UNITED STATES
CIVILIAN BOARD OF CONTRACT APPEALS

GRANTED IN PART: March 22, 2022

CBCA 5826, 6861, 6897, 7049

CTA I, LLC,

Appellant,

v.

DEPARTMENT OF VETERANS AFFAIRS,

Respondent.

John M. Manfredonia of Manfredonia Law Offices, LLC, Cresskill, NJ; William E. Dorris of Kilpatrick Townsend & Stockton LLP, Atlanta, GA; and Brian G. Walsh, Tara L. Ward, and Jennifer Eve Retener of Wiley Rein LLP, Washington, DC, counsel for Appellant.

Harold W. Askins, III, Office of General Counsel, Department of Veterans Affairs, Charleston, SC, and Tyler W. Brown, Office of General Counsel, Department of Veterans Affairs, Portland, OR, counsel for Respondent.

Before Board Judges **GOODMAN**, **KULLBERG**, and **CHADWICK**.

**CHADWICK**, Board Judge.

This construction case was fully briefed after a hearing. The respondent, Department of Veterans Affairs (VA), terminated the contract for the convenience of the Government after more than four years of performance. The extent to which the appellant, CTA I, LLC (CTA), may recover its claimed termination for convenience costs depends largely on whether CTA is entitled to equitable adjustments of the fixed contract price. We award CTA reasonable, allocable, and allowable termination costs totaling $1,465,664.10.

## Background

VA awarded the subject contract to CTA in May 2014. The contract required adding a second floor and interstitial space above an existing one-story building at a VA medical facility in Richmond, Virginia, within 700 days of the notice to proceed for a fixed price of $7,961,000. VA terminated the contract for convenience in January 2019, almost twenty-one months after the original completion date.[1] The modified contract price as of the termination date was $9,286,542.70, of which CTA has been paid $8,248,077. CTA seeks termination costs totaling $6,024,210. The claimed amount represents costs of $1,038,465.70 up to the contract price plus costs of $4,985,744.30 above the contract price.

As discussed below, because most of CTA's termination claim depends on equitably increasing the contract price, we must examine the circumstances that CTA alleges caused it to incur excess costs. With minor exceptions, the costs in dispute are not for additional or changed work. CTA mainly seeks costs it attributes to Government-caused delay, suspension, and labor inefficiency, plus settlement expenses.[2]

We describe below the events that CTA says caused increased costs and time on the project. Our task is complicated by the fact that the testifying experts, and thus the parties, disagree sharply about the project's critical path. Each party stood by its expert and briefed a different critical path than the other party did, based on a different collection of schedule updates.[3] VA says little of substance about several of the schedule impacts alleged by CTA.

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[1] The contract incorporated by reference, among other standard clauses, Termination for Convenience of the Government (Fixed-Price) (April 2012), Alternate I (Sept. 1996), 48 CFR 52.249-2 (2013), which is for construction contracts.

[2] Of the four consolidated appeals, CBCA 6897, filed in August 2020, arises from VA's July 2020 denial of CTA's certified termination cost proposal. CBCA 5826 and CBCA 6861 were timely filed in August 2017 and June 2020, respectively, and involve claims for equitable adjustments. The parties partly settled CBCA 5826 in 2018. CTA timely filed CBCA 7094, seeking costs for a subcontractor, in February 2021. The prerequisites to our jurisdiction are satisfied. *See* 41 U.S.C. §§ 7103–7105 (2018).

[3] As discussed below, VA's expert relied on contemporaneous schedule updates, whereas CTA's expert analyzed the critical path by retrospectively creating updates to insert between the contemporaneous updates.

Structural Steel Submittal

CTA mobilized on June 4, 2014. The first phase of the project involved erecting a steel structure above the existing roof to support the new construction. CTA submitted its structural steel drawings for approval on June 17, 2014, and received VA's approval forty-three days later on July 30. CTA alleges that the review lasted twenty-one days longer than was "reasonable," which delayed the project. VA does not mention this submittal. Although CTA observes that VA promised, in general, to return submittals within twenty-one days, we see no basis in the record to determine a specific number of days that would have been "reasonable" for review of this particular submittal.

Second Floor Enclosure

CTA advised VA in October 2014 that it was ready to remove the roof of the first floor per its approved schedule. The contracting officer directed CTA not to remove the existing roof until CTA built the new roof over the second floor and the new space was weather tight. We ultimately need not decide whether this was a contract change. In November and December 2014, VA provided instructions on maintaining the exterior seal. CTA asserts vaguely that "the weather barrier" required by VA "was nearly finished" by "the end of" March 2015. CTA then cites without elaboration its expert's opinion that the changed enclosure work delayed the project by 121 days, from October 16, 2015, to March 8, 2016. VA has a different understanding of the critical path and does not mention this issue.

We note that in its complaint in CBCA 5826, CTA sought compensation for suspension and delay "for an unreasonably long duration of 708 days through September 30, 2016." An agreement partially settling CBCA 5826, executed in May 2018 and incorporated in bilateral contract modification 11,[4] states that the settlement amount "constitutes full and complete settlement and satisfaction of [CBCA 5826]," except as to "claims for unabsorbed home office overhead, and consultant and attorney fees." We find that the May 2018 partial settlement encompasses and releases a claim for an equitable adjustment for delay costs that CTA attributes to the dispute about enclosing the second floor.

Preparing the Second Floor Topping Slab

The contract required CTA to scarify or roughen the concrete slab that had been under the roof of the original building before installing a topping slab for the new second floor. CTA performed scarification for two days in May 2015 until the facility's safety department

[4] As usual, contract modification numbers are preceded by "P0000." We cite modifications by their unique numerals.

demanded that CTA stop due to the noise. The parties began to discuss alternative means to prepare the slab. On October 7, 2015, after nearly five months, the parties executed bilateral modification 2, which included $57,875.51 to prepare the slab using dowels and a bonding agent, with a time extension of fifty-nine days to August 8, 2016.

The release in modification 2 stated in part, "The consideration represents a complete equitable adjustment for all costs, direct and indirect, associated with the change to the work and time agreed to herein, including, but not limited to all costs incurred for extended overhead, supervision, disruption or suspension of work, labor inefficiencies, and this change's impact on unchanged work." Furthermore, CTA's schedule expert did not conclude that the changed slab work was on the critical path—although VA's expert thought it was.

CTA acknowledges that it disagrees with its expert but argues that "based on the record, it is clear that the delays to the slab preparation and pouring of the slab for the Second Floor prevented the interior framing and other work from proceeding from approximately May 2015 to November 2015." VA states that the matter was "resolved" by modification 2 with "minimal impact." We see no basis to find that the slab preparation delayed the project by more than the number of days for which CTA accepted "complete" payment in modification 2. In addition, the May 2018 partial settlement of CBCA 5826 released a claim for "purported delays associated with . . . Slab Preparation [and] Second Floor Topping" through September 2016, except as to "claims for unabsorbed home office overhead, and consultant and attorney fees."

Electrical Specifications and Coordination Studies

CTA states that it was ready to start work on interior finishes of the new second floor in November 2015. The source of conditioned air for the new space was a new air handling unit installed by CTA. CTA alleges, "Because of design defects in the electrical contract documents provided by the VA, the power to the [air handler] could not be provided, thereby delaying critical interior work and finishes." VA disagrees, citing emails to CTA from the contracting officer in June and August 2016 stating that "[t]he primary reason" that CTA had "been unable to make progress on the interior work is that the building is not closed in," and "Until CTA Builders completes the critical path item of comp[l]eting the building envelope and sealing the building against the weather, it is impossible to start the interior finish work, and the entire project will continue to be delayed." Neither party points to more detailed or probative evidence as to why the work on interior finishes did not proceed as planned.

According to hearing testimony for CTA (not corroborated by citation of project documents), the specifications showed some subpanels for the new area being served by emergency power rather than primary power. An electrical coordination study submitted by CTA in late March 2015 raised questions about the adequacy of circuit breakers.

