ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeals of	
Fox Construction Inc.	ASBCA Nos. 55265, 55266, 55267
Under Contract No. N68711-96-C-2135)	
APPEARANCE FOR THE APPELLANT:	Jeffery R. Price, Esq. Bostwick & Price, P.C. Salt Lake City, UT
APPEARANCES FOR THE GOVERNMENT:	Thomas N. Ledvina, Esq. Navy Chief Trial Attorney John S. McMunn, Esq. Senior Trial Attorney Naval Facilities Engineering Command Alameda, CA

OPINION BY ADMINISTRATIVE JUDGE TING

The Naval Facilities Engineering Command (NAVFAC or the Navy) entered into Contract No. N68711-96-C-2135 (Contract 2135 or the contract) with Fox Construction Inc. (Fox) in 1998 to construct certain buildings and support facilities at the Naval Air Facility (NAF) in El Centro, California. On 30 April 2003, Fox submitted to the contracting officer (CO) an \$813,726.95 certified claim. The CO denied the claim by her 8 September 2005 decision. Fox timely appealed the decision. Entitlement is before us for decision.

FINDINGS OF FACT

1. In January 1998, NAVFAC, Southwest Division, in San Diego, California, issued a solicitation for the following work to be performed at the NAF in El Centro, California:

The work includes construction of an ordnance facility, including five high explosive magazines, fuse and pyrotechnic magazine, bomb assembly building, rocket assembly building, inert storehouse, covered ready storage

area, truck holding area, and combat aircraft loading aprons, and incidental related work. Supporting facilities include roads, utilities, water storage tank, fire pump system, fencing, and lighting protection. Demolition of existing facilities is required, including removal of lead and asbestos-containing materials.

(R4, tab 1, § 01110 at 1)

ASBCA No. 55265 (Ditch Claim)

2. Paragraph 1.6, § 01110 (SUMMARY OF WORK), of the solicitation provided:

1.6 IMPERIAL IRRIGATION DISTRICT FACILITIES

Work includes modifications to facilities owned and operated by the Imperial Irrigation District (IID) in the vicinity of the new Ordnance Perimeter Road. All work on these facilities must be performed by IID personnel. Contractor shall coordinate and pay for all work required to be performed by IID on IID facilities. . . .

(R4, tab 1, § 01110 at 2) Thus, originally, the solicitation contemplated that Fox would use IID as its subcontractor to perform the IID-related work.

- 3. IID is a publicly-owned utility. It provides all the water and electricity to the Imperial Valley. The water is diverted from the Colorado River through the All American Canal into the Imperial Valley where it is again diverted into lateral canals that feed the agricultural fields across the valley. (Tr. 3/36) While IID owns and maintains the main irrigation canal delivery system, the smaller farm ditch irrigation canals are owned by private individuals and government agencies (tr. 3/37). At the El Centro NAF, there are ditches owned by IID, and there are ditches owned by the federal government (*id.*). The government has a land/lease program under which it leases land to farmers. In situations where the government makes changes that affect the ditches, the government is responsible for restoring or replacing the ditches affected (tr. 2/240, 3/38).
- 4. Floyd Cox (Cox) was the owner of Fox (tr. 1/38). In 1998, Jeffrey C. Wood was Fox's project manager (PM Jeff Wood or Jeff Wood) and estimator (tr. 2/102).
- 5. A pre-bid conference on the El Centro project was held at El Centro in late January or early February 1998 (tr. 1/88, 2/105). Both Cox and Jeff Wood attended the

conference (tr. 2/27). Jeff Wood testified that he pointed out at the pre-bid conference that he could not find "the means and the method to install the ditch" and inquired what the government's "expectations" were with respect to the ditches (tr. 2/106-7). According to Jeff Wood, the Navy told him that a determination would be made and an answer would be provided "by an addendum" (tr. 2/109). He acknowledged that he did not ask specifically whose responsibility it was to build the ditches (tr. 2/108-9).

- 6. Generally, the NAVFAC would ask that questions posed at the pre-bid conference be submitted "in writing" so that "any contractor bidding on the contract would have that information" (tr. 3/91-92). The project record does not contain any written inquiry from Fox.
- 7. The Navy issued Amendment No. 0001 on 24 February 1998. This amendment deleted the original ¶ 1.6 of § 01110 and replaced it with the following:

Work includes modifications to facilities owned and operated by the Imperial Irrigation District (IID) in the vicinity of the new Ordnance Perimeter Road. All work on these facilities must be performed by IID personnel. Contractor shall coordinate and pay for all work required to be performed by IID on IID facilities. "The Government will pay IID directly for cost of work performed by IID on IID facilities."

(Deletion from earlier version shown as strikeout and addition shown in bold) (R4, tab 1, Amendment No. 0001 at 2) Fox received the amendment on 27 February 1998 (tr. 2/112). According to Fox, Jeff Wood's "understanding," as derived from his "telephone conversations with the contracting office" was that the "ditch work was not intended to be included, because it would be performed by IID, and paid for separately by the Navy" (app. br. at 5). We find Jeff Wood misunderstood Amendment No. 0001, which pertained to the IID ditch work, and had nothing whatsoever to do with the other ditch work also shown on the contract drawings.

8. In bidding the El Centro project, Jeff Wood was the lead estimator although Cox worked with Jeff Wood on the estimate. (Tr. 2/26) Based on his reading of Amendment No. 0001, Jeff Wood did not include in the bid any amount for any ditch work (tr. 1/92, 193, 2/113). He assumed that all of the ditches at the job site were IID-related ditches (tr. 2/112-13, 116-17). We find that Jeff Wood did not realize that the contract drawings also showed ditch work that was not IID-related. What he was unclear about and inquired about orally was the specific method of constructing and installing ditches.

- 9. The evidence shows that some of its subcontractors included ditch work in their bids to Fox (tr. 2/113). The subcontractor bid from Superior Gunite, for example, assumed that building 4-inch ditches was a part of the contract. It bid \$80.75 per meter for the 4-inch ditches. (AR4 (Red Binder)¹, tab 2)
- 10. Bid opening took place in March 1998, about a month after the pre-bid conference (tr. 1/88). The low bidder declined the project (tr. 1/89). Fox was the next low bidder, and after it verified its bid, it was awarded Contract 2135 on 17 April 1998 (tr. 1/89, 90-91). The contract was in the amount of \$8,268,335 (R4, tab 1). We find that, based on Amendment No. 0001, it assumed no ditch work of any kind was in the contract. Contract 2135 incorporated by reference the standard contract clauses at FAR 52.229 through 52.252, including FAR 52.236-21, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997) ALTERNATE I (FEB 1997) and FAR 52.243-4, CHANGES (AUG 1987). (R4, tab 1, § 00721 at 1, 12, 13)

What Did the Contract Drawings Show?

- 11. Drawing C-9.1 shows a schematic of the NAF. The schematic at the upper right side of the drawing shows, along a main road, a truck holding area (circled by Cox at the hearing as #1), a pyrotechnic building (circled as #2), five arch magazines (circled as #3), a rocket assembly building², a bomb assembly building (circled as #6), an inert storehouse (circled as #7), a ready storage building (circled as #8), and a new water tank (circled as #9). Separated but not too far from these buildings is a new perimeter road (circled as #10). (R4, tab 2; tr. 1/43-46)
- 12. There was an existing perimeter road. The new perimeter road was to be built for the purpose of lengthening the runways and a fence was to be put up to secure the road. Along with the construction of the new perimeter road, ditch crossings were to be built by Fox over the existing ditches. (Tr. 1/72, 73)
- 13. On Drawing C-9.1, various structures as well as the perimeter road were enclosed by rectangular dash-lined boxes. These boxes were marked, for example, as C-10.1 or C-11.3, corresponding to other drawings with the same numbers, *i.e.*, C-10.1 and C-11.3, where details of the enclosed areas were given. (R4, tab 2)

4

Fox color-coded its Rule 4 (AR4) volumes: Green Binder (general documents); Red Binder (ditch issues); Dark Blue Binders (delay issues); Black Binders (Steiny claim); Light Blue Binders (depositions).

² Cox apparently did not assign a number to this building which would have been circled as #5.

- 14. The C-11 dash-lined boxes (C-11.1 to C-11.7) pertained to the perimeter road. Within the perimeter road area on Drawing C-9.1 are two references SEE NOTE 1 and SEE NOTE 2. These notes (circled as #12) provided:
 - 1. EXISTING TAIL DITCH OWNED & MAINTAINED BY IID. AS PART OF THE BASE BID WORK, IID SHALL INSTALL A NEW DRAIN PIPELINE (± 800 m) TO REPLACE THE EXISTING EARTHEN TAIL DITCH.
 - 2. EXISTING HEAD DITCH OWNED & MAINTAINED BY IID. AS AN ADDITIVE BID ITEM, IID SHALL INSTALL A NEW SUPPLY PIPELINE (± 800 m) TO REPLACE THE EXISTING CONCRETE LINED HEAD DITCH.
- (R4, tab 2) According to contracting officer Robert Keiser (CO Keiser), the contract drawings showed specifically where IID's work was to let the contractor know where its work might be impacted (tr. 3/19-20).
- 15. Ditch work that was to be performed by IID was also shown on the more detailed drawings. For example, Drawing C-11.1 contained these notes pointing to work to be done by IID:

NEW SUPPLY PIPELINE (^ 800 m) IN PLACE OF (E) HEAD DITCH SHALL BE DONE BY IID AS AN ADDITIVE BID ITEM 0001.

- (E) HEAD DITCH & TAIL DITCH CROSSING AND INSTALLATION OF NEW DRAIN PIPE (^ 800 m) IN PLACE OF TAIL DITCH TO BE DONE BY IID AS PART OF THE BASE BID WORK.
- (R4, tab 2) There were other examples: on Drawing C-11.3, there was a note showing the location of "NEW HEAD DITCH CONNECTION BY IID"; on Drawing C-11.5, one note pointed to the location of "NEW DRAIN PIPE BY IID," and one note pointed to the location of "NEW DRAIN BOX BY IID"; and on Drawing C-11.6, one note pointed to the location of "NEW DRAIN BOX BY IID," and another note pointed to the location of "NEW DRAIN PIPE BY IID" (*id.*). In short, the contract drawings specifically identified IID-related ditch work as IID ditch work.

16. The contract drawings also showed other ditches. For this latter category of ditches, there were no markings stating "[t]his is not IID" (tr. 2/240-41). There were no markings indicating that the non-IID ditches were excluded from the contract by such normal convention as "Not-In-Contract or "NIC." At the hearing, CO Keiser went through the contract drawings (those included in R4, tab 2) and marked with a yellow highlighter the non-IID ditch work. He found such ditch work shown on Drawings C-10.1, C-10.3, C-10.4, C-10.5, C-11.1, C-11.2, C-11.3, C-11.7 (*see* R4, tab 2; tr. 1/50-51).

