

BEFORE THE
MARYLAND STATE BOARD OF CONTRACT APPEALS

Appeal of C.J. Langenfelder &)
Son, Inc.)
) Docket No. MSBCA 1636
Under MPA Contract No. 289909)
)

February 16, 1993

Interpretation of Contracts - Harmonious Interpretation
Contract provisions must be read harmoniously to give reasonable meaning to all parts of the contract.

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Van Grack
Rockville, Maryland

Donald H. Spence, Jr., Esq.
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Washington, D.C.

APPEARANCE FOR RESPONDENT: Jay Bernstein
Asst. Attorney General
Baltimore, Maryland

OPINION BY MR. MALONE

Appellant¹ timely appeals.² a final decision of the Maryland Port Administration (MPA) Procurement Officer denying its claim for equitable adjustment. Appellant had sought an equitable adjustment under the Changes Clause claiming that installation of 5 KV cable constituted additional work not provided for in the bid documents, Addendum No. 1.

Findings of Fact

A. Entitlement

1. On April 26, 1989 Appellant was awarded MPA Contract No. 289909 Grading and Storm Drains Berth III Seagirt Marine Terminal

¹Appellant is nominally C.J. Lagenfelder & Sons, Inc., the general contractor who has brought this claim on behalf of its subcontractor A & D Electrical Construction Services and Supplies.

²Respondent originally raised the timeliness of the Appellants filing with the Appeals Board but that issue was withdrawn at the hearing. Further, the parties settled all other issues except entitlement and quantum of the 5 KV wire installation. MSBCA 1631 a previous appeal involving the captioned parties and contract hereto was merged into the instant appeal MSBCA 1636.

for \$4,581,440.00. Notice to Proceed (NTP) was issued May 8, 1989.

2. The contract originally envisioned grading and storm drain work which was then to be followed by utility work including the Primary Distribution System for electrical power. The Plans prepared by Respondent's consulting engineers, STV/Lyons Associates, Inc. (STV/Lyons) shows this grading and storm drain work on drawings #1-26. The direct supervision and preparation of these drawings was over seen by the Baltimore Office of STV/Lyons.

3. Prior to bid award the concept and scope of work changed due to a need to provide electrical power to the terminal on an accelerated basis. To fulfill this need the Virginia Office of STV/Lyons was directed to prepare specifications and drawings for what became Section 16126 Primary Distribution System Addendum #1 (Add. #1). The Baltimore Office of STV/Lyons over saw the integration and compiling of Add. #1 which added electrical specifications of Section 16126 and drawings #27-30 for the electrical work³. The Baltimore Office of STV/Lyons approved the compilation of specifications and drawings of Add. #1 prepared by their Virginia Office.

4. Subsequent to the Notice to Proceed STV/Lyons decided to clarify the Specifications and drawings to bring them "up to date." STV/Lyons prepared and issued Revision No. 1 (Rev. #1) in May of 1989, only days after the NTP. The scope of the language contained in the Rev. #1 under Section 16126 Primary Distribution System 1 is different to what was offered in the bid documents Add. #1.

This difference in language is the genesis of the contract dispute of the parties and the relevant sections are provided for a comparison.

Add. #1

SECTION 16126

³The full details of Add. #1 are given in the opening of the March 31, 1989 Addendum No. 1.

PRIMARY DISTRIBUTION SYSTEM

1. SCOPE

(a) The work covered by this Section includes the furnishing of all materials and equipment and the performing of all necessary labor to complete all Primary Distribution as shown on the drawings and/or herein specified or directed by the Engineer.

(b) The work under this Section includes, but is not limited to the following:

(1) Furnish and install 15 KV primary cables and associated ground conductor, including all materials and connections. Cables shall be installed in concrete encased underground duct systems.

(2) Install 13.2 KV-480/277 volt Pad-Mounted Transformers where indicated on the drawings.

(3) Install 4160 V double-ended sub-station as shown on the drawings and specified herein.

(c) The 13.2 KV-480/277 transformers and the 4160 V double-ended sub-station shall be furnished by others under a separate contract.

