

ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of --)
)
Monterey Mechanical Co.) ASBCA No. 51450
)
Under Contract No. F64133-94-C0004)

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OPINION BY ADMINISTRATIVE JUDGE JAMES

This appeal arises from the contracting officer's (CO) final decision that denied all except \$80,171.22 of appellant's \$829,291.00 claim of 255 alleged "impacts" due to undisclosed superior knowledge, differing site conditions, delays, changes, acceleration and breach of the implied duty of cooperation under the captioned contract. We have jurisdiction of this appeal under the Contract Disputes Act of 1978, 41 U.S.C. § 607. After a nine-day hearing in Honolulu, Hawaii, the parties submitted post-hearing briefs. The Board is to decide entitlement only (tr. 1/14), including the number of excusable and compensable days of delay.

FINDINGS OF FACT

1. On 31 March 1994, the U.S. Air Force awarded Contract No. F64133-94-C0004 (the contract) to Monterey Mechanical Co. (MMC), for the fixed price of \$1,079,474.00 to replace water and sewer mains (CLIN 1) and water valves (CLIN 2), and to repair storm drainage (CLIN 3) at designated sites on Andersen Air Force Base (AAFB), Guam (comp. & ans., ¶ 6; R4, tab 1 at 1, 2). AAFB deleted CLIN 2 in July 1995, and MMC was paid \$38,215.63 for water valve materials respondent accepted on 12 December 1995 (R4, tabs 370, 400, 405, 614, 186 at 20).

2. The contract did not specify any sequence of water line installation or drainage repair by designated lines or areas, and required completion of storm drainage repairs within 270 calendar days, and replacement of water and sewer mains within 340 calendar days, after receipt of notice to proceed; set liquidated damages of \$207 for the first day of

delay, and \$139 for each day of delay thereafter; and required MMC to obtain the CO's approval to work other than between 7:30 a.m. and 4:30 p.m. on weekdays (R4, tab 1 at 3-5). MMC received notice to proceed on 26 April 1994 (R4, tab 202), thus setting 1 April 1995 and 21 January 1995 as the respective completion dates for CLINs 1 and 3.

3. The contract incorporated by reference the FAR 52.212-12 SUSPENSION OF WORK (APR 1984); 52.236-2 DIFFERING SITE CONDITIONS (APR 1984), which required prompt written notice to the CO of differing site conditions before such conditions were disturbed; 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984), which stated:

The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the [contract] drawings and specifications.

52.236-13 ACCIDENT PREVENTION (NOV 1991), which required MMC to comply with the Army Corps of Engineers Safety and Health Requirements Manual EM 385-1-1; 52.243-4 CHANGES (AUG 1987), and 52.249-10 DEFAULT (FIXED PRICE CONSTRUCTION) (APR 1984) clauses (R4, tab 1 at 3, 6, 10-13, 17), and the DFARS 252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (DEC 1991) clause, whose ¶ (d) provided:

Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work, but shall be performed as if fully and correctly set forth and described in the drawings and specifications.

(R4, tab 1 at 14)

4. The contract included Air Force specification Nos. "92-4202 P2, Replace Water/Sewer Mains," dated 4 June 1993, and "93-4201, Repair Storm Drainage," dated 2 June 1993, 23 water and sewer main drawings depicting two main sewer lines and four water lines, and 13 storm drainage drawings (R4, tab 1 at Attach. J-2, tabs 2, 187-88).

5. In Specification No. 92-4202 P2: (a) § 01011, ¶ 2, provided:

RECORD DRAWINGS: The Contractor shall maintain at the job site two (2) sets of full-sized contract drawings, marking them in red to show all variations between the construction actually provided and that indicated or specified in the contract documents, including buried or concealed construction. . . . On completion of the work, both sets of marked-up drawings shall be delivered, to the [CO], and shall be subject to his approval before acceptance.

Paragraph 12 required MMC to obtain a “Base Civil Engineering Work Clearance” which the parties called a “digging permit,” and forbade work until the permit was completely approved by AAFB. Paragraph 16 required MMC to submit one set of reproducible, “AS-BUILT” drawings upon completion of the project. (b) § 02222, “EXCAVATION, TRENCHING, AND BACKFILLING FOR UTILITIES SYSTEMS,” ¶ 3.1.1, “Trench Excavation,” provided: “When required by soil condition, trench walls more than 5 feet high shall be shored, cut back to a stable slope, or provided with equivalent means of protection for employees who may be exposed to moving ground or cave in.” (c) § 02660, “WATER LINES,” did not specify a pipe installation sequence, and ¶ 3.1.3, Joint Deflection, ¶ 3.1.3.1, Ductile-Iron Pipe, stated: “The maximum allowable deflection will be as given in AWWA C600” (American Water Works Association’s 1987 publication, “Installation of Ductile-Iron Water Mains and Their Appurtenances”—not in the record). (d) § 02730, “SANITARY SEWERS,” ¶ 3.1.2 b, provided: “Pipe laying shall proceed upgrade with the spigot ends of bell-and-spigot pipe pointing in the direction of the flow. Each pipe shall be laid accurately to the line and grade shown on the drawings.” (R4, tab 2).

6. The firm of Daniel, Mann, Johnson & Mendenhall (DMJM), prepared detailed calculations, formulae, drawings and graphs of sewage flow rates and velocities to design the new, AAFB, gravity flow, sewer line elevations (R4, tabs 221, 451; tr. 2/122, 8/227).

7. On 17 May 1994, MMC submitted to the CO a schedule (or progress chart) for the water/sewer lines with start and finish dates for the work elements, pursuant to contract § H-705 and the FAR 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984) clause (R4, tab 1 at 6; ex. A-4). MMC’s schedule planned water and sewer main work starting 1 August 1994, sewer manholes starting on 16 September 1994, water line laterals starting on 1 November 1994, and completion of all work elements on 1 April 1995. MMC did not include planned start and finish times for each of the four water lines and the two sewer lines. The CO approved MMC’s schedule on 24 May 1994. (Ex. A-4) No MMC schedule for storm drainage repair is in the appeal record.

8. Bilateral Modification No. P00002, dated 7 February 1995, changed service lateral pipes from “copper/galvanized” to “PVC Schedule 80,” extended the completion date for the water/sewer line replacement by 90 days to 30 June 1995, and included MMC’s release for the pipe material change (R4, tab 1b).

9. On 6 February 1995, MMC proposed to re-route sewer line No. 2 to “avoid the golf course tee-off/green and to minimize utility down time.” Bilateral Modification No. P00003, dated 14 February 1995, re-routed sewer line No. 2 and changed sewer manholes as no-cost, no-time changes, including MMC’s release for those changes. (R4, tab 1c)

10. Bilateral Modification No. P00004, dated 22 February 1995, extended the completion date for the storm drainage by 60 days to 22 March 1995 (R4, tab 1d).

11. Bilateral Modification No. P00005, dated 17 March 1995, changed manhole sizes, extended the completion date for the storm drainage by 130 days to 30 July 1995, and included MMC’s release for those changes (R4, tab 1e).

12. On 13 July 1995, respondent proposed a bilateral Modification No. P00007 to MMC to perform various change orders and to extend the completion dates for CLINs 1 and 3. MMC’s 18 July 1995 letter to respondent returned Modification No. P00007 unexecuted because it included changes not discussed by MMC for inclusion therein, it did not include all of the costs MMC sought for an adapter change, and included a general release. Respondent had inadvertently attached the wrong statement of work to P00007. (R4, tab 502) Modification No. P00007 was not issued.

13. Unilateral Modification No. P00008, dated 8 August 1995, provided for the addition of 6" by 4" adapters (MMC’s subsequent “impact” 253) and extended the completion dates for CLIN 1 by 49 days, and CLIN 3 by 19 days. Thus, the final completion date for both CLINs was 18 August 1995. (R4, tabs 1h, 502, 503)

14. Bilateral Modification No. P00009, dated 29 September 1995, added an 8" cross tee, and 8" valve and valve box on water line No. 1 at station 10+00 (MMC’s subsequent “impact” 3), for a \$5,000 price increase, no time extension and no MMC release (R4, tab 1i).