What Did the Specification Provide With Respect to Non-IID Ditch Work?

17. The contract specification was divided into 16 divisions (DIVISION 01 to DIVISION 16) (R4, tab 1). This was a standard Construction Specification Institute (CSI) format "used widely in construction" (tr. 3/59-60, 65-66). DIVISION 03 pertained to concrete. It had four sections:

03100	CONCRETE FORMS AND ACCESSORIES
03200	CONCRETE REINFORCEMENT
03300	CAST-IN-PLACE CONCRETE
03371	SHOTCRETE

(R4, tab 1)

- 18. Detail 4 of Drawing C-10.7 showed a "CONCRETE HEAD DITCH." The detail applied to Drawings C-10.1, C-10.2, C-10.5, C-10.7, C-10.8, C-11.1, C-11.2, C-11.3, and C-11.8. It depicted various dimensions of the ditch. There were three "HEAD DITCH NOTES":
 - 1. PROVIDE 200 mm DIA. MANUAL SLIDE GATE AT 30 m INTERVALS ALL ALONG NEW HEAD DITCH, ORIENT GATE TO DISCHARGE TO AGRICULTURAL FIELD.
 - 2. PROVIDE 25 mm DEEP x 13 mm WIDE CONTRACTION JOINTS ALONG DITCH CROSS SECTION AT 5 m INTERVALS.
 - 3. PROVIDE 13 mm WIDE x 100 mm DEEP EXPANSION JOINT ALONG DITCH CROSS SECTION AT 30 m INTERVALS.

In addition to Detail 4, the same drawing showed a "MAIN ROAD SECTION & HEAD DITCH" at Detail 5, a "TYP. CULVERT W/ HEAD WALL EACH END" at Detail 2, and a "CULVERT HEAD WALL DETAILS" at Detail 3. (R4, tab 2) Similarly, Detail 3 on Drawing C-10.8 showed how a connection to "existing" head ditch was to be constructed. Detail 5 on the same drawing showed where and how a head ditch drain was to be constructed in relation to "NEW" concrete head ditch. (*Id.*)

Direction to Perform the Non-IID Ditch Work

- 19. In the months that followed contract award, there were indications that Fox was proceeding with what the Navy believed was non-IID ditch work (tr. 2/213-14). As excavation progressed, Fox took out the existing ditches. This prevented water from flowing to the farmland within the fence line at the NAF. By the spring of 1999, almost a year into the contract, the Navy became concerned when no progress was made to replace the ditches that were not removed from the contract by Amendment No. 0001 (*i.e.*, the non-IID ditches). (Tr. 2/213-14, 3/94)
- 20. In a FAX sent on 12 May 1999, Fox's project superintendent Charles Neumann (Superintendent Neumann) advised PM Jeff Wood that CO Keiser raised concerns at the weekly meeting about whether Fox was planning on working on the irrigation ditches. Wood was told unless the Navy could be persuaded that the irrigation ditches were "not in our contract," it would start withholding monies from Fox's billings. (AR4 (Red Binder), tab 5; tr. 2/22-23)
- 21. In the discussions that ensued, CO Keiser pointed out to Fox what he thought the contract covered. Fox took the position that "other than the specific area as it relates to IID," there was nothing on the drawings that "indicate[s] who does those ditches" and there was "no specification" for those ditches. With respect to the non-IID ditches, Cox testified:
 - A. . . . we didn't include the ditches. We weren't told to include the ditches. There's nothing in the plans that tells us that we have to do the ditches.
- (Tr. 1/124-25) The parties reached an impasse. Fox asked for a legal opinion from its counsel and forwarded that opinion to CO Keiser by letter dated 24 May 1999 (AR4 (Red Binder), tabs 6, 7).
- 22. CO Keiser's 7 July 1999 letter told Fox that after considering its letter and legal opinion, the Navy had determined that "Fox Construction is required to perform this work as a part of its contract." The letter directed Fox to "proceed with this work immediately." Keiser's letter went on to say that "the ditches in question are not

necessarily ditches that are existing, and . . . are not owned and operated by the Imperial Irrigation District (IID)," and that therefore, "the portions of paragraph 5 of Amendment 00001. . . that refer to IID work do not apply to these ditches." Keiser explained that "[w]ork that is to be performed by IID is clearly called out on the drawings . . . as 'BY IID," and that that "Details 2 through 5 on drawing C-10.7 and Details 1-5 on drawing C-10.8 give clear information on the specifics of the existing ditches and the new ditches to be constructed by the contractor." (AR4 (Red Binder), tab 8)

- 23. In his 9 July 1999 reply, PM Jeff Wood took the position that Fox would perform the non-IID ditch work under protest, and would seek to recover the costs associated with the work. Wood asserted that Division 3000 (CONCRETE) of the specification provided no information on the mix design, method of forming and other details. He also complained that Division 5500 (METALS) of the specification provided no fabrication and installation information on the manual slide gates. Wood argued that the schedule of prices³ the Navy approved included no line item for the non-IID ditch work. He reminded the Navy that "[t]ime is of the essence" and Fox could not proceed without information relating to:
 - 1- Type of ditch required. (shotcrete or concrete)[.]
 - 2- Mix Designs [.]
 - 3- Method of application.
 - 4- Method of forming.
 - 5- Details of slide gates.

(AR4 (Red Binder), tab 9)

24. In a second letter dated 22 July 1999, PM Jeff Wood reiterated that Fox could not proceed with construction without first receiving information relating to (1) concrete mix design; (2) concrete placement method; and (3) data "concerning the size, type, or

The contract required Fox to prepare and deliver to the CO a schedule of prices (R4, tab 1, § 01200 at 1, ¶1.2.1). Submission was required to be in accordance with Section 01330, "Submittal Procedures" (*id.*, ¶1.2.1). Of the four groups of submittals provided, we believe the schedule of prices belonged with "Administrative Submittals" (R4, tab 1, § 01330 at 1, ¶1.1.2d). The latter paragraph states: "Data presented for reviews and approval to ensure that the administrative requirements of the project are adequately met *but not to ensure directly that the work is . . . in compliance with contract documents*" (emphasis added). *See Union Temporal Jale Const.-Cotecan, S. A.*, ASBCA No. 33706, 87-3 BCA ¶ 19,959 (noting in that case the Schedule of Prices was not required until after contract award and expressly stated that it "does not affect the contract terms").

technical requirements for the procurement and installation of head gates and relating piping" He maintained that "the addendum took the work out of the contract," and that "[t]he plans do not indicate what was privately owned and operated by IID." He argued that "[t]he designers or those responsible for preparation of the plans and specifications failed to adequately describe this work as being included within Fox's scope of work [and] the Navy should bear the additional cost and impact of that failure." The letter asked the ROICC (Resident Officer in Charge of Construction) to provide the specific contract specification and FAR provision as authority for its directive, and said that the letter should be considered as its notice of intent to make a claim. (AR4 (Red), tab 10)

25. CO Keiser provided the following specifics in his 3 August 1999 response:

Primary Detail:	4/C-10.7
Secondary Details:	5/C-10.7; 1/C-10.8, 3/C-10.8;
	5/C-10.8; 2/C-11.8; 5/C-11.8
Primary Plans	C-9.1; C-10.1; C-10.3 to
	10.5, C-10.7, C-10.8; C-11.1
	to 11.7
Concrete Mix Design:	03300-2.1.1 "Concrete
	Exposed to Weather" i.e.,
	exterior concrete
Concrete Finish:	03300-3.4.4 "Exterior Slabs
	& Flatwork" i.e., broomed
Construction Method:	100mm thick, reinforced and
	formed per 4/C-10.7
Head Gate Detail:	150mm diameter, manual
	slide gates per 5/C-10.8
Head Gate Spec:	150mm diameter, manual
	slide gates, install per 02630-
	2.3.1
Head Gate Piping:	150 mm diameter, SDR35
	per 5/C-10.8, spec per
	02630-2.1.2

Keiser's letter went on to say:

As noted, the plans and specifications address the information you requested in your letter. We expect that you will proceed with this work, which is part of your original contract, per the direction in our letter of 07 July 1999 in accordance with FAR 52.211-10 -- Commencement, Prosecution, and

Completion of Work (Apr 1984). Please provide us a schedule for this work in accordance with FAR 52.236-15 – Schedules for Construction Contracts (Apr 1984).

(AR4 (Red Binder), tab 11)

26. Specification Section 02630, ¶ 2.3.1, Slide Gates, for example, provides:

Gates shall be specifically designed to control flow from irrigation canals for agricultural purposes. Gates shall consist of extruded aluminum guide rails, aluminum sliding gate intended for manual lift operation, and a spigot ring to connect through the wall of the irrigation canal. An aluminum lift rod, 6 mm in diameter and 600 mm in length, shall be furnished with each gate. Guide rails shall be secured to the concrete canal with stainless steel powder driven shot pins.

(R4, tab 1, § 02630 at 3) We find that, with the foregoing design criteria, the specification required the contractor to design the slide gates for the ditches. The table under Section 03300, ¶ 2.1.1 specified the compressive strength of concrete exposed to weather (R4, tab 1, § 03300 at 5).

27. Fox did not proceed as directed by CO Keiser. After consulting with a company which had done ditch work in the valley, Fox concluded that the non-IID ditches as shown in the drawings could not be built. According to Cox, the non-IID ditches as designed would not provide enough water to the fields. Fox furnished a new design to the Navy with a \$328,376.20 proposal to do the work. (R4 (Red Binder), tab 17) Headwalls and transitions are pipe-like constructions under a road. They are used to transition from the round concrete pipes (RCP) to the ditches (tr. 1/170-71). Detail 3 on Drawing C-10.7 shows a culvert headwall with detailed dimensions. Detail 4 on Drawing C-10.8 shows a culvert transition with specific dimensions. (R4, tab 2) Unlike the non-IID ditch work, Fox went ahead and built the headwalls and transitions (tr. 2/24). Fox's \$328,376.20 proposal included \$73,152.58 for building the headwalls and transitions (AR4 (Red Binder), tab 18; tr. 1/170-71).

28. We digress momentarily here to set out, chronologically, what was occurring with respect to the IID ditches. As a result of negotiations between Fox and the Navy on 31 January 2000, the parties entered into bilateral Modification No. A00008. Under this modification, the parties agreed to modify Amendment No. 0001, issued prior to award of the contract, by adding the language in bold type and deleting the language covered by the strikeout:

Work includes modifications to facilities owned and operated by the Imperial Irrigation District (IID) in the vicinity of the new Ordnance Perimeter Road. All work on these facilities must be performed by IID personnel. Contractor shall coordinate **and pay for** all work required to be performed by IID on IID facilities. "The Government will pay IID directly for cost of work performed by IID on IID facilities."

