### ARMED SERVICES BOARD OF CONTRACT APPEALS

Appeal of	)	
M.A. Mortenson Company	)	ASBCA No. 53394
Under Contract No. DACA85-94-C-0031	)	
APPEARANCE FOR THE APPELLANT	:	William R. Joyce, Esq. Faegre & Benson LLP Minneapolis, MN
APPEARANCES FOR THE GOVERNMI	ENT:	Thomas H. Gourlay, Jr., Esq. Engineer Chief Trial Attorney Michael H. Gilbert, Esq. District Counsel Toni B. London, Esq. Engineer Trial Attorney U.S. Army Engineer District, Alaska

# OPINION BY ADMINISTRATIVE JUDGE TING PURSUANT TO RULE 11

M.A. Mortenson Company (Mortenson) timely appealed from a contracting officer's (CO) decision denying its claim for being required to design, furnish and install firestopping to close the holes or penetrations of the moment frame beams while constructing Phase II of the Composite Medical Facility at Elmendorf Air Force Base, Alaska. The firestopping was required as a barrier against the spread of flame, smoke and gases. The parties have submitted this appeal on the record pursuant to Board Rule 11. Only entitlement is before us for decision.

## FINDINGS OF FACT

1. In September 1994, the government entered into Contract No. DACA85-94-C-0031 with Mortenson for the construction of a 110-bed, multi-story Composite Medical Facility for the Air Force and the Department of Veterans Affairs (R4, tab 1). The contract included as Clause I. 80, FAR 52.243-0004, CHANGES (AUG 1987), and as Clause I.76, FAR 52.236-0021, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (APR 1984), which provides in relevant part that "Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both."<sup>1</sup>

2. Technical Specification 07270 (TS 07270), FIRESTOPPING, sets out the firestopping requirements of the contract (R4, tab 16). "Firestopping" refers to "Methods and materials applied in penetrations and unprotected openings to limit spread of heat, fire, gasses [sic] and smoke" (*id.* at 3, ¶ 1.5.3). The term "Penetration" is defined to mean "Opening or foreign material passing through or into barrier or structural floor such that full thickness of rated materials is not obtained" (*id.* at 3, ¶ 1.5.4).

3. Paragraph 1.3 of TS 07270 sets out the firestopping "GENERAL REQUIREMENTS":

Firestopping shall consist of furnishing and installing a material or a combination of materials to form an effective barrier against the spread of flame, smoke and gases, or maintain the integrity of fire resistance rated walls, partitions, floors and ceiling-floor assemblies.

(R4, tab 16 at 2)

4. Paragraph 1.4 of TS 07270 sets out the "SYSTEM DESCRIPTION" of the firestopping requirement:

1.4.1 Design Requirements

Fire-related construction: Maintain barrier and structural floor fire resistance ratings including resistance to cold smoke at all penetrations, connections with other surfaces or types of construction, at separations required to permit building movement and sound or vibration absorption, and at other construction gaps.

Smoke barrier construction: Maintain barrier and structural floor resistance to cold smoke at all penetrations, connections with other surfaces and types of construction and at all separations required to permit building movement and sound or vibration absorption, and at other construction gaps.

<sup>&</sup>lt;sup>1</sup> These two clauses are not included as a part of the Rule 4 documents in this appeal; they are included, respectively, as tabs 27 and 26 of the Rule 4 file of a companion case, ASBCA No. 53181, which has been settled and dismissed.

(R4, tab 16 at 2)

5. PART 2 of TS 07270 relating to "PRODUCTS" states that the firestopping materials shall meet the following additional requirements:

2.1.3.1 Additional Requirements

Withstand the passage of cold smoke either as an inherent property of the system, or by the use of a separate product included as a part of the UL system or device, and designed to perform this function.

2.1.3.2 Acceptable Manufacturers and Products

Those listed in the UL Fire Resistance Directory for the UL system involved.

All firestopping products shall be from a single manufacturer for each system.

