ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of -	)	
	)	
Hensel Phelps Construction Co.	)	ASBCA Nos. 63316, 63397, 63398
	)	
Under Contract No. W912QR-17-C-0043	)	

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OPINION BY ADMINISTRATIVE JUDGE STINSON

Appellant Hensel Phelps Construction Co. (Hensel Phelps) appeals three contracting officer final decisions (COFD) arising from Contract No. W912QR-17-C-0043 (the contract) with the United States Army Corps of Engineers (USACE or government), Louisville District, for construction of a 200-member Army Reserve Center and Aviation Support Facility, and helicopter parking apron, at MacDill Air Force Base, in Tampa, Florida ("the Project") (R4, tab 18 at 4669). The Board conducted a hearing from July 22 to August 1, 2024. Both entitlement and quantum are before us. Hensel Phelps filed its post hearing brief on October 10, 2024, the government filed its post hearing brief on January 10, 2025, and Hensel Phelps filed its reply brief on March 10, 2025. This decision addresses the following three consolidated appeals pending before the Board; ASBCA No. 63316, airfield paving redesign claim; ASBCA No. 63397, lift station claim; and ASBCA No. 63398, multiple items claim. ASBCA Nos. 63316 and 63397 are subcontractor pass-through claims on behalf of Ajax Paving Industries of FL, LLC (Ajax).

FINDINGS OF FACT

The parties submitted joint "Stipulations of Fact" (JSF). In addition, the government's brief included an additional 197 numbered Proposed Findings of Fact (PFOF), to which appellant responded. Appellant did not submit additional proposed findings of fact. The Board may accept as true proposed findings of fact to which the

opposing party did not submit a response. *IVA'AL Solutions, LLC*, ASBCA No. 63430, 25-1 BCA ¶ 38,770 at 188,432, 188,434 n.2 (finding proposed finding of fact established by preponderant evidence where government did not submit a response); see *Pontchartrain Partners, LLC*, ASBCA No. 63615, 25-1 BCA ¶ 38,831 at 188,930 n.1 (citing *Korte-Fusco JV*, ASBCA No. 59767, 15-1 BCA ¶ 36,158 at 176,454 n.1.) (failure to respond to proposed findings in context of summary judgment and Board Rule 7(c)(2)). Our findings of fact, set forth below, rely upon the parties' JSF, uncontroverted and unopposed findings of fact set forth in the government's PFOF (hereinafter GUPFF), hearing testimony, and documents in the consolidated Rule 4 file.

I. USACE Districts Involved in the Project

1. The USACE Louisville District was the contracting office for the Project and serves as the center of standardization for Army Reserve construction projects throughout the United States and abroad (GUPFF ¶ 2; tr. 5/28-29). The Louisville District designed the Project and prepared the contract specifications and drawings (GUPFF ¶ 2; tr. 7/179-82).

2. Although the Louisville District oversaw the Project, the USACE Mobile District, as the geographic district where the Project was located (McDill AFB in Tampa, Florida), had employees on site, including an administrative contracting officer (ACO), a contracting officer representative (COR), and a quality assurance representative (QAR) (tr. 7/19-20).

3. Employees of the USACE's Center of Expertise, located in the Omaha District, mainly employees of the Transportation System Center (TSC), provided guidance on the Project, both during the design phase, and during contract performance (tr. 6/173-74, 180, 184).

II. DOD Standard Practice Guidelines - MIL-STD-3007

4. MIL-STD-3007, Standard Practice Unified Facilities Criteria, Facilities Criteria and Unified Facilities Guide Specifications, "establishes policy for developing and maintaining Unified Facilities Criteria (UFC), Facilities Criteria (FC), and Unified Facilities Guide Specifications (UFGS) as common facility standards and engineering practices for the Department of Defense (DoD) and other supported agencies." DEP'T OF DEF., UNIFIED FACILITIES CRITERIA, FACILITIES CRITERIA AND UNIFIED FACILITIES GUIDE SPECIFICATIONS 1 (2019), https://www.wbdg.org/FFC/FEDMIL/milstd3007g.pdf. The previous version of MIL-STD-3007F was published on December 13, 2006, and the current version MIL-STD-3007G was published on November 1, 2019 (*id.* at i).

5. The UFC Program was initiated by DoD "to unify all technical criteria (UFCs) and guide specifications (UFGS) pertaining to planning, design, construction, and operation and maintenance of real property facilities." The purpose of the program is to streamline "the military criteria system by eliminating duplication of information, increasing reliance on private-sector standards, and creating a more efficient criteria development and publishing process." *Unified Facilities Criteria Program*, WHOLE BLDG DESIGN GUIDE, https://www.wbdg.org/dod (last visited Apr. 15, 2026).

6. The contract specifications are based in part on requirements set forth in UFC, Pavement Design for Airfields, UFC 3-260-02 (30 June 2001) (R4, tab 643; tr. 6/181, 187). As set forth in the Forward to UFC 3-260-02, the UFC system is prescribed by MIL-STD 3007, and provides planning, design, and construction criteria for all DOD projects (R4, tab 643 at 3[1]).

7. The UFGS is a joint effort of the USACE, the Naval Facilities Engineering Systems Command, and the Air Force Civil Engineer Center. UFGS is utilized in construction for military services. *Unified Facilities Guide Specifications (UFGS)*, WHOLE BLDG DESIGN GUIDE, https://www.wbdg.org/dod/ufgs (last visited May 22, 2025).

III. Federal Acquisition Regulation (FAR) Clauses Incorporated by Reference

8. The contract incorporated by reference FAR 52.236-2, DIFFERING SITE CONDITIONS (APR 1984) (R4, tab 13 at 1391).

9. The contract incorporated by reference FAR 52.236-21, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION – ALT I (APR 1984) (R4, tab 13 at 1392), which provides, in part, "[a]nything 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" (FAR 52.236- 21(a)).

10. The contract incorporated by reference FAR 52.246-12, INSPECTION OF CONSTRUCTION (AUG 1996), which provides, in part, "[t]he Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the [g]overnment." (R4, tab 13 at 1392; FAR 52.246-12(b))

[1] Citations to tab 643 are to the page numbers as designated by PDF reader.

11. The contract incorporated by reference FAR 52.248-3 ALT I, VALUE ENGINEERING-CONSTRUCTION (OCT 2015) – ALTERNATE I (APR 1984), which provides, in part, "[t]he [g]overnment will process VECP's [value engineering change proposals] expeditiously; however, it will not be liable for any delay in acting upon a VECP," and "[t]he decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the CO" (R4, tab 13 at 1392; FAR 52.248-3(e)(1), (3)).

12. The contract incorporated FAR 52.211-12 LIQUIDATED DAMAGES-CONSTRUCTION (SEP 2000) which states, in part "[i]f the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the [g]overnment in the amount of $3,940 for each calendar day of delay until the work is completed or accepted" (R4, tab 13 at 1393; FAR 52.211-12(a)). The contract also incorporated Defense Federal Acquisition Regulation Supplement (DFARS) 252.236-7001, CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000), which provides, in part, "[o]missions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work" (R4, tab 13 at 1403-04; DFARS 252.236-7001(d)). The contract incorporated by reference DFARS 252.201-7000, COR (DEC 1991) (R4, tab 13 at 1392).

IV. General Contract Specifications

13. Specification Section 01 32 01.00 06, PROJECT SCHEDULE, PART 3, EXECUTION, sets forth requirements for submission and approval of a Project Schedule (R4, tab 13 at 1779-81). Paragraph 3.7, REQUESTS FOR TIME EXTENSIONS, sets forth submittal requirements for a contractor who believes it is entitled to an extension of time (R4, tab 13 at 1792). Regarding a government-issued Request for Proposal (RFP), the contract required the contractor to "submit a *schedule impact analysis* demonstrating whether or not the change contemplated by the [g]overnment impacts the critical path" (*id.*) (emphasis added). On this contract, the parties utilized the term "time impact analysis" (TIA), which by its nature was a prospective, forward looking delay analysis of a specific delay event tied to the RFP (Finding 159; tr. 1/237, 270, 4/275-276, 5/153-55).

14. Specification Section 01 33 00.00 06, SUBMITTAL PROCEDURES, PART 1 GENERAL, states "[t]his is a Design/Bid/Build, Army Reserve Project" (R4, tab 13 at 1795). The project area boundary totaled 55.7 acres (R4, tab 18 at 4680, 4735).

15. Specification Section 01 45 04.10 06, CONTRACTOR QUALITY CONTROL, PART 3 EXECUTION, paragraph 3.1, GENERAL REQUIREMENTS,

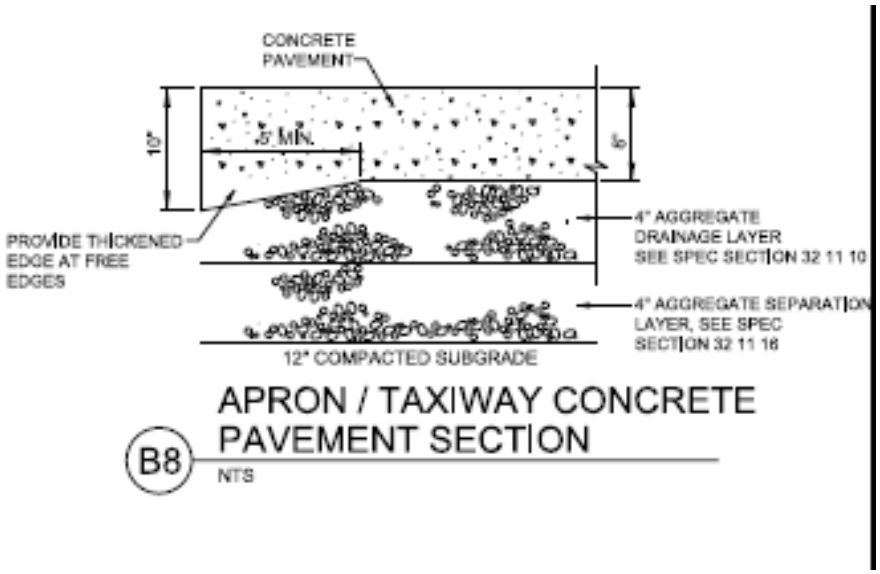
provides that the contractor is responsible for quality control (QC) and shall maintain an effective QC system that complies with the "Inspection of Construction" clause and is able to produce an end product that complies with contract requirements (R4, tab 13 at 1849- 50).

V. Airfield Paving Redesign Claim (Helicopter Parking Apron)
ASBCA No. 63316

16. The airfield paving redesign claim is a pass-through subcontractor claim on behalf of Ajax, alleging cost and time impacts resulting from paving a helicopter parking apron and helicopter pad the size of approximately 13 football fields (hereinafter "the apron") (JSF ¶ 7; R4, tab 13 at 2026; tr. 2/200-01, 3/329). An important design aspect of the apron was that it supports loads caused by various aircraft utilizing the apron (R4, tab 16 at 3774, 3899, 4103; tr. 6/188-89, 7/220-21).

Contract Drawing Sheet CP501

17. Contract drawing, sheet CP501, PAVEMENT DETAILS AVIATION SUPPORT FACILITY, includes Detail B8 - set forth below - depicting a cross section of the APRON/TAXIWAY CONCRETE PAVEMENT SECTION (R4, tab 18 at 4862).



(*Id.*) Detail B8 references both Specification Sections 32 11 10 (DRAINAGE LAYER) and 32 11 16 (SUBBASE FOR PAVING (AGGREGATE SEPARATION LAYER)) (*id.*; *see* R4, tab 17 at 4187, 4199).

18. As reflected on sheet CP501, construction of the Apron/Taxiway Concrete Pavement Section required preparation and installation of four distinct layers:

twelve-inch compacted subgrade; four-inch aggregate separation layer; four-inch aggregate drainage layer, and eight-to-ten-inch concrete pavement (R4, tab 18 at 4862; *see also* R4, tab 16 at 3774).

Specification Section 32 11 10

19. Specification Section 32 11 10, DRAINAGE LAYER, sets forth requirements for constructing the drainage layer (R4, tab 17 at 4187-98). Paragraph 1.4, QUALITY ASSURANCE, subparagraph 1.4.5.2, Stabilized Layer, states:

> Perform sieve analyses on aggregates prior to addition of asphalt or [P]ortland cement, at a rate of at least one test for every 6000 square yards of completed area and not less than one test for each days [sic] production. Make extraction tests on bituminous stabilized material at the same frequency. Perform soundness tests, Los Angeles abrasion tests, fractured faces tests, and flat and/or elongated particles tests at the rate of one test for every 12,000 square yards of production.

(R4, tab 17 at 4188, 4190) [2] Section 32 11 10 contains numerous other references to stabilized material, aggregate, and layers (*id.* at 4191-97).

20. Specification Section 32 11 10, PART 3, EXECUTION, paragraph 3.2, TEST SECTION, subparagraph 3.2.3, Location and Size, states:

> Place the test section inside the production paving limits or outside production paving limits in an area with similar subgrade and subbase conditions approved by the CO. The underlying courses and subgrade preparation, required for the pavement section, shall be completed, inspected and approved in the test section prior to constructing the drainage layer. The test section shall be a minimum of 400 feet long and two full paving lanes wide side by side.

(R4, tab 17 at 4193)

[2] A sieve analysis is a gradation test utilizing a series of stackable screened or meshed strainers to determine the amount (percentage) of soil that passes through the screen or mesh (tr. 2/146-47, 3/78-82). A 200-sieve screen has 200 openings or holes per inch, while a ten-sieve screen has ten openings per inch (tr. 3/80).

21. The Project required installation of both rigid pavement, which has concrete as its top layer, and flexible pavement, which has either asphalt or aggregate as its top layer (tr. 7/182). The apron's top layer was an eight-inch, rigid concrete surface (tr. 7/185) (GUPFF ¶¶ 17-18).

22. The requirement set forth in sheet CP501 of constructing a 12-inch compacted subgrade was not unique to the Apron/Taxiway Concrete Pavement Section. Sheet CP501 also required installation of a 12 inch compacted subgrade for other project areas: (1) the Asphalt Pavement (Detail A5); (2) the Gravel Pavement (Detail C5 – compact top 12 inch subgrade to 95% density); (3) the Plain Concrete Pavement (Detail C8); (4) the Asphalt Apron/Helipad Shoulder (Detail E8); (5) the Concrete Dumpster Pad (Detail F1), and (6) the Concrete Mechanical Pad (Detail F5), as well as a six inch compacted subgrade for the Gravel Area (Detail E5 – compact top six inch subgrade to 95% density) (R4, tab 18 at 4862).

Specification Section 32 11 16

23. Specification Section 32 11 16, SUBASE FOR PAVING (AGGREGATE SEPARATION LAYER), sets forth requirements for constructing the subbase (R4, tab 17 at 4199). Part 2, PRODUCTS, paragraph 2.1, MATERIALS, paragraph 2.1.1, Subbase Course, required Hensel Phelps to select material for the subbase with pre-placement tests for material meeting the following criteria:

> Material retained on the No. 4 sieve shall have a percentage of wear not to exceed 50% after 500 revolutions when tested as specified in ASTM C131/C131M. Aggregate shall be reasonably uniform in density and quality. Slag shall be an air-cooled, blast-furnace product having a dry weight of not less than 65 pcf.

(R4, tab 17 at 4203)[3] Paragraph 2.1.1 also specifies that aggregates shall have a maximum size of one inch and be within certain percentage limits by weight passing through square-mesh sieves (*id.*).

24. Specification Section 32 11 16, paragraph 1.5, QUALITY ASSURANCE, provides that "[s]ampling and testing are the responsibility of the Contractor, to be

[3] "ASTM (American Society for Testing and Materials), now known as ASTM International, is a 'standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.'" *BCI Construction USA, Inc.*, 24-1 BCA ¶ 38,522 at 187,244 n.2 (citations omitted).

performed by an approved testing laboratory in accordance with Section 01 45 04.10 06 CONTRACTOR QUALITY CONTROL" (R4, tab 17 at 4200-01).

25. Specification Section 32 11 16, paragraph 3.3, PREPARATION OF UNDERLYING MATERIAL, required Hensel Phelps to prepare the underlying course (i.e., the subgrade)—including a requirement to stabilize the subgrade—as follows:

> Prior to constructing the subbase course, clean the underlying course or subgrade of all foreign substances. The surface of the underlying course or subgrade shall meet specified compaction and surface tolerances. Correct ruts, or soft yielding spots, in the underlying courses, subgrade areas having inadequate compaction, and deviations of the surface from the specified requirements, by loosening and removing soft or unsatisfactory material and by adding approved material, reshaping to line and grade, and recompacting to specified density requirements. **For cohesionless underlying courses or subgrades containing sands or gravels, as defined in ASTM D2487, the surface shall be stabilized prior to placement of the overlying course**. Accomplish stabilization by mixing the overlying course material into the underlying course, and compacting by approved methods. The stabilized material shall be considered as part of the underlying course and shall meet all requirements for the underlying course. The finished underlying course shall not be disturbed by traffic or other operations and shall be maintained in a satisfactory condition until the overlying course is placed.

(R4, tab 17 at 4203-04) (emphasis added)[4]

26. The stabilization requirement in paragraph 3.3 requires that the contractor meet standards set by the specification's compaction and in-place gradation tests (R4, tab 17 at 4202-04; tr. 6/197-200).

27. Specification Section 32 11 16, paragraph 3.7, COMPACTION, requires compaction of the subbase to "continue until each layer is compacted through the full depth to at least 100% of laboratory maximum density," and "adjustments in

[4] "Cohesionless soil" is soil that "won't hold together," and "has a tendency to fall into holes more and not hold the shape" (tr. 2/229).

compacting or finishing procedures as may be directed to obtain true grades, to minimize segregation and degradation, to reduce or increase water content, and to ensure a satisfactory subbase course" (R4, tab 17 at 4204). Section 32 11 16, paragraph 1.5.2.4, Field Density Tests, and paragraph 1.5.3.2, In-Place Tests, require placed material meet certain in-place density testing and sieve analysis, tested at various intervals of placement (R4, tab 17 at 4201-02).

28. The subbase specification containing the subgrade stabilization requirement was derived from the pertinent UFGS, with changes made to the specifications by the USACE utilizing a computer program known as SpecsIntact (tr. 6/193-94, 228).[5] To meet design requirements, Hensel Phelps had to meet in-place and compaction testing requirements (tr. 6/195-97). The gradation selected from the guide specification (UFGS) determined the expected strength of the layer (tr. 6/193, 195, 229-30, 7/314- 16).

Geotechnical Evaluation Report (GER)

29. Specification Section 31 00 00.00 06, EARTHWORK 06/15, PART 1, GENERAL, paragraph 1.1 REFERENCES, lists publications that "form a part of this specification to the extent referenced" (R4, tab 16 at 3718). One such publication is ASTM D 2487 (2011), Soils for Engineering Purposes (Unified Soil Classification System) (R4, tab 16 at 3718-19). ASTM D 2487 includes in Table 1, Soil Classification Chart, a system for classifying soils such as well-graded gravel (GW), poorly graded gravel (GP), silty gravel (GM), clayey gravel (GC), well-graded sand (SW), poorly graded sand (SP), silty sand (SM) and clayey sand (SC). ASTM INT'L, ASTM D2487 – 11, STANDARD PRACTICE FOR CLASSIFICATION OF SOILS FOR ENGINEERING PURPOSES (UNIFIED SOIL CLASSIFICATION SYSTEM 3 (2011).[6]

30. Paragraph 1.4 GEOTECHNICAL REPORT references the "Geotechnical Evaluation Report - MacDill ARC and ASF," dated January 2017 and prepared by Dr. Chun-Yi Kuo and Mr. Justin Roosa of the Louisville District (R4, tab 16 at 3719).

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[5] "SpecsIntact is an automated system for preparing standardized facility construction specifications used worldwide by" the USACE, providing "automated functions and built-in quality assurance reports that allow users to adapt standardized facility construction specifications to fit their projects and assure quality control for project specifications from beginning to end." *SpecsIntact*, WHOLE BLDG DESIGN GUIDE, https://www.wbdg.org/dod/specsintact (last visited May 15, 2026).

[6] Accessed via Scribd, *available at* https://www.scribd.com/document/488180059/ASTM-D2487-11-Classification-of-Soils-for-Engineering-Purposes-Unified-Soil-Classification-System-pdf (last visited May 15, 2026).

The GER is reproduced at the end of Specification 31 00 00.00 06 (R4, tab 16 at 3719, 3741-4123).

31. Paragraph 1.2 USE OF INFORMATION PROVIDED states:

> Information included in the Geotechnical Report [(GER)], as attached to this specification, is provided "for information only" and is not part of the Contract Documents. Subsurface soil boring logs are shown on the drawings. This data represents the best subsurface information available; however, variations may exist in the subsurface between boring locations. Bidders are urged to examine the information provided, make their own investigation of the site before bidding, and obtain additional geotechnical information should they desire.
>
> No consideration will be given for additional compensation for extra work for conditions which could reasonably have been anticipated from this geotechnical information.

(R4, tab 16 at 3719) Across each GER page is the notation "For Information Only" (R4, tab 16 at 3741-4123).

32. Paragraph 1.3 INTERPRETATION states that geotechnical data is provided for the convenience of bidders, for information only, and that the government disclaims responsibility "for the accuracy, true location and extent of geotechnical investigation" prepared by others, and for data interpretation by bidders (R4, tab 16 at 3719).

33. Paragraph 1.6.3 Cohesionless and Cohesive Materials, states:

> Cohesionless materials include materials classified in ASTM D 2487 as GW, GP, SW, and SP. Cohesive materials include materials classified as GC, SC, ML, CL, MH, and CH. Materials classified as GM and SM will be identified as cohesionless only when the fines are nonplastic. Testing required for classifying materials shall be in accordance with ASTM D 4318, ASTM C 136, ASTM D 422, and ASTM D 1140.

(R4, tab 16 at 3720)

34. Paragraph 1.6.4 provides the degree of compaction "is expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557 abbreviated as a percent of laboratory maximum density" (R4, tab 16 at 3720).

35. GER Section 6 PAVEMENT RECOMMENDTIONS, paragraph 6.1, General, provides, in part, that "[i]n order for a pavement to perform satisfactorily, the subgrade soils must have sufficient strength and be stable enough to avoid deterioration from construction traffic and support the paving equipment" (R4, tab 16 at 3771).

36. The GER references UFC 3-260-02 (R4, tab 16 at 3771, 3773, 4103; tr. /139), stating, in paragraph 6.2, that "UFC 3-260-02 *Pavement Design of Airfields* (6- 30-2001) [among other listed UFCs] . . . establish[es] general provisions and geometric design criteria of pavements at military installations" (R4, tab 16 at 3771; tr. 6/181, 187). Paragraph 6.2 also states that PCASE (Pavement-Transportation Computer Assisted Structural Evaluation) software, developed by TSC, "was used for the design of the pavements on this project" utilizing applicable UFC criteria including "subgrade and base requirements, thickness designs, drainage layer computations, compaction requirements, criteria for stabilized layers, concrete pavement joint spacing, and determination of overlay thicknesses" (R4, tab 16 at 3772; tr. 7/221-22).[7]

37. GER paragraph 6.3.2 Rigid Pavement includes Table 14 titled "Airfield Pavements: Rigid Pavement" and identifies the material, thickness, and specification of each pavement layer (R4, tab 16 at 3774). The plain concrete thickness is listed as eight inches and references UFGS 32 11 13, the drainage layer thickness is four inches and references UFGS 32 11 10, the aggregate separation layer thickness is four inches and references UFGS 32 11 16, and the compacted subgrade thickness is twelve inches and references UFGS 31 00 00.00 06 (R4, tab 16 at 3774).

38. GER Section 7 LIMITATIONS states, in part, "[r]egardless of the thoroughness of a geotechnical exploration, there is always a possibility that conditions between borings will be different from those at specific boring locations, and that conditions will not be as anticipated by the designers or contractors" (R4, tab 16 at 3776).

[7] PCASE is a computer program utilized by the USACE for structural design of DOD airfield pavements (tr. 6/182)

UFC 3-260-02 and K-Value[8]

39. UFC 3-260-02, CHAPTER 5, SITE INVESTIGATIONS, Section 8, SOIL STRENGTH, states "[s]oil strength is measured by the CBR for use in designing flexible pavements and by the modulus of soil reaction (k) for the design of rigid pavements" (R4, tab 643 at 50, 53).[9] UFC 3-260-02 includes Table 6-1, Typical Values of Modulus of Soil Reaction, and sets forth the "[t]ypical values of k for different soil types and moisture contents" (R4, tab 643 at 60).

40. Table 6-1 includes the following statement:

> Pavement design should be based on test data or at least historical data of past designs and evaluations at the same facility if at all possible. These default values are suggested for use for preliminary calculations or for small projects or projects where better data simply cannot be obtained. Inadequate testing or evaluation budgets are not an excuse to use these values for final design.

(*Id.*)

41. Table 6-1 specified a k-value of 200 pci (pounds per cubic inch) for the type of soil at the Project (SP – poorly graded sand), however, the government utilized a k-value of 150 pci to add conservatism in the design (R4, tab 643 at 60; tr. 3/144, 7/225-26). A lower k-value number indicates existence of a lower strength soil, while a higher k-value suggests a higher strength material (tr. 7/226-27). As explained in the GER, "[b]ased on empirical correlation and experience with similar soil types, a modulus of subgrade reaction (*ks*) of 150 [pci] was assumed for rigid pavement design" (R4, tab 16 at 3774). Mr. Roosa (the co-author of the GER) stated that, in relying upon Table 6-1, he chose a more conservative k-value of 150, rather than 200, to indicate "that the subgrade soils are not as strong. They're not as stiff." (Tr. 7/226)

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[8] "The k-value is a commonly applied value in concrete pavement design" which estimates the measure of support provided by subgrade or subbase layers below a concrete pavement surface. *Description*, ACPA, http://www.apps.acpa.org/apps/kValue.aspx (last visited May 19, 2026).

[9] "The rigid pavement design procedure is based on flexural strength, modulus of subgrade reaction of the subgrade soils, pavement thickness, and traffic composition" (R4, tab 16 at 3774). "The strength of the subgrade is expressed in terms of the modulus of soil reaction (k) for rigid pavement design" (R4, tab 643 at 59). K-value represents a subgrade modulus of soil reaction; modulus indicates the strength of material, expressed in degrees of strength (tr. 8/31-32).

Thus, rigid pavement, i.e., the concrete apron, was designed using a k-value of 150 pci (R4, tab 16 at 3774, tab 643 at 60; tr. 7/222-23, 226).

42. As specified in GER Section 2 (EXPLORATORY FINDINGS) and paragraph 2.1 (geophysical investigation) (R4, tab 16 at 3750), the government conducted a site investigation to determine soil characteristics (tr. 7/216). To measure soil strength, the subsurface investigation included drilling boreholes at the site and using a standard penetration test (SPT) which allows visualization of the soil from pulled material. The government also performed geophysical testing, an evaluation of the subsurface conditions. (Tr. 7/204)

43. In preparing the GER, Mr. Roosa testified that, in addition to the UFC, he reviewed empirical correlations, prior construction (tr. 7/203-05, 207-08), and historical k-values between 200-300 pci located near the Project site (tr. 7/223-24; R4, tab 643 at 60; GUPFF ¶ 38). Mr. Roosa also considered information from a 2008 MacDill AFB pavement evaluation report discussing k-value of subgrade soils on base (tr. 7/223-24) and soil strength for existing runways and taxiways at MacDill (tr. 7/281-82), "look[ing] at how the pavement sections for those previously improved areas were designed" and examining the actual designs and drawings for the pavement sections (tr. 7/282). According to Mr. Roosa, the k-value for soils reflected in that report "were in the ballpark between 2 and 3 hundred. . . . Some of them were up to 400." (Tr. 7/224-25) Mr. Roosa noted that "these evaluations are conducted every so often to evaluate the condition of airfield pavements" (tr. 7/279). Mr. Roosa also reviewed Florida Department of Transportation (FDOT) guidance,[10] which

[10] Hensel Phelps's post hearing brief contains numerous, sometimes lengthy objections to the government's proposed findings, without providing record citations supporting appellant's specific objections. For example, Hensel Phelps objects to the government's statement regarding Mr. Roosa's testimony, that FDOT "guidance recommended a k-value of 200 pci for sandy materials" (PFOF ¶ 39). In response, Hensel Phelps states "[t]he [g]overnment's PFOF is incomplete and misleading. FDOT also requires the k-value to be reduced by 50% when designing base course within 2 feet of the water table, which would have meant this Project's assumed k-value should have been reduced, and that soil test data should have been collected from in situ materials prior to pavement design, to ensure a proper design was performed." (App. Reply at 14) Yet Hensel Phelps does not cite any record evidence or testimony to support its assertion regarding the water table, FDOT requirements, or why the "assumed k-value should have been reduced" or that in situ soil data therefore should have been collected. Counsel's assertions, without record support, do not constitute preponderant evidence. *ECC Inter. LLC*, ASBCA Nos. 61176, 62029, 21-1 BCA ¶ 37,824 at 183,692 ("Appellant provides no legal authority in support of its conclusion, and simply saying it does not make it so").

recommended a k-value of 200 pci for sandy materials (tr. 7/223, 278-79). On questioning from appellant's counsel whether Mr. Roosa "look[ed] at how the pavement sections for those previously improved areas were designed," Mr. Roosa confirmed that he examined the actual designs and drawings for the pavement sections (tr. 7/282).

44. A CBR (California Bearing Ratio) test was utilized to measure soil strength for flexible pavement design such as asphalt and gravel (tr. 7/217-18). The pavement design for flexible pavements was based on a CBR of 8 derived from four tests on the site as indicated in the GER (R4, tab 16 at 3772 (¶ 6.3.1)). Hensel Phelps challenges CBR values set forth in the GER, stating that only one CBR sample was taken from the apron area, in an area previously cleared and developed, that a second was taken from a new skeet and grenade range a mile from the airfield, while the remaining two were collected from an area encompassing the proposed access road area and a gravel parking lot (app. reply at 12).

Plate Load Testing

45. The k-value for soil may be determined by performing a field plate-bearing test which involves utilizing a cylinder to determine a ratio for bearing and deflection (tr. 7/222). The UFC states that plate load tests are performed on "the in-place conditions," intended to provide confidence that the k-value is representative of those conditions, and that "other pertinent soil data must be made to aid in the selection of the design k value" (R4, tab 643 at 59).

46. Mr. Roosa stated that he did not utilize a plate-load field test to determine the k-value for the apron, concluding it was not applicable for the Project because, pursuant to the grading plan, structural fill was going to be used to bring up the apron subgrade. Conducting a plate-load test on existing grades was unreasonable because ultimately the subgrade was going to consist of structural fill, not the existing grade (tr. 7/223).

VI. Wastewater Lift Station Claim – ASBCA No. 63397

47. The lift station claim, a subcontractor pass-through claim on behalf of Ajax, has two components, (1) costs incurred pursuing a possible VECP suggesting a redesign of the lift station, and (2) a differing site condition alleging the unknown existence of solid limestone bedrock at the lift station site (tr. 2/72-74).