The modification stated "[t]his will put IID in the position of subcontractor to the prime." (R4, tab 10) In other words, bilateral Modification No. A00008 made Fox once again responsible for the IID work as described in the modification. The modification increased the contract price by \$317,103.70, and extended the contract performance period by 312 calendar days (CDs). The modification included the "CONTRACTOR'S STATEMENT OF RELEASE" clause providing that "[a]cceptance of this modification by the Contractor constitutes an accord and satisfaction and represents payment in full for both time and money and for any and all costs, impact effect, and for delays and disruptions arising out of, or incidental to, the work as herein revised." (*Id.*)

29. By letter dated 24 October 2000, the Navy asked Fox to provide by no later than 7 November 2000 a detailed proposal to change the non-IID ditch work as follows:

PC # 000040: Reduce the required concrete thickness of the farm ditches from 4 inches to 1-1/2" inches. Delete requirement for Steel Wire Mesh Reinforcement and add Fiber Mesh Reinforcement. Add 12 ditch check gates with walkways. Delete 70 - 8 inch diameter field outlet slide gates. Add 23-16 inch diameter and 48-14 inch diameter field outlet slide gates. Add 23-18 inch diameter x 10' long and 48-15 inch diameter x 10' long corrugated polyethylene field outlet pipes. Add 1/2" deep x 1/4" wide control joints transverse to ditch length at 8' on center. Change ditch dimensions required by detail 4 on Drawing C-10 to revised dimensions as shown on detail dated 10-18-2000. Change ditch invert elevations from those indicated on original

contract drawings to Drawings C-10.1, C10.2, C10.3, C-10.4, C10.5, C11.1, and C11.3, Revision 1, dated 10-18.2000.

(AR4 (Red Binder), tab 22) Fox did not respond to this request for proposal (tr. 1/174).

- 30. CO Keiser left the El Centro project in August 2001 (tr. 2/192). He was succeeded by Phillip [M.] Lavallee (CO Lavallee) (tr. 1/175). Since Fox had not performed the non-IID ditch work, CO Lavallee decided to remove that work from Fox's contract (tr. 3/95-96).
- 31. To finish the non-IID ditch work, the Navy requested a proposal and subsequently awarded a contract to International Custom Enterprise, Inc. (ICE). (Tr. 3/96, 1/166) ICE did not perform the original scope of work as set out in Fox's contract. Cox testified that the delivery order (No. 0045) the Navy issued to ICE set out a scope of work that "looks very similar" to the change described in the Navy's 24 October 2000 letter seeking a proposal from Fox (tr. 1/178).
 - 32. The scope of work ICE performed was as follows:

Reduce the required concrete thickness of the farm ditches from 4 inches to1-1/2 inches. Delete requirement for steel wire mesh reinforcement and add fiber mesh reinforcement. Add 8 ditch chedk [sic] gates with walkways. Delete 70 eight inch diameter field outlet slide gates. Add 55 sixteen inch diameter and 20 fourteen inch diameter field outlet slide gates. Add 55 sixteen inch diameter x 9' long and 20 fourteen inch diameter x 9' long concrete field outlet pipes. Add 1/2" deep x 1/4" wide control joints transverse to ditch length at 8' center. Change ditch dimensions required by Detail 4 on Drawing C-10 to revised dimensions as shown on Detail 4, Revision 2, dated 05-18-2001. Change ditch invert elevations from those indicated on original contract drawings to drawings C-10.1, C-10.2, C-10.3, C-10.4, C-10.5, C-11.1 and C-11.3, Revision 2, dated 05-18-2001.

(AR4 (Red Binder), tab 23 at encl. (1)) We find there were some differences between the work ICE ultimately performed and the work for which the Navy sought an estimate from Fox in October 2000.

33. In 2002, the Navy attempted to negotiate a contract adjustment with Fox to delete the non-IID ditch work which it never performed (tr. 3/96). As a result of discussions held on 31 January 2002, CO Lavallee advised Fox by letter dated

4 February 2002 that "[t]he parties hereto mutually agree[d] to the following equitable adjustment" to the project:

Contract remaining balance through A00019	\$355,236.77	
Amount paid to ICE for Ditch Work	\$151,133.77	
Amount paid to ICE to Repair Ditch Damage	\$ 2,873.03	
Estimate to Reduce Concrete Thickness	\$ 20,669.79	
Total Deduct from Contract	\$174,676.59	
Amount to be paid to Fox Construction, Inc.	<\$180,560.18 >	

(R4, tab 44)

- 34. CO Lavallee's letter enclosed Modification A00020 which set out, in more detail, the reasons for reducing the balance to be paid on the contract. The modification gave Fox no time extension and decreased the contract price by \$174,676.59. The \$174,676.59 deduction was made up of three separate amounts: (1) \$20,669.79 as a credit back to the Navy for reducing the concrete thickness for the non-IID ditches from 4 to 1½ inches; (2) \$151,133.77 paid ICE for the non-IID ditch work; and (3) \$2,873.03 paid to ICE to repair 35 LF of existing farm ditch damaged by Fox's subcontractor. (R4, tab 44 at Encl. (4))
- 35. Fox did not dispute that \$355,236.77 was the balance owed on the contract, and that the Navy paid ICE \$151,133.77 to perform the non-IID ditch work (with some changes from the original specification) (tr. 1/180). As for the \$2,873.03 to repair 35 linear feet of ditch damage located "between the ready storage building and the water tank close to the perimeter road," Cox acknowledged that its subcontractor damaged the ditches and did not deny that Fox was liable. Cox acknowledged that \$2,873.03 was reasonable for fixing the damage (tr. 1/181, 2/49-50). Cox expressed no view on the reasonableness of the \$20,669.79 credit the Navy took for reducing the 4-inch thick non-IID ditch concrete originally specified to 1½ inch (as installed by ICE). Cox testified that he was not aware of any contractual authority for the Navy to claim that amount (tr. 1/184).
- 36. Fox's 19 February 2002 reply sought a \$73,152.58 credit for the headwalls and transitions it built, resulting in a net payment to Fox of \$247,829.17 (\$174,676.59 + \$73,152.58). Fox advised CO Lavallee that its subcontractor had filed equitable adjustment claims that would be passed on to the Navy. The letter stated that its position on "the Ditch Issue has not changed, and the issue in regards to the subcontractor's Claim will require additional negotiations and rewording of the agreement." (R4, tab 45)

- 37. CO Lavallee's 12 April 2002 letter maintained that "the Headwalls and Transitions are required by the original contract." He told Fox that \$180,560.18 was what Fox could invoice by returning Modification A00020. (R4, tab 46) Fox returned Modification A00020 on or about 30 April 2002. It crossed out the standard release clause. On a separate page attached to the modification, it stated that it released the Navy from "all liabilities, obligations, claims, and demands whatsoever under or arising from the said contract" except:
 - 1. Specified claims in stated amounts, or in estimated amounts where the amounts are not susceptible of exact statement by the Contractor, as follows: We reserve our right to file claim(s) for damages due to owner caused delays and inefficiencies including but not limited to deficient plans and specifications in an amount to be determined.
 - 2. Claims, together with reasonable expenses incidental thereto, based upon the liabilities of the contractor to third parties arising out of the performance of said contract, which are not known to the Contractor on the date of the execution of this release and of which the Contractor gives notice in writing to the Contracting Officer within the period specified in the said contract
 - 3. Claims for reimbursement of costs (other than expenses of the Contractor by reason of its indemnification of the Navy against patent liability), including reasonable expenses incidental thereto, incurred by the Contractor under the provisions of the said contract relating to patents.

(AR4 (Red Binder), tab 26)

- 38. Fox submitted a certified claim to CO Lavallee by letter dated 30 April 2003. The claim was in the amount of \$813,726.95. It identified three specific items that Fox asserted were reserved from the release it signed in Modification A00020. The first item related to the non-IID ditches:
 - 1. Navy Ditch issue in the amount of \$247,829.17 (amount deducted from Fox Construction Inc.'s ("Fox") contract, plus Fox's cost for building the headwalls).

(AR4 (Green Binder), tab 9). Some 29 months later, the CO (Kathy L. Jones) denied the claim by decision issued on 8 September 2005⁴. The decision stated "[b]ecause you failed to construct the head ditch, as required under the contract, the Government was justified in removing from your contract the value of the work that was unperformed" (R4, tab 49). Fox timely appealed the decision by notice dated 21 November 2005. The Board docketed the "ditch" claim as ASBCA No. 55265, the "delay" claim as ASBCA No. 55266, and the "Steiny Settlement" claim as ASBCA No. 55267.

DECISION

ASBCA No. 55265 (Ditch Claim)

Fox disputes the Navy's right to deduct payment on the ground that "the ditches [were] never included in Fox's contract work" (app. br. at 4). Fox contends that the dispute raises the following issues: "(1) whether there was an ambiguity in the plans and specifications for the project concerning the inclusion of the work in Fox's contract; (2) whether that ambiguity is a patent ambiguity or a latent ambiguity; and (3) whether the Navy is legally liable for the consequences of that ambiguity" (*id.*).

If a contract is susceptible of more than one reasonable interpretation, it is ambiguous. *Hills Materials Co. v. Rice*, 982 F.2d 514, 516 (Fed. Cir. 1992), *citing Edward R. Marden Corp. v. United States*, 803 F.2d 701, 705 (Fed. Cir. 1986). Ambiguity can be patent or latent. A patent ambiguity is one that is "obvious, gross, glaring so that [the] . . . contractor had a duty to inquire about it at the start." *H&M Moving, Inc. v. United States*, 499 F.2d 660, 671 (Ct. Cl. 1974). When an ambiguity is latent, however, even if both contracting parties have different reasonable interpretations of the ambiguity, the cost is charged against the government if the contractor establishes that it relied on its interpretation of the contract in bidding the contract. *United States v. Turner Constr. Co.*, 819 F.2d 283, 286 (Fed. Cir. 1987).

Fox's ambiguity argument is based on the following assertions: (a) "There is no general note or specific note on the plans indicating which of those ditches constitute or do not constitute facilities owned by the Imperial Valley District 'IID'" (app. br. at 4); (b) "The specifications contain no reference or explanation of what constitutes 'IID facilities' in connection with the Project" (id. at 5); (c) The specifications are silent

Fox blamed certain unspecified "loss of evidence" due to loss of witness memory and to the death of the Navy resident engineer on the inordinate amount of time the CO took to issue a decision (app. br. at 3). Fox, however, was not without recourse in appealing or filing suit when the CO failed to issue a decision in a timely manner. 41 U.S.C. § 605(c)(5); *Cubic Defense Applications, Inc.*, ASBCA No. 56097, 07-2 BCA ¶ 33,695.

concerning the construction of the subject ditches "[b]ecause there was no clear indication of the extent, means, methods or other information on the plans or in the specifications" (id.).