15. MMC sent “red-line” drawings, but no reproducible, “AS-BUILT” drawings, to respondent (tr. 1/191, 9/79-80, 95-98), and did not re-trace the red-line drawings to reproducible format (tr. 6/12). MMC’s final notation of backfilling on the water and sewer lines was on 3 January 1996 (R4, tab 173a at impact 26).

16. On 13 June 1997, MMC submitted a certified, \$829,291.00 claim to the CO alleging 255 “impacts” resulting from undisclosed superior knowledge, differing site conditions, delays, changes, acceleration and breach of the implied duty of cooperation, and seeking the \$19,883 unpaid contract balance and \$15,014 for additional CLIN 2 costs (R4, tab 173). Pacific Construction Consultants, Inc. (PCCI) of Rancho Cordova, CA, prepared MMC’s claim (tr. 4/23-24, 6/105, 111-12, 168), based on information provided by MMC’s

project manager, Larry Peterson, who visited the work site from time to time when he was on Guam (tr. 2/66, 4/158, 6/108), and MMC's engineer, Dante Duad (tr. 6/108-09).

17. The CO's 3 March 1998 final decision found substantial contract completion by 31 August 1995; assessed \$1,875 liquidated damages for a 13-day delay in completing CLIN 1; admitted liability totaling \$80,171.22 for MMC's claim impact Nos. 6, 11, 13, 15, 20-23, 25-26 and 131-39, the additional \$15,014 CLIN 2 costs, and a net \$9,833 of the contract balance after withholding \$10,050 for the estimated cost of tracing reproducible, as-built drawings MMC had not delivered; and denied the balance of MMC's claim. (R4, tab 186 at 22; tr. 7/46) On 7 April 1998, MMC timely appealed that decision to the ASBCA. On or about 12 August 1998, respondent approved and paid MMC's 27 July 1998 invoice for \$80,171.22 (R4, tab 624).

Our further Findings of Fact and Decisions address MMC's claim categories.

A. Undisclosed Superior Knowledge

18. All utility lines at AAFB were underground in 1994-95. Unidentified persons in the AAFB engineering department knew of existing SAC alert cables, Guam power cables, telephone lines, and abandoned sewer lines not shown on the contract drawings (tr. 1/34-35, 37-38, 41, 45-47). Respondent knew that the as-built drawings it provided to DMJM to design the projects were inaccurate (tr. 2/11-13, 17), they were "old SAC drawings, and underground locations for existing pipes, etc. [that] may have changed" and AAFB's plumbing shop had the correct drawings (R4, tab 450).

19. The contract drawings omitted such known subsurface utility lines to avoid a "spider's web" of details (tr. 8/171, 258), because some existing utility locations were believed not to interfere with the specified routes for the MMC's new utility line work (tr. 8/259), and because the Air Force did not keep records of all local power and cable television line locations and revisions (tr. 8/170-71).

20. The absence of such known, existing, subsurface utility lines from the contract drawings was not disclosed to MMC before contract award (R4, tab 1, Amendment 0002 at 2-3; tr. 2/141-42, 144).

21. We find that the record does not show which known, existing, subsurface utility lines, by type, specific location and elevation, were omitted from the contract drawings, and thus which of such lines actually affected MMC's performance.

DECISION

To recover for undisclosed superior knowledge, the contractor must prove that: (1) it undertook to perform without vital knowledge of a fact which affected performance costs

or duration, (2) the Government was aware that the contractor had no knowledge of and had no reason to obtain such information, (3) any contract specification supplied by the Government misled the contractor or did not put it on notice to inquire, and (4) the Government failed to provide the relevant information. *See Hercules Inc. v. United States*, 24 F.3d 188, 196 (Fed. Cir. 1994), *aff'd on other grounds*, 516 U.S. 417 (1996).

The record does not show which known, existing, underground utility lines, by type, specific location and elevation, were omitted from the contract drawings, and thus which of such lines actually impacted MMC's performance (finding 21). We decline to speculate on which known, subsurface utility lines, omitted from the drawings, were "vital" and "relevant" to successful contract performance and impacted MMC. We hold that MMC did not prove the first and fourth elements of superior knowledge.

B. Differing Site Conditions

22. The contract drawings for water and sewer lines and for storm drainage repairs included plans and elevations depicting new and existing buildings, structures, pavement, sidewalks, water lines, gate valves, fire hydrants, sanitary sewer lines and manholes, sanitary sewer ground cleanouts, storm drainage lines and manholes, and electrical and communication lines and manholes (R4, tabs 187-88). Respondent advised bidders that "[e]xisting water mains are cast iron pipe (CIP), not asbestos" (R4, tab 415 at 3).

23. The water and sewer line plans stated no "±" or tolerance for the angles, locations or distances for the new lines to be constructed, and the existing utility locations stated no "±" or tolerance. The elevations showed 20 existing utility elevations in feet with a "±," and the majority of such elevations without a "±". (R4, tabs 187, 188)

24. Water/sewer main drawing C-1 included the following "General Notes":

3. CONTRACTOR SHALL ACCOMPLISH EXPLORATORY EXCAVATION WORK TO DETERMINE EXACT LOCATION OF EXISTING UTILITY LINES PRIOR TO START OF NEW UTILITY LINES [sic] EXCAVATION/INSTALLATION WORK.

4. MINOR ADJUSTMENTS OF NEW UTILITY LINES ALIGNMENT MAYBE [sic] REQUIRED TO AVOID EXISTING UNDERGROUND UTILITY LINES OR EXISTING STRUCTURES.

(R4, tab 187 at 2) Storm drainage repairs drawing C-1 included the following "General Note 3":

THE CONTRACTOR SHALL VERIFY EXACT LOCATION OF
EXISTING UNDERGROUND UTILITY LINES IN THE WAY
OF NEW CONSTRUCTION PRIOR TO EXCAVATION
WORK

(R4, tab 188 at 2)

25. Specifications 92-4202 P2 for the water and sewer lines, and 93-4201 for storm drainage repairs, § 02050, ¶ 3.2, provided: “EXISTING UTILITIES: . . . When utility lines are encountered that are not indicated on the drawings, the [CO] shall be notified prior to further work in that area” (R4, tabs 2, 2b, at 02050-2).

26. EM 385-1-1 required that the “sides of all excavations in which employees are exposed to danger from moving ground shall be guarded by a support system, sloping or benching of the ground, or other equivalent means.” Excavations less than five feet in depth required no protective system if a “competent person examines and determines there to be no potential for cave-in.” EM 385-1-1 provided three alternative ways of sloping and benching, one of which was to slope excavations “1½ horizontal to 1 vertical,” and it provided three alternative support systems. (R4, tab 606)

27. Prior to the March 1994 contract in dispute, MMC had performed other contracts at AAFB, including installation of subsurface “primary/secondary” electrical lines, but not within the work sites specified in the instant contract (tr. 2/145, 4/147).

28. On 9 February 1994, MMC and other bidders visited the AAFB site before bidding (R4, tab 4). Bidders were shown seven new water and sewer locations (tr. 2/195-96, 4/177, 7/275). MMC’s representative, Larry Peterson, had the contract drawings with him and took photographs (tr. 2/196, 4/38-39, 176-77, 182, 184; R4, tab 640 at 8001410-42). Telephone pedestals, transformers, TV boxes, street lights, driveways, manhole covers and a swing set were visible (tr. 4/178-83, 5/186-87). Bidders did not survey the water and sewer routes, or remove or unbolt man-hole covers to investigate the location, depth or orientation of subsurface obstructions (tr. 2/195, 4/33). Such a survey took several days (tr. 4/32). The water/sewer line routes were not staked out or marked (tr. 4/30-31). We find that visible telephone pedestals, TV boxes, transformers, street lights, driveways and manholes did not enable bidders to ascertain the locations of underground utilities during the site visit.

29. MMC planned to excavate water/sewer line trenches approximately six feet wide by an excavator whose bucket was about three feet wide (tr. 6/20, 83-84).

30. MMC interpreted the contract drawings to show exact locations and elevations of the specified new water and sewer lines, and the exact or approximate locations of existing underground utility lines and structures; and it interpreted the absence on the

drawings of existing utilities and structures at or adjacent to the specified water and sewer line routes to mean that they did not exist, or were sufficiently distant from those water or sewer line routes to avoid conflict (tr. 3/98-99).