Lift Station VECP Claim

48. Specification 33 32 13.14 SEWAGE LIFT STATIONS, GRINDER PUMP TYPE, paragraph 1.2, required Hensel Phelps construct a "submersible sewage grinder

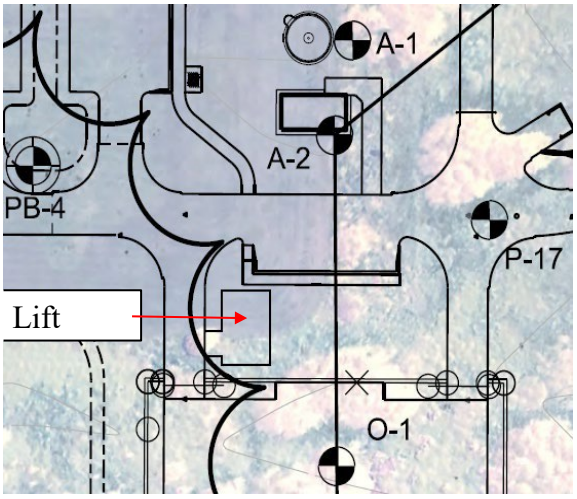
pump station," i.e., a lift station for pumping wastewater, which included completing design elements of the lift station and wastewater system (R4, tab 17 at 4506, 4508, 4511, tab 18 at 4884 (sheet CU105 - Keynote 9 and sheet Note 5), 4916-26; GUPFF ¶ 135; tr. 6/29). Specification paragraph 2.6.2 required a 10-foot diameter concrete wet well and valve vault for the lift station (R4, tab 17 at 4513). Contract drawing sheet CU506 set forth the Lift Station Layout Plan (R4, tab 18 at 4916).

49. The contract incorporated from the Florida Governmental Utility Authority (FGUA) supplemental lift station specifications for Water and Wastewater Utility Systems (R4, tab 13 at 1468-69; GUPFF ¶ 136). Contract Specification Section 00 80 00.00 06, paragraph 1.63, states that "[t]The FGUA Supplemental Specifications have been attached to this specification. The Contractor shall comply with these specifications for water and wastewater utility system work at McDill Air Force Base." (R4, tab 13 at 1468-69) The Preface to the supplemental specifications required that "[a]ny proposed exceptions . . . be approved by the FGUA" (R4, tab 13 at 1471-73, tab 18 at 4910 (sheet CU401, Notes 10 & 11); GUPFF ¶ 136). An August 25, 2017, FGUA permit for the Project identified FGUA as the owner of the lift station once it is placed into service and included calculations for designed capacity and explanations for the design (R4, tab 24 at 5749-68; GUPFF ¶ 142).

Lift Station Differing Site Condition Claim

50. Contract drawing, sheet B-101, depicts the lift station and the surrounding borings A-1, A-2, PB-4, and O-1, which, according to the ledger in the bottom right-hand corner of sheet B-101, are within 200 feet of the lift station. Borings A-1 and A-2 are within 100 feet of each other. (R4, tab 18 at 4682; tr. 7/211-12; GUPFF ¶ 146)

51. Reproduced below is a portion of sheet B-101 depicting the lift station and borings A-1, A-2, PB-4, and O-1 (GUPFF ¶ 147; R4, tab 18 at 4682).



52. Recognizing SPT "is one of the most widely used field test in geotechnical engineering," the GER set forth the following procedures for conducting the test:

> At regular intervals, drilling tools are removed and soil samples obtained with a standard 1.4-inch-inside-diameter (I.D.), 2-inch-outside-diameter (O.D.), split-tube sampler. The sampler is first seated six inches to penetrate any loose cuttings and then driven an additional foot with blows of a 140-pound hammer freefalling thirty inches. The number of hammer blows required to drive the sampler the final one foot is designated the "penetration resistance" or *N*-value. The penetration resistance when properly evaluated is an index to the soil's strength.

(R4, tab 16 at 3752; GUPFF ¶ 148)

53. The contract boring logs showed "refusal" for borings PB-4 and A-1.[11] Refusal for A-1 was at 30 feet after passing through weathered limestone, while refusal for PB-4 was at 19.4 feet at the bottom of weathered limestone (R4, tab 18 at 4687 (sheet B106), 4692 (sheet B111)). Boring logs for O-1 and A-2, which are located closer to the lift station site than boring logs PB-4 and A-1, did not show refusal but did depict weathered limestone (R4, tab 18 at 4686 (sheet B105), 4687 (sheet B106)).

VII. Hensel Phelps Pre-Bid Activities

54. By email dated August 15, 2017, an employee of Hensel Phelps contacted Ajax inquiring, "I understand that AJAX may be looking at the Site Development on the Army Reserve Center @ MacDill AFB which bids in the morning. Hensel Phelps is bidding this as a General Contractor and would welcome your proposal." (R4, tab 438 at 27342)

55. Appellant states "[a]t the outset, Hensel Phelps established that it was familiar with the Project Specifications, undertook a rigorous process to develop its understanding of the work required to bid and complete the Project, and submitted an appropriate bid accordingly" (app. br. at 49 n.15). As support, appellant cites the testimony of its operations manager, Mr. Joseph Giunta (tr. 1/54-59). However, a review of Mr. Giunta's testimony cited by appellant establishes that Mr. Giunta

[11] "Refusal is defined as the point beyond which further penetration was impractical with the exploration method used" (R4, tab 18 at 4683). SPT refusal means the sampler at the end of the drilling apparatus will not advance into the material (tr. 4/64, 7/212-13).

testified only in general terms regarding the process Hensel Phelps utilizes in developing its understanding of work required to bid and complete a project (*id.*). Moreover, Mr. Giunta testified specifically that he was not involved with that process "[o]n this particular job" and "got involved soon after the award" (tr. 1/56).

56. Mr. Doug Taylor was the Hensel Phelps senior estimator assigned to bid the Project (tr. 1/55). Mr. Taylor had 12 individuals on his estimating team (tr. 1/56). Neither party introduced any testimony or documentary evidence establishing Hensel Phelps's bidding methodology, or determinations made by Mr. Taylor and his estimating team in bidding the Project.

VIII. Ajax Pre-Bid Activities

57. Ajax submitted its bid to Hensel Phelps on August 15, 2017, the same day it was contacted by Hensel Phelps (finding 54; R4, tab 437 at 27335-41). The bid included earthwork ($3,239,907.79), taxiway concrete pavement ($5,001,750), and mobilization costs ($2,725,299) (R4, tab 437 at 27336; tr. 6/11-12). Ajax's total bid price was $20,348,986.33 (R4, tab 437 at 27337). Not included in Ajax's August 15, 2017, bid was work concerning design and construction of the wastewater lift station. This work was expressly excluded as an item not covered by its bid (item 22). (R4, tab 437 at 27338; tr. 6/13-14) Ajax submitted bids to four other prime contractors seeking award of the contract (tr. 6/12).

58. Mr. Joseph Minich, Ajax's estimator, prepared Ajax's bid for submission to Hensel Phelps and other prime contractors (tr. 6/6-7). Mr. Minich testified he was responsible for reviewing the specifications to determine which takeoffs to perform, and that Mr. Scott Pittman, Ajax area manager, typically reviewed the specifications as well. Mr. Minich explained that a takeoff utilizes contract drawing to determine what needs to be installed on the job and to verify quantities for bidding the contract. (Tr. 6/8, 10-11, 35) The actual takeoff work is performed using a software program and inputting the takeoff data from PDFs of the plans into the estimating software (tr. 6/10).

59. Mr. Minich stated that he reviewed the GER because Ajax submitted a bid to perform earthwork on the Project (tr. 6/37-38). Mr. Minich also stated that it is important for an earthwork company to know the types of soil encountered on the site, but that such knowledge is not important for a pavement company because "when you're doing the asphalt paving on top, there's requirements underneath that have to be met for that to be placed, so you're assuming that whoever is doing that work underneath is meeting the specifications on how it was designed" (tr. 6/36-37).

60. Mr. Minich testified regarding the markings of "for information only" on the GER, stating that he does not know what significance he attached to the markings

at the time he bid the Project but understands now it meant the USACE provided the information but was "not backing it" (tr. 6/38).

61. Mr. Minich testified he was aware of the stabilization requirement in the contract (tr. 6/47). Mr. Minich stated that Ajax performed a takeoff for the compacted subgrade, but that he did not perform a takeoff for the stabilization requirement because:

> there was nothing in there [the contract] to guide me on what to do. There was no thickness of -- how thick they needed the stabilization, there was no density requirements for stabilization, there's nothing in there that tells me what quantities I need to bid in a competitive bid environment to put anything in there for that.

(Tr. 6/41)

62. Mr. Minich likewise did not include an amount to cover the cost of stabilization because there was "no prescriptive requirements for that stabilization, which means we would have no idea how to quantify that" (tr. 6/45, 47-48). Mr. Minich stated he was concerned about adding the cost of stabilization to Ajax's bid because it would raise Ajax's bid price in a competitive environment (tr. 6/60). Mr. Minich acknowledged, however, that before submitting the bid, he "might have discussed" the stabilization requirement with Mr. Pittman, Ajax's area manager (tr. 6/48-49; R4, tab 441 at 27373).

IX. Hensel Phelps Submits Bid/Contract Award/Notice to Proceed

63. On August 16, 2017, Hensel Phelps submitted its bid to the government (R4, tab 13 at 1349). On September 28, 2017, Hensel Phelps entered the subject fixed price contract with the USACE in the amount of $49,643,000 (R4, tab 13 at 1349; JSF ¶ 1). On November 3, 2017, the government issued Hensel Phelps the Notice to Proceed (JSF 2; R4, tab 21).

X. Hensel Phelps Negotiates Subcontract with Ajax

64. On October 23, 2017, Ajax submitted to Hensel Phelps a revised quote, removing the earthwork (formerly Item 8) and adding construction of the wastewater lift station (Item 90) (*Compare* R4, tab 545 at 39725, 39727-28 (revised quote including the wastewater lift station ($122,000)), *with* R4, tab 437 at 27336 (8/15/2017, quote including Item 8 Earthwork ($3,239,907.79))). Mr. Minich testified that Hensel Phelps removed earthwork from Ajax's proposed scope of work because Hensel Phelps had "other, more competitive bids at that time" (tr. 6/16; R4, tab 439

at 27343). Mr. Minich stated that the revised quote included a bid for the wastewater lift station, explaining "after the bid went in, we negotiated that with Hensel Phelps, after the actual award of the bid" (tr. 6/8, 14-15). When asked by government counsel whether he "review[ed] the boring logs that are in the contract plans," Mr. Minich stated "[f]or the lift station after the bid went [into] the government, yes, when they asked us to look at price of the lift station" (tr. 6/32). Mr. Minich, the only witness with non-hearsay knowledge as to information utilized by Ajax post award in preparing its lift station bid provided only general testimony regarding the information in the boring logs (tr. 6/52-53).

65. On November 15, 2017, Hensel Phelps entered a subcontract with Ajax for, among other things, the airfield paving work and construction of the wastewater lift station (R4, tab 441 at 27353-54). The subcontract stated that "[a]ll work and materials shall be in accordance with . . . the following specification sections . . . 32 11 10 - Drainage Layer, 32 11 16 - Subbase for Paving (Aggregate Separation Layer) . . . ." (*id.*; tr. 2/217) (recognizing these specifications "fall within AJAX's scope of work"). Under the title "Site Concrete & Paving," the subcontract described the scope of paving work as "[f]urnish and install all aggregate base and sub-base materials, separation layers, stabilized drainage layers, etc. in accordance with the contract documents. Compacted subgrade will be provided by others to the elevations and within tolerances as described by the documents." (R4, tab 441 at 27354) Mr. Pittman, Ajax area manager, signed the subcontract for Ajax (*id.* at 27373). Ajax came to the site in early 2018 (tr. 2/219).

66. Hensel Phelps awarded McKenzie Contracting, LLC (McKenzie) a subcontract to perform earthwork, including preparation of apron's compacted subgrade (tr. 1/63, 183-84, 2/111, 133-34).[12]

XI. Contract Performance - ASBCA No. 63316

Need for a Stabilized Subgrade

67. From January 2018 to January 2019, Ms. Lydia Jones, USACE project engineer and COR, had conversations with McKenzie about problems McKenzie was experiencing with stabilization of the subgrade. When asked how to stabilize the area, Ms. Jones referred McKenzie to the contract requirements for stabilization set forth in the earthwork specification, stating "we referred them to the contract because the specification tells them what to do if there is an area that needs to be stabilized. And

[12] The actual terms of the agreement between McKenzie and Hensel Phelps and how specifically McKenzie bid on the Project are open questions, as neither Hensel Phelps nor the government informed the Board about details of McKenzie's bid or included in the record a copy of the McKenzie subcontract agreement.

in discrete areas, they were to undercut." (Tr. 7/6, 97-98) Ms. Jones also testified that "the method for stabilization in the aggregate separation layer specification [Section 32 11 16] is very similar to the method for stabilizing discrete areas that's included in the 3100 spec for the earthwork" (tr. 7/102) (referring to Specification Section 31 00 00.00 06, EARTHWORK, as the "3100 spec").

68. On January 22, 2019, a preparatory meeting was held with representatives of Hensel Phelps and Ajax in attendance along with representatives of the government including Ms. Jones regarding work associated with Specification Sections 32 11 10, Aggregate Drainage Layer, and 32 11 16, Aggregate Separation Layer (R4, tab 35 at 5921; tr. 2/216-17). As COR, Ms. Jones had no authority to change the contract or obligate the government monetarily (tr. 5/38, 7/8). One action item identified at that meeting was a Concrete Workshop to be held from January 29 to January 31, 2019 (R4, tab 35 at 5924).

69. Ms. Jones testified that, during the workshop, Hensel Phelps and Ajax approached the USACE "to discuss the requirements for stabilization of the aggregate separation layer." Ms. Jones stated, "we had the TSC there. They were the experts, so we consulted with them. And they recommended we tell Hensel Phelps to submit an RFI, request for information, to specifically state what they were asking." (Tr. 7/37) Because McKenzie had performed the subgrade work, Hensel Phelps and Ajax "were trying to figure out . . . who was responsible for the stabilization" (tr. 7/38).

70. Mr. Brian Spellicy, Hensel Phelps project manager (tr. 1/140, 144) testified regarding Ajax's subcontract with Hensel Phelps and its scope of work under the contract. When asked about the separation of work between McKenzie and Ajax, Mr. Spellicy stated:

> McKenzie had the early clear and grub work and grading the overall site so that it drained to the ponds onsite. And then before AJAX has started work, they fine graded, got it within, you know, a 10th of a foot, very close to perfectly on grade for fine grade, and then did final compaction to get it to probably 99% compacted[,] or 100% compacted in this case. And then as soon as we got to that compaction, we got a passing test, we would tell AJAX, it's your turn to go. So[,] McKenzie owned everything up through the top of the native soil, and then AJAX had the start of the paving section layers on top of that.

(Tr. 2/110-11)

71. As for the handoff from McKenzie to Ajax, Mr. Spellicy testified:

> So[,] as we were turning over the subgrade from McKenzie to AJAX, AJAX raised concerns that the existing soil that the subgrade didn't look suitable to start placing the rock on. Their concerns were that it was too soft, that it would lose compaction quickly. And they had concerns about being able to get compaction on that subgrade.

(Tr. 2/116)

72. As explained by Mr. Spellicy, soil at the Project, known as "Florida sugar sand," is "a very common soil type" in Florida, "especially for topsoil," it has "no clay content," and is "literally like sugar . . . [i]t doesn't hold its shape very well." Cohesionless soil "won't hold together," and "has a tendency to fall into holes more and not hold the shape." (Tr. 2/229) Hence the need for subgrade stabilization.

73. Mr. Spellicy testified that because the contract contained "no design for stabilized subgrade in the base contract drawings to go perform," neither McKenzie nor Ajax had "stabilized subgrade in their [sub]contract" with Hensel Phelps (tr. 2/214) and Hensel Phelps had no subcontractor (under contract) to perform work required to stabilize the subgrade (tr. 2/218). Yet Mr. Spellicy also acknowledged that paragraph 3.3 required Hensel Phelps to stabilize the subgrade if the subgrade consists of cohesionless soils (tr. 2/210-11). According to Mr. Spellicy:

> The spec reference points to cohesionless soils and how to deal with them on a -- to us on a reference basis. And honestly, we take that to mean, it should have told the designers they need to go design it, and it's something that was missed. So[,] if we were to purchase stabilization, if somebody was going to include that in the bid, they would need a lot more information to be able to price it.

(Tr. 2/218)

74. Mr. Matthew Horan, Ajax regional vice president, and at the time Ajax's project manager (tr. 6/66), testified that "the subgrade wasn't stabilized. It was compacted subgrade, so that was odd. It was just odd. I had not encountered a job where [it] was compacting subgrade." Mr. Horan was concerned that "there really wasn't an engineer designed for a stabilization section." (Tr. 6/135) Mr. Horan noted that "it's odd since we've done jobs in the vicinity that did require stabilization." Mr. Horan spoke with Mr. Pittman about his concerns, who, according to Mr. Horan,

agreed, stating "it's Florida" and that "it should be stabilized subgrade . . . for the durability of the typical section" (Tr. 6/135-36)

75. Mr. Spellicy was aware that before Ajax began work on the subbase, it had concerns about whether McKenzie had properly prepared the subgrade, including the ability of the subgrade "to hold up to truck traffic after . . . it was compacted" (tr. 2/205). Mr. Horan had "several conversations" with Mr. Spellicy about "the oddity of not having a stabilized subgrade" and that "it wasn't designed for it in the plans" (tr. 6/136-37).

76. By email to Mr. Spellicy dated January 23, 2019, Mr. Horan noted his understanding that McKenzie and Hensel Phelps believe "that the compacted subgrade is ready for placement of the Subbase (Aggregate Separation Layer)" (R4, tab 447 at 27434). In his email, Mr. Horan discussed several provisions set forth in the Earthwork Specification 31 00 00.00 06 discussing "unsatisfactory materials, cohesionless materials, proof rolling of subgrade to display rutting and/or pumping of material, subgrade suitability, and preparation of underlying course prior to placement of subbase" (R4, tab 447 at 27434). Mr. Horan stated in his email "[i]t is Ajax's opinion that the current condition of the subgrade does not meet several of these requirements" (*id.*). Mr. Horan's email attached several highlighted portions of the Earthwork and Subbase Specification "which specifically state what is required of the subgrade in order to move forward with placing subbase material" (*id.*). Two provisions highlighted by Mr. Horan were paragraph 1.6.3, Cohesionless and Cohesive Materials, and 3.3, PREPARATION OF UNDERLYING MATERIAL (*id.* at 27438, 27446-47). Mr. Horan also listed and highlighted the following additional unmet contract requirements: paragraphs 1.6.2 Unsatisfactory Materials, 3.13 EMBANKMENTS AND STRUCTURAL FILL, 3.13.1 Earth Embankments, 3.14 SUBGRADE PREPARATION, 3.14.1 Proof Rolling, 3.16.1 Subgrade and Embankments, 3.18.7 Subgrade Suitability, and 3.19 DISPOSITION OF SURPLUS MATERIAL (*id.* at 27438-45).

77. Mr. Spellicy confirmed that he walked the Project with Mr. Horan and "did notice that areas that had already been compacted and graded would lose stability, and, you know, you could deform them or after a couple of days of being compacted. You could see tire tracks in them, physically." (Tr. 2/223)

78. When asked about Mr. Horan's email and why McKenzie had not performed stabilization of the cohesionless subbase as set forth in Section 32 11 16, paragraph 3.3, Mr. Spellicy responded, "[w]ell, it's not their work to perform. It's not their specification section either. This is AJAX's spec." (Tr. 2/227-28) When asked whether "[t]he purpose of the email is to let you know that AJAX believes McKenzie hasn't performed in accordance with the specifications," Mr. Spellicy replied "[t]hat's his opinion here. Yes." (Tr. 2/228)

79. Mr. Spellicy, in discussing Mr. Horan's January 23, 2019, email, stated:

> when McKenzie prepped the subgrade, they wetted it to right moisture content, we checked density on it, and it met a straight edge test after they rolled it when it was freshly touched. But you come back to that dirt three days later and try to drive a truck through it, and it's turned back into Florida sugar sand. And it won't hold up to traffic.

(Tr. 2/229; R4, tab 447)

80. Mr. Spellicy agreed with some of the points raised by Mr. Horan in his January 23, 2019, email, stating:

> after seeing the state of it [the subgrade], passing tests but still looking like it did some days later, I agreed that there was probably an issue. I reiterated that McKenzie had done everything correctly, that we had passed all the tests and followed the design, but that we would go ask the question about stabilization.

(Tr. 2/230)

81. Mr. Spellicy agreed that "Paragraph 3.3, Preparation of Underlying Material," required "Hensel Phelps to stabilize the subgrade if the subgrade consists of cohesionless soils" and that the airfield apron "consisted of cohesionless soils" (tr. 2/210-11). Mr. Spellicy testified that paragraph 3.3 "tells you that stabilization will be done by mixing the overlying coarse [sic] material into underlying coarse [sic] and compacted," and acknowledged that Hensel Phelps ultimately utilized this same methodology to stabilize the subgrade by "blending some type of rock into the subgrade" which, according to Mr. Spellicy, is "how stabilization is performed" (tr. 2/211; *see also* tr. 2/172 ("AJAX had proposed blending in that rock that was already out there")).

82. Mr. Michael Morgan, Ajax's project manager (tr. 3/43), likewise testified that "[t]he soils on site were cohesionless, poorly graded sands, had to be stabilized" (tr. 3/41). During the hearing, Mr. Morgan, who was responsible for preparing Ajax's airfield paving redesign and lift station claims (tr. 3/40) testified to his understanding that contract drawings take precedence over standard contract specifications (tr. 3/89, 301) ("The spec says the word, stabilization. It's not shown in the drawings. The drawings always override general specifications.").

RFI 0247

83. Mr. Horan drafted RFI 0247 "Subgrade Stabilization at Airfield Paving" which Hensel Phelps submitted on behalf of Ajax on January 30, 2019 (tr. 2/215, 117, 6/139, 155; R4, tab 36 at 5926). The RFI stated, in part:

> Specification Section 32 11 16 Paragraph 3.3 states that [f]or cohesionless underlying courses or subgrades containing sands or gravels, as defined in ASTM D2487, the surface shall be stabilized prior to placement of the overlying course. The spec then vaguely explains the stabilization process within a few sentences; Accomplish stabilization by mixing the overlying course material into the underlying course, and compacting by approved methods. The stabilized material shall be considered as part of the underlying course and shall meet all requirements for the underlying course.
>
> . . . There is no mention of stabilizing the subgrade in any of the Contract Drawings and no designed performance requirements of the stabilized subgrade are provided.
>
> . . . As mentioned previously, there is no detail in the typical sections showing a stabilized subgrade prior to placement of subbase. The contractor recommends that the 12" compacted subgrade section shall be stabilized using approved materials (specifically a locally sourced limerock which meets P-211 specs by the FAA) prior to placement of the subbase. See attached for the preferred limerock material that was recently used at Taxiway Golf at MacDill AFB.
>
> Please provide an engineered design for the stabilization method at areas with cohesionless soil and confirm the use of the proposed limerock is suitable for use.
>
> Potential costs are associated with this RFI.
>
> The information contained in this RFI is being provided by Hensel Phelps in its capacity as a general contractor and not a design professional. Hensel Phelps disclaims all

> responsibility for design. Responsibility for design remains solely with Owner and Designer.

(R4, tab 36 at 5926-27)

84. Mr. Spellicy explained the purpose of RFI 0247, stating:

> So[,] AJAX recommended that the subgrade needed to be stabilized, which is blending some type of rock into that dirt and re-compacting it to stiffen it up. We told them that the stabilization is not shown in the paving section. It's -- the earthwork specification tells you to use the native soil. It shows compacted subgrade there and that they're supposed to go right on top of the subgrade. So[,] we wrote this to clarify if stabilization was going to be required.

(Tr. 2/116-17)

85. When asked whether, in preparing the RFI, Hensel Phelps checked the contract documents to determine whether there was a stabilization layer contained in the design, Mr. Spellicy stated "[t]here is [sic] some references to stabilization. There's some recommendations that it should have been included, but it was not included in the drawings." (Tr. 2/117)

86. In a January 30, 2019, email to Ms. Jones, Mr. David Kiefer, a geotechnical engineer in the Louisville District (tr. 7/42), stated that "if the subgrade is compacted . . . and is stable then further 'stabilization' with the subbase material should not be required" (R4, tab 646). Mr. Keifer's statement that "I don't think we have done this as a rule at WPAFB where we have a sand and gravel subgrade," reflects the difference that, unlike Florida, the soil at Wright-Patterson Air Force Base — located in central Ohio — is sand and gravel, not cohesionless Florida sugar sand (R4, tab 646; tr. 7/45). As noted by Mr. Stacy Heusel, an employee in the USACE Center of Expertise, in discussing the difference between sand and gravel, "gravel is coarser than sand, so you got larger particles than you do in the sand material" (tr. 6/233).

87. Mr. Kiefer's February 5, 2019, email—which forwards to Ms. Jones the response to RFI 0247—states specifically that "LRL [Louisville District] considers the stabilization process a spec requirement, although we rarely have to follow this procedure" (R4, tab 647; tr. 7/181). Mr. Kiefer then repeats his earlier concern, "[a]s long as they get and maintain the subgrade compaction, no other stabilization is required" (R4, tab 647).

88. On February 5, 2019, Ms. Jones submitted the following response to RFI 0247:

> Although paragraph 3.3 Preparation of Underlying Course, Specification Section 32 11 16 Subbase For Paving (Aggregate Separation Layer), is considered a requirement of the contract, the COE will waive the requirement for stabilization of the underlying course provided the following conditions are met during the pavement construction:
>
> 1. The natural sand subgrade is compacted to the requirements of [S]pecification Section 31 00 00, paragraph 3.14.3.4 and also the proofroll requirement of paragraph 3.14.1.
>
> 2. The Contractor maintains the density and moisture in the subgrade at the time of subbase placement.
>
> 3. The Contractor should minimize the time between acceptance of the subgrade and placement of the subbase. This will ensure moisture and density retention of the subgrade.
>
> 4. Re-wetting and re-rolling of the subgrade surface may be required immediately prior to placement of the separation layer.
>
> 5. Any areas with prolonged exposure to windy and/or sunny weather will require proper moisture adjustments prior to placing any additional courses.
>
> 6. Once the subsequent layers are placed and confinement is achieved, the subbase material is suitable for the support of the construction paving equipment and pavement section.
>
> 7. Additionally, the subbase layer material may require the same level of effort as the subgrade.

(R4, tab 37 at 5963)

89. The RFI was signed by Ms. Jones as COR and contained the following note:

> THE RFI SYSTEM IS INTENDED TO PROVIDE AN EFFICIENT MECHANISM FOR RESPONDING TO

> CONTRACTOR'S REQUESTS FOR INFORMATION. IT DOES NOT PROVIDE AUTHORITY TO PROCEED WITH ADDITIONAL WORK. IF THE CONTRACTOR CONSIDERS THE RFI RESPONSE A CHANGED CONDITION, PROVIDE WRITTEN NOTICE TO THE COR IN ACCORDANCE WITH CONTRACT PROVISIONS.

(*Id.*)

90. By email to Mr. Horan dated February 5, 2019, Mr. Theodore Mason of Hensel Phelps forwarded the government's response to RFI 0247 (R4, tab 449 at 27492). By email also dated February 5, 2019, Mr. Horan informed others at Ajax as follows:

> Please see the below response from the [USACE] for the subgrade stabilization. Basically, the subgrade needs to pass the requirements of the Earthwork Specs first, prior to the subgrade being accepted. Since I do not trust Hensel Phelps's or MaKenzie's [sic] QC process, we need to make sure that the following items are being checked and accepted/approved prior to us placing the subbase.
>
> 1. Proof rolling of the subgrade shall be performed to determine the presence of unstable or unsatisfactory soils. Portions of the subgrade which rut or pump excessively during the proof roll observation shall require subgrade modification as listed under Paragraph 3.14.1 of Spec 31 00 00.00 06. The proof rolling needs to occur when the subgrade is believed to be on-grade to ensure that it will not rut during our subbase operation.
>
> 2. Per Paragraph 3.14.2; After rolling, the surface of the subgrade for airfields shall not show deviations greater than 1/2 inch when tested with a 12 foot straightedge applied both parallel and at right angles to the centerline of the area. The elevation of the finish subgrade shall not vary more than 0.05 foot from the established grade and cross section.

> 3. Subgrade shall not contain root and other organic matter.
>
> 4. Subgrade density shall be 100%.
>
> These are the four points that we need to be looking for to accept their subgrade. Jeff, we will need your help during this process to make sure it is right prior to our placement of subbase. If there are some areas of concern during the acceptance process, then we need to bring it to [Hensel Phelps's] attention of the possible overrun in our subbase material and that we propose to be compensated for overruns over 1/2 inch of our 4-inch layer. Get with Kevin Custer and make sure that he is aware of the criteria for subgrade acceptance.
>
> If their material does pass the spec and is firm and unyielding then we need to work together with [Hensel Phelps] and MacKenzie [sic] during the process so that items 2-7 below are met while subbase is being placed. I will call Brian tomorrow to explain my concerns.

(*Id.* at 27491)

Ajax Objects to "Waiving" the Stabilization Requirement; Subgrade Unacceptable

91. In response to Mr. Horan's email, Mr. Dale Purcell, Ajax construction manager (tr. 6/82), informed Messrs. Minich, Pittman, and Jeff Purcell in a February 6, 2019, email:

> We don't want them to waive the requirement, it's the proper way to support and construct pavements. Obviously they are afraid of the additional costs associated with stabilizing everything. We will follow the criteria for checking behind Mackenzie [sic] when they are finished working it for the third time. We will evaluate it then, and keep you posted.

(R4, tab 449 at 27491) According to Mr. Horan, Mr. Dale Purcell, as construction manager, oversaw resources and building, and based upon his experience had "dealt a lot with subgrade stabilization, especially in Florida, so he [felt] passionate . . . that it should be stabilized" (tr. 6/141).

Hensel Phelps Instructs Ajax to Proceed with Separation Layer Work Without Stabilization of Subgrade

92. Even after receiving the response to RFI 0247, Ajax still expressed concern to Hensel Phelps about the condition of the subgrade (tr. 2/241). Per Mr. Spellicy:

> They were still expressing concern about the quality of the soil, you know, blaming the subgrade. We don't like it, should still be stabilized. But they did proceed. I mean, we had direction, and we had the recipe for success, so to speak, there to go put that rock down. So[,] they proceeded with it.

(Tr. 2/129)

93. By email dated February 18, 2019, Hensel Phelps informed Ajax that "[a]t this point McKenzie is turning this area over to Ajax to start the separation layer" (R4, tab 453 at 27512; tr. 2/243).

94. Mr. Jeff Purcell, by email dated February 18, 2019, to Mr. Horan and Mr. Dale Purcell, provided nine photographs of the Project area, stating "Matt these guys [McKenzie] are a total disaster they tried to do this straight edge test half of these areas have been back dragged with a skid steer, it's all fluffed up and dry as a bone" (R4, tab 452 at 27501; tr. 6/144).