We address first the threshold question of whether Fox's interpretation was reasonable. The contract drawings show two kinds of ditch work: (1) those specifically identified as IID-related and (2) those that bore no designation but nonetheless were shown as ditch work. With respect to the IID-related ditch work, they were initially included as a part of the contractor's work (finding 2). Prior to bidding, Amendment No. 0001 to the solicitation removed the IID ditch work from the contract (finding 7). Fox's bid, however, excluded not only the IID ditch work but all ditch work (finding 8). Over 21 months into the contract, the parties entered into bilateral Modification No. A00008 under which Fox agreed to become a prime contractor to IID to perform the IID ditch work for an increase of \$312,103.70 in the contract price and a 312 CDs extension (finding 28). Therefore, with the exception of alleged delays relative to the completion of the IID ditch work by IID as Fox's subcontractor (which will be addressed as a part of ASBCA No. 55266), there are no remaining issues with respect to the IID-related ditches, which Fox completed. The dispute between the parties centers only on the non-IID ditch work.

With respect to the non-IID ditch work, we understand Fox's argument to be that it was reasonable for it to conclude that such work was not within the scope of the contract inasmuch as there was no specific section of the specification that dealt exclusively with ditches. Fox contends that Jeff Wood pointed out at the pre-bid conference that he could not find "the means and the method to install the ditch" and inquired what the Navy's "expectations" were with respect to the ditches. He acknowledged he did not ask the more direct question of whose responsibility it was to install the ditches. (Finding 5)

We do not agree that the specification was devoid of any information relating to the means and method of building ditches. The ditches were to be made out of concrete. Section 03100, ¶ 2.1.1 specified the concrete's design mix. The ditches were to be exposed to weather. The table under Section 03300, ¶ 2.1.1 specified the compressive strength of concrete exposed to weather. Section 03300, ¶ 3.4.4 specified a "[b]roomed" finish for exterior slabs and flatwork. The head gate and slide gate dimensions were shown on Detail 5/C-10.8; the head gates and slide gates were to be installed in accordance with specification Section 02630, ¶ 2.3.1, and the head gate piping requirement was shown on Detail 5/C-10.8 and Section 02630, ¶ 2.1.2. (Findings 25, 26) Moreover, drawing details showed specific dimensions for headwalls and transitions (finding 27).

We are not persuaded that the specification was defective or misleading simply because it did not put all ditch work under a separate section or division pertaining specifically and exclusively to ditch work. As the Navy explained, the contract specification for the project was divided into 16 divisions. The specification in this case followed the CSI format "used widely in construction." (Finding 17)

The SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION clause⁵ requires "an examination of the drawings accompanying the contract to determine the contract's true meaning." *Globe Constr. Co., Inc. v. United States,* 230 Ct. Cl. 957, 960 (1982). Even though the paragraph relating to the IID facilities (§ 01110, ¶ 1.6) (finding 2) was taken out of the contract by Amendment No. 0001, that work pertained to IID-related ditch work only. The contract drawings however, showed other ditch work not labeled as IID-related ditch work. Because Fox's decision to exclude all ditch work in its bid would ignore non-IID related ditch work shown on the contract drawings (findings 16, 18), we conclude that its interpretation was unreasonable.

Fox also appears to argue that it was justified in concluding that ditch work was not a part of the contract because the Navy did not answer its pre-bid conference inquiry with respect to "the means and the method to install the ditch" and what the Navy's "expectations" were (finding 5). Despite the lack of an answer to the questions it found troubling, Fox nonetheless chose to bid the contract, and after it bid the contract, verified its bid (findings 6, 10). Even assuming the specification was defective in not containing sufficient information for a contractor to build the ditches shown on the drawings, Fox cannot recover. It is well established that when a contractor enters into a contract aware of the specification defects, it is not entitled to recover on a claim based on those defects. *Robins Maintenance, Inc. v. United States*, 265 F.3d 1254, 1258 (Fed. Cir. 2001); *Johnson Controls, Inc. v. United States*, 671 F.2d 1312, 1320 (Ct. Cl. 1982); *Wickham Contracting Co., Inc. v. United States*, 546 F.2d 395, 400 (Ct. Cl. 1976).

Because the various specification provisions together with the numerous details shown on the contract drawings were sufficient for Fox to construct the disputed (non-IID related) ditch work, we hold that Fox's interpretation to the contrary was unreasonable.

When Fox did not proceed with the non-IID ditch work, CO Keiser directed Fox to proceed with the work in July 1999 (finding 22). Fox did not comply with the CO's direction (findings 27). In October 2000, the Navy asked Fox to provide a proposal to

shown or mentioned in both."

FAR 52.236-21(a) incorporated into the contract provides in part that "[a]nything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if

perform a modified version of the non-IID ditch work as originally set out in the contract documents. Fox did not respond to this request. (Finding 29) The Navy subsequently awarded a contract to ICE to perform the work Fox refused to perform (finding 31). The scope of the non-IID ditch work ICE ultimately performed looked "very similar" to the modified scope of work to which Fox chose not to provide a proposal (finding 31). In February 2002, the Navy issued Modification No. A00020 seeking to deduct, from the amounts owed Fox: (1) \$151,133.77 paid ICE; (2) \$20,669.79 as a credit for the 1 1/2-inch concrete ditches ICE installed in lieu of the 4-inch concrete ditches originally specified; and (3) \$2,873.03 paid to ICE for repairing 35 LF of existing farm ditch damaged by Fox's subcontractor (findings 33-35).

When a contractor fails to perform work required by the contract, the government may, as in this case, issue a deductive change. *Celesco Industries, Inc.*, ASBCA No. 22251, 79-1 BCA ¶ 13,604. In order to be entitled to a deductive change, the government has the burden of proving that the deleted work was, in fact, required by the contract. *Metric Constructors, Inc.*, ASBCA No. 49343, 97-2 BCA ¶ 29,076 at 144,707, *citing Bruce Andersen Co.*, ASBCA No. 29412, 89-2 BCA ¶ 21,872. In addition, the government must show the contractor would have incurred the costs had the work not been reduced or deleted. *Celesco Industries*, 79-1 BCA at 66,683, *citing Nielson Co. v. United States*, 141 Ct. Cl. 793 (1958).

Generally, the rule governing deductive changes is the same as that which governs additive changes: to keep the contractor whole when the government modifies a contract. *Bruce Constr. Corp. v. United States*, 324 F.2d 516 (Ct. Cl. 1963). Thus, the pricing for the deductive change should be based on the contractor's current estimate or "would have" cost for performing the deleted work as of the time of the deductive change. Stated differently, the equitable adjustment to which the government is entitled is the difference between the reasonable cost of contract performance without the deletion and the reasonable cost of contract performance with the deletion. *Celesco Industries*, 79-1 BCA at 66,683.

In this case, the Navy has proved that the deleted non-IID ditch work was required by the contract. Moreover, the Navy gave Fox a chance to show what the deleted work as modified, would have cost, and Fox chose not to avail itself of that opportunity. Faced with Fox's failure to cooperate, the Navy had no choice but to deduct from Fox's contract what it paid ICE to do what Fox acknowledged to be "very similar" work. We conclude that the Navy has established through its documentary record a *prima facie* case of cost savings to Fox had it not been required to complete non-IID ditch work. Once the government has established a *prima facie* case of cost savings resulting from the deductive change, the burden shifts to Fox to rebut this showing. *Madison Park Clothes, Inc.*, ASBCA No. 4234, 61-2 BCA ¶ 3259.

Because the headwalls and transitions were a part of the non-IID ditch work covered by the contract (findings 27, 36-37), we hold that Fox is not entitled to the credit (\$73,152.58) it sought for their construction.

Because Fox has acknowledged that its subcontractor damaged 35 LF of ditches between the ready storage building and the water tank close to the perimeter road, and that Fox was liable for the damage, we hold that the Navy is entitled to recover the costs of repair.

Because the Navy has proved that Fox failed to perform the non IID-related ditch work required by the contract, we hold the Navy is entitled to a downward adjustment in the contract price. Since this case was heard on entitlement only, and Fox has not addressed the specifics of Navy's deductions (including the deduction due to reduction of concrete thickness and the acknowledged ditch-damage by Fox's subcontractor) during the course of the hearing, we remand the appeal to the parties to negotiate the quantum of downward adjustment.

ASBCA No. 55266 (Delay)

- 39. Under the contract, Fox was required to "[c]omplete the entire work ready for use not later than 365 calendar days after notice to proceed." The date of receipt of the Notice to Proceed (NTP) was "considered to be five (5) calendar days after the date of award." (R4, tab 1, § 00720 at 1-2) May 1, 1999 was established as the contract completion date. (AR4 (Light Blue Binder #1), Jeff Wood depo., ex. 25)
- 40. Twenty modifications Modification Nos. A00001 to A00020 were issued under the contract. Of these, all but two Modification Nos. A00001⁶ and A00020 were bilateral. All bilateral modifications contained the following release provision:

"CONTRACTOR'S STATEMENT OF RELEASE"

Acceptance of this modification by the Contractor constitutes an accord and satisfaction and represents payment in full for both time and money and for any and all costs, impact effect, and for delays and disruptions arising out of, or incidental to, the work as herein revised.

(R4, tabs 3-22)

_

⁶ Unilateral Modification No. A00001 was an administrative modification changing the paying office from Defense Finance & Accounting Service (DFAS), Oakland, to DFAS, San Diego (R4, tab 3).

41. As reflected in the table below, some of the bilateral modifications extended the contract performance period. Altogether, the contract performance period was bilaterally extended by 418 calendar days (CDs). The contract completion date was extended from 1May 1999 to 22 June 2000:

Modification	CD Extended	Unilateral (U)	Contract	R4 tab
		or Bilateral (B)	Completion As	Reference
			Extended	
A00001		U		3
A00002	53	В	23 June 1999	4
A00003	7	В	30 June 1999	5
A00004	2	В	2 July 1999	6
A00005		В		7
A00006	4	В	6 July 1999	8
A00007	4	В	10 July 1999	9
A00008	312	В	17 May 2000	10
A00009		В		11
A00010		В		12
A00011		В		13
A00012	7	В	24 May 2000	14
A00013	25	В	18 June2000	15
A00014	4	В	22 June 2000	16
A00015		В		17
A00016		В		18
A00017		В		19
A00018		В		20
A00019		В		21
A00020		U		22
Total Time	418			
Extension				

The Late Start Issue

42. The contract required Fox to organize and sponsor a two-day partnering course to be held within 45 days of contract award (R4, tab 1, \S 01310, \P 1.4). Thus, the partnering meeting had to be held before 1 June 1998. The purpose of a partnering meeting was to get everyone involved in the project together to "come to a mutual understanding . . . [in] work[ing] together . . . in providing a quality product . . . in a timely manner" (tr. 1/191).