31. MMC interpreted Note 3 on sheet C-1 of the contract drawings – requiring exploratory excavation to determine, or to verify, the exact location of existing utility lines prior to starting excavation for new construction – to require exploratory excavation for existing utility lines shown approximately on the drawings, or those lines identified and marked by AAFB personnel during the course of performance, but not for those utility lines that were undisclosed or unknown or sufficiently distant from the new utility route to avoid interfering with trench excavation (tr. 5/83-84, 217-18; R4, tab 281).

32. MMC and the CO interpreted Note 4 on sheet C-1 of the water/sewer main drawings – requiring “minor adjustments” in utility line alignment to avoid existing utility lines or structures – to require only those realignments that resulted in no major or costly changes to the work, or increase in cost or time for performance (tr. 5/219, 7/67-68).

33. Respondent reviewed and approved MMC’s “digging permit” for the period 17 June 1994 to 14 June 1995 (R4, tab 233). The digging permit stated, and MMC knew, that, before digging, MMC had to notify AAFB and private utilities so that they could mark on site the locations of their utilities (tr. 2/198-200). The digging permit did not state whether AAFB or commercial utilities noted “in” or “around” the work area were disclosed in the contract drawings or not (R4, tab 233).

34. On 14 October 1994, MMC proposed, and on 21 October 1994, the CO approved a no cost change to “offset” (relocate) water line No. 1 from station 0+00 to 24+00 approximately 20 to 31 feet southwest of its specified route to avoid “existing manholes and structures not shown on the drawings or shown at incorrect locations” (R4, tabs 61, 63). The Board has considered that 20 to 31 foot offset in analyzing MMC’s alleged “impacts” Nos. 3, 5, 16-18, 27, 29-33, 36-46, and 113-17 on water line No. 1.

35. On 22 March 1995, the parties agreed to—

track excess costs incurred by the contractor for erroneous digging due to government direction, i.e., when drawings are inaccurate and the utilities shop also gives inaccurate directions. At the outset of digging the contractor will ask for the utilities shop to verify the drawings, if the drawings are inaccurate, the shop will mark the area to dig. If the shop marked area is incorrect, the contractor will track costs and submit them to contracting (hourly costs). These, in turn, will be sent to the inspector . . . who will verify and retain. A

contract modification will be issued at the end of performance period to incorporate the costs.

(R4, tab 95) This agreement was consistent with the “digging permit” requirement for MMC to notify AAFB of planned excavations in advance of digging in designated areas, so as to allow AAFB to mark utility locations, and with the specification § 02050, ¶ 3.2, provision requiring MMC, when it encountered any existing utility lines that are not indicated on the drawings, to notify the CO prior to further work in that area (see findings 5, 25, 31; tr. 2/198-201, 8/240-42).

36. Considering all the contract terms, and the parties’ course of dealing, relating to subsurface utilities and objects, we find that MMC’s interpretations of the contract drawings and Notes 3 and 4 on drawing C-1 were reasonable.

37. When excavating the water and sewer lines in 1994-95, MMC alleged that it encountered 148 undisclosed or misdisclosed “differing site conditions,” or “impacts,” including: (a) an incorrect sewer lateral size, (b) 39 obstructions, (c) 10 concrete-encased utilities, (d) 20 power or communication cables, (e) 3 street light cables, (f) 4 miscellaneous power cables, (g) 24 television lines, (h) 10 telephone lines, (i) 5 PVC lines, (j) 20 galvanized iron (GI) pipes, (k) 11 mislocated sewer laterals, and (l) one asbestos water main (R4, tab 173).

38. MMC’s 10 April 1997 claim, certified on 13 June 1997, included 255 “Impact Analyses” prepared by PCCI including the 148 “differing site conditions” referred to above (R4, tab 173). Each impact also contained one or more MMC “Daily Report to Inspector” (DRI), which, according to Mr. Peterson, Mr. Duad prepared from information obtained from field personnel (tr. 2/69-70, 3/179-80). Respondent first received DRIs with MMC’s 1997 claim (tr. 5/50-51, 7/46-47, 171-72, 285-86, 8/167-68). Some impacts contained a “Construction Cost Estimate Breakdown” (AF Form 3052), letters, submittals, sketches, and undated photographs of the site condition, taken by Mr. Peterson, Mr. Duad, or Mr. Takkam Smau, MMC’s field superintendent (tr. 2/126, 3/180, 4/44, 148-50). Some photos showed a paper on which the line and station location was written (R4, tab 173; tr. 5/150-53). Government witnesses did not say when they first received MMC’s cost estimates. We draw the inference that respondent received such estimates shortly after the dates stated on them.

39. According to MMC’s DRIs, Messrs. Duad and Smau were on site nearly every day the job was ongoing (R4, tab 173; tr. 2/70, 5/211). Mr. Smau was on both parties’ witness lists, and Mr. Duad was on respondent’s witness list. Neither testified to verify the date of preparation, completeness and accuracy of DRI entries, and the dates and locations of the site condition photographs. The DRIs in evidence correspond to alleged “impact” dates from 4 July 1994 to 3 January 1996. Between 20 June 1994 and 31 December 1995, the record contains no DRIs for 166 weekdays, exclusive of federal holidays. (R4, tab 173)

Much of Mr. Peterson's testimony was not from perception or personal knowledge, but repeated hearsay from claim documentation (tr. 2/55-60). Considering his demeanor and persistently evasive and argumentative answers, we assign little probative weight to Mr. Peterson's testimony to corroborate MMC's allegations.

40. According to Mr. Peterson, after MMC had submitted to respondent several written notices of differing site conditions, respondent advised MMC not to submit more notices (tr. 5/11-13, 104). CO Carol Allison denied that she or any contract administrator so advised (tr. 7/47). The record includes nothing corroborating such advice. We find that respondent did not advise MMC to stop submitting such written notices.

41. MMC often notified respondent's inspectors orally of differing site conditions (tr. 1/59-61, 108-10, 2/78-80, 3/17, 156-57, 8/23-28). Where AAFB inspection records show knowledge of differing site conditions (impacts 102, 109, 120) (R4, tab 635 at 602915, 602935, tab 637 at 602989), we find that the Government had such notice.

42. The documentary evidence and cited testimony did not substantiate the occurrence of 14 alleged differing site conditions, because (a) the PCCI summary sheet was not contemporary eyewitness evidence, (b) the DRI lacked entries on its reverse side (where alleged differing site conditions were typically noted), (c) the photographs accompanying impact Nos. 37, 50-55, 83, 87-88, 97, and 107 were not dated (tr. 5/153), and the line and station locations legible in the photographs accompanying impact Nos. 52-55, 87-88, and 97 were not verified by probative evidence; (d) no difference between the conditions the contract indicated and those MMC encountered was shown; and (e) MMC did not notify the CO of 13 of those 14 alleged site conditions (all except impact 254) promptly and before they were disturbed. (R4, tab 173 at impacts 37, 50-55, 83, 87-88, 97, 107, 254, 255)

43. MMC encountered a fire hydrant, a swing set, and concrete driveways and sidewalks at the surface elevation and visible during MMC's pre-bid site visit (R4, tab 173 at impacts 1 (fire hydrant), 12, 47, 125, 237, 238, 239).

44. MMC encountered 12 undisclosed subsurface utilities or obstructions at, or within a three-foot excavator bucket width of, the location indicated on the contract plans. MMC did not notify the CO of the conditions cited in 8 of those 12 impacts, Nos. 29-31, 33, 68, 100, 103, and 106 promptly and before they were disturbed. (R4, tab 173 at impacts 29-31, 33, 68, 100, 103, 106, 109, 134, 137-38; tr. 9/83-84, 98-100).

45. Prior to its April 1997 claim submission, MMC did not give the CO oral or written notice, and, based upon the Board's review of all the Government inspector's daily reports and correspondence, respondent's representatives received no oral notice or had no personal knowledge of 85 alleged differing site conditions before MMC backfilled the

trenches (R4, tab 173 at impacts 27-33, 35-46, 48-55, 57-58, 60-63, 64-71, 74, 80-101, 103-108, 110-119, 121-123, 127, 255).