(d) Work associated with this Section but performed under other sections includes:

- (1) Underground Duct System
- (2) Electrical Work
- (3) Cable, Wire, and Conductors

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Rev. #1

SECTION 16126 - PRIMARY DISTRIBUTION SYSTEM

PART I - GENERAL

1.01 RELATED DOCUMENTS:

- A. The General Provisions, General Conditions and Special Conditions apply to the work specified in this section.
- B. The requirements of Section 16010 govern work specified in this section, where applicable.

1.02 DESCRIPTION OF WORK:

- A. The work covered by this Section includes the furnishing of materials and equipment and the performing of all necessary labor to complete all Primary Distribution as shown on the drawings and/or as herein specified or directed by the Engineer.
- B. The work under this Section includes, but is not limited to the following:
1. Furnish and install 15 KV primary cables and associated ground conductor, including all materials and connections. Cables shall be installed in concrete encased underground duct systems.
 2. Furnish and install 5 KV crane cables including all materials and connectors. Cables shall be installed in concrete encased underground systems.
 3. Install 13.2 KV-480/277 volt Pad-Mounted Transformers where indicated on the drawings (furnished by the Administrator).
 4. Install 4160 V double-ended substation as indicated and specified herein (furnished by the Administrator).
 5. Work associated with this Section but performed under other sections includes:
 - a. Under electrical ducts and manholes
 - b. Electrical work

5. The Specifications of Rev. #1 clearly adds under Sec. 1.02 B.2. "Furnish and install 5 KV crane cables". In contrast the Add. #1 under 1. Scope (b)(3) provides for 4160 V cable in the substation of the Primary Distribution System which is a relatively short length of cable of approximately 30 linear feet (L.F.). The length of 5 KV cable installed in this dispute regarding the cable horns is a greater amount of approximately 16,000 linear feet (L.F.) of 5 KV cable.

4 The record describes 5 KV cable also as 4160 V or 416 KV cable. KV or V is the voltage rate of the cable.

The primary electrical power for this project is 13.2 KV. This voltage was routed into the sub-station and then reduced to 5 KV power for use in the secondary power system at the voltage which the terminal cranes could accommodate.

6. Add. #1 provided for 5 KV sub-station work and listed at 16126-4 the type of wire required with the sub-station for 5 KV section cable, as described at 16126-7, 4160 volt (A/K/A 5 KV) (Crane) Sub-station. The reference to 5 KV in Add. #1 is specifically to the sub-station installation.

7. Rev. #1 however, goes into much greater detail of 5 KV installation in a secondaryⁱ electrical system to the cable horns and cranes. The furnishing and installing of approximately 16,000 linear feet (L.F.) of 5 KV crane cables in a concrete encased underground system is specifically required. In addition the payment section of Rev. #1 16126-13 also refers to payment for furnishing and installing 5 KV crane cables where Add. #1 does not specifically refer to payment for 5 KV cable. Add. #1 does however, provide for payment of "all work... at the sub-station."

8. The drawings of electrical site work, drawings 27-30 are not identical to Add. #1 and Rev. #1. The parties also disagree as to the meaning of the scope of work when reading the Add. #1 and Rev. #1 Specifications in harmony with the drawings. Normally, the Standard Specifications a/k/a ("The Red Book") are incorporated into the contract by reference and would resolve discrepancies between the plans and specifications where the plans would prevailⁱ. However, the contract documents did not incorporate the

ⁱ In electrical specifications the highest rated voltage is Primary and lower rated voltages are Secondary.

ⁱ Standard Specifications provides:

103.02.02 Specifications. These Specifications, the Supplemental Specifications, the Plans, Special Provisions and all supplementary documents are essential parts of the Contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for a complete

entire Red Book, only portions of it. The contract documents provided in part the following:

GP-4.01 Intent of Contract

A. The Contractor shall (within specified tolerances) perform all work in accordance with the lines, grades, typical cross sections, dimensions, and other data shown on the plans or as modified by written orders including the furnishing of all materials, implements, machinery, equipment, tools, supplies, transportation, labor, and all other things necessary to the satisfactory prosecution and completion of the project in full compliance with the contract requirements.

B. The documents composing the contract documents are intended to be complimentary and to describe the construction and completion of the work. Anything mentioned in the specifications and not shown on the contract drawings, or shown on the contract drawing and not mentioned in the specifications shall be of like effect as if it is shown or mentioned in both.