- 43. The partnering meeting was initially scheduled to take place "sometime after" award of the contract on 17 April 1998. According to Cox, "The Government wanted to have certain people at the meeting . . . we were told there was a couple of people that went on vacation and so, we rescheduled the partnering meeting" (tr. 1/199-200). Cox acknowledged "we didn't object to the . . . change" (tr. 1/202). He testified that he understood that Fox was not supposed to begin work prior to the partnering meeting and the pre-construction meeting (tr. 1/200-201).
- 44. The partnering meeting took place on 19 May 1998 (tr. 1/197). This was followed by the pre-construction meeting the next day. (AR4 (Dark Blue Binder #1), tab 3) Fox hired Superintendent Neumann around the time of the partnering meeting (tr. 2/47-48).
- 45. Although the partnering and pre-construction meetings took place on 19-20 May 1998, work on the project did not begin until the end of June or early July 1998 (tr. 2/40, 47).
- 46. Section 01450 of the specification pertains to "Quality Control" (QC). Under this section, the contractor is required to have an approved QC Plan. Paragraph 1.2.1 requires the contractor to "[s]ubmit a QC plan within 15 calendar days after receipt of Notice of Award." (R4, tab 1, § 01450 at 1) Paragraph 1.4.1 of the same section provides that "[t]he only work that is authorized to proceed prior to approval of the QC Plan is mobilization of storage and office trailers, temporary utilities, and surveying." Paragraph 1.4.2 further provides that "[a]pproval of the QC Plan is required prior to the start of construction." (*Id.* at 2)
- 47. As a part of its QC Plan, the contractor is required to "[p]rovide a QC Manager at the work site to implement and manage the QC program" (R4, tab 1, § 01450 at 3, ¶ 1.5.1.1). To qualify as a QC Manager for the project, the QC Manager proposed must be "[a] graduate of a four year accredited college program" in one of the listed disciplines, and have a minimum of 10 years experience as a "superintendent, inspector, QC Manager, project manager, or construction manager on similar size and type construction contracts which included the major trades that are part of this Contract" (*id.* at ¶ 1.5.1.2). In addition, the QC Manager must have completed the "Construction Quality Management for Contractors" course periodically offered by NAVFAC in San Diego (*id.* at 4, ¶ 1.5.1.3).
- 48. In connection with providing QC services, Fox received several proposals including one from Construction Testing & Engineering, Inc. (CTE) (tr. 1/189; AR4 (Red Binder), tab 2). Around 17 April 1998, Fox sent CTE a contract for QC services for signature (tr. 1/190). CTE did not immediately return a signed contract (tr. 1/204).

Cox's explanation was "[s]ometimes it'll set [sic] on somebody's desk for a week or two before it gets signed" (tr. 1/213).

- 49. When CTE did not return a signed contract, Fox went to another geotechnical firm (tr. 2/43). The proposed QC manager and alternate QC manager from this firm did not meet the contract requirements (tr. 1/207-208). When the Navy rejected the proposed QC manager and alternate QC manager, Fox went back to CTE (tr. 1/211). After CTE reduced its price, Fox entered into a contract with CTE (tr. 2/45). Fox did not return a signed QC contract to CTE until sometime in July 1998 (tr. 2/41).
- 50. According to PM Jeff Wood, Fox did not have a QC manager on site as of 26 June 1998. Other than mobilization, the Navy would not allow Fox to start work without a QC manager. As of 26 June 1998, Fox also did not have a QC Plan approved. (AR4 (Light Blue Binder #1), Jeff Wood depo. at 44) Cox confirmed at the hearing that Fox could not do anything other than mobilization until sometime "after June 26th" (tr. 2/46). As to when Fox's QC Plan was approved, PM Jeff Wood testified "I don't think we got the CQC plan actually submitted and approved until after we were on the job for a month, maybe" (AR4 (Light Blue Binder), Jeff Wood depo. at 42).
- 51. We find that, having been awarded the El Centro contract on 17 April 1998, and having had the partnering and pre-construction meetings on 19-20 May 1998, Fox could not, and did not, begin construction until sometime after 26 June 1998.

Request for Information (RFI)/Submittal Issues

- 52. An "RFI" is a "request for information" (tr. 1/220). According to Cox, quite often, subcontractors would have "a flood of RFIs because they don't want to research in their plans and specs" (tr. 1/230). He testified that, on a typical project, Fox could answer "better than 50 percent . . . of the . . . RFIs . . . [before] mov[ing] . . . up the line" to the owner (tr. 1/230). On the El Centro project, Fox was able to answer about 35 percent of the RFIs itself (*id.*).
- 53. Cox testified that, on the El Centro project, there were "a lot of . . . problems" with respect to RFIs in the ROICC's office and the Architect/Engineer's (A/E) office (tr. 1/234). He testified that "we've had RFIs go as long as 30 days or more. Maybe 45 to 60 days depending on what they were" (tr. 1/235). He estimated that about 20 percent of the RFIs were answered between 45 to 60 days (*id.*).
- 54. Fox's QC Manager kept an "RFI Submittal Log" (tr. 1/238; AR4, (Dark Blue Binder #2), tab 48). This log shows 109 RFIs were submitted between 5 June 1998 and 13 July 1999. For each RFI, the log shows the subject of inquiry, the date that the RFI

was submitted and the date a reply was received. (*Id.*) Thus, the number of days it took the Navy to reply to any particular RFI can be calculated.

- 55. Fox's QC Manager also kept a two-page hand written "LOGS OF SUBMITTALS." For each submittal on this log, the QC manager entered, in separate columns: (1) Date Forward to ROICC; (2) Date Forward to A&E; (3) Date A&E Respond; (4) Date ROICC Respond; and (5) Date Forward to Fox. For some, but not all of the listed submittals, the QC manager appears to have calculated the number of days it took for the ROICC to respond. The number of days ranged from 7 days to 87 days: One took 55 days, one took 60 days, one took 63 days, one took 65 days, one took 81 days and one took 87 days. (AR4 (Dark Blue Binder #2), tab 48)
- 56. In September 1999, Fox asked its CPM scheduler, Jesse Wood of TURBO CM, to evaluate to what extent the project was delayed. Cox instructed Superintendent Neumann to fax the RFI and submittal logs to Jesse Wood for analysis. (AR4 (Dark Blue Binder #2), tab 48)

<u>Bilateral Modification No. A00002 Regarding Grounding Protection at the Arch</u> <u>Magazines</u>

- 57. There was a grounding system designed into the arch magazines. The system involved a copper-conducting wire that was bonded to the rebar in the footings and foundations. (Tr. 1/248-49) Steiny and Company, Inc. (Steiny), Fox's electrical subcontractor submitted an RFI raising questions with respect to whether the designed grounding was sufficient to protect the arch magazines (tr. 1/249). The grounding system would affect the work of subcontractors because it had to be done before the subcontractors could start forming the walls and proceeding with other work (tr. 1/250).
- 58. On 17 July 1998, Fox Superintendent Neumann sent the ROICC a hand-written draft of a letter stating that Fox had received no answer to its inquiry on additional grounding requirements delivered to the CO's office two weeks earlier. The draft stated that Fox expected to begin rebar and formwork on the arches before 1 August 1998 and the grounding of the rebar would take place at the same time. The note said additional time would be needed to procure the necessary materials and equipment, and the grounding issue needed to be resolved before the rebar and formwork could begin. The note also said that "[t]ime is critical in this matter, since the Arch Magazines are on the critical path from start to finish." (AR4 (Dark Blue Binder #2), tab 13)
- 59. CO Keiser responded the same day. He told Fox that the Navy was working with the A&E to provide "clarification and a sketch for any additional bonding or

grounding" and hoped "to have something for you early in the week of 20 July 1998." (AR4 (Dark Blue Binder #2), tab 14)

60. The record shows that the parties executed bilateral Modification No. A00002 on 25 September 1998. This modification paid Fox \$81,288.00 and extended the contract completion date 53 CDs to 23 June 1999. A part of the work covered by the modification was to "provide grounding for five arch magazines in accordance with attached southwest division drawing . . . dated September 1, 1998" for \$56,324.00. As indicated before, Modification No. A00002 included the standard "CONTRACTOR'S STATEMENT OF RELEASE" clause. (R4, tab 4) At the hearing, Cox pointed out that it took the Navy two months to get back to Fox on the grounding RFI (tr. 2/95). Whether that was the case is inconsequential since Fox released the Navy from any further claims on the arch magazine grounding issue.

Arch Magazine Concrete Repair Issue

- 61. Five arch magazines were built by Fox. They were to be used to store explosive materials, typically bombs, that were placed on aircraft that flew in and out of El Centro NAF (tr. 2/215). The roofs of the arch magazines were shaped like "half a pipe" (tr. 2/136). They were designed to contain explosion by blowing out the top and limiting damages to the sides of the structure (tr. 3/75).
- 62. When Fox stripped the arch magazine concrete forms, it discovered "some rock pockets or voids in the concrete." The pockets and voids were caused by "insufficient vibration of . . . the concrete." According to Superintendent Neumann, Fox's concrete crew did not vibrate to consolidate the concrete "as much as they should have" over concerns that the wet concrete would fall out "the top of the outside arch." (Tr. 2/130) While the voids and pockets were not visible from the top, they were visible from below when the bottom forms came off (tr. 2/136-37). Neumann acknowledged that its form supplier had provided forms with missing parts and parts that did not fit (tr. 2/139).
- 63. Neumann testified "[i]n some cases the rebar were exposed . . . the rebar was in the middle and we had to chip around all that" (tr. 2/137). He also testified there were "a bunch of big air pockets or voids . . . some that are baseball size and some that are finger size" (tr. 2/138), and "some big voids . . . maybe a foot, 18 inches square, [in] diameter" (tr. 2/134-35). Neumann acknowledged "[t]here were definitely problems with the concrete" (tr. 2/131), and the concrete in all five arch magazines had to be fixed (tr. 2/145). CO Keiser testified that, due to insufficient consolidation, "honeycombing or voids" appeared in each of the arch magazines. He testified that the areas involved "varied in size from almost imperceptible . . . to maybe areas as large as four square feet . . . some areas . . . were smaller . . . some were larger." (Tr. 2/215)

64. With respect to what was needed to repair the concrete, CO Keiser consulted Gordon Starnes, the Navy resident engineer (RE Starnes) (tr. 2/229). In this case, RE Starnes sought advice from concrete experts at the Naval Facilities Engineering Service Center (NFESC) in Port Hueneme, California. On 17 May 1999, RE Starnes received from NFESC an 11-page document entitled "CONCRETE REPAIRS DECK REPAIRS." Paragraph 4.2.1, Concrete Removal, provided in part:

Remove loose concrete from the designated area. Inspect the cavity for remaining unsound concrete by tapping with a hammer or steel rod. In areas where tapping indicates unsound concrete, remove additional concrete. Make the entire cavity at least 2 inches deep. Where rebar is exposed remove all corrosion by abrasive blasting or mechanical means to a near white metal condition as per recommendations of patch material manufacturer, prior to installing patch material.