95. By email dated February 19, 2019, Mr. Pittman informed Mr. Spellicy and Mr. Giunta, Hensel Phelps operations manager, that:

> This subgrade is absolutely unacceptable from an engineering standpoint, it is clearly not firm and unyielding. This is a result of trying to compact a cohesionless soil or Florida sand and it is not intended to sustain any kind of loading. If directed we will proceed with placing the drainage layer at this location, but please understand there will be significant overruns of our drainage layer material that we will have to pass on to [Hensel Phelps].
>
> Understanding [Hensel Phelps's] position the last couple months and the commitments you have made with the Base, I can understand you need to move past the grading experiment that has been going on for months now. All in all this is [a] relatively small area and hopefully the

> additional drainage layer material will bridge the underlying shortcomings. That said, we really need an engineering solution going forward with the rest of this project. If not the additional costs will be astronomical and in addition Ajax cannot be held responsible for kind of [sic] warranties of the finished product (concrete or asphalt) under these current construction methods.
>
> We have discussed the solutions with your team previously and will be happen [sic] to discuss again further if needed, but some changes need to be made going forward.

(R4, tab 454 at 27519)

96. Mr. Horan stated that, although he felt the subgrade needed to be stabilized, and "despite my concerns in the field, we were shown, you know, test results from Hensel Phelps that it passed the compacted subgrade test" (tr. 6/142).

97. By email dated February 20, 2019, Mr. Spellicy responded to Mr. Horan, stating:

> I spoke to Matt and our team at length about this issue this morning. I understand that Ajax is used to dealing with a stabilized subgrade in most Florida projects, but the government has already stated that stabilization should not be needed as long as the subgrade prep is completed properly. The RFI confirming that is attached. This preparation includes initial stripping and rolling, government witnessed proof rolling prior to installing fill, and compacted lifts of fill to the designed elevations within .05'. The subgrade is also required to be inspected with a straight edge test after final passes with the roller. The area in question has passed compaction at 100% with the moisture content maintained, and the straight edge test was completed Monday of this week. There is no specification requirement to perform a final proof roll on the finished grade. McKenzie's survey of the area was also sent to Ajax Monday of this week. At this time the subgrade has been prepared per the specifications and the requirements of RFI 247.
>
> If Ajax believes there is still an issue with the subgrade design per the specifications, I urge you to generate the question to the design team immediately so that follow on

> work can begin. Time is of the essence for this work and each day lost further impacts the MacDill flight operations. If Ajax believes that the subgrade conditions based on the current design will cause you to install more material than originally planned in your bid, please send that potential cost notification with rationale for that belief for submission to the design team. Hensel Phelps considers the Taxiway K Tie-in area listed as Phase 1 on Ajax's grading/base visual schedule to be turned over to Ajax as of the close of business February 18th.

(R4, tab 454 at 27518)

98. By email dated February 20, 2019, Mr. Horan responded to Mr. Spellicy, stating:

> In order to keep the project moving forward with completion of the Taxiway K Tie-in Area, we will begin spreading separation layer material tomorrow. We disagree with the current condition of the subgrade and that it does not meet the Subgrade Preparation spec mentioned in the [USACE's] response, particularly with the straightedge testing. Nonetheless, we will move forward with the subbase and track any overrun of material beyond the maximum 4.5" layer that is required by spec. We believe that there will likely be an overrun of approximately 1.5" to 2" based on the sandy condition of the subgrade.
>
> AJAX will put our concerns with the subgrade as well as the intended design in writing so it can be addressed properly in Phase II.

(*Id.* at 27517-18)

99. By email dated February 20, 2019, Mr. Giunta queried Mr. Spellicy, "[s]ounds like a potential backcharge to MacKenzie [sic], right? We should notify them." (*Id.* at 27517) Mr. Spellicy responded by email February 21, 2019:

> I don't believe so. From my talks with Kevin and Phil they believe McKenzie has completed the work per spec. The compaction and [sic] was at 100% and the straight edge test was witnessed and passed by us and the [USACE]. They also maintained the moisture content and continued

> to keep rolling it for us through the weekend and Monday/Tuesday so it would be fresh for Ajax. It wasn't until Tuesday afternoon when Ajax started driving on it that we heard the first issue.

(*Id.*)

100. The daily report for February 22, 2019, reflects that McKenzie continued "the fine grade work at northeast apron and from west to apron crown. Dumped and spread import fill at northeast side. Compacted surface from north to south and from east to highest point in north apron. Continued to pick up roots and small debris from import material." (R4, tab 639 at 45126). For Ajax, the daily report states, "[w]e have 20 trucks hauling in base to the [Project]" (*id.*).

101. "McKenzie was still importing dirt to the apron to reach elevation on March 13, 2019. It also was removing debris from the apron and watering the north side." (GUPFF ¶ 89 (citing R4, tab 45 at 6082); R4, tab 639 at 45257)

Hope Springs Eternal – Hensel Phelps Sticks its Head in the Sand

102. At the time in which Hensel Phelps and Ajax were discussing the need for stabilization of the base level, Mr. Spellicy was of the opinion, after having been walking the site for over a year:

> it seemed like, for an airfield system, the soil might be deficient. But I think everyone was hopeful that after final grading and final compaction, it was going to be suitable. AJAX had some concerns early on, but, you know, our hope that it was going to -- was that it was going to tighten up and be suitable. And right when we got to the point of we need to put rock on this, they had concerns. We kind of felt the same way. But we told them it's not here, we probably need to find a way to go do it. I think they're used to seeing stabilization included as part of the paving system in this area in their other work. And I've seen it included, I've seen it not included. So[,] it wasn't an immediate concern.

(Tr. 2/117-18) Hensel Phelps simply chose to ignore the specification requirement that cohesionless soil be stabilized and instead "hoped" it would not become an issue – which ultimately it did.

RFI 0360

103. On July 22, 2019, Hensel Phelps on behalf of Ajax submitted RFI 0360, In-Place Gradation Requirement, in which Ajax asserted that the material placed for the aggregate separation layer was within specification range for gradation at the source. Hensel Phelps stated, however, that the in-place material gradation testing was out of the acceptable range and requested a waiver for the in-place gradation requirement. (R4, tab 53; JSF ¶ 18)

104. By email dated July 22, 2019, Hensel Phelps informed Ms. Jones about RFI 0360, stating:

> Ajax has spread 45,00 SY [sic] the separation layer and it passed all test at the source and as it was delivered to the job site. However, the percent passing the 200 sieve for the in place gradation is higher than the specification limit of 8%. This RFI is critical because Ajax cannot proceed with separation layer or drainage layer until we receive an answer.

(R4, tab 178 at 10598)

105. Ms. Jones expressed concern that Ajax had placed 45,000 square yards of separation material over two days, testifying:

> Ajax placed huge piles of the separation layer -- the aggregate separation layer material at the north end of the apron, and then they used bulldozers to push it all the way to the south end of the apron. And the criteria for the aggregate separation layer was very clear that the intent was to ensure that their -- the gradation would show that . . . it was not broken down excessively. Now, in pushing a huge pile of material from the north end . . . of the apron to the south end with a bulldozer, it's obvious that there's going to be breakdown. And the results showed that.

(Tr. 7/109-11) Mr. Spellicy estimated that the 45,000 square yards represented half of the material in place for the apron paving (tr. 2/262). Ms. Jones stated that the 45,000 square yards "translated into about two-thirds of the apron" (tr. 7/49).

106. On July 30, 2019, Ms. Jones responded to RFI 0360 stating that waiver of in-place gradation would not be granted and that the separation material placed needed to be removed (R4, tabs 55, 132; JSF ¶ 19).

107. On behalf of Ajax, Hensel Phelps submitted RFI 0365, Separation Layer Historical Data, dated August 9, 2019, requesting use of a geotextile fabric to prevent the migration of fines from the subgrade and separation layer into the drainage layer. Hensel Phelps also requested on behalf of Ajax historical data on projects that utilized Specification 32 11 16 and the material supplier on those projects. (R4, tab 57; JSF ¶ 20)

108. On August 19, 2019, Ms. Jones responded to RFI 0365 stating that the aggregate separation layer material in-place did not comply with design requirements and needed to be replaced (R4, tab 58; JSF ¶ 21).

109. By letter dated August 28, 2019, Ajax provided Hensel Phelps with a Notice of Intent to Seek Additional Compensation and Notice of Delay: Subgrade Conditions, stating, in part:

> The acceptance of unstabilized subgrade on this project is not consistent with the project specifications, recommendations from the geotechnical evaluation report, the existing conditions and local design practices for similar projects. The existing soils are mainly classified as poorly consolidated sand and silty sand. These cohesionless soils are very unstable and do not provide a suitable foundation for construction activities or the proposed airfield pavement. In the contract documents **Specification Section 32 11 16 paragraph 3.3 States** "*For cohesionless underlying courses or subgrades containing sands or gravels as defined in ASTM D2487, the surface shall be stabilized prior to placement of the overlying course.*" The contract documents direct that the subgrade **shall** be stabilized.
>
> Hensel Phelps submitted RFI # 0247 on behalf of Ajax to address this issue on January 30, 2019. The United States Army Corp [sic] of Engineers responded by acknowledging that specification 32 11 16 was a contract requirement, but then waived the requirement without addressing the strength or instability of the cohesionless soils encountered on site. The response further states that "*Once the subsequent layers are placed and confinement is achieved, the subbase material is suitable for support of the construction paving equipment and pavement section.*" This is contrary to the geotechnical engineers [sic] report and is not supported by any engineering calculations or

> standard construction practices for these types of materials. It has also been proven to be inaccurate in the field as the instability of these cohesionless soils has resulted in constructability issues while placing the separation layer. The subgrade is in fact not stable enough to allow standard compaction practices in the next layer.

(R4, tab 137 at 9490-91) (emphasis in original) By email and letter dated August 28, 2019, Hensel Phelps forwarded Ajax's notice to the government (*id.* at 9488-89).

110. On August 29, 2019, Hensel Phelps submitted on behalf of Ajax RFI 0375, Revision - Separation Layer Historical Data, which reiterated Ajax's request for historical data on Specification 32 11 16 (R4, tab 59). Also included in this RFI were the results of two test strips for the aggregate separation layer. (JSF ¶ 22)

111. In September 2019, the government again directed Hensel Phelps to remove the noncompliant separation layer material (R4, tab 294 at 13748). Hensel Phelps initially agreed to remove the material beginning on September 25, 2019, but shortly thereafter "changed its mind and decided it would not remove the uncompliant material until such time it was able to locate a suitable material" (*id.*).

Ajax Ultimately Performs the Specification Stabilization Requirement Using Methodology Set Forth in the Specification

112. By email to the USACE dated November 21, 2019, Mr. Spellicy set forth the "details and mix designs for the paving section variance," including the following methodology:

> 1. The current 4" of separation layer material would be blended into the subgrade to create a stabilized subgrade layer. In areas not already covered with separation layer the same material would be added and blended to match. Ajax would use a Terex RS-350C Stabilizer to perform this work.

(R4, tab 264 at 12618) Mr. Spellicy agreed that item number one essentially described the solution to the stabilization issue, stating "[i]t describes how AJAX proposed to get a stabilized subgrade" (tr. 2/267) ("the proposal is to blend the separation layer material into the subgrade to create a stabilized subgrade").

113. Mr. Spellicy's November 21, 2019, email also specified installation of a two-inch layer of asphalt to "seal off the subgrade and provide structural support," and installation of a two-inch layer of asphalt treated permeable base "to act as a drainage layer and provide structural support" (R4, tab 264 at 12618). On top of that would be installed eight inches of concrete paving (*id.*). Mr. Spellicy's email also stated that "[t]he subgrade would be checked for LBR at the rate specified by DOT standards. The minimum requirement would be an LBR 40 prior to starting the next layer." (*Id.*) [13]

RFI 0434

114. On December 5, 2019, Hensel Phelps submitted RFI 0434 suggesting changes to the apron design (CP501), including a 12-inch stabilized subgrade, a two-inch asphalt treated permeable base for drainage, a two-inch asphalt base course (Type B 12.5 for separation), and an eight-inch concrete pavement (R4, tab 69 at 6663, 6665). [14] The RFI also stated "[i]t is acceptable to utilize the material delivered for use as separation layer for mixing to provide the stabilized subgrade," and that "[a]cceptance of the stabilized subgrade will be based on LBR test results with no in-place gradation testing required" (*id.*).

115. According to Ms. Jones, Ajax, in submitting RFI 0434 through Hensel Phelps, sought the following:

> They're asking to replace the detail for the aggregate separation layer and the drainage layer, which per design was four inches of specific material. They're asking to replace it with 2-inch layers of asphalt. And the reason they're asking to change the materials is because the materials they had were noncompliant, and they couldn't find a – a replacement. And they're asking to change the

[13] LBR is an acronym for lime rock bearing ratio, which is used to measure soil strength in Florida. According to Mr. Spellicy, LBR is utilized in Florida "because lime rock is so prevalent here and that's what we use to stabilize subgrades, that's a typical test here." (Tr. 2/238-39)

[14] RFI 0434 contained a typo regarding the thickness of the concrete pavement (tr. 7/60, 62-63). Drawing Detail B8, APRON/TAXIWAY CONCRETE PAVEMENT SECTION, specified an eight-inch concrete pavement while Detail C8, PLAIN CONCRETE PAVEMENT, depicted six-inch concrete pavement (R4, tab 18 at 4862 (sheet CP501)). However, RFI 0434 transposed the two detail numbers such that Detail B8 incorrectly referenced concrete thickness of six inches while Detail C8 incorrectly referenced eight inches (R4, tab 69 at 6663, 6665, tab 70 at 6666).

> thickness of it because they needed to meet the final grade requirement, and they had some issues with their survey and the elevations being off.

(Tr. 7/61)

116. By email dated November 25, 2019, the government sought the following information from Hensel Phelps: "[c]an you request from your subcontractor the rationale behind the mixing of the separation material into the underlying soils? That is the only outstanding question I believe our technical folks have currently. I believe we are very close to putting this issue to bed." (R4, tab 265 at 12661-62)

117. By email dated November 26, 2019, Mr. Spellicy provided a "response from Ajax regarding the benefit of that soil stabilization," as follows:

> Most South Florida soils are low strength cohesionless sands that are prone to rutting, shoving, deflection and deformation. Mixing a base type material into the in-situ [in place] sands increases the soil strength and reduces rutting, shoving, defection, yielding and deformation during construction of subsequent layers. It also extends the life of the pavement system by providing a more stable foundation that will deflect less under repeated loading. Any base material mixed into the existing soils will increase the strength and stability, but it makes sense to use what is already available on site.

(*Id.* at 12661; tr. 2/169, 7/277) Mr. Spellicy stated that the above quote was "from a technical manual about how stabilization helps stabilized cohesionless soil that's prone to running [sic], shoving, deflection, [and] helps with deflection" (tr. 2/169).

118. On December 13, 2019, the COR approved the proposed variance to the airfield pavement section, with some exceptions including requiring the stabilized subgrade to have a minimum LBR of 60 and rejection of the Hensel Phelps's proposal that acceptance of the stabilized subgrade be based only on LBR test results and no in-place gradation testing (R4, tab 70 at 6667). As stated in the government's response, "[a]cceptance of stabilized subgrade will not just be based on LBR, but also [on] density, proof-rolling, etc., as stated in Specification 32 11 16" except for certain variances mentioned in the RFI response (*id.*). The RFI was signed by Ms. Jones as COR and contained the same note regarding changed condition (*id.*; finding 89).

119. Hensel Phelps ultimately utilized the technique referenced in Specification 32 11 16 to stabilize the subgrade (tr. 2/271, 273). Mr. Spellicy

confirmed that the separation layer material was lime rock and did not include any stabilizing agent, such as cement (tr. 2/314).

120. Mr. Spellicy testified as follows:

> [Question] So[,] the idea of the 4-inch separation there being led into the subgrade to create the stabilized subgrade, isn't that also the same suggestion that's made in the specification regarding the subgrade?
> . . .
> [Answer] Yeah. That's the technique that they reference in the in the specification of how you would do it. Yes.
>
> [Question] Did you find it ironic that you -- that after all this, Hensel Phelps goes back to doing something that was set forth in specification?
>
> [Answer] Well, it – it's that way for a good reason. That's how you do it. That's how we would've done it the entire time, I believe, is blend lime rock into soil because that's how all stabilization is done in Florida. It was just – it's not until this point that we know exactly how much rock goes in there and how deep it is.

(Tr. 2/270-71)

XII. Contract Performance - Wastewater Lift Station Claim - ASBCA No. 63397

121. As noted above, in this pass-through claim, Hensel Phelps seeks on behalf of Ajax (1) "[e]ngineering costs expended by Ajax in an attempt to redesign the wet well" as part of a VECP and (2) "[c]osts for differing site conditions" (R4, tab 10 at 415-16; finding 47). Hensel Phelps alleges that Ajax's original bid included costs to install temporary sheeting in sandy, silty soil as depicted in the GER, at a depth of 26 feet, and that additional borings taken at the request of Ajax encountered limestone bedrock at approximately 22 feet deep, four "feet shallower than the bottom of the excavation and 18 feet shallower than the bottom of the required shoring" (R4, tab 10 at 416). Hensel Phelps faults the government's GER for not conducting borings at the actual location of the proposed wastewater lift station (app. br. at 45).

Ajax Lift Station Value Engineering Efforts

122. Ajax's August 15, 2017, initial bid submitted to Hensel Phelps did not include design and construction of the wastewater lift station (finding 57). It was not until after Hensel Phelps was awarded the contract that Ajax submitted its revised October 23, 2017, quote to Hensel Phelps adding lift station work, with a bid of $122,000, plus certain unspecified costs to purchase components needed for the wastewater system set forth in Ajax's revised mobilization costs (which decreased from $2,725,299 to $1,889,177.38) (GUPFF ¶ 138; R4, tab 545 at 39727-28; finding 64; tr. 6/16, 18-19).

123. In February 2018, Ajax contacted the engineering firm McKim & Creed, Inc., to prepare a VECP design reducing the size of the wet well (GUPFF ¶ 139; R4, tabs 551, 564). Ajax did not inform McKim & Creed that FGUA had to approve the design (GUPFF ¶ 139; tr. 6/24-26, 70-71, 80; R4, tab 551 at 39750, tab 561 at 39805, 39807, tab 564 at 39828-29).

124. On February 20, 2018, TLC Diversified (TLC) proposed performing the wet well work for Ajax as a subcontractor (dewatering, excavation and shoring) for $288,000 (GUPFF ¶ 140; R4, tab 555 at 39757; tr. 6/26).

125. In an internal April 10, 2018 email to Mr. Minich, Mr. Horan expressed the need to meet with Hensel Phelps regarding options for the re-design, stating the concern that if Ajax "shoot[s] for everything without initial input from the [USACE] or Hensel Phelps . . . time and money could be wasted if it's not approved" (GUPFF ¶ 141; R4, tab 569).

RFI 0092

126. On May 15, 2018, Hensel Phelps submitted RFI 0092, Lift Station Design, stating an "appropriate re-design of the planned lift station could lead to a significant savings to the USACE and the Contractor as a Value Engineering proposal" (GUPFF ¶ 142; R4, tab 24 at 5748). The RFI referenced Hillsborough County specifications but made no reference to FGUA (GUPFF ¶ 142; R4, tab 24 at 5748). The government responded on May 25, 2018, stating that "the lift station [was] designed correctly to meet the requirements of the Users of the Facility . . . and should be installed as shown in the plans. However, cost savings are always encouraged, and the [g]overnment does not wish to discourage a Value Engineering Proposal." (R4, tab 24 at 5748) The government stated "[t]he Contractor must consider that if they propose to redesign the lift station, they will have to assume the responsibility and the risk of the Designer of Record

on that design, and they will have to revise the permit to reflect the new design" (*id.*; GUPFF ¶ 142; *see* R4, tab 24 at 5749-68).

127. On July 26, 2018, Hensel Phelps submitted to the government Transmittal No. 33 32 13.14-1 for the lift station redesign, stating its intention to submit a VECP "following the approval of the design" (GUPFF ¶ 143; R4, tab 27 at 5789). In the box marked VARIATION (h.) Hensel Phelps indicated "no" (R4, tab 27 at 5789). The government marked the submittal "Action Code C Approved, contingent upon comments being addressed. Resubmittal Required." Regarding resubmittal, the government stated "[t]he only requirement . . . is a statement that design has been verified to be adequate based on a 12 hour day period, and that the design meets Hillsborough County's and FGUA's satisfaction." (*Id.* at 5800)

128. By email dated September 10, 2018, Mr. Michael Wilson, FGUA Utility Manager, informed the government that Hensel Phelps contacted FGUA on September 6, 2018, concerning its proposed redesign of the lift station, reducing it in size (GUPFF ¶ 144; R4, tab 594 at 40045). Mr. Wilson noted the "considerable amount of time working to reach the current design," and stated that if Hensel Phelps wanted to pursue the redesign, it would need to submit additional documentation and make payment to FGUA for any additional fees or cost impacts (R4, tab 594 at 40045). Mr. Wilson's email closed, stating "[b]ased on the above, the documents submitted to FGUA on September 6, 2018[,] are NOT APPROVED FOR CONSTRUCTION" (*id.* at 40046).

129. Ajax commenced its lift station redesign without first reaching out to FGUA (GUPFF ¶ 145; tr. 3/326). At no point in time prior to September 6, 2018, did Hensel Phelps ask FGUA whether the lift station could be altered (GUPFF ¶ 145).

Ajax Lift Station Differing Site Condition Claim

130. On June 4, 2018, Ajax discussed the lift station with TLC, sending borings A-1, A-2, P-17, PB-4, and O-1 for reference (R4, tab 576 at 39935; GUPFF ¶ 152). Mr. Horan testified that he made note of those borings because they were the closest to the lift station (tr. 6/86-87, 90; GUPFF ¶ 152). On June 14, 2018, at the request of Ajax, Universal Engineering Sciences, Inc. (UES) conducted three SPT borings within a 10- foot diameter of the lift station to a depth of 35 feet, wherein the following was encountered: "subsurface conditions typically consisted of a sand [SP] to 12 feet, overlying clays [CH] to approximately 22 feet where limestone bedrock was encountered to the 35-foot termination depths" (R4, tab 578 at 39947-48, tab 600 at 40102; tr. 3/257-58; GUPFF ¶ 154). One of the three borings, B-3, taken approximately five feet from the center of the wet well, consisted of tan clayey sand with limestone (SC), not limestone

bedrock, with no refusal indicated (R4, tab 578 at 39951, tab 600 at 40102-03; GUPFF ¶ 154).

RFI 0111

131. On June 22, 2018, Hensel Phelps submitted RFI 0111 proposing to adjust the wet well dimensions to account for what it described as solid limestone identified in the new soil borings (R4, tab 26 at 5787). The RFI referenced borings A-2 and O-1 as being in opposition to the three borings performed by UES but made no reference to borings A- 1 and PB-4 (*id.*).

132. The government responded to RFI 0111 on July 16, 2018, stating that changes to the dimensions of the wet well "would need to be approved by FGUA," and providing contact information for FGUA as set forth in the contract (R4, tab 26 at 5787; GUPFF ¶ 158).

133. On November 14, 2018, the government requested information regarding how Ajax "intended to execute lift station work[,] when [the] first proposal was prepared, and what the differences will be in the execution based on additional information gained from borings" (R4, tab 603 at 40108; GUPFF ¶ 159). On November 20, 2018, Mr. Spellicy requested Ajax provide information to support its differing site conditions claim by explaining how it originally planned to construct the lift station wet well "based on the densities shown in the original borings" (R4, tab 605 at 40141; GUPFF ¶ 159). He explained, "it'll take some explanation how you got to caisson vs. sheet pile because sheet pile costs were included with the lift station depth redesign change. They're looking for your planned method to take into account the reasonably dense but still excavatable layers." (R4, tab 605 at 40141; GUPFF ¶ 159)

134. Mr. Spellicy testified regarding the difficulty he encountered in obtaining information from Ajax regarding their original plans and pricing for performing the lift station work. Mr. Spellicy recalled being told that Ajax planned on using "some sort of a retaining wall shoring system and that -- I didn't really get a lot of other details besides that as far as I remember." (Tr. 2/294-95)

135. On November 26, 2018, Mr. Horan provided a letter claiming Ajax's "proposed construction method at bid time" was open excavation but did not provide an equipment list for the work (GUPFF ¶ 161; R4, tab 610 at 40164-65). Mr. Horan's letter states "[a]t bid time, Ajax evaluated the soil borings that were provided to us in Sheets B- 101 thru B-204" (R4, tab 610 at 40165). Mr. Horan was unable to explain why it took so long to inform Hensel Phelps about its originally planned method (GUPFF ¶ 161; tr. 6/121).

136. By email dated December 11, 2018, Hensel Phelps requested from Ajax additional information to support the original planned construction at the time of bid (R4, tab 612 at 40174; GUPFF ¶ 162). Ajax responded that same day, providing additional detail of its "original" plan and describing the need for "[a] large 130,000 LB excavator . . . because of the depth of the hole" (R4, tab 612 at 40174; GUPFF ¶ 162; 6/122).

137. On March 28, 2019, Ajax received a bid from Blue Iron, the contractor that ultimately performed the cofferdam work for the wet well (R4, tab 629 at 40360; GUPFF ¶ 165). Blue Iron proposed installing the shoring, including pre-auguring the limestone, for $199,900 (R4, tab 629 at 40360, 40371). Blue Iron's method resulted in use of a smaller cofferdam and utilized an "integral augering system which augers the same time the sheet is being pressed into the ground . . . despite refusal material expected to be encountered" (*id.* at 40360).

138. By email dated May 9, 2019, Hensel Phelps issued to Ajax a notice of potential delay relating to the lift station, stating that Ajax had failed to timely submit its lift station shop drawings or shoring design (R4, tab 633 at 40400; GUPFF ¶ 166).

139. Ajax conducted wet well excavation work in October 2019 (R4, tab 10 at 417). Mr. Morgan testified that he personally observed the wet well excavation and verified the condition encountered was limestone bedrock (tr. 8/240-242, 261). Ajax did not quantify how much rock was removed from the bottom of the wet well (tr. 8/262).

XIII. Issues with Testing/Quality Control and Apron Elevation

140. By letter dated April 7, 2020, Ajax served formal notice to Hensel Phelps that it was "in material breach of the Subcontract by its retention and use of Professional Services, Inc. (PSI), as the testing inspector on this Project even after Hensel Phelps has been placed on written notice regarding the incompetence of PSI and its inability to perform its duties" (R4, tab 366; see also R5, tab 504 (March 12, 2020, email stating concerns)). Ajax's letter provided a list of PSI's alleged deficiencies (*id.* (note the attachment listing deficiencies not included with tab 504)).

141. By letter to Ajax dated April 13, 2020, Ajax Paving of Michigan (Ajax Michigan), Ajax's onsite paving subcontractor, expressed its concerns regarding PSI and Hensel Phelps Quality Control Program, stating it supported Ajax's "demand that Hensel Phelps replace PSI on the project with a competent testing/inspection company" (R4, tab 367 (referencing March 23, 2020, letter)). In its letter, Ajax Michigan stated "[g]iven the fact that Ajax Florida has declared Hensel Phelps in material breach of their Subcontract due to Quality Control incompetence and demanded that Hensel Phelps replace their QC testing company, it is unfathomable for [Ajax Michigan] to consider moving forward with our Work at this time" (*id.*).

142. By letter to Ajax dated April 17, 2020, Ajax Michigan stated that it "will not mobilize and perform Work on the project until substantive and verifiable changes are made to the Hensel Phelps QC Program, including but not limited to the replacement of PSI with a competent and certifiable testing company" (R4, tab 368).

143. By letter dated April 21, 2020, Hensel Phelps responded to Ajax, recognizing "concerns with Ajax's ability to proceed with the airfield concrete paving and the letter of work suspension and demobilization from Ajax Michigan to Ajax Florida," and stating, "Ajax is directed to proceed immediately with the airfield paving scope of work." Hensel Phelps noted that "work has been delayed for months and is the most critical work on the project schedule." (R4, tab 369)

144. In early May 2020, Ajax had planned to begin placing concrete on the apron (tr. 8/117-18). On May 10, 2020, Ajax informed Hensel Phelps it was cancelling concrete placement on the apron that was set to begin on May 11, 2020. Ajax informed Hensel Phelps the following day (May 11) that the concrete placement was cancelled because of a "concern" regarding a survey of the drainage layer that Ajax placed on the apron. (R4, tab 375 at 25920) Specifically, Ajax informed Hensel Phelps, "an inaccurate survey was used when verifying the placement of the drainage layer," and a subsequent "survey with corrected data show[ed] a majority of the apron placement high by an average of 1"" (*id.*). As such, between one half to two-thirds of the apron was out of compliance (tr. 7/66; R4, tab 330 at 15587-88 (see heat map generated by Ajax at the time the error was discovered)).

145. After being informed of the elevation error, the government requested Hensel Phelps provide from Ajax a signed and sealed set of revised drawings, including 3D computer aided design (CAD) (R4, tab 207 at 11910-11911, 376 at 25925; tr. 3/220-221). In an internal May 19, 2020, email, Mr. Morgan noted that "[t]his will likely take several weeks to get submitted and approved" (R4, tab 376 at 25924-25). The parties discussed the proposed elevation redesign, with the government reviewing the drawings and elevation grades, and providing additional input (R4, tab 207 at 11910-11911). The government requested that Hensel Phelps provide a set drawings of the redesign, signed and sealed by an independent third-party engineer, which the government ultimately approved (tr. 3/218-221). The process by which the parties exchanged information, and the approved the redesign, took approximately 72 days (R4, tab 3/221).

146. Ajax Michigan demobilized following discovery of the elevation error (R4, tab 376 at 25924-25; tr. 3/319-20). On July 23, 2020, Hi-Way Paving started work in place of Ajax Michigan, utilizing the same concrete plant that Ajax Michigan had installed at the Project (R4, tab 376 at 25924, tab 379 at 25947; tr. 2/281-83; GUPFF ¶ 116). According to the equipment list provided to Ajax by Hi-Way, the slipform paver (GHP-2400) Hi-Way had available could accomplish a "[r]ange of paving widths up to

16.5 feet (5 m) with the standard telescoping frame. Widths up to 24 feet (7.5 m) with frame inserts." (R4, tab 380 at 25951, tab 25953, 381 at 25976- 77) Hi-Way Paving left the project in mid-September 2020, and a third subcontractor, Boh Brothers, came "in September/October time period" and completed the concrete paving (tr. 2/283, 4/141-42).

147. Once Hensel Phelps corrected the elevation error, additional deficiencies with the finished apron were identified, included issues involving the construction joints and foreign object debris (FOD) from spalling, gaps in paving, and dips that could damage military aircraft and cause additional pieces of concrete to separate from the apron (tr. 5/182, 189, 7/67, 69-70; R4, tab 106, tab 109 at 7751, tab 114 at 7808, tab 116 at 7902, tab 119 at 8019-22, tab 121 at 8348-49). The apron could not be used to park aircraft until the repairs were completed (tr. 5/193).

