

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of -)
)
Kallidus Technologies) ASBCA Nos. 61377, 61976
)
Under Contract No. W912SV-10-D-0013)

APPEARANCE FOR THE APPELLANT: Mr. Divyang Patel
President

APPEARANCES FOR THE GOVERNMENT: Dana J. Chase, Esq.
Army Chief Trial Attorney
MAJ Danielle C. Naser, JA
Trial Attorney

OPINION BY ADMINISTRATIVE JUDGE MCNULTY

The appeals arise under a contract for repairs and renovation to Building 102 at Camp Edwards, Bourne, Massachusetts. The appeals involve several claims for alleged additional work for windows, cable trays, underground plumbing, footings, demountable partitions, damage to interior finishes, parapet wall leaking, retainage and Simpson ties. The window claim includes a delay component. We have jurisdiction under the Contract Disputes Act, 41 U.S.C. §§7101-7109 (CDA). We sustain the appeals in part and deny in part. We decide entitlement only.

FINDINGS OF FACT

Based on the record in these appeals we make the following findings of fact.

General Matters

1. Contract No. W912SV-10-D-0013 was a small business set-aside, Indefinite Delivery-Indefinite Quantity (IDIQ) Multiple Award Task Order Contract (MATOC) for maintenance, repair, construction, and design build services in support of Massachusetts Army National Guard activities. The MATOC contract was awarded August 13, 2010 (R4, tab 1 at 1-2).

2. By Notice of Proposed Task Order Proposal dated June 18, 2011, the government sought to completely renovate Building 102, located on Camp Edwards in Bourne, Massachusetts. The building had been unoccupied for several years prior to the award of the contract (tr. 3/100-01). The proposed task order was issued subject to the availability of funds, however, the magnitude of the projected was listed between

\$1,000,000 and \$5,000,000 (R4, tab 156 at 1-2). The project had been designed by Reinhardt Associates (RAI), an architect/engineer firm (R4, tab 3 at 1; tr. 1/32).

3. Building 102 is an approximately 16,000 square foot structure comprising a central segment, designated Unit 300, which is a two-story cast-in-place concrete and concrete masonry units (CMU) structure, flanked by two story wood frame structures (Units 100 and 500) which are connected to Unit 300 by two single story concrete connectors designated Units 200 and 400. Unit 300 was mostly flat roofed, concrete covered with a waterproof membrane, which was to be removed and replaced with new single ply membrane (SPM). The other units had pitched wood roofing systems covered with asphaltic shingles (R4, tab 156 at 1, tab 3 at 1, 5, 8, 10, tab 4 at 284; tr. 1/97).

4. Mr. Divyang Patel, Kallidus Technologies, Inc.'s (Kallidus) president, prepared Kallidus' bid for the task order with assistance from an employee of Kallidus, Mr. Robert Dandenau (tr. 1/6, 16). After the bid was submitted the Army requested, and Kallidus submitted, a detailed cost breakdown of the labor and material components for each Contract Specifications Institute (CSI) division of work required. The Army then cancelled the solicitation because the bid prices exceeded the funds available (tr. 1/19).

5. By Notice of Proposed Task Order Proposal dated August 26, 2011, the government resolicited the Building 102 renovation work. The work was to be performed pursuant to the plans and specifications included with the solicitation (R4, tab 2). The government was not seeking design build services. The resolicitation provided only seven business days to prepare and submit a bid (*id.*). The same day Kallidus requested a list of changes made to the solicitation (R4, tabs 176-77). The government agreed to make some changes and provided a synopsis of the changes made to the solicitation on August 31, 2011 (R4, tab 178; tr. 1/20-21). Five general changes were listed. No changes to the windows were listed. Kallidus viewed the changes as simplifying and reducing the cost of the project due to budget constraints (tr. 1/21). The synopsis of changes was incorporated into the solicitation by Amendment 0001 (R4, tab 6).

6. Kallidus submitted its bid, in the amount of \$2,882,907 under date of September 8, 2011. The bid included lump sum prices for nine separate options (R4, tab 5 at 5).

7. Under date of September 24, 2011, just before the end of the fiscal year, Task Order No. 0002 for the repair and renovation of Building 102 was awarded to Kallidus in the amount of \$2,882,907. The performance period was 294 days, measured from receipt of the Notice To Proceed (NTP) (R4, tab 8).

8. The government issued the NTP by letter dated October 24, 2011. This established an original completion date of August 13, 2012 (R4, tab 10).

9. Modification No. 04, extending the contract completion date by 66 days from August 13, 2012 to October 18, 2012, was issued unilaterally under date of August 10, 2012 (R4, tab 110). Bilateral Modification No. 06 for additional work directed by the government added 183 days to the performance period, extending the completion date to April 19, 2013 (R4, tabs 114-15). Unilateral Modification No. 10, extending the contract completion date from April 19, 2013, to May 31, 2013, was issued under date of May 5, 2013 (R4, tab 138). Bilateral Modification No. 11, extending the contract completion date from May 31, 2013, to June 15, 2013, for field changes 1-2 and 4-8 was signed by the contracting officer June 27, 2013 (R4, tab 144). Unilateral Modification No. 12 extending the contract completion date from June 15, 2013, to July 31, 2013, was signed by the contracting officer June 28, 2013 (R4, tab 145). Unilateral Modification No. 13 extending the contract completion date from July 31, 2013, to September 5, 2013, was signed by the contracting officer August 3, 2013 (R4, tab 146). Unilateral Modification No. 14 extending the contract completion date from September 5, 2013, to October 31, 2013, was signed by the contracting officer on October 1, 2013 (R4, tab 147).

10. By memorandum dated April 19, 2013, the government's contracting officer's representative (COR) recommended that the government accept Building 102 for occupancy (R4, tab 137; tr. 1/86, 3/94-95). By memorandum dated May 10, 2013, the contracting officer notified Kallidus that the government accepted the building for occupancy with several noted exceptions including parapet wall leaks at the west and east elevations (R4, tab 142).

11. Kallidus presented its initial claim, styled as a Request for Equitable Adjustment (REA), to the contracting officer under date of November 28, 2016 (R4, tab 154). Although styled as an REA, Kallidus, citing Federal Acquisition Regulation (FAR) 33.201, stated it was seeking as a matter of right, the payment of money in a sum certain (*id.* at 2).¹ The claim comprised of nine sub claims totaling \$436,510.21 as set forth below:

a. PCO [Proposed Change Order] 4-Windows	\$144,838.00
b. PCO-5 Windows Time Extension	\$95,070.00
c. PCO-6 Cable Trays	\$10,370.00

¹ Page citations herein correspond to the PDF document page number.

d. PCO-16 Excavation (Plumbing)	\$38,708.00
e. Additional Concrete Slab Removal	\$19,481.21
f. Demountable Partitions	\$28,514.00
g. Paint Window Trim and Walls	\$20,102.00
h. Unreleased Retainage	\$50,000.00
i. Parapet Wall	\$29,427.00

(*id.* at 5).

12. Although the claim comprised nine sub claims, Kallidus only discussed six of them in any detail. No explanation or detail was provided for the following sub claim items; PCO #5 Windows Time Extension, Unreleased Retainage and Parapet Wall (*id.* at 5-8).

13. The contracting officer denied the claim in its entirety (R4, tab 155 at 56). Despite having received no detail or explanation regarding three of the sub claims, the contracting officer demonstrated having an understanding of two of these claim items (Windows Time Extension and Parapet Walls) by providing detailed factual descriptions thereof in the final decision (*id.* at 15-21, 37-44).

14. Kallidus' president, Mr. Divyang Patel, included a certification of the claim, stating: "I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief" (R4, tab 154 at 17). By email message dated April 17, 2019, Kallidus amended its certification, revising it to state: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor" (Bd. corr. dtd. April 17, 2019).

15. Under date of January 25, 2018, Kallidus submitted its complaint in ASBCA 61377. The complaint, seeking \$463,074.21, included a demand for payment of \$26,564 related to Simpson Ties² (compl. ¶ 3). The complaint included no further description or discussion of this sub item of the claim. The government never addressed the Simpson Ties in its answer.

² This is a later asserted claim, separate from the original nine claim items listed in SOF ¶ 11. See further discussion at SOF ¶¶ 137-39.

Windows Claim

16. The Task Order included nine options, including an option for vinyl-clad double-hung wood windows, Series 400, manufactured by Andersen.³ The Andersen window option stated:

Base Bid provides a “Weathershield” primed double-hung wood window. Add option provides “Anderson” vinyl-clad double-hung wood window, Series 400.

Kallidus proposed a lump sum amount of \$136,000 for this option and the Task Order was awarded on this basis although the government never exercised the option. The Options specification stated that the base bid was for a Weather Shield⁴ primed wood double hung window. (R4, tab 4 at 16, tab 5 at 5, tab 175 at 2) However, the specification specific to the windows, section 08500, stated the basis for the specification was the Andersen Woodwright, 400 Series and also indicated the windows were to be vinyl clad (R4, tab 4 at 328).

17. Specification sections 08500 and 08800 were the specifications pertaining to the windows (R4, tab 4 at 326, 352; tr. 3/134). Section 08500, entitled “Wood Windows” included the following provisions:

1.6 Quality Assurance

. . . .

F. Design Concept: Window units by other manufacturers having equal performance characteristics may be considered, provided deviations from indicated dimensions and profiles are minor and do not change the design concept or intended performance as judged by the Architect.

. . . .

³ In various places in the documents in the record the company is referred to as “Anderson” or “Andersen.” We will use “Andersen” unless quoting a document that spells it “Anderson.”

⁴ The company’s name appears in the record as Weather Shield, Weathershield and WeatherShield. We use Weather Shield unless quoting a document that has it in another form.

2.1 Manufacturers

A. Manufacturer: Subject to compliance with requirements, provide window units by Andersen Corp., Bayport, MN; Crestline, A Division of SNE Enterprises, A Nortek Co.; or Weathershield Mfg., Inc. or approved equal.

1. Basis of delivery and specification:

a. Andersen Woodwright, 400 series, double-hung wood windows.

2.2 Materials

A. *Vinyl clad*, double hung tilting wood windows,

(R4, tab 4 at 327-28) (emphasis added)

2.3 Glazing

A. General: Insulating glass units certified through the Insulating Glass Certification Council as conforming to the requirements of IGCC. Provide dual sealed units consisting of polyisobutylene primary seal and silicone secondary seal. Provide metal spacers with bent or soldered corners.

B. High-Performance™ Low-E4™ Glass, Argon Blend Filled Insulating Glass Units:

1. Glass: Insulating glass units consisting of an outboard lite of bronze tint laminated glass conforming to ASTM C1036, Type 1, Class 1, q3 and an inboard lite of clear tempered glass conforming to ASTM C1036, Type 1, Class 1, q3.

2. Glass: Tempered insulating glass units where required shall consist of an outboard and inboard lite of clear tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.

3. Magnetron sputtering vapor deposition (MSVD) TiO2 coating applied to the No. 1 surface.

4. High-Performance™ Low-E4™ Coating: Magnetron sputtering vapor deposition (MSVD) Low-E coating applied to the No. 2 surface.

5. Filling: Fill space between glass lites with argon gas blend.

6. Protective removable polyolefin film applied to glass surfaces No. 1 and No. 4.

(*id.* at 329-30).

2.7 Fabrication

....

C. Glazing: Factory glaze with high quality glazing sealant.

(*id.* at 331).

Section 08800, entitled “Glass and Glazing” included the following provisions:

2.2 Materials

....

D. Insulated Glass Units:

1. 1” Unit consists of exterior lite ¼” laminated bronze tint, ½” air space, interior lite ¼” tempered.

2. Windows are factory glazed. Refer to Section 08500 – Wood Windows.

(*Id.* at 354)

18. As originally detailed, the windows were to be trimmed with PVC on the exterior (R4, tab 3 at 14; tr. 2/95).

19. Kallidus included no money in its bid price for providing the base windows because it believed that when the government rebid the project it was only interested in the windows included as option 9 (tr. 1/23-24, 140, 2/83).

20. On November 28, 2011, Kallidus submitted RFI #8 after becoming aware that the government would not exercise any of the options (R4, tab 18; tr. 1/24-25). Kallidus noted the window specification was based on the option window and requested the specification for the Weather Shield wood window (R4, tab 18; tr. 2/154-55). The government responded in early December 2011, stating a Weather Shield wood window, Series #610 was to be provided and attached a revised Section 08500 (R4, tab 18; tr. 2/90-92). The COR, Lt. Col Carney, testified that when the project was rebid the government's architect had failed, through oversight, to revise the window specification to fully reflect the changes to the windows the government wished to make (tr. 3/32, 137-40). Mr. Donald Hunsicker was accepted by the Board as an expert in claims analysis, construction documents and architecture on behalf of Kallidus (tr. 2/55-76). He testified that when the project was rebid the Andersen vinyl clad window was changed to a Weather Shield wood window. In his view the change effectively removed the 08500 spec from the contract. The government in response to RFI # 8 issued a new specification 08500 that was based on Weather Shield's 610 series (tr. 2/90-92). Mr. Robert Blair, appearing on behalf of the government, was accepted by the Board as an expert in architecture, federal and Massachusetts state construction claim analysis, construction project management, and federal military construction contracts (tr. 4/155, 163-77). He is a government employee who had no responsibility for the project during its performance (*id.* at 162-63, 170). Mr. Blair testified that sections 08500 and 08800 were equally applicable to both the Andersen Woodwright and Weather Shield Series 610 windows (*id.* at 182-85, 189; tr. 5/38-42, 49-50). Mr. Hunsicker in rebuttal testimony explained that it made little sense for the government, as part of an effort to reduce costs, to change the window requirement from an Andersen Woodwright window to a Weather Shield Series 610 window, but not revise the specifications that were developed specifically for the Andersen Woodwright window to accommodate the characteristics of the Weather Shield Series 610 window (tr. 5/105-06).

21. In a project meeting on December 19, 2011, Kallidus advised the government that it still had questions regarding the windows to be provided and would be submitting an additional RFI (R4, tab 182).

22. Under date of March 6, 2012, Kallidus submitted several proposals for wood windows (R4, tab 42 at 10-41). The proposal for the Weather Shield windows was in the amount of \$435,445 (*id.* at 10).⁵ The proposals specifically noted that delay

⁵ The proposals all indicated that grilles were included and varied from a low of \$57,883.42 for the Lincoln product to a high of \$141,731.75 for the Weather Shield product (R4, tab 42 at 10, 18, 25, 31). The proposal from Devon for the Weather Shield 610 also indicated that bronze tinting was included. The proposal from Doyle Lumber Company for the Lincoln product broke out the cost for the grille work. The proposal indicated that adding a grille to a window

damages could not be determined at that time, but included a request for a six to eight week time extension (*id.* at 10, 18, 25, 31, 41). Kallidus stated it had been working diligently since it had received the revised specification in December 2011, to obtain quotes from suppliers and that it was requesting an equitable adjustment to the contract price in the form of a change order for the windows (*id.* at 40).

23. Under date of March 7, 2012, the COR recommended the change order request be denied (R4, tab 45 at 10-12). The government adopted the COR's recommendation and denied the request two days later (R4, tab 45 at 1; tr. 1/25).

24. At a meeting a few days later Kallidus reiterated that it viewed the revised window specification as being a change, which it expected to be compensated for (R4, tab 185).

25. Kallidus then requested a quote from its supplier, Devon Lumber (Devon) for an unclad wood Weather Shield Series 610 window. Devon quoted \$39,608.90. Kallidus offered to provide this window to the government for no additional cost. (App. supp. R4, tab 273; tr. 1/25-30, 107-09) This represented the base window or standard make-up produced by Weather Shield (tr. 1/164). Kallidus requested Devon provide a window that would satisfy the requirements of section 01230, para. 3.1, Item 9 of the specifications⁶. Kallidus understood this window did not fully comply

was \$17.28, except for type H windows, which were \$34.56. The total proposed cost of the grilles for all of the windows included in the proposal was \$4,458.24, calculated as follows:

A	\$17.28 x 2 x 28 = \$967.68
B	\$17.28 x 2 x 2 = \$69.12
C	\$17.28 x 2 x 10 = \$345.60
D	\$17.28 x 4 x 1 = \$69.12
E	\$17.28 x 2 x 28 = \$967.68
F	\$17.28 x 2 x 43 = \$1,486.08
G	\$17.28 x 2 x 2 = \$69.12
H	\$34.56 x 2 x 6 = \$414.72
J	\$17.28 x 2 x 2 = <u>\$69.12</u>
	\$4,458.24

(R4, tab 42 at 11-39)

⁶ Two government witnesses testified the window proposed with this quote did not meet the specifications, but nothing was provided to explain the basis for their opinion in this regard (tr. 4/101, 193). Mr. Hunsicker testified that the window met the requirements of the specifications in his opinion (tr. 5/106-08). The Board's review of the quote indicates it is for a Weather Shield series 610 window with Low E glass. The quote does not include air space grilles. This is the only obvious variance from the specifications the Board is able to discern

with section 08500 of the specifications, which required vinyl clad windows amongst other criteria. Accordingly, it sought to have the government accept this window without a formal governmental review of a window submittal. An additional reason for seeking to bypass formal governmental review was to expedite the procurement and installation of the windows to mitigate the delays that had been experienced (R4, tab 47; tr. 1/26, 46-47, 162-65).