46. MMC encountered 18 site conditions not indicated in the contract drawings (R4, tab 173 at impacts 8, 11, 14, 15, 17, 19, 34, 72, 73, 75, 76, 77, 79, 102, 120, 124, 126, 128), and 22 site conditions at locations more than a three-foot excavator bucket width, or at a conflicting elevation, differing from those indicated in the contract drawings at impacts 1 (service lateral only), 2, 3, 4, 5, 6, 7, 9, 10, 13, 16, 18, 26, 59, 78, 131, 132, 133, 135, 136, 139, 253 (R4, tab 173). Such 40 site conditions were subsurface and were unforeseeable at the time of bidding. The CO's final decision admitted liability for impact Nos. 6, 11, 13, 15, 26, 131-33, 135-36, and 139 (R4, tab 186).

47. MMC gave the CO timely notice of the 40 foregoing differing site conditions:

<u>Impact</u>	<u>Date</u>	<u>R4 Tab</u>	<u>Impact</u>	<u>Date</u>	<u>R4 Tab</u>
1	7-18-94	22	59	3-16-95	90
2	7-25-94	30	72	3-28-95	102
3	11-8-94	276	73	3-28-95	102
4	11-16-94	66	75	3-23-95	325
5	12-23-94	69	76	3-23-95	325
6	12-27-94	70	77	3-23-95	325
7	1-6-95		72	78	3-23-95
	326				
8	2-20-95	304	79	3-28-95	102
9	3-29-95	105	102	5-2-95	
	635				
10	4-4-95		116	120	7-20-95
	637				
11	4-20-95	134	124	8-14-95	165
13	5-8-95		343	126	8-30-95
43					
14	5-15-95	150	128	11-8-94	65
15	6-7-95		150	131	3-23-95
96					
16	6-12-95	151	132	3-29-95	101
17	6-15-95	360	133	3-30-95	173c
18	6-15-95	377	135	4-12-95	173c
19	8-8-95		377	136	4-17-95
	173c				
26	11-17-95	173a	139	8-11-95	173c
34	11-8-94	277	253	12-23-94	69

48. Due to MMC safety violations, the CO stopped contract work on 14 July and 15 July 1994, for about 10 hours (R4, tabs 15, 18-20, 527-29). Respondent suspended work on CLIN 3 only on 16, 19 and 20 September 1994 for safety violations (R4, tabs 511, 543). The record contains evidence of numerous incidents of MMC safety violations and other noncompliant work, but no specific delay hours or days were shown for them.

49. We have reviewed the DRIs for those days in which the 40 differing site conditions required MMC to perform work not required by the contract, to proportion the new and original work performed on each such day. Based upon such proportions, we find that such new work delayed overall contract performance by 27 days, which did not include 14 or 15 July, or 16, 19 or 20 September 1994. (R4, tab 173 at impacts 1-11, 13-19, 26, 34, 59, 72-73, 75-79, 102, 120, 124, 126, 128, 131-33, 135-36, 139, 253)

50. MMC alleged that the CO's delayed responses to 18 of its notices of differing site conditions delayed performance of water lines 1, 2, 3 and 4 and sewer lines 1 and 2 from 18 July 1994 to 16 November 1995, a 486-day period (R4, tab 173a, 173d, at impacts 1-11, 13-18, 253). MMC's DRIs and AAFB's daily inspection reports indicate that the CO did not suspend contract performance in its entirety during those 486 days except on 14-15 July 1994 (R4, tabs 173, 629-639). The record contains no evidence of the duration in which MMC planned, at the time of bid, to install each of water lines 1, 2, 3 and 4 and sewer lines 1 and 2, and to complete storm drainage repairs; which work elements formed the critical path to contract completion; whether MMC performed such work with planned efficiency; and whether the actual duration of installation of each such line and drainage repair was more or less than its planned duration.¹

¹ Ronald Bills, MMC's expert witness in scheduling, delay, disruption, project management and construction industry custom and usage (tr. 6/115, 120), prepared documents to show (R4, tab 173 at "Tab E") and testified, that respondent delayed MMC's contract performance by 289 days (tr. 6/131-32). Mr. Bills described his methodology: "[W]e started with as-built information. We removed what we quantified as delays and we got the result[ing performance period] absent delay. You can compare that . . . to the as-planned [*i.e.*, MMC's May 1994 original schedule, ex. A-4] and see how much different they are, in which case the contractor made some mistakes of his own . . . [W]e relied on the cause-effect relationship of taking the as-built and removing the delays" (tr. 6/152). Mr. Bills' methodology was not the "critical path method" (tr. 6/182); it assumed that all overtime hours were Government-responsible (tr. 6/221); and it did not credit or deduct the extensions of 139 days for CLIN 1 and of 209 days for CLIN 3 provided in the contract modifications (tr. 6/224-27). Mr. Bills' quantification of Government-responsible delays substantially departed from the Board's findings of fact. We assign minimal probative weight to Mr. Bills' conclusions.

51. Twelve of MMC's "impacts" were not differing site conditions, but instead were alleged Government directions to repair leaking water lines MMC installed and connected, or to install pipe fittings varying from those specified, or alleged Government failure to close off water valves so as to require MMC to connect water lines under wet rather than dry conditions (R4, tab 173 at impacts 20-25 and 242-243, 248-51). We address these 12 impacts under "Constructive Changes," below.

DECISION

To recover for a Type I differing site condition, the contractor must prove that: (1) the contract documents positively indicated the site conditions that form the basis of the claim; (2) the contractor reasonably relied upon its interpretation of the contract documents; (3) the conditions actually encountered differed materially from those indicated in the contract; (4) the conditions encountered were unforeseeable based on all the information available at the time of bidding; and (5) the contractor was damaged as a result of the material variation between the expected and the encountered conditions. *See Stuyvesant Dredging Co. v. United States*, 834 F.2d 1576, 1581 (Fed. Cir. 1987). The FAR 52.236-2 DIFFERING SITE CONDITIONS (APR 1984) clause additionally requires contractor notice of differing site conditions promptly and before they are disturbed.

Respondent contends that Modification No. P00002, executed on 7 February 1995, discharged the Government from all liability for MMC's impacts encountered before 7 February 1995. That contention assumes that P00002 included a general release. But in P00002 MMC released the Government from liability only for the service lateral pipe material change from "copper/galvanized" to "PVC Schedule 80" (finding 8); it included no general release.

Respondent argues that the contract's omissions and misdescriptions provision in the DFARS 252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (DEC 1991) clause absolves it from liability for omitted subsurface obstructions. We disagree. The omissions and misdescriptions clause does not address undisclosed subsurface site conditions. *See Gebr. Kittelberger GmbH & Co.*, ASBCA No. 36596, 89-1 BCA ¶ 21,306 at 107,447, n.3.

Respondent also contends that General Note 3 on sheet C-1 of the water and sewer main replacement drawings – requiring exploratory excavation to determine, or to verify, the exact location of existing subsurface lines before excavating for new construction – bars Government liability for undisclosed and misdisclosed subsurface obstructions, because MMC did not make exploratory excavations along the entire specified routes of the water and sewer mains before excavating the trenches.

MMC interpreted the contract drawings to show complete and exact locations and elevations of the new water and sewer line routes, and the exact or approximate locations of

existing underground utility lines and structures; and interpreted the absence on the drawings of existing utilities at or adjacent to the specified water and sewer line routes to mean that they did not exist or were sufficiently distant from water or sewer line routes to avoid conflicting with required excavation (finding 30). MMC interpreted Note 3 on sheet C-1 of the contract drawings to require exploratory excavation for existing utility lines shown approximately on the drawings, or those lines identified and marked by AAFB personnel during the course of performance, but not for those utility lines that were undisclosed or unknown or sufficiently distant from the new utility route to avoid interfering with excavation (finding 31). MMC based its bid on such interpretations.