The last page of the document forwarded included a paragraph that stated:

DRY PACKING AND HAND-APPLIED METHODS

Dry packing is the recommended technique to repair small cavities. Hand placement can also be an acceptable method. Both application methods are similar and the contractor should follow the manufacturer's recommendations. In both methods, it is very important to have good consolidation in and around the rebar between the layers.

(AR4 (Dark Blue Binder #2), tab 40)

65. The NFESC's fax cover sheet forwarding the documents said:

The following are some specifications and guidelines for concrete repair. The specs are somewhat formal and are designed for a contracting document. They do give some general guidelines. The guidelines have a series of sketches which are important. The most critical factor is to have a clean saw cut at least 1 inch deep around the periphery of the

repair area. There is a temptation to taper or feather the edge of the patch, but that does not provide good bond. . . .

(AR4 (Dark Blue Binder #2), tab 40)

- 66. RE Starnes faxed the document he received from NFESC, including the fax cover sheet to Fox on 20 May 1999 (AR4 (Dark Blue Binder #2), tab 40).
- 67. Fox consulted with Richard E. Miller, Jr. (Miller) of Miller Concrete Materials Consulting of San Diego (tr. 2/84). Miller held a B.A. degree and had post-graduate studies in construction management. He was a member and officer of American Concrete Institute and had served on several of its committees. (AR4 (Dark Blue Binder #2), tab 42) Miller was not a structural engineer (tr. 3/50).
 - 68. Miller's 25 May 1999 letter to Fox recommended:

On May 24, 1999 I visited the above referenced project to view the arch roofs of the Ordnance buildings. I observed some incidental rock pockets and various types of surface blemishes. Upon closer examination and sounding with a hammer, most of the areas appear to be solid and in need of cosmetic repair for aesthetics value only.

Since this area in the building is designed with secondary reinforcement only, and is considered "sacrificial concrete" in the event of an accident, structural considerations are limited.

Repair should consist of removal of all loose, unsound concrete via pneumatic hand tools such as a hand held "scabbler" or hydrodemolition. Remove to sound material. Repair areas should have square cut shoulders to provide tight repairs.

A commercially available, pre-mixed patch and/or repair material can be used, or a well proportioned, hand mixed material can also be used if prudence and care are observed in the process. After preparation and cleaning is completed, repair via the "dry-pack" method by hand placement. Cure any cementitious based repairs with good quality curing compound meeting or exceeding ASTM C 309.

All of the above preparation repair and curing procedures are covered in and should comply with ACI 546R *Concrete Repair Guide*.

(AR4 (Dark Blue Binder #2), tab 42)

- 69. Superintendent Neumann testified that RE Starnes walked through the arch magazines and pointed out places that Fox had to fix (tr. 2/133). He testified that Fox "patched the baseball sized ones and it got down to finger sized ones that were just that deep and he wanted me to do all that" (tr. 2/138).
- 70. CO Keiser testified that the degree of repair required depended upon the "severity of the imperfection":
 - . . . If it was something that was obviously structural, we required a more complete repair with the edges cut straight. If it was something smaller, I think we required something more along the lines of a less involved repair.
- (Tr. 2/227-28) This is consistent with Superintendent Neumann's testimony. He acknowledged that after Fox fixed the areas where rebars were showing and fixed the 18-inch across voids, RE Starnes became "less demanding" (tr. 2/146).
- 71. According to Neumann, Fox was well underway in repairing the voids when "it just so happens that our shotcrete contractor was on site and he walked in the arch magazines one day and he said 'Hey, you know, I can fill that with shotcrete'" (tr. 2/131, 140-41). Shotcrete is applied "under pressure" with "a large air hose with a big nozzle" (tr. 2/82-83). It is a different repair process from patching by hand. Neither the Navy nor Fox's own concrete repair consultant, Miller, recommended the use of shotcrete.
- 72. According to Cox, the Navy wanted the patching to be done by hand (tr. 2/80). He testified that, in "deep holes," either hand patching or shotcrete could have been used. He testified that what he saw "were mostly blemishes" which "for the most part . . . could have been done with shotcrete, very simply done" (tr. 2/80-82). He acknowledged that if there were exposed rebar, then hand patching would be appropriate because "materials
- ... [had to be] packed back as much as you can, especially ... around the rebar" (tr. 2/82). Cox agreed that where there were "loose stuff" or "loose particles," it would be necessary to "get to a solid surface" because "it won't hold if it's not" (tr. 2/80).
- 73. Cox testified that he was not at the job site every day but he was there several times when the concrete was already being patched. Although he did not observe

exposed rebars, he acknowledged that there could have been exposed rebars. (Tr. 1/273, 2/78) Since Cox was not at the job site everyday, and his opinion was based on his limited observations during the later stages of concrete repair, we find Superintendent Neumann's testimony with respect to the extent of the concrete defect more credible. (*See* finding 63)

- 74. Cox considered the NFESC materials provided to have been for "[s]tructural concrete patch repairs." He testified that his objection was to "the excessive amount of work that was required by this document." (Tr. 2/79-80) Given the nature of the concrete defects found, we find the general information and guidance RE Starnes forwarded to Fox to have been reasonable and not excessive. At the hearing Cox conceded what his own consultant (Miller) recommended was "similar" to, and involved the "same general idea" as, what NFESC recommended to Fox (tr. 2/85).
- 75. Correcting the arch magazine concrete defects involved a two-step process. The first step involved cleaning out the loose area and getting a square edge. The second step involved placing patch materials. (Tr. 3/73) With respect to the first step, we find that what Fox ended up doing was consistent with what NFESC and its own consultant recommended. With respect to the second step, the parties' dispute centered on whether Fox should be permitted to use shotcrete to correct what it referred to as blemishes or "cosmetic" repairs (tr. 2/133). According to Cox, using shotcrete, cosmetic blemishes could be corrected with a "surface rubbed off" with a "light shotcrete" (tr. 2/83). Neither Fox's consultant (Miller) nor NFESE recommended that a hand-patching method of repair, once started, could be switched to the "shotcrete" method of repair to finish off the cosmetic blemishes. There is no credible evidence that using shotcrete would have been acceptable under such circumstances.
- 76. Patching the arch magazine concrete took place in June and July of 1999, a year before Fox contended it completed the project (tr. 2/76). According to Cox, patching the arch magazine "took a lot of" time and manhours and "increased the time of the job." He opined that "[w]e could have finished earlier had it not been for that" (*id.*). In its appeal Fox does not claim the cost of having to repair the arch magazine concrete. It claims that performance of its work was delayed 49 days following the repair method the Navy recommended and required. (Tr. 1/279-80) Cox maintained that Fox could do a square edge with a minimum amount of saw cutting, and have the shotcrete contractor come through and take a rubber float to make the arch magazine concrete areas aesthetically pleasing in five days (tr. 1/278-79).

Completion Delay Issues

77. According to Cox, Fox was "basically finished with . . . what we could do in May [2000]" (tr. 2/67). Cox testified that Fox "eventually finished all of [its] work

around the 1st of August. Maybe two days into August of 2000" (tr. 1/269, 2/66-67, 3/186).

- 78. Fox attributed the delay in completing the project to "incidental work" that was performed in June and July of 2000. The "incidental work" referred to were changes covered in Modification Nos. A00013 through A00019 (tr. 2/67).
- 79. Modification Nos. A00013 through A00019 were executed by Fox at various times between 19 May 2000 and 11 April 2001. All seven of these modifications were bilateral and included the standard release clause. Bilateral Modification No. A00013 extended the contract performance period by 25 CDs; bilateral Modification No. A00014 extended the contract performance period by 4 CDs. Fox accepted the other five modifications bilaterally with no time extension. (R4, tabs 15-21)
- 80. Fox alleges that all of the buildings were finished and turned over to the Navy, and it could have demobilized as of 17 June 2000 (app. reply br. (findings/conclusions of law) at 15, ¶ 71⁷). Fox also attributed the delay in the completion of the project to completion of the IID ditches by IID. According to Cox, after most of the buildings had been inspected and finished, Fox had to wait for IID to finish its ditch work before it could finish the perimeter road (tr. 1/267). Cox testified Fox completed as much of the perimeter road as it could but it "couldn't finish the fencing or gates on the . . . [ditch] crossings . . . until IID was complete" (tr. 1/262, 266). IID started its work "sometime in July" and finished "all of our work around the 1st of August. Maybe two days into August of 2000" (tr. 1/269).
- 81. With respect to the IID ditch work, as mentioned previously, the Navy and Fox entered into bilateral Modification No. A00008 under which Fox agreed that IID would become its subcontractor and Fox would perform the IID work for an additional \$317,103.70 and a time extension of 312 CDs (finding 28). Bilateral Modification No. A00008 was agreed to by the parties on 31 January 2000; it was signed by Cox on 28 March 2000 and by the CO on 30 March 2000 (R4, tab 10).
- 82. The record shows that Fox and IID, in turn, entered into a contract to perform the IID work indicated on certain contract drawings and as clarified by certain IID drawings. The Fox/IID contract provided that "[a]ctivity on this project will begin after funds have been deposited, canal water outages scheduled and confirmed, and construction crews and equipment scheduled." The contract was in the amount of

29

-

Fox's reply brief is in two parts: one part covering the exceptions it takes to the proposed findings in the Navy's opening brief, and one part covering its proposed findings of fact and conclusions of law cited as "app. reply br. (findings/conclusions of law)".

\$279,300. (AR4 (Red Binder), tab 19) Fox obtained a cashier's check to the order of IID on 10 March 2000. IID issued a receipt to Fox for the \$279,300 on 26 April 2000 (AR4 (Red Binder), tab 20). There is no evidence that the Navy was in any way responsible for IID not starting work until July 2000.