26. The government rejected this offer in part because the contract required a formal submittal for the windows (tr. 3/35, 156-57). Kallidus then removed the caveat that the submittal was for informational purposes only and sought the government's approval (R4, tab 50; tr. 3/156-59). The government rejected the submittal because the windows did not meet the glazing requirements of section 08800 of the specifications, specifically the glazing was not 1" the glass was not 1/4" laminated and the glass was not bronze tinted. Also, air space grilles were not included and the submittal did not address the wind requirements. (R4, tab 50 at 3; tr. 1/26-27, 34, 2/190-91, 3/35-36, 157-59)

27. The government clarified its window requirements in a memo transmitted by email dated May 3, 2012. The government advised that although the glazing requirements set forth in the plans and specifications for the windows were as follows:

1. Bronze tint
2. 1" glazing
3. U factor equaling .31
4. SHG (solar heat gain) equaling .20
5. VLT (visible light transmission) .32

the government was willing to accept a Weather Shield Series 610 window with following requirements:

1. No bronze tinting
2. 1/2" glazing

from its review of the quote. We find that without any explanation, the testimony that the window did not satisfy the specifications is not helpful or reliable, particularly when the government ultimately accepted a Weather Shield series 610 window, which did not comply with the specifications.

3. U factor equaling .32
4. SHG equaling .19
5. VLT equaling .49
6. Integral grill has to fit within the airspace

The government stated these alternative requirements were acceptable only if no additional cost was involved (R4, tab 56 at 2; tr. 1/27-28, 3/36-38). The values for U, SHG and VLT are not found in the plans and specifications, neither the initial values, nor the revised values.

28. After receiving the revised requirements, Kallidus contacted Weather Shield later in the day to share the information it had received from the government and to determine whether Weather Shield could meet the requirements. Weather Shield advised that its series 610 and 710 windows would not match the glazing required by the government (R4, tab 186; tr. 1/27-28).

29. Under date of May 8, 2012, Kallidus advised the government that because so much time had elapsed trying to get the window requirements defined, there would be additional cost, including for additional time for the windows (R4, tab 57).

30. Also in early May 2012, Kallidus received an additional proposal from Devon for a ProShield series 710 Weather Shield window. The proposal was for \$57,913.08. The proposal included interior grilles, but was silent with respect to the window glazing (R4, tab 60; tr. 1/28-29). Kallidus incorporated this proposal into a change order request, PCO #4, and submitted it to the government (*id.*) Kallidus' proposal included a credit in the amount of \$39,608.90 quoted by Devon previously for the unclad Weather Shield Series 610 window (*id.*). The proposal also included costs totaling \$28,127.76 for 60 days of delay (R4, tab 60 at 4). The proposal was contingent on its acceptance no later than May 21, 2012, and approval of shop drawings no later than June 8, 2012, to facilitate placing the window order by June 9, 2012 (*id.* at 2). The government rejected the proposal the next day. The government requested that Kallidus separate the delay claim from the additional costs claim and to include a time impact analysis to support the delay part of the claim (R4, tab 62 at 4). Kallidus responded, stating it did not understand why separate claims for (1) additional cost and (2) delay were required and set forth a narrative explanation of the delays that had been experienced to date. Kallidus noted that as things stood, the government was not requesting a standard window manufactured by Weather Shield and that there was no specification from which Kallidus could order windows (*id.* at 3). In response, the government reiterated that two issues were involved and separate change order requests were required (*id.* at 2). Kallidus responded that it viewed the issue

(additional cost and delay) as being a single intertwined issue that had been treated as such in the past when working on Air National Guard projects (*id.* at 1-2). The contracting officer nonetheless directed Kallidus to separate its request into two separate requests and stated the change order request would not be considered unless Kallidus complied (*id.* at 1).

31. Simultaneously, the COR contacted Devon directly with questions regarding the specifications relating to the windows Kallidus had received quotes for (R4, tab 191). The COR asked whether Weather Shield could provide windows meeting the following specifications:

1. ½” glazing
2. U factor equaling at least .32
3. SHG equaling at least .19
4. VLT equaling at least .49
5. the integral grill fits within the airspace.

(*id.*) The values specified for U, SHG and VLT by the COR do not appear in the specifications, neither the original nor the revised specifications (R4 tab 4 at 326-32, 352-57, tab 73 at 4-9).

32. In response the COR was advised that Weather Shield had indicated the following values for the two lines of windows:

ProShield DH-5/8” insl Thickness (Zo-e Shield 5
w/argon gas)
.30 U-Value
.18SHGC
.41VLT
w/grilles in the airspace
Weather Shield 610 DH-5/8” insl thickness (Zo-e
Shield 5 w/argon gas)
.28 U-Value
.17SHGC
.40 VLT
w/grilles in the airspace

(R4, tab 191)

33. No evidence was received regarding these values. We take judicial notice, relying on the U.S. Department of Energy's Guide to Energy Efficient Windows (2010) that the beneficial qualities represented by the U and SHGC values increase as the number decreases (https://www.energy.gov/sites/prod/files/guide_to_energy_efficient_windows.pdf).⁷ Accordingly, the U values and SHGC values for the referenced ProShield and Weather Shield windows exceeded the values set forth in the COR's message to Weather Shield. We take judicial notice from a commercial website that the quality represented by the VLT value, visibility, increases as the number increases. BRENNAN, <https://brennancorp.com/blog/window-visible-transmittance-ratings-explained/> (last visited December 17, 2025). Accordingly, neither the ProShield nor Weather Shield windows referenced met the VLT value included in the COR's message. Nor did they meet the alternate 1/2", or the original 1", glazing requirements.

34. Kallidus agreed to submit separate proposals in response to the government's directive to do so and further advised the government that the alternate requirements set forth in the government's May 3, 2012, email message were also out of scope for a standard Weather Shield window product (R4, tab 193). Kallidus submitted separate proposals for the additional costs for the non-standard Weather Shield window product the government required, revised PCO #4 and the additional time it was seeking, PCO #5 (R4, tabs 64-65). With PCO #5, Kallidus sought a time extension from August 13, 2012 to October 8, 2012 (R4, tab 65). The change request stated that Kallidus had been delayed several months while trying to get the window specifications clarified. Kallidus sought \$46,237 for two months of additional field office overhead and was contingent on Kallidus being able to order the windows no later than June 9, 2012 (*id.* at 3).

35. The contracting officer responded to the proposals asking why Kallidus was proposing a vinyl clad window, when the government had specified a wood window (R4, tab 66 at 2-3). Kallidus reiterated that there was no specification in the contract for a wood window, that although the contract did not require design build services it had been working to provide the government with the windows it understood the government wanted from its discussion with the COR because there was no standard Weather Shield window that met the requirements the government had stated it wanted (*id.* at 1-2).

⁷ The Board may take judicial notice of facts that are not subject to reasonable dispute when they are generally known or capable of accurate and ready determination by resort to sources whose accuracy cannot be reasonably disputed. This includes factual information available on internet websites. *Juniper Networks, Inc. v. Shipley*, 394 Fed. Appx. 713 (Fed. Cir. 2010). *See also Kellog, Brown & Root Services, Inc.*, ASBCA No. 56358, 11-1 BCA ¶34,614.

36. The government asked RAI, its project designer, to investigate Kallidus' assertions. RAI advised that Weather Shield representatives had confirmed Weather Shield series 610 windows would satisfy the project's window requirements and had been the window mentioned in the government's response to Kallidus' RFI #8. RAI's response, dated May 21, 2012, included sketches revising the details set forth on drawing A.9 and the following statement regarding the glazing, which conflicts with the glazing requirements set forth in section 08800:

Weathershield confirmed they are able to produce windows with 3/4" insulated glazing comprised of an exterior lite of 1/8" clear annealed glass, .030 lamination sheet and 1/8" glass, 1/4" air space filled with argon glass, and 1/4" interior clear glass lite.

(R4, tab 67 at 2-5) The sketches also changed the exterior PVC casing to wood casing (*id.*; tr. 2/95, 3/30). The government's COR, upon receipt of this information and a site visit on May 22, 2012, to confirm the windows would fit in the existing openings, advised Kallidus that it had confirmed that the Weather Shield series 610 windows were the intended base bid windows. The COR also advised that he would be receiving additional information to confirm that the contract's glazing requirements could be met. He emphasized that the windows, the glass and the casing were standard Weather Shield products (R4, tab 67 at 1).

37. RAI followed up with a request to Weather Shield that it confirm its letter to the COR was correct (R4, tab 68 at 1-2, 4). Weather Shield advised RAI it should revise the glazing comments slightly as follows:

Weather Shield confirmed it is able to produce windows with 3/4" insulated glazing comprised of: 1/8" Low E 366 outside lite with EasyCare coating - 3/8" airspace with argon gas - 1/4" laminated (1/8" clear / .030" PVB clear interlayer / 1/8" clear) inside lite (typical). For those units noted to have opaque glazing the glass make-up will remain the same as noted above, however the clear PVB interlayer will change to a white PVB interlayer.

For units requiring spandrel glass, the make-up will be: 3/4" insulated glass with 1/4" heat-strengthened spandrel (choice of colors, black quoted) outside lite - 3/8" airspace (no argon gas) - 1/8" clear tempered inside lite.

(*id.* at 1). The Weather Shield representative also advised that an updated quote to reflect glass as described would be prepared (*id.*). The COR testified that these glazing requirements represented changes to the contract's specifications, specifically that the 1" glazing was changed to 3/4" and the bronze tint requirement was eliminated (tr. 3/41-42).

38. Under date of May 23, 2012, the COR issued a Notice to Comply (NTC), directing Kallidus to submit a formal window submittal based on the Weather Shield 610 series windows. In his letter the COR acknowledged the contract had failed to include specifications for the Weather Shield primed double hung window (R4, tab 69 at 2). By email of the same date Kallidus advised the COR that the buyout of the windows could not be made because the sketches provided by RAI were not consistent with the existing conditions of the masonry openings and again requested that the government provide Kallidus with a specification for the windows (R4, tab 196).

39. The next day Kallidus' vendor Devon advised it that the requirements had been changed to require Zo-e Shield 6 glass, which it described as being high performance glass.⁸ Devon submitted a revised quote for this revision. When Kallidus asked why Devon was submitting the quote and what specification was being relied upon, Devon advised that My-Ron Hatchett had spoken with Weather Shield to make this change, which had apparently told Devon. Mr. Hatchett was an architect with RAI, the project manager for its architect engineer contract with the government (app. supp. R4, tab 295; tr. 1/34, 3/30).

40. Kallidus responded to the NTC under date of May 24, 2012. Kallidus stated that it had never asserted that the Series 610 windows could not be manufactured for the size of the openings depicted on drawing A.9. Instead Kallidus had pointed out that the trim provided by Weather Shield with the Series 610 windows was not suitable for the existing openings, that it had proposed a solution, which appeared to have been adopted in the revised sketches prepared by RAI. Kallidus stated that it appeared that the specifications for the windows were evolving, that it was unable to understand the exact requirements and again requested that the government provide a specification for the windows (R4, tab 70 at 3-4). In response to Kallidus' request for the specifications for the windows, the government's project manager, Mr. Barry Johnson, resent the response to RFI#8, its window clarification

⁸ Previously the government had indicated it wanted Zo-e Shield 5 glass (*see* SOF ¶¶ 30-32). The record includes evidence that the change from Zo-e Shield 5 to Zo-e Shield 6 had an effect on the U, SHGC and VLT values stated previously with respect to the Zo-e Shield 5 glass. The U and SHGC values decreased slightly in quality by .01, whereas the VLT quality increased by .09 (*cf.* SOF ¶¶ 31, 43).

memorandum dated May 2, 2012, the NTC, and “the window details for the appropriate locations” (R4, tab 197 at 6; tr. 4/124). Mr. Johnson’s response prompted an email from Kallidus’ project manager, Mr. Joy to the contracting officer, in which Mr. Joy advised that the various documents referred to by Mr. Johnson included contradictions and variances to the base bid windows specified (R4, tab 197 at 5). The contracting officer did not respond initially, so Kallidus’ operations manager sent another request for direction (*id.* at 4). This resulted in a response from the contracting officer to provide windows in accordance with what had been provided previously. The contracting officer indicated that she did not understand why direction was needed and stated that Kallidus was not at risk (*id.* at 3-4). The contracting officer’s email was answered by yet another request from Kallidus for a proper set of drawings and specifications. Kallidus also provided a summary of the previous communications and efforts to resolve the issue (*id.* at 1-3).

41. By email dated May 31, 2012, Kallidus received a new proposal from Devon reflecting changes to the window requirements it had discussed with Weather Shield. The proposal did not include a price, prompting Kallidus to ask how it differed from the proposal Kallidus had received from Devon over the previous weekend. Devon advised the proposal reflected changes discussed between Weather Shield and RAI. These changes included changes made to the airspace grilles, the factory applied finish and the addition of installation clips⁹, required by the change to the poly finish requested by Mr. Hatchett (R4, tab 198 at 2, tab 199 at 9). In an email dated June 6, 2012, Weather Shield confirmed it had had several conversations with RAI’s Mr. Hatchett discussing changes to the window requirements between May 29 and May 30, 2012 (R4, tab 198 at 1). In the context of all the back and forth communications between the various actors and RAI’s role as the government’s designer of record, RAI’s communications with Weather Shield should be understood as being of a piece with the COR’s earlier dealings with Devon on the same subject matter (*see* SOF ¶¶ 32-33). Thus, we find that as of May 30, 2012, the government had not completed revising its requirements for the windows¹⁰.

42. Under date of June 7, 2012, Kallidus submitted revised PCOs #4 and #5. Kallidus sought a time extension of 105 days, additional delay related costs of \$95,070 and additional costs of \$144,838 for the windows themselves (R4, tabs 77, 199 at 1-8; tr. 1/35).

⁹ The evidence received into the record regarding installation clips was that they made installation more difficult than nailing (tr. 2/166).

¹⁰ *See* SOF ¶¶ 43-49, indicating it was not until mid July, after Kallidus had presented a window submittal that did not comply with the plans and specifications, did it order the windows in response to the government’s cure notice.

43. On June 13, 2012, Kallidus transmitted submittal 81R for Weather Shield series 610 windows (R4, tab 79). The notes on the shop drawings listed several variations from the requirements set forth in the original specifications and drawings and subsequent iterations. These included installation clips instead of nailing, flat casing in lieu of the brick mould indicated on the sketches RAI had provided in late May, deletion of the specified tinting and tempered glass, ¾" insulated glass instead of the ½" specified and changes to the U, SHGC and VLT values that accompanied the change to the Zo-e Shield 6 amongst others (*id.* at 5). The government approved the submittal two days later (R4, tab 81).

44. Upon receipt of the approved submittal, Kallidus advised it would order the windows the next day and provide an update on the windows' delivery date, when it had that information (R4, tab 80). On June 27, 2012, Devon advised Kallidus that it was no longer interested in being the vendor for the windows. Devon cited several reasons for its decision including; revisions that continued to be made after the order had been placed, Kallidus' failure to have submitted a credit application, and the government's stated dissatisfaction with the price and its attempts to negotiate a better price with other vendors of Weather Shield windows (R4, tab 89; tr. 1/35-36).