(R4, tab 16 at 5-6)

6. Paragraph 1.5.6 of TS 07270 defines the word "System" to mean "*Specific* products and applications, classified and numbered by Underwriters Laboratories, Inc., to close *specific* barrier penetrations" (emphasis added) (R4, tab 16 at 3). We find the firestopping product or system Mortenson was instructed by the specification to use must have the ability to withstand the passage of cold smoke in addition to providing a barrier to the spread of flame, smoke and gases, be an Underwriters Laboratories, Inc. (UL) listed, classified and numbered product designed specifically for closing a specific barrier penetration, in this case, the moment frame beam penetrations. We find the definition of what constituted an acceptable firestopping system removed any discretion Mortenson might have to propose its own firestopping method.

7. PART 2,  $\P$  2.1.5.1, of TS 07270 relating to "Through-Penetration Smoke-Stopping" provides, in pertinent part, that:

Any system complying with the specified requirements for through-penetration firestopping in fire-rated construction is acceptable, provided that the system includes the specified smoke seal or provides a smoke seal. . . .

## (R4, tab 16 at 6)

8. PART 3, paragraph 3.1f. of TS 07270 relating to "EXECUTION," required installation of firestopping at specified locations, including "Other locations shown on drawings and where required, to maintain fire and smoke barriers integrity." In installing firestopping, Paragraph 3.1.1, Filling of Voids, requires that "Firestopping material shall completely fill void spaces regardless of geometric configuration, subject to tolerances established by the manufacturer." (R4, tab 16 at 7)

9. Contract Drawing Reference No. S5.02, FRAMING DETAILS, shows details for various structural steel configurations. Detail 17 shows a typical interior moment frame beam. For beam span exceeding 28 feet, a 7-inch diameter hole is shown in the center of the beam at an interval of every 9 feet. A note beneath the detail states that for beam span less than 28 feet, provide only one 7-inch diameter hole at midspan. (R4, tab 17) According to the government, "The holes depicted in Detail 17 of S5.02 are provided to allow electrical wiring, plumbing and med-gas piping, and other such systems to pass through. They are the 'beam penetrations' that are at the heart of this claim" (gov't br. at 5). Mortenson's claim described "[t]he moment frame beam with a  $7\frac{1}{2}$ " diameter hole in the web [as] . . . a part of a fire or smoke-rated wall assembly at certain locations" (R4, tab 3 at 4). We find there is no drawing detail showing how the firestopping material, system or product is to be installed.

10. Prior to 15 October 1996, the parties had discussed the moment frame beam penetrations shown in Detail 17, Drawing S5.02. The discussion centered on how to seal the openings of the beams. The government had researched the problem and had not found any acceptable method to seal the openings. By letter dated 15 October 1996, Mortenson advised the government that a meeting would be held to assist the government to resolve the problem. It took the position that the work was not called for by the contract and requested that a modification be issued. (R4, tab 4)

11. At the meeting held on 15 October 1996, the government asserted that Mortenson was responsible for providing "a treated/prepared penetration at all locations where a pipe passes through the beam penetration and that the Government was responsible for the treatment at beam penetrations which did not have associated piping" (R4, tab 5). In a subsequent letter dated 21 October 1996, the government's Administrative Contracting Officer (ACO) advised Mortenson that he had changed his position, and that inasmuch as TS 07270 required the contractor to maintain the integrity of all smoke and fire rated barriers, Mortenson had the sole responsibility for firestopping. The letter asked Mortenson to submit details for review or schedule a meeting to discuss how it intend to maintain the integrity of the fire and smoke rated barriers. (R4, tab 5) 12. Mortenson's letter of 22 October 1996 advised the ACO that it did not agree with the ACO's position, and contended that the contract documents did not call for sealing the moment frame beam penetrations. The letter asked the ACO to "issue a modification along with sufficient details and specifications to perform this additional work." (R4, tab 6)