C. Omissions from the drawings or specifications or 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 work, but they shall be performed as if fully and correctly set forth and described in the drawings and specifications.

GP-4.02 General Provisions Controlling

In the event of a conflict between these General Provisions and any other provision of the contract documents, these General Provisions shall prevail unless such other provision expressly provides to the contrary.

GP-4.03 Entire Contract

The contract documents represent the entire and integrated

work. In the event of any discrepancy between drawing and figures written thereon, the figures, unless obviously incorrect, will govern over scaled dimensions. In the case of any discrepancy between the Plans and the Specifications, the Plans will govern. If there is a discrepancy between these standard Specifications and Supplemental Specifications, the Supplemental Specifications will govern. Special Provisions will govern over Specifications, Supplemental Specifications and Plans. General Provisions will govern over all Contract Documents unless expressly provided for in the Contract.

agreement between the parties hereto and supersedes all prior negotiations, representations or agreements either written or oral.

9. The difference between the Add. #1 and Rev. #1 language are substantive in nature and change the scope of work to add installation of 5 KV crane cable in Rev. #1 which was not contemplated by a reasonable bidder reading of Add. #1 and constitutes a change in scope of work. However, Respondent argues that reading the plans together with the specifications would lead a reasonable bidder to have included 5 KV crane cable installation in its bid from the Add. #1 documents. We disagree.

10. The drawings given in Add. #1 and Rev. #1 contain many substantive differences¹. There is no electrical symbol legend for Add. #1, however, one was added to Rev. #1. Bidders had to use commonly understood standards along with indicators for symbols since no legend was given in Add. #1. Drawing 27, for instance, provides no reference to the Add. #1. Rev. #1 provides a date 4/28/69, a designation "General Revision" and a symbol Δ indicating Δ to be changes to the drawings. Δ with a number in the center of the Δ generally indicates an addendum change to original drawings. The number within the Δ indicates which addendum change and the date when the change was made. In this way an orderly record of the addenda changes can be traced from the original drawings. The expectation in the industry is that original drawings would not contain Δ or addendum notations since the original drawings would reflect the correct scope of work contemplated by the drafter. Here, there were no original drawings. Respondent took original electrical drawings from Berth II work, erased Berth II, and listed them as the addenda drawings for this contract, with various nota-

¹ An actual comparison of the plans is necessary since a narrative description of the differences without the plans is difficult to understand.

tions.⁵ As a result the Add. #1 drawings contain many structures never contemplated within the scope of work by either party. Many structures shown on Add. #1 drawings were removed by Rev. #1 drawings. The question remained for bidders on the Add. #1 drawings; what was included in the scope of work? The Appellant reasonably relied on the Δ indicators as to which work was actually required by Addendum #1, since Δ was the symbol for Add. #1 changes.

11. Drawings #29 of the Add. #1 shows 4160 V Sub-station (Crane Power) Schematic Δ, with a narrative reference to the 4160 V tie in at the sub-station. Above this schematic is the single line diagram for 416 (5KV)KV showing secondary power to the cable horns. There is no Δ next to this schematic. This single line diagram describes the installation of the 5 KV crane cable which is the subject matter of this claim. However, on Rev. #1 Δ is clearly shown next to the single line diagram for 5 KV cable horn work. This diagram was provided after bidding and NTP. A reasonable bidder looking at the Add. #1 drawings would not have included the 5 KV cable horn work and more especially would not have included it when read in harmony with the specifications of Add. #1 which made no specific reference to this 16,000 L.F. of work for secondary 5 KV cable.

12. Respondent's interpretation of the Add. #1 drawings would have required the installation of work already existing or clearly denoted as future⁶. It was Respondent's unusual use of the Δ designations on original drawings of Add. #1 which caused confusion. Respondent offered no reasonable explanation of the inclusion or exclusion of certain work on the drawings in light of the Δ symbol. The bidder reasonably read the Add. #1 as not requiring the 5 KV cable installation, since there was no Δ next to the structure on the drawing.

⁵ Appellant was aware the drawings had been taken from the previous Berth II work since it had previously used these drawings in performance of Berth II work.