In November 2015, VA asked CTA for a price proposal to install additional panels and circuit breakers. CTA submitted the proposal in late July 2016. On September 2, 2016, the contracting officer issued unilateral modification 4 directing CTA to rewire subpanels that were served by emergency power. CTA provided a second electrical coordination study for the rewiring work in October 2016. VA approved the study on November 17, 2016. Apparently, CTA performed modification 4, but the parties tell us no more about it.

CTA cites no evidence to prove exactly what work was delayed by the lack of power to the construction space or exactly when the delayed work began. Rather than describing with specificity any activities that CTA maintains it could have started earlier, had it been able to run the air handler, CTA cites its expert's opinion "that the VA's delay in correcting the defective electrical design delayed the critical path of the project 570 days." The two pages that CTA cites, however, merely synopsize the expert's opinion and do not explain or support it. *See* Board Rule 23(b) (48 CFR 6101.23(b) (2020 )) ("post-hearing briefs . . . shall cite record evidence for factual statements"); *see also Amec Foster Wheeler Environment & Infrastructure, Inc. v. Department of Interior*, CBCA 5168, et al., 19-1 BCA ¶ 37,474 ("The purpose of expert testimony is to help the trier of fact to understand the evidence or to determine a fact in issue. . . . [Bare] expert opinion on recoverability is not evidence." (internal quotation marks omitted)); *Phillips & Jordan, Inc. v. United States*, ___ Fed. Cl. ___, 2022 WL 594050 at *10 (Feb. 28, 2022) ("[T]he significance of sufficient citation to the evidentiary record cannot be overstated.").[5] CTA adds, "During this 570-day period, the critical path was driven by the need to provide electrical power to the [air handler], followed by interior finishes." CTA cites no evidence (1) showing that work on finishes could not start for roughly a year and a half without conditioned air or (2) rebutting VA's statements during the relevant period that the second floor was open to outdoor air.

In addition, the May 2018 partial settlement of CBCA 5826 cited above included "full" payment for general conditions associated with "Electrical Coordination Study/VA Modification to Correct Power Source" through September 2016, which covers some of the delay alleged here.

The evidence cited does not allow us to find that VA impeded CTA's work as alleged. We will not search for better evidence. *See Amec Foster Wheeler*; *see also Parsons*

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[5] The "narrative" of the expert's report, which CTA does not cite, states that certain work was "on the critical path" but does not identify successor finish work that could not proceed—i.e., the report does not trace the logic ties to later activities. CTA writes, "Exhibit 603 [of the appeal file] includes all the month-by-month as-built schedules, which provide a fair and complete picture of what drove the critical path throughout the project." We will not undertake to analyze exhibit 603 on our own.

*Evergreene, LLC v. Secretary of the Air Force*, 968 F.3d 1359, 1368 (Fed. Cir. 2020) ("[T]he Board was [not] required to scour the tens of thousands of pages of record evidence in this case, without any guidance, to determine the amount of an award."); *Lebolo-Watts Constructors 01 JV, LLC,* ASBCA 59740, et al., 21-1 BCA ¶ 37,789 ("[I]t is the duty of counsel, not the Board, to advocate for their respective clients."), *aff'd*, No. 21-1749, 2022 WL 499850 (Fed. Cir. Feb. 18, 2022).

Reverse Osmosis Water System Redesign

The project included a reverse osmosis system to collect water for use in dialysis. In late November 2015, VA requested a price proposal for a system with changed specifications and for casework for the changed system.[6] CTA provided the proposal on January 15, 2016, but withdrew it in February, asking VA to "[p]lease disregard" the January proposal. CTA resubmitted the proposal on March 21, 2016, after further communications with the vendor. VA nominally approved the resubmittal a month later, on April 22, 2016, but did not issue unilateral modification 5 to price the changed work until December 19, 2016. It appears that the water system and the casework were delivered to the site in June 2017.

CTA writes, "Not being able to install the [water] system delayed the Contractor's work on ceilings, floors, casework, plumbing, electrical, mechanical and finishes." CTA cites one page of the hearing transcript. At that page, a CTA executive and co-founder testified that waiting for the water system "affected ceilings, floors, casework, plumbing, electrical, mechanical, and finishes. It affected everything." We see no elaboration in the record of this vague and conclusory testimony.[7] Testimony that work "affected" other work does not necessarily imply that any activity delayed another activity in a path relationship. CTA cites correspondence in which CTA insisted to VA that installation of the new water system was on the critical path, but CTA does not explain *why* this would be true—i.e., exactly which critical activities could not start until the water system was installed. CTA notes that its expert opines that the redesign and procurement of the water system "delayed

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[6] We omit details of VA's extended difficulty deciding what sort of reverse osmosis system it required. We do not doubt that, to the extent that an impact on the critical path were shown, VA would be substantially responsible for the delay, as the contracting officer conceded in a deposition.

[7] CTA's expert testified that the water system redesign was not shown on the critical path of CTA's contemporaneous schedule, but that he placed it there when developing a schedule for this dispute "[b]ecause we're as-building the facts of finding out what is the critical path that is actually occurring," and "based on the as-built-it facts, it's there." This, too, is conclusory.

the critical path of the project from October 1, 2016 to June 6, 2017, a total of 249 days." Again, CTA cites its expert's opinion but does not explain why we should adopt it.

VA, for its part, observes that a recurring note that the water system redesign was delaying the project disappeared from the daily reports in May 2016, months before the alleged delay began. VA argues that this means the issue "was no longer consider[ed] as delaying the project." We do not know why the reports changed, nor would we conclude that a given activity either was or was not critical based on daily reports alone.

CTA does not cite evidence sufficient for us to find that the protracted change of the water system delayed activities on the critical path for any particular number of days.

Manpower Reduction and Cure Notice

On March 30, 2016, CTA's president emailed the contracting officer that "CTA will significantly reduce our manpower as of 7 April 2016" due to what CTA said were "inordinately long periods" to obtain direction and answers from VA. CTA added that "the critical path of this project has been significantly delayed and labor inefficiencies/ripple effects will be realized for many more months."

On June 10, 2016, the contracting officer issued a two-page cure notice. He testified at the hearing that his supervisor "instruct[ed]" him to issue it. Included among seven conditions bullet-pointed as "endangering the performance of this contract" were CTA's alleged "failure" to provide a timely price proposal for the water system discussed immediately above, "failure to maintain superintendence at all times," and "failure to bring subcontractors under contract, direct and coordinate their efforts effectively, ensure completion of the subcontracted work, and to pay subcontractors in full." The notice said the project was "455 calendar days behind the approved progress schedule" and warned of potential termination for default unless the seven conditions were "cured" within ten days.

CTA provided an eight-page response to the cure notice on June 20. CTA denied in detail not meeting its contractual responsibilities, including denying knowledge of "a single instance when CTA did not have a superintendent onsite." CTA argued that its performance of work "piecemeal and out of sequence" was "a result of VA mismanagement and defective specifications" rather than "the fault of CTA or its subcontractors." CTA wrote that "[t]ermination for default is not an option because CTA is not responsible for the suspension of work" and asked VA to "retract its Cure Notice since it is not supported by the facts or law." VA took no further action on the notice.

Water Supply to Heat Exchanger

In July 2016, CTA submitted a request for information asking where to obtain "make-up water" for the heat exchanger being installed on the second floor. In January 2017, more than six months later, VA responded by providing drawings for a new make-up water connection. On April 26, 2017, after further correspondence, VA issued unilateral modification 6 adding $14,534.94 and no time to the contract to implement the change.

Again, CTA asserts that the changed work was on the project's "critical path" but does not flesh out why this was so. CTA and its expert opine that the change delayed the project by fifty-one days, from June 7 (the significance of which date CTA does not specify here) until July 27, 2017, when connecting the make-up water allegedly "allowed the [air handler] to be energized." CTA cites as factual support a single answer by its co-founder at the hearing. He testified only that the connection of the make-up water "coincided with" powering up the air handler. Especially given the uncertainty described above as to the significance of conditioned air to the activities on the critical path, we would need more than vague evidence of a coincident relation to the air handler to find that the plumbing work caused a delay. VA does not discuss modification 6 in detail but cites correspondence from April 2017, two weeks prior to modification 6, in which VA complained again that "CTA still has not sealed the exterior building envelope against the weather." CTA never rebuts VA's contemporaneous assertions that CTA had not sealed the new second floor.