45. Kallidus contacted Weather Shield and established an account so that it was able to buy the windows directly from Weather Shield. Weather Shield advised that the COR had been in contact with Weather Shield's architectural department asking questions relating to the project. Weather Shield advised that it would honor the price, \$106,439.88, quoted by Devon to Kallidus, and that the delivery time was approximately five weeks for the base units and seven weeks for the units with spandrel glass. The windows were offered pursuant to the approved shop drawings and not the plans and specifications. (R4, tab 90; app. supp. R4, tab 296; tr. 1/36) Kallidus wrote to the contracting officer to complain about the government's interference with its relationship with its vendor and to confirm that the government would accept the windows per the approved shop drawings in lieu of the plans and specifications (R4, tab 91).

46. The contracting officer responded under date of July 10, 2012. The contracting officer denied the government had interfered with Kallidus' relationship with Devon and acknowledged that the contract had not included a specification for the Weather Shield windows¹¹. The contracting officer also denied PCO #4, assigning responsibility for the costs to Kallidus. The contracting officer's statements misapprehend the basis for the request, asserting that the basis for PCO #4 was a Kallidus contention it was not required to provide windows because there was no specification for the Weather Shield windows included in the contract. The

¹¹ The COR also testified that that when the project was rebid specification section 08500 no longer represented the base bid window (tr. 2/89).

contracting officer also did not address Weather Shield's statement that its offer was per the approved shop drawings and not per the plans and specifications, beyond advising Kallidus that the windows would have to conform to the plans and specifications (R4, tab 93). A week later the contracting officer denied PCO #5. The contracting officer stated that Kallidus had failed to identify any government caused delay. The contracting officer asserted that Kallidus had not worked on the project for 79 workdays between October 24, 2011, and February 6, 2012.¹² The contracting officer indicated that the government was willing to provide a no cost change order extending the performance period to October 15, 2012 (R4, tab 94).

47. Also on July 17, 2012, Weather Shield sent Kallidus a letter reiterating that it would provide the windows pursuant to the approved shop drawings and not in accordance with the plans and specifications. Weather Shield's letter included an itemized list setting forth some of the differences between the approved shop drawings and the requirements set forth in the plans and specifications. Weather Shield's letter concluded with the following statement:

This clearly shows some of the many discrepancies between the plans and specifications and the approved shop drawings. Weather Shield's acceptance will be based on the signed, approved shop drawings dated June 21, 2012 and order numbers 550779431 and 550779432, while referencing /acknowledging the plans and specifications.

(R4, tab 95 at 17-18; tr. 5/113-15)

48. Under date of July 19, 2012, Kallidus responded to the government's rejection of PCO #4 and #5, noting that its claim was for the difference in cost between a primed wood double-hung Weather Shield window that the Options section of the specifications stated was the base bid window and the cost of the series 610 window as ultimately specified by the government, together with the costs resulting from the delays associated with defining the government's requirements (R4, tab 95 at 19-21). The same day, Kallidus executed a purchase order totaling \$106,439.88 to Weather Shield for the windows (R4, tab 101 at 9). Weather Shield

¹² This calculation fails to include the five federal holidays that occur during this period. We find there were 74 workdays between October 24, 2011 and February 6, 2012, when the beginning and end dates are included. The Daily Construction Quality Control Reports establish the contracting officer's assertion was mistaken in more ways than the number of working days in the period as they indicate that Kallidus was working on the project during this period (R4, tab 325).

acknowledged the order and advised the order had been put into production the afternoon of the next day (*id.* at 10).

49. The government issued a cure notice to Kallidus under date of July 20, 2012, citing its failure to have ordered the windows. The government stated that Kallidus' failure to have timely ordered and install the windows had caused delays, which the government considered to be solely the fault of Kallidus (R4, tab 98). Kallidus responded to the cure notice two days later, advising the government the windows had been ordered and that the estimated delivery date was September 10, 2012. Kallidus' response included a timeline setting forth the efforts Kallidus had made to order the windows and the problems that had occurred. Kallidus attributed these problems to the government (R4, tab 101 at 3-4).

50. Under date of November 28, 2016, Kallidus submitted claims, in the amount of \$144,838 in additional costs for the windows themselves and \$95,070 for additional costs associated with the delays it had experienced (R4, tab 154 at 5)¹³. The contracting officer denied these claims under date of July 24, 2017 (R4, tab 155). Kallidus timely appealed the contracting officer's final decision (Bd. corr. dtd. October 23, 2017).

Windows Time Extension

51. The baseline schedule was prepared by Kallidus' project manager, Mr. Philip Joy and the project engineer, Mr. Jeff Chamberlain (tr. 1/175-76). After several rejections, the baseline schedule was accepted by the government in early February 2012 (ex. G-1; tr. 2/45-46). As originally contemplated by Kallidus and indicated on the baseline schedule, the procurement and installation of the windows was not on the critical path to the completion of the contract's work (tr. 1/150-51, 159; ex. G-1).¹⁴ The approved baseline schedule included 10 days, from October 25, 2011

¹³ Despite being styled as a request for equitable adjustment (REA), there is no issue regarding whether this is a claim. Kallidus cited the definition of a claim from FAR 2.101 (mistakenly as FAR 33.202) in the introduction, clearly demanded a sum certain and certified its demand for payment (R4, tab 154). The contracting officer treated Kallidus' demands as a claim, referred to her decision as a contracting officer's final decision made pursuant to FAR 33.211, denied the claims entirely and included the appeal rights language mandated by FAR 33.211(a)(4)(v) (R4, tab 155).

¹⁴ Critical Path Method (CPM) scheduling was concisely described by the Court of Claims in *Haney v. United States*, 230 Ct. Cl. 148, 167-168, 676 F. 2d. 584 (1982). The "critical path" is the items of work in a schedule that must be performed in accordance with the schedule otherwise the entire project will be

to November 7, 2011, for preparing the window submittal and 31 days from January 2, 2012, to February 13, 2012, for their installation. The original project completion date was August 13, 2012 (ex. G-1).

52. Kallidus retained Mr. Eric Lowther to perform a time impact analysis in May of 2012, relating to the delays that had been experienced and were projected to be experienced with respect to the windows (tr. 2 at 27-29, 31; R4, tab 199 at 3-7). Mr. Lowther was offered and accepted by the Board as an expert in scheduling and delay analysis. The government posed no objection (tr. 2/21-31).

53. A time impact analysis (TIA) is performed to determine the impact that unanticipated events may have on the performance of the work. The starting point of the analysis is the latest approved schedule. The unanticipated events are sequenced and then tied into the existing schedule so that the impact of the unanticipated events can be understood. It is important to use the correct logic and durations and to correctly tie the new activities into the existing activities so that the schedule accurately models what would happen (tr. 2/19-21, 25, 32-37). To ensure the reliability of the model, the scheduler performing the analysis studies the existing schedule's network, reviews the logic to make sure there are adequate predecessor and successor activities and that their durations are appropriate (*id.* at 21-22). At the time Mr. Lowther was engaged by Kallidus there was only one approved schedule for the project, the baseline schedule, which is the schedule he used to perform his analysis (*id.* at 32-33). He began by reviewing the schedule to determine whether it was appropriate to use for the analysis, which he determined it was after making some minor adjustments. These adjustments did not change the critical path or the projected completion date. He then prepared the fragmented activities that would represent the change event, the delays to the windows, into the schedule (*id.* at 33-34). His time impact analysis, submitted June 7, 2012, showed 105 days of anticipated delay (*id.* at 33-34; R4, tab 199). The record includes evidence of the adjustments Mr. Lowther made to the approved baseline schedule. He adjusted the activities by providing more detail of what was included in the activity without changing the overall duration as well as tying predecessor activities into successors where he thought it was necessary and appropriate to do so. His analysis was performed before the window issue was fully resolved so he had to assume resolution of the window issue by a certain date to arrive at the conclusion he did that the project's completion could be anticipated to be delayed by 105 days. Prolongation of the resolution of the window issue beyond his assumed resolution date could increase the anticipated delay. His analysis was prospective, not retrospective (ex. A-2; tr. 2/34-39, 47-48).

delayed. See also *Construction Delay Claims, 2nd Ed.*, Barry B. Bramble and Michael T. Callahan, Wiley Law Publications §11.2 (1992).

54. Mr. Lowther's TIA, made before the windows were approved and ordered, presumed the windows would be delivered by August 8, 2012, and the installation of the windows would be completed by September 24, 2012 (ex. A-3, Activities 10 and 79; tr. 2/40-42; R4, tab 199 at 3-4). These projections proved to be fairly accurate (*See* SOF ¶ 56). The analysis did not include a revised completion date, only a total impact of 105 calendar days.

55. The government offered no scheduling expert or schedule analysis to counter the evidence presented by Mr. Lowther. The government acknowledged that delays occurred due to the windows, but placed the blame for the delay on Kallidus (*See* SOF ¶ 46). Despite the testimony and other evidence in the record potentially supporting a delay of 105 days, Kallidus is seeking only to recover costs stemming from 90 days of delay (R4, tab 199 at 20). We find Kallidus is seeking a 90 day time extension.

56. The windows began to be delivered in early August 2012 (tr. 3/43). The daily records indicate windows were delivered as late as August 23, 2012 (R4, tab 325, Day 201 at 3). Installation began immediately thereafter. Photographs show the windows being installed on August 24, 2012 (R4, tab 330). The last record mentioning window installation indicates the installation at Unit 500 was completed September 13, 2012 (R4, tab 325, day 215). We find Kallidus completed the installation of the windows for the project on September 13, 2012.

Cable Tray Claim

57. Division 16, entitled "Electrical" included specifications relating to the cable tray. Section 16139, entitled "Flextray Wire Basket Support Systems" pertained to the installation of the cable tray. The specification included the following provisions:

1.3 Drawings

A. The drawings, which constitute a part of these specifications, indicate the general route of the wire basket support systems. Data presented on these drawings is as accurate as preliminary surveys and planning can determine until final equipment selection is made. Accuracy is not guaranteed and field verification of all dimensions, routing, etc., is required.

A. Specifications and drawings are for assistance and guidance, but exact routing, locations, distances and levels will be governed by actual field conditions. Contractor is

directed to make field surveys as part of his work prior to submitting system layout drawings.

(R4, tab 4 at 5, 651)

58. A cable tray is an open basket in which wires are laid. A raceway is a rigid steel or plastic covering that is attached to a wall or ceiling, which conceals wires (tr. 4/130). Specification Section 16741 contemplates that electrical and other wiring above drop ceilings may be hung using systems other than cable trays (R4, tab 4 at 723; tr. 1/58).

59. Additionally, Section 01230 of the specifications entitled "Options," Part 3.1.K. Option No. 8, indicates the base bid provides for raceway systems as described in the contract drawings, including cable trays (R4, tab 3 at 16, tab 4 at 767; tr. 1/52).

60. The electrical drawings do not show any cable trays (R4, tab 3, at 46-53; tr. 1/52, 4/129). However, Drawings E.1, E.2 and E.3 include notes referring to a cable tray, *see* Electrical Coded Notes 2-4, 16 (R4, tab 3 at 46-48, tab 340 at 4; tr. 4/130-31). The cable tray, per these notes, is indicated on Drawings E. 2 and E.3 in several locations on the first floor of all 5 of the units comprising Building 102 (R4, tab 3 at 47-48, tab 340 at 5-6).

61. Cable trays are depicted on two of the mechanical drawings by a cross-hatched symbol. Although not identified as such in a legend of symbols on the drawings, the symbol used is a standard symbol used to denote a cable tray in the construction industry. Drawing H.1 shows a cable tray on the first floor in Units 100 and 200. Drawing H.3 shows a cable tray on the first floor of Units 400 and 500 (R4, tab 3 at 37, tab 39, tab 340 at 2-3, tab 350; tr. 3/53, 4/127-29, 136-37, 5/13, 15, 54-55).

62. Under date of May 25, 2012, Kallidus submitted RFI No. 54. Kallidus noted that the electrical drawings did not depict cable trays and asked the government to advise where and the quantity of cable trays were to be installed, if the government's intent was to require cable trays (R4, tab 84; tr. 1/53, 55). In response the government advised Kallidus to install the cable tray as depicted on Drawing H.1 and to duplicate that layout for Units 400 and 500 (R4, tab 84; tr. 1/55-56).

63. Under date of June 22, 2012, Kallidus' electrical subcontractor requested \$8,678 for installing cable trays in Units 100, 200, 400 and 500 in accordance with the government's response to RFI #54 (R4, tab 87 at 5). Kallidus added its costs and profit to its subcontractor's request and submitted PCO #6, totaling \$10,370.00 for furnishing and installing the cable tray as instructed by the government's response to RFI #54 (R4, tab 87 at 1-4; tr. 1/59).

64. By email dated July 26, 2012, the government forwarded its response to PCO #6, rejecting Kallidus' request (R4, tab 102 at 3-4, tab 103; tr. 1/59).

PCO #16 Excavation (Plumbing)

65. Drawing S.1 depicts areas to be saw cut in Unit 400 to enable the installation of new plumbing lines under a pre-existing concrete slab. Within the area to be saw cut there are lines depicting plumbing lines. The lines are not identified as being sanitary or supply lines. The drawing includes a note that states with respect to Unit 400, the work is to be coordinated with the plumbing contractor and to refer to the plumbing drawings for work that may not be shown on Drawing S.1 (R4, tab 161; tr. 1/64). Drawing P.1U entitled "First Floor Underslab Plumbing Plan" only depicts Units 100, 200 and 300. Nothing is depicted for Units 400 and 500 (R4, tab 3 at 30). Unit 400 is a single story unit (*id.* at 10). Drawing P.3 includes additional information regarding both supply and sanitary lines in Unit 400. Most significantly, it includes three notes indicating waste plumbing lines extending down through the slab. Drawing P.5 includes an isometric layout of both types of lines in Unit 400. Drawing P.6 includes legends for the various types of plumbing equipment and lines depicted on P.3 and P.5 (R4, tab 3 at 33, 35-36, tab 341 at 3, 5-6; tr. 3/56-59).

66. Kallidus submitted RFI #13 in December 2011, because, in its view, drawing P.1U was the only drawing that showed new underground plumbing and it included no information regarding Unit 400 (tr. 1/60-62; R4, tab 21, tab 160).

67. The government responded to RFI #13 with sketch SK-3, which showed a different layout for saw cutting the existing slab in Unit 400 and provided details for the plumbing to be installed (R4, tab 21 at 2; tr. 1/62). The COR, Lt. Col. Carney, testified the saw cutting layout depicted in the sketch could be viewed as a change, but opined that although more concrete was required to be removed it should have been less labor intensive¹⁵ (tr. 3/58-60, 4/23-26; R4, tab 341 at 7). Mr. Hunsicker's analysis states the saw cutting was increased by 15% and that slab removal and trench excavation increased approximately 13% (R4, tab 274 at 36; tr. 2/167). The plumbing layout in the sketch was consistent with the isometric layout depicted for Unit 400 in the plumbing and other drawings (tr. 2/168).

68. In early January 2012, Kallidus sought confirmation via RFI #21 that the saw cutting of the slab was to be in accordance with SK-3 rather than what was shown on contract drawing S.1. The government confirmed the cutting was to be done in accordance with SK-3 (R4, tab 28; tr. 4/31-33).