148. The government was concerned that the number of deficiencies appeared to be extensive (tr. 5/178-79, 181). Between March 30, 2021, and May 17, 2021, Hensel Phelps used a series of RFIs to report other defective work on the concrete airfield pavement (CAP) (tr. 5/187; R4, tab 99 (RFI 0562 – apron double line saw cut caused during construction), 101 at 7624-25 (RFI 0563 – apron double line saw cut revision, offering three different options to correct), 104 (RFI 0564 – damage to conduit, apron panel replacement), 106 ; tr. 5/176, 178-81). For example, RFI 0565 dated May 17, 2021, stated that along the apron perimeter interface with the asphalt shoulder were several areas of the concrete edge damaged during construction; which was a major concern due to possible creation of FOD once the airfield is active (R4, tab 106). Ajax proposed installing a two-inch-wide joint at the interface using fuel resistant silicone joint sealant (*id.*).

149. The ACO responded via correspondence dated June 3, 2021, addressing all airfield paving deficiencies, stating that proposed corrective actions were not acceptable (R4, tab 109 at 7751). The letter included a marked-up plan drawing that detailed findings from a government QA inspection indicating the deficiencies "are far more extensive than indicated in the RFIs" and providing a list of those deficiencies (*id.* at 7751-52). In addition to rejecting proposed repairs regarding the widths of joints wider than the maximum allowable (RFI 0565), the government QA noted the following deficiencies in several areas of the apron, (1) additional locations identified regarding the deficiency caused by malfunction in the saw cutting operation (RFI 563), (2) widths of certain concrete joints wider than the maximum allowable, (3) the asphalt side of the joint exceeded the height of the concrete side in excess of contract requirements with material missing at certain joint locations, and (4) variations in the top of the compression seal below the pavement surface with the seal not in contact with the surface in many locations (*id.*). The letter noted that Hensel Phelps CQC staff failed to identify these deficiencies and required Hensel Phelps to revise its QC plan to address the corrective actions outlined in the letter (*id.* at 7753). The letter also directed Hensel Phelps to submit corrective actions, addressed through RMS correspondence, not RFIs (*id.*). By

letter dated June 21, 2021, Hensel Phelps submitted a corrective action plan authored by Ajax for correction of CAP deficiencies (R4, tab 114 at 7808-57).

150. Subsequent to a June 24, 2021, conference call with USACE, Hensel Phelps submitted a June 30, 2021, revised response letter to the government's June 3, 2021, letter to address deficiencies and update QC procedures, along with a schedule for correcting CAP deficiencies (R4, tab 116 at 7900-42). By letter dated July 30, 2021, the ACO responded to the proposed corrective action, noting concerns regarding joints saw cut over width, expansion joints, joints between the asphalt and concrete, compression seal placement, concrete mix design, and QC (R4, tab 119 at 8019-22). By letter dated August 6, 2021, Hensel Phelps responded to the concerns set forth in the ACO's July 30, 2021, letter (R4, tab 121 at 8347-8423). Subsequent to an August 20, 2021, conference call with USACE, Hensel Phelps, by letter dated September 3, 2021, submitted additional proposed corrective actions to issues outlined in the ACO's July 30, 2021, letter (R4, tab 123 at 8426-8549). A map of the deficiencies, created by Hensel Phelps, was included with the September 3, 2021, letter (R4, tab 123 at 8502-21; tr. 5/190-92; GUPFF ¶ 119). After a September 21, 2021, meeting between the parties, the ACO responded by letter dated September 24, 2021, again addressing concerns with certain of the deficiencies, including joints saw cut over width, expansion joints, and joints between the asphalt and concrete (R4, tab 127 at 8647-50).

151. During the hearing, Mr. Morgan testified about the CAP deficiencies, which he considered punch list items, and his concern that the government would not allow Hensel Phelps, i.e., Ajax, to correct deficiencies until it had an approved plan to correct all deficiencies (tr. 3/223-24). Regarding Ajax's response to the ACO's June 3, 2021, letter, Mr. Morgan noted that Ajax intended to inspect the apron and "repair as we go" and that the government wanted Ajax "to identify every spot, put it in this work plan . . . and to tell us how you're going to fix all this stuff before you can start" (tr. 3/225-26). Regarding the rubber compression joint seals, which were too deep or two shallow, Ajax intended to use a screwdriver or a five-in-one tool to pull up the seals or lower them down; the government requested first that Ajax contact the manufacturer of the joint seals to confirm it was appropriate to use these tools to adjust the compression seals (tr. 3/227). Mr. Morgan testified that he had "never been through a process like this to be able to bring the work into compliance" (tr. 3/228).

152. Mr. Morgan also testified regarding Hensel Phelps's June 30, 2021, revised response letter, noting that the government had "questions about grinders and some different tools we were going to use to do the work, [and] wanted a little detailed information on some things" (tr. 3/228-229). In response to a question from appellant's counsel whether an owner had ever asked him to verify the type of hand tool or grinder that his crew intended to use on a punch list, Mr. Morgan answered, "no" (tr. 3/229). According to Mr. Morgan, the correction of CAP deficiencies "seemed to take on a life of its own" (tr. 3/230) with Ajax submitting "the same manufacturer stuff . . . but [the

government] kept asking for more detail" (tr. 3/232). Ultimately, according to Mr. Morgan, once the government approved the CAP correction plan, it took Ajax "about three days" to perform the work (tr. 8/261).

153. In an April 28, 2021 email, as part of the back and forth between government employees (regarding RFP 069 and substantial completion), Ms. Jones stated, if the government "can overcome its main challenge—funding—sooner than KTR can overcome its main challenge—concrete panel replacement—we could potential[ly] get the mod work done without any time impact cost" (R4, tab 191 at 11139).

154. When asked about her statement in the email, Ms. Jones explained her understanding that if the government could issue its "modifications and make them part of the contract while the contractor was still completing the contract work of the airfield paving, which included concrete panel replacement, then they would be doing it in the time of the . . . performance period of the contract" (tr. 7/158). Ms. Jones also stated that when the government grants time extensions to the original performance period, it "establishes a new contract required completion date," and "the contractor, in providing their schedules, will show us what their completion date is based on when they will actually complete the work. So when I say . . . if we could get the mod issued and the work could be done before they completed the work of the contract for paving, then there would not be any reason for additional time extensions." (Tr. 7/158-59)

XIV. Multiple Items Claim – ASBCA No. 63398

155. The May 25, 2022, multiple items claim addresses five subclaims, (1) Power to MAUs (Makeup Air Units) – cost and time impacts to provide power feeds to the MAUs as directed by the government, (2) Airfield Paving Redesign – Hensel Phelps's cost and time impacts resulting from the installation of the airfield paving layer, (3) Revise Power, Anchors, and Walls Cost (RFP 054) – cost and time impacts related to RFIs 389, 420, and 443 that originally were included in RFP 054, (4) Complete Air Barrier with Spray Foam Cost (RFP 066) – cost and time impacts to provide additional spray foam insulation, and (5) RFPs 069, 072, and 073 – cost and time impacts to perform the added scopes in RFPs 069, 072, and 073 (R4, tab 8 at 43; JSF ¶ 10).

156. In its multiple items claim, Hensel Phelps also sought the release of $1,256,860 in liquidated damages currently withheld from Hensel Phelps as retainage (R4, tab 8 at 44, 69). The contract required Hensel Phelps to pay $3,940 per calendar day of delay in liquidated damages to the government (finding 12). In its post-hearing brief, the government states that "[t]he total amount owed in liquidated damages is $484,620 ($3,940 x 123 days) (gov't br. at 47; PFOF ¶ 196), which is far less than the $1,256,860 that is has withheld. Hensel Phelps responds to this admission stating that "[t]he [g]overnment concedes it is unlawfully withholding nearly $800,000 in liquidated

damages—yet it has made no effort to release those liquidated damages" (app. reply at 50).

157. As set forth in the claim, "Hensel Phelps is seeking a total time extension of 328 days and $2,683,739.29 in uncompensated costs of the work and time-dependent costs for the issues included in this claim" and "return of all liquidated damages being held as retainage" (R4, tab 8 at 44).

Unpriced Change Orders

158. Over the course of the Project, the government issued unpriced change orders using two-part modifications. The purpose was to "essentially keep the work going." (Tr. 5/49) A "part one" modification included a notice to proceed with work and perhaps some funding (tr. 5/172). After Hensel Phelps and the USACE finalized negotiations, a "part two" modification was issued to finalize the modification (tr. 5/49). The government prepared an independent government estimate (IGE) if the anticipated cost of the change exceeded $250,000 (tr. 7/148). For issuance of part one of the modification, an IGE was not required first because regulations permitted issuance of the modification so the contractor could commence work (tr. 7/167-68; *see* GUPFF ¶ 8).[15]

159. During contract performance, when analyzing the contractor's requests for time extensions, the government expressed concern about overlapping time extensions for work Hensel Phelps was required to perform (tr. 5/170-72). CO Emily Moore (tr. 5/17) expressed concern that Hensel Phelps was submitting multiple TIAs (time impact analyses) with overlapping delay periods, including issues not raised in these appeals (tr. 5/121-22; *see* R4, tab 641 at 46433 (Hensel Phelps analysis identifying overlapping indirect costs in the amount of $865,052 and time extension request of 102 days)). Ms. Moore also expressed her preference that Hensel Phelps not to submit piecemeal delay requests (tr. 5/122).[16]

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[15] DFARS 217.7401 defines "Undefinitized contract action" as "any contract action for which the contract terms, specifications, or price are not agreed upon before performance is begun under the action." DFARS 217.7403, POLICY, states that "undefinitized contract actions" shall be used only when "(1) The negotiation of a definitive contract action is not possible in sufficient time to meet the [g]overnment's requirements; and (2) The [g]overnment's interest demands that the contractor be given a binding commitment so that contract performance can begin immediately." *See also* FAR 36.203, GOVERNMENT ESTIMATE OF CONSTRUCTION COSTS, discussing requirements for an independent government estimate.

[16] Hensel Phelps takes the position that submission of overlapping TIAs was a function of the contract's requirement that the contractor "submit TIAs separately for each

Power to MAUs

160. "The [c]ontract required installation of two MAUs powered by a single circuit, as indicated on sheets E-128 (2 MAUs), E-604 (1 panel), and E-601 (line diagram)" (GUPFF ¶ 168 (citing tab 19 at 5486, 5504, 5501); *see* R4, tabs 13 at 1900-01 (discussing functional performance testing), 18 at 4671 (sheet G-101, listing E-128 and E-604), 5091 (sheet M-705A, MAU control schematic), 5105 (E-601)). MAUs "are two large pieces of mechanical equipment that feed fresh air into the hangar bay," each approximately "the size of a full-sized van" (tr. 1/193).

161. Hensel Phelps seeks "[c]ost and time impact[ ] to provide power feeds to the [MAUs] as directed by the [g]overnment" (R4, tab 8 at 43). As set forth in the claim, "[t]he Mechanical Feeder Schedule on sheet E-601 specifies feeders needed for the major mechanical equipment" installed throughout the Aviation Support Facility (R4, tab 8 at 47). Hensel Phelps states that the MAUs are not included on sheet E-601 and that "[b]ecause the drawings do not include feeders to the MAUs, the electrician, F&H Contractors (F&H), did not include the cost of these feeders in its original pricing for the Project" (*id.*). Hensel Phelps seeks "$83,241 in direct costs of the work, a time extension of 142 days, and time-dependent costs associated with 142 compensable days of delay for this issue" (*id.* at 50) (emphasis omitted).

162. On March 23, 2018, Hensel Phelps submitted to the government a transmittal from Superior Mechanical Systems, Inc., setting forth product data for the MAUs (R4, tab 23 at 5634, 5638-39; GUPFF ¶ 169). The product data did not indicate a discrepancy in the power requirements or identify a variance of the contract requirements (R4, tab 23 at 5634, 5638-39; GUPFF ¶ 169). The submittal listed four circuits for the MAUs (R4, tab 23 at 5705). The MAUs were delivered to the site approximately one year later, on March 13, 2019 (R4, tab 45; GUPFF ¶ 169).

163. On April 22, 2019, Hensel Phelps submitted RFI 0320 seeking the conduit and cable size for the power feeding the MAUs (R4, tab 47; GUPFF ¶ 170). "The RFI did not identify a schedule impact" (GUPFF ¶ 170 (citing R4, tab 47); tr. 2/299-300). The government responded to RFI 0320 on May 3, 2019, and in a subsequent serial letter on February 25, 2020, stated that providing power to the MAUs did not constitute a contract change, but clarified the conduit and cable sizes feeding the MAUs (R4, tabs 47, 74; GUPFF ¶ 170). Although the type of feeder was omitted, it was manifestly necessary to wire MAUs to the electrical panels (tr. 5/138-141; GUPFF ¶ 170).

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individual impact" and was "the only way that individual issues can be processed" (app. reply at 47; see findings 13, 158).

164. "On April 11, 2020, nearly a year after the [g]overnment's response to RFI – [0]320, Hensel Phelps submitted RFI [0]485 notifying the [g]overnment that three additional circuits would be required for the MAUs" (GUPFF ¶ 171 (citing R4, tab 77 at 6786; tr. 5/141-42). The RFI identified no schedule impact (R4, tab 77; tr. 2/300; GUPFF ¶ 171). "Despite the two-year delay in conveying this concern to the [g]overnment, the [g]overnment agreed to pay the direct costs associated with the three additional circuits identified in RFI [0]485" (GUPFF ¶ 171).

165. Hensel Phelps states that its electrical subcontractor, F&H "did not include the cost of MAU feeders in its original pricing for the [p]roject," and "had no way to know or understand the type, size or number of runs that would be required for a [g]overnment-specified piece of equipment or if the [g]overnment would be supplying the MAU feeders" (app. br. at 50 (as support, Hensel Phelps cites the testimony of Mr. Spellicy (tr. 2/297-98)[17] and cites generally to Hensel Phelps's August 4, 2021, MAU REA (R4, tab 120))). However, Hensel Phelps offered no record citation evidencing a bid F&H submitted to Hensel Phelps pre-award reflecting MAU pricing, or any reliance by Hensel Phelps upon such a bid in preparing its bid pricing for the MAU. All references to F&H in the request for equitable adjustment (REA) cited by Hensel Phelps are to documents dated after contract award (R4, tab 120 at 8116, 8119, 8123, 8128, 8146-47, 8150).

166. Mr. Giunta, who testified in general terms regarding the process Hensel Phelps utilizes in developing its understanding of work required to bid and complete a project, and admittedly was not involved with that process "[o]n this particular job" and "got involved soon after the award" (tr. 1/54-59; finding 55), did not address any specifics regarding Hensel Phelps pre-bid review of the specifications and drawings concerning the MAU (or any pre-bid review of its eventual electrical subcontractor).

Airfield Paving Redesign (Hensel Phelps Additional Costs)

167. Hensel Phelps seeks "[c]ost and time impact[ ] to redesign and install the revised subgrade, separation layer, and drainage layer materials beneath the airfield paving as directed by the [g]overnment" (R4, tab 8 at 43). Specifically, "Hensel Phelps is seeking $186,629.40 in direct costs of the work, a time extension of 43 days, and time-dependent costs associated with 43 compensable days of delay for this issue" (R4, tab 8 at 53) (emphasis omitted). The paving redesign component of Hensel Phelps's multiple items claim arises from the same underlying facts as the pass-through airfield paving redesign claim (app. br. at 6 n.3) and is comprised of the alleged cost and time impacts to

[17] Appellant mistakenly cites Mr. Spellicy's testimony as appearing at the transcript, volume two, pages "298:5 – 297:13" (app. br. at 50).

Hensel Phelps and its other trade partners, excluding impacts claimed by Ajax (R4, tab 8 at 51). We do not repeat those facts here.

168. In denying Hensel Phelps's airfield paving redesign claim, the CO rejected Hensel Phelps's allegations "that the plans and specifications for the apron paving were deficient and [that] the variance granted in the response to RFI 0434 constitute[d] a design change to the plans and specifications (R4, tab 9 at 401).

RFP 054 – Revise Power, Anchors, and Walls (Jockey Pump)

169. Hensel Phelps seeks costs and time impacts related to three changes directed by the government pertaining to RFIs 0389, 0420, and 0443, and RFP 054 (R4, tab 8 at 43, tab 62 (RFI 0389), tab 66 (RFI 0420), tab 72 (RFI 0443), tab 75 at 6680 (RFP 054 proposal)).

170. On January 20, 2020, Hensel Phelps submitted RFI 0443 - Jockey Pump Controller Power Conflict, regarding a controller power conflict for a jockey pump connected to the fire suppression system (R4, tab 72; JSF ¶ 23; GUPFF ¶ 173). The RFI stated that the jockey pump required 408V, but the panel provided 208V (R4, tab 72 at 6670; GUPFF ¶ 173).

171. On February 19, 2020, the government answered RFI 0443 providing the wiring and power requirements for the jockey pump. The government also indicated an RFP was forthcoming. (JSF ¶ 24).

172. On March 2, 2020, the government issued RFP 054 - Revise Anchors, Power & Walls, to address the jockey pump power conflict, as well as other items not part of these appeals (R4, tab 8 at 54; GUPFF ¶ 173). The RFP requested pricing for changes associated with the following:

i. RFI 0389 (Paint Booth Exhaust Stack Relocation and Tie Downs)

ii. RFI 0420 (Corridor Door 101I and 101F Fire Rate)

iii. RFI 0443 (Jockey Pump Controller Power Conflict) - Provide a tap from the secondary conductors of transformer MTR-3 in a junction box to provide the 480V to the jockey pump controller

iv. RFI 0446 (Revised Pavement Sections)

v. RFI 0451 (Remove Degreasing Requirement from Resinous Floor)

(R4, tab 75 at 6681-83; JSF ¶ 25).

173. On March 18, 2020, Hensel Phelps submitted a proposal for the correction of the jockey pump power conflict and its initial cost estimate proposal for RFP 054 (R4, tab 75; JSF ¶ 26; GUPFF ¶ 173). Hensel Phelps sought "costs for the remaining scopes of work that were not compensated in the unilateral modification issued for RFP 054" in the amount of $807,225 (R4, tab 86 at 7461, tab 75 at 6680).

174. By email dated March 27, 2020, Hensel Phelps stated that it would provide a design for the revised controller modified from 480V to 208V (R4, tab 184 at 10633). On May 4, 2020, Hensel Phelps revised its proposal for RFP 054, replacing the control cabinet currently set for 480V with a compatible 208V cabinet (R4, tab 79 at 6789; tr. 5/155-56; GUPFF ¶ 174; JSF ¶ 27).

175. On May 12, 2020, Hensel Phelps submitted a revised proposal for RFP 054 with an estimate of $773,290 and a time extension of 77 calendar days (R4, tab 81; JSF ¶ 28).

176. On May 26, 2020, the government issued unilateral Modification No. A00029 for RFP 054, in the amount of $16,810, with no time extension (R4, tab 82 at 6894; JSF ¶ 29; GUPFF ¶ 175). As explained by Mr. Roger Riddick, a Louisville District ACO, the price was based upon the reduced cost of swapping out the 408V controller for the 208V controller and was less work than what was stated in the modification (tr. 5/126, 159-161; GUPFF ¶ 175).

177. The government did not grant a time extension with the issuance of Modification No. A00029 because of a concern that the jockey pump controller was being shifted to the critical path in a schedule update when it had not previously been on the critical path (R4, tab 217 at 12011-12; tr. 5/154-58; GUPFF ¶ 176). The TIA submitted by Hensel Phelps for RFP 054 originally was not tied to jockey pump issues (R4, tab 217 at 12011-12; tr. 5/154-58; GUPFF ¶ 176).

178. "On August 3, 2020, Hensel Phelps submitted a REA for RFP 054" (JSF ¶ 30 (citing R4, tab 86)). Hensel Phelps requested a contract modification in the amount of $867,030, and a time extension of 107 calendar days (R4, tab 86 at 7461). On February 1, 2021, the CO issued serial letter C-0030 rejecting the REA for RFP 054, stating, as to costs for "Revise Anchors, Power, & Walls," that "[c]ompensation for this issue has already been paid via modification A00029," and that there was no language in the modification "that anticipates the possibility of a later submitted request for costs associated with time for this issue" (R4, tab 94 at 7576-77; JSF ¶ 31).

179. The jockey pump controller was delivered to the site on August 4, 2020 (tr. 4/237; R4, tab 333 at 24046).

180. In its May 25, 2022, certified claim, Hensel Phelps sought "$26,380 in direct costs of the work, a time extension of 107 days, and time-dependent costs associated with 107 compensable days of delay" (R4, tab 8 at 59) (emphasis removed). Included in Hensel Phelps's claim is a chart summarizing all of Hensel Phelps's costs, including "RFP 054 – Revise Power, Anchors, and Walls - $26,380 - Exhibit 3B" (R4, tab 8 at 68). Exhibit 3B attached to the claim includes nine pages of various charts and invoices, presumably relevant to the jockey pump claim (R4, tab 8 at 311- 20). However, a review of the transcript of proceedings reveals no discussion by Hensel Phelps of the $26,380 sought, no breakdown of those direct costs, and no discussion of the documents that appear as Exhibit 3B to its claim. The report and claim summary prepared by Hensel Phelps's expert L. Alex Staley includes the same chart set forth in Hensel Phelps's claim, summarizing Hensel Phelps's costs, but neither document prepared by Mr. Staley includes any breakdown or discussion as to the basis for these direct costs (R4, tab 325 at 14903, 325A).

181. The record reflects that the government issued unilateral Modification No. A00029, in the amount of $16,810, which included direct costs for the jockey pump (R4, tabs 8 at 59, 82; tr. 1/129, 248-49). When asked "how the government arrived at the $16,810 figure," Mr. Spellicy testified, "I know they cut some stuff for the exhaust stack support, but I don't know how exactly they got to that number." When asked by the Board "[i]s there something [in] the record [that] sets that out," counsel for appellant stated "I'm not aware specifically, Your Honor, of that. There may be somewhere in the record. I don't have it here as an exhibit" (Tr. 1/249) Mr. Riddick testified that the $16,810 reflected the cost of switching out the high voltage controller for a lower voltage controller (tr. 5/150-51, 155, 159-161).

RFP 066 – Complete Air Barrier with Spray Foam

182. On July 21, 2020, as part of the contractually required Building Envelope Inspection (R4, tab 13 at 1912-19), Hensel Phelps performed an initial pressure test which failed (JSF ¶ 32). Hensel Phelps's testing agent determined the most likely cause of the test failure "was air leaking around the hangar bay perimeter walls at the low-roof interface" (JSF ¶ 33).

183. Hensel Phelps notified the government of this potential design issue by email dated August 4, 2020 (R4, tab 87; JSF ¶ 34). On August 21, 2020, the government issued RFP 066 directing Hensel Phelps to provide a proposal to remove the existing insulation and replace it with spray foam to bridge the gap in the air barrier (R4, tab 88; JSF ¶ 35).

184. On September 4, 2020, in response to RFP 066, Hensel Phelps submitted a proposal to remove fiberglass batt insulation and replace it with spray foam — at cost of $31,390 (R4, tab 89; JSF ¶ 36; GUPFF ¶ 180). On September 9, 2020, the government asked Hensel Phelps to include in the RFP a cost estimate for retesting the building

envelope (R4, tab 90 at 7522; GUPFF ¶ 180). Hensel Phelps submitted its revised proposal, dated September 10, 2020, which included retesting for a total cost of $58,058 (R4, tab 91 at 7525; GUPFF ¶ 180; JSF ¶ 37).

185. On November 17, 2020, Hensel Phelps submitted a revised the proposal for RFP 066, seeking $455,624 and a time extension of 66 calendar days (R4, tab 93; GUPFF ¶ 180; JSF ¶ 37). The revised proposal included impacts reflected in TIA 234 which resulted from the change (R4, tab 90 at 7519).

186. Hensel Phelps submitted yet another subsequent modified proposal for RFP 066 on March 1, 2021, seeking $353,689, and a time extension of 58 calendar days (R4, tab 96; JSF ¶ 37).

187. By unilateral Modification No. A00034, dated March 12, 2021, the government increased the contract price by $61,197, but granted no time extension for the air barrier work (R4, tab 97; GUPFF ¶ 181; JSF ¶ 38). Ms. Jones testified that Hensel Phelps provided documentation to support the monetary figure (tr. 7/78; GUPFF ¶ 181).

188. From the time the air barrier issue was first raised by email dated August 4, 2020 (R4, tab 87; JSF ¶ 34), until the issuance of Modification No. A00034, the parties worked towards a negotiated settlement of the issue (R4, tabs 90, 188; tr. 7/79; GUPFF ¶ 182). Ms. Jones testified that at the time the parties were negotiating the issue, the priority for reviews set by Hensel Phelps concerned the airfield paving, not the new design proposal for the air barrier (tr. 7/130-31; GUPFF ¶ 182).

189. In its May 25, 2022, certified claim, Hensel Phelps seeks "[c]ost and time impacts to provide additional spray foam insulation as directed by the [g]overnment" (R4, tab 8 at 43). Specifically, Hensel Phelps seeks "$2,589 in direct costs of the work, a time extension of 157 days, and time-dependent costs associated with 157 compensable days of delay" (R4, tab 8 at 62) (emphasis removed).

190. Included in Hensel Phelps's claim is a chart summarizing Hensel Phelps's costs, including "RFP 066 – Complete Air Barrier with Spray Foam - $2,589 - Exhibit 4B" (R4, tab 8 at 68). Exhibit 4B includes seven pages of various charts and invoices, presumably relevant to the air barrier claim (R4, tab 8 at 322-29). However, a review of the transcript of proceedings reveals no discussion by Hensel Phelps of the $2,589 sought, no breakdown of those direct costs, and no discussion of the documents included in Exhibit 4B. Although Mr. Staley likewise included the same chart set forth in Hensel Phelps's claim, summarizing Hensel Phelps's costs, neither the claim nor Mr. Staley's report included any breakdown or discussion as to the basis for the $2,589 in direct costs (R4, tab 325 at 29). Indeed, the hearing transcript contains only a passing reference to Hensel Phelps's request for $2,589 in direct costs, in which Mr. Spellicy expressed his disagreement with the amount set forth in the contract modification increasing the

contract price for the air barrier work (tr. 2/296). He provided no details about the $2,589 in direct costs.

RFPs 069, 072, and 073 - Cost and Time Impacts to Perform Added Scope

191. "Between March and June 2021, the [g]overnment issued RFPs 069 ([R4, t]ab 100), 072 ([R4, t]ab 107), and 073 ([R4, t]ab 110),] for design changes related to the Project's fire protection systems, adding a new mandatory hold sign at the airfield, and changes to the Project's plumbing and HVAC equipment" (JSF ¶ 39).

RFP 069

192. On March 30, 2021, the government issued RFP 069 concerning changes to the fire protection system (R4, tab 100; GUPFF ¶ 184). On June 2, 2021, Hensel Phelps submitted its proposal in response to RFP 069, with a cost estimate of $548,358 and a time extension of 109 calendar days (R4, tab 108; GUPFF ¶ 184).

193. On June 4, 2021, the government issued unilateral ModificationNo. A00035, a Part I modification not to exceed $120,000 for costs associated with RFP 069 (R4, tab 111; tr. 5/172-73; GUPFF ¶ 188). The modification did not extend the period of performance and Hensel Phelps was expected to provide sufficient notice (typically two weeks) of when it was going to exceed the "not to exceed amount" (R4, tab 111; tr. 5/172-73; GUPFF ¶ 188).

194. On June 28, 2021, Hensel Phelps threatened to stop work after receiving Modification No. A00035, providing a seven day-notice that it would soon exceed the $120,000 granted in Modification No. A00035 (R4, tab 240 at 12140; GUPFF ¶ 189). Hensel Phelps labeled as "highly irregular" the government's issuance of the modification without an IGE (R4, tab 240 at 12140; *see* finding 158). Two days later, on June 30, 2021, Hensel Phelps informed the government that it would not stop work (*id.* at 12139; GUPFF ¶ 189).

RFP 072

195. On May 27, 2021, the government issued RFP 072 concerning a change requiring installation of mandatory airfield signage (R4, tab 107; GUPFF ¶ 185). On June 16, 2021, Hensel Phelps submitted its proposal in response to RFP 072, with a cost estimate of $330,638 and a time extension of 132 calendar days (R4, tabs 112, 115; GUPFF ¶ 185). On June 22, 2021, Hensel Phelps increased its estimate to $502,972, with the number of days remaining 132 days (R4, tab 117; GUPFF ¶ 185).

RFP 073

196. On June 4, 2021, the government issued RFP 073 concerning air compressor changes (R4, tab 110; GUPFF ¶ 186). Hensel Phelps's response requested $324,379 and 89 days. (R4, tab 118; GUPFF ¶ 186).

Modification No. A00036

197. On September 8, 2021, Hensel Phelps and the government reached a bilateral agreement in the amount of $239,855 for the hard costs associated with changes made pursuant to RFPs 069, 072, and 073 (less the $120,000 payment made per Modification No. A00035), and agreed that time impacts would be handled in a future modification (R4, tab 124; JSF ¶ 40).

198. On September 17, 2021, the government issued unilateral Modification No. A00036 as Part II to Modification No. A00035, covering RFPs 069, 072, and 073 (R4, tab 125 at 8553, 8556; GUPFF ¶ 190; JSF ¶ 41; R4, tab 326 at 15408, 15411). The modification increased the contract price by $169,907 and granted a time extension of 170 non-compensable days to the period of performance for RFPs 069, 072, and 073, to and including November 3, 2020 (R4, tab 125 at 8553, 8556; GUPFF ¶ 190; JSF ¶ 41; R4, tab 326 at 15408, 15411).

199. In its May 25, 2022, certified claim, Hensel Phelps seeks "[c]ost and time impacts to perform the added scopes in RFPs 069, 072, and 073 as directed by the [g]overnment" (R4, tab 8 at 43). Although Hensel Phelps sought no additional direct costs and "no additional time beyond the 170 days already provided in unilateral modification A00036," Hensel Phelps sought "time-dependent costs not compensated in the [g]overnment's unilateral modification," alleging that "[t]he [g]overnment's issuance of unilateral modification A00036 confirms that RFPs 069, 072, and 073 had a combined impact of 170 days" (*id.* at 66).

Additional Contract Modifications Extending Completion Date

200. On May 4, 2020, bilateral Modification No. A00027 was issued, extending the contract completion date three calendar days for adverse weather and no change in contract price (R4, tab 326 at 15232-33).

201. On July 23, 2020, Hensel Phelps signed bilateral Modification No. P00003, extending the contract completion date 94 calendar days and granting $466,252 under New Pay Item No. 0028, Change Request 00027-2, Upgrade Paint Time Impact (R4, tab 326 at 15135-36).

202. On October 15, 2020, the government issued bilateral Modification No. A00032, extending the contract completion date 78 calendar days and granting

$76,430 for Case 0036-2 Modify Chiller Time Impact – Part 2, Case 0061 REA – Bridge Crane Labeling, and Case 0063 REA – Hangar Door Soffit (R4, tab 326 at 15188).

203. On December 8, 2021, Hensel Phelps signed bilateral Modification No. P00004 extending the contract completion date 43 days to December 16, 2020, and granting $484,351 for construction of a revised partition in the aircraft hangar added by the government in Modification No. A00023 (R4, tab 326 at 15244-46).