CTA does not cite evidence sufficient for us to find that the work on the water connection under modification 6 delayed activities on the critical path for any particular number of days.

Generator Pad

On September 13, 2017, VA issued unilateral modification 8, adding (among other things) $6032.83 to the contract for changes to an exterior concrete pad for a generator, as well as 311 days (more than ten months) to the contract schedule.[8] The record shows that during November 2017, VA considered making another change to the pad to avoid an exterior duct bank. CTA installed the concrete pad in four days in February 2018.

CTA states that the pad change caused two discrete delays in 2017, totaling eighty-six days—the first from September 8 to October 15, 2017, and the second from December 1 to 18, 2017. Again, CTA recites the opinion of its expert without a basis for it. We see no explanation of the significance of the specified dates in September, October, and

[8] No one explained why the modification included the 311 days.

December 2017 to this supposed "critical path" work that CTA performed in a single week in February 2018, weeks after the final alleged "delay" had ended. We infer that CTA's expert must have concluded that the modified work fell off the critical path before it was performed. Lacking explanation in the briefs as to why timely project completion depended, or seemed to depend—for twelve weeks in 2017, at least—on timely pouring an exterior concrete pad, we cannot find the overall project delay that CTA alleges here.

Piano Hinges

On February 14, 2018, VA, following up on a CTA request for information from October 2017, asked CTA to propose a price to modify seven doors to accommodate "piano" hinges that had been specified but which CTA said would not work in the specified door frames.[9] CTA provided a proposal for $3601.38 on March 5. Nothing came of the issue. VA never modified the specifications for the doors or the hinges.

CTA says the correspondence alone "delayed the critical path of the project by 58 days from October 16–31, 2017 and January 4 to February 14, 2018." Again, we infer, lacking explanation, that this is an example of an activity (here, an information request) falling on and off the "critical path" in CTA's retrospectively recreated schedules. CTA does not explain how a change that was *not* made became "critical" and delayed the project *before* VA asked for the price proposal yet not afterward. CTA writes, "The successor activity for the piano door hinge [sic] is testing, adjusting and balancing the HVAC [heating, ventilation, and air conditioning] system." Since it appears, as discussed below, that testing and balancing began in April 2018, we cannot understand without a better explanation how *un*changed door specifications could have caused not just one but two distinct "delays" that ended weeks before April 2018.[10]

Circuit Setters for Variable Airflow

Between January 2016 and March 2018, the parties corresponded about CTA's suggestion to add "circuit setters" (combination balancing/shutoff valves) to the variable

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[9] CTA writes, "The hardware schedule listed piano hinges for the . . . door frames, but these frames cannot accommodate piano hinges." CTA cites no "record evidence" to support the "factual statement" in this sentence. *See* Rule 23(b).

[10] VA concedes, in reliance on its expert, that CTA is entitled to delay costs for a total of "60 days [within] the period of 1 August 2017 to 1 February 2018." VA explains only, "Respondent's expert identified 60 days as compensable . . . related to Test and Balancing[.]" The cited page of the expert's report summarizes the opinion without stating a basis for it. A footnote cites project notes about "ckt setters."

airflow valve boxes on the new second floor. CTA maintained that airflow could not be balanced without such valves. In February 2018, CTA submitted a change proposal for the circuit setters. In late March, VA advised CTA that VA "plan[ned] to have an answer to CTA on this issue . . . on" March 28.

"Ultimately," CTA writes, "CTA's plumbing subcontractor . . . ordered and installed the additional circuit setters without a change order from the VA." CTA cites a deposition of a subcontractor employee. He testified, "I was told to order" the circuit setters. He did not say by whom. "We did order them," he continued. "Then we were told to install them." When asked, "What made you decide go ahead and do it?"—i.e., order the equipment absent a contract modification—he testified, "I don't know. I don't remember."

VA now agrees that the circuit setters were needed and does not oppose paying CTA for the change in a termination settlement. The contracting officer testified in a deposition, "I think it was an omission on the mechanical design documents that resulted in th[is] change." VA does not concede compensable delay. CTA writes without elaboration, "CTA's delay expert determined that this . . . circuit setter issue delayed the project's critical path for 55 days, from March 6 to April 29, 2018." CTA does not explain the significance of April 29, but it appears to be the date that CTA retrospectively inserted in the schedule as the notional "approval" or end date of the unapproved change order. VA counters with evidence that "[f]rom 1 February to 1 August 2018, the daily reports do not reflect any impediments to completion of the project."

We have two particular reservations about finding CTA entitled to an equitable adjustment for any delay caused by this issue. The first is that, by CTA's description, the predecessor activity to installing the circuit setters was VA's approval of the change—an event that never occurred. We are reluctant to endorse "self-help" by a contractor that proceeds with work outside of the contract, even if the Government later appreciates the work. We do not know—despite the contracting officer's non-expert opinion given years after the fact—what action VA might have taken on the proposed change at the time. "The contracting officer's current stance on matters raised in the appeal is something for us to consider in resolving the case, but it is hardly controlling." *Airo Services, Inc. v. General Services Administration*, GSBCA 14301, 98-2 BCA ¶ 29,909.

Our second concern is that, as VA implies, if we assume that a single change request was delaying the entire project for multiple weeks, we would expect to see evidence of specific activities being postponed, starting on or around March 6. We would probably also expect a contractor or subcontractor who decided to move ahead with changed work without agency direction to have a more vivid memory of the exigency that demanded such an unusual action.

Wiring Automatic Doors

In May 2018, VA, following up CTA inquiries of November 2017 and January 2018, provided CTA with information that had been missing from the specifications regarding how to wire electricity to automatic doors. On May 10, 2018, CTA submitted an "unsolicited" price proposal for the wiring work. VA never modified the contract in response. CTA writes that it nonetheless "completed installation of the automatic doors on June 25, 2018 without a modification." CTA states without elaboration that its "expert determined that CTA's progress was delayed 56 days," from April 30 to June 24, 2018, "due to the need to provide power to the automatic doors and the time it took the VA to address it." Again, VA agrees to pay for the unauthorized work but does not admit liability for delay.

We have doubts about the proof of this delay period similar to those expressed above about the piano hinge and circuit setter matters. VA never formally modified the contract, yet CTA places start and end dates on a "delay" "caused" by CTA's pending *request* for a modification. And again, we see no contemporaneous confirmation that the parties perceived that, for up to seven weeks, this single change request was delaying the project.[11]

VA Occupies Space for Next Phase

VA had fourteen days under the contract to vacate a new area of the building for a further phase of the project after closing the punch list for the new second floor.[12] Project notes show that in July 2018, VA vacated the area in twenty-two days. VA does not mention July 2018 events. We find that VA delayed demolition for the next phase by eight days.

Asbestos Suspension Until Termination

On August 6, 2018, VA directed CTA to stop work because of the presence of asbestos in the next construction area. CTA performed no more construction although its superintendent and some workers remained onsite. After corresponding with CTA about potential remediation work, VA terminated the contract for convenience on January 30,

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[11] CTA notes that VA wrote in a list of outstanding issues dated May 22, 2018, that automatic door installation was "[v]ery hot. Needs to be done pronto." (Boldface and underlining omitted). The May 22 list predated the alleged delay period by five weeks, showed multiple other urgent issues (including five others in bold and underlined text), and did not state that any activity was on the project's critical path.

[12] The General Requirements stated, "Contractor to allow 2 weeks between phases for Owner to furnish and move operations into addition before beginning construction of phase 3 work."

2019. Counsel for VA stated at the hearing that the agency "is not without fault on this contract," "takes full responsibility for the delay following the identification of asbestos," and "concedes general conditions [and general and administrative] expenses related to those 178 days" until the termination. VA states in its brief that it "has assumed responsibility for 238 days [of delay] related to test[ing] and balancing . . . and asbestos mitigation [sic]."