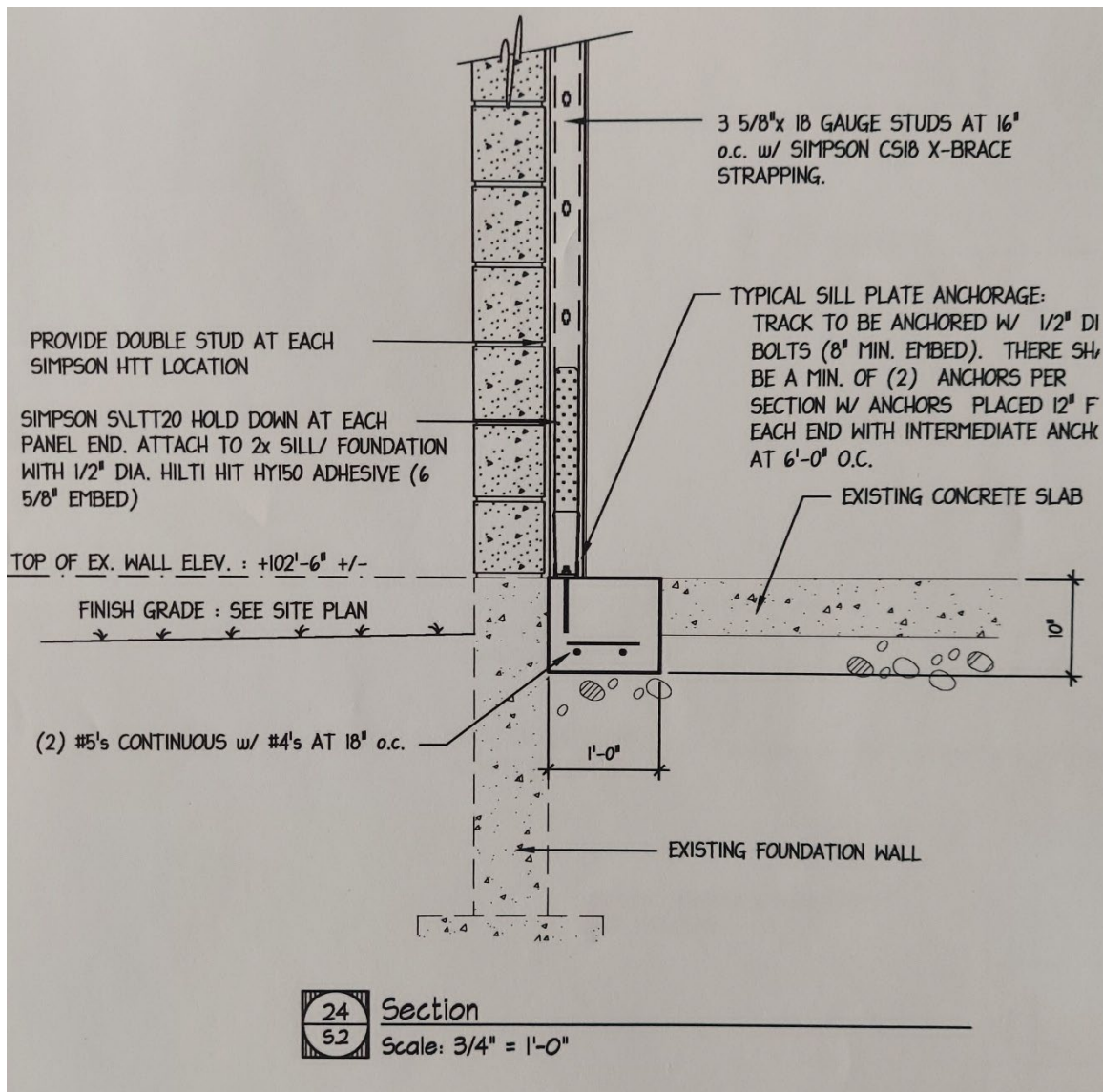
¹⁵ In its brief the government states it does not dispute that additional saw cutting was required, but argues the cost of the overall performance of the work was less due to simplified cutting (gov't br. at 89).

69. Kallidus submitted a change order request (PCO #1) for the plumbing work shown on SK-3 in mid-January 2012, in the amount of \$8,130.01 (R4, tab 34 at 3-10). Kallidus relied on its subcontractor's assertion that SK-3 included additional plumbing work. It had not prepared any quantity take-offs itself, nor did the subcontractor submit an analysis showing how SK-3 may have changed materials quantities or the piping layout from that included in the subcontractor's bid price provided to Kallidus (tr. 1/140-44, 4/21-22). The government rejected the request. The basis for the rejection was that SK-3 had been issued as a clarification with no intent to change the scope of work, cost or time involved in performing the work. The government asserted that the saw cutting was shown on Drawing S.1 and the plumbing was depicted on Drawings P.3, P.4 and P.5 (R4, tab 34 at 1-2).

70. After the work had been completed, Kallidus bundled the costs claimed in PCO #1 with costs sought by its excavation contractor, Ken Bousquet, for four change orders into PCO #16. Two of the change orders included excavation or saw cutting for plumbing work in Units 200 and 400 (R4, tab 252 at 31-33). PCO #16 totaled \$38,708 (*id.* at 31). The contracting officer rejected this sub claim item entirely. The basis for the denial was that the underslab plumbing for Unit 400 was shown in the contract drawings. The final decision does not indicate whether the contracting officer considered the possibility that additional saw cutting was involved (R4, tab 155 at 36-37, 53-54).

Additional Concrete Removal

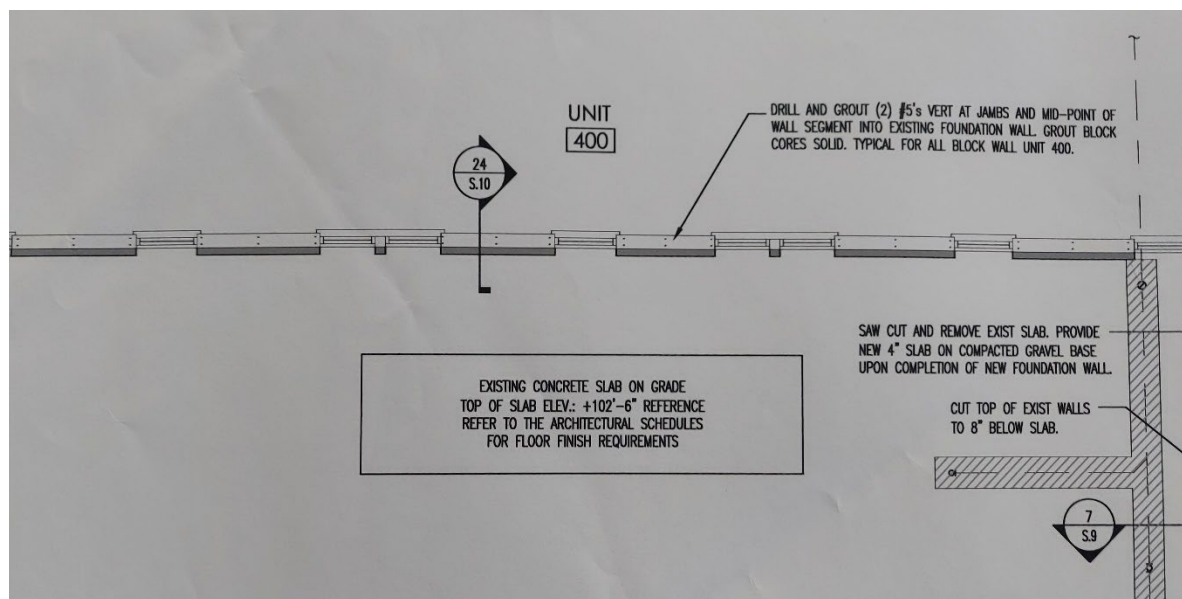
71. The contract drawings include S.1, depicting the foundation plans for Units 100, 200, 400 and 500. The drawing includes a detail which references Section 24, applicable to Units 400 and 200. Section 24, in turn, is detailed on drawing S.10 (R4, tab 3 at 18, 27; tr. 1/65-66). The section, as shown below, requires saw cutting and removal of one foot of the existing slab in Units 200 and 400 adjacent to the exterior walls and the installation of two #5 reinforcing bars "continuous" parallel to the wall with #4 reinforcing bars at right angles to the #5 bars at 18 inches O.C. in a new ten inch deep footing. The installation of 18-gauge metal studs attached to a sill plate anchored to the new footing, with a minimum of two anchors per section, anchors placed at 12" from each end with intermediate anchors six feet on center was required:



(R4, tab 3 at 27 [sic]¹⁶)

¹⁶ The section detail appears to have been cut and pasted from elsewhere, when the drawing was created and in that process the right-hand margin of the text was slightly cut off.

Both Units 400 and 200 have exterior walls constructed of concrete masonry blocks (CMU) with windows interspersed along the walls as shown for Unit 400 from drawing S.1 below:



(R4, tab 3 at 18) In this drawing the wall appears as the part of the structure where the Section 24 detail symbol is placed. The white rectangle depicts the CMU. The thinner darker rectangle on the inside surface of the wall corresponds to the studs and sill plate Kallidus was to install. The wall segments are interrupted by the windows, which have walls with studs below and above them, but which are not depicted on the drawing. The dimensions set forth in the Section 24 detail, *i.e.* anchors on six-foot centers, require that sill plate anchors be installed below at least some of the windows (tr. 4/42-43, 104-09). Without the footing being continuous below the windows, not all of the sill plate anchors would be embedded into a reinforced footing as required by the Section 24 detail (tr. 3/65, 5/87-90).

72. Kallidus understood that the slab cutting and rebar placement was to occur only in the parts of the wall without windows (tr. 1/66; R4, tab 22). Kallidus submitted RFI #16 to confirm its understanding but was advised by the government the reinforced footing was to be continuous for the entire length of the wall, including the sections with windows and thus the slab cutting was to be continuous as well (R4, tab 22). The government's response did not end the parties' discussion. At a meeting in mid-December 2011, the government agreed to provide additional information because Kallidus continued to question what was required on the drawings (R4, tab 182; tr. 1/67-68).

73. Under date of December 29, 2011, the government revised its response to RFI #16. Referring to drawings A.1, A.2 and A.7, the government reiterated that the drawings indicated the exterior walls in Units 200 and 400 required studs and drywall for the entire length of the walls, including the sections with windows and that the reinforcing bar in the new footing Kallidus was to install was continuous for the entire length of the wall. Implicit in these statements was the requirement that the existing concrete slab needed to be cut for the entire length of the wall (R4, tab 3 at 6, 7, 12 tab 25 at 2; tr. 1/68-69). In the interim between the meeting in mid-December and the government's revised response to RFI #16, Kallidus had started and finished cutting the slab in Unit 200 (R4, tab 325 at day 30).

74. Kallidus revised and resubmitted RFI #16, again seeking to obtain the government's agreement that the footing did not continue below the windows. The government instead confirmed that the footing did continue below the windows (R4, tab 30 at 2; tr. 1/69-70).

75. Kallidus' issued a change order to its subcontractor, Pask, LLC (Pask) in the amount of \$12,400 for slab cutting in Units 200 and 400 (app. supp. R4, tab 252 at 45). Pask then submitted a proposal in the amount of \$12,249.14 (*id.* at 44). Kallidus incorporated Pask's proposal into PCO #2. Along with additional costs and markup for profit, Kallidus sought \$19,418.21 in total (R4, tab 36 at 4; tr. 1/70). The COR recommended Kallidus' request be denied (R4, tab 43 at 1; tr. 4/39-41).

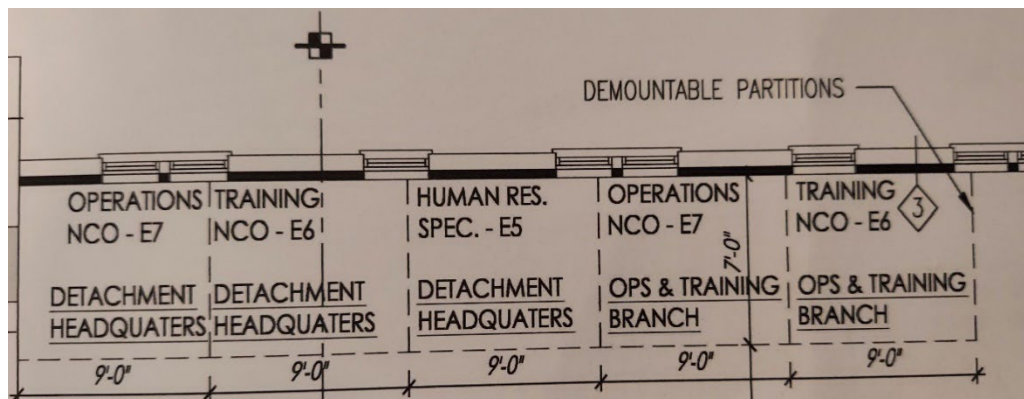
76. Kallidus submitted PCO #2 as a claim, styled as a REA without revision (R4, tab 154 at 5-6). The contracting officer denied the claim (R4, tab 155 at 53, 56).

77. The record includes no evidence establishing that Kallidus relied on its interpretation of the drawings regarding the construction of the footings when preparing its bid. Nor is there any evidence regarding the level of effort and the cost associated therewith for the slab cutting included in the contract price by Kallidus and its subcontractor for Units 200 and 400.

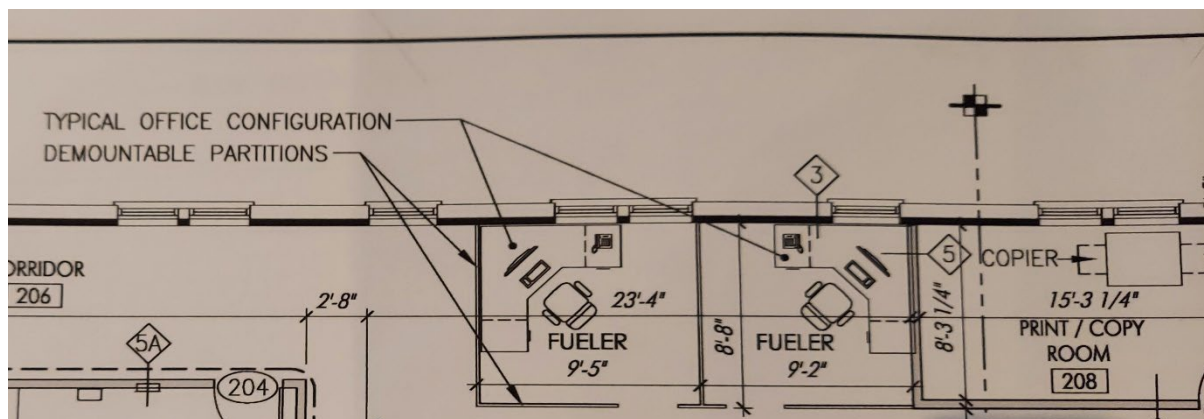
Demountable Partitions

78. The contract incorporated by reference FAR clause 52.236-21, Specifications and Drawings for Construction (FEB 1997) by reference, which stated in pertinent part: "Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both." and "[I]n case of difference between drawings and specifications, the specifications shall govern" (R4, tab 1 at 10). The contract specifications included section 10620, "Demountable Unitized-Panel Partitions." The products to be provided by the contractor included Tackable Acoustic Panels, Technology Panels, Panel Connectors, Electrical and Data cabling running

through the panels, Worksurfaces, Overhead Storage Shelves and Pedestals (R4, tab 4 at 449-51; tr. 3/68-70). The drawings also included information relating to the partitions. Drawing A.2 indicated open offices with demountable partitions in Units 200, 400 and 500 with dashed lines as shown below:



The drawing included a typical layout for an open office, showing the partition and work surface, but none of the other products listed in the specification to be provided, as shown below:



(R4, tab 3 at 7; tr. 1/71-73, 4/113; *see also* tab 211 (CO \$19K for additional worksurfaces, pedestals and OH storage)).

79. The typical office configuration shows the work surface abutting non-partition, solid walls, which Kallidus interpreted to mean the office furniture in the open offices was free standing, not part of the partition system, and to be supplied by the government (R4, tab 3 at 7; tr. 1/74).

80. Under date of March 12, 2012, Kallidus requested additional information regarding the demountable partitions, specifically a detailed layout showing “panel sizes, openings, etc.” In response the government transmitted four sketches, which

showed the layout with the openings in the partitions to provide access to the work area, but provided no further information (R4, tab 46; tr. 1/73).

81. Kallidus transmitted submittal #132 for the partitions in early November 2012. The submittal included general information from the manufacturer and several sketches showing a proposed layout of the panels only, nothing was shown with regard to the other products, such as pedestals and overhead storage, included in the Products section of specification 10620 (R4, tab 116; tr. 1/73). The government rejected the submittal on December 1, 2012, noting the submittal failed to show work surfaces, overhead storage, technology panels and pedestals amongst other reasons (R4, tab 118 at 3; tr. 1/73-74).

82. Kallidus had begun installing the partitions prior to receiving the government's response to the submittal and completed its installation on December 4, 2012 (tr. 1/74). That same day the government issued an NTC, directing Kallidus to provide technology panels capable of running electrical and data cabling within the panel, overhead storage and work surfaces and to remove the partitions previously installed (R4, tab 119 at 2-3).

83. Under date of December 10, 2012, Kallidus submitted RFI #90. Kallidus sought information to resolve conflicts between the partitions and the windows. (R4, tab 120) The next day Kallidus, responding to the government's NTC, advised it had provided partitions in accordance with the specifications (R4, tab 121 at 3-10).