204. Through modification, the government extended the contract completion date a total of 388 days (findings 198-203).

XV. Hensel Phelps and Ajax Agreement to Play Nice

205. By letter dated May 27, 2021, Hensel Phelps agreed to reduce the amount withheld from the remaining balance of Ajax's subcontract from $2,524,050 to $1,024,050, thereby still withholding $1.5 million. It was agreed that:

> In exchange for the reduction and partial payment of the withheld amount, Hensel Phelps and Ajax Paving will continue to cooperate and work together to pursue the money due from the [g]overnment. Ajax Paving will not file a demand for arbitration or any other action against Hensel Phelps until the complete and final resolution of the claims against the [g]overnment. The parties reserve all rights as between them.

(R4, tab 642)

Substantial Completion

206. The parties agree that substantial completion of the contract occurred on October 31, 2021 (tr. 4/231; GUPFF ¶ 192).

XVI. Certified Claims

207. Hensel Phelps submitted five certified claims to the government seeking extensions of time and additional compensation, three of which are pending in these consolidated appeals (JSF ¶ 3).

PVD Refusal Differing Site Condition Claim and Surcharge Removal Claim

208. On February 12, 2019, Hensel Phelps submitted certified claims and requests for a COFD regarding a PVD installation claim (Claim No. 8017165-021 - PVD Refusal

Differing Site Condition) and a surcharge removal claim (Claim No.8017165-042 - Denial of Surcharge Removal) (JSF ¶ 4). On September 23, 2019, the government issued COFDs denying both claims (JSF ¶ 5).

209. Hensel Phelps appealed the September 23, 2019, COFDs denying Hensel Phelps's February 12, 2019, claims, which were docketed as ASBCA Nos. 62311 and 62312, and subsequently consolidated. These two claims are not part of the consolidated appeals presented here. The Board conducted a hearing on entitlement for these appeals and a decision on them remains pending.

Airfield Paving Redesign Claim (Pass Through Subcontractor Claim) – ASBCA No. 63316

210. On November 18, 2021, Hensel Phelps submitted a certified claim and requested a COFD regarding the airfield paving redesign (R4, tab 6; JSF ¶ 6; finding 16). The airfield paving redesign claim submitted on behalf of Ajax alleges cost and time impacts resulting from the installation of airfield paving layers (JSF ¶ 7; finding 16). The claim includes Hensel Phelps's markups to amounts sought by Ajax (JSF ¶ 8).

211. Ajax's pass-through claim alleges that it "was directed to stabilize the apron subgrade" and that "[t]he design change relating to the addition of the stabilization of the apron subgrade was necessitated because the [USACE] failed to address the native cohesionless soils at the site into its design resulting in the original design containing no requirement to stabilize the apron subgrade" (R4, tab 4 at 7).

212. On April 20, 2022, the CO issued a COFD denying the airfield paving redesign claim (R4, tab 7; JSF ¶ 9). On June 24, 2022, Hensel Phelps appealed the April 20, 2022, COFD, which was docketed as ASBCA No. 63316 (R4, tab 1; JSF ¶ 14).

Multiple Items Claim – ASBCA No. 63398

213. On May 25, 2022, Hensel Phelps submitted a certified claim and request for a COFD seeking costs and time impacts for: (1) Power to MAUs ; (2) Hensel Phelps's Costs and Impacts - Airfield Paving Redesign; (3) RFP 054 – Revise Power, Anchors, and Walls; (4) RFP 066 – Complete Air Barrier with Spray Foam; and (5) RFPs 069, 072, and 073 - Cost and Time Impacts to Perform Added Scope (R4, tab 8 at 43; finding 155).

214. On August 30, 2022, the CO issued a COFD denying in part and granting in part Hensel Phelps's multiple items claim (R4, tab 9; JSF ¶ 15). The CO granted "the hard costs associated with the three additional circuits associated with RFI 0485, but as no specific costs were provided by Hensel Phelps as to this work, negotiations are

necessary to determine the appropriate quantum" (R4, tab 9 at 385) The CO denied "[a]ll other components of this claim" *(id.*).

Lift Station Claim – (Pass Through Subcontractor Claim) ASBCA No. 63397

215. On June 22, 2022, Hensel Phelps submitted a certified claim and request for a COFD seeking costs for redesign of the lift station and a differing site condition (R4, tab 10; JSF ¶ 12). Hensel Phelps submitted the lift station claim on behalf of Ajax and included its own markups to amounts sought by Ajax (JSF ¶ 13; finding 47).

216. On August 30, 2022, the CO issued a COFD denying Hensel Phelps's lift station claim (R4, tab 11; JSF ¶ 16). The CO found that the government did not withhold information from Hensel Phelps and, in fact, provided information indicating that "redesigning the lift station was neither requested nor required" (R4, tab 11 at 1301-02). The CO also found that "Ajax did not encounter a differing site condition; they encountered the soil that was reflected in geotechnical documentation provided by the [g]overnment" (*id.* at 1302).

217. On September 9, 2022, Hensel Phelps filed notices of appeal of the two August 30, 2022, COFDs on the lift station claim and multiple items claim (R4, tabs 2- 3; JSF ¶ 17). The appeals were docketed as ASBCA Nos. 63397 and 63398 and consolidated with ASBCA No. 63316.

XVII. Expert Testimony – Earthwork Brian Prowell – Advanced Materials Services, LLC Stabilization of Cohesionless Soil

218. Hensel Phelps offered Dr. Brian Douglas Prowell, an employee of Advanced Materials Services, LLC (AMS), as an expert in field construction and pavement (tr. 4/6, 11-12). Dr. Prowell holds a Bachelor of Science degree in civil engineering from Pennsylvania State University, a Master of Science degree in civil engineering from Virginia Tech, with an emphasis on concrete, and a PhD from Auburn University with an emphasis on pavements (tr. 4/6). Dr. Prowell testified regarding an expert report authored primarily by a former colleague, Mr. Graham Hurley (with input from Dr. Prowell), who had left the employment of AMS prior to the hearing (tr. 4/12-15). The government ultimately did not challenge Dr. Prowell's designation as an expert, although the government did elicit testimony that Dr. Prowell had not previously worked on military airfield paving projects except for an airfield asphalt pavement technology program involving flexible pavement at Naval Air Station Oceana (tr. 4/38). Mr. Hurley's report notes that "AMS currently supports all aspects of flexible pavement design . . . conducts research and product development testing designed to improve the

quality and performance of asphalt pavements," and has "over 60 years of cumulative experience in the development of asphalt specifications" (R4, tab 324 at 14753).

219. The AMS report states:

> what is clear, is that the actual laboratory testing results showed that the soil was classified as SP (poorly graded sand) using the Unified Soil Classification System (USCS). This should have been a huge red flag for the USACE and its design team because it indicates low strength soils that would require stabilization. Based upon these borings, the USACE should have required stabilization as a part of the pavement design.

(R4, tab 324 at 14757).

220. Mr. Hurley's report concluded that "[s]oil borings and tests from bulk samples collected by the USACE prior to design of the pavement indicate very low strength cohesionless soils, yet the USACE did not require stabilization of the subgrade in the plans and specifications," and that this "[l]ack of stabilization resulted in an unstable platform which prevented the successful construction of the subsequent pavement layers" (R4, tab 324 at 14754). Mr. Hurley's report also concluded that the government's "design of the pavement system . . . was never capable of being built" because the government "used the wrong CBR value for the in-situ subgrade for the pavement design," resulting in "the CBR value being too high and not representative of the in-situ subgrade soils under the pavement" (R4, tab 324 at 14753).

221. Dr. Prowell testified during the hearing that when asked during his deposition about his opinions regarding the stabilization requirement, he was surprised to learn that the contract did contain a stabilization requirement and, then, confirmed as true government counsel's statement that when he (Dr. Prowell) prepared the report with Mr. Hurley, he "overlooked the fact that the specifications indicated that cohesionless soils in the subgrade needed to be stabilized" (tr. 4/39-40). Dr. Prowell agreed that the contract's in-place testing requirements were a performance standard (tr. 4/40).

222. During the hearing, Dr. Prowell admitted that the contract required stabilization of cohesionless soils but qualified his statement with "[t]here's no specification for how to stabilize or what the requirement was for stabilization" (tr. 4/42). Government counsel presented testimony from Dr. Prowell's deposition, wherein he recognized that the contract specification stated, "accomplish stabilization by mixing the overlying course material into the underlying course. And that's the part that the [USACE] expected them to mix -- expected AJAX and Hensel Phelps to mix the separation layer into the subgrade." (Tr. 4/43) Dr. Prowell is offered as an expert to

assist the Board, yet the Board finds Dr. Prowell's testimony unconvincing based upon his not recognizing the stabilization requirement set forth in the contract until his deposition, and his reliance upon Mr. Hurley's report which stated "pavement indicate very low strength cohesionless soils, yet the USACE did not require stabilization of the subgrade in the plans and specifications" (finding 220).

223. When asked whether he would have advised Ajax at the time they were compiling their bid—and before submitting a proposal to do this work to Hensel Phelps—to get clarification on the issue of stabilization, Dr. Prowell testified it "might have been a prudent thing to do" (submit an RFI that would be shared with all bidders). Dr. Prowell stated, however, that under a "competitive bid situation, you don't want to learn something that's going to add, you know, if you're going to do a truthful bid that you think is going to cover your costs, you would not want to add something that's going to raise your cost, but not raise your competitor's." (Tr. 4/26)

Table 6-1 and k-value

224. Although Mr. Hurley's report made no mention of k-value, Table 6-1 (UFC 3-260-02 Typical Values of Modulus of Soil Reaction), rigid pavement, or concrete pavement (R4, tab 324), during the hearing Dr. Prowell criticized the USACE because it utilized Table 6-1 to obtain a k-value and did not perform plate loaded testing (tr. 4/28-30).

225. During his testimony, Dr. Prowell opined it was not good engineering practice to rely upon Table 6-1 and that, in his opinion, he puts "more effort into determining the k-value, the proper k-value for . . . dumpster pads than they [the government] did" (tr. 4/29). We do not find Dr. Prowell's opinion to be persuasive as it ignores the fact that, as discussed above, the government designer (1) considered other relevant information in determining the k-value including historical data and past designs, which is specifically suggested in notations to Table 6-1, and (2) chose a lower k-value regarding the strength of the soil so as to be more conservative (findings 41-43). Indeed, during his testimony Dr. Prowell recognized "[t]here's a note at the bottom of the [Table 6-1] which says that pavement design should be based on test data or at least historical data of past designs and evaluations of the same facility, if at all possible" (tr. 4/28). Although Dr. Prowell opined that the government did not conduct a proper geotechnical analysis (tr. 4/16), he admitted he is not a geotechnical engineer (tr. 4/40).

Lift Station Differing Site Condition Claim

226. Dr. Prowell was asked, "given the locations of the borings that are in the geotechnical report [GER], do you have an opinion as to whether it was sound engineering practice to take borings that were not in the location of the lift station construction?"—to which he answered—"[n]o, that was not at all sound engineering

practice," and that "[t]here should have been a boring at the lift station location," because it is "the deepest structure on the entire site" (tr. 4/16). In response to a question why it would be important to take a boring at the lift station sight, Dr. Prowell testified that "[t]hroughout Florida there are ledges of lime rock, and they vary. You might hit one here, but 10 feet away, there's not one. And that changes the type of equipment you would need for construction." (Tr. 4/16-17) Dr. Prowell testified that he was not provided, and did not review, any documents to support what was encountered in the lift station excavation (tr. 4/65-66).

227. When asked "whether the borings surrounding that lift station would be sufficient for a contractor to anticipate that there might be a ledge or a bedrock of limestone," Dr. Prowell acknowledged that boring "A2 had fragments of limestone at 15 feet and no refusal to 30 feet," and that boring PB-4 "hit what they described as weathered limestone" and that boring PB-4 hit refusal at 28 to 30 feet (tr. 4/19-20).

228. Dr. Prowell was asked, given the borings "we talked about today, and the sound engineering practice you talked about earlier with respect to having boring at the lift station location," did he "have any opinions as to whether . . . a reasonably prudent contractor would have any anticipation of encountering a limestone ledge at the lift station excavation location shown on the plans?" (tr. 4/21). Dr. Prowell did not answer that question directly, rather, he couched his answer in terms of what he believed a contractor would do in a "competitive bid situation," stating:

> the contractor can't assume the worst-case scenario in every situation. So[,] they have multiple sites that don't show any limestone ledges. They have one site that showed weathered limestone. For them to assume that there was [sic] ledges of limestone at the lift station location and then, you know, cost in the specialized equipment to come in that can actually auger through that, would be, you know, just additional costs that they should really have anticipated. You know, that would -- that may have thrown their bid out of whack compared to other bidders who would not judge it that way.

(Tr. 4/21-22)

Justin Roosa - USACE, Louisville District

229. Mr. Roosa, an employee of USACE Louisville District, testified as both a fact and expert witness in the area of geotechnical engineering - in rebuttal to the AMS report and Dr. Prowell's testimony (tr. 7/173, 256-269). Mr. Roosa holds a Bachelor of Science degree in engineering and a Master of Science degree in engineering from the University of Louisville (tr. 7/174). Mr. Roosa was offered and testified as a

geotechnical engineering expert (tr. 7/256-57). Hensel Phelps did not challenge his designation as an expert. Mr. Roosa did not prepare a written rebuttal report (tr. 7/257).

230. Mr. Roosa was involved in preparing specifications and drawings for the Project, including the earthwork, pavement, and groundwater specifications (tr. 7/182). Mr. Roosa also coauthored the GER with Dr. Kuo and, in response to Mr. Hurley's assertion in the AMS report that the government did not "use an adequate CBR value," Mr. Roosa explained that "CBR is not utilized in a rigid pavement design," and that the USACE utilizes "the subgrade modulus, the k-value in the design," concluding that Mr. Hurley's "argument regarding CBR is irrelevant because it's not utilized in the design of concrete pavements" (tr. 7/182, 202, 258).

231. Mr. Roosa likewise disagreed with the suggestion in the AMS report that CBR is a constructability parameter, stating, CBR is an "input parameter for the design of a pavement over a long period of time, over the lifespan of the pavement," and is "not a constructability parameter" having "to do more with the densities of the subgrade materials . . . your proof rolling" (tr. 7/258). Mr. Roosa explained that constructability refers to whether something can be built to contract specifications, *i.e.*, is the material acceptable, can it meet density requirements, moistures requirements, can it pass proof rolling and rutting? (tr. 7/260).

232. Mr. Roosa disagreed with opinions offered in Mr. Hurley's report and the testimony of Dr. Prowell that the specification did not require stabilization of the subgrade, stating that the specification "clearly states in the separation layer[,] stabilization if it's a cohesionless material" (tr. 7/260-61).

233. Mr. Roosa refuted Mr. Hurley's statement in the AMS report that the specification for the aggregate separation layer was unattainable, noting that, ultimately, Hensel Phelps "stabilized the subgrade utilizing separation material . . . in the subgrade" and "essentially [did] what was in the original contract" (tr. 7/261).

234. Mr. Roosa testified that the specification's requirement for stabilization of cohesionless soil set means and methods parameters and contained performance measures of in-place testing of gradation, density, and compaction (tr. 7/312-13).

235. Mr. Roosa stated that specification paragraph 2.1.1 (Subbase Course) includes a table titled "Maximum Allowable Percentage by Weight Passing Square-Mesh Sieve" which identifies a Sieve Designation No. 10 and a maximum allowable percentage of 50 (tr. 7/314; R4, tab 17 at 4203). In discussing the table, Mr. Roosa stated "[i]f the material meets those gradations, meets the durability, meets all the requirements, the testing requirements, the material will have a CBR of 50" (tr. 7/314).

Chun-Yi Kuo – USACE Baltimore District

236. Dr. Kuo, an employee of USACE Baltimore District and formerly the Louisville District testified as a fact witness and as an expert in geotechnical engineering and in rebuttal to the AMS report (tr. 8/6, 10, 18, 20, 84). Dr. Kuo holds a Bachelor of Science degree in civil engineering from the National Taiwan University, a Master of Science degree from Ohio State University in geotechnical engineering, and a PhD in geotechnical engineering from Georgia Institute of Technology (tr. 8/7, 10-11). Dr. Kuo was offered and testified as an expert in geotechnical engineering. Appellant did not challenge Dr. Kuo's designation as an expert.

237. Dr. Kuo coauthored the GER with Mr. Roosa (tr. 8/13-14). Dr. Kuo's expert rebuttal report stated that the government "did not use the CBR values for rigid pavement designs (airfield concrete pavements)," instead it utilized "k-value (subgrade modulus)," and that the "CBR value was used only for flexible pavement design" (R4, tab 332 at 24007).

238. Dr. Kuo stated his opinion that the k-value of 150 chosen by Mr. Roosa was consistent with the results he had seen based upon his review of the CBR testing values, as well as his understanding of soil type. Dr. Kuo performed a physical observation of a soil type sample, the CBR test values and logs, and agreed that the SP-SM soil classification was correct. (Tr. 8/63-64)

239. In his rebuttal report, Dr. Kuo states "[t]he USACE design team questions the validity of the AMS's statement of SP soil calls for stabilization. In fact, SP (poorly graded sand) is usually considered a proper 'structural fill' as included in the Geotechnical Report." (R4, tab 332 at 24011) Based upon this statement, appellant argues that Dr. Kuo testified "he did not think the subgrade needed to be stabilized if it was properly compacted" (app. reply at 41). Hensel Phelps misstates Dr. Kuo's report and his testimony. Dr. Kuo's report specifically recognizes the need for stabilization of the subgrade, quoting from the GER, and stating, "[t]he recommended pavement sections given below are based on the assumption that the pavement subgrade soils have been compacted to minimum densities recommended in this report" and that "[s]ome undercutting or stabilization of soft subgrade soils may be required to achieve a stable subgrade". (R4, tab 332 at 24011, tab 16 at 3771)

240. On cross examination, counsel for Hensel Phelps asked Dr. Kuo: "[i]t was your opinion that if the subgrade soils were properly compacted, that there would be no need for stabilization; is that right?" (tr. 8/79). Dr. Kuo responded, "No. I think normally for -- I don't know what your definition of the stabilization. Okay. If you consider the stabilization, it is only for kind of chemical type, the cement stabilize, or those kind of stabilization. Then, at the time, I didn't see the need." (*Id.*) What Hensel Phelps ignores is that Dr. Kuo, in response to appellant's question, states "No" (*id.*).

Dr. Kuo then clarifies that he did not see the need for chemical stabilization—such as cement—which is something the contract did not specify as a method for stabilizing the subgrade (*id.*). Having reviewed Dr. Kuo's rebuttal report and his testimony, we find that Dr. Kuo recognized the need for taking steps to ensure stabilization of the subgrade and reject Hensel Phelps's attempt to mischaracterize Dr. Kuo's opinion as suggesting otherwise.

Stacy Heusel – USACE Center of Expertise, Transportation System Center

241. Mr. Heusel, an employee of USACE Center of Expertise, TSC, is a licensed civil engineer and testified as a fact witness and as an expert on behalf of the government in military airfield civil design (tr. 6/173-75). Mr. Heusel holds a Bachelor of Science degree in engineering from the University of Nebraska (tr. 6/174). Mr. Heusel was offered and testified as an expert in military airfield civil design. Appellant did not challenge Mr. Heusel's designation as an expert.

242. Mr. Heusel reviewed other projects that utilized specification 32 11 16 and testified that the specification requirements were attainable (tr. 6/202-05).

243. Mr. Heusel agreed with Mr. Roosa's decision to utilize a 150 k-value and not less than seven inches of concrete, noting that another airfield with which he was familiar had seven inches of concrete (tr. 6/220, 7/282-83, 285-86; R4, tab 158 at 10247).

244. Although Mr. Heusel stated that relying solely on visual classification of soils to establish a k-value would not be sound engineering practice for pavement design, he also stated that he had no knowledge of what other considerations or testing the authors of the GER utilized (tr. 6/222-25; *see* findings 42-43, 225) (setting forth other information considered, and testing conducted, by government).

245. Mr. Heusel stated that the contractor is responsible for details of the work beyond what is stated in the specification regarding mixing the subbase material into the subgrade to deploy the "means, methods, the equipment that is used" to meet the performance standard (tr. 6/201). Mr. Heusel testified that he had "seen many people do different things where if you have a -- in my experience on a lot of the projects . . . the contractor had to use different methods . . . there's many different actions that could be done. But ultimately, the contractor has to pick their means and methods of placement to accomplish that and not break down the underlying work." (*Id.*)

246. Mr. Heusel stated his belief that the specification requiring stabilization of cohesionless soil was a performance specification and described changes made to the UFGS 32 11 16 (guide specification) through utilization of SpecsIntact to derive the subgrade stabilization requirement. Mr. Heusel explained that, regarding the drainage layer, a gradation of one was selected based upon designer notes set forth in specification, with a corresponding CBR value of 50 tied to that gradation, which is the assumption set

forth in PCASE for the design. (Tr. 6/193-94, 199, 229-30; *see* R4, tab 17 at 4203) Mr. Heusel noted that the specification required in-place testing regarding gradation of the material, the compaction of the material, and the thickness of the material (tr. 6/196). Mr. Heusel explained that proper gradation as reflected in the in-place testing includes whether the material is coarse enough to meet 50 CBR (tr. 6/197).

247. Mr. Heusel testified that, in meeting the stabilization requirement set forth in paragraph 3.3 (tr. 6/198), the contractor has the ultimate responsibility of selecting the gradation, i.e., the contractor is:

> selecting a material that they see is not going to break down. That has a gradation, that's coarser than the limiting requirements. So[,] they're selecting a coarser material that meets the minimum.
>
> And so[,] they have control of what's above this layer and controlling the performance of the selection of what's put on the layer above. And also[,] in the -- in how firm that underlying layer becomes, so their effort in that as well.
>
> . . . .
> . . . [T]hrough the in-place testing that the QC requires, they're verifying compaction. They're verifying the in-place requirements of the subbase layer for verification of the subbase -- or the subgrade level has been stabilized. The proof rolling that's part of the . . . of the subgrade specification will verify the stabilization of that material.

(Tr. 6/200)

XVIII. Expert Testimony – Hensel Phelps Delay Claim

248. For their respective schedule delay analysis, all three scheduling experts utilized one of nine AACE (American Association of Cost Engineers) MIP (method implementation protocol) critical path methodologies set forth in an AACE publication, Recommended Practice 29R-03 (tr. 4/107-08, 206-08, 8/95).

Christopher Anderson, SOCOTEC Advisory, LLC

249. Christopher Anderson, an employee of SOCOTEC Advisory, LLC, was hired by Ajax and offered by Hensel Phelps as an expert in construction management, scheduling, and costs, specifically as those issues relate to schedule analysis and damages impacting Ajax (tr. 4/77; R4, tab 330 at 15559). Mr. Anderson holds a degree in welding

technology from North Georgia Technical College (tr. 4/77-78). Mr. Anderson was offered and testified as an expert in construction management, scheduling, and costs. The government did not challenge Mr. Anderson's designation as an expert, although the government did elicit testimony that Mr. Anderson does not hold a mechanical engineering degree and has taken only preliminary courses in scheduling (tr. 4/164).

250. Mr. Anderson performed an as built vs. as planned analysis of Ajax's paving work (tr. 4/83, 105-06, 108). Mr. Anderson testified that he utilized AACE MIP 3.4, although Hensel Phelps's other scheduling expert, Mr. Staley, testified that he believed Mr. Anderson utilized MIP 3.2 (tr. 4/107-08, 208). Mr. Anderson did not perform a critical path analysis of Ajax's work as it related to the overall project performed by Hensel Phelps (tr. 4/105, 130, 96-197; app. br. at 66).

251. In his report and during the hearing, Mr. Anderson stated his opinion that work performed by Ajax was never on the critical path, specifically the as-built critical path (tr. 4/130, 165-67; R4, tab 330 at 15575). Mr. Anderson testified that Ajax's work "was either close or concurrent or perhaps a few days critical in some of the contemporaneous updates. But in the final product, where we're looking at what ultimately drove completion of the project, it's my understanding it was never or is not on the as-built critical path." (Tr. 4/166) Mr. Anderson opined that the government is responsible for 632 days of delay to Ajax, of which 479 days are compensable (tr. 4/149).

252. Mr. Anderson identified four periods of delay: (1) 81 calendar days from May 2, 2019, to July 22, 2019; (2) 295 calendar days from May 2, 2019, to May 12, 2020, "less prior delays of 81 days"; (3) 72 calendar days from May 2, 2019, to July 23, 2020, less prior delays; and (4) 184 calendar days from July 23, 2019, to April 15, 2021, less prior delays (R4, tab 330 at 15574-75).[18] For delay period one, Mr. Anderson concluded that responsibility for the 81 days of delay should be shared by the parties and the delay considered concurrent and non-compensable (R4, tab 330 at 15585; tr. 4/113-14). For delay period two, Mr. Anderson concluded that the government was responsible for the 295 days of delay and the delay days compensable to Ajax (R4, tab 330 at 15585; tr. 4/117-18). For delay period three, Mr. Anderson concluded that responsibility for the 72 days of delay should be shared by the parties and the delay considered concurrent and non-compensable (R4, tab 330 at 15608; tr. 4/118-19). For delay period four, Mr. Anderson concluded that the government was responsible for the

[18] Mr. Anderson's delay periods one through three all commence on May 2, 2019, which presumably is the basis for his statement "less prior days" for delay periods two and three - wherein Mr. Anderson, in totaling the number of days for those periods deducts the delay days already accounted for in the preceding periods of delay. For period four, Mr. Anderson likewise states "less prior delays" although period four begins on July 23, 2019 (it is unclear whether 2019 is a typographical error) (R4, tab 330 at 15574-75). However, this makes no difference in our analysis.

184 days of delay and the days of delay compensable to Ajax (R4, tab 330 at 15609; tr. 4/119). All told, Mr. Anderson found that the government was responsible for 479 days of compensable delay (delay periods two and four) and 153 days of concurrent delay (delay periods one and three).

L. Alex Staley – Analytical Management Solutions

253. Mr. Staley, managing owner of Analytical Management Solutions, was retained by Hensel Phelps and offered as an expert in schedule delay analysis, forensic schedule delay analysis, and damages (tr. 4/204; R4, tab 325 at 14877). Mr. Staley holds a Bachelor of Science degree in building construction from the University of Florida (tr. 4/191). Mr. Staley was offered and testified as an expert in schedule delay analysis, forensic schedule delay analysis, and damages. The government did not challenge Mr. Staley's designation as an expert.

254. Mr. Staley stated that Hensel Phelps seeks 404 calendar days of uncompensated delay, and 319 calendar days of unresolved, excusable delay— "the outstanding time that has been unresolved on the project" (R4, tabs 325 at 14877-14878, 325A at 2; tr. 4/197-98, 204-05, 248-49). Mr. Staley divided his delay analysis into eight time periods or "windows" (R4, tab 325 at 14879-80). The first three windows covered the following periods: November 3, 2017, to March 1, 2019; March 2, 2019, to August 30, 2019; and August 31, 2019, to November 29, 2019, and concerned contract work not part of the claims currently before the Board in these consolidated appeals (R4, tab 325 at 1488; tr. 4/216-217).

255. Mr. Staley's analysis of Hensel Phelps's claims that are relevant to the appeals at issue here begins with window four. According to Mr. Staley, "the site paving delays start to show up on the overall critical path or near critical" (tr. 4/217). Window four covers the period from November 30, 2019, to March 31, 2020, which Mr. Staley describes as "Site Paving / USACE Modifications" (R4, tab 325 at 14880, 14902). Mr. Staley's report recognized 85 days of delay, which he attributes to the government, with 39 days unresolved / compensable (*id.* at 14902). This delay period is based upon (1) a change to the aircraft hangar (A1 wall design change), for which the government ultimately grants Hensel Phelps a 43-day time extension and monetary compensation (bilateral Modification No. P00004), and (2) apron paving delays (tr. 4/229; R4, tab 326 at 15244; finding 203). Regarding the apron paving delays, Mr. Staley testified that "from an entitlement standpoint, I would rely on Mr. Anderson and AJAX. There're [sic] asserting entitlement to this based on both their and Hensel Phelps's view of the spec and the merit as a part of this appeal. So[,] I've used that. I don't have an independent opinion." (Tr. 4/230) In addition to the 43 days of compensable delay granted by the government, Mr. Staley recognized three additional days of delay (which the government granted as weather delays per bilateral Modification No. A00027), which resulted in 39 days of unresolved compensable delay (tr. 4/232; R4, tab 326 at 15232-33).

256. Window five covers the period April 1, 2020, to August 31, 2020, which Mr. Staley described as "Fire Pump Impacts / Site Paving" (R4, tab 325 at 14880, 14902). Mr. Staley's report recognizes 133 days of delay and attributes all 133 days to the government, with 72 days of non-compensable, concurrent delay attributable to Hensel Phelps/Others, and 61 days labeled unresolved/compensable (*id.* at 14902; tr. 4/235-36). According to Mr. Staley, this period of delay is based upon the "the fire suppression testing due to the jockey pump" and "completing implementation of the [apron] subbase" (tr. 4/234, 236). Regarding paving issues, Mr. Staley again relied upon Mr. Anderson's report, which recognized 72 days of non-compensable, concurrent delay associated with apron elevation issues and 61 days of compensable delay assigned to the government for "re-procurement of Ajax's new paving subcontractor, which has been attributed by Ajax to the subgrade design impacts" (Mr. Anderson's report did not address jockey pump delay issues) (tr. 4/236; R4, tabs 325 at 14894, 330). Mr. Staley's report found that the impact of the jockey pump and apron paving delays "were essentially concurrently critical throughout Window 5" (R4, tab 325 at 14892).

257. Mr. Staley testified that "[t]he government's expert has acknowledged entitlement to this delay now" and "quantified it as 103 days. We have 133." (Tr. 4/234) According to Mr. Staley, the government's difference of 30 days is based on precisely the date the jockey pump was "done" (tr. 4/235; *see* finding 179 (jockey pump delivered on August 4, 2020)). Mr. Staley attributed the difference of 30 days to the time it took Hensel Phelps to mobilize workers to conduct fire suppression testing, which he alleged was impacted by COVID-19 (tr. 4/234-35). As we discuss below, the government's expert, Mark Boe, attributed the 30-day delay to Hensel Phelps paving/quality control issues (tr. 8/113-15; finding 267).

258. Window six covers the period September 1, 2020, to December 31, 2020, which Mr. Staley described as "Site Paving / Air Barrier Changes" (R4, tab 325 at 14880, 14902). Mr. Staley's report recognized 61 days of delay and attributes all delay to the government with 61 days unresolved/compensable (*id.* at 14902). According to Mr. Staley, this period of delay is based upon "ongoing site paving completion" and "changes to building envelope design that impacted and prevented the final acceptance of the building for a period of time" (tr. 4/217, 236-37). According to his report "the schedules confirm the ongoing completion of the apron concrete paving was the primary critical path throughout Window 6," and that other "near-critical paths" concerning "the ongoing testing of critical building systems, most notably HVAC test and balance work, [were] concurrently critical with the apron paving delays (R4, tab 325 at 14896). Regarding apron delays, Mr. Staley relied upon Mr. Anderson's report, which recognized the delay as caused by the government based upon "all the predecessor delays that precipitated their loss of their original [paving] subcontractor due to other commitments" (tr. 4/236, 238-39; R4, tab 325 at 14897).