Summary of Delay Contentions

As foreshadowed, the scheduling experts largely talk past one another. Each expert says his approach to quantifying delay is correct and the other expert's approach is wrong.

VA accepted CTA's baseline schedule in May 2014. The schedule showed completion in 394 days, 306 fewer than allowed by the contract. CTA did not update the schedule regularly. CTA submitted eighteen updated schedules during the fifty-six months of the project. The experts dealt with the time gaps between updates in different ways.

Appellant's Expert

CTA's expert, Roger Gullo of Project Technologies Group, Inc., began working on CTA's pending claims in late 2018, before the termination. He testified that his "first task was" to "take a look at developing an as-built [schedule] up through November 2018 and [to] prepare a schedule to complete . . . all remaining contract work." He found that some activities in the approved baseline schedule against which CTA was then working were "open-ended" and not tied to successor activities in the scheduling software program. He inserted logic ties for those activities. He then undertook a review of the as-built project documentation to recreate a monthly schedule update for each month of the project for which there had been no schedule update.

Mr. Gullo testified that, in so doing, he added to CTA's contemporaneous, computerized schedules activities such as requests for information, proposed change orders, and requests for proposals, as well as durations for those activities, "because [such activities] have the potential of driving the completion date of the project." He emphasized that "what we did was an additive process, not a subtractive process. We took nothing away. We only added [information that] wasn't there" in the baseline schedules. Mr. Gullo testified that he and his team tried to assign start and end dates to activities based on daily reports, but "in the absence of documentation because the daily report may have missed, or didn't get into the detail that [was needed], then we conducted interviews with the project team."[13] He later

[13] No notes or records of such interviews are in the appeal file. *Cf. Amec Foster Wheeler* (noting that two experts unhelpfully relied on extra-record "discussions").

said, "So if you look at the last [monthly] update," number 56, "it is a combination of everything that was put in" from the as-built information.

After assembling the eighteen contemporaneous and thirty-eight forensically reconstructed schedule updates, Mr. Gullo testified, he undertook "in essence . . . a time impact analysis [using] monthly windows. . . . And in [each] window [we] were coming up with the actualized delays that had occurred in that monthly window. Nothing projected." He described the process as: "Step one, you identify the critical path and the driving actual critical activities during that monthly window. . . . Step two is to go ahead and calculate the actual activity level slippage. . . . The third step is to classify responsibility for that slippage. . . . And finally, the fourth step is to look at near critical activities," that is, activities with some but very little float, and to ask whether they might arguably have caused delay that might not be visible on a schedule with a resolution level of a month.

Mr. Gullo later testified about his approach to classifying delay as excusable or inexcusable on the contractor's part. "That's always in counsel with, first and foremost, the contractor," he said. "And then with the legal [team]. So putting the excusable, non-excusable" label on a delay "is always left up for legal determinations."

Mr. Gullo opined that CTA experienced 1430 days of compensable delay. His written reports as well as his hearing testimony were devoted largely to summarizing and justifying his forensic reconstruction approach and to rebutting VA's criticisms of that general methodology. Nowhere does Mr. Gullo or (more importantly) CTA attempt to guide the Board through the reconstructed as-built critical path, delay by delay, pointing to supporting details in the project record or elsewhere in the case record. CTA never explains with reference to specific evidence *why* it contends that any given activity delayed another activity—or, for that matter, why or when Mr. Gullo or someone else decided that a given *logic tie* between activities on the asserted critical path should be used in the schedules. As seen above, CTA invites us to accept the summarized results of Mr. Gullo's analysis but cites little or no evidence to corroborate the factual conclusions and judgment calls that Mr. Gullo testified went into forming his opinions.

Respondent's Expert

We say less about the opinions of the agency's expert, Todd Mayo of Capital Project Management Inc., as VA bears little or no burden of proof. Mr. Mayo's report states that he "was not in possession of a final as-built schedule and was unable to construct one." Mr. Mayo testified that he is "not a big fan" of Mr. Gullo's "method of analysis. I'm trying to be polite in the criticism, but we—I and my company—we strongly depend on contemporaneous schedules for our analysis. . . . And if people start manipulating them too much, you should treat them with skepticism." Mr. Mayo offered no examples of alleged

manipulation. He expressed general reservations about an analysis in which so many activities were added.

> [I]t's not just the addition of activities or breaking an activity into [four activities or] whatever it may be . . . . [T]he logic ties [are] where the art [of] the claims consultant comes into play, okay? And when you do that type of analysis, you can pretty much make just about anything you want to be critical and be causing the delay. And some of the things I saw in the [Gullo] report [seemed to be only in the nature of,] here's a couple of issues, [or] a document that looks funny. I mean, door hinges causing months of delay? I've never seen that before on a project.

Raising the rhetorical heat of Mr. Mayo's testimony (without, however, citing it), VA calls Mr. Gullo's analysis "essentially . . . a work of fiction" and accuses Mr. Gullo of "completely disregard[ing] the contemporaneous schedules in favor of a complete forensic after-the-fact created project schedule." (We find these assertions overstated, as discussed below.)

For reasons not fully explained, Mr. Mayo did not use all eighteen of CTA's contemporaneous baseline schedule updates in his analysis. He analyzed the critical path using six schedule "windows" and found 327 days of delay compensable to CTA, with the longest compensable delays arising from preparation of the slab for the new floor (147 days), "Unit Masonry, Gypsum Board, Plumbing and Sprinkler Rough-In, [and] Thermal Insulation" (179 days), and the asbestos stoppage (85 days).[14] Mr. Mayo identified a total of 1307 days of project delay through January 2019. The parties do not explain the wide gap between that number of days and Mr. Gullo's figure of 1430 days of compensable delay. Some but not all of the difference seems to arise from the fact that Mr. Mayo did not credit CTA with the early finish date incorporated in its approved schedule.

CTA says Mr. Mayo "intentionally ignores as-built facts [by] refus[ing] to make any adjustments to the contemporaneous schedules to reflect what was happening in the field."

Unabsorbed Home Office Overhead (*Eichleay*)

The largest cost categories in dispute are CTA's claims for $1,928,508 for itself and $258,394 for a subcontractor in unabsorbed overhead. CTA writes, "There was extensive and compelling proof that much of the work on the Project was suspended for long periods

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[14] Confusingly, VA never cites its expert's bottom line of 327 compensable days. VA "assume[s] responsibility" for 238 days of delay but goes on to assert that "Appellant has been fully compensated for any Government[-]caused delay."

of time, resulting in a significant reduction and, at times, complete interruption of the contractor's stream of income from direct costs incurred." CTA shows that contract billings averaged more than $200,000 per month through 2015 but "fell sharply" after 2015, falling to about $89,000 per month in 2016, about $77,000 per month in 2017, and lower than that until the termination. CTA maintains that it was "on standby" because "neither CTA nor [the subcontractor] ever demobilized . . . [but] maintained personnel and crews assigned to this Project ready to perform work as it became available. CTA continued to remain on standby as of the date the project was terminated for convenience." (Transcript citation omitted.)

CTA contends that "[h]ad the schedule not been delayed by the VA," CTA would have received revenues of "approximately $170,000" per month throughout the project. CTA presents a calculation relying on the *Eichleay* formula[15] in which CTA treats all of the days of compensable delay supported by its expert as days of "standby" resulting in unabsorbed home overhead. On behalf of the subcontractor, CTA states that the subcontractor "based its claim for unabsorbed overhead on a conservative number of delay days (867 days for the HVAC [sub]contract and 745 [days] for the Plumbing [sub]contract)" at two slightly different daily home overhead rates. CTA argues that the subcontractor "—like CTA—was on standby during the VA-caused delays" and could not obtain replacement work. VA generally denies that it delayed CTA or the subcontractor or required them to stand by. We further address the *Eichleay* issue below after discussing delay costs.

Other Additional Work

CTA includes in its claim the costs of two additional items of work. In both instances, CTA relies on unpersuasive testimony to allege or imply direction by VA.