- 83. Contending it was not within the scope of its contract, Fox never completed the non-IID ditch work. The contract included FAR 52.211-12, LIQUIDATED DAMAGES-CONSTRUCTION (APR 1984). No liquidated damages were assessed against Fox.
- 84. Fox's 30 April 2003 certified claim included the following delay-related component:
 - 3. Fox's equitable adjustment claim for delays caused by the Navy and the Navy's A&E in the amount of \$425,897.78 (delay in beginning project; delays in turn around on submittals and RFI's; lost time due to unnecessary concrete patching required by Navy, beyond the scope of the contract; Fox's lost production)

(AR4 (Green Binder, tab 9))

85. As further explained at the hearing, Fox's delay claim has two components: (1) a delay component and (2) a loss of production component. With respect to the delay component, Fox claims it was (a) delayed 30 days at the beginning of the project because the Navy delayed the partnering and pre-construction meetings; (b) delayed 11 days due to submittal and RFI processing; (c) delayed 49 days in repairing the arch magazine concrete; (d) delayed 14 days waiting for IID to finish its work at the ditch crossings before it could install the fencing to complete the project; and (e) delayed 5 days in performing "incidental work" in June and July 2000 just before the end of the project. At \$1,087.68 per day for home office and job site overhead, Fox claims it is entitled to \$118,557.12 (\$1,087.68 x 109 days). (Tr. 2/166-69) Fox calculated the loss production component of its delay claim by taking a percentage of the total labor costs it incurred on the project (\$1,098,841). The fraction used was 109/555 or roughly 19.6%. The 109 number is the sum of the days (30+11+49+14+5) it claims it was delayed. The 555 number is the number of days Fox claims it was on the project -- from 8 June 1998 to 31 July 2000. (Tr. 2/171) The amount claimed for loss production was \$215,372.83 (\$1,098,841 x 19.6%).

Project Schedule and Updates

- 86. TS 01320, ¶ 1.4 of the specifications required Fox to "use the critical path method (CPM) to schedule and control construction activities." The schedule was required to identify, among other things, "[m]ajor submittals and submittal processing time." Paragraph 1.4.1 of TS 01320 required Fox to keep all network analysis and updates "current, with changes made to reflect the actual progress and status of the construction." Paragraph 1.5 required monthly updating of the construction schedule to "reflect any changes occurring since the last update." (R4, tab 1 at § 01320-1, -2)
- 87. Fox contracted with TURBO CM to fulfill the contract's scheduling requirements (tr. 1/236). Jesse Wood, its principal, prepared a preliminary schedule. After this schedule was approved, Fox submitted a baseline schedule on 6 July 1998. The baseline schedule was approved by the Navy on 16 July 1998. (Tr. 3/150, 4/23; ex. G-1, tab 2 at 1)
- 88. Fox's baseline schedule included submittal activities and related fabrication and delivery activities as predecessor activities to the start of various work activities. The baseline schedule showed a planned completion date of 18 May 1998 for all administrative submittals so that site work could begin the next day. The first site work was an activity relating to engineering survey and layout with a planned start date of 3 June 1998. The initial critical path to project completion ran through the submittal relating to reinforcing steel for foundation work at the arch magazines. The baseline schedule showed 30 April 1999 as the planned completion date. (Ex. G-1, tab 2 at 1)
- 89. During the course of construction, TURBO CM, through Jesse Wood, updated the CPM schedule (tr. 3/150, 154). Generally, there was a monthly update for every month between August 1998 and March 2000 (tr. 3/174-75). Fox did not update the CPM schedule after March 2000. Thus, there were no schedule updates from March to the end of the project, in July 2000. (Tr. 3/150-51)
- 90. According to Kurt L. Musser (Musser), the Navy's scheduling expert (tr. 3/152), Fox's monthly updates reflected "the status of the project at the time it was updated" and showed "actual progress and . . . overall delays in the project" (ex. G-1, tab 2 at 5). The updates showed that the planned critical path shifted "a number of times during the course of the project" (tr. 3/176). Fox has not disputed that its monthly schedule updates showed actual progress and overall delays at least up through March 2000 after which the schedule was not further updated.

Analysis on Delays in Starting the Project

91. According to Musser, Fox's plan originally was to begin construction work some time in June 1998 (tr. 3/162). Because Fox's safety plan was not approved until 11 June 1998, it did not begin conducting engineering survey until 11 June 1998. Also, because Fox's CQC Plan was not approved until 29 June 1998, it did not begin construction work – excavation at the arch magazines – until 29 June 1998. (Tr. 3/161-62)

Analysis on Submittal and RFI Delays

- 92. According to Musser, Fox's CPM schedule showed the submittals it was to receive from its subcontractors. Musser testified that submittals from Fox's subcontractors affected the critical path of the project, and no submittals in the hands of the Navy affected the critical path of the project. (Tr. 3/177) Based on this testimony which was not refuted, and the evidence that Fox's schedule updates reflected the actual progress of the project, we find no basis for finding that either the partnering meeting or the pre-construction conference or any submittals requiring the Navy's attention delayed Fox in completing the project.
- 93. The contract specification does not specifically address RFIs (tr. 3/164). Generally, most RFIs were routine and could be addressed by Fox's own CQC organization (tr. 3/165). In the absence of specific contract provisions, the parties appeared in agreement that TS 01330, relating to "PROCEDURES FOR SUBMITTAL," offered some guidance. In this regard, ¶ 1.3.3b allowed "at least 15 working days for submittals for QC Manager approval and 20 working days for submittals for the Contracting Officer approval" (R4, tab 1 at 01330). Twenty working days is equivalent to a month (tr. 3/165).
- 94. To analyze whether any of the RFIs delayed the project, Musser selected those RFIs from Fox's RFI log that took "longer than about 30 days to review" and matched them against the critical path activities shown on Fox's monthly schedule updates. He found "at no time did any of the RFI's that had exceeded 30 days in review ever pertain to an activity on a critical path." (Tr. 3/166) With respect to the rest of the RFIs on Fox's RFI log, Musser found "none of them were on a critical path and did not have any impact whatsoever on the completion of this contract because of any extended RFI review that may have taken place" (tr. 3/167-68). Based on this testimony, which was not refuted, we find that none of the RFIs in Fox's RFI log delayed completion of the project.

Analysis on Arch Magazine Concrete Repair Delays

95. At the hearing, Fox contended that it took 49 more days to repair the concrete in accordance with the slower and more labor-intensive method the Navy had allegedly imposed. In reviewing Fox's scheduling updates, Musser found that Fox completed the arch magazines on 18 May 1999 (tr. 3/172). According to Musser, Fox's CPM scheduled the arch magazines to be completed "at the front part of the contract," and once the arch magazines were completed, completion of the project was driven by "critical path work in other areas" (tr. 3/172-73). Musser found that since the arch magazines were completed in May 1999, they "had an incredible amount" of float in Fox's schedule and therefore "at no time [could] . . . the repair work on the arch magazines ever have come close to being on the critical path." (Tr. 3/172-73) Based on Musser's analysis, which Fox did not rebut, we find that Fox has failed to demonstrate causal connection between completion of the entire project and its repair of the arch magazine concrete.

DECISION

ASBCA No. 55266 (Delay)

Under ASBCA No. 55266, Fox initially sought an equitable adjustment in the amount of \$425,897.78. As revised during the hearing, Fox sought: (1) \$118,557.12 for home office and job site overhead, allegedly due to the project being delayed 109 days and (2) \$215,372.83 in loss production allegedly evidenced by the fact that it had to stay on the project for 109 more days. (Findings 84, 85)

May 1, 1999 was the original contract completion date (finding 39). Twenty modifications (Modification Nos. A00001-A00020) were issued under the contract (finding 40). Nine of the modifications bilaterally extended the contract by 418 CDs or to 22 June 2000 (finding 41). The evidence shows that Fox actually left the project on 31 July 2000⁸ (finding 85). If Fox is entitled to 109 CDs of time extension it claimed, it would mean that Fox would have completed the project on 13 April 2000 (31 July 2000 less 109 CDs). We note that, as of April 2000, Fox's subcontractor IID had not yet begun the construction of the IID ditches (finding 82). Moreover, Fox refused to proceed as directed on what we found to be its responsibility under the contract to construct the non-IID ditches (findings 25, 27).

The 109 days of delay Fox claimed included: (a) 30 days at the beginning of the project allegedly because the Navy delayed the partnering and pre-construction meetings;

33

-

We note Cox testified that Fox finished its work around the first two days of August 2000 (*see* findings 77, 80). We use 31 July 2000 because that was how Fox calculated the extent of the delay claimed.

(b) 11 days allegedly due to submittal and RFI processing; (c) 49 days allegedly due to repairing the arch magazine concrete; (d) 14 days allegedly waiting for IID to finish its work at the ditch crossings before it could install the fencing to complete the project; and (e) 5 days allegedly in performing "incidental work" in June and July 2000 just before the end of the project. (Finding 85)

A delay connotes a time period completion of a project must be extended to account for slow-down or unanticipated events. To recover delay damages, a contractor has the burden of demonstrating that the specific delays were due to government-responsible causes, that the overall completion was delayed as a result, and that any government-cause delays were not concurrent with delays within the contractor's control. The mere fact that a contractor took more time than it thought it should take is in itself meaningless. "The length of time is meaningful only in relation to the effect it had on the project operations." *Law v. United States*, 195 Ct. Cl. 370, 384 (1971); *Jefferson Construction Co. v. United States*, 368 F.2d 247, 256 (Ct. Cl. 1966) (noting it is the contractor's burden to show "where the work was delayed because of the lack of approval"); *Essential Construction Co., Inc., and Himount Constructors Ltd., Joint Venture*, ASBCA No. 18706, 89-2 BCA ¶ 21,632 (immaterial some event disrupted work or delayed its start or completion: "It may well have been that item was not one which would delay the project completion or have any effect on it.").

(a) <u>Partnering and Pre-Construction Meetings</u>

In connection with the 30-day delay allegedly caused by the postponement of the partnering and pre-construction meetings, the evidence shows these meetings occurred on 19 and 20 May 1998, within 45 days of contract award on 17 April 1998 (findings 42, 44). Had the partnering and pre-construction meetings occurred earlier, as Fox had originally scheduled them, Fox still would not have been in a position to begin construction work at the site. The contract provided that "[a]pproval of the QC Plan is required prior to the start of construction" (finding 46). The evidence is clear that as of 26 June 1998, over a month after the partnering and pre-construction meetings, Fox could not start construction because it did not have an approved QC Plan. (Finding 50) *Fraya*, *S.E.*, ASBCA No. 52222, 02-2 BCA ¶ 31,975 (delay not excused due to late submission of QC plan).

We conclude that the delay in holding the partnering and pre-construction meetings did not delay Fox from starting construction because it could not proceed with construction without an approved QC Plan in any event.

(b) RFI and Submittal

With respect to the 11-day delay allegedly caused by the Navy's untimely processing of RFIs and submittals, the only evidence Fox submitted was the QC Manager's "RFI Submittal Log" and the QC Manager's "LOGS OF SUBMITTALS." Although these logs showed the dates the RFIs and submittals were submitted, and the dates the RFIs and submittals were answered (findings 54, 55), no causal relationships between the RFI and submittal delays to the overall completion of the project have been shown.