259. Window seven covers the period January 1, 2021, to March 31, 2021, which Mr. Staley described as "System Testing / Apron Completion" (R4, tab 325 at 14880, 14902). Mr. Staley's report recognized 86 days of delay and attributed all 86 days to the government, with 86 days unresolved/compensable (*id.* at 14902). According to Mr. Staley, this period of delay is based upon "the known change work related to the air barrier testing that impacted final acceptance of the test and balance work for the building," which "drove the critical path at the completion of the period beyond any other remaining work items" (R4, tab 325 at 14899-14900). According to Mr. Staley, "[b]ased on the actual work interference to the air barrier testing during Window 7 and pending added scope that USACE has acknowledged responsibility for, Hensel Phelps is entitled to an excusable and compensable time extension of 86 calendar days during Window 7" (*id.* at 14900).

260. Window eight covers the period April 1, 2020, to October 31, 2021, which Mr. Staley described as "Extra Work / Project Completion" (R4, tab 325 at 14880, 14902). Mr. Staley's report recognized 157 days of delay and attributes all 157 days to the government, with 157 days unresolved/compensable (*id.* at 14902). According to Mr. Staley, "[t]he contemporaneous schedules during this period reflect USACE-directed additional work as controlling the critical path," and "[d]uring this timeframe, USACE continued to issued [sic] changes to the work, which were ultimately resolved via Modification No. [A00036]." (R4, tab 325 at 14900-01). According to Mr. Staley, "[t]here is no indication of any concurrent contractor delays during Window 8 that controlled the extended duration of the contract. The only basis for the additional time was USACE's issuance of [RFPs] for additional work after the completion of other contractor work." (*Id.* at 14901)

Mark Boe – Capital Project Management, Inc.

261. Mark Boe, Vice President of Capital Project Management Inc. (CPMI) and a professional civil engineer, was retained by the government as an expert in schedule delay and costs to testify as a rebuttal expert in response to reports issued by Analytical Management Solutions and SOCOTEC (tr. 8/89, 92, 94-95; R4, tabs 333 at 24018, 333a). Mr. Boe graduated from the Coast Guard Academy with a Bachelor of Science degree in civil engineering and from the University of Illinois with a Master of Science degree in engineering (tr. 8/92). Mr. Boe was offered and testified as an expert in schedule delay and costs. Appellant did not challenge Mr. Boe's designation as an expert.

262. Mr. Boe's analysis identified 683 days of total delay, with 465 days of unresolved delay (tr. 8/99). In addition, Mr. Boe found entitlement for 172 calendar days of excusable delays, plus 170 days recognized in Modification No. A00036. Mr. Boe's report identifies 295 days of delay that occurred on the project, which does not include the 170 days granted via Modification No. A00036. (R4, tabs 333 at 24019, 333A at 1-2; tr. 8/99)

263. Mr. Boe utilized the same AACE critical path methodology utilized by Mr. Staley—MIP 3.3—and the same eight window time periods, although Mr. Boe divided some windows into sub-windows or subperiods (tr. 4/108, 4/207, 8/94-95, 97). According to Mr. Boe, MIP 3.3 is "the most detailed." "It allows you to get the best answer . . . because it relies on the contemporaneous schedule updates," and does not "just look at the beginning and at the end[,] [i]t looks to each update to see what happened during this period." (Tr. 8/95) Regarding Mr. Anderson's as planned versus as built analysis, Mr. Boe stated the methodology is "fairly widely recognized as not a critical path method . . . you're not looking to see what the critical path of the work is" (tr. 8/98).

264. For window two (March 2, 2019, to August 30, 2019), both Mr. Boe and Mr. Staley agree that all delays within the period were resolved through bilateral modifications. However, Mr. Boe determined that the number of days awarded by those modifications extended the completion date for window two by 11 days past the then applicable contract completion date (R4, tab 333 at 24030; tr. 8/100, 102-03). Mr. Boe noted that Mr. Staley did not provide credit for these 11 days (R4, tab 333 at 24030). Regarding window three (August 31, 2019, to November 29, 2019)—which the parties agree experienced 75 days of excusable delay—Mr. Boe determined that the 78 days granted by Modification No. A00032, extended the completion date an additional three days past the then-applicable completion date (tr. 8/106; R4, tab 333 at 24030). Mr. Boe noted that Mr. Staley did not provide credit for those three days (R4, tab 333 at 24030-31, 24034). In total, the actual delay in windows two and three was 161 days, while 175 days of delay were granted via modifications (R4, tab 333 at 24034).

265. Mr. Boe concurred with Mr. Staley that the project was delayed 85 days during window four (November 30, 2019, to March 31, 2020) (*id.* at 24034, 24044). Mr. Boe noted that Mr. Staley's report "alleges that the entirety of the difference between the window delay of 85 days and the [two] bilateral modifications of 46 days (wall changes and weather), which is 39 days, is attributable to subgrade preparation for apron concrete paving" (R4, tab 333 at 24044). Mr. Boe disagreed that the additional days of delay were attributable to the government. Mr. Boe noted that the three days of weather delay granted via Modification No. A00027 was applicable to excusable delays in window two (August 2019), not window four (*id.*). Mr. Boe also disagreed that the remaining days, as alleged by Mr. Staley, were attributable to subgrade preparation for apron concrete paving (*id.*). Mr. Boe determined that 58 days of delay were caused by the A1 wall changes and of those days, 43 were resolved by Modification No. P00004 (R4, tab 333 at 24045). Mr. Boe determined that Hensel Phelps was responsible for the additional 15 days, plus another 27 days because of apron paving issues caused by Hensel Phelps's subcontractors Ajax, PSI, and McKenzie (*id.* at 24041-45).

266. Mr. Boe "credited 14 days of the unexcused delay during this period based on the overage of delay granted in the earlier periods, which lowered the assigned 42 days of unexcused delay in the Window to 28 days as 'unresolved through Window 4'" (R4, tab 333 at 24045). Mr. Boe reasoned, in testifying regarding the 11 days granted by the government in window two, that "the government has paid for that additional 11 days. They can't charge liquidated damages for those 11 days. And in the same vein, [Hensel Phelps] can't claim 11 -- those 11 days again as a compensable delay. And that's what appears to have happened." (tr. 8/103; finding 264). Mr. Boe reasoned that the same logic would apply to the additional three days granted pertaining to window three via Modification (finding 264).

267. Mr. Boe determined that during window five (April 1, 2020, to August 31, 2020) completion was delayed 133 days, and that "[d]uring this period the [a]pron sub-base work was completed, but the [apron] layers were at improper elevations and required correction before beginning concrete pavement" (R4, tab 333 at 24046; tr. 8/113-15). Mr. Boe determined that the project was further delayed by (1) Ajax's primary paving subcontractor Ajax Michigan abandoning the project site and (2) a government change to a jockey pump controller resulting in delayed fire suppression testing in the hangar. Mr. Boe opined that Hensel Phelps was entitled to 103 days of excusable delay through the "actual delivery of the jockey pump controller on August 4, 2020," procurement of which ran concurrently with delays to paving, for which Mr. Boe found Hensel Phelps responsible. The remaining 30 days were unexcused due to paving delays. (*Id.*)[19]

268. During window six (September 1, 2020, to December 31, 2020), Mr. Boe determined, as did Mr. Staley, that completion was delayed 61 days (R4, tab 333 at 24069-70). As summarized by Mr. Boe in his report, (1) "the critical path was further delayed by apron paving delays," (2) "the schedule indicates that the Hangar completion was delayed by HVAC test and balance and fire alarm testing," and (3) Mr. Staley's report "identifies the primary critical path as apron paving and a near-critical path of completion of HVAC Test and Balance" (*id.*). Regarding the primary critical path driver, apron paving, Mr. Boe notes that Mr. Staley adopts and relies upon the claims alleged by Ajax and conclusions in Mr. Anderson's report, and that Mr. Staley takes the position that all 61 days of delay are excusable and compensable (*id.*). Mr. Boe agreed that apron

[19] There appears to be some question as when the jockey pump was installed. Mr. Staley states in his report that completion of the "jockey pump controller installation [was] on or about August 4, 2020" (R4, tab 325 at 14893). Mr. Boe, however, states that the jockey pump controller was delivered to the site on August 4, 2020 (findings 179, 267). We assume for the purposes of our analysis, that the jockey pump was installed soon after its delivery, with the 30 days of contractor delay attributed by Mr. Boe commencing on that date.

paving was critical for the entirety of window six, but concluded that Hensel Phelps was responsible for the 61-day delay, stating that:

> delay to apron paving was the responsibility of [Hensel Phelps] and Ajax. Ajax alleges that the delay was due to reprocuring a paving subcontractor after the resolution of the elevation discrepancy and, additionally, due to that replacement contractor only having a 15-foot-wide paver. CPMI notes that Ajax directed the original paving subcontractor to demobilize in May 2020. Further, Ajax and [Hensel Phelps] have already acknowledged responsibility for the elevation discrepancy. Therefore, Ajax and [Hensel Phelps] are also responsible for the follow-on effects of that discrepancy. CPMI also found that the replacement contractor used a 25-foot-wide paver on site, contradicting Ajax's statements.

(*Id.* at 24070) Regarding delays to HVAC and fire alarm testing, Mr. Boe stated that he "performed a schedule-by-schedule analysis to take into account any changes in the critical path within the Window," and that Mr. Staley "did not perform a detailed schedule-by-schedule analysis during Window 6" (*id.*). Mr. Boe's report found "[a]ir barrier changes, and their impact on the HVAC testing, had a relative float between 36 days and eight days through this window and never became critical" (*id.*).

269. Mr. Boe found 86 days of delay during window seven (R4, tab 333 at 24079). However, Mr. Boe reduced the amount of delays attributable to window seven (January 1, 2021, to March 31, 2021) to 60 days excusable and four days un-excusable (R4, tab 333 at 24083; tr. 8/139). Mr. Boe determined "that the air barrier work continued to be delayed during this period until a unilateral Modification No. [A00034] was issued on March 12, 2021," but that "the new activity added for air barrier work in the March 31, 2021, schedule update[,] over-stated the duration of the work, and would be revised in the following schedule update, April 30, 2021" (R4, tab 333 at 24080). Mr. Boe separated the three-month period into two sub-windows and performed a schedule delay analysis, finding 45 days of concurrent delay during window 7A and 19 days of concurrent delay during window 7B (*id.* at 24080-82). Mr. Boe relied upon a Hensel Phelps March 31, 2021, schedule update which contained an overstatement of air barrier work (41 days), resulting in a 22-day reduction in delay during window 7B, resulting in 19 days of concurrent delay. Mr. Boe determined that 22-days delay should be added to window 8. (*Id.*at 24080, 24082-83; tr. 8/134-37) Mr. Boe determined that air barrier work and apron paving were concurrently responsible for delay during this period (R4, tab 333 at 24080-81). Mr. Boe noted that Mr. Staley's report "claims that major weather events, seasonal weather conditions it would not have otherwise experienced, an unanticipated additional holiday period (2020), and COVID-19 impacts contributed to the delays in paving work during this window" (*id.*

at 24081). Mr. Boe disagreed with Mr. Staley based upon his review of "contemporaneous correspondence," wherein he found (1) "slow progress to be the cause of the delay in paving work," (2) that Hensel Phelps's "schedule narratives did not identify any loss of days due to weather events during this period," and (3) "neither [Hensel Phelps] nor Ajax substantiated any actual delay due to COVID-19 or seasonal weather claims" (*id.* at 24083).

270. Regarding window eight (April 1, 2021, to October 31, 2021), Mr. Boe determined that substantial completion was delayed by 179 days because of the RFP work, noting that the government ultimately would issue a unilateral modification for 170 days of excusable delay (R4, tab 333 at 24084, 24088). Mr. Boe separated window eight into sub-windows and performed a schedule-by-schedule delay analysis. Based upon multiple Hensel Phelps schedule updates indicating apron work was driving the critical path and project correspondence detailing numerous concrete paving deficiencies between June 3, 2021, and September 24, 2021, Mr. Boe found concurrent paths which included both the USACE RFP work and paving work. (*Id.* at 24084, 24088-90) For window 8A, Mr. Boe found paving work and additional RFP work concurrent, and that Hensel Phelps was entitled to an excusable delay of 27 days (R4, tab 333 at 24085, tab 333A at 1-3). For window 8B, Mr. Boe found the RFP work was not concurrent with the apron paving work "due to the RFP being two weeks off the critical path" finding that the "29-day delay during this sub-window is the responsibility of [Hensel Phelps] and is not excusable" (R4, tab 333 at 24086). For window 8C, Mr. Boe found that the RFP work was concurrent with the correction of paving deficiencies and that Hensel Phelps was entitled to excusable delay of 123 days (R4, tab 333 at 24086-89). In total, Mr. Boe found 150 days of excusable delay (27 days from sub-window 8A and 123 days from sub-window 8C) and 29 days of unexcused delay (179 total days in window 8 minus 150 days of excusable delay in sub-windows 8A and 8C). Including in sub-window 8A the 22 days of unexcused delay from window 7, Mr. Boe adjusted his analysis, finding 128 days excusable, with the remaining 51 days (29 days plus 22 days) the responsibility of Hensel Phelps (R4, tab 333 at 24083, 24087-24090; tr. 8/141-142).

271. Neither of Hensel Phelps's experts testified in any detail about (1) the various documents that address the apron CAP deficiencies during window eight, (2) the reasonableness or unreasonableness of the government's actions in addressing CAP deficiencies, or (3) the time it took for all concrete deficiencies to be addressed and resolved. The same is true regarding the content of their expert reports. Mr. Staley's window eight analysis makes no mention of CAP deficiencies/corrections delaying the project or whether this was a concurrent delay (R4, tab 325 at 14900-01). Mr. Anderson's delay period four, which ends on April 15, 2021—the date that Mr. Anderson claims Ajax substantially completed paving work—likewise contains no detailed analysis of the CAP deficiencies/correction delaying completion of the apron or whether this was a concurrent delay. Rather, Mr. Anderson stated only that "delays in this period result from the additional time [up until April 15, 2021] required for Ajax's efforts in completing the concrete paving work, the asphalt shoulder paving around the

main concrete paving areas and the balance of its work scope on the Project." (R4, tab 230 at 15573, 15575; *see id.* at 15600 (Ajax "completed the primary concrete paving on December 2, 2020. Asphalt shoulder work continued through April 2, 2021, and substantial completion of Ajax's work scope occurred on April 15, 2021"))

272. Mr. Boe noted that Mr. Staley's AMS report ignored evidence regarding paving deficiencies (apron work) and incorrectly relied upon Mr. Anderson's report opining that Ajax had completed its concrete paving work on April 15, 2021 (R4, tab 333 at 24090; tr. 8/133-34, 141-42, 162, 200).

273. All told, Mr. Boe found 683 days of delay, with the contract extended via modification a total of 388 days (finding 204), leaving 295 days of unresolved delay (R4, tab 333 at 24019-20). Of those 295 days, Mr. Boe determined that Hensel Phelps was entitled to an additional excusable delay of 172 days, with the remaining 123 days unexcused and the responsibility of Hensel, and no entitlement for additional compensable days (R4, tab 333 at 24091, tab 333A at 2-3; tr. 8/146).

DECISION

I. Hensel Phelps's Pass-Through Subcontractor Airfield Paving Redesign Claim (ASBCA No. 63316)

A. Contract is Designated as Design/Bid/Build

The contract was specified as "Design/Bid/Build" (finding 14), wherein "the services of a design professional are procured first, and the building contractor is selected later, after the design work is completed." *ECC Int'l, LLC*, ASBCA No. 58875, 20-1 BCA ¶ 37,683 at 182,961 (quoting *Fluor Enterprises, Inc. v. United States*, 64 Fed. Cl. 461, 482 (2005)). A Design/Bid/Build contract contains design specifications "which describe in precise detail the materials to be incorporated and the manner in which the work is to be performed," as opposed to performance specifications which "set forth an objective or standard to be achieved, and the contractor may use its ingenuity to select the means to achieve that objective or standard of performance while assuming responsibility for meeting contract requirements." *Id.* (quoting *American Ordnance LLC*, ASBCA No. 54718, 10-1 BCA ¶34,386, at 169,780 (additional citations omitted)).

Pursuant to the Supreme Court's decision in *United States v. Spearin*, 248 U.S. 132, 136 (1918), "[w]hen the [g]overnment provides specifications directing how a contract is to be performed, the [g]overnment warrants that the contractor will be able to perform the contract satisfactorily if it follows the specifications." *Hercules Inc. v. United States*, 516 U.S. 417, 425 (1996). "[T]he *Spearin* doctrine's implicit warranty applies to design specifications that permit no deviations in contract performance"; "the doctrine does not apply to performance specifications that 'merely set forth an objective

without specifying the method of obtaining the objective.'" *Maverick Constructors, LLC*, ASBCA No. 61989, 25-1 BCA ¶ 38,783 at 188,588 (quoting *White v. Edsall Constr. Co.,* 296 F.3d 1081, 1084 (Fed. Cir. 2002)).

B. Contract's Label Not Dispositive as to Contractual Obligations

Although this contract is identified as "Design/Bid/Build," it is possible for contracts to "have both design and performance characteristics; the former limit the contractor's flexibility, while the latter grant some leeway in how the work is to be accomplished." *ECC Int'l, LLC*, 20-1 BCA ¶ 37,683 at 182,961 (quoting *American Ordnance LLC*, 10-1 BCA ¶34,386, at 169,780). The issue to be decided here "is not the label accorded to the contractual provisions, but rather how much discretion those contractual provisions grant the contractor in designing the project." *Id.* (citing *Blake Constr. Co., v. United States*, 987 F.2d 743, 746 (Fed. Cir. 1993). "It is the obligations imposed by the specification which determine the extent to which it is 'performance' or 'design,' not the other way around." *Blake Constr. Co.*, 987 F.2d at 746.

According to Hensel Phelps, because the contract was designated design/bid/build, Hensel Phelps was required to construct the Project utilizing the government's design, "which the [g]overnment warranted that it had prepared a complete and constructible design prior to awarding the Contract to Hensel Phelps" (app. br. at 3). Hensel Phelps argues that other than a concrete mix design to be provided by the contractor, "there were no delegated design requirements identified in the Contract Documents" including the work Hensel Phelps labeled as a "major feature of work . . . the installation of 750,000 SF of paved concrete airfield for a helicopter parking apron . . . an area the size of over 13 football fields" (app. br. at 3). The government counters, arguing that "[t]he airfield paving claims should be denied because Hensel Phelps completely ignored the stabilization specification in its Contract," and that the contract's "subbase specification plainly included a requirement to stabilize the subgrade" (gov't br. at 48). According to the government, "[t]he stabilization specification was a performance specification despite Hensel Phelps's attempts to claim a design error to mask its mistake" (gov't br. at 49). The government argues that Hensel Phelps failed "to pass that scope of work along to its subcontractors," and that although "Ajax may not have planned to stabilize the compacted subgrade, Hensel Phelps was required to do so" (gov't br. at 48). Ultimately, says the government, "record evidence establishes that Hensel Phelps and Ajax abrogated responsibility for ensuring this key requirement was included in the work" (*id.*).

C. Specification Section 32 11 16 Was a Performance Specification

Performance specifications "specify the results to be obtained, and leave it to the contractor to determine how to achieve those results." *Rick's Mushroom Serv., Inc. v. United States*, 521 F.3d 1338, 1344 n.3 (Fed. Cir. 2008) (quoting *Stuyvesant Dredging Co. v. United States,* 834 F.2d 1576, 1582 (Fed. Cir. 1987)); *Maysons Piping*

Contractors, Inc., ASBCA No. 28446, 86-1 BCA ¶ 18,626 at 93,593 (with a performance specification, "design, measurements and other specific details are not stated nor considered important so long as the performance requirement is met"). There can be no real dispute that the contract required stabilization of the subgrade's cohesionless soil and that stabilization was to be accomplished "by mixing the overlying course material into the underlying course, and compacting by approved methods" (findings 25-26, 33). The specification required that "the stabilized material . . . meet all requirements for the underlying course," and that the "finished underlying course shall not be disturbed by traffic or other operations and shall be maintained in a satisfactory condition until the overlying course is placed" (*id.*).

In *Stuyvesant Dredging*, the Federal Circuit found the disputed contractual provision to be a performance specification where the provision "did not instruct Stuyvesant how it should perform the dredging of the channel. It merely stated the result to be achieved, namely, that the channel was to be dredged to its acceptable prism." 834 F.2d at 1582. The same is true here. Mr. Roosa, one of the authors of the contract specifications, testified that the specification's requirement for stabilization of cohesionless soil set means and methods parameters, and contained performance measures for in-place testing of gradation, density, and compaction (findings 230, 234). Indeed, Dr. Prowell testified that the contract's in-place testing requirements were a performance standard (finding 221). Mr. Heusel, a government TSC employee, testified that the contractor is responsible for details of the work beyond what is stated in the specification regarding mixing the subbase material into the subgrade to deploy the "means, methods, the equipment that is used" to meet the performance standard and that based upon his review of other projects that utilized specification 32 11 16, the specification requirements were attainable (finding 241-42, 245). Having reviewed the specifications ourselves, we agree with this interpretation, and find that the specification requirement for stabilization of underlying courses or subgrades that contain cohesionless soil set forth in Section 32 11 16, paragraph 3.3, PREPARATION OF UNDERLYING MATERIAL (finding 25), was a performance specification.

D. That the Contract Drawings Did Not Set Forth Specific Design Criteria for Cohesionless Soil Stabilization Is Not Dispositive

As discussed above, the parties' dispute involves the interplay between contract drawing CP501, which sets forth apron construction details, including a 12 inch "compacted subgrade," and Specification 32 11 16, which requires the contractor to stabilize underlying courses or subgrades that contain cohesionless soil (findings 17- 18, 25). Hensel Phelps argues that, notwithstanding the specification requirement, it was not required to stabilize cohesionless soil because the contract drawings contained no detail about how the contractor was to accomplish this work and there was "no measure of performance" to determine whether Hensel Phelps has performed the stabilization "to meet the [g]overnment's requirements" (app. br. at 21-22).

With regard to the alleged deficiency with the contract drawings, as the Federal Circuit explained in *Medlin Constr. Group, Ltd. v. Harvey*, "[i]n situations where the specification provides information that is not contained in the drawings, or vice versa, FAR 52.236–21(a), as incorporated in the Contract, states that the missing information 'shall be of like effect as if shown or mentioned in both.'" 449 F.3d 1195, 1201 (Fed. Cir. 2006). The court of appeals likewise noted that the "'like effect' provision does not apply in only one direction, i.e., reading the drawing details into the specifications; rather, it applies in the other direction as well, reading details from the specifications into the drawings (assuming the specifications and drawings do not conflict)." *Id*. at 1201-02. FAR 52.236-21 was incorporated by reference into the contract here (finding 9). Similarly, DFARS 252.236-7001, also incorporated in the contract (finding 12), required Hensel Phelps to perform details omitted from drawings that are "manifestly necessary to carry out the intent of the . . . specifications." *A.T.I. TACOSE S.C.a R.L.*, ASBCA No. 59157, 17-1 BCA ¶ 36,626 at 178,359.

It was no secret that the Project was located in an area of Florida well known for having cohesionless soil (findings 33, 41, 72-73, 81-82, 86, 95, 109, 117, 211) and that a significant portion of the contract work required construction of a large concrete apron resting on top of that cohesionless soil (finding 16). Both Ajax and Hensel Phelps knew well that cohesionless soil was present at the Project site and that stabilization of cohesionless soil was a recognized necessity when working in an area composed of what one Hensel Phelps employee described as "Florida sugar sand" (findings 72-74, 78, 81-82, 91, 95, 97, 117).

Hensel Phelps could not reasonably expect to construct a helicopter apron the size of 13 football fields on top of unstabilized, cohesionless, Florida sugar sand. (findings 16, 72, 79). While Hensel Phelps states that McKenzie was able to meet the contract requirements regarding proof roll and the straight-edge test, Mr. Spellicy admitted "[b]ut you come back to that dirt three days later and try to drive a truck through it, and it's turned back into Florida sugar sand. And it won't hold up to traffic." (Finding 79)

It is entirely reasonable to read the requirement to stabilize any subgrade with cohesionless soil of specification paragraph 3.3 into sheet CP501, which references the 12-inch Compacted Subgrade (findings ¶¶ 17-18, 25). Indeed, the concept of stabilization was referenced in other specification sections, as was the requirement to construct 12-inch compacted subgrades at other site locations (findings 19, 22, 67). Hensel Phelps's attempt to hide behind the proposition that the specifications required stabilization of the soil, but the contract drawings did not set forth a corresponding design, was folly. Moreover, there can be no legitimate dispute that stabilizing the subgrade's cohesionless soil was "manifestly necessary." Indeed, no reasonable

contractor would believe that laying a concrete pad on untreated sugar sand would make for a usable helicopter apron.

E. Hensel Phelps Was Responsible for Meeting Contract Requirements

According to Hensel Phelps, neither the earthwork (subgrade) subcontract awarded McKenzie nor the paving subcontract (aggregate separation layer, aggregate drainage layer, and concrete pavement) awarded Ajax included a requirement that either subcontractor stabilize the subgrade if cohesionless soil was present (findings 17-18, 65-66, 69-71, 73). And therein lies the rub. Because of the manner in which Hensel Phelps structured its subcontracts, it had no subcontractor tasked with stabilizing the subgrade – a crucial contract requirement in an area known for its cohesionless soil (findings 65-66, 73). Accordingly, the government argues, "record evidence establishes that Hensel Phelps and Ajax abrogated responsibility for ensuring this key requirement [stabilization] was included in the work" (gov't br. at 48). The government cites as support our decision *Tracy Trombley Const. Co.*, ASBCA No. 23727, 79-2 BCA ¶ 14,002 at 68,765, stating that "[a] contractor is 'not privileged to ignore the specifications in ascertaining the extent of the work required under the contract and [does] so at its own peril'" (gov't br. at 48). We agree.

It is well established that "the obligation of the prime contractor is to coordinate the various parts of the contract work to guarantee that all required work is performed." *Okland Const. Co.,* ASBCA No. 43986, 93-2 BCA ¶ 25,867 at 128,698 (citations omitted); *see Galaxy Builders, Inc.*, ASBCA No. 49039, 97-1 BCA ¶ 28,822 at 143,825 ("prime contractor . . . bears the responsibility for coordinating its subcontractors"); *PCL Civil Constructors, Inc.*, ASBCA No. 42108, 92-1 BCA 24,637 at 122,942 (citations omitted) ("The fact that there were two subcontract trades involved is immaterial under prevailing law in view of the general contractor's overall obligation to coordinate the contract requirements"). As this Board recognized long ago:

> While it may be custom in the construction industry for potential subcontractors to review only the parts of a contract pertaining to their trade, the [g]overnment need not draft its contract to accommodate such a practice. The [g]overnment has no obligation to divide a contract into areas of responsibility for subcontractors. If a contractor wishes to subcontract part of its contract work, it is the contractor's responsibility to divide the contract into subcontracts and to obtain subcontractor bids in such a manner that all requirements of the contract will be met.

Carmone Corp., ASBCA No. 43023, 93-3 BCA ¶ 26,185 at 130,344.

When problems with the unstable subgrade became apparent, Hensel Phelps attempted to duck the issue by stating that McKenzie had performed its work properly because all the contract required in preparing the subgrade was a compacted subgrade (findings 93, 96-97, 102). In contrast, recognizing the need for stabilization of the subgrade, Ajax specifically informed Hensel Phelps that it did not want the stabilization requirement waived (findings 74-78, 82, 91-92, 109). Inexplicably, Hensel Phelps directed Ajax to proceed with placing the aggregate separation layer on top of the "compacted subgrade," ignoring the specification requirement that cohesionless soil be stabilized (and despite Hensel Phelps's own concerns and its misplaced hope that the unstabilized subgrade was sufficient) (findings 71, 73, 75-78, 92-93, 97-98, 102, 109). Hensel Phelps's project manager "hoped" that the subgrade would be sufficient without stabilization, even though he had a concern with the sufficiency of the subgrade soil (finding 102).

When told to proceed with placing aggregate without stabilization, Ajax placed 45,000 cubic yards of separation material in a matter of two days, which was one half to two thirds of the planned aggregate that would be placed on top of the subgrade, compounded by the fact that the material did not pass gradation testing (findings 103-05). When it became apparent that the subgrade was not of sufficient strength for placing on top the aggregate separation, a period began wherein the parties discussed what needed to be done with the separation material to stabilize the subgrade (findings 106-08, 110-15, 118). Hensel Phelps's decision to (1) ignore the specification requirement that such cohesionless soil be stabilized and (2) instruct its subcontractor to commence placing the aggregate separation layer on top of the unstabilized subgrade, was unreasonable and not in conformance with the contract's requirements.

After several months of discussions between the parties, Hensel Phelps instructed Ajax to stabilize the subgrade (findings 92-93, 102, 112-20). Ultimately, Hensel Phelps was able to meet the stabilization requirement, only after mixing the aggregate separation layer into the underlying course—following the stabilization process set forth in Specification 32 11 16—which required "mixing the overlying course material into the underlying course" (findings 25, 112-20). When asked whether he found it "ironic" that Hensel Phelps was utilizing the technique set forth in the specification to stabilize the subgrade, Mr. Spellicy replied, "[t]hat's how you do it. That's how we would've done it the entire time, I believe, is blend lime rock into soil because that's how all stabilization is done in Florida" (Finding 120; *see also* finding 233 (Mr. Roosa, noting Hensel Phelps essentially did what was in the contract, stabilizing the subgrade utilizing separation material))

Hensel Phelps argues that the government, through issuance of RFI 0247, waived the stabilization requirement (app. reply at 53). We disagree. While it is true that the COR who signed RFI 0247 stated that the contractual "requirement for stabilization of the underlying course [subgrade]" would be waived, it was with the caveat that Hensel

Phelps meet seven conditions demonstrating that the soil was stabilized (finding 88). The parties disagree whether Hensel Phelps ultimately was able to meet those conditions prior to changing course and stabilizing the soil as discussed above. Regardless, the RFI, signed by the COR expressly stated that it is intended to provide an efficient mechanism to respond to contractor inquiries, but did not provide authority to proceed with additional work, and if the contractor believed that the RFI was a changed condition, it must provide written notice to the COR in accordance with the contract (finding 89).

It is well established that a COR lacks the authority to "make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract" (finding 12; DFARS 252.201-7000(b)). *Winter v. Cath-dr/Balti Joint Venture*, 497 F.3d 1339, 1345 (Fed. Cir. 2007) (COR lacks authority to make commitments changing price or any other contract term); *Sauer, Inc.*, ASBCA No. 61847, 21-1 BCA ¶ 37,939 at 184,270 (when a contract expressly provides only the CO has authority to change a contract, "other government employees do not possess actual express or implied authority to change contract"). Without authority to waive the requirement, which affected price, Ms. Jones's actions simply could not bind the government (findings 68, 89). Moreover, the record establishes that, ultimately, Ajax chose to stabilize the subgrade (findings 112-20).