Rerouting Interstitial Duct

In March 2015, CTA submitted a proposed change order to reroute an interstitial duct servicing the second floor for $5010.54. CTA writes in the passive voice that a subcontractor "was told to proceed" with the change order. The cited deposition testimony of a subcontractor employee is, "I submitted a change order. I was told to proceed, and they never paid it." We cannot tell who allegedly told the subcontractor to proceed. We see no evidence of direction by the contracting officer. To the extent that CTA points to this testimony as evidence that VA authorized CTA to proceed, we view the testimony as vague and unreliable hearsay which does not prove the assertion. *See TDC Management Corp.*, DOT BCA 1802, 91-2 BCA ¶ 23,815.

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[15] *See Melka Marine, Inc. v. United States*, 187 F.3d 1370, 1375 (Fed. Cir. 1999); *Eichleay Corp.*, ASBCA 5183, 60–2 BCA ¶ 2688.

Shower

Similarly, in November 2017, CTA submitted a proposed change order to add a shower that VA had requested for the second floor. The proposed price was $3088.82. CTA writes that, after initially rejecting the change order, "VA subsequently approved" it, and the same subcontractor performed the work. The subcontractor employee testified, "I found the shower, submitted the price, and they approved it. And we installed it, and they didn't pay for it, again." Again, we cannot tell who "they" were who allegedly "approved" the change. CTA cites no evidence of approval or direction by the contracting officer. To the extent that "they" were allegedly VA, the testimony is unreliable hearsay.

Unpaid Electrical Subcontractor

CTA writes, "Tate & Hill, the electrical subcontractor, incurred costs on the project for which it has not been paid. Those costs were detailed in correspondence from Tate & Hill to CTA's surety and consist of items billed to CTA late in the project which were never paid by the VA[.]" The subcontractor's letters to CTA's surety about nonpayment *by CTA* could not establish CTA's entitlement a price adjustment without further explanation, and we do not construe CTA's brief as seeking a price adjustment here. CTA makes no effort to substantiate the subcontractor's entitlement. CTA cites the following unenlightening hearing testimony of the contracting officer.

> Q Tate & Hill should be paid for the work that it did on this job that hadn't been paid for yet, right?
> A Certainly.

All we gather from this is that CTA has unpaid invoices from this subcontractor.

Labor Inefficiency

CTA explains in its post-hearing brief its "position . . . that some of [CTA's] costs were incurred due to VA-caused labor inefficiencies, but that under a termination for convenience, all of CTA's subcontractor costs are properly included as costs incurred on the project" regardless of efficiency. CTA then describes its stance as a "labor inefficiency claim" that is "supported by the reports of a labor inefficiency expert" in the appeal file, which CTA does not discuss. CTA later clarifies that it "did not attempt to fully prove [an inefficiency claim] at the hearing because all of CTA's labor costs are captured under the termination for convenience's total cost approach. [See below.] Even so, CTA has provided documentary and testimonial evidence, which sufficiently rebuts any contention that CTA's labor costs were caused by its gross disregard of the contract or unreasonableness." This generalized discussion does not—and does not seem to be intended to—prove any particular

costs resulting from agency-caused disruption or inefficiency. *See, e.g., Luria Brothers & Co. v. United States*, 369 F.2d 701, 713 (Ct. Cl. 1966); *Turner Construction Co. v. Smithsonian Institution*, CBCA 2862, et al., 17-1 BCA ¶ 36,739.

Interest on Borrowing

CTA says it "had to borrow money" to fund project delays. It does not specify which delays, or a specific number of days of funded delay. CTA's co-founder testified, "[C]urrently we have about $8.1 million of debt, which was to fund the delays on this project and one other, the Albany project." An accountant opined that interest payments of $488,590 are allocable to this contract. CTA cites no lending documents and nothing to support its method of allocating debt between the two contracts. *See* Rule 23(b). CTA writes, "The record is clear that the interest paid was on funds borrowed because of the government's delay and delayed payments, and those funds were used explicitly for this project." We disagree. Those things are not "clear" or proven. "Unsubstantiated assertions do not equate to evidence." *Jones v. Department of Health & Human Services* , 834 F.3d 1361, 1369 (Fed. Cir. 2016) (internal quotation marks and brackets omitted).

Settlement Costs

The parties stipulate that CTA incurred post-termination settlement costs of $12,315.

## Discussion

Nature of the Case

A threshold issue is whether this case is solely about termination for convenience costs—with the respective burdens for such claims—or, instead, retains aspects of a more typical construction dispute. We find that the latter is true. In order to award termination costs, we must resolve claims as we would in a straightforward construction case.

In general, in exchange for the right to end a contract without advance notice or legal cause, the Government promises to leave the contractor financially unharmed. *See generally Maxima Corp. v. United States*, 847 F.2d 1549, 1552 (Fed. Cir. 1988). "In contrast to common law damages for breach of contract," a standard Termination for Convenience clause "limits the contractor's recovery to costs incurred prior to the termination, a reasonable profit on the work performed, and certain additional costs associated with the termination. Anticipatory profits and consequential damages are not recoverable." *Best Foam Fabricators, Inc. v. United States*, 38 Fed. Cl. 627, 637–38 (1997) (citation omitted); *accord Universal Home Health & Industrial Supplies, Inc. v. Department of Veterans Affairs*, CBCA 4012, et al., 16-1 BCA ¶ 36,370; *see* 48 CFR 52.249-2 (Alternate I) (2013)

(enumerating the usual cost categories).[16] Termination for convenience "essentially acts to convert a fixed-price contract into a cost[-]reimbursement contract." *Russell Sand & Gravel Co. v. International Boundary & Water Commission*, CBCA 2235, 13 BCA ¶ 35,455 (citing cases)*; accord Best Foam Fabricators*, 38 Fed. Cl. at 640; *see New York Shipbuilding Co.*, ASBCA 15443, 73-1 BCA ¶ 9852 (1972). Under such an agreement, the contractor is "entitled to recover its reasonable, allocable, and allowable costs." *Abcon Associates, Inc*., PSBCA 5291, 08-1 BCA ¶ 33,762; *see Morton-Thiokol, Inc*., ASBCA 32629, 90-3 BCA ¶ 23,207; *Worsham Construction Co.*, ASBCA 25907, 85-2 BCA ¶ 18,016 ("The parties [argue] . . . as if an equitable adjustment under a firm-fixed-price contract is involved. . . . This basic assumption . . . is erroneous. Even assuming that the delayed performance of the contract was caused in part by appellant, . . . the contractor is entitled to recover all allowable costs."); *see generally* 48 CFR parts 31, 49.

The principle that the contractor should not incur a loss is not, however, absolute. "Any award . . . must be limited to items specifically allowed by the termination clause." *Kalvar Corp. v. United States*, 543 F.2d 1298, 1305 (Ct. Cl. 1976); *cited in Avant Assessment, LLC*, ASBCA 58903, et al., 17-1 BCA ¶ 36,837, *aff'd*, 752 F. App'x 1000 (Fed. Cir. 2018). The clause used here limits recovery "exclusive of" settlement costs to "the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated." 48 CFR 52.249-2(f).[17] Accordingly, CTA may "recover its actual and allowable costs of work prior to the termination, *limited to the total contract price*," plus settlement costs. *Foremost Mechanical Systems, Inc. v. General Services Administration*, GSBCA 12527, et al., 95-1 BCA ¶ 27,382 (1994) (emphasis added) (citing *Maitland Brothers*, ASBCA 43088, 93-3 BCA ¶ 26,007); *accord Richerson Construction, Inc. v. General Services Administration*, GSBCA 11161, et al., 93-1 BCA ¶ 25,239 (1992) (performance costs are recoverable "subject to the properly adjusted contract price as a ceiling" (citing cases)).

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[16] The measure of recovery under 48 CFR 52.212-4(*l*), a "commercial" termination clause, differs and is not at issue here.

[17] Here, we consider the "payments previously made" to be prima facie the "price of work not terminated" prior to any equitable adjustments.