The parties' March 1995 agreement to pay MMC's costs of excess exploratory excavation comported with MMC's requirement to notify AAFB of planned excavations in advance of digging in designated areas, so as to permit AAFB to mark utility locations, and with specification § 02050, ¶ 3.2, requiring MMC, when it encountered existing utility lines that were not indicated on the drawings, to notify the CO prior to further work in that area (finding 35). The parties' pre-dispute course of dealing was consistent with MMC's interpretation of Note 3. We are persuaded that respondent's interpretation of General Note 3 was unreasonable, and MMC's interpretation was reasonable (finding 36), satisfying element (2) of the required proof of differing site conditions.

The record contains no contemporaneous, persuasive evidence that 14 site conditions MMC allegedly encountered differed materially from those indicated in the contract drawings (finding 42). MMC encountered 12 undisclosed subsurface obstructions at or within a three-foot excavator bucket width of, the location indicated in the contract drawings for such objects (finding 44). We hold that those 26 site conditions were not materially different from those indicated in the contract, element (3) of the required proof of differing site conditions.

Seven of the alleged differing site conditions were not subsurface or latent, but were visible during MMC's pre-bid site visit (finding 43). We hold that such conditions were not unforeseeable based on all the information available at the time of bidding, element (4) of the required proof of differing site conditions.

Respondent argues that there is no evidence of prompt notice of differing site conditions, either by oral notice to the Government inspector, by letter to the CO, or by submission of an exploratory excavation worksheet, DRI, or "Construction Cost Estimate Breakdown" (AF Form 3052), for 105 alleged impacts (Gov't br. at 318). The CO and other Government witnesses received no DRIs concerning differing site conditions before MMC submitted its April 1997 claim. Respondent's witnesses did not testify when they first received MMC's cost estimates. From that silence we draw the inference that respondent received such estimates approximately on the dates entered on the AF Forms 3052. (Finding 38) We found that MMC did not give the CO oral or written notice, and other Government representatives had no oral notice or personal knowledge imputable to the CO,

of 85 impacts before MMC backfilled the trenches (finding 45). Since MMC failed to provide prompt notice of such 85 site conditions, required by the FAR Differing Site Conditions clause, they are not compensable. Some of those 85 impacts we have also denied on the basis of immateriality or foreseeability, as discussed above.

MMC encountered 40 site conditions not indicated in the contract drawings or at locations materially different from those indicated on the contract drawings, that were subsurface and latent, and thus were unforeseeable at the time of bidding (finding 46). MMC gave the CO timely notice of such conditions (finding 47). We hold that MMC has established entitlement with respect to the foregoing 40 differing site conditions. Those 40 conditions delayed overall contract performance by 27 calendar days (finding 49). The extent to which those 27 days were within the time extensions previously granted by the CO in the modifications described in findings 9-15, is addressed in findings 74-75, below.

C. Constructive Changes

Service Saddles

52. In specification 92-4202 P2, § 02660, “WATER LINES,” ¶ 3.1.8 provided: “Tapped tees and crosses for future connections shall be installed as shown.” (R4, tab 2) The water line layout plans, drawings C-1 through C-4, depicted existing 1" and 1¼" building laterals connected to the new 8" water lines and referred to typical detail 3 in drawing C-13. Drawing C-13, typical detail 3, entitled “Water Service Connection Detail,” depicted a water line with a note, “NEW TAPPED TEE WATER SERVICE CONNECTION (SEE LAYOUT PLAN FOR SIZES).” (R4, tab 187)

53. MMC’s 4 August 1994 letter to the CO stated:

We cannot find any specification requirements regarding service line lateral connections to the new main lines. we [sic] have attached for your review and approval double strap service saddles to be used for service lateral connections . . . Material is at no additional cost to the Air Force.

(R4, tab 37) MMC enclosed submittal No. 47 for a double strap, ductile iron, service saddle, and manufacturer’s literature depicting such a service saddle. That submittal did not advise the CO of the deviation from the tapped tee specification requirement. In the specification identification column on the submittal, MMC erroneously entered “NO SPECS.” Respondent did not detect the error. On 12 August 1994, the CO approved submittal No. 47. (R4, tab 533) Thereafter respondent told MMC that it could order the service saddles (tr. 6/51-52, 7/132).

54. On 28 March 1995, respondent's inspector Roger Nafrada objected to service saddles MMC had installed because they were not "tapped tee" connections (R4, tab 578, tr. 7/136). The CO's 30 March 1995 letter directed MMC to comply with the tapped tee connections in the drawings (R4, tab 108). MMC's 1 April 1995 letter to contract administrator Peggy Perrucci objected to the CO's direction and stated that MMC had discontinued work on the service laterals (R4, tab 111; tr. 4/68). On 17 April 1995, MMC resumed work, installing service saddles (tr. 4/82). On 4 May 1995, respondent approved use of the service saddles (R4, tab 595).

Barricades and Grass Mowing

55. The contract's FAR 52.236-13 ACCIDENT PREVENTION (NOV 1991) clause required MMC to "[p]rovide appropriate safety barricades, signs, and signal lights" (R4, tab 1 at 12).

56. The contract's FAR 52.236-12 CLEANING UP (APR 1984) clause required MMC to "keep the work area . . . free from accumulations of waste materials" and upon completing the work to "leave the work area in a clean, neat, and orderly condition satisfactory to the" CO (R4, tab 1).

57. According to MMC, beginning 25 November 1994 and ending on 18 August 1995, respondent ordered MMC to maintain the barricades around open excavations throughout the work site and to mow the grass within such barricades, and MMC performed such barricade maintenance and mowed grass (R4, tab 173d at impacts 240-241). Air Force housing residents complained to MMC that they could not mow their lawns within MMC's barricades, and so MMC did such mowing (tr. 4/53-54). The record contains no evidence of any CO's order or direction to MMC to mow grass.

Utility Marking

58. During contract performance, MMC notified respondent of the anticipated location and extent of utility line excavations, and respondent marked on the surface the locations of subsurface utilities along the route of such lines.

59. On Friday, 10 March 1995, MMC requested respondent to mark the location of the sewer lateral for Bldg. B-1045, which was shown on drawing C-5 at station 7 + 40, but which MMC had not found at that location, where MMC anticipated to excavate on 13 March 1995 (R4, tabs 88, 187, 173b).

60. On 13 March 1995, respondent sent no one to mark the requested lateral (R4, tab 173b), but sent someone to mark it at 9:30 a.m. on 14 March 1995. MMC's 15 March 1995 letter notified the CO of such event but does not indicate whether there was a delay to the work or work continued elsewhere. (R4, tab 88)

Road Closures and Safety Signs

61. Section 02050, ¶ 1.2.2, of specifications 92-4202 P2 for the water and sewer mains and 93-4201 for the storm drainage repairs provided:

Road Closure Notification: The Contractor shall be responsible for reporting all road closures, required for demolition and construction work, to the base fire department in writing, 5 working days in advance of the road closure.

The contract made no provisions regarding “lane” closure. (R4, tabs 2, 2b, at 02050-1)

62. According to Mr. Peterson, at some unspecified point in time AAFB required MMC to leave one lane open to traffic (tr. 3/49, 4/111), thus requiring MMC to provide a flagman and detour signs to direct traffic on Ulithi Blvd. on 30 December 1994, Coral Drive from 7 to 11 August 1995, and Marianas Blvd. on 15 August 1995. The record of authorized closures on those dates does not show that respondent ordered single lane closures. (R4, tabs 160, 371, 173 at impacts 244-46). We do not assign probative weight to Mr. Peterson’s hearsay testimony (tr. 4/110-13), and the unverified DRIs for those dates (R4, tab 173).

63. The Base Fire Department on 14 July 1995 approved MMC’s 14 July 1995 request to close Ponape Blvd. between Marianas and Plumerias Blvds. from 24 to 28 July 1995 (R4, tab 372). On or about 20 July 1995, respondent’s inspector reminded MMC to have the necessary detour signs, directional signs, and blinking lights during the road closure (R4, tab 608).

64. On 26 July 1995, Dante Duad met with the CO and others. Mr. Brent Shumacher, Chief, AAFB Engineering Branch (tr. 7/237), voiced concern about MMC’s closure of Bonins Blvd. without using “proper” warning signs. AAFB gave Mr. Duad a Department of Transportation Manual entitled “Uniform Traffic Control Devices,” providing the “proper” signs, size, color and dimensions. The memorandum of that meeting said, “Dante said they will comply with the manual and the signs will be corrected.” That memorandum did not mention any direction by Mr. Shumacher or anyone else that MMC complete work in Area 5 before performing Area 3 work (R4, tab 610). We do not assign probative weight to Mr. Peterson’s hearsay testimony that Mr. Shumacher drove by the site and orally ordered such work sequence (tr. 3/44-45, 4/139-40) and MMC’s unverified DRI for 26 July 1995 (R4, tab 173c at impact 130).