F. Assuming For the Sake of Argument the Contract was Ambiguous, Hensel Phelps Failed to Address that Ambiguity

Assuming for the sake of argument the stabilization requirement set forth in the specifications was not a performance specification, but rather a design specification – as argued by appellant – this raises the issue of whether the contract contained an ambiguity, i.e., that although a design requirement, the contract specifications required stabilization of cohesionless soil subgrade, but did not set forth the method for stabilizing the subgrade. The government argues, assuming arguendo an ambiguity exists, that the ambiguity was patent, whereby Hensel Phelps would have been obligated to seek clarification prior to submitting its bid (gov't br. at 51-52). The government cites *SamCorp Gen. Contractors*, ASBCA 41351, 91-1 BCA ¶ 23,636 at 118,404, and *Hobbs Const. & Development, Inc.*, ASBCA No. 29910, 91-1 BCA ¶ 23,518 at 117,933-34, both of which stand for the well-established propositions that (1) something mentioned in the specifications but not mentioned in the drawings "shall be of like effect as if shown or mentioned in both," and (2) a contractor has a "duty to inquire in order to place bidders on the same footing" (gov't br. 53-54; *see also* finding 9).

The requirement to stabilize cohesionless soil in the subgrade "was not a trifling, hidden matter on which inquiry need not be made." *A & M Gregos, Inc.*, ASBCA No. 16189, 72-1 BCA ¶ 9336 at 43,300 (citation omitted). Rather, Hensel Phelps was called upon to construct a helicopter apron the size of 13 football fields on top of an area largely composed of cohesionless Florida sugar sand and to stabilize subgrades containing

cohesionless soil before placing any overlying course (findings 16, 25, 72, 79). It is beyond cavil that where there exists a patent ambiguity, a contractor has the duty to inquire and seek clarification prior to submitting its bid. *Cmty. Heating & Plumbing Co. v. Kelso*, 987 F.2d 1575, 1579 (Fed. Cir. 1993) ("Assuming the contract were ambiguous, [contractor's] claim would still fail because the contract ambiguity is patent and not latent."); *Fortec Constructors v. United States*, 760 F.2d 1288, 1292 (Fed. Cir. 1985) ("This court must be guided by the well accepted and basic principle that an interpretation that gives a reasonable meaning to all parts of the contract will be preferred to one that leaves portions of the contract meaningless." (citing *United States v. Johnson Controls, Inc.*, 713 F.2d 1541, 1555 (Fed. Cir. 1983)); *States Roofing & Metal Co.,* SBCA No. 16265, 72-1 BCA ¶ 9453 at 43,918 ("If the facts were to be found as appellant alleges there was an ambiguity and it was or should have been obvious. We bottom this conclusion on the fact that in order for appellant to arrive at its interpretation of the contract it had to ignore a portion of it").

Hensel Phelps does not respond in any meaningful way to the government's argument regarding patent ambiguity, stating instead that any failure by the contractor to inquire about an ambiguity in the contract is of no moment "because the original design is not what Hensel Phelps constructed" and that the government's alleged actions after award, i.e., that the "wholesale redesign of the B8 pavement sections," were a "tacit admission that the [g]overnment did not design the pavement correctly" (app. reply at 53).[20] In support of its argument, Hensel Phelps states that "the [g]overnment asked Hensel Phelps and Ajax to redesign the pavement system and then implemented the redesign with totally different pavement layers, new materials, new thicknesses, new specifications and new tests, and then eliminated the indisputably problematic in-place gradation test" (*id.*). This simply is not what happened. The government did not ask Hensel Phelps or its subcontractor to "redesign the pavement system." Rather, it was Hensel Phelps, at the urging of its subcontractor, who requested design information regarding stabilization of the subgrade and it was Ajax, through Hensel Phelps, who submitted the design (findings 83-84, 107, 110, 114-15).

Neither party introduced evidence during the hearing regarding whether Hensel Phelps was concerned pre-award about the alleged lack of details regarding the specification's requirement to stabilize cohesionless soil. However, Mr. Minich, Ajax's estimator, testified that in preparing Ajax's bid he was responsible for reviewing the specifications to determine which takeoffs to perform, was aware of the stabilization requirement in the contract, performed a takeoff for the compacted subgrade, but that he did not perform a takeoff for the stabilization requirement because he saw nothing in the

[20] Hensel Phelps's initial brief does not address the issue of whether the contract was ambiguous.

contract to guide him (findings 58, 61).[21] Mr. Minich also acknowledged that before submitting the bid, Mr. Minich "might have discussed" the stabilization requirement with Mr. Pittman, Ajax's area manager (finding 62). Mr. Minich stated he did not include an amount to cover the cost of stabilization because there was "no prescriptive requirements for that stabilization" and was concerned about adding the cost of stabilization in Ajax's bid because it would raise Ajax's bid price in a competitive environment (finding 62). [22]

Hensel Phelps's argument that it had no duty to raise pre-award any concern about an alleged lack of pavement stabilization design parameters because after contract award it submitted a redesign of the pavement system turns on its head the well-established patent ambiguity doctrine. The purpose of that doctrine is to encourage contractors to raise a known issue before award to level the playing field and to ensure that it does not become an issue after award. *S.O.G. of Ark. v. United States*, 212 Ct. Cl. 125, 131, 546 F.2d 367, 370-71 (1976) (requirement "that a contractor, before bidding, should attempt to have the government resolve a patent ambiguity in the contract's terms is a major device of preventive hygiene; it is designed to avoid just such post-award disputes as this by encouraging contractors to seek clarification before anyone is legally bound."); *Korte Constr. Co.*, ASBCA No. 63148, 23-1 BCA ¶ 38,454 at 186,910-911, *aff'd on recon.*, 24-1 BCA ¶ 38,580, *aff'd*, *Korte Constr. Co., v. Secretary of the Army*, No. 2024-2232, 2026 WL 961704 (Fed. Cir. Apr. 9, 2026) (unpublished) (patent ambiguity doctrine is major device in avoiding post-award disputes). Had Hensel Phelps satisfied its duty to inquire, the government would have had the opportunity to address the issue before award and thereby avoid the exact type of dispute Hensel Phelps requests this Board to decide here.

G. Hensel Phelps's Criticism of the Government's Specification as Drafted is Unpersuasive

Hensel Phelps argues that the stabilization of cohesionless soils requirement set forth in Specification 32 11 16, paragraph 3.3, is merely "an oversight by the [g]overnment's design team — it is an incomplete and unusable reference that was pulled

[21] Although Ajax submitted a bid for earthwork, which would include the subgrade, after the government awarded Hensel Phelps the contract Ajax submitted a revised quote that removed earthwork from Ajax's proposed scope of work (finding 64).

[22] Dr. Prowell, Hensel Phelps's expert, when asked hypothetically whether he would have advised Ajax—at the time they were putting their bid together and before submitting a proposal to do this work to Hensel Phelps—to get clarification on the issue of stabilization, testified it "might have been [] prudent" to seek clarification pre-bid regarding the stabilization requirement. Dr. Prowell added that under a "competitive bid situation, you don't want to learn something that's going to add, you know, if you're going to do a truthful bid that you think is going to cover your costs, you would not want to add something that's going to raise your cost, but not raise your competitor's" (finding 223).

from a 'guide specification' which the [g]overnment clearly did not understand or make a properly detailed requirement of the Contract" (app. br. at 20-21). We disagree. The record establishes that Specification 32 11 16, as set forth in the contract, was properly developed by the government pursuant to DOD requirements. MIL-STD-3007 "establishes policy for developing and maintaining UFC and UFGS as common facility standards and engineering practices for the Department of Defense." (Findings 4, 6) DOD initiated the UFC program "to unify all technical criteria . . . and guide specifications (UFGS) pertaining to planning, design, construction, and operation and maintenance of real property facilities," with the purpose of streamlining "the military criteria system by eliminating duplication of information, increasing reliance on private- sector standards, and creating a more efficient criteria development and publishing process" (finding 5).

The contract specifications are based, in part, on UFC 3-260-02, Pavement Design for Airfields, as prescribed by MIL-STD 3007 (findings 6-7). As described by Mr. Heusel, the subbase specification containing the subgrade stabilization requirement was derived from the pertinent UFGS, with changes made to the specifications utilizing a computer program known as SpecsIntact. Gradation was selected from the guide specification (UFGS) to determine the expected strength of the layer. (Findings 28, 246) The specifications included a GER setting forth the government's extensive investigation and determination regarding the type of soil found at the Project site (findings 30-38).

It is apparent from the extensive work performed by the government in drafting the specifications, following applicable DOD regulations and requirements, that inclusion of the stabilization specification in the contract was purposeful. *SamCorp Gen. Contractors*, ASBCA 41351, 91-1 BCA ¶ 23,636 at 118,405 (rejecting argument that government mistakenly neglected to clean up or delete a "generic" specification from contract); *Tracy Trombley Const. Co.,* ASBCA No. 23727, 79-2 BCA ¶ 14,002 at 68,765 (rejecting argument that specifications were of general nature and contained inapplicable items; even if true, disputed work was clearly stated in the specifications, fact that drawings did not address work was immaterial because contract provided anything mentioned in specifications and not shown on drawings shall be of like effect as if mentioned in both). Hensel Phelps's suggestion otherwise is rejected. Moreover, whatever the provenance of the specifications, the evidence is that they set appropriate performance requirements that Hensel Phelps was able to meet once it accepted that they were required.

H. Hensel Phelps's Experts' Challenges to the GER and Specification Are Not Persuasive

Hensel Phelps relies upon expert testimony to challenge conclusions set forth in the GER. For example, Hensel Phelps argues that the government improperly utilized the k-value set forth UFC 3-260-02 Table 6-1 to determine the strength of soil at the project

site and failed to perform a plate load field test on that soil (app. br. at 33). Although Mr. Hurley's report made no mention of k-value or Table 6-1, during the hearing Dr. Prowell criticized the USACE because it did not perform plate loaded testing and instead used Table 6-1 to obtain a k-value, flippantly stating that he puts "more effort into determining the k-value, the proper k-value for . . . dumpster pads than they [the government] did" (findings 224-25).

We do not find Dr. Prowell's opinion to be reliable as it ignores the fact that (1) as set forth in the GER, the government conducted a site investigation to determine soil characteristics, including drilling boreholes and visualizing the soil extracted from the borings (findings 39-42), and (2) that the government, relying upon Table 6-1—which instructs that pavement design should be based on test data or historical data of past designs—chose a more conservative k-value of 150, as opposed to 200, to indicate a lower strength of the subgrade soils, utilizing empirical correlation, experience with similar soil types, and historical k-values near the Project site, including information from a 2008 MacDill AFB report and FDOT guidance (findings 40-43).[23]

Regarding the government's decision not to perform plate load field test to determine the k-value, we find appellant's criticism equally meritless. According to the UFC, plate load tests are performed on "the in-place conditions" (finding 45). As explained by Mr. Roosa, the government did not utilize a plate load field test because, pursuant to the grading plan, structural fill was going to be used to bring up the apron subgrade. As such, conducting a plate-load test on existing grades was inapplicable because the existing grades were not going to be the subgrade for the apron. Rather, the subgrade was going to consist of structural fill. (Finding 46) We find Mr. Roosa's decision not to utilize a plate load field test at the project site to be reasonable.

Moreover, we find that that manner in which the government prepared the GER, and the government's assignment of a k-value of 150, was reasonable and in compliance with UFC 3-260-02 (findings 41, 230, 237-38, 243). We also find that because a plate load test is a field test, it was reasonable for the government not to conduct a plate load test to determine k-value at the apron area because ultimately the subgrade on site would include structural fill and was not the same subgrade upon which the apron would be

[23] Appellant alleges that during his testimony, Mr. Roosa could not name any such additional historical documentation (app. reply at 14-15). This is incorrect. Mr. Roosa identified and described a 2008 pavement evaluation report that addressed soil type at MacDill AFB runways, taxiways, stating that "these evaluations are conducted every so often to evaluate the condition of airfield pavements" (finding 43). Indeed, on questioning from appellant's counsel whether Mr. Roosa "look[ed] at how the pavement sections for those previously improved areas were designed," Mr. Roosa confirmed that he examined the actual designs and drawings for the pavement sections (*id.*).

constructed (findings 45-46). It was reasonable for the government to utilize a more conservative k-value of 150, rather than 200.

Hensel Phelps also relies upon the AMS report, authored by Mr. Hurley, and the testimony of Dr. Prowell to challenge the contract's requirement regarding stabilization of the subgrade (app. br. at 23-24). However, as Dr. Prowell admitted during the hearing, at the time the report was issued and up until his deposition by government counsel, Dr. Prowell was unaware that the specification contained the requirement that cohesionless soil be stabilized (findings 220-22).[24] The AMS report concluded that "[s]oil borings and tests from bulk samples collected by the USACE prior to design of the pavement indicate very low strength cohesionless soils, yet the USACE did not require stabilization of the subgrade in the plans and specifications," and this "[l]ack of stabilization resulted in an unstable platform which prevented the successful construction of the subsequent pavement layers" (finding 220). Clearly, this conclusion set forth in the AMS report is factually incorrect (finding 25) (setting forth contractual stabilization requirement). During his testimony, Dr. Prowell admitted that, when drafting the report with Mr. Hurley, he "overlooked the fact that the specifications indicated that cohesionless soils in the subgrade needed to be stabilized" (finding 221). For these reasons, on the issue of stabilization, we find Dr. Prowell's testimony, and the AMS report written by Mr. Hurley, to be unreliable.[25]

Hensel Phelps also challenges the testimony of Dr. Kuo,[26] alleging that his "testimony confirms that in preparing the GER, the government did not expect the need for or envision stabilization of the subgrade, because the design team thought that SP soil (the subgrade material), properly compacted, constitutes usable structural fill"(App. br.

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[24] Although unintended, the AMS report actually supports the government's position when it states that laboratory testing indicated "that the soil was classified as SP (poorly graded sand)," which "should have been a huge red flag for the USACE and its design team because it indicates low strength soils that would require stabilization," and that "[b]ased upon these borings, the USACE should have required stabilization as a part of the pavement design" (finding 219). Of course, at the time Mr. Hurley authored his report, both he and Dr. Prowell were unaware that the contract required stabilization of cohesionless soil (finding 221).

[25] Appellant also challenges the government's CBR value set forth in the GER (app. br. at 24; app. reply at 12-13; findings 44, 220). However, as was established during the hearing, CBR is used to measure soil strength when designing flexible pavements, while k-value is utilized for designing rigid pavements and CBR "is not utilized in a rigid pavement design" (findings 39, 44, 230-31, 237). The Project's concrete apron was rigid pavement, not flexible (finding 21). Accordingly, we accord little weight to appellant's criticisms of the government's CBR value.

[26] Appellant mistakenly identifies Dr. Kuo as Dr. Quo (app. br. 24-25; app. reply at 41).

at 24-26). Hensel Phelps's argument is based upon a misstatement of Dr. Kuo's testimony.

Contrary to appellant's assertion, Dr. Kuo's report specifically recognizes the need for stabilization of the subgrade (finding 239). On cross examination, counsel for Hensel Phelps asked Dr. Kuo: "[i]t was your opinion that if the subgrade soils were properly compacted, that there would be no need for stabilization; is that right?"—to which Dr. Kuo responded, "No. I think normally for -- I don't know what your definition of the stabilization. Okay. If you consider the stabilization, it is only for kind of chemical type, the cement stabilize, or those kind of stabilization. Then, at the time, I didn't see the need." (Finding 240) Hensel Phelps's argument ignores that Dr. Kuo, in response to appellant's question, states "No" (*id.*). Dr. Kuo then clarifies that he did not see the need for chemical stabilization—such as cement—which is something the contract did not specify as a method for stabilizing the subgrade (*id.*). Having reviewed Dr. Kuo's rebuttal report and his testimony, we find that Dr. Kuo recognized the need for taking steps to insure stabilization of the subgrade and reject Hensel Phelps's attempt to mischaracterize Dr. Kuo's opinion as suggesting otherwise.

Hensel Phelps suggests that contemporaneous government emails discussing RFI 0247 establish that the government did not contemplate stabilization in the design (app. reply at 28). Contrary to Hensel Phelps's assertion, the emails do not state or even suggest that stabilization was neither contemplated nor required. Indeed, the January 30, 2019, email from Mr. Kiefer to Ms. Jones states that "if the subgrade is compacted . . . and is stable then *further 'stabilization'* with the subbase material should not be required" (finding 86) (emphasis added). Likewise, Mr. Kiefer's February 5, 2019, email states specifically that "*LRL considers the stabilization process a spec requirement*, although we rarely have to follow this procedure" (finding 87) (emphasis added). Mr. Kiefer then repeats his earlier statement "[a]s long as they get and maintain the subgrade compaction, no other stabilization is required" (*id.*).

Mr. Keifer's statement that "I don't think we have done this as a rule at WPAFB where we have a sand and gravel subgrade," reflects the fact that, unlike Florida, the soil at Wright-Patterson Air Force Base located in central Ohio is sand and gravel, not cohesionless Florida sugar sand (finding 86). As noted by Mr. Heusel, in discussing the difference between sand and gravel, "gravel is coarser than sand, so you got larger particles than you do in the sand material" (*id.*). Unlike soil in Ohio, further stabilization of the subgrade consisting of Florida sugar sand was required.

For the reasons set forth above, Hensel Phelps's subcontractor pass-through airfield paving redesign claim (ASBCA No. 63316) is denied.

II. Hensel Phelps's Pass-Through Subcontractor Lift Station Claim (ASBCA No. 63397)

A. Hensel Phelps is Not Entitled to Lift Station Redesign Costs

Appellant does not argue that the CO abused her discretion in denying the proposed redesign of the lift station,[27] only that Hensel Phelps via Ajax would not have pursued a VECP had the government informed it that the ultimate decision as to design rested not with the USACE but with Hillsborough County and FGUA (app. br. at 43-44). As support for its argument, Hensel Phelps cites our decision in *Algernon Blair, Inc.*, ASBCA No. 23585, 81-2 BCA ¶ 15,375 at 76,181-82, wherein the government approved a contractor's design and later "recanted on its approval" (app. br. at 44). Hensel Phelps likewise quotes from *Algernon Blair*, stating "[t]he [g]overnment cannot have it both ways. It cannot invite a contractor to propose a design, review the design, change it, review it again and approve it, and then, after the design has been used, claim that it had acted in belief that it was approving a variation of its own design." (*Id.*).

Algernon Blair offers appellant no foothold within which to rest its VECP claim. Here, the government in no way invited Hensel Phelps to propose a design, nor did it approve the design or afterwards disapprove the design. Rather, Hensel Phelps, on the initiative of Ajax, submitted an RFI on May 15, 2018, to redesign the lift station, which it believed could lead to savings to the government and the contractor as a VECP, to which the government responded that the lift station was designed to meet the requirements of the user (finding 126). The government cautioned that Hensel Phelps would have to assume the responsibility and the risk of the Designer of Record for any redesign and would "have to revise the permit to reflect the new design" (*id.*).

On July 26, 2018, Hensel Phelps submitted a transmittal to redesign the lift station, indicating its intention to submit a VECP "following the approval of the design," which the government marked approved, contingent upon receiving "a statement that design has been verified to be adequate based on a 12 hour day period, and that the design meets Hillsborough County's and FGUA's satisfaction" (finding 127). Hensel Phelps submitted documentation to FGUA on September 6, 2018, and, in a subsequent email to Hensel Phelps dated September 10, 2018, FGUA noted the "considerable amount of time working to reach the current design," and stating that if Hensel Phelps wanted to pursue the redesign, it would need to submit additional documentation and make payment to FGUA for any additional fees or cost impacts. FGUA closed its email stating "[b]ased on the above, the documents submitted to FGUA on September 6, 2018[,] are NOT APPROVED FOR CONSTRUCTION." (Finding 128)

[27] Hensel Phelps never actually submitted a VECP to the government, only a transmittal stating its intention to submit a VECP (findings 127-28).

The record reflects that the decision whether to grant a redesign of the lift station lay with FGUA—a fact apparent on the face of the contract (finding 49). Moreover, it is undisputed that Ajax commenced its lift station redesign without first reaching out to FGUA and was aware that "time and money could be wasted if [the VECP] is not approved" (findings 125, 129). Having failed to even allege abuse of discretion or bad faith on the part of the government in its handling of Hensel Phelps's submissions regarding a possible VECP, appellant's claim must fail. *John J. Kirlin, Inc. v. United States*, 827 F.2d 1538, 1541 (Fed. Cir. 1987) (contractor not entitled to compensation because its proposal was not accepted; record is clear that government expressly rejected the proposal and "[n]othing in record indicates that CO] rejected proposal in bad faith.") (finding 11; FAR 52.248-3 ("[t]he decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the [CO]")).

B. Hensel Phelps is not Entitled to Relief Pursuant to the Contract's Differing Site Conditions Clause

The contract included FAR 52.236-2, Differing Site Conditions (finding 8). Hensel Phelps alleges the existence of a Type I differing site condition, i.e., "subsurface or latent physical conditions at the site which differ materially from those indicated in th[e] contract." FAR 52.236–2(a)(1); *H.B. Mac, Inc. v. United States*, 153 F.3d 1338, 1343 (Fed. Cir. 1998). Specifically, Hensel Phelps argues, regarding installation of the lift station that "limestone bedrock occurred at approximately 22 feet deep, which is [four] feet shallower than the bottom of the excavation and 18 feet shallower than the bottom of the required shoring" (app. br. at 45).

To prevail on a Type I differing site conditions claim, Hensel Phelps must establish "by preponderant evidence, that: the conditions indicated in the contract differ materially from those actually encountered during performance; the conditions actually encountered were reasonably unforeseeable based on all information available to the contractor at the time of bidding; the contractor reasonably relied upon its interpretation of the contract and contract-related documents; and the contractor was damaged as a result of the material variation between expected and encountered conditions." *Comtrol, Inc. v. United States*, 294 F.3d 1357, 1362 (Fed. Cir. 2002) (citing *H.B. Mac*, 153 F.3d at 1345); *Meltech Corp.*, *Inc.*, ASBCA No. 61766, *et al.*, 25-1 BCA ¶ 38,862 at 189,123. "A contractor is not eligible for an equitable adjustment for a Type I differing site condition unless the contract indicated what that condition would be." *Comtrol,* 294 F.3d at 1363 (citing *P.J. Maffei Bldg. Wrecking Corp. v. United States*, 732 F.2d 913, 916 (Fed. Cir. 1984)). "Determining whether a contract contained indications of a particular site condition 'is a matter of contract interpretation and thus presents a question of law . . . .'" *H.B. Mac*, 153 F.3d at 1347 (citing *P.J. Maffei*, 732 F.2d at 916). As discussed more fully below, whether a bidder's interpretation and reliance upon conditions specified in the contract documents was reasonable is a question of fact. *Amatea/Grimberg JV*, ASBCA No. 60426 *et al.*, 23-1 BCA ¶ 38,366 at 186,328.

In *H.B. Mac*, the Federal Circuit rejected a Type I differing site condition claim where boring logs included in the contract were not particularly close to the project work at issue, finding that those logs did not necessarily represent conditions to be found throughout the entire project, but rather represented the area where they were taken. The Federal Circuit concluded, "[g]iven the distance between the oil/water separator tank excavation and the boring locations at the maintenance facility, and given the location of Fort Shafter Flats, a reasonable and prudent contractor would not have understood the contract documents as providing an affirmative indication of the subsurface conditions at the oil/water separator site." *H.B. Mac*, 153 F.3d at 1347; *see Amatea/Grimberg*, 23-1 BCA ¶ 38,366 at 186,328. As explained by the Board, "[t]he court [in *H.B. Mac*] did not find that the boring logs necessarily represented what conditions would be throughout the entire project, but represented what the conditions were where the samples were taken." *Amatea/Grimberg JV*, 23-1 BCA ¶ 38,366 at 186,328. It is "a question of fact whether a reasonable contractor, armed with the knowledge such a contractor was expected to possess, would have relied upon them to extrapolate the subsurface conditions at some distance from where they were taken." (*id.*).

Similarly, the Board in *Hamp's Constr. LLC*, , found that appellant's expert witnesses, in essence, "affirmatively disclaim[ed]" the existence of a Type I differing site condition, wherein the expert testified that "[t]he [USACE] did not present *any* boring log information in the Contract Documents for the west side canal region for which the Contractor alleges that unsafe conditions exist for land-based construction operations" and "there was no representation of subsurface conditions there in the contract documents." ASBCA No. 62257, 24-1 BCA ¶ 38,514 at 187,206, 187,212, *aff'd*, 2026 WL 1875159 (Fed. Cir. Jun. 30, 2026) (emphasis in original). The same expert witness admission applies here. Hensel Phelps's expert Dr. Prowell testified that, in his opinion, it was not "sound engineering practice" to take borings that were not in the location of the lift station, and that "[t]here should have been a boring at the lift station location" (finding 226). That there was no boring taken at the actual site of the lift station was apparent on the face of the contract documents (findings 50-51).

There also is no suggestion by Hensel Phelps that the information set forth in the boring logs was incorrect. The contract specifications state that the government only warrants the boring information is correct for the specific boring site tested (the GER states that variations may exist in the subsurface between boring locations) (findings 31-32, 38); *see Weeks Dredging & Contracting, Inc. v. United States*, 13 Cl. Ct. 193, 223 (1987), *aff'd*, 861 F.2d 728 (Fed.Cir.1988) (as observed by the Claims Court, "we believe that given the state and locations of the boring logs, taken as whole, a reasonably prudent contractor would have realized the relatively limited scope and utility of the information the government was intending to provide").

The parties spent a significant amount of time during the hearing parsing geotechnical information concerning certain boring logs to bolster their respective arguments about the sufficiency (says the government), or deficiency (says Hensel Phelps), of the information conveyed about the subsurface where the lift station was to be constructed. Hensel Phelps argues that none of the borings proffered were sufficient to put bidders on notice as to the existence of limestone bedrock (app. reply at 43-44). The government counters that certain of the boring samples were sufficient to inform bidders about the lift station construction area to be encountered (gov't br. at 69-70). The parties' experts likewise discuss geotechnical terms such as "refusal," drawing disparate conclusions from the information discussed (compare gov't br. at 36-40 (¶¶ 149-167) with app. reply at 42-45 (¶¶ 149-167)). Ultimately, however, whether the boring samples were a sufficient indicator of subsurface conditions, or whether Hensel Phelps acted as a reasonable and prudent contractor in analyzing the contract documents pertaining to the subsurface conditions at the lift station site are not dispositive here because, as discussed below, Hensel Phelps has not proved that it relied on the contractual representations when it bid on the project.

Hensel Phelps cites *Foster Constr. C.A. & Williams Bros. v. United States*, 193 Ct. Cl. 587, 613-14, 435 F.2d 873, 887 (1970), for the proposition that "[t]he purpose of providing geotechnical information such as boring logs is to encourage pricing based on the information provided in the solicitation," thus allowing bidders to rely upon such information "to take at least some of the gamble on subsurface conditions out of bidding" (app. br. at 47). However, Hensel Phelps must demonstrate that it *relied* on representations in the contract in preparing its bid. "Reasonable reliance cannot exist where the contractor bid without having reviewed the contract documents on which it seeks to rely." *Comtrol, Inc.*, 294 F.3d at 1364. Moreover, in the context of a subcontractor's bid, Hensel Phelps must demonstrate that it had the same interpretation as Ajax. *Clearwater Constructors, Inc.*, ASBCA No. 45712, 96- 2BCA ¶ 28,495 at 142,292, *recons. denied*, 96-2 BCA ¶ 28,619.

Hensel Phelps argues that what "Ajax expected to encounter [was] far different than solid bedrock requiring different equipment," and that Mr. Morgan "thoroughly reviewed the GER and there are no references or data that would indicate the presence of bedrock requiring augering, as opposed to the less substantial excavation equipment that Ajax had on site to deal with possible 'weathered limestone'" (app. reply at 43). However, Hensel Phelps introduced no evidence to establish *its* reliance upon the contract documents *pre-award* regarding construction, or pricing, of the lift station.

Although a contractor may establish reliance by demonstrating "that its bid 'reflected' the subcontractor's estimate" where the contractor "incorporated the subcontractor's bid into its own bid or proposal and . . . the subcontractor's bid was premised upon the advocated interpretation of solicitation documents," that causal link is missing between Hensel Phelps and Ajax. *Lamb Eng'g & Constr. Co.*, EBCA No. C-

9304172, 97-2 BCA ¶ 29,207 at 145,336 (citations omitted). Here, Ajax did not develop its interpretation of the contract's requirements as they pertain to the lift station until after contract award. Ajax did not include in its August 15, 2017, submission to Hensel Phelps (submitted one day before Hensel Phelps submitted its bid to the government)—a bid to perform lift station construction. (Findings 57, 63- 64) It was not until Ajax submitted its revised quote to Hensel Phelps on October 23, 2017—a month after contract award—that it provided a price for construction of a lift station (Findings 63, 64), and it was not until November 15, 2017, that Hensel Phelps subcontracted with Ajax to construct the wastewater lift station (finding 65). Accordingly, it cannot be correctly said that Hensel Phelps's bid "reflected" Ajax's bid. *Clearwater Constructors*, 96-2 BCA ¶ 28,495 at 142,292. Hensel Phelps's failure to demonstrate reliance upon documents pre-award regarding construction and pricing of the lift station is fatal to its Type I differing site condition claim. *PBS&J Constructors, Inc.*, ASBCA No. 57814, 14-1 BCA ¶ 35,680 at 174,652 (contractor failed to substantiate its claim that it reasonably interpreted and relied upon the boring logs prior to its submission of its proposal).

In addition, the record establishes that, after concerns arose regarding construction of the lift station, Ajax had considerable difficulty articulating to Hensel Phelps the manner in which Ajax originally intended to construct the lift station (findings 133-36). Mr. Minich, the only witness with non-hearsay knowledge as to information utilized by Ajax post award in preparing its lift station bid (and submitted long after contract award), provided only general testimony regarding the information in the boring logs (finding 64). *See Meltech*, 25-1 BCA ¶ 38,862 at 189,123 (for Type I differing site condition, "the issue is whether the conditions encountered differed materially from those indicated in the contract and upon which the contractor based its bid, not from conditions discovered after the contract award").

We find that Hensel Phelps has not substantiated its claim that it reasonably interpreted and relied upon the GER and boring logs prior to submission of its proposal to the USACE and has failed to establish by preponderant evidence its specific reliance (or that of its subcontractor Ajax) upon the contract documents in preparing its bid for the lift station work. *PBS&J Constructors*, 14-1 BCA ¶ 35,680 at 174,652 (contractor "did not explain why it did not call anyone to testify who was involved in reaching its alleged casing estimate, for which we draw some adverse inference."); *Maverick Constructors, LLC*, 25-1 BCA ¶ 38,783 at 188,583-84 (contractor neither reasonably interpreted nor relied upon the contract's explicit provisions at issue; contractor and its subcontractors did not price into their original bid the cost of work at issue).