In contrast, Fox's own CPM monthly updates -- which showed actual progress and overall delays through March 2000 -- showed that submittals from Fox's subcontractors affected the critical path of the project, and no submittals in the hands of the Navy affected the critical path of the project (finding 92). Moreover, the Navy's scheduling expert found none of the RFIs on the RFI Submittal Logs had any impact whatsoever on the completion of the contract. Based on this testimony, which Fox did not refute, we conclude that none of the RFIs in Fox's RFI/submittal logs delayed completion of the project. (Finding 94)

(c) Arch Magazine Concrete Repairs

A constructive change occurs where a contractor performs work beyond the contract requirements, without a formal order under the Changes clause, either due to an informal order from, or through the fault of, the government. *Ets-Hokin Corp. v. United States*, 420 F.2d 716, 720 (1970); *Len Co. & Assocs. v. United States*, 385 F.2d 438, 443 (1967). To recover, the contractor must show that the government ordered it to perform additional work. *Len Co.*, 385 F.2d at 443. The contractor cannot merely show that the government disapproves a mode of performance. *Singer Co.*, *Librascope Div. v. United States*, 568 F.2d 695, 701 (1977).

Fox's claim that the arch magazine repair could easily and quickly be fixed with shotcrete was based on Cox's limited observations during the latter stages of repair (finding 73). The evidence shows, however, the concrete defects to have been far more serious involving, "a bunch of big air pockets or voids . . . some that are baseball size and some that are finger size," and "some big voids . . . maybe a foot, 18 inches square, [in] diameter" (finding 63).

Given the nature of the concrete defects found, we have found the NFESC guidance RE Starnes forwarded to Fox to have been reasonable and not excessive. Cox acknowledged what his own consultant (Miller) recommended was "similar" to, and involved the "same general idea" as, what NFESC recommended to Fox (finding 74). Fox's argument that shotcrete could and should have been used was based upon the

unsolicited opinion of its shotcrete subcontractor. Neither the Navy nor Fox's own concrete consultant, Miller, recommended the use of shotcrete. (Finding 71) There is no evidence that using shotcrete would have been acceptable once a different method of repair (hand patching) had begun, as was the case here (finding 75). Based on these considerations, we cannot conclude that the Navy imposed a more stringent method of concrete repair than necessary. Fox's own CPM schedule scheduled completion of the arch magazines "at the front part" of the project. The arch magazines were completed in May 1999 and had "an incredible amount" of float. (Finding 95)

Based on the evidence in the record, we hold that Fox has failed to prove that using the hand patching method in repairing the arch magazine concrete delayed the project.

(d) Delay by IID in IID Ditch Work

It is well established that a contract modification, complete on its face and reflecting the contractor's unqualified acceptance and agreement with its terms is binding on the parties and may not be disturbed absent fraud or special circumstances such as mutual mistake, collusion or duress. *QES*, *Inc.*, ASBCA No. 22443, 78-2 BCA ¶ 13,490 at 66,032.

Fox claims that it was delayed 14 CDs waiting for IID to finish its work at the ditch crossings before it could install fencing to complete the project. The IID ditch work was covered by bilateral Modification No. A00008. Under this modification, Fox agreed to assume the role of a prime contractor with IID as its subcontractor to perform the IID ditch work. Modification No. A00008 increased Fox's contract price by \$317,103.70, and extended Fox's contract performance period by 312 CDs. Modification No. A00008 included the standard release clause (*see* finding 40) which, among other things, released the Navy from further delays arising out of, or incident to, the IID ditch work. (Finding 28)

Because Fox has unqualifiedly released the Navy in bilateral Modification No. A00008 from any further delay claims arising out of, or incident to, the IID ditch work to be performed by IID as its subcontractor, we conclude that it is not entitled to the 14 CDs it claimed.

(e) Incidental Work at End of Project

Fox claims that it was delayed 5 CDs in performing "incidental work" in June and July 2000, just before the end of the project. The "incidental work" referred to were changes covered by Modification Nos. A00013 through A00019. These modifications were executed by Fox at various times between 19 May 2000 and 11 April 2001. All

seven of these modifications were bilateral and included the standard release clause (*see* finding 40). Bilateral Modification No. A00013 extended the contract performance period by 25 CDs; bilateral Modification No. A00014 extended the contract performance period by 4 CDs. Fox accepted the other five modifications bilaterally with no time extension. (Findings 78-79)

Because Fox has unqualifiedly released the Navy from any further delay claims arising out of or incident to the "incidental work" in Bilateral Modification Nos. A00013 through A00019, we conclude that it is not entitled to the 5 CDs it claimed.

Loss of Production Claim

Fox also claimed loss of production as a part of its delay claim (finding 84). Conceptually, loss of production is different from delay. Loss of production occurs when a contractor is required by the government to change its method of performance so as to proceed in a less productive manner. *Luria Brothers & Company* v. *United States*, 369 F.2d 701, 712 (Ct. Cl. 1966). As with any claim for increased costs, a contractor must prove (1) liability, (2) causation, and (3) damages. *Blinderman Constr. Co. v. United States*, 39 Fed. Cl. 529, 537 (1997), *aff'd*, 178 F.3d 1307 (Fed. Cir. 1999) (table). Various methods have been used to quantify loss of production, the most common of which is the "measured mile" approach. *U. S. Industries, Inc. v. Blake Constr. Co.*, 671 F.2d 539, 547 (D.C. Cir. 1982); *Advanced Engineering & Planning Corp., Inc.*, ASBCA Nos. 53366, 54044, 05-1 BCA ¶ 32,806; *recons. granted in part*, 05-1 BCA ¶32,935.

To be entitled to loss of productivity costs, a contractor must established a causal link or relationship between the affected work and the increased costs due to loss of productivity. *DANAC*, *Inc.*, ASBCA No. 33394, 97-2 BCA ¶ 29,184 at 145,153 ("absent a greater evidentiary link between the described phenomenon and this project," the Board refused to accept the Corps of Engineers' guide as sufficient proof of crew overloading); *Triple* "A" *South*, ASBCA No. 46866, 94-3 BCA ¶ 27,194 at 135,537 (impact variables rejected because they showed no causal relation to any particular changes).

As is evident from its loss of production computations, Fox tied its loss of production claim to the number of days (109 CDs) it was allegedly delayed. We have found that Fox has failed to prove it was delayed by the Navy, and that it had, in any event, released the Navy from further claims in connection with the IID and incidental work delays in bilateral Modification Nos. A00008, A00013-A00019.

Because Fox used the extent to which it was allegedly delayed by the Navy (109 CDs) as the measure of its lost production, and because it failed to prove that the Navy

was responsible for any of the delays it encountered, we hold that Fox is not entitled to recover lost production costs.

ASBCA No. 55267 (Steiny Settlement Claim)

- 96. Steiny and Fox entered into a subcontract agreement for electrical work on the El Centro project on 19 May 1998 (AR4 (Black Binder #2), tab 4).
- 97. Steiny first submitted a request for equitable adjustment to Fox on 27 October 1999. The request was for impact and delay costs in the amount of \$206,961.00. (AR4 (Black Binder #1), tab 3) Steiny later submitted a \$444,164.97 claim to Fox in February 2000. Steiny contended that Fox stopped payment for completed contract work plus interest as of September 1999 in the amount of \$94,196.34, that the contract completion date was extended 336 CDs and it was owed \$268,803.47 for extended home office and field overhead, and that it "suffered tremendous and costly impacts in the performance of our contract through the Prime Contractor caused delays" in the amount of \$81,165.16. (AR4 (Black Binder #2), tab 4) Steiny later revised its claim to Fox to \$376,739.12 (AR4 (Black Binder #2), tab 6).
- 98. Steiny also submitted its claim to The American Insurance Company (American), Fox's surety. Steiny was subsequently named as a party in an interpleader action filed by American in the United States District Court, Southern District of California. In July 2002, Fox entered into a settlement agreement with Steiny under which Fox agreed to pay Steiny \$165,000. (AR4 (Black Binder #2), tab 7) The \$165,000 amount included \$25,000 which Fox acknowledged it owed Steiny. Thus, Fox and Steiny actually settled their dispute for \$140,000. (Tr. 2/161)
- 99. Steiny submitted no claim against the Navy (tr. 2/217). The Navy was not involved and played no part in the settlement between Steiny and Fox. Fox's surety paid the \$140,000 (tr. 2/186, 3/193-94). Fox's 30 April 2003 certified claim to the Navy included the following item:
 - 2. Steiny & Co. equitable adjustment claim in the amount of \$140,000.00 (the actual amount of Steiny's claim was \$386,000.00. The amount paid to Steiny was \$140,000.00 per settlement with Fox).

(AR4 (Green Binder), tab 9)

100. Other than providing two volumes of documents relating to Steiny's claim against it (AR4, (Black Binders)), Fox did not provide any documentary or testimonial proof on how the Navy delayed or otherwise impacted Steiny's work on the project.

DECISION

ASBCA No. 55267 (Steiny Settlement Claim)

The mere fact that a contractor and subcontractor have reached an agreement does not make the government liable to reimburse the contractor for the amount of the agreement. *Aerojet General Corp. v. United States*, 209 Ct. Cl. 750 (1976). Fox alleges without citation to the record that "there were numerous and pervasive delays in the project stemming from the delays in the review of RFI's and Submittals by the Navy" (app. reply br. (findings/conclusions of law) at 16, ¶ 78). The only specific facts affecting Steiny in the record relate to the arch magazine grounding design. That issue was the subject of bilateral Modification No. A00002 under which Fox released the Navy from further claims. (Finding 57-60) Beyond this, Fox presented no specific and credible evidence on how the Navy delayed or otherwise impacted Steiny's performance.

Because Fox failed to prove that Steiny was delayed or impacted by the Navy, and because the Navy is not bound by the amount of settlement between Fox and Steiny, we hold that Fox is not entitled to the \$140,000 claimed.

CONCLUSION

For the foregoing reasons, these appeals are denied. The Navy is entitled to recover from Fox for the non-IID ditch work which Fox failed to perform. The Navy is also entitled to recover from Fox for repairing the damage to the ditches caused by its subcontractor. ASBCA No. 55265 is remanded to the parties for negotiation of the quantum of adjustment.

Dated: 5 March 2008

PETER D. TING Administrative Judge Armed Services Board of Contract Appeals

(Signatures continued)

I concur	I concur	
MARK N. STEMPLER	EUNICE W. THOMAS	
Administrative Judge	Administrative Judge	
Acting Chairman	Vice Chairman	
Armed Services Board	Armed Services Board	
of Contract Appeals	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. 55265, 55266, 55267, Appeals of Fox Construction Inc., rendered in conformance with the Board's Charter. Dated:		
	CATHERINE A. STANTON	
	Recorder, Armed Services	
	Board of Contract Appeals	