65. Notwithstanding testimony to the contrary (tr. 7/73, 8/174-75), we find that the contract contains no reference to, or requirement to comply with, the Department of Transportation Manual “Uniform Traffic Control Devices” (R4, tabs 1, 2). MMC fabricated

additional traffic signs for areas 3 and 5 on 26-28 July 1995, and submitted a cost estimate for such signs to respondent on 31 July 1995 (R4, tab 173d at impact 252).

Oral Changes and Extras

66. MMC alleged that respondent orally directed MMC to perform: off-site work not with the contract's scope on 12 August 1995, added 6" gate valves on 31 August 1995, ordered water line repairs on 2 and on 6-7 September 1995, and ordered "I"-beam support, and connection fitting for an undisclosed water lateral line on 3 October 1995. The CO's final decision admitted liability for that work (R4, tab 186 at 12-13). Each of those impacts was supported by a DRI, letter or MMC cost estimate to respondent (R4, tab 173a at impacts 20-23, 25, tabs 168, 395, 407). The record contains no competent evidence to substantiate MMC's allegation that on 25 September 1995 MSGT Peter Gaddis ordered MMC to install two 6" by 90° ductile iron bends to connect water line 4 to an existing water line at station 9+52, as MMC alleged (R4, tab 173a at impact 24).

Water Leakage

67. In specification 92-4202 P2 for the water and sewer mains: (a) § 01011, ¶ 17.1, required MMC to request water outages in writing to an AAFB office at least five working days in advance of the planned outage, and (b) § 02660, ¶ 3.1.4.1 provided:

Connections: Where connections are made between new work and existing mains. . . [s]tandard methods are available for making connections to various types of pipe, either under pressure or in the dewatered condition. Where made under pressure, these connections shall be installed as approved by the [CO].

(R4, tab 2)

68. MMC alleged that on 14 August 1995 at Rota Drive (impact 251), on 21 August 1994 at Ulithi Blvd. (impact 250), on 30 August 1995 at an unidentified location (impact 249), and again on 30 August 1995 at station 3+95 on water line No. 3 (impact 242), while MMC was connecting water lines and laterals, AAFB water valves did not completely shut off the water, thus requiring MMC to connect the lines under pressure and to dewater the sites (R4, tab 173d at impacts 242, 249-51). The record contains no evidence of MMC outage requests for any of the foregoing dates and connections.

69. MMC alleged that on 16 August 1995 it repaired a leaking connection of an existing 6" branch line at station 6 + 24 near Coral Drive. MMC's 16 August 1995 DRI stated "REPAIRING LEAKING EXIST LATERAL DUE TO IMPROPER INSTALLATION DURING SEWERLINE & BRANCHLINE TIE-IN TO SMH #23." MMC submitted a cost

estimate for such repair to respondent on 17 August 1995. (R4, tab 173d at impact 248) The record contains no evidence that the 6" branch line was defective or respondent was responsible for the leaking connection MMC had installed.

70. MMC alleged that on 24 August 1995 respondent directed MMC to repair a leaking 3" PVC Schedule 40 branch line that MMC had connected to the new water main at station 19+28 on water line No. 1 (impact 243). MMC reported such repairs to the CO on the same day (R4, tab 167). According to Mr. Peterson, when MMC connected the branch line it told AAFB that schedule 40 PVC was improper for the pressure and schedule 80 PVC was needed. On the next day, MMC repaired a "crack running parallel to" the branch line, which crack did not appear like a pickax hole. (Tr. 4/137-38) According to MSGT Gaddis, he saw "a diamond-shaped hole, a puncture hole" at the very base of the crack in the schedule 40 pipe and an MMC worker with a pick ax (tr. 8/221). The record contains no evidence of the pressure needed to crack a 3", schedule 40, PVC pipe, or that such pipe was not adequate for the application. We find, on the basis of the preponderance of the evidence, that MMC damaged the lateral connection.

71. MMC gave the CO timely notice of the six valid constructive changes:

<u>Impact</u>	<u>Date</u>	<u>R4 Tab</u>		<u>Impact</u>	<u>Date</u>	<u>R4 Tab</u>
20	8-24-95	168		23	9-11-95	173a
21	8-31-95	395		25	10-3-95	173a
22	9-2-95		407	252	7-31-95	
	173d					

72. We have reviewed the DRIs for those days in which the six foregoing constructive changes required MMC to perform work not required by the contract, to proportion the changed and original work performed on each such day. Based upon such proportions, we find that the changed work delayed overall contract performance by 6.3 days, which did not overlap any of respondent's work suspensions or the delay days found for valid differing site conditions. (R4, tab 173 at impacts 20-23, 25, and 252)

DECISION

To recover for a constructive change, a contractor must prove that: (1) the CO compelled the contractor to perform work not required under the terms of the contract; (2) the person directing the change had contractual authority unilaterally to alter the contractor's duties under the contract; (3) the contractor's performance requirements were enlarged; and (4) the added work was not volunteered, but resulted from the direction of the Government's officer. *See Len Co. and Associates v. United States*, 385 F.2d 438, 443 (Ct. Cl. 1967). We decide the alleged constructive changes in the order of their findings of fact.

Service Saddles. The contract clearly specified “tapped tee” service lateral connections (finding 52), despite MMC’s failure to consider such requirement, and its present argument that the requirement was ambiguous. The CO approved MMC’s submittal for “service saddles” for lateral connections. That submittal did not advise the CO of the deviation from the tapped tee specification requirement. Respondent failed to detect MMC’s error. (Finding 53) Later, respondent objected to the service saddles as noncompliant with the tapped tee connection specified. MMC suspended service saddle installations from 1 to 16 April 1995. The CO allowed MMC to resume installing service saddles. (Finding 54) We hold that such 16-day suspension was not unreasonable under the circumstances, and was caused by MMC’s fault or negligence within ¶ (b) of the FAR 52.212-12 SUSPENSION OF WORK clause. *See NewRic Const. Co., Inc.*, ASBCA No. 31635, 86-3 BCA ¶ 19,035 at 96,141-42 (without notice describing the deviation from contract requirements, approval of a submittal does not waive compliance with such requirements). We deny MMC’s claim for impact 129.

Barricades and Grass Mowing. Maintaining appropriate barricades to ensure safety was an original contract requirement (finding 55). MMC did not perform such work after 18 August 1995 (finding 57). The record contains no proof that the CO ordered MMC to mow grass within the safety barricades. MMC mowed that grass because of complaints by AAFB housing residents (finding 57), who had no contractual authority to order extra work. We deny MMC’s claim for impacts 240 and 241.

Utility Marking. On 10 March 1995, MMC requested respondent to mark the sewer lateral for Bldg. B-1045 on 13 March 1995. Respondent did the marking on 14 March 1995. (Findings 59-60) We hold that the one-day delay was not unreasonable within ¶ (b) of the FAR 52.212-12 SUSPENSION OF WORK clause. We deny MMC’s claim for impact 56.

Road Closures. The contract authorized MMC to request road closures to permit accomplishment of the contract work, and made no provision for “lane” closures (finding 61). MMC alleged that at some unspecified time AAFB required MMC to leave one lane open, thus requiring MMC to provide a flagman and detour signs at three locations on 30 December 1994, 7-11 August 1995 and 15 August 1995. The records of authorized road closures on those dates does not substantiate MMC’s allegations, and we do not assign probative weight to Mr. Peterson’s hearsay testimony and the unverified DRIs for those dates. (Finding 62) We deny MMC’s claims for impacts 244, 245, and 246.