In a supplemental brief,[18] CTA urges us to adopt the "total cost" approach used in *Safeco Insurance Co. of America*, ASBCA 52107, 03-2 BCA ¶ 32,341. The board in *Safeco* saw "no requirement in [regulation] for a contractor to segregate equitable adjustment claims and termination for convenience costs in its termination settlement proposal" and "concluded that the Government alone [wa]s responsible for increased costs resulting from differing site conditions, work suspensions, changes, and delay, disruption and inefficiency[,] and that Safeco properly submitted a *total cost* termination settlement claim, thereby *dispensing with any need* to separate any possible losses caused by Safeco." *Id*. (emphasis added). Importantly, the board in *Safeco* found that the contracting officer had implicitly "approved the use of the total cost settlement proposal . . . well aware that it would include equitable adjustment costs resulting from the Government's failure to resolve the differing site condition problems." *Id*. A later decision of the same board emphasizes that the contracting officer in *Safeco* "agreed to the total cost method" and that "the Board's language" in *Safeco* about the effect of an agency's mere "failure to object" to the components of a cost proposal "is both *dicta* and equivocal." *EJB Facilities Services*, ASBCA 57112, 15-1 BCA ¶ 35,867. CTA argues that, here, "[b]oth parties agreed to a total cost approach" in their respective post-hearing briefs. In a supplemental brief, VA emphasizes, for the first time, the ceiling of the contract price.

We consider ourselves bound by the language of the Termination for Convenience clause and unfree to follow *Safeco* by fashioning an award on a "total cost" basis without observing the price ceiling. *See Kalvar*, 543 F.2d at 1305 (reasoning that awarding breach damages "would render the termination procedure meaningless"); *White Buffalo Construction, Inc. v. United States*, 52 Fed. Cl. 1, 4 (2002). VA never admitted and we do not find that the agency is solely responsible for CTA's extra costs. Nor are we bound by VA's apparent error of law in not initially calling our attention to the significance of the contract price. *E.g.*, *Technicon Instruments Corp. v. Alpkem Corp*., 866 F.2d 417, 422 (Fed. Cir. 1989) (Nies, J., joining with comments) (citing cases), *cited in CSI Aviation, Inc. v. General Services Administration*, CBCA 6543, 20-1 BCA ¶ 37,580.

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[18] The parties did not brief the price ceiling initially. VA's post-hearing brief refers in passing to the limit of the contract price but states, "Where the proposed costs are reasonable, allocable, and allowable, Appella[nt] is entitled to recovery" and argues that costs caused by "mismanagement or improper performance" are unreasonable. Neither post-hearing brief tells the Board the final contract price. CTA's reply asserts, "Respondent agrees that [48 CFR 52.249-2] governs recovery of costs incurred and that *all allowable, allocable and reasonable costs* should be paid Appellant." (Emphasis added.) The Board invited supplemental briefing of the significance of the contract price.

Thus, given the dollar figures noted above, CTA may recover no more than $1,038,465.70 in pre-termination costs unless we equitably increase the contract price. *See Foremost Mechanical*; *White Buffalo Construction*, 52 Fed. Cl. at 4.

Within the limit of the contract price, a termination settlement or award "should compensate the contractor fairly for the work done and the preparations made for the terminated portions of the contract . . . . Fair compensation is a matter of judgment and cannot be measured exactly . . . . The use of business judgment, as distinguished from strict accounting principles, is the heart of a settlement." 48 CFR 49.201(a), *quoted in Dream Management, Inc. v. Department of Homeland Security*, CBCA 5517, 17-1 BCA ¶ 36,716 (single judge). The "fair compensation concept" does not guide us in deciding whether or how much to adjust the contract price. We hold CTA to the usual burdens of proof of entitlement, causation, and quantum with regard to claims that, if granted, would increase the price. *See Herman B. Taylor Construction Co. v. General Services Administration*, GSBCA 15421, 03-2 BCA ¶ 32,320*; Foremost Mechanical* (finding that costs were allowable yet did "not provide a basis for increasing the contract price that limits Foremost's recovery").

VA argues for a separate limit on recovery. Citing no authority, VA argues that "labor inefficiencies that are a direct result of the contractor's inability to schedule work or manage and pay subcontractors [are] not a reasonable cost to pass [to] Respondent" in a termination. "Recovery of these costs would allow Appellant to benefit from a problem that the Appellant created." This sets the bar for recovery too high. Courts and boards ask whether termination costs are "reasonable, allocable, and allowable"—not whether the work satisfied the contract. *See Best Foam Fabricators*, 38 Fed. Cl. at 640 (citing cases). This is logical, as "a contrary rule would, in effect, convert a convenience termination into a termination for default" and introduce considerations of "fault or negligence" that are not mandated by the Termination for Convenience clause or customary in cost-type contracting. *Id.*; *see also Riverport Industries, Inc.*, ASBCA 30888, 87-2 BCA ¶ 19,876 (awarding costs absent a showing of "gross disregard of . . . contractual obligations"); *New York Shipbuilding* (suggesting in dictum that only "the costs of performing . . . grossly deficient work would be considered unreasonable and hence unallowable").

We see no gross or patent disregard by CTA of its contractual responsibilities that could justify denying costs that are otherwise recoverable under the Termination for Convenience clause.

Contract Price Ceiling

We find CTA entitled to equitable adjustments totaling $414,883.40. This makes the adjusted contract price $9,701,426.10, leaving headroom to award $1,453,349.10 in pre-termination costs. Our reasoning follows.

Uncontested Change Claims

In a quantum stipulation, VA concedes liability for costs of "additional work" totaling $48,157. CTA describes the work as "changes performed by subcontractors" relating to the circuit setters, automatic door wiring, make-up water connection, interstitial duct, and the shower, all discussed above. We agree with VA that the costs of such work are *termination costs* allocable to the contract, but we find entitlement to an adjustment of the *price ceiling* for only one of the claims.

As explained above, in four of the situations (circuit setters, door wiring, duct, and shower), we see no evidence that VA authorized the work. Such a record cannot establish entitlement to payment for constructive changes. *See, e.g.*, *Nu-Way Concrete Co. v. Department of Homeland Security*, CBCA 1411, 11-1 BCA ¶ 34,636 (2010). For the water connection, VA issued a unilateral modification and now concedes without explanation that CTA is entitled to another $9565.27 for the modified work. We accept that factual stipulation per Rule 9(a)(1)(v) and increase the contract price by $9565.27.

General Conditions (Delay)

To obtain a price adjustment for delay, CTA "has the burden of proving the extent of the delay, that the delay was proximately caused by government action, and that the delay harmed" CTA. *Wilner v. United States*, 24 F.3d 1397, 1401 (Fed. Cir. 1994) (en banc). Only delay on a project's critical path results in overall delay. *See Kinetic Builders Inc. v. Peters*, 226 F.3d 1307, 1317 (Fed. Cir. 2000); *Affiliated Western, Inc. v. Department of Veterans Affairs*, CBCA 4078, 17-1 BCA ¶ 36,808. We find CTA entitled to 186 days of delay at a daily rate of $610.24, totaling $113,504.64.

We find entitlement to fewer days than CTA claims, not because we reject outright the approach taken by CTA's expert, as VA urges us to do, but because CTA does not persuade us that the analysis avoids pitfalls and produces a reliable critical path in this particular case. CTA essentially treats its expert's opinions as a "black box." CTA repeatedly posits an alleged cause of delay then recites without elaboration or evidentiary support its expert's *opinion* that the situation caused a certain number of days of critical path delay. An expert witness cannot simply "bless" delay claims in this manner. As noted, expert testimony should help the Board "understand the evidence or . . . determine a fact in issue." Fed. R. Evid. 702(a). Opinions alone are not evidence or facts.

CTA's expert undertook an "as-built critical path" analysis involving reconstructed schedule updates.[19] Notwithstanding VA's criticisms, a rigorous "as-built" approach—reviewing contemporaneous evidence in hindsight to trace the activities on the actual, longest path to completion—has been endorsed by government contracts tribunals. We explained in *Yates Desbuild Joint Venture v. Department of State*, CBCA 3350, et al., 17-1 BCA ¶ 36,870, that a schedule used to measure delay "must reflect actual performance and must comport with the events actually occurring on the job." *Id*. (internal quotation marks omitted). We added that potential delays which, in retrospect, "would have had no negative impact upon *the ultimate contract completion date* do not affect . . . monetary liability" for either party. *Id*. (emphasis added); *see also George Sollitt Construction Co. v. United States*, 64 Fed. C1. 229, 241 (2005) ("[D]elays which do not affect the critical path of contract work do not delay project completion.").

