result

¹⁴⁰ PE identifies this as Design Impact.

¹⁴¹ This amount has already been added into the recovery and should not be added again.

¹⁴² As noted in footnote 1, the AF payroll review claim is dealt with in another decision issued simultaneously.

of information provided by non-government confidential sources and not the AF (findings 208-09). PE has not proven that the AF is in any way responsible for the OSI investigation or that it should be liable for PE's costs to defend itself against the OSI investigation. That aspect of this claim is denied.

Next we deal with the WD omissions. The AF first noticed payroll classifications that were not on WD NJ20030002 in early 2008 (finding 204). This fact is perplexing to us because all of the workers on this project were getting paid. Each worker was supposed to be paid a wage identified in the WD. This information was needed for PE and its subcontractors to bid on the contract or at a minimum perform the contract. We do not see how either PE or its subcontractors could miss the fact that classifications needed to perform the work were not in WD NJ20030002. As a result of payroll reviews in 2008 the AF notified PE that classifications for carpenter, plumber, journeyman and pipefitter were in payrolls but not in WD NJ20030002 (finding 205). Eventually letters of inadvertence were issued for bricklayers, stonemasons, marble masons, cement masons, plasters, tile layers, terrazzo workers, elevator mechanics, carpenters, insulators, millwrights, soft floor layers, and drywall finishers/tapers (finding 207).

We start by looking at the FAR to see if it benefits contractors. PE argues that the AF violated FAR 22.404-3 that required the AF to "[i]mmediately upon receipt" review wage determinations and inform DOL of any changes needed to correct errors (app. br. at 386-87). We agree that this regulation benefits PE and its subcontractors because it is supposed to ensure that they know what wages to use in establishing their bids and performing the contract. We also agree that the AF did not catch the omissions in the WD and arguably violated the regulation. This situation is, however, much different than was the case with the payroll reviews because PE and its subcontractors were in a better position to catch these omissions than the AF. It was PE and its subcontractors who knew what types of workers would be used, not the AF. We also consider that DCAA in its audit noted that DOL DBA rates are posted on DOL's website and were easily accessible to PE (R4, tab 213 at 34). We are not going to hold the AF liable for this part of the claim because PE and its subcontractors were in the best position to see this omission, should have identified the omissions very early either in bidding or the creation of their payrolls and notified the AF of the omission. We see no harm to PE and deny this claim.

Subcontractor Change Order Price Escalation (\$290,634)

According to PE, this claim "represents the additional cost incurred by Parsons on subcontractor change orders because the work was performed in a period significantly later than anticipated due to Government-caused delays. The calculation is being applied only to the subcontractor change orders that are considered to be the responsibility of Parsons." (App. br. at 486) (Citation omitted) In our earlier denial of PE's buyout claim we explained why PE was not entitled to escalation due to competition from China and Hurricane Katrina. The same logic applies here. Also, PE fails to explain why the AF should be liable for escalation based on change orders that it admits are the responsibility

of PE. Additionally, this claim was not well developed in the entitlement section of PE's brief. PE has not met its burden of proof and we deny this claim.

Unpaid Contract Balance (\$347,526)

The AF extended the period of performance twice, 126 days in Mod. 2 and 171 days in Mod. 3) (findings 92, 124). The contractual delivery date after Mod. 3 was 27 December 2007 (finding 124). PE was assessed liquidated damages from 28 December 2007 (finding 162). The \$347,526 is the total amount of liquidated damages assessed from 28 December 2007 to BOD on 11 September 2008, a total of 258 days at \$1,347 per day.

We found a total of 332 days of excusable compensable delay (NTP 70, Clean Site 28, Earthwork 182, Paint 20) plus 32 days of critical concurrent delay (SSMR/Truss). The delivery date in effect when the majority of these days occurred was 9 July 2007, established in Mod. 2 (finding 92). Therefore, we run the 332 days from 9 July 2007 for a delivery date of 5 June 2008. In our decision on contract closeout we agreed with PE that BOD (substantial completion) should have occurred no later than end of June 2008. We commented earlier that we would have accepted an earlier BOD date. Liquidated damages may not be assessed after BOD, notwithstanding remaining punch list items. *Dick Pacific*, 16-1 BCA ¶ 36,196 at 176,636-37. Therefore, the AF had no right to assess liquidated damages and the \$347,526 must be returned. We sustain the contract balance claim in this amount.