Safety Signs. On 26 July 1995, Mr. Brent Shumacher, AAFB’s Chief of the Engineering Branch, in the presence of the CO, told MMC that its traffic warning signs were not “proper,” and to provide traffic warning signs conforming to Department of Transportation Manual entitled “Uniform Traffic Control Devices” (finding 64). The contract contains no reference to, or requirement to comply with, such manual. MMC

made additional warning signs pursuant to those directions. (Finding 65). We hold that Mr. Shumacher's direction to prepare warning signs conforming to the "Uniform Traffic Control Devices" manual was a constructive change order. We sustain MMC's claim for impact 252.

Work Sequence. MMC alleged that Mr. Shumacher directed MMC to complete drainage repair work in Area 5 before performing such work in Area 3. The contract did not specify any sequence of drainage repair work by designated areas (finding 2). The record does not establish that Mr. Shumacher redirected MMC's work sequence. On 26 July 1995, Mr. Shumacher mentioned concern about MMC's closure of Bonins Blvd. without "proper" warning signs. There is no record of any direction by Shumacher or anyone else to complete work in Area 5 before commencing work in Area 3. We do not assign probative weight to Mr. Peterson's hearsay testimony about Mr. Shumacher's alleged oral order to redirect MMC's work sequence, and the unverified DRIs for those dates. (Finding 64) We deny MMC's claim for impact 130.

Oral Changes and Extras. The CO's final decision admitted liability for the Government's oral directions of off-site work, addition of gate valves and water line repairs, supports and connection fittings, as alleged in MMC's impacts 20-23 and 25. Each of these allegations was supported by a DRI, letter or MMC cost estimate to respondent. (Finding 66) We sustain MMC's claims for impacts 20-23 and 25. The record contains no competent evidence to substantiate MMC's allegation that on 25 September 1995 MSGT Peter Gaddis ordered MMC to install two 6" ductile iron bends to connect water line 4 to an existing water line at station 9 + 52, as MMC alleged (finding 66). We deny MMC's claim for impact 24.

Water Leakage. MMC alleged that on four occasions – 14 August, 21 August, and twice on 30 August 1995 – the AAFB water valves did not completely shut off water, requiring MMC to make water pipe connections under pressure and to dewater sites. The record contains no evidence of MMC outage requests for any of those dates and connections. (Finding 68) Moreover, the contract specification, § 02660, ¶ 3.1.4.1., specifically stated that standard methods are available for making pipe connections under pressure (finding 67). Whatever difficulties MMC encountered in those connections were not beyond the scope of the contract's original requirements. We deny MMC's claims for impacts 242, 249, 250 and 251.

MMC alleged that on 16 and 24 August 1995 it repaired leaking branch lines it had previously connected to the water main, and whose leakage MMC had not caused. In both instances, the leakage was caused by MMC's improper installations, not by Government fault. (Findings 69-70) We deny MMC's claim for impacts 243 and 248.

D. Constructive Acceleration

73. On 8 August 1995, the CO, citing numerous items of incomplete work, issued to MMC a cure notice which included several differing site conditions about which MMC had given notice of Government-caused delays and was awaiting Government direction on how to proceed with performance (R4, tab 164; tr. 8/177-78); and concurrently issued Modification No. P00008, which unilaterally established the completion date of 18 August 1995 for CLINs 1 and 3 (see finding 13).

74. Before 8 August 1995, MMC gave notice to the CO of 35 differing site conditions (impacts 1-11, 13-19, 34, 59, 72-73, 75-79, 102, 120, 128, 131-133, 135-136), and one constructive change order (impact 252), for none of which were the contract completion dates for CLINs 1 and 3 extended by contract modification Nos. P00002, P00004, P00005, P00008 or P00009. On and after 8 August 1995 MMC gave notice to the CO of four differing site conditions (impacts 26, 124, 126, and 139) and five constructive change orders (impacts 20-23, and 25), for none of which were the contract completion dates for CLINs 1 and 3 extended by contract modification Nos. P00002, P00004, P00005, P00008 or P00009.

75. Based on our review of both new and original work done on those days MMC performed work not required by the contract, the number of delay days caused by all impacts (see findings 49 and 72 above) was as follows:

(a) Differing Site Conditions			
<u>Impact No.</u>	<u>Days Delay</u>	<u>Impact No.</u>	<u>Days Delay</u>
1	.6	59	0
2	.5	72	.3
3	2.0	73	0
4	1.0	75	.1
5	1.0	76	.1
6	.2	77	.1
7	.7	78	.1
8	1.0	79	.2
9	.7	102	.2
10	1.0	120	.3
11	.2	124	.5
13	1.9	126	.5
14	.3	128	.5
15	.7	131	2.2
16	.4	132	1.2
17	.3	133	.3
18	.4	135	1.3
19	.2	136	.3
26	5.0	139	.2

34 .5 253 0*

Total Days of Delay for Differing Site Conditions: 27

* Modification No. P00008 extended CLIN 1 by 49 days for impact 253.

(b) **Constructive Changes**

<u>Impact No.</u>	<u>Days Delay</u>	<u>Impact No.</u>	<u>Days Delay</u>
20	.3	23	.5
21	1.2	25	.8
22	.5	252	3.0

Total Days of Delay for Constructive Changes: 6.3

Total Days of Delay: $27 + 6.3 = 33.3$
(not previously extended in contract modifications).

76. MMC's 15 August 1995 reply to the CO's cure notice, *inter alia*, reiterated various Government-caused delays (R4, tab 166). The CO's 24 August 1995 letter replying to MMC admitted minor Government-responsible delay and stated that the balance of delays were MMC's responsibility (R4, tab 169).

77. The CO knew that her 8 August 1995 cure notice would provoke MMC to accelerate contract performance (tr. 7/106).

78. MMC worked longer shifts, provided field lunches to its workers, added night work, and added workers to accelerate performance, which increased MMC's costs of performance for the period 9 August to 2 September 1995 (tr. 4/109-10, 6/165; R4, tab 173 at impact 247).

DECISION

To recover for constructive acceleration, a contractor must prove that: (1) the existence of a given period of excusable delay, (2) it gave notice to the Government of such excusable delay and requested an extension therefor, with supporting information sufficient to allow the Government to make a reasonable determination, (3) the Government failed or refused to grant the requested extension within a reasonable time, (4) there was a Government order, express or implied, to complete the work by a time earlier than the contractor was entitled by reason of the excusable delay, and (5) there were reasonable efforts by the contractor to accelerate the work that resulted in added costs. *See Titan Pacific Const. Corp.*, ASBCA Nos. 24148 *et al.*, 87-1 BCA ¶ 19,626 at 99,356.

Differing site conditions and constructive changes, both of which are specifically unforeseeable at the time of bidding and without the fault or negligence of the contractor, are “acts of the Government in . . . its . . . contractual capacity” within the excusable delay provision, ¶ (b)(1) of the FAR 52.249-10 DEFAULT (FIXED PRICE CONSTRUCTION) clause in the contract. *See* Cibinic & Nash, ADMINISTRATION OF GOVERNMENT CONTRACTS, 3d Ed., 1995, at 558-61. Due to differing site conditions and constructive changes, MMC was entitled to 33.3 days of Government-caused delay beyond the extensions granted by the contract modifications (finding 75). MMC gave notice timely and adequately identifying the causes of each of the impacts delaying contract performance (findings 47, 71). The CO declined to grant the time extensions MMC requested within a reasonable time after such notices (findings 13-14, 47, 71). The CO’s 8 August 1995 cure notice was an express order to complete the work by 18 August 1995 (finding 73). 18 August 1995 was 33.3 days earlier than MMC eventually was entitled by reason of such excusable delay (finding 75). MMC made reasonable efforts to accelerate the work, that resulted in additional costs (finding 76).

We hold that MMC is entitled to recover for constructive acceleration for the period 9 August to 2 September 1995 (impact 247).

E. Constructive Suspension, Failure to Cooperate

79. The AAFB golf course adjoined sewer lines 1 and 2 specified in MMC’s contract. The second hole’s tee was to the south, and its green was to the north, of sewer line No. 1. The second hole’s fairway crossed sewer line No. 1 between its northeast terminal and about station 3+00, southwest of which point the sewer line entered the adjoining residential housing area at Bonins Blvd. (Tr. 8/73-74, 118; ex. A-1) About 50 to 100 feet of the northern end of sewer line No. 2 adjoined the fairway of the sixth hole, with its tee to the north and its green to the south (tr. 8/77; ex. A-1). Sewer line No. 2 at about station 6+00 was about 50 feet north of the eighth hole’s green, whose fairway and tee were to the south (tr. 8/73-76, 78, 96, 128; ex. A-1).