⁶ See transcript Pages 336-340, 345-347, 352, and 360-362.

13. Upon receipt of the Rev. #1 Appellant filed its claim and provided estimated costs for the additional work under the changes clause. The claim was denied by letter of 2/27/92 upon which Appellant timely appealed to this Board.

B. Quantum

14. Appellant's subcontractor A & D is a small electrical firm with primitive accounting procedures. Appellant was requested and provided to Respondent in May of 1989 an estimate of labor and materials resulting from the 5 KV crane cable claim. At this time the work was not finished. However, as the work progressed and was completed Appellant relied upon its estimate and kept no actual separate costs records related to its claim. During the pre-hearing discovery the Board ordered a Proof of Costs Statement from Appellant. However, Appellant did not comply in full with the Proof of Costs, but provided Respondent's auditors with its revised estimate and a box full of unorganized records for the auditors to peruse¹⁰. The auditors in an attempt to understand the claim pulled several invoices and asked Appellant if they were relevant.

15. Appellant had claimed \$42,351.00 for material costs and \$2,835.00 for testing costs. Respondent's auditors after review of the books and records of Appellant concluded \$32,599.00 was supported for material costs by invoice and \$477.00 for testing costs related specifically to 5 KV crane cable installation. For various other reasons, however, Respondent denied that the records supported the actual costs of the claim.

16. The record reflects that materials, equipment and labor were provided to install the 5 KV crane cable. The contract provides that the actual costs of the Appellant are permitted and that mark-up can be allowed within contract amounts.

¹⁰ Prior to hearing, Respondent filed a Motion to Dismiss Appellant's claim for failure to comply with the order on Proof of Costs. The Board denied this Motion to Dismiss but admonished Appellant that evidentiary sanctions would be made if surprise resulted on quantum at the hearing. No surprise resulted at the hearing.

17. The Board finds the following quantities and actual costs of material were incurred by Appellant in relation to 5 KV crane cable installation;::

1.	5 KV crane cable	4,000 L.F.	@ \$ 0.55 L.F.	= \$ 2,209.00
2.	5 KV crane power cable	6,300 L.F.	@ \$ 1.97 L.F.	= \$12,440.00
3.	Bare wire	2,100 L.F.	@ \$ 0.49 L.F.	= \$ 1,029.00
4.	5 KV crane tie feeder	4,400 L.F.	@ \$ 2.65 L.F.	= \$11,663.00
5.	5 KV stress cones	21	@ \$176.40	= \$ 3,704.00
6.	Tax @ 5%			= \$ 1,552.00
				<u>\$32,597.00</u>
	Mark-up 15%			<u>\$ 4,889.55</u>
				<u>\$37,486.55</u>

18. The Board further finds that testing was required by the contract. Appellant has only provided this Board with one invoice of \$477.00 for testing of the 5 KV crane cable. The Board can not speculate as to the amounts of other test performed:: Appellant also claims 80 hrs. at approximately \$30.00/hr. for its forces related to testing. The Board notes that only 4.5 hours of labor was required by the testing company hired by Appellant's sub-contractor. The Board finds no support in the record for awarding Appellant's labor costs in relation to 5 KV testing. The Board awards the sum of \$477.00 for testing plus 15% (\$71.55) mark-up for a total testing cost of \$548.55.

19. Appellant claimed labor costs for the 5 KV installation work were estimated as follows; Electrician \$18.48 for 55 hours;

:: The record reflects that Appellant's estimate of material costs were exaggerated when compared to the actual material costs records. (See transcript pages 219-221).

:: Other test were performed but Appellant's records did not reveal the actual costs paid by it to its subcontracting testing company. Appellant's failure to provide these actual bills can not be overlooked by this Board. It is not unduly burdensome on Appellant to introduce these records. If Appellant could not find them in its records its sub-contractor Met Testing, Inc. may have had them. These bills are separate records directly related to the claim which should be available in even the most primitive of construction accounting methods.