84. The government subsequently directed Kallidus to install a "complete demountable panel system" per the specifications, not just the partition panels (R4, tab 128 at 3-5, 9). The government also directed Kallidus to shift the partitions to avoid the conflict with the windows (R4, tab 123). Meeting notes indicate that in early January 2013, Kallidus sought layout information from the government regarding the partition systems (R4, tab 124 at 5). In mid-January 2013, the government's architect issued sketches of typical partition layouts with the worksurfaces, pedestals and overhead cabinets listed in the Products section of the specification (R4, tab 128 at 6-8). The architect stated that it had prepared the sketches as a courtesy for Kallidus, which should have developed this information itself as part of its shop drawings (*id.* at 6). The COR shared this view (tr. 3/68-77, 4/54).

85. The record includes drawings from other federal government projects with demountable partitions that Kallidus has performed. These drawings include detailed layouts showing the partitions and the other components, such as pedestals, storage spaces, etc. (tr. 4/51-54, 103; R4, tabs 168-70).

86. Kallidus revised its submittal to include all of the equipment items listed in the Products section of the specification and resubmitted it under date of February 4, 2013. The government approved the revised submittal (R4, tab 210; tr. 1/75).

87. After receiving the government's approval, Kallidus solicited a proposal from Union Office Interiors (UOI) for the pedestals, storage and worksurfaces, etc. that had been missing from its initial partitions submittal, and UOI's proposal came back in the amount of \$19,738 (app. supp. R4, tab 318 at 3-17). On February 12, 2013, Kallidus issued a change order in the amount of \$19,738 for it to supply and install the worksurfaces, pedestals, storage and etc. (app. supp. R4, tab 252 at 53).

88. In August 2016, Kallidus submitted proposed change order #13 to the government in the amount of \$28,154 for this work. The proposed change order comprised the \$19,738 for UOI plus \$2,240 for Kallidus' site supervision, plus markups for Workman's Compensation, insurance, home office overhead, profit and bond costs (*id.* at 52). Kallidus included this \$28,154 in its initial claim (R4, tab 154 at 5, 7). The contracting officer denied the claim in its entirety (R4, tab 155 at 51; tr. 4/50).

89. Kallidus' expert, Mr. Hunsicker opined that the drawings did not sufficiently show what was ultimately required by the government and that the drawings should have provided more detail showing all the required components and where they were to be located (tr. 2/120-29, 5/118-20).

PCO #15, Paint Window Trim And Walls

90. The IDIQ contract includes by reference the Material and Workmanship (APR 1984), Permits and Responsibilities NOV 1991), and Warranty of Construction (APR 1984) clauses, FAR 52.236-5, FAR 52.236-7 and FAR 52.246-21 respectively (R4, tab 1 at 10-11). These clauses were incorporated into the task order by reference (*id.* at 15; tab 9 at 11). In pertinent part the Material and Workmanship clause states: "[a]ll work under this contract shall be performed in a skillful and workmanlike manner." (FAR 52.236-5(c)). In pertinent part the Permits and Responsibilities clause states: "[t]he Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any . . . work which may have been accepted under the contract." (FAR 52.236-7). In pertinent part the Warranty of Construction clause states: ". . . the Contractor warrants . . . that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier." and "[t]he Contractor shall remedy at the Contractor's expense any failure to conform, or any defect." (FAR 52.246-21 (a) and (c)).

91. The specifications included a requirement that temporary heat be provided during the months of November through March (R4, tab 4 at 60).

92. The specifications include several provisions relating to building temperature. Section 09250 of the specifications, Gypsum Board, requires that the temperature of the building materials and the surrounding air temperature be maintained at a minimum of 55 degrees Fahrenheit (F), prior to, during and after completion of the drywall work. Section 09510, Suspended Acoustical Ceilings, requires that the temperature be maintained at a minimum of 60 degrees F prior to, during and after installation of the acoustical ceiling work. Neither provision includes any criteria regarding maximum temperatures. The painting specification, section 09900, requires that paint be stored at a temperature of at least 45 degrees F and no more than 90 degrees F and that the surface and ambient temperature of the building be above 45 degrees F for 24 hours before, during and 48 hours after application of the paint unless otherwise specified by the manufacturer (R4, tab 4 at 360, 376, 420; tr. 3/85-86). The specification includes no maximum temperature with regard to painting beyond its storage.

93. In late October 2012, Kallidus had started the interior painting work. Temporary heating was not being used and the government issued a NTC, directing Kallidus to comply with the temperature requirements of sections 09250, 09510 and 09900 of the specifications (R4, tab 257; tr. 1/77).

94. The government withdrew the NTC after Kallidus advised it had been delayed in initiating the use of temporary heat by an electrical problem that had prevented the building from being energized. Kallidus also advised the building was energized as of October 31, 2012, and that the temporary heat system was in operation (R4, tabs 201-02). The heating of the building remained an issue and the government issued a Cure Notice in January 2013 (R4, tab 126).

95. Kallidus responded that it had been in compliance with the building temperature requirements since October 27, 2012 (R4, tab 129). Kallidus contends the government was misinterpreting the specifications by requiring the surface temperatures of the building's interior surfaces to meet temperatures specified for the interior ambient, or air temperature, which required Kallidus to raise the air temperature significantly (tr. 1/79-83).

96. The parties agree that the interior temperatures were increased; as much as into the 90s, which was hot enough to cause cracking and peeling, which Kallidus was required to repair (tr. 1/83, 144-47; R4, tab 155 at 52; gov't br. at 52).

97. Kallidus issued a modification to Ralls Painting, Inc. in the amount of \$12,214 for the repairs and repainting necessary to repair the damage caused by the

heat (tr. 1/83; R4, tab 213). This amount formed the basis for PCO #15, Kallidus' change order request for the alleged additional painting work in the total amount of \$20,102 (app. supp. R4, tab 252 at 67; tr. 1/83).

98. Kallidus included PCO #15 in its initial claim (*see* SOF ¶ 10).

Parapet Wall And Unreleased Retainage

99. The existing roof conditions at Unit 300 at the time of contract award were severely degraded with the roof membrane compromised and the underlying concrete decking in need of rehabilitation in several locations (R4, tabs 3 at 22, 24, tab 345; app. supp. R4, tabs 278-283, 286, 288, 290, 345; tr. 1/95-98, 124, 3/101-02, 5/63-66). The decking had absorbed water over an extended period of time due to these issues at the time the contract was awarded (tr. 1/88-89, 2/181-87, 3/99-102, 4/82-83, 113-17, 5/70-71). The existing conditions included the formation of stalactites (calcification) from water dripping long term through the decking (app. supp. R4, tabs 277-78; R4, tab 336 at 9, 25-27, 277; tr. 1/97-98, 3/100-01). One of the purposes of the project was to make the building weather tight and inhabitable again (tr. 3/11).

100. The roof deck at Unit 300 has a parapet wall constructed of single course concrete masonry unit blocks (CMU), which were to be removed in their entirety and replaced with a new single course CMU parapet wall (R4, tab 3 at 5, 9 (Details A and B), tab 4 at 10-12; tab 8, tabs 10-12; app. supp. R4, tabs 280-83, 286, 290; tr. 3/96-97). The decking at the edge of the parapet wall was severely deteriorated in several places and exposed to the elements (app. supp. R4, tabs 284-290; tr. 1/97-98).

101. The removal of the parapet wall began November 18, 2011, and was completed November 29, 2011 (R4, tab 325 at day 9, day 14 336 at 1-29).

102. Removal of the existing roofing at Unit 300 began in early April 2012 (R4, tab 325 at day 100). By late April 2012, the concrete restoration work was ready to be undertaken (R4, tab 325 at day 116, day 119). The concrete restoration work continued into May 2012 (R4, tab 325 at days 120-21, 125, 128, 130, 132, 134-37). Reconstruction of the parapet wall began May 24, 2012 (R4, tab 325 at day 138). The parapet wall re-construction work continued through mid-August 2012, when the wall caps were installed (R4, tab 325 at days 139-41, 143, 182-86, 193, 195-98).

103. The contract includes the Material and Workmanship, Permits and Responsibilities, and Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements clauses, FAR 52.236-5, 52.236-7 and 52.236-9, respectively by reference (R4, tab 1 at 10). The Material and Workmanship clause requires that all work under the contract be performed in a skillful and workmanlike manner (FAR 52.236-5). The Permits and Responsibilities clause makes the contractor

responsible for all damage to property that occurs as a result of the contractor's fault or negligence (FAR 52.236-7). The last clause requires the contractor to protect existing improvements and to repair any damage caused by either the contractor's failure to comply with the requirements of the contract or by the contractor's failure to exercise reasonable care while performing the work (FAR 52.236-9).

104. Section 04200-Unit Masonry of the specifications included weep holes in the Products section. The provision stated:

- A. Weepholes: Provide 3/8"w x 2 1/2"h x 3 3/8" l. Cell Vent weeps of honeycomb, polypropylene construction.

(R4, tab 4 at 225).

Sub-paragraph 3.9 of Section 04200, entitled, Flashing of Masonry Work, is the only portion of the specifications that indicated where the weep holes were to be installed. It states:

- C. Provide weep holes in the head joints of the first course of masonry immediately above concealed flashings.

- 1. Provide weep holes in base exterior block work spaced 24" on centers by omitting mortar vertical block joints and installing plastic weep slot.

(*id.* at 231). Kallidus did not install weep holes in the parapet wall because they were inapt and weren't required by the contract, in any event. Mr. Hunsicker testified weep holes are not suited for single course CMU construction, they are intended to be installed in cavity walls to permit moisture, that gathers in the cavity, to weep out to the exterior. Also the weepholes specified were sized for use with bricks, which are smaller than the CMU that the parapet wall was constructed of and there were no concealed flashings involved in the parapet wall construction (tr. 2/139-53). During his testimony, the COR acknowledged there was no concealed flashing in the parapet wall (tr. 4/92-93).

105. The specification relating to the roof membrane included several provisions relating to the roof's wetness during installation. Section 1.12 "Job Conditions" states in pertinent part:

- A. SPM materials may be installed under adverse weather conditions (temperature, moisture, humidity), but

consultation with the manufacturers shall be required as [sic] manufacturers precautions followed.

B. All work shall be scheduled and executed without exposing the interior building areas to the effects of inclement weather. The existing building and its contents shall be protected against all risks, and any damages shall be repaired or replaced. All exterior building and ground areas shall be protected from damage.

C. Remove all existing moisture from concrete roof deck prior to installation of materials.

(R4, tab 4 at 289).

Part 3 “Installation,” 3.2 “General” included the following pertinent provisions:

D. The substrate shall be clean, smooth, dry, free from flaws, sharp edges, loose and foreign material, oil and grease. Roofing shall not start until all defects have been corrected.

. . . .

F. All roof surfaces shall be free from water, ice, or snow.

(*id.* at 295). Section 3.3 “Re-Roofing Preparation” stated in pertinent part:

B. All roof surfaces to be covered with new roofing shall be level in plane, smooth without ridges or depressions, dry and free from dirt, debris, adhesives, and foreign materials before installation of new roofing materials begins.

(*id.* at 296). Section 3.5 “Job Conditions” stated in pertinent part:

B. All surfaces to receive new insulation, membrane or flashings shall be thoroughly dry. Should excessive surface moisture occur, the contractor shall provide the necessary equipment to dry the surface prior to application.

(*id.*). Section 3.11 “Installation of Fully-Adhered SPM Membrane” stated in part:

A. The surface of the insulation or substrate shall be inspected prior to installation of the roof membrane. The substrate shall be clean, dry, and smooth with no excessive surface roughness, contaminated surfaces, or unsound surfaces such as broken or delaminated insulation boards.

(*Id.* at 298) The contract included no requirement that the slabs be tested for water absorption (tr. 4/114-15). We find that the contract only concerned itself with moisture on surfaces and that there was no express requirement beyond that. Concrete is sponge-like and can absorb water (tr. 4/115-16).

106. During construction, Kallidus deployed tarps to keep water from the existing structure and the construction materials (R4, tab 336 at 96, 98-106, 109, 113-14, 116, 123). Despite these efforts, water entered the building and wetted the structure and the construction materials on occasion (R4, tab 336 at 58, 93, 98, tab 337; tr. 3/112-13). No evidence was introduced to indicate that Kallidus' efforts to keep the water out were not reasonable or contrary to industry standards. The only evidence received directly relating to this point was that it would be unreasonable to expect Kallidus to keep all water from getting onto the concrete roof deck substrate (tr. 2/183-84, 196-97). Nor was any evidence introduced that established that Kallidus ever installed the roofing membrane in violation of the specifications or the manufacturer's recommendations regarding installation of its product. Mr. Hunsicker testified it would be unrealistic and unreasonable to expect a contractor to keep an exterior roof completely dry throughout demolition and construction (tr. 5/126-29). Mr. Blair testified Kallidus was required to protect the entire worksite throughout the duration of contract performance (tr. 5/24).

107. After the concrete repair and rehabilitation work and the rebuilding of the parapet wall, the exterior walls of Unit 300 were to be coated with a high performance elastomeric coating (R4, tab 4 at 220, 227, 232-33). In early April 2012 Kallidus proposed an elastomeric coating system and received the government's approval (R4, tab 136 at 3-16).

108. The coating work at Unit 300 began in late June 2012 (R4, tab 325 at day 162). Kallidus coated the building prior to installing the parapet wall caps, and in the absence of those caps or tarps water could enter the parapet wall whenever it rained (R4, tab 152 at 5, tab 336 at 58, 66, 89, 93, 98, 117-20, 124, 146, 152-55, 157, 159, 162, 165-70, 172; tr. 4/107-14). However, no evidence was received into the record establishing that it rained after Kallidus began the coating work and before the parapet wall caps had been installed.

109. Under date of April 9, 2013, the COR advised Kallidus that substantial completion had been achieved (R4, tab 135; tr. 1/85-86). The next day the

government issued an NTC regarding the parapet wall. The government advised the coating product was failing in several locations, the parapet wall was leaking and gave Kallidus three days to respond with a plan for correcting the noted deficiencies (R4, tab 136 at 1-2). Consequences of the parapet wall leaking includes water filling the wall and the surrounding areas causing blistering in the elastomeric coating and the formation of stalactites on the underside of the concrete planking of the observation deck (tr. 4/74).

110. Kallidus brought the manufacturer of the coating product, Sarnafil, to the site on April 12, 2013, to discuss how to resolve the issues the government had noted (tr. 1/86). The manufacturer recommended that where the product had peeled or blistered, it be removed with a wire brush, any voids be filled with another product and the coating be reapplied (R4, tab 214 at 2). With respect to the peeling at the mortar joint between the CMU and the parapet wall cap, the manufacturer's representative opined that moisture in the decking could have been the cause (*id.*).

111. Kallidus implemented the recommendations and the COR recommended that the government accept the building on April 19, 2013 (R4, tab 137; tr. 1/86). The acceptance memorandum noted that all interior and exterior punchlist items had been completed except for four listed items and that six items contractually required, remained to be performed or provided. The acceptance memorandum includes no reference to the parapet wall or the elastomeric coating (*id.*).

112. On May 2, 2013, the government advised Kallidus via email that the parapet wall was still leaking and directed Kallidus to provide a plan of action (R4, tab 139; tr. 1/86-87).

113. Upon receipt of photographs taken by the government on May 2, 2013, Kallidus' opinion was that there was no leaking, but that there were minor blemishes and stains to the elastomeric coating finish caused by condensation and airborne debris (R4, tab 215; tr. 1/87-88, 90-91).

114. The government took possession of the building on May 10, 2013, subject to 14 listed exceptions. One of the listed exceptions was for parapet wall leaks at the East and West elevations (R4, tab 142; tr. 1/91).

115. In late June and early July 2013, the government took photographs of blistering in the elastomeric coating in areas below the deck of Unit 300 (R4, tab 336, at 1, 269-272).

116. By email dated September 6, 2013, Kallidus submitted Payment Application No. 14 (R4, tab 224 at 5). The government rejected it the same day. Seven reasons for the rejection were provided, including leaking concrete planking

(decking) (R4, tab 216 at 3; tr. 1/91-92). Kallidus requested that the government provide a cost for each of the seven items listed in the rejection (R4, tab 216 at 3). In response, the government indicated it was withholding \$50,000 for parapet wall leaking. Altogether the government withheld \$350,000 from Kallidus for the seven items it had listed in its rejection (*id.* at 1).