We look, in short, for the true critical path to completion (or, as here, to the state of completion at termination).[20] The parties' expectations about the critical path are not controlling. "[T]he critical path of construction can change as a project progresses." *Yates Desbuild*; *see Norair Engineering Corp*., ENG BCA 3804, et al., 90-1 BCA ¶ 22,327 (1989) ("A contractor's initial network analysis is not cast in bronze; it is constantly changing . . . . The impact of each change, or delay, on the previously charted sequences must be fitted into the [analyzed] network."). Because we must determine why a project lasted as long as it did, we want to know the path to the latest work—including the critical work immediately preceding that work, and just before that, and so on. In *Amec Foster Wheeler*, for example, we found no delay caused by activities that both sides' experts said were on the contemporaneous "critical path" but which did not affect the completion date, because later-added work created an entirely new critical path. We also declined in *Amec* to consider work that *could* have become critical but did not, noting, "We limit our analysis to the critical path delay that happened," i.e., to the as-built record.

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[19] The report of VA's expert describes the methodology of CTA's expert as "impacted as-planned." We reject that characterization.

[20] The point may seem obvious. Industry professionals, however, often use approaches other than "as-built critical path" to measure delay. These include "time impact analysis," "collapsed as-built," and "impacted as-planned," each of which has subtypes. *See generally* AACE International Recommended Practice No. 29R-03 (Apr. 25, 2011), *discussed in Yates Desbuild*. The fact that courts and boards refer to "*the* critical path" (singular) differentiates our backward-looking, historical approach from some others which allow for multiple critical paths. Mr. Mayo testified for VA, for example, "You can have more than one critical path" because, in his view, the critical path includes all activities "with zero or negative float."

Other tribunals have endorsed tracing delay on the as-built critical path. *See K-Con Building Systems, Inc. v. United States*, 131 Fed. Cl. 275, 329 (2017) ("[D]efendant contends that the critical path of performance should be based on an as-built, backward-looking schedule. The court agrees . . . ."); *Sunshine Construction & Engineering, Inc. v. United States*, 64 Fed. Cl. 346, 368–69 (2005) (approving of testimony that "identified the critical path on the as-built schedule" and "analyzed the cause for the change" when "activities . . . [were] shorter or longer than planned"); *Cogefar-Impresit U.S.A., Inc.*, DOT BCA 2721, 97-2 BCA ¶ 29,188 (finding that testimony focusing on "the actual critical path on the project" was "a more reliable indication of the delay caused to the project" than was "a contemporaneous time frame analysis"); *Norair Engineering* ("Whether [a] change or delay affects the critical path must be determined on the basis of conditions existing immediately prior to its occurrence[.]"); *Blackhawk Heating & Plumbing Co.*, GSBCA 2432, 76-1 BCA ¶ 11,649 (1975) ("We have consistently tried to evaluate Appellant's delay claims in terms of the delay actually caused to project completion."); *cf. Imperial Construction & Electric, Inc.*, ASBCA 54175, 06-1 BCA ¶ 33,276 ("[W]e are unable to determine the as-built critical path or the scope of the alleged delays and which party is responsible in whole or part."); *Santa Fe Engineers, Inc.*, ASBCA 24578, et al., 94-2 BCA ¶ 26,872 ("In light of the massive effort of appellant's delay expert . . . , appellant clearly could [and should] have reconstructed and inputted the change order information at the proper times into the . . . schedule had appellant prepared and maintained proper records[.]"), *aff'd*, 53 F.3d 347 (Fed. Cir. 1995) (table).

We reject VA's accusation that retrospectively adjusting as-built schedules based on project documentation or other evidence necessarily turns the schedules into "fiction."[21] There is, to be sure, a heavy presumption that regularly updated, contemporaneous schedules are the best evidence of project progress. *E.g.*, *Labco Construction, Inc.*, AGBCA 90-115-1, 94-2 BCA ¶ 26,910 ("The only schedule indicating a specific completion date . . . was submitted with Appellant's claim; the Board considers this an after-the-fact projection only."); *Morganti National, Inc. v. United States*, 49 Fed. Cl. 110, 138 (2001) (plaintiff's "'total time' analysis was wholly lacking in the face of contemporaneous schedule updates" evidencing reasons for delays), *aff'd*, 36 F. App'x 452 (Fed. Cir. 2002) (table); *Blinderman*

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[21] We find no *contractual* significance or fault in CTA's management of schedule updates. The specifications did not require "network analysis schedules" and instead incorporated 48 CFR 852.236-84(c), Schedule of Work Progress (Nov 1984), which requires an updated bar chart only "when individual or cumulative time extensions of 15 calendar days or more are granted for any reason." We reject VA's contentions that the record shows a "lack of schedules throughout the project" and CTA's "inability to maintain an updated schedule." Whether CTA might be better positioned in this case as an *evidentiary* matter had it kept its schedules up to date is a separate question.

*Construction Co. v. United States*, 39 Fed. Cl. 529, 585 (1997), *aff'd*, 178 F.3d 1307 (Fed. Cir. 1998) (table). At the same time, as we recognized in *Yates Desbuild*, forensic schedule analysis is "both a science and an art" and "not a magic wand" but a set of techniques requiring "the application of an expert's well-considered judgment in evaluating the logic underlying the various pieces of information that support the analysis." (Internal quotation marks omitted.) *Cf. Santa Fe Engineers* (reasoning that the contractor's expert "could have reconstructed" as-built information, had records been available).

Here, CTA's expert did not discard or ignore CTA's eighteen contemporaneous schedule updates. He explained, instead, that he reviewed them for accuracy and forensically recreated thirty-eight interstitial updates to chart an as-built critical path that he intended to be consistent with the contemporaneous schedules, project records, and other evidence. We have no quarrel with the stated approach of tracing delay on an as-built critical path using available, relevant evidence.

Rather, "the massive effort of appellant's delay expert" to make up for the absence of so much contemporaneous evidence, *see Santa Fe Engineers,* was not presented with enough rigor or detail to overcome due skepticism about its reliability. Boards have long agreed with VA's expert that "the usefulness of a [critical path management] schedule tends to become suspect when the contractor and the owner have developed adversary interests. There are too many variables subject to manipulation to permit easy acceptance of the conclusions of . . . consultants in such adversary circumstances." *Nello L. Teer Co.*, ENG BCA 4376, 86-3 BCA ¶ 19,326, *quoted in Dawson Construction Co.*, VABCA 3306, et al., 93-3 BCA ¶ 26,177. Further, "[e]xpert opinions offered on certain matters that . . . are not supported by the record tend[] to cast a shadow on the value of other opinions concerning issues where underlying factual matters were less clear." *Dawson Construction*. As described above, CTA's expert—relying to an unknown extent on hindsight "interviews with the [CTA] project team" to which neither VA nor we are privy—blames multiple, lengthy delays on circumstances for which we lack persuasive evidence that (1) VA was at fault[22] and/or (2) the alleged source of delay delayed the project.[23]

Although the shortcomings of the testimony in *Santa Fe Engineers* were more glaring, we agree with that board when it wrote:

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[22] These include the structural steel submittal, piano hinges, and circuit setters issues.

[23] These include the electrical specification and coordination studies, reverse osmosis water system redesign, water supply to heat exchanger, generator pad, piano hinges, circuit setters, and automatic door wiring issues.

> Appellant would have us rely on its expert's opinion because of his exhaustive study of the documentary record and discussions with appellant's witnesses. *We have little doubt that appellant's delay expert had a vast knowledge of this project*. However, his delay opinion was very conclusionary. He neither identified the specific underlying factual details he utilized in coming to his opinion nor sufficiently explained how he used the underlying data in reaching that opinion for each and every change and/or claim at issue.
>
> . . . [The expert's] analysis was in most part based upon unidentified information in change order and claims issue files and analysis of his [in this case, reconstructed] as built schedule without demonstrating how he [made or] utilized that schedule in reaching his conclusions for particular issues.