13. The ACO's 28 October 1996 letter advised Mortenson that his earlier letter had provided "specific information sufficient to allow you to continue work." The letter directed Mortenson to maintain the integrity of the piping penetrations and all smoke and fire rated barriers by firestopping. It also directed Mortenson to submit its proposed firestopping methods for review. (R4, tab 7) At a meeting held on 8 November 1996, the government required Mortenson to submit engineered details from an expert in smoke/fire systems. (R4, tab 8 at 2)

14. Mortenson's 11 November 1996 letter stated that even though the openings were designed into the moment frame beams, there were no details showing how to seal the openings for firestopping. It advised that the engineering details of how to seal the openings were being developed by Hilti, Inc. (Hilti), and since there were no "UL fire resistivity rated systems" that dealt with fire/smoke rated partitions, Mortenson wanted the government to "accept all liability for the detail" and to affirm that "all requirements for assembly listing and smoke/fire resistivity ratings have been waived inasmuch as they relate to the condition addressed herein." (R4, tab 8)

15. By letter dated 18 November 1996, Mortenson forwarded to the government a sketch developed by Hilti. The letter stated that the sketch was furnished with the understanding that "Mortenson cannot and will not verify the adequacy of these proposals or their compliance with the designer's criteria." (R4, tab 9)

16. The alternate ACO's letter of 20 November 1996 directed Mortenson to submit the necessary installation and construction details. The government reiterated its position that the work was required by TS 07270, that TS 07270 was a performance specification, and that selection of a qualified firm to develop the necessary firestopping for the moment frame beams was Mortenson's responsibility. (R4, tab 10)

17. Mortenson forwarded two sketches showing the proposed methods for sealing the moment frame beam openings by letter dated 7 February 1997 (R4, tab 11). By letter dated 21 February 1997, the ACO advised that he concurred with the treatment of the moment frame beam penetrations as proposed (R4, tab 12). By letter dated 10 March 1997, the ACO notified Mortenson that the government had accepted liability associated with "the details not being tested and listed by a recognized laboratory." (R4, tab 13)

18. By letter dated 17 May 2000, Mortenson submitted a \$54,991 claim for "additional costs to design and install seals at penetrations in moment frame beams" (R4, tab 3 at 1). Without markups, Mortenson's claim came to \$37,900. The design portion of the claimed amount was a small part of the total, with labor and material comprising most of the claimed amount. Mortenson summarized the basis of its claim as follows:

While developing design details for the sealing around electrical conduits, cable trays, piping and dampers, the Government failed to include design details to seal around beam penetrations through fire-rated walls. Rather than concede that the firestopping design was deficient and incomplete, the Government reversed its initial position and erroneously insisted that the firestopping specifications were performance specifications and required Mortenson to retain a design consultant to develop firstopping details for the moment frame beam penetrations.... The Contract Documents do not provide specific details for sealing these openings (whether they have a pipe penetrating them or not). Mortenson contends that neither the design nor the labor and materials required to carry out this work were adequately addressed within the documents and therefore constitute a change to the contract.

#### (R4, tab 3 at 4)

19. The CO denied the claim by decision issued on 2 March 2001 (R4, tab 1). The decision stated that Detail 17 of Drawing S5.02 depicts beam penetration locations "which are intended for the passage of building service equipment, such as piping and conduit." It acknowledged that the contract documents did not include the details for installing firestopping for the moment frame beam penetrations, and that there was no UL listing for such installation. The decision found no design deficiency on the basis that TS 07270 was a performance specification. (*Id.* at 11) Mortenson timely appealed the CO's decision.