117. Kallidus arranged for a representative from the coating manufacturer to visit the site to determine the source of the leaking problem and how to fix it (R4, tab 217 at 4; tr. 1/92).

118. After visiting the site on October 21, 2013, to inspect the problem, Kallidus and the coating manufacturer's representative did not believe the problem was attributable to a roof leak (R4, tabs 217-19 at 1; tr. 1/93). Nevertheless, the government refused to release the funds it was withholding for the leaking and in a further effort to obtain the amount being withheld by the government for the leaking, Kallidus had the coating manufacturer perform testing to establish the roof was watertight and not leaking (R4, tab 220 at 1, tab 221 at 1). The testing established the roof was not leaking. The manufacturer opined that the leaking might be attributable to latent moisture in the decking prior to placement of the roof (R4, tab 221 at 1; tr. 1/93, 3/130).

119. In April 2014, Kallidus again contacted the manufacturer to advise that water and calcification were still being observed on the underside of the roof decking and request that further investigation in the areas investigated in November 2013 be made. The manufacturer responded that the previous investigation had established the roof was watertight and that the problem was due to latent moisture in the concrete decking but agreed to assist (R4, tab 226).

120. Under date of May 2, 2014, Kallidus resubmitted Payment Application No. 14. The government again rejected it, in part due to the parapet wall leaks (R4, tab 225 at 2-3).

121. The manufacturer revisited the site in June 2014 as Kallidus had requested. No leak was detected (R4, tab 227 at 2; tr. 1/94-95). In September 2014, Kallidus submitted Payment Application No. 15 seeking payment of \$174,900¹⁷, which included the \$50,000 the government had withheld for the parapet wall leaking (R4, tab 227 at 1-2, 6-9, tab 240). The government asserted the building was still leaking in response, although it acknowledged that a source other than the roof could be causing the leak (R4, tab 228 at 2).

¹⁷ The payment request seeks \$174,900 at line I of the form. This appears to be an arithmetical error of \$100 in the government's favor based on the entries on lines G and H of the payment request form.

122. Kallidus submitted Payment Application No. 16 by email dated September 25, 2014. Kallidus reiterated that there was no evidence the parapet wall was leaking and protested the government's withholding of sums for the leaks. Kallidus sought the return of the \$50,000 the government was withholding for the parapet wall leaks (R4, tab 149, at 1, 6-10).

123. The government continued to assert the leaks or blisters were Kallidus' responsibility and refused to release the \$50,000 that was being retained for this issue (R4, tab 150 at 1-3). Kallidus proposed that a water infiltration consultant be retained to resolve the matter because it considered it had exhausted all other options (*id.* at 2). The government agreed to this proposal and directed Kallidus to propose three companies for the government to select from (*id.* at 1).

124. Kallidus contacted several water infiltration consultants and forwarded their information to the government for consideration (R4, tab 232).

125. Over the next approximately six months Kallidus sought to meet with the government to resolve the issue and get the withheld \$50,000 released without success (tr. 1/99; R4, tabs 233-36).

126. Kallidus's president, Mr. Patel, testified that the government agreed to pay for the consultant if it turned out that Kallidus' workmanship was not the cause of the problem (tr. 1/99; R4, tab 237 at 1). The government did not rebut this testimony.

127. The parties were finally able to meet to discuss the issue in July 2015, and Kallidus agreed to retain a water infiltration expert to explore and find the root cause of the continued blistering of the coating (tr. 1/99-00; R4, tab 237). Subsequently, Kallidus proposed retaining the services of Building Science Corporation (BSC) to perform the investigation and propose a fix. Kallidus reiterated that it was its understanding the government had agreed to pay for the costs of these services should it be established Kallidus' workmanship was not the cause. (R4, tab 238 at 1). The record includes no evidence that the government ever directly responded to Kallidus.

128. Kallidus continued to seek release of the \$50,000 and other sums being withheld by the government without success (tr. 1/100; R4, tabs 239-42). BSC was hired in September of 2015 and the government agreed to release all of the withheld sums except for \$50,000, which it said it would continue to hold until the parapet wall leaking problem was resolved to its satisfaction. BSC conducted its investigation in October 2015 (R4, tabs 151-52 at 2; app. supp. R4, tab 248 at 7). In its report BSC noted the blistering of the elastomeric coating was sporadic on the exterior faces of the building and did not correspond to a pattern or regularity with respect to locations such as corners, control joints, penetrations and scuppers (R4, tab 152 at 2). BSC also

noted calcification on and below the observation decks (*id.*) BSC noted the elastomeric coating was continuous without gaps or discontinuities for the most part, but noted three locations where gaps occurred, one of which the government noted had only recently developed (*id.*). In the Analysis section of its report, BSC stated that blistering of elastomeric coatings can occur due to the presence of water in the underlying structure. It noted water can be present from three different sources, exterior, such as rain and snow; interior, such as plumbing leaks and humidity; and built-in, such as moisture present during construction or the use of wet materials (*id.* at 4-7). BSC largely dismissed exterior moisture as being the cause of the blisters, noting it could not find any obvious sources of entry for rainwater. It similarly dismissed interior sources as being the cause of the problem. BSC attributed the problem to built-in moisture, noting the design of the parapet wall, by RAI was a higher risk design, which would lead to blistering over the long term. BSC opined the blistering early in the project was due to built-in moisture, noting that the coating of the parapet wall prior to the installation of the roof membrane and the parapet capstones provided an entry way for water into the CMU while limiting the potential for the CMU to drain water or dry out effectively (*id.* at 5-7). Cracks forming in the coating due to common building movements would permit water to enter the structure, which likely would be in quantities too great to dry through the coating (*id.* at 2, 7). BSC also found that the coating on the West face of the Southwest corner of Unit 300 was thicker than recommended by the manufacturer and that this likely impeded the diffusion of water through the coating leading to blistering (*id.* at 6). We find that the most likely cause of the blistering, or leaking was built-in moisture, primarily from the pre-existing deteriorated state of the roofing (*see* SOF ¶¶ 99-100, 106, 108, 118-19).

129. Upon receipt of the report, Kallidus shared it with the government and offered to clean and recoat the blistered areas. Kallidus requested that the government release the retained amount after it had done so and stated that due to BSC's opinion that future blistering was likely to occur because of the government's design, it would not assume any liability for future blistering (R4, tab 153 at 5).

130. Several months went by with Kallidus attempting to recover the withheld funds and to get the government to agree to its proposal. The parties met in May 2016, to discuss this matter. At the meeting it was agreed that Kallidus would strip the coating from the face of the parapet wall and recoat it. Upon mobilization the government would pay \$25,000 of the withheld \$50,000 with the release of the remainder upon completion of the work (*id.* at 1-4). Kallidus then sought approval of what had been agreed to and assurance from the government that it would pay \$25,000 upon mobilization with release of the remainder upon completion (R4, tab 265 at 1). The government indicated it would respond by early June 2016 (tr. 1/102; R4, tab 265 at 1). The government failed to respond as promised, which prompted Kallidus to request the contracting officer to take action (R4, tab 249 at 1-2). The government

promised to respond by the end of June 2016 (R4, tab 250). The record includes no evidence that the government ever responded.

131. PCO #17 in the total amount of \$29,427 was prepared November 11, 2016, to cover the parapet wall leak issue. The proposal includes \$12,185.53 in direct costs before markup for labor burden for the time of Kallidus' personnel between December 3, 2013, and May 19, 2016, Kallidus travel costs to the site in the amount of \$363 and \$6,762.40 for BSC as well as mark up for overhead and profit on these direct costs (app. supp. R4, tab 314). Kallidus subsequently included this amount in its initial claim dated November 28, 2016 (R4, tab 154 at 5).

132. The contract incorporated the Payments Under Fixed-Price Construction Contracts (FAR 52.232-5, SEP 2002), by reference (R4, tab 1 at 10). In pertinent part the clause states: [w]hen the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the government and shall release to the Contractor all the remaining withheld funds. (FAR 52.232-5(e)).

133. The amount withheld, \$50,000, was based on an unsupported, rough take off. No detailed estimate based on estimated labor hours, materials and equipment required to perform the repairs was prepared (tr. 4/118-19). The record includes no evidence of the extent of the blistering problem, *i.e.*, no list itemizing the number, size and location of the blisters or other similar evidence. The record also includes no evidence that Kallidus recoated the building after the parties' May 2016, meeting, or that the government has undertaken any repair efforts since then.

134. The contracting officer denied Kallidus claim relating to the parapet wall and the return of the retention. The decision states that Kallidus failed to install the parapet wall in accordance with the contract documents and specifically cites the weep hole provisions in the specifications. No further reason for the decision is provided (R4, tab 155 at 54-55). During the hearing the government offered no testimony or other evidence to support finding that weep holes were required in the parapet wall. The final decision did not set forth the government's reasoning for its decision to refuse to release the retainage, nor did it provide a basis for the amount withheld.

ASBCA No. 61976-Simpson Ties

135. Drawings S9, details 1, 3, 4 and S10, detail 28, show products manufactured by the Simpson Strong Tie Company to be provided. Simpson LCB 18 connectors are indicated in details 1 and 4, and details 3 and 28 show a Simpson MSAS mudsill (R4, tab 3 at 26-27; tr. 1/104).

136. After the contract had been awarded, Kallidus discovered Simpson no longer manufactured either the LCB 18 connector or MSAS mudsills and requested information from the government via RFIs #27 and 28. The government directed Kallidus to provide LCB 66 connectors and the MASA mudsill instead (R4, tab 251, at 13-14). The government's response to RFI #27 is dated March 1, 2012, and the response to RFI #28 is dated February 18, 2012 (*id.*).

137. At the hearing Kallidus' president testified the revised Simpson products resulted in additional purchase and installation costs for Kallidus (tr. 1/104-05). The government's engineer testified there should have been no additional installation costs (tr. 3/81-83).

138. Kallidus prepared PCO #14 in the amount of \$26,564 for the Simpson products (R4, tab 251 at 1-12). However, the claim was never submitted to the contracting officer for consideration prior to Kallidus' filing its Complaint in ASBCA No. 61377 (app. supp. R4, tab 313, attachment, tab 319 at 1). Two months before the hearing was scheduled to begin, the government filed a partial motion to dismiss the Simpson products claim, arguing the Board lacked jurisdiction to consider it because it had never been submitted to the contracting officer (Bd. corr. dtd. January 16, 2019; R4, tab 313, attachment). Kallidus, in a conference call to discuss the motion held on January 24, 2019, agreed it had not presented the claim to the government (Bd. corr. dtd. January 24, 2019 at 2). Subsequently, but prior to the hearing, Kallidus submitted the claim to the contracting officer, who denied it under date of February 15, 2019 (R4, tab 351). Amongst several reasons proffered in support of the denial, the contracting officer contended the claim was untimely because it had been submitted more than six years after the claim arose (*id.* at 4).

139. By letter dated February 21, 2019, Kallidus appealed the final decision and requested that the matter be consolidated with its previous appeal (Bd. corr. dtd. February 21, 2019). The appeal relating to the Simpson products claim was docketed as ASBCA No. 61976 (Bd. corr. dtd. February 22, 2019).

DECISION

In order to prevail on its claims, Kallidus must demonstrate entitlement by a preponderance of the evidence, which the Board defines as proof by a party establishing that its position is more probable than not. *See Lockheed Martin Aeronautics Co.*, ASBCA No. 62209, 24-1 BCA ¶ 38,590 at 187,608 citing *Ortiz v. Principi*, 274 F.3d 1361, 1365 (Fed. Cir. 2001); *Trade West Constr., Inc.*, ASBCA No. 61068, 22-1 BCA ¶ 38,214 at 185,596 (citing *Jack Heller, Inc.*, ASBCA Nos. 14300, 14376, 72-2 BCA ¶ 9,477 at 44,147). As described below, we decide Kallidus has met its burden with respect to some of its claims, but has failed to do so with respect to others.

Windows Appeal

Parties' Positions

Kallidus argues the windows specification was ambiguous, that the government changed the specification, that the government breached the implied warranty of the specification, that the specifications were defective and that the government breached the contract by not acting in good faith and failing to cooperate (app. br. at 85-94).

The government argues there was no problem with the specifications for the windows, that if there was an ambiguity it was patent, that Kallidus failed to include pricing for the windows in its bid price and that it is trying to recover from this failure by claiming the costs of the contract required windows as an additional cost (gov't. br. at 111-15).

Windows Appeal Upheld

There is no real dispute that the government revised the specification relating to the windows after the contract was awarded. The government attempts to avoid this reality, asserting that it was relaxing the specification in an effort to assist Kallidus (gov't br. at 20, 112-13).

The government admits it made changes to the specification in response to RFI #8 although it attempts to minimize this by characterizing the changes as being necessitated by an "oversight" on the part of its architect when revising the specification from the Anderson Woodwright window specified in the original solicitation to the Weather Shield window it intended to solicit for when the project was rebid (gov't br. at 18).

The government acknowledges that the Weather Shield window Kallidus offered with PCO #3 in early March 2012, "generally met the Specification requirements" (gov't br. at 19). Implicit in this assertion is acknowledgement that it did not fully satisfy the government's requirements. While some of the changes made subsequently may have been a relaxation, others were not. For example, the change in the glazing from Zo-e 5 to Zo-e 6, which was characterized as being a premium energy efficient glass, the change from the originally specified primed wood to a factory applied poly finish and the accompanying change from nailing to installation clips. With respect to other changes made such as the change to the air space size, evidence was not proffered as to whether this was a relaxation, or an upgrade. The government's argument can be summarized as being that it did not require anything other than what was specified initially. The inaccuracy of this argument is underscored by (1) the government's acknowledgement the contract did not include a specification for a Weather Shield primed wood window and (2) the manufacturer's,

Weather Shield, refusal to agree that the window finally provided met the specifications, even as revised through its discussions with the government's representatives. Kallidus recognized its risk and attempted to get the government to agree to accept the windows based on the approved shop drawings rather than the specification but capitulated and ordered the windows after the government issued its Cure Notice based on the features that the government's architect had negotiated directly with Weather Shield. We find the government's actions resulted in a constructive change to the contract. The elements of a constructive change are: (1) work performed beyond the contract requirements, and (2) the additional work was expressly or impliedly ordered by the government. *AMEC Environment & Infrastructure, Inc.*, ASBCA No. 58948, 15-1 BCA ¶ 35,924 at 175,593 citing *Bell/Heery v. United States*, 739 F.3d 1324, 1335 (Fed. Cir. 2013).

These elements are satisfied here. Work performed beyond contract requirements is discussed above in greater detail, but to reiterate several examples; factory poly finish and installation clips versus paint primed wood and nailing, Zo-e 6 energy efficient glass versus Zo-e 5. These and the other changes discussed above were caused by the government's representatives', principally its architect engineer, communications with Weather Shield and adopted by the contracting officer. The changes were expressly ordered by the contracting officer through the cure notice directing Kallidus to order the windows in accordance with the shop drawings, which incorporated the changes. (SOF ¶¶ 19, 21, 26, 28-29, 32-50).

We do not find it necessary to address Kallidus' argument that the architect and other government representatives' direct contacts with Kallidus' supplier and the manufacturer were improper interferences; it is enough that we recognize Kallidus' claim that changes were made to the specifications relating to the window after the contract was awarded, for which Kallidus is entitled to an equitable adjustment. There is no need to discuss Kallidus' other arguments either.

Detailed evidence relating to the costs associated with the changes made to the specifications was neither offered, nor received in this entitlement-only hearing. Kallidus did offer some evidence, in the form of a price quote from its supplier Devon in the amount of \$39,608.90 for Weather Shield 610 series base bid windows. While the government disputes that these windows satisfy the contract's requirements, it offered no evidence to support this contention. We make no findings regarding the cost effects of the changes made to the specifications.

The government's argument that the claim is merely an attempt by Kallidus to rectify its error in not including any cost for windows in its bid price other than as an option, is undercut by Kallidus' acknowledging that it made this error and including a credit for same in its window claim (gov't br. at 20). Kallidus may have at one time briefly asserted the contract did not require window work other than as an option, but

it quickly retracted this assertion. We view the government's argument as a red-herring and find it unpersuasive.