*Santa Fe Engineers* (emphasis added, citations omitted). We see nothing to counter, and some things that exacerbate, the natural suspicion that activities may have ended up on the expert's critical path only because CTA said in hindsight they were critical. CTA also does not show that its expert took account of the fact that the parties settled claims for delay costs through September 2016.[24]

Looking for delays for which we may equitably adust the contract price because such delays (1) post-dated September 2016, (2) occurred on a convincingly shown, as-built critical path, and (3) were VA's fault, we find two: eight days of delayed handover of the next construction space in July 2018 and 178 days from the stop-work order on August 6, 2018, through the termination on January 30, 2019.[25]

CTA did not calculate a daily general conditions rate for a delay claim. Its cost expert testified, "Since we were using the total cost approach" the Board discussed and rejected above, he determined only the "total [general conditions] costs that were incurred. I could have divided [general conditions costs] by the number of days and used that number, but since we were using the total cost approach, I simply validated the total [general conditions] amount to the job cost reporting." We could deny an equitable adjustment for delay for lack of proof of costs, *see Amec Foster Wheeler*, but VA cites evidence that VA acknowledges supports a daily rate, adjusted for previously settled delay claims, of "$610.24 per day," which we adopt in the absence of a more reliable daily rate for CTA.

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[24] To the extent that CTA argues that its major subcontractor experienced delays distinct from those encountered by CTA, we have the same problems with the analysis.

[25] Because these delays were total stoppages that delayed the project day for day, the issue of whether CTA's overall completion schedule was reasonable does not arise.

The record supports a daily field overhead rate for CTA's major subcontractor of $186, representing the burdened salary of the subcontractor's superintendent. Because the two compensable delays stopped the project and affected the subcontractor day for day, we grant an equitable adjustment for added subcontract costs of $34,596 (186 days x $186).

Unabsorbed Home Office Overhead

To obtain an equitable adjustment for unabsorbed home office overhead as compensation for being on standby, CTA must initially show "a government-caused delay of uncertain duration," that "the delay extended the original time for performance" or precluded the contractor from finishing earlier than scheduled, and that "the contractor [was] on standby and unable to take on other work during the delay period." *Nicon, Inc. v. United States*, 331 F.3d 878, 883 (Fed. Cir. 2003), *quoted in Active Construction, Inc. v. Department of Transportation*, CBCA 6597 (Mar. 9, 2022). As seen, CTA adopted a broad-brush approach, asserting essentially that every day of Government-caused delay was a day of standby. As also noted, CTA reserved and did not release claims for *Eichleay* standby costs in the May 2018 partial settlement of CBCA 5826.

Three time periods could arguably support recovery under the *Eichleay* formula based on government responsibility: the *alleged* delay associated with enclosing the second floor in 2015 and 2016, and the two delay periods in 2018 and 2019 previously found. We do not find that CTA was on standby, i.e., suffering an indefinite "interruption or reduction of the contractor's stream of income from direct costs incurred," in either of the first two periods. *See Interstate General Government Contractors, Inc. v. West*, 12 F.3d 1053, 1057 (Fed. Cir. 1993). Even assuming that VA's direction to enclose the second floor before starting work on the interior was a constructive contract change, CTA makes no attempt to show that CTA was justifiably "uncertain" how long the enclosure work would take. *See Nicon*, 331 F.3d at 883. During most of this period of the project, moreover, CTA's monthly billings were as high as they would ever be. Such a record does not support a finding that CTA was on standby in 2015 or 2016. CTA cites no evidence, in any event, that it did not exacerbate this alleged delay by failing to complete the enclosure, as VA repeatedly wrote was happening. Regarding the second delay—the eight days of delayed handover in July 2018—CTA cites no evidence that it was uncertain how long that brief interruption would last or that CTA stood ready to resume work with no "reasonable" opportunity to remobilize. *See, e.g.*, *Mech-Con Corp. v. West*, 61 F.3d 883, 887 (Fed. Cir. 1995).

The 178-day asbestos-related suspension preceding the 2019 termination was, by contrast, a standby period. The entire project was stalled for an uncertain duration at the fault of VA, and VA cites no evidence that it assured CTA—which had received a cure notice two years earlier and was still far behind the approved schedule—that it could leave the job and remobilize without consequences. "When a contracting officer issues a written order that

suspends work for an uncertain duration and requires the contractor to remain ready to work immediately or with short notice, the contractor proves its prima facie case." *BCPeabody Construction Services, Inc. v. Department of Veterans Affairs*, CBCA 5410, 18-1 BCA ¶ 37,013. VA cites no evidence that CTA or its subcontractor could prudently have obtained replacement jobs during this indefinite work stoppage. *See id*.

CTA calculates a daily rate of its home office overhead allocable to this contract of $1296.04. VA does not contest this rate in the briefing. For the major subcontractor, CTA's cost expert calculated two different home office overhead rates for two subcontracts. CTA does not elaborate in its brief on what the Board should do with those two numbers with respect to discrete delay periods. VA does not comment on the rates. As CTA does not brief a method to construct a blended or weighted daily home office overhead rate for the subcontractor and does not tell us what subcontract work remained to be done as of the start of the standby period in 2018, we use the lower daily rate of "$143.94 for the HVAC [sub]contract." The total equitable adjustment for standby costs is $256,316.44.

Other Claims

For reasons given above, we find no basis in the record to adjust the contract price for unpaid electrical subcontractor invoices, labor inefficiencies, or borrowing costs.

Profit on Claims

The contract included 48 CFR 52.242-14, Suspension of Work (Apr 1984), which excludes profit on claims under the clause. *See Roy McGinnis & Co.*, ASBCA 49867, 02-1 BCA ¶ 31,720 (2001). Except for the water supply connection issue, as to which the parties stipulated to quantum, we are adjusting the contract price only for periods of suspension and not for changes and need not address profit. CTA's bid worksheets showed 9.42% profit on work performed by subcontractors. We add profit of $901.05 for the water supply change.

Performance Costs Up to Contract Price, Plus Settlement Costs

We began our analysis with a modified contract price of $9,286,542.70. We have found CTA entitled to equitable adjustments in a total amount of $414,883.40. This raises the contract price to $9,701,426.10. VA has paid CTA $8,248,077. This leaves room for CTA to recover $1,453,349.10 in pre-termination costs up to the ceiling of the contract price. *See* 48 CFR 52.249-2(f), (g) (Alternate I). The equitable adjustment amounts are recoverable as such costs, leaving up to $1,038,465.70 ($1,453,349.10 - $414,883.40) still recoverable. We readily find additional costs exceeding that amount. The parties stipulate, among other things, that CTA incurred general conditions costs on the project of $1,123,221. An equitable adjustment granted here compensates CTA for $113,504.64 of that amount. This

leaves $1,009,716.36 in incurred general conditions costs. Applying the $1,009,716.36 for general conditions against the previous $1,038,465.70 left under the cap leaves room for CTA to recover another $28,749.34. As noted, the parties stipulate to unpaid "additional work" costs that exceed $28,749.34. We may stop the analysis there, as the allocable costs and payments discussed in this paragraph alone exceed the adjusted contract price.

CTA may recover the adjusted contract price of $9,701,426.10, minus payments to date of $8,248,077, plus the stipulated settlement costs of $12,315.

## Decision

The appeals are **GRANTED IN PART** in the amount of $1,465,664.10 before interest.

## Further Proceedings on Statutory Interest

The parties do not cite case law or other authority regarding the date or dates from which interest should run under 41 U.S.C. § 7109 on the claim or claims on which we grant relief in these consolidated appeals. The presiding judge will schedule additional briefing and the Board will issue a further decision on the accrual of statutory interest.

Kyle Chadwick
KYLE CHADWICK
Board Judge

We concur:

Allan H. Goodman
ALLAN H. GOODMAN
Board Judge

H. Chuck Kullberg
H. CHUCK KULLBERG
Board Judge