80. Prior to submitting its bid, MMC visited the sewer line sites (R4, tab 4), and knew that portions of the sewer lines required by the contract would traverse the golf course (tr. 3/60). In bidding, MMC gave no thought to golf ball hazards on the work site, since a tee can be moved or a hole taken out of play when there is construction on the golf course (tr. 3/96-97). The contract provisions did not address closure or alteration of AAFB golf holes (R4, tabs 1, 2; tr. 3/66, 143-44).

81. The AAFB golf course opened at 7:00 a.m. on weekdays and 6:00 a.m. on weekends (tr. 8/110). MMC’s workers typically began work at about 8:00 a.m. (tr. 9/136).

82. On 27 June 1994, MMC project engineer Dante Duad surveyed and laid out sewer line No. 1; Mr. Duad’s DRI on that date noted 25 instances of “standby time” due to

golfers. On 30 June 1994 Mr. Duad surveyed and laid out sewer line No. 2; he noted 31 instances of “standby time” due to golfers. MMC alleged numerous standby times due to golfers on sewer line No. 1 from 12 August to 5 November 1994 (R4, tabs 173c, 173d, impacts 140, 145-207), and on sewer line No. 2 on 4-6 July 1994 and from 16 February to 14 April 1995 (R4, tab 173c, impacts 141-44, tab 173d, impacts 208-236). According to Messrs. Peterson, who was on site only occasionally, and Richard Hamilton, MMC’s CEO, who was on site only one day, each time golfers passed by a hole where MMC was working, the workers kept an eye on them, reducing productivity, and delaying the work (R4, tab 640 at 800075; tr. 3/93-96, 4/60-61). Among respondent’s witnesses, Ms. Perrucci visited the golf course weekly; project engineer Robert Darlow visited the golf course twice weekly; inspector Nafrada was at the work site each morning and afternoon, and contract administrator Vincent Carbullido played golf in a tournament while MMC workers were on the golf course and monitored the contract for about two weeks. They saw no constant barrage of golf balls; MMC’s workers “were moving along,” did not stop work because of golf balls or look up from their work at golfers; and alongside MMC’s trench was a five to eight foot dirt pile and a wire mesh fence. (Tr. 7/160, 163-65, 229, 235-36, 273, 276, 286, 8/278-80, 293-94) Considering the demeanor of the parties’ witnesses, their differing degrees of opportunity to observe MMC’s employees working on the golf course, and the conclusory nature of MMC’s testimony, we find that there was no measurable reduction of MMC’s productivity on account of golfers and golf balls.

83. MMC’s 15 August 1994 letter, which the CO received on that same date, advised of the hazard to workers and equipment from golf balls hit near sewer manhole No. 1A (at station 3+04, R4, tab 187) on the golf course, and requested her assistance in minimizing the hazard (R4, tab 39). On 17 August 1994, Mr. Smau met with Ms. Perrucci, and Mr. Darlow, who told MMC that he would see that the golf club manager was contacted to adjust the procedures for playing the second hole fairway adjacent to Bonins Blvd. (R4, tab 433) On 19 August 1994, the CO directed MMC to erect a barricade around the trench in the fairway and to barricade MMC’s equipment parked along Bonins Blvd. (R4, tab 41).

84. On 26 August 1994, an inspector told the CO that a golf ball hit the head of an MMC worker wearing a hard hat, and of his concern that a tractor windshield could be shattered by a golf ball, injuring persons (R4, tab 511; tr. 7/128, 193-95, 206-07). On 6 October 1994, a golf ball struck, and was found inside, a vehicle parked on Bonins Blvd. near sewer line No. 1 by Takkan Smau. On 8 November 1994, MMC reported that vehicle damage to Ms. Perrucci. (R4, tab 64)

85. On 27 October 1994, Ms. Perrucci observed two golfers tee off on the second hole: “They were hitting directly into the trench where the contractor is working.” She had requested the base Civil Engineering office to ensure that the golf course closed that tee to avoid the hazard. (R4, tabs 432, 553) On 29 or 30 October 1994, AAFB moved the second hole tee so that sewer line No. 1 was behind the tee (R4, tab 553; ex. A-1; tr. 8/76). On 5 November 1994, MMC completed work at the northerly end of sewer line No. 1 (R4, tab

173d, impact 207). Respondent did not adjust the tee or green of the sixth or eighth holes adjoining sewer line No. 2.

DECISION

To establish a breach of the Government's implied duty of non-interference with a contractor's performance, a contractor must prove that: (1) a matter fundamental to performance is concerned, (2) the contract terms and conditions do not expressly state which party will be responsible, (3) the matter is within the ambit of responsibilities accepted by the Government, and (4) the action or inaction of the Government adversely affected the contractor's performance. *See* D. P. Arnavas & P. S. Latham, "Implied Government Duties," Fed. Pubs. *Briefing Papers* No. 83-6, August 1983, at 8; *Coastal Government Services, Inc.*, ASBCA No. 50283 (20 March 2001) (slip op. at 8) and authorities cited therein.

To recover for a suspension of work under a construction contract, the contractor must prove that: (1) the Government ordered, in writing, or by its act or failure to act timely, a suspension, delay or interruption of performance; (2) the suspension, delay or interruption was for an unreasonable period of time; and (3) such performance would not have been suspended, delayed or interrupted by any other cause, including the fault or negligence of the contractor or for which an equitable adjustment is provided or excluded by any other contract term or condition. *See* FAR 52.212-12; *Chaney and James Const. Co. v. United States*, 421 F.2d 728, 731-32, 190 Ct. Cl. 699, 706-07 (1970); *CS&T General Contractors, Inc.*, ASBCA No. 43657, 93-3 BCA ¶ 26,003 at 129,262.

MMC notified the CO on 15 August 1994 of alleged standby delays due to the hazard of golfers playing by the sites for sewer line No. 1 (finding 83). Respondent waited until 29 or 30 October 1994 to move the tee for the second hole, so as to reduce the hazard of golf ball injury along sewer line No. 1. Respondent took no action to adjust the tee or green for the sixth hole, or to divert golfers around or adjust the eighth hole green adjoining sewer line No. 2. (Finding 85) In bidding, MMC gave no thought to the hazards of golf balls on the work site, since golf holes can be closed or tees moved. The contract provisions did not address closure or alteration of AAFB golf holes. (Finding 80)

We have found that there was no measurable reduction of MMC's productivity on account of golfers and golf balls (finding 82). Therefore, MMC has failed to establish element (4) of the implied duty of non-interference, and an unreasonable suspension or delay of MMC's performance on sewer lines Nos. 1 and 2 in the golf course areas, a requirement of the Suspension clause. Accordingly, we deny claim impacts 140-236, except for the damage to appellant's vehicle on 6 October 1994 (finding 84).

F. Conclusion.

We sustain the appeal and remand it for determination of quantum to the extent of the 40 differing site conditions identified in finding 47; the 27 days of Government-responsible delay for those 40 differing site conditions described in findings 49 and 75; the six constructive changes identified in finding 71; the 6.3 days of Government-responsible delay for those six constructive changes described in finding 72; the constructive acceleration claim, impact 247; and the 6 October 1994 vehicle damage described in finding 84. We deny the balance of the appeal.

Dated: 11 April 2001

(signatures continued)

I concur

DAVID W. JAMES, JR.
Administrative Judge
Armed Services Board
of Contract Appeals

I concur

MARK N. STEMLER
Administrative Judge
Acting Chairman
Armed Services Board
of Contract Appeals

EUNICE W. THOMAS
Administrative Judge
Vice Chairman
Armed Services Board
of Contract Appeals

I certify that the foregoing is a true copy of the Opinion and Decision of the Armed Services Board of Contract Appeals in ASBCA No. 51450, Appeal of Monterey Mechanical Co., rendered in conformance with the Board's Charter.

Dated:

EDWARD S. ADAMKEWICZ
Recorder, Armed Services
Board of Contract Appeals