CDA Jurisdiction/Interest

One final matter that requires addressing is the source of our jurisdiction to consider this appeal since the government agency with which Parsons contracted, the Air Force Services Agency, is a non-appropriated funds instrumentality (NAFI). Until recently, the source of our jurisdiction to entertain appeals involving NAFIs was not the CDA, but the portion of our charter that allowed us to consider appeals to which the parties had contractually agreed to the Board's authority to resolve their disputes. *See, e.g., Computer Valley International, Ltd.*, ASBCA Nos. 39658, 40496, 94-1 BCA ¶ 26,297 at 130,796; *D'Tel Communications*, ASBCA No. 50093, 97-1 BCA ¶ 29,251 at 145,504. This was consistent with "the NAFI doctrine," controlling law from the United States Court of Appeals for the Federal Circuit (the Federal Circuit) that held that the CDA did not grant the Court of Federal Claims or the Boards of Contract Appeals jurisdiction over matters involving NAFIs (and neither did the Tucker Act). *See, e.g., Furash & Co. v. United States*, 252 F.3d 1336, 1342-44 (Fed. Cir. 2001). An important consequence of the lack of CDA jurisdiction is that we had no basis to award interest in appeals involving NAFIs.

The continued viability of the NAFI doctrine with respect to appeals brought pursuant to the CDA was called into question by the recent en banc decision of the Federal Circuit in *Slattery v. United States*, 635 F.3d 1298 (Fed. Cir. 2011) (en banc). In

Slattery, the Federal Circuit concluded that the NAFI doctrine no longer applied to lawsuits brought in the Court of Federal Claims pursuant to the Tucker Act. 635 F.3d at 1321. It has since been argued that the same logic that dictated the end of the NAFI doctrine for Tucker Act suits should also apply to suits and appeals brought pursuant to the CDA, notably, in the Federal Circuit appeal of Minesen Co. v. McHugh, 671 F.3d 1332 (Fed. Cir. 2012). In *Minesen*, however, the Federal Circuit "decline[d] to decide the issue" because it was a "complex" matter that did not need to be addressed due to the circumstances in that case. 671 F.3d at 1337. There was a dissent in Minesen, which approached the appeal in a manner that required resolution of the question of whether the CDA was applicable and which found that *Slattery* ended the NAFI doctrine as applied to the CDA. See 671 F.3d at 1345 (Bryson, J., dissenting). There has been no further guidance from the Federal Circuit and we have not yet decided this question of law, ourselves, though we have recognized its pendency. See CP of Bozeman, Inc., ASBCA No. 58491, 15-1 BCA ¶ 36,035 at 176,013; Harry Richardson, ASBCA No. 57582, 12-1 BCA ¶ 34,902 at 171,618. In the appeal before us here, however, the issue must be addressed and, as will be seen, we are of the opinion that the reasoning in Slattery compels us to conclude that the CDA applies to NAFIs, such as the one here.

Until *Slattery*, the foundational underpinning of the NAFI doctrine – as applied to both the Tucker Act and the CDA – was that the law required payments for breaches of contract to be paid by appropriated funds and that NAFIs did not have access to such funds. *See, e.g., United States v. General Elec. Corp.*, 727 F.2d 1567, 1570 (Fed. Cir. 1984); *Furash*, 252 F.3d at 1342; *Pacrim Pizza Co. v. Pirie*, 304 F.3d 1291 (Fed. Cir. 2002). The Federal Circuit in *Furash* further explained that Congress intended the NAFI doctrine to apply "in the same fashion to the CDA as it does to the Tucker Act." 252 F.3d at 1343. In *Pacrim Pizza*, the Federal Circuit emphasized that the decision in *Furash*, extending the NAFI doctrine to the CDA, rested largely upon the CDA's enumerating certain NAFIs to which the CDA applied and therefore implying that the CDA did not apply to non-enumerated NAFIs. 304 F.3d at 1293. *Slattery* changed all that.