For the reasons set forth above, Hensel Phelps's pass-through subcontractor lift station VECP and differing site condition claim (ASBCA No. 63397) is denied.

III. Hensel Phelps's Multiple Items Claim – ASBCA No. 63398

Hensel Phelps's multiple items claim includes five subclaims, (1) Power to MAUs, (2) Airfield Paving Redesign, (3) Revise Power, Anchors, and Walls Cost (RFP 054), (4) Complete Air Barrier with Spray Foam Cost (RFP 066), and (5) RFPs 069, 072, and 073 (finding 155). We address each claim in turn.

A. Power to MAUs

The multiple items claim seeks cost and time impacts allegedly incurred for Hensel Phelps to provide MAU power feeds (findings 155, 161). The contract required installation of two MAUs ("two large pieces of mechanical equipment that feed fresh air into the hangar bay") powered by a single circuit (finding 160). The claim is based upon the fact that the contract drawings do not include reference to the electrical feeders needed to power the MAUs and that Hensel Phelps's subcontractor did not include the cost of the feeders in its original price (finding 161).

When Hensel Phelps submitted its initial transmittal in March 2018 (after contract award) regarding the MAUs, the product data supplied did not mention the feeder discrepancy. It wasn't until one year later, in April 2019, that Hensel Phelps submitted RFI 0320 seeking the conduit and cable size for the MAU feeders (findings 162-63). In May 2019 the government responded to RFI 0320, and in February 2020 the government clarified the type of feeder needed but stated that providing power to the MAUs did not constitute a contract change because the omitted feeder was "manifestly necessary to wire MAUs to the electrical panels" (finding 163). In April 2020, nearly a year after the government's response to RFI 0320, Hensel Phelps submitted a new RFI 0485 regarding the MAUs, stating the need for three additional circuits. The RFI identified no schedule impact and despite the two-year delay in conveying this concern to the government, the government agreed to pay the direct costs associated with the three additional circuits identified in RFI 0485. (Finding 164)

As discussed above, the contract incorporated DFARS 252.236-7001, which provides, part, "[o]missions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work" (finding 12). The MAUs were not small, minor pieces of equipment (finding 160). They performed an important function—air handling in the aircraft hangar—and the wiring of those units was manifestly necessary so they could function properly. (Findings 12, 160; DFARS 252.236-7001; *A.T.I. TACOSE S.C.a R.L.*, 17-1 BCA ¶ 36,626 at 178,359). Here, the CO did not impose a new requirement, rather the CO determined that the electrical feeders were manifestly necessary for the operation of the MAUs and required to carry out the intent of the contract (finding 163).

Hensel Phelps admits that "[t]he MAUs are a critical component of the mechanical systems" yet argues that the government's direction to provide feeders to the MAU not specified in the design documents was a constructive change to the contract (app. br. at 49). As support, Hensel Phelps cites *Elec. & Missile Facilities, Inc. v. United States*, 189 Ct. Cl. 237, 416 F.2d 1345 (1969) (app. br. at 53). However, *Elec. & Missile Facilities* dealt with a change in the contract wherein the CO imposed a new grading requirement upon the contractor performing earthwork on the construction site. That simply is not the case here. *Elec. & Missile Facilities*, 189 Ct. Cl. at 242, 416 F.2d at 1348.

In contrast, the government cites *Price/CIRI Constr., J.V.*, ASBCA No. 36999, 89- 3 BCA ¶ 22,010 at 110,658, in which the government notes, "the Board rejected a contractor's argument that the contract was changed by requiring the provision of omitted electrical connections" (gov't br. at 72). As we stated in that decision, "[n]o reasonable contractor could possibly look at the solicitation documents as a whole and conclude that it would not be obligated to provide the necessary electrical connections to make these electrically operated pieces of equipment operate." *Price/CIRI Constr.*, 89-3 BCA ¶ 22,010 at 110,658; *see H.W. Stanfield Co.*, ASBCA No. 19771, 75-1 BCA ¶ 11,211 at 53,383 (holding that a contractor must provide control wiring necessary for installation of mechanical equipment control devices). The same is true here.

We note also that Hensel Phelps's reply brief failed to address the import of our decision in *Price/CIRI Construction* or the concept of work manifestly necessary to the performance of the contract. Instead, Hensel Phelps argues that "[i]f RFI 485 is a change (and the government has acknowledged that it is), then RFI 320 must *ipso facto* also be a change" (app. reply at 62). Hensel Phelps cites no legal authority for this proposition, and we know of none. Providing the necessary electrical feed to the MAUs was and remained a requirement of the contract regardless of the number of circuits and was in no way a changed condition. The fact that the government agreed to pay the cost of additional circuits (finding 164) does not negate the manifest necessity of providing electrical power to the MAUs in order for them to actually function.

Hensel Phelps's claim also must fail because it has proffered no evidence that it relied upon the feeder omission in preparing its bid, or in the bid submitted by its subcontractor (which was submitted after contract award) (findings 165-66). *Comtrol, Inc.*, 294 F.3d at 1364 ("Reasonable reliance cannot exist where the contractor bid without having reviewed the contract documents on which it seeks to rely."); *Clearwater Constructors*, 96-2 BCA ¶ 28,495 at 142,292 (contractor must demonstrate that it had the same interpretation as its subcontractor). Although Hensel Phelps states that its electrical subcontractor did not include the cost of MAU feeders in its original pricing for the project and had no way to know the type of feeder necessary to power the MAUs (finding 165), the only documents cited by Hensel Phelps are F&H documents attached to the

REA Hensel Phelps submitted for its claim, all of which are dated after contract award (findings 165-66). Hensel Phelps offered no record citation evidencing a bid F&H submitted to Hensel Phelps pre-award reflecting MAU pricing, no record evidence demonstrating reliance by Hensel Phelps upon such a bid in preparing *its* bid pricing for the MAU, and no details of Hensel Phelps's pre-award pricing of this item.

Hensel Phelps argues that it "presented the direct costs associated with the changes to the design ($83,241)[ ] separately from its delay analysis and extended general conditions costs" and that the government "has done nothing to refute the direct costs incurred to purchase material to construct a design that was not included in the drawings—it has only argued that Hensel Phelps 'should have known' that the MAUs had to be connected somehow" (app. reply at 45; finding 161). Even assuming Hensel Phelps was entitled to reimbursement for its MAU direct costs, during the hearing, Hensel Phelps proffered no analysis or discussion in support of the MAU direct costs it seeks, nor does its post-hearing briefing address the issue in any meaningful way.

For the above stated reasons, Hensel Phelps's MAU claim is denied. To the extent appellant seeks additional days of delay based upon this facet of the multiple items claim, such entitlement is discussed in Section IV below.

B. Airfield Paving Redesign (Hensel Phelps Additional Costs)

As noted above, the paving redesign component of Hensel Phelps's multiple items claim arises from the same underlying facts as the pass-through airfield paving redesign claim (app. br. at 6 n.3) and is comprised of the alleged cost and time impacts to Hensel Phelps and its other trade partners, excluding impacts claimed by Ajax (finding 167). For the reasons set forth above denying Hensel Phelps's subcontractor pass-through airfield paving redesign claim, this component of the multiple items claim is likewise denied.

C. Revise Power, Anchors, and Walls Cost (RFP 054)

Hensel Phelps seeks time and impact costs related to RFIs 0389, 0420, and 0443 and installation of a jockey pump (Findings 169-72). The government issued RFP 054 to address the jockey pump installation power conflicts (finding 172) and the parties exchanged various information and proposals regarding the jockey pump, ultimately deciding on a revised design swapping out the 408V jockey pump controller for the 208V controller (findings 173-76). The government then issued unilateral Modification No. A00029 for RFP 054, in the amount of $16,810, to cover the cost of swapping the controllers, and granting no time extension (findings 176-77).

Hensel Phelps's claim seeks $26,380 in direct costs of the jockey pump work, a time extension of 107 days, and time-dependent costs associated with 107 compensable days of delay (finding 180). Exhibit 3B attached to the claim included nine pages of

various charts and invoices, presumably relevant to the jockey pump claim (*id.*). During the hearing, Hensel Phelps presented no witness or expert testimony regarding or substantiating the $26,380 in direct costs sought by Hensel Phelps or the factual basis for those costs (findings 180-81). "It is axiomatic that the party asserting a claim bears the burden of proving that claim." *Int'l Equip. Servs., Inc.*, ASBCA Nos. 21104, 23170, 83-2 BCA ¶ 16,675 at 82,924, *aff'd on recon.*, 84-1 BCA ¶ 17,025; *Pinewood Inc. fka PNI Inc.*, ASBCA Nos. 63588, 63686 25-1 BCA ¶ 38,813 at 188,807 (contractor must "prove that it performed work for which it was entitled to be paid") (quoting *Sungjee Constr. Co.*, ASBCA No. 62002, 23-1 BCA ¶ 38,400 at 186,587). "Where a contractor fails to provide accounting or other evidence to substantiate its allegations of a quantum recovery, it has not met its burden of proof and is therefore not entitled to payment." *GSC Constr., Inc.*, ASBCA Nos. 59046, 59957, 16-1 BCA ¶ 36,437 at 177,603 (citing *Env't Safety Consultants, Inc.*, ASBCA No. 53485, 03-2 BCA ¶ 32,298 at 159,808).

Appellant offered no meaningful discussion of the jockey pump direct costs and did not discuss the documents that appear in Exhibit 3B of the multiple items claim or how the documents substantiate the amount sought. Accordingly, Hensel Phelps failed to carry its burden of proof as to these direct costs. To the extent appellant seeks additional days of delay based upon this facet of the multiple items claim, its entitlement to such costs is discussed in Section IV below.

D. Cost to Complete Air Barrier with Spray Foam (RFP 066)

Part of the contract work required Hensel Phelps to conduct a building envelope inspection (finding 182). When an initial pressure test failed, Hensel Phelps determined the most likely cause was air leaking around building perimeter walls (*id.*). Hensel Phelps notified the government about the potential design issue and submitted a proposal to fix its cause (findings 183-84). After submission of additional revised proposals, the government issued unilateral Modification No. A00034 increasing the contract price by $61,197 but granted no time extension for the air barrier work (findings 185-87). Hensel Phelps seeks "[c]ost and time impacts to provide additional spray foam insulation as directed by the [g]overnment" (finding 189). Specifically, Hensel Phelps seeks "$2,589 in direct costs of the work, a time extension of 157 days, and time-dependent costs associated with 157 compensable days of delay" (*id.*).

Exhibit 4B attached to the claim included seven pages of various charts and invoices, presumably relevant to the air barrier claim (finding 190). As discussed above, Hensel Phelps has the burden of proving its claim. During the hearing, Hensel Phelps presented no witness or expert testimony to substantiate the $2,589 in direct costs sought by Hensel Phelps or the factual basis for those costs (*id.*). Hensel Phelps likewise did not discuss the documents that appear in Exhibit 4B of the multiple items claim or explain how they substantiate the amount sought. Accordingly, Hensel Phelps failed to carry its burden of proof as to these direct costs. To the extent appellant seeks additional days of

delay based upon this facet of the multiple items claim, its entitlement to such costs is discussed in Section IV below.

E. RFPs 069, 072, and 073

Hensel Phelps seeks cost and time impacts to perform the added scope for work it performed pursuant to RFPs 069, 072, and 073 (finding 191). These three RFPs were changes to the contract, requiring additional work concerning the fire protection system, installation of mandatory airfield signage, and air compressor changes (findings 191-96). The government issued contract modifications increasing both the contract cost and extending the contract completion date (findings 193, 197-98). In its multiple items claim, Hensel Phelps sought "[c]ost and time impacts to perform the added scopes in RFPs 069, 072, and 073 as directed by the [g]overnment" (finding 199). Although Hensel Phelps sought no additional direct costs and no additional time beyond the 170 days already provided in unilateral modification A00036, Hensel Phelps sought "time-dependent costs not compensated in the [g]overnment's unilateral modification," alleging that "[t]he [g]overnment's issuance of unilateral Modification No. A00036 confirms that RFPs 069, 072, and 073 had a combined impact of 170 days" (*id.*). To the extent appellant seeks additional days of delay based upon this facet of the multiple items claim, its entitlement to such costs is discussed in Section IV below.

IV. Hensel Phelps's Delay Claims

To prevail on a claim for compensable delay, Hensel Phelps must "establish the extent of the delay, [its] harm resulting from the delay, and the causal link between the government's wrongful acts and the delay." *Maverick Constructors, LLC*, 25-1 BCA ¶ 38,783 at 188,591 (quoting *Essex Electro Eng'rs, Inc. v. Danzig*, 224 F.3d 1283, 1295 (Fed. Cir. 2000)). A causal link exists if appellant can demonstrate "that the government's actions affected activities on the critical path of the contractor's performance of the contract." *Kinetic Builder's Inc. v. Peters*, 226 F.3d 1307, 1317 (Fed. Cir. 2000) (citing *Essex Electro*, 224 F.3d at 1295). Critical path is defined as "the longest path in the schedule on which any delay or disruption would cause a day-for-day delay to the project itself; those activities must be performed as they are scheduled and timely in order for the project to finish on time." *GSC Constr., Inc.*, ASBCA Nos. 59402, 59601, 21-1 BCA ¶ 37,751 at 183,241 (internal citations omitted). Hensel Phelps also must account for any concurrent delay by demonstrating that such delays were not within its control. *Maverick Constructors*, 25-1 BCA ¶ 38,783 at 188,591 (citing *Essex Electro*, 224 F.3d at 1295; *States Roofing Corp.*, ASBCA No. 54860, 10-1 BCA ¶ 34,356 at 169,661).

The parties have proffered competing expert reports and testimony which we have considered in detail. In so doing, "we have exercised our sound discretion in deciding which statements and positions to accept and which to reject." *Trade West Constr., Inc.*,

ASBCA No. 61068, 22-1 BCA ¶ 38,214 at 185,597 (citing *S.W. Marine, Inc., San Pedro Div.*, ASBCA No. 28196, 86-2 BCA ¶19,005 at 86,241 ("trier of fact is not bound by expert testimony and may substitute his common sense judgment for that of the expert")). "We also have considered the parties' proffered expert testimony, not as a means by which to interpretate the contract, but rather as a means to interpret various terms of art and to assist us in the factual (not legal) determination . . . ." *Trade West*, 22-1 BCA ¶ 38,214 at 185,597 (citing *Parsons-UXB Joint Venture*, ASBCA No. 56481, 12-1 BCA ¶ 34,919 at 171,695 ("[e]fforts by experts to apply the facts to specialized legal terminology to attempt to establish whether a particular legal standard has been satisfied should be excluded") (citation omitted)).

According to Mr. Staley, Hensel Phelps seeks 404 calendar days of uncompensated delay, and 319 calendar days of unresolved, excusable delay (finding 254). By contrast, Mr. Boe identified 683 days of total delay, with 465 unresolved days of delay, finding entitlement for 172 calendar days of excusable delays, plus 170 days recognized in Modification No. A00036. Mr. Boe identified 295 days of delay that occurred on the project, which did not include the 170 days granted via Modification No. A00036. (Finding 262) Mr. Boe also found no entitlement for additional compensable days (finding 273).

Although Mr. Anderson never conducted an as-built critical path delay analysis, and testified that, in his opinion, work performed by Ajax was never on the as-built critical path, he found that the government was responsible for 479 days of compensable delay (delay periods two and four) and 153 days of concurrent delay (delay periods one and three) (findings 250-52). And despite Mr. Anderson's statement that work performed by Ajax was never on the critical path, Mr. Staley relied upon Mr. Anderson's report, finding that work performed by Ajax was on the critical path during time periods (windows) four and six, a seemingly incongruous position taken by appellant (findings 255-56, 258).

Windows Two and Three

Regarding window two, both Mr. Boe and Mr. Staley agree that all delays within that period were resolved through bilateral modifications. However, Mr. Boe determined that the number of days awarded by those modifications extended the completion date for window two by 11 days past the then-applicable contract completion date. (Finding 264) Regarding window three, which the parties agree experienced 75 days of excusable delay, Mr. Boe determined that Modification No. A00032 granted an additional three days past the then-applicable completion date. As such, the actual delay in windows two and three total 161 days, while 175 days of delay were granted via modifications for windows two and three. (Finding 264)

Window Four

In window four, Mr. Staley identified 85 days of excusable delay, which he attributed to the government (A1 wall changes) and site paving. Relying on Mr. Anderson's report, Mr. Staley found 43 days of compensable delay granted by the government through bilateral Modification No. P00004, plus three additional days of delay for weather delays per bilateral Modification No. A00027, resulting in 39 days of unresolved compensable delay. (Finding 255) Mr. Boe concurred with Mr. Staley that the project was delayed 85 days during window four but disagreed that any additional delay days were attributable to the government. Mr. Boe determined that 58 days of delay were caused by the A1 wall changes—15 more than the 43 agreed upon in bilateral Modification No. P00004 and attributed the remaining 27 days to Hensel Phelps because of apron paving issues caused by subcontractors Ajax, PSI, and McKenzie (finding 265). Mr. Boe also noted that the three-day weather delay modification cited by Mr. Staley (Modification No. A00027), was applicable to excusable delays in window two (August 2019), not window four (finding 255). Mr. Boe credited the government with 14 days of "unexcused delay during this period based on the overage of delay granted in the earlier periods, which lowered the assigned 42 days of unexcused delay in the [w]indow to 28 days as 'unresolved through [w]indow 4'" (findings 264, 266).

We agree with Mr. Boe's reasonable decision to credit the government with 14 days of unexcused delay in window four based upon the earlier overage (windows two and three) (finding 266). We also agree with Mr. Boe's analysis that of the 85 days of delay in window four, 43 days which already were compensated for via Modification No. P00004 (both time and cost), and the 42 remaining days (15 days and 27 days) which were attributable to Hensel Phelps because of A1 wall changes (15 days) and apron paving issues (27 days) caused by subcontractors Ajax, PSI, and McKenzie (findings 203, 265).

Window Five

In window five, Mr. Staley and Mr. Boe both identified 133 days of delay (findings 256, 267). Mr. Staley attributed this delay to the government based upon jockey pump impacts and site paving (finding 256). Mr. Staley noted that Mr. Boe acknowledged entitlement to 103 days of delay for jockey pump impacts. Mr. Staley attributed the additional 30 days of delay to the government based upon the time it took to mobilize workers to conduct the requisite testing (which he says was impacted by COVID-19) after installation of the jockey pump. (Finding 257) For his conclusions regarding site paving, Mr. Staley relied upon Mr. Anderson's report, which recognized 72 days of non-compensable, concurrent delay to "Hensel Phelps/Others" for site paving (elevation) with 61 days labeled unresolved /compensable (other site paving delays) attributed to government (finding 256). Mr. Boe determined that completion was delayed 133 days because of jockey pump impacts, the apron elevation error, and Ajax's subcontractor abandoning the project. Mr. Boe assigned Hensel Phelps 103 days of

excusable delay through the date of delivery of the jockey pump controller, which ran concurrently with delays to paving, for which Hensel Phelps responsible. The remaining 30 days were unexcused due to paving delays. (Finding 267)

We agree with Mr. Boe's analysis and find 103 days of delay caused by the government because of jockey pump impacts and 30 days of delay caused by Hensel Phelps because of paving issues (having already found Hensel Phelps was responsible for delays relating to stabilization of subgrade).

Window Six

In window six, Mr. Staley and Mr. Boe both identified 61 days of delay (findings 258, 268). Relying upon Mr. Anderson's report, Mr. Staley's report attributed all 61 days to the government as the "primary critical path" based upon ongoing site paving completion and "predecessor delays" that thereby caused Ajax's paving subcontractor to depart "due to other commitments" (finding 258). Mr. Staley also recognized "near-critical paths" concerning "the ongoing testing of critical building systems, most notably HVAC test and balance work, [that were] concurrently critical with the apron paving delays" (*id.*). Mr. Boe agrees with Mr. Staley that apron work was the primary critical path driver for the entirety of window six but concluded that Hensel Phelps was responsible for the 61-day delay. Regarding Mr. Staley's finding of "near critical path delay" based upon HVAC testing, Mr. Boe's schedule-by-schedule analysis found that the air barrier changes impacting HVAC testing never became critical. Mr. Boe found that Mr. Staley did not perform a detailed schedule-by-schedule analysis of window six and failed to consider any changes in window six's critical path. (Finding 268)

We agree with Mr. Boe's analysis and find all 61 days of delay in window six were caused by Hensel Phelps because of paving issues (having already found Hensel Phelps was responsible for delays relating to stabilization of subgrade).

Window Seven

Regarding window seven, Mr. Staley's report recognized 86 days of delay, which he attributed to the government-based change work related to air barrier testing impacting "final acceptance of the [building's] test and balance work" (finding 259). Although Mr. Boe agrees that delay during this period totaled 86 days, he reduced the amount of delay attributable to window seven to 60 days excusable and four days un-excusable (finding 269). Mr. Boe found 45 days of concurrent delay during window 7A and 19 days of concurrent delay during window 7B, and that 22-days of delay should be recognized in window 8 (finding 269). Mr. Boe determined that air barrier work and apron paving were concurrently responsible for delay during this period, rejecting

Mr. Staley's claim that weather events, additional holidays, and COVID-19 contributed to the delays in paving work during window seven (*id.*).

We agree with Mr. Boe's analysis and find 60 days of concurrent delay and four days of un-excusable delay for window seven (having already found Hensel Phelps was responsible for delays relating to stabilization of subgrade) and that 22 days of unexcused delay should be recognized in window eight.

Window Eight

Mr. Staley's report recognized 157 days of delay for window eight, which he attributed to extra work and project completion. Mr. Staley attributed to the government all 157 days finding that contemporaneous schedules reflect government directed additional work controlling the critical path with changes ultimately resolved via Modification No. A00036. Mr. Staley found no indication of any concurrent contractor delays during window 8 that controlled the extended duration of the contract. (Finding 260) Mr. Boe recognized 179 days of delay, finding that 128-days were excusable, with the remaining 51-days being the responsibility of Hensel Phelps based upon multiple Hensel Phelps schedule updates indicating apron work was driving the critical path and project correspondence detailing numerous concrete paving deficiencies (finding 270). Mr. Boe noted that Mr. Staley's Report ignored evidence regarding paving deficiencies (apron work) and incorrectly relied upon Mr. Anderson's report opining substantial completion of Ajax concrete paving on April 15, 2021 (findings 271-72).

We agree with Mr. Boe's analysis and find for window eight 128 days of concurrent delay and 51 days of unexcused delay (which includes 22 days of unexcused delay incorrectly included by Mr. Staley in window seven).

Alleged Delays Based Upon CAP Deficiencies

Hensel Phelps attempts to downplay the import of paving issues that arose even after the "redesign" of the subgrade was agreed upon, stating that the government "presented two issues to distract from the immense impacts caused by the defective paving system specification and blame Ajax and Hensel Phelps for delays: (1) a minor elevation discrepancy in the airfield subbase that Ajax corrected, and (2) Ajax's punchlist work" (app. br. at 37). We already have found that Hensel Phelps ultimately is responsible for ensuring stabilization of the subgrade and that Hensel Phelps is responsible for any additional costs or delay damages thereby incurred.

To the extent appellant alleges the elevation discrepancy was "minor," we note that neither of Hensel Phelps's experts attribute delay days to the government for the 72 days the government took to approve Hensel Phelps's proposed correction of the elevation error (findings 145, 252, 256). Moreover, we find that the government acted

reasonably in reviewing and approving the appropriateness of Hensel Phelps's proffered fix—especially given the size and importance of the apron (findings 144-46). *Relyant, LLC*, ASBCA No. 59809, 18-1 BCA ¶ 37,085 at 180,539. Responsibility for Ajax having improperly constructed the apron layers one to one and a half inches higher than required lies solely with Hensel Phelps and its subcontractor.

Regarding the punch list and CAP discrepancies, Hensel Phelps argues that "the number of punchlist deficiencies on this Project was typical," and that "the evidence demonstrated that the [g]overnment's list of deficiencies unnecessarily went well beyond the time and effort required" (app. br. at 38). According to Hensel Phelps, the government "forced Ajax to develop extensive corrective action plans and have each of its planned corrective measures reviewed and approved by third-party engineers, *before Ajax could start on a single basic punchlist item*" (app. br. at 39) (emphasis in original). The record establishes numerous deficiencies with the apron paving once the concrete was in place (findings 147-50). Indeed, appellant admits that it was required to detail proposed remediation efforts for defective work through the quality control process and submission of RFIs (app. reply at 38). Hensel Phelps argues, however, that "there is no Specification that requires 'written remediation plans' to be approved by the [g]overnment prior to *any* repair procedures taking place" (*id.*) (emphasis in original).

As support, Hensel Phelps cites testimony of Mr. Morgan, wherein he states that he had never experienced such a lengthy punch list process (*id.*; app. br. at 39; *see* findings 151-52). Appellant argues that "[t]his approval process was completely unnecessary, was not expressly required by the Contract, required significant time to implement, and served to help the [g]overnment artificially allege that Ajax was driving the critical path to Substantial Completion and mask the [g]overnment's own ongoing delays" (app. reply at 38). Hensel Phelps is not entitled to an adjustment for alleged delay unless the delay was unreasonable. *Creative Times Day School, Inc.,* ASBCA No. 59507, 16-1 BCA ¶ 36,535 at 177,983. "The length of time taken to give approval does not 'establish ipso facto an unreasonable delay on the part of the defendant.' It is the contractor's burden to show 'where the work was delayed because of lack of approval.'" *H.Z. & Co.,* ASBCA No. 29776, 87-1 BCA ¶ 19,384 at 98,007 (quoting *Jefferson Constr. Co. v. United States*, 177 Ct. Cl. 581, 595-96, 368 F.2d 247, 256 (1966)). We cannot conclude that the government's conduct regarding resolution of the CAP discrepancies was unreasonable. None of that sequence of events strikes us as unreasonable government delay, rather it indicates the parties' back and forth, cooperative, and ultimately successful efforts to resolve the CAP discrepancies (findings 147-54).

It was not unreasonable for the government to insist upon a cohesive plan to tackle the many CAP discrepancies its QC personnel identified at the Project, nor was it unreasonable for the government to cross their T's and dot their I's to insure that this crucial portion of the Project was completed satisfactorily, given the import of the apron

and the need to insure the safety of both the employees and the aircraft conducting flight operations on the apron (finding 147). Moreover, although Hensel Phelps presented testimony from Mr. Morgan, expressing frustration with the process (findings 151-52), Hensel Phelps's experts made no effort to quantify alleged CAP deficiencies delay (in the context of concurrent delay) or even discuss the relevant communications exchanged between the parties (findings 271-72). By contrast, Mr. Boe, the government's expert, included in his report a discussion of the CAP deficiencies, concluding that they amounted to a concurrent delay of 51 days (finding 270).

Hensel Phelps argues that "[t]he absurdity of the process is evidenced by the fact that once released, Ajax was able to complete all of the punchlist work *in approximately three (3) days*" (app. reply at 38) (emphasis in original). Although Mr. Morgan testified that it took Ajax "about three days" to perform CAP corrective work (finding 152), Hensel Phelps presented no additional evidence to support or explain the import of this statement, such as an analysis of the work performed by either of its scheduling experts or its impact. Moreover, while Hensel Phelps presumably views Mr. Morgan's statement as supporting its argument that the government expended unreasonable efforts to identify and resolve the CAP deficiencies, that same evidence could be a reflection of the fact that the government insisted Ajax provide a comprehensive plan to perform all the required work using the appropriate methodology and, as such, Hensel Phelps was able to complete the work in a timely fashion. Because Hensel Phelps failed to address this issue in any meaningful way, we are left only with presumptions and conjecture.

Hensel Phelps argues that "the [g]overnment's internal view of the paving punch list, during a time in which the [g]overnment was issuing significant design modifications, was that if the modifications could be issued during a time in which the contractor was still performing 'contract work,' then the [g]overnment would not have to pay the time-related costs of the design modifications" (app. br. at 39) (emphasis omitted). Hensel Phelps's argument is based upon Ms. Jones's testimony concerning an April 28, 2021, email pertaining to RFP 069 and substantial completion of the contract (finding 153). As part of back-and-forth emails between government employees, Ms. Jones stated if the government "can overcome its main challenge —funding—sooner than KTR can overcome its main challenge—concrete panel replacement—we could potential[ly] get the mod work done without any time impact cost" (*id.*). From this, Hensel Phelps argues that "[a]ccording to Ms. Jones, if the punchlist could drag out longer than the [g]overnment's design changes, it would justify the [g]overnment's refusal to compensate Hensel Phelps for time-related impacts, to issue proper time extensions, and to release withheld liquidated damages" (app. reply at 39).

There are several problems with Hensel Phelps's argument. Ms. Jones, a COR who lacks authority to contractually bind the government (finding 68) in no way testified that that she was addressing "the government's internal view of the paving punch list" (app. br. at 39). Rather, Ms. Jones testified that if the government could issue its

"modifications and make them part of the contract while the contractor was still completing the contract work of the airfield paving, which included concrete panel replacement, then they would be doing it in the time of the . . . performance period of the contract" (finding 154). Ms. Jones stated nothing other than a truism ("if we could get the mod issued and the work could be done before they completed the work of the contract for paving, then there would not be any reason for additional time extensions") (*id.*). In neither the email cited by appellant, nor Ms. Jones's testimony, did she even remotely suggest that it was the government's intention to somehow drag out punch list items. Hensel Phelps's suggestion otherwise is pure conjecture.

V. Hensel Phelps's Liquidated Damages claim

In its multiple items claim, Hensel Phelps also sought the release of $1,256,860 in liquidated damages currently withheld from Hensel Phelps as retainage (finding 156). The contract requires Hensel Phelps to pay $3,940 per calendar day of delay in liquidated damages to the government (finding 12). In its post-hearing brief, the government states that "[t]he total amount owed in liquidated damages is $484,620 ($3,940 x 123 days) and that the government "withheld $1,256,860 from pay applications" (gov't br. at 47, PFOF ¶ 196). However, Mr. Boe, the government's scheduling expert, determined Hensel Phelps was entitled to an additional excusable delay of 172 days (finding 273). We find Mr. Boe's calculation of delay damages reasonable and thorough. Accordingly, we grant Hensel Phelps's request for the release of liquidated damages - in the amount of $677,680 (172 x 3,940), plus applicable interest.

CONCLUSION

For the foregoing reasons, ASBCA No. 63316 (Hensel Phelps's pass-through subcontractor airfield paving redesign claim) and ASBCA No. 63397 (Hensel Phelps's pass-through subcontractor lift station claim) are denied. ASBCA No. 63398 is granted in part and denied in part. Hensel Phelps is awarded $677,680, plus interest in accordance with 41 U.S.C. § 7109, from May 25, 2022, the putative date that the CO received Hensel Phelps's claim, until the date of payment.

Dated: August 28, 2026

DAVID B. STINSON
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

J. REID PROUTY
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

I concur

DAVID D'ALESSANDRIS
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 Nos. 63316, 63397, 63398, Appeals of Hensel Phelps Construction Co., rendered in conformance with the Board's Charter.

Dated: August 28, 2026

PAULLA K. GATES-LEWIS
Recorder, Armed Services
Board of Contract Appeals