#### DECISION

Mortenson framed the issue in this appeal as "the difference between design specifications and performance specifications" (app. br. at 7). Relying on *Gracon Corp.*, IBCA No. 2271, 89-1 BCA ¶ 21,232 (coordination provision not sufficient to shift detailed motor specification responsibility to contractor), and *Leslie-Elliott Constructors*, *Inc.*, ASBCA No. 20507, 77-1 BCA ¶ 12,354 (contract drawings definitive enough to put design responsibility on government), it contends that "the Government failed to include

design details to seal around beam penetrations through fire-rated walls" (app. br. at 6) and was trying to place the responsibility for the increased costs of designing and sealing the moment frame beam penetrations on Mortenson by converting a defective design firestopping specification into a performance specification.

The government argues that "[t]he issue is not whether TS 07270 is a design specification or a performance specification. The issue is whether the specification required the contractor to seal the beam penetrations to maintain the integrity of the fire and smoke barriers" (gov't br. at 5-6). Relying on FAR 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (APR 1984), the government argues "an omission from the drawings of work that is required by the specifications does not relieve the contractor from the requirement to perform the work" (gov't br. at 7). The government argues that to the extent the distinction between design and performance is relevant, the "very general requirements" of TS 07270 certainly do not rise to the level of precise details contemplated by *J.L. Simmons Company, Inc. v. United States*, 412 F.2d 1360, 1362 (Ct. Cl. 1969) (design specification "set forth in precise detail the materials to be employed and the manner in which the work was to be performed") (gov't br. at 11).

There appears to be no disagreement that in order to have an effective barrier against the spread of flame, smoke and gases, the moment frame beam penetrations had to be sealed. In addition to this general requirement, however, TS 07270 also required the firestopping system to maintain barrier and resistance ratings to the passage of cold smoke. We have found for that particular application, the specification required an UL listed, classified and numbered product designed specifically for closing a specific barrier penetration, *i.e.*, the moment frame beam penetrations. Because there was in fact no such UL listed firestopping system, Mortenson was directed to design an acceptable system. We conclude Mortenson should have recognized the need for sealing moment frame beam penetrations, but only to the extent that the work could be accomplished by the procurement of an UL listed, classified and numbered firestopping product designed specifically for such purpose. Since such product did not in fact exist, we conclude that Mortenson is entitled to an equitable adjustment for the cost associated with the design of an acceptable firestopping system.

Mortenson, however, should have anticipated when it bid the contract that certain labor and material costs would be required to accomplish firestopping. In this regard, even though there was no drawing detail showing how the firestopping system was to be installed, TS 07270 spelled out the objective to be achieved. That objective was for Mortenson to provide an effective barrier against the spread of flame, smoke and gases, and to maintain fire and smoke barrier integrity by completely filling "void spaces regardless of geometric configuration" (finding 8). Despite the lack of drawing detail showing the installation of the specified firestopping system, we conclude that this aspect of the specification required Mortenson to provide the necessary labor and material to close off the moment beam penetrations except to the extent indicated below. *See, e.g., B.D. Click Company, Inc. v. United* States, 614 F.2d 748, 753 (Ct. Cl. 1980) (any omission or deficiency in the drawings relating to a sprinkler system was supplied by the specifications).

# CONCLUSION

Because the specification requires a firestopping system that is UL listed, classified and approved, and because no such system in fact existed, we hold Mortenson is entitled to an equitable adjustment for the cost of designing a firestopping system acceptable to the government as a constructive change to the contract.

Because the specification requires Mortenson to install a firestopping system to provide an effective barrier against the spread of flame, smoke and gases, and to maintain fire and smoke integrity by completely filling void spaces regardless of configuration, we hold Mortenson is only entitled to recover such labor and material costs to the extent they exceeded what it reasonably anticipated when it bid the contract.

This appeal is sustained to the extent indicated, and is denied in all other respects. It is remanded to the parties for determination of the quantum of adjustment.

Dated: 4 October 2004

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

I concur

MARK N. STEMPLER Administrative Judge Acting Chairman Armed Services Board of Contract Appeals I concur

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. 53394, Appeal of M.A. Mortenson Company, rendered in conformance with the Board's Charter.

Dated:

CATHERINE A. STANTON Recorder, Armed Services Board of Contract Appeals