In *Slattery*, a Tucker Act case, the Federal Circuit's revisiting of the NAFI doctrine, *inter alia*, rejected the notion that Congressional enumeration of some NAFIs as being excepted from the NAFI doctrine meant that non-enumerated NAFIs were thus subject to it. 635 F.3d at 1313-14. In large part, because the enumerated/non-enumerated distinction was critical to finding Congressional intent to limit Tucker Act jurisdiction, 635 F.3d at 1311, and because the Federal Circuit held that, without an explicit withholding of jurisdiction by Congress, there would be Tucker Act jurisdiction over contracts entered on behalf of the United States, the court determined that the NAFI doctrine was no longer applicable to cases brought pursuant to the Tucker Act. *Id.* at 1320-21.

Since, as discussed above, the application of the NAFI doctrine to the CDA largely piggybacked on the numerated/non-enumerated distinction shared by both the CDA and the Tucker Act, the Federal Circuit's rejection of that distinction in *Slattery* leads us to the conclusion that there remains no basis for continuing to apply the NAFI

doctrine to CDA appeals.¹⁴³ This is the logic that underlies the relevant portion of Judge Bryson's dissent in Minesen, see 671 F.3d at 1343-44, and we find it persuasive. To be sure, we recognize that Judge Bryson's dissent was a dissent, but the majority in *Minesen* did not reject this portion of its logic; it just never needed to address it. The government argues that the Minesen majority declined to overrule its prior cases applying the NAFI doctrine to the CDA, meaning that such cases were still controlling (gov't supp. reply br. at 2), but the government makes too much of the Minesen majority's inaction: it did not decide to leave the old precedent in place, it merely took no action on the NAFI doctrine at all. See 671 F.3d at 1336. Moreover, the Slattery court expressly overruled the relevant portion of Kyer v. United States, 369 F.2d 714 (Ct. Cl. 1966) and the subsequent cases which relied upon Kyer, upon which the NAFI doctrine was founded. *Slattery*, 635 F.3d at 1320. *Furash*, which applied the NAFI doctrine to CDA appeals, is just such a case, see Slattery, 671 F.3d at 1310, making it arguable that the Federal Circuit directly overruled it in *Slattery*. In the end, we conclude that eliminating the NAFI doctrine's application to CDA appeals shows greater fidelity to the Federal Circuit's direction in *Slattery* than allowing it to remain, and nothing in Minesen requires a different outcome or suggests otherwise.

As a final consideration, we note that we can discern no good reason for agencies relying on directly appropriated funds to be subject to CDA interest when those that are NAFIs are not. To that end, we have less reason to believe that Congress intended the rules to differ between NAFIs and other government agencies, and we have less reason to believe that this decision would be in any way contrary to public policy.

This appeal is within our CDA jurisdiction, and as a consequence, PE is entitled to CDA interest, which runs at the statutory rate from the time that it submitted its claims.

¹⁴³ We understand that in other venues, the government has argued that a distinction between the language in the Tucker Act, applying it to contracts "with the United States," and the language in the CDA, applying it to contracts "with executive agencies" constituted an additional reason to treat NAFIs differently under the CDA than under the Tucker Act. The government has not made that argument here. Moreover, none of the Federal Circuit cases applying the NAFI doctrine to the CDA relied upon that distinction. Post *Slattery*, we will not search for new bases to keep the NAFI doctrine alive that were never before a basis for that doctrine. Moreover, the distinction in statutory language is a distinction that we find to be one without a difference here.

CONCLUSION

For the reasons stated in this decision, we sustain in the total amount of \$10,519,082 and deny the rest of PE's claims. CDA interest shall run from 29 June 2012, the date of PE's claim.