Apprentice \$14.40 for 55 hours; laborer \$8.70 for 110 hours; and full time truck operator \$17.10 for 56 hours. Appellant then added a mark-up of 65% from the forced account section of the contract. The Board finds that the labor rates are fairly reflected by certified payrolls of Appellant and that mark-up is provided for in the contract. However, the Appellant has no records of actual labor expended on 5 KV installation. The parties agree that the work was done by Appellant's forces. The Board using a jury verdict approach finds quantum in the amount of 25 hours for labor related to 5 KV crane cable installation for a total labor quantum of \$1,467.00 calculated as follows;

1. Electrician	18.48 x 25	=	\$ 462.00
2. Apprentice	14.40 x 25	=	\$ 360.00
3. Labor	8.70 x 25	=	\$ 217.50
4. Fuel Truck Operator	17.10 x 25	=	\$ 427.50
			<u>\$1,467.00</u>

The Board declines to award mark-up on this labor cost.

20. Appellant also claimed equipment costs for a pole line truck to install the cable. The record supports Appellant's contention that this truck was used to install the 5 KV crane cable. The Appellant charged a discounted truck rental rate of \$965.00 per week together with operating costs of \$1,005.00. The Board finds the 25 hours¹³ necessary to install the 5 KV crane cable would have required the rental of the pole truck over a 1 week period and award \$965.00 for an actual cost of the pole line truck. However, the operating cost are not supported by the record and, Appellant not having met its burden, those costs are denied. No mark-up on equipment rental is awarded since the rental rate in many cases already provides for mark-up in the calculation.¹⁴

¹³ 25 hours of actual labor found by the Board is consistent with 1 week of pole truck rental service since the use of the truck would be periodic over the one week the truck was needed.

¹⁴ Appellant used the lowest rental rate found in one of several rental rate books but those rates and the book source were not made part of the record. The books describe the methodology in determining rates, so without the rental book the elements used in finding the rates are not available for the Board to review.

In summary quantum is found as follows;

Labor	\$ 1,467.00
Equipment	\$ 965.00
Material	\$37,486.55
Testing	\$ 548.55
<u>Total Quantum</u>	<u>\$40,467.10</u>

21. The Board also denies pre-decision interest since in part Appellant failed to comply with the Order of Proof of Costs. Respondent could not have known the amount due to Appellant prior to hearing.

Decision

The fundamental principal that contracts should be interpreted objectively and given their plain meaning as understood by a reasonably intelligent bidder, Dominion Contractors, Inc., MSBCA 1041, 1 MICPEL 69 (1984) applies to Addendum #1. Neither the narrative of the specifications nor the plain meaning of the drawings contemplates installation of the 5 KV crane cable. The specifications and drawings are not ambiguous, and the Board will not look outside the contract documents unless there is ambiguity. Intercounty Construction Corporation, MSBCA 1056, 2 MICPEL 130, (1986). Since the meaning is clear there was no duty on Appellant to inquire. See Dr. Adolph Baer, P.D. and Apothecaries, Inc., MSBCA 1285, 2 MICPEL 146 (1987). Contract provisions must be read harmoniously to give reasonable meaning to all parts of the contract. Intercounty Construction, MSBCA 1036, 2 MICPEL 164 (1987). The fact Respondent disagrees with Appellant on the interpretation of the contract as to 5 KV crane cable installation does not of itself make the contract documents ambiguous. Add. #1 only contemplates 5 KV work as it related in a minor role in the Primary Power System sub-station work. The Add. #1 notation A was absent and so were the specifications as to secondary 5 KV crane cable work. The language in Rev. #1 specifications unambiguously changed the scope of work. Rev. #1 drawing 29 by description A next to the single line 4160 KV schematic unambiguously changed the

scope of work. The language here is a clear and definite departure of that found in Add. #1 and constitutes a change to the scope of work for which this Board finds Appellant entitled to an equitable adjustment.

The changes clause provides for actual costs together with permitted mark-up in calculating the amount of an equitable adjustment. Equitable adjustments are corrective measures to restore the contractor to an economic position he was in prior to the change. The standard has been and is what the work reasonably and actually cost. See J.C. Langenfelder & Sons, Inc., MDCIT 1000 et al., 1 MICPEL 2 (1980). This burden of proof lies with the Appellant. See Fruin-Colon Corporation and Horn Construction Co., Inc., MSSCA 1