The problems with the specifications begs the question, should Kallidus have been aware of them at bid time? Kallidus argues the contract was "riddled with latent ambiguities" with respect to the windows (app. br. at 87-88). The government argues any ambiguities were patent (gov't br. at 98-101, 113-14). We note that it is difficult to prove patent ambiguity. "The doctrine of patent ambiguity is an exception to the general rule of *contra proferentem*, which courts use to construe ambiguities against the drafter." *Blue & Gold Fleet, L.P. v. United States*, 492 F.3d 1308, 1313 (Fed. Cir. 2007) (quoting *E.L. Hamm & Assocs. Inc. v. England*, 379 F.3d 1334, 1342 (Fed. Cir. 2004)). For that reason, the bar to proving patent ambiguity is high, and the inconsistency must be so "obvious, gross, [or] glaring, so that plaintiff contractor had a duty to inquire about it at the start." *NVT Techs., Inc. v. United States*, 370 F.3d 1153, 1162 (Fed. Cir. 2004) (internal quotation marks omitted, alteration in original); *LAI Servs., Inc. v. Gates*, 573 F.3d 1306, 1315-16, *reh. den.* (Fed. Cir. 2009). See also *Triax Pacific, Inc. v. West*, 130 F.3d 1469, 1474-1475 (Fed. Cir. 1997).

Here the issues with the specifications were not so apparent that Kallidus should have made inquiry before submitting its proposal. We find Kallidus' interpretation of the contract, *i.e.*, that the government was not really interested in a window other than the Andersen Woodwright window as an option, to be reasonable in the circumstances presented. This is based on the fact that the Andersen Woodwright vinyl clad window was the window specified in the original solicitation and drawings. When the government decided to cancel the original solicitation and descope the project in an effort to obtain proposals that were within the limits of the available funds when it resolicited the project, it did not change the specifications and drawings relating to the windows. Nor did the synopsis of the changes made to the specifications and drawings include any mention of the windows. It did change the Andersen window from being the base bid to an option and substituted the Weather Shield Series 610 window with a primed finish as the base bid window, but provided no specifications relating thereto. It was reasonable for Kallidus to interpret these actions to mean the government was primarily interested in the Andersen window and wanted as the base bid window, the Weather Shield window as provided by Weather Shield with factory glazing, no further options or features to be provided, should the government elect not to exercise the option. The circumstances here resemble the dynamic circumstances in *Dyson & Co.*, ASBCA No. 27276, 85-1 BCA ¶ 17,827, where we found the contractor's interpretation of changes the government made to drawings and specifications nine days before bids were due that certain work had been eliminated was reasonable. We find the short time period between the two solicitations, attributable to the government's efforts to descope the project, resolicit and award the contract before the end of the fiscal year led to the government's failure to revise the specification and the subsequent confusion that resulted therefrom (*see* tr. 5/95-96).

Mr. Blair, a government employee with no responsibility relating to the project during its performance, but offered and accepted as an expert, testified specification 08500 was intended to cover both the option window and the base bid window, *i.e.* the base bid window was to have the same salient characteristics as the option window. We find this testimony unpersuasive. This view is contradicted by other evidence indicating the inclusion of 08550 unrevised in the rebid solicitation was an oversight, *i.e.*, a mistake on the government's part. The government also acknowledged that there was no specification included in the rebid solicitation for the base bid window (SOF ¶¶ 37, 45). We share the view of Mr. Hunsicker that it makes little sense when rebidding a project to save money to then have a base bid window that matches the performance and other requirements of the original window specification that was initially bid and is now intended to be an option (tr. 5/105-06).

Both parties made mistakes with respects to the windows, undoubtedly due to the short period of time between the cancellation of the first solicitation and the re-bid. The government left the specification for the Andersen window it originally wanted in the rebid solicitation specifications and failed to insert a specification for the window based on the Weather Shield window it wanted to substitute as the base bid window. Kallidus failed initially to price the base bid window. The parties have dealt with these failures differently. Kallidus has acknowledged its failure and offered a credit to the government in its claim. The government has failed to accept responsibility for its error, argued the original specification is also applicable to the Weather Shield window, despite the different features and characteristics of the two windows and attempted to minimize or ignore entirely the effects its refusal to acknowledge its error had on Kallidus' ability to perform. For all of the above reasons we find Kallidus is entitled to recover for this claim.

Windows Time Extension

Position of the Parties

Kallidus argues its Time Impact Analysis (TIA) establishes that it is entitled to 105 days of delay (app. br. at 95). The government argues Kallidus is responsible for all of the delay. The government also argues the TIA is unreliable because it is prospective and includes data errors (gov't br. at 29).

Appeal Upheld

Kallidus has the burden of proof to establish it is entitled to a time extension for government caused delays and the costs associated therewith. *Hedgecock Electric Inc.*, ASBCA No. 56307, 12-2 BCA ¶ 35,086 at 172,314 citing *States Roofing Corp.*, ASBCA No. 54860 *et al*, 10-1 BCA ¶ 34,356; *Wilner v. United States*, 24 F.3d 1397,

1401 (Fed. Cir. 1994) (*en banc*). Here there is no real dispute that delay occurred due to the issues involving the windows. The government asserted delays occurred and even offered a no cost time extension. The only issues are which party is responsible for the delay and what is the extent of the delay.

To prevail on a claim for compensable delay, the claimant 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*, ASBCA No. 61989, 25-1 BCA ¶ 38,783 at 188,591 citing *Essex Electro Eng’rs., Inc. v. Danzig*, 224 F.3d 1283, 1295 (Fed. Cir. 2000). *See also Derian, Inc.*, ASBCA No. 62957, 23-1 BCA ¶ 38,425 at 186,756; *States Roofing Corp.*, ASBCA No. 54860, 10-1 BCA ¶ 34,356 at 169,661. The Critical Path Method (CPM) of schedule analysis is the preferred methodology for determining causes of delay, *Advanced Engineering & Planning Corp., Inc.*, ASBCA Nos. 53366, 54044, 05-1 BCA ¶ 32,806, at 162,323. A causal link exists when the claimant can demonstrate “that the government's actions affected activities on the critical path of the contractor's performance of the contract.” *Maverick Constructors*, 25-1 BCA ¶ 38,783; citing *Kinetic Builder's Inc. v. Peters*, 226 F.3d 1307, 1317 (Fed. Cir. 2000).

To establish the delay Kallidus retained Mr. Eric Lowther, a consultant offered and accepted by the Board as an expert in scheduling and delay analysis, to prepare a prospective Time Impact analysis. The analysis was prospective because it was prepared before the windows were ordered and installed. The government posed no objection to Mr. Lowther as an expert, nor did it offer any competing delay analysis of its own. We find the record as a whole mostly supports Mr. Lowther’s analysis, which establishes that delays we have found to be the fault of the government changed the project’s critical path, so that the windows, which were not originally on the critical path, became critical. The Lowther analysis predicted that the window delays would cause an overall delay to the completion of the project of 105 days (SOF ¶¶ 52-54).

The government argues the time impact analysis is unreliable because it includes inaccuracies and is prospective (gov’t br. at 29). We find these arguments unpersuasive. The government offered no evidence of these claimed inaccuracies and prospective time impact analyses are routinely used to establish delays during contract performance. Although not included in the specifications of this contract, the federal Unified Facilities Guide Specifications, used for specifying construction for the military services, include Section 01 32 01.00 10, Project Schedule, which in subsection 3.8.3 Time Impact Analysis (Prospective Analysis) thereof states in pertinent part:

Submit requests for time extensions based on a prospective analysis if the work involved or the impact identified has not already occurred. . . . Utilize a copy of the last

approved schedule prior to the first day of the impact or delay for the time impact analysis.

U.S. Army Corps of Engineers, *United Facilities Guide Specifications* (2025), <https://www.wbdg.org/dod/ufgs/ufgs-01-32-01-00-10>. Mr. Lowther's analysis was prepared before the work involved was completed and he used the last approved schedule. Additionally, despite the government's assertions that data inaccuracies existed at the time it was prepared, the government subsequently proposed a no cost time extension to October 15, 2012. While most of the dates Mr. Lowther estimated to prepare the fragnet used to perform the time impact analysis despite being prospective turned out to be remarkably accurate, we note that Kallidus was able to finish the window installation by September 13, 2012, rather than September 24, 2012, as forecasted by Mr. Lowther¹⁸. This has no effect on our ultimate conclusion that Kallidus is entitled to the 90-day time extension it is seeking. Even assuming the earlier than predicted finish results in a day for day reduction in the number of total days of delay attributable to the windows issue, *i.e.*, the maximum effect possible the earlier finish could have on the analysis, Kallidus' claimed time extension is 4 days less than the 94 days of delay Mr. Lowther's analysis adjusted to account for the earlier finish than predicted as discussed would support.

Cable Tray

Parties' Positions

Kallidus argues the drawings and specifications did not require cable tray, or inadequately did so and requiring it to provide cable tray constituted a constructive change to the contract amongst other arguments (app. br. at 95-97). The government argues the drawings and specifications do depict cable tray and that it required no more of Kallidus than what was depicted (gov't br. at 116-20).

¹⁸ A "fragnet" is "a sequence of new activities and/or activity revisions, logical relationships, and resource changes added to an existing schedule to demonstrate the influence of a new activity on the schedule." *Nassar Grp. Int'l N.G.I. S.A.L. (Offshore) R.C., Doing Bus. As NGI Afghanistan for Contracting*, ASBCA No. 58451 *et al.*, 22-1 BCA ¶ 38,206 at 185,552 n.15. See also *Hedgecock Electric, Inc., supra* at 172,305. Fragnets are a standard methodology accepted in the construction industry to analyze delay, *John T. Jones Construction Co.*, ASBCA Nos. 48303, 48593, 98-2 BCA ¶ 29,892, p. 147,972, par. 59.

Appeal Denied

Kallidus' claim is based on the following facts: That cable tray is not shown on the electrical drawings, which is where it is typically shown and while the HVAC drawings include a cross-hatched symbol the government contends denotes cable tray there is no legend anywhere in the drawings connecting the symbol with cable tray.

All of Kallidus' arguments fail because the contract, when viewed in its entirety, clearly requires installation of cable tray in the areas the record establishes cable tray was installed. It is axiomatic that contracts are to be read as a whole, and that effect is to be given to all of the contract's provisions with the goal of rendering noninexplicable, meaningless or superfluous. (*Sonabend Co.*, ASBCA No. 63359, 24-1 BCA ¶ 38,482 at 187,034 (citing *ECI Const., Inc.*, ASBCA No. 54344, 05-1 BCA ¶ 32,857 at 162,807; *Hol-Gar Mfg. Corp. v. United States*, 351 F.2d 972, 979 (Ct. Cl. 1965)). It does not matter that the cable tray work was depicted on the mechanical drawings rather than the electrical drawings, where Kallidus asserts this work is typically indicated. In *R. A. Burch Constr. Co.*, ASBCA No. 39017, 90-1 BCA ¶ 22,599, the electrical wiring for exhaust fans was mentioned in the mechanical specifications and depicted on the mechanical drawings, not in the electrical drawings and specifications. The contractor's electrical subcontractor argued, the mechanical contractor was responsible for the work because the information in the contract was insufficient for it to have known it was responsible for the work. The contractor directed the electrical subcontractor to perform the work and submitted a claim on behalf of its subcontractor. The contractor argued the drawings were insufficient and incomplete. We denied the claim, stating in part:

Appellant's counsel thoroughly attempts to distinguish the cases cited by the Government (app. reply br.); and, persuasively argues, from the subcontractor's point of view, that the so called "electrical drawings" alone did not put Helix Electric on notice that it would be required to provide wiring for the exhaust fans. However, we are not called upon to determine whether Helix Electric was required to perform the disputed task under its subcontract. Our concern is whether the appellant under the terms of its prime contract with the Government, when that document is read as a whole, was required to perform the work for which it now seeks compensation.

The drawings and specifications could undoubtedly have been prepared in a different fashion; and, undoubtedly could have been more completely cross referenced. The appellant could just as easily have been more careful in its

distribution of effort among its subcontractors. But, the evidence is clear that a bidder, reading the contract as a whole, would easily have recognized that the bathroom exhaust fans were required, and that the fans were to be wired for electricity and controlled at the bathroom light switch.

The appellant would, in situations where the contract read as a whole is clear, transfer to the drafter the responsibility or authority to determine how work should be divided among a potential contractor's potential subcontractors.

R. A. Burch, 90-1 BCA ¶ 22,599 at 113,395-96.

The factual circumstances and arguments being made by Kallidus in these appeals are similar to those presented in *R. A. Burch*. The specifications include provisions relating to cable tray and the tray is depicted, not in the electrical drawings where Kallidus argues this type of work is customarily found, but in the mechanical drawings. The only difference of any significance is that there was no dispute in the *R. A. Burch* appeal regarding whether the exhaust fans wiring and switches were clearly depicted. Here Kallidus argues the cable tray was depicted in the HVAC drawings using a symbol that was not denoted in any legend. We find this argument unpersuasive for the following reasons. First, although not denoted as such in a legend, the symbol used is one commonly used in the construction industry to denote cable tray. Kallidus is charged with being familiar with customary usage and trade practice, including symbols commonly used in the construction industry by architect/engineers when drafting construction drawings. *Alfred A. Alimont, Inc. v. United States*, 579 F.2d 622, 625, (Ct. Cl. 1978) (involving a trade custom of not detailing precise locations for lighting fixtures in drawings). Even, were it not so charged, we find that not knowing what the symbol denoted would create a patent ambiguity, one which would be obvious to any reasonable bidder, creating a duty to inquire as to the meaning of the symbol before submitting its bid. *Triax Pac., Inc. v. West*, 130 F.3d 1469, 1474–75 (Fed.Cir.1997). There is no evidence in the record that Kallidus made any inquiry regarding the meaning of the symbol prior to submitting its proposal and because we find the cable tray work is clearly set forth in the specifications and drawings when read as a whole, we deny the claim.

Excavation Plumbing

Parties' Positions

This claim involves two components, additional slab cutting with associated work and additional plumbing. Kallidus argues the drawings were deficient and failed

to include the plumbing the government required in Unit 400, a change to the contract. It argues its interpretation of the contract that plumbing was not required in Unit 400 work was reasonable. It also argues that any ambiguities were latent and that the government breached the implied warranty of the specifications and the covenant of good faith and fair dealing (app. br. at 37-42, 97-98). The government argues Kallidus' interpretation of the contract, that no underslab plumbing work was required in Unit 400, is unreasonable and that the claimed amount is so grossly inflated that it undermines the credibility of the claim.

Excavation Plumbing Appeal Partially Denied

We agree with the government that Kallidus' interpretation of the contract that no underslab plumbing work was required in Unit 400 is unreasonable. A contract should be construed to effectuate its spirit and purpose giving reasonable meaning to all of its parts. *Arko Exec. Servs., Inc. v. United States*, 553 F.3d 1375, 1379 (Fed. Cir. 2009). Additionally, the Federal Circuit has further held that business contracts must be construed with business sense, "as they naturally would be understood by intelligent men of affairs." *Giove v. Dep't of Transp.*, 230 F.3d 1333, 1341 (Fed.Cir.2000) (citations omitted); *Hol-Gar Mfg. Corp.* 351 F.2d at 975 (It is elementary that the language of the "contract must be given that meaning that would be derived from the contract by a reasonable intelligent person acquainted with the contemporaneous circumstances."). See also *H.B. Mac, Inc. v. United States*, 153 F.3d 1338, 1345 (Fed. Cir. 1998) (citing *P.J. Maffei Bldg. Wrecking Corp. v. United States*, 732 F.2d 913, 917 (Fed. Cir. 1984)) (A proper technique of contract interpretation is for the court to place itself into the shoes of a reasonable and prudent contractor and decide how such a contractor would act in the circumstances).

When the drawings are objectively considered in their entirety, we have no doubt that a reasonable and prudent construction contractor would view the contract as requiring underslab plumbing work in Unit 400. Although the plumbing drawings do not include a layout of the sanitary and supply lines for Unit 400 as they do for Units 100, 200 and 300, they do include notes and isometric schematics for both the supply and waste systems for Unit 400. The structural drawings also indicate that plumbing lines are to be installed under the slab of Unit 400. Adopting Kallidus' interpretation of the contract requires that these be ignored and would result in men and women's restrooms, complete with toilets and sinks, in Unit 400 because Kallidus does not argue or dispute the contract requires this above the slab plumbing work, but no water to supply them and no way to drain waste away. We conclude that no reasonably prudent contractor would interpret the drawings as Kallidus would have it.

Ideally, the plumbing drawings would have depicted the plumbing work required in Unit 400 in a fashion similar to that indicated for Units 100, 200 and 300, with which Kallidus takes no issue, but the government is not required to provide

perfect drawings, only reasonably accurate ones adequate for the task to be performed. *John McShain, Inc. v. United States*, 412 F.2d 1281, 1283 (Ct. Cl. 1969) (citing *Standard Steel Car Co. v. United States*, 67 Ct. Cl. 445, 472 (1929)). We find the drawings are reasonably accurate and adequate for Kallidus to have performed the underslab work required in Unit 400. If the lack of detail Kallidus complains about created an ambiguity, it was a patent ambiguity Kallidus was obligated to make inquiry about prior to bidding. *States Roofing Corp. v. Winter*, 587 F.3d 1364, 1372 (Fed. Cir. 2009) (citing *H & M Moving, Inc. v. United States*, 204 Ct. Cl. 696 (1974)); see also *NVT Techs., Inc.*, 370 F.3d at 1162 (“If the ambiguity is patent, it triggers a duty to inquire.”). Accordingly, we deny the part of the claim relating to the alleged additional plumbing work.

The saw-cutting part of the claim we sustain. The evidence in the record is that Sketch Sk-3 changed the saw-cutting as depicted on drawing S.1. There is no dispute that additional cutting and trenching work resulted from the sketch. Although the government acknowledges same, it argues that Kallidus’ cost of performance actually decreased as a result of the change (gov’t br. at 131-32). In this entitlement only hearing, we did not entertain evidence on *quantum* and do not consider the parties’ prefatory, not fully-developed arguments relating thereto. The government’s rights to pursue its position during the quantum phase of this appeal are unaffected by this decision.

Additional Concrete Removal

Parties’ Positions

Kallidus argues the contract drawings do not show a continuous footing in Units 200 and 400 and that the government changed the contract by requiring a continuous footing, which led to additional saw cutting and slab removal as well as additional forming work (app. br. at 42-47, 98-99). The government argues the drawings clearly indicate a continuous footing (gov’t br. at 126-28).

Appeal Denied

This claim involves a question of contract interpretation. Kallidus argues that because drawing S.1 does not show the wall studs below or above the windows, despite the fact that wall studs were required above and below the windows, that it need not remove the existing concrete slab below the windows and construct a new, reinforced footing in accordance with the Section 24 detail. It argues the use of the word “continuous” in the detail means only that the rebar must be continuous within the footing in the part of the wall where there were no windows, *i.e.* it was not required to construct a new footing with rebar reinforcing in the wall area beneath the windows. We find Kallidus’ interpretation to be unreasonable. “Continuous” as defined by

WEBSTER'S II, NEW RIVERSIDE UNIVERSITY DICTIONARY means "uninterrupted," or "unbroken." Kallidus' interpretation is the antithesis of this meaning as it interrupts or breaks the footing at each window. The unreasonableness of Kallidus' view is further supported by the fact that it is not possible to place the cross pieces of rebar six foot on center as required by the detail if the new, reinforced footing is not placed under the windows. Kallidus' interpretation would also require some sill anchors to be embedded in the original unreinforced slab to maintain the six foot on center requirement, which is not in accordance with the drawings, which have the sill anchor being embedded in the new footing with rebar reinforcement. For these reasons Kallidus' interpretation is unreasonable and deny the claim.

Demountable Partitions

Parties' Positions

Kallidus argues the government changed the contract by requiring it to provide and install components that were not required by the contract. More specifically, Kallidus argues that it is not required to provide and install the components listed in the specifications because they were not depicted in the drawings (app. br. at 47-57, 99-100). The government argues that nothing more than what the contract provided was required and that to the extent the drawings do not depict the components listed in the specifications a patent ambiguity existed that required Kallidus to make inquiry (gov't br. at 120-23).

Appeal Denied

We agree with the government that Kallidus was not required to perform additional work and deny the claim. Kallidus' interpretation of the contract is unreasonable. As noted above with respect to the Excavation Plumbing and the Cable Tray claims, the contract must be read as a whole and meaning given to all of its provisions whenever possible. While the drawings could have been better and shown all of the components to be installed as was done with respect to other projects Kallidus has been involved in, the specifications list everything the government required Kallidus to provide and install. The contract incorporated the Specifications and Drawings For Construction clause (FAR 52.236-21), which states that "Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both." and "[I]n case of difference between drawings and specifications, the specifications shall govern" (finding 78). Given this clause, it is evident that all the components listed in the specifications that Kallidus argues are additional work were clearly and unambiguously required by the contract. *GEMS Environmental Management Services*, ASBCA No. 61737 *et al.*, 24-1 BCA ¶ 38,621 at 187,743-44.

Paint Window Trim And Walls Appeal

Parties' Positions

Kallidus asserts the government required it to keep the building's temperature higher than was required by the specifications, which caused the paint to chip and crack, entitling it to recover the cost of repairing the damage (app. br. at 60-66, 101-02). The government agrees that high temperatures caused the cracking of the paint, etc., but denies that it required Kallidus to raise the temperature beyond directing Kallidus to achieve the minimum temperatures required by the specifications (gov't br. at 123-26).

Appeal Denied

Despite Kallidus' assertions about the government's misinterpretation of the specifications regarding the temperature, it is not necessary to parse the specifications to decide this claim. Nor is it necessary to determine whether Kallidus was in compliance therewith, as it asserts. Instead, this claim can be decided solely by determining whether the government ordered Kallidus to raise the temperature of the building to a point that caused the cracking and other damage that Kallidus repaired and seeks compensation for.

The record does not support such a finding. The evidence is that the government was concerned about the building temperature being lower than the minimum temperatures set forth in the specifications and issued a cure notice to Kallidus to ensure Kallidus complied with the specifications. In response to the cure notice, Kallidus chose to raise the temperature inside the building to the temperature the parties agree caused the damage to the paint and trim. Kallidus was free to comply with the temperature requirements of the specifications however it saw fit to do so. This was something entirely within its discretion. Having caused the damage, it is Kallidus' responsibility pursuant to the Permits and Responsibilities clause to repair it at no cost to the government. *Phylway Construction, LLC*, ASBCA No. 63705, 25-1 BCA ¶ 38,759 at 188,398 (citing *Joseph Becks & Assocs., Inc.*, ASBCA No. 31126, 88-1 BCA ¶ 20,428 at 103,326, *aff'd*, 864 F.2d 150 (Fed. Cir. 1988)). Accordingly, we deny this claim.

Parapet Wall

Parties Positions

We understand Kallidus', a *pro se* litigant, various scattershot arguments made with regard to the parapet wall to be that it performed its work in accordance with the contract's requirements and that the government constructively changed the contract

by requiring Kallidus to retain a consulting engineer in order to establish it was not at fault for the blistering of the elastomeric coating. Kallidus also argues the contracting officer abused her discretion by failing to release the retainage. The government argues Kallidus failed to comply with the specifications and let water into the building and the construction materials, which caused the blistering and that its continued withholding of the retainage is justified.

Appeal Upheld

The basis for the government's denial of the claim was Kallidus' failure to install weep holes at the base of the parapet wall, but in testimony elicited during the hearing and in its post-hearing brief, the government appears to take a more expansive approach, intimating that Kallidus failed to protect the work during construction, which introduced water into the structure causing the blistering and calcification (gov't br. at 79). The government also argues that Kallidus' work was defective in violation of the Warranty of Construction clause (*id.* at 134-36).

We find the government's arguments unpersuasive. While not explicitly stating so, the government appears to be arguing Kallidus' failure to install weep holes and to keep the structure completely dry during construction constitute defective work.

Despite the government's contentions, we find the contract does not require the installation of weep holes at the base of the parapet wall. The contract only requires the installation of weep holes above flashing, which the COR testified was not present at the parapet wall. Furthermore, because the parapet wall is a single course of CMU, not a cavity wall with brick facing from which water can "weep" or be drained we conclude, based on the record, that a reasonable contractor would not be expected to install weep holes in the absence of a specific contractual requirement. For these reasons we hold the contract did not require weep holes to be installed in the parapet wall. Accordingly, Kallidus cannot be faulted for having failed to install weep holes.

This leaves the issue of whether Kallidus can be faulted for having failed to keep the structure completely dry during construction. The government cited to no contract provisions requiring that the structure be kept completely dry. The specifications regarding the roof do include some references to moisture and wetness, but we find these merely require that the structure's surfaces be dry during certain aspects of the replacement of the roof (SOF ¶ 104). No evidence was presented to establish that Kallidus violated these provisions and, as discussed immediately below, the burden of proof here is on the government.

To be sure, the contract included the Material and Workmanship, and Permits and Responsibilities and Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements clauses. These clauses require that the work be performed

in a workmanlike manner and to exercise reasonable care to protect the work and existing structures, which we understand the government is contending Kallidus failed to do although its brief seems to abandon these arguments. Nevertheless, even if these arguments were explicitly advanced by the government, they would fail.

These clauses do not impose strict liability upon a contractor; rather, the burden of proof is on the government to show that Kallidus was at fault or negligent or failed to exercise reasonable care. *States Roofing Corp.*, ASBCA No. 55500, 09-1 BCA ¶ 34,036 at 168,349 (citing *Zimcon Pros.*, ASBCA Nos. 49346, 51123, 00-1 BCA ¶ 30,839 at 152,214; *J.A.K. Constr. Co.*, ASBCA No. 43099, 94-1 BCA ¶ 26,536 at 132,074). However, the government introduced no evidence that Kallidus' means and methods of repairing the concrete decks of Unit 300 and constructing the parapet wall, particularly keeping the decks and construction materials dry and free from water infiltration, either violated the contract or building industry norms. The evidence establishes Kallidus deployed tarps to keep the construction and materials dry. Though there is anecdotal evidence through photographs that they may not have always kept water from collecting on the roofs after a storm, there was no evidence presented that Kallidus was careless or negligent with respect to the tarps or in allowing rain water to infiltrate the building, or that this occurred more than once. Mr. Hunsicker testified that it would be unrealistic and unreasonable to expect a contractor to keep an exterior roof completely dry throughout demolition and reconstruction. Mr. Blair testified that Kallidus was required to protect all the work all the time without further elaboration. We understand from the context of the questioning that Mr. Blair was of the opinion that Kallidus was required to keep the roof completely dry at all times. Both men were accepted as experts, but we find neither's testimony on this issue particularly helpful given that there was no discussion or other evidence of industry practices for circumstances similar to those presented here. Without more, we find the government failed to meet its burden of proving that Kallidus failed to exercise reasonable care or was negligent with respect to its efforts to keep the roof dry.

We consider next whether Kallidus has met its burden in establishing that the government constructively changed the contract with respect to the consulting engineer Kallidus retained to assist in determining the source of the leaks. The elements of a constructive change claim are: (1) work performed beyond the contract requirements, and (2) the additional work was expressly or impliedly ordered by the government. *AMEC Env't & Infrastructure*, 15-1 BCA ¶ 35,924 at 175,593 (citing *Bell/Heery*, 739 F.3d at 1335. *See also Ace Constructors, Inc. v. United States*, 499 F.3d 1357, 1361 (Fed. Cir. 2007); *Int'l Data Prods. Corp. v. United States*, 492 F.3d 1317, 1324 (Fed. Cir. 2007). We find Kallidus has not satisfied these elements. There is no requirement in the contract for the retention of the engineering firm Kallidus hired to establish its work was not defective with respect to the parapet wall and roofing work the government alleged was defective. Despite Kallidus' argument that

it was essentially forced to retain the consultant in order to recover the retainage and that the government had agreed to pay for same, there is no evidence in the record that the government actually agreed to do so. It is true Kallidus made this proposition to the government several times, but the government never responded, at least there is no evidence that it did so. Moreover, Kallidus always had a choice: it could have declined to obtain an expert and filed a claim as it ultimately did. Accordingly, we conclude that the government never agreed to pay for the consultant and deny this part of the parapet wall claim.

Simpson Ties-Appeal Denied

We need not discuss the merits of this claim because it was untimely asserted and is barred by the statute of limitations. The Federal Acquisition Regulation states that a claim accrues “ . . . when all events, that fix the alleged liability of either the Government or the contractor and permit assertion of the claim, were known or should have been known.” FAR 33.201, DEFINITIONS (OCT 2024). See also *Anis Avasta Constr. Co.*, ASBCA No. 61926, 20-1 BCA ¶ 37,743 at 183,164. The Contract Disputes Act, 41 U.S.C. §§ 7101-7109 (CDA) includes a six-year statute of limitations. 41 U.S.C. §7103(a)(4)(A). In this appeal, Kallidus knew all that it needed to know to assert its claim when the government supplied it with the correct Simpson tie model number. This was no later than March 1, 2012, when the government finished responding to Kallidus’ RFIs regarding the misinformation concerning the ties (SOF ¶ 136). Accordingly, its claim was timely if asserted prior to March 1, 2018. The CDA statute of limitations bars claims that were not presented to the contracting officer within the defined period. *Lockheed Martin Aeronautics Co.*, ASBCA No. 62209, 21-1 BCA ¶ 37,891 at 184,025 (citing *Environmental Safety Consultants, Inc.*, ASBCA No. 58343, 14-1 BCA ¶ 35,681 at 174,666). It is undisputed Kallidus did not present the claim to the government until January 31, 2019 (SOF ¶ 138). Untimeliness is an affirmative defense that generally is waived if not pleaded as required by the Board’s rules and the Federal Rules of Civil Procedure. Board Rule 6(b); FED. R. CIV. P. 8(c). The government never addressed the Simpson ties in its answer in ASBCA No. 61377 and never filed an answer in ASBCA No. 61976.¹⁹ Accordingly, the government has failed to include the affirmative defense of untimeliness in its pleadings.

This failure does not necessarily bar the government from asserting the defense though. We have held that failure to plead an affirmative defense does not always result in waiver. *CiyaSoft Corp.*, ASBCA No. 59913-Quan, 22-1 BCA ¶ 38,145 at 185,276 (citing *Ultra-Precision Mfg., Ltd. v. Ford Motor Co.*, 411 F.3d 1369, 1376

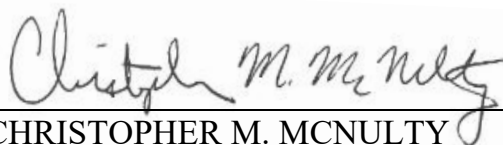
¹⁹ An important piece of context for this is that the hearing was held on April 26, 2019, slightly more than a month after the March 8, 2019 submission of the complaint.

(Fed. Cir. 2005)). The purpose of Federal Rules of Civil Procedure, Rule 8(c) and ASBCA Rule (6)(b) is to give a party notice of the defense and a chance to respond. The Federal Circuit Court of Appeals found that the district court in the decision it was reviewing had not committed error by permitting an unpled affirmative defense to be asserted in a motion for summary judgment because the opposing party had had the opportunity to respond and brief the issues so there was no unfairness or prejudice. *Ultra Precision*, 411 F.3d at 1376-77. Here, the defense of untimeliness was first mentioned in the contracting officer's final decision as one of the bases for denying the claim (SOF ¶ 138). Kallidus cannot argue that it was unaware of the government's assertion and thus prejudiced by the government's failure to have pled it. The government again argued the claim was untimely in its brief (gov't br. at 140-41). Despite being aware of the issue and having had an opportunity to respond in its own briefing, Kallidus never did so. We find the claim to be untimely, barred by the CDA's statute of limitations, and deny it.

CONCLUSION

The Windows, and Windows Time Extension claims are sustained. The Excavation Plumbing and Unreleased Retainage and Parapet Wall claims are partially sustained as set forth above. Accordingly, these matters are returned to the parties for a determination of quantum consistent with this decision. The Cable Tray, Additional Concrete Removal, Demountable Partitions, Paint Trim and Walls and Simpson Ties claims are denied.

Dated: December 18, 2025



CHRISTOPHER M. MCNULTY
Administrative Judge
Armed Services Board
of Contract Appeals

I concur



OWEN C. WILSON
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

I concur



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

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA Nos. 61377, 61976, Appeals of Kallidus Technologies, rendered in conformance with the Board's Charter.

Dated: December 18, 2025

A handwritten signature in black ink, appearing to read "Paula K. Gates-Lewis", written over a horizontal line.

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