Dated: September 5, 2018

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CRAIG S. **¢LARKE** Administrative Judge Armed Services Board of Contract Appeals

I <u>concur in result</u> (see separate opinion)

RICHARD SHACKLEFORD Administrative Judge Acting Chairman Armed Services Board of Contract Appeals I <u>concur in result</u> (and join in Judge Shackleford's opinion)

J. REID PROUTY Administrative Judge Vice Chairman Armed Services Board of Contract Appeals

OPINION BY ADMINISTRATIVE JUDGE SHACKLEFORD CONCURRING IN RESULT

We agree with the amounts awarded in the opinion by Judge Clarke and thus to that extent we concur in the result. We differ, however, over the role that FAR 31.201-2 plays in proving damages and Judge Clarke's interpretation of this provision.

Generally, with respect to the costs it claimed, appellant stated in its post-hearing brief as follows:

Once the costs have been shown to have been incurred, the issue becomes whether the contractor's claimed costs are allowable. FAR 31.201-2 states that the costs are allowable if they comply with the following requirements: reasonableness, allocability, and consistency with the cost accounting standards (CAS) or generally accepted accounting principles, the terms of the contract and any limitations set forth in FAR 31.2 (especially the cost principles at 31.205). We shall address each of these requirements as it applies to this appeal.

(App. br. at 427) Thereafter appellant sought to show how the evidence met each of those requirements (*id.* at 427-31).

The government placed less reliance upon FAR 31.201-2, citing traditional Board and court precedent as follows:

The contractor has the burden to show that its claimed costs were incurred as a result of, or were caused by the Government's changes. [Citations omitted.] This causation requirement is similar to that recognized under the well settled law of damages: "Recoverable damages cannot be proved by a naked claim for a return of costs even when they are verified. The costs must be tied in to fault on defendant's part." *River Construction Corporation v. United States*, 159 Ct. Cl. 254, 270 (1962).

(Gov't br. at 466) (citing Stewart & Stevenson Services, Inc., ASBCA No. 43631, 98-1 BCA ¶ 29,653 at 146,925, affirming 97-2 BCA ¶ 29,252).

While we do not contend here that FAR 31.201-2 never has a place in an analysis of a monetary claim based upon a change (directed or constructive), or a differing site condition, or a claim for delay damages, or breach damages, we believe that Judge Clarke's total reliance on that provision as the basis for proof of damages was unnecessary and was inconsistent with our established case law and that of our appellate court.

More particularly, we take great issue with that portion of the damages analysis which leads up to the conclusion that PE has satisfied its burden to prove its claimed costs were reasonable when the government challenged all costs but failed to challenge the reasonableness of any specific cost in the claim, stating "Such a blanket challenge to all costs is insufficient to satisfy FAR 31.201-3(a)." This finding has no place in our analysis of the damages, as the reasonableness of the amounts is appellant's burden to show, unaided by the government's failure to challenge the reasonableness of specific costs.

Once a CO's final decision is appealed to this Board, the parties start with a clean slate and the contractor bears the burden of proving liability and damages *de novo*. *Wilner v. United States*, 24 F.3d 1397, 1401-02 (Fed. Cir. 1994) (en banc). Further, "[t]he claimant bears the burden of proving the fact of loss with certainty, as well as the burden of proving the amount of loss with sufficient certainty so that the determination of the amount of damages will be more than mere speculation." *Lisbon Contractors, Inc. v. United States*, 828 F.2d 759, 767 (Fed. Cir. 1987) (quoting *Willems Indus., Inc., v. United States*, 295 F.2d 822, 831 (Ct. Cl. 1961)).

Notwithstanding FAR 31.201-2 and -3, which directs how COs and the DCAA should evaluate costs, our review of the record leads us to conclude that for the damages awarded by Judge Clarke, appellant proved liability on the part of the government, proved the costs were incurred and were reasonable with "sufficient certainty" such that the amount of damages awarded is "more than mere speculation." There was no requirement nor need to follow FAR 31.201 to evaluate this claim and thus, we concur in the result but not the analysis.

Dated: September 5, 2018

RICHARD SHACKLEFORD Administrative Judge Acting Chairman Armed Services Board of Contract Appeals

I concur

J. REID PROUTY Administrative Judge Vice Chairman Armed Services Board of Contract Appeals I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 58634, Appeal of Parsons Evergreene, LLC, rendered in conformance with the Board's Charter.

Dated:

JEFFREY D. GARDIN Recorder, Armed Services Board of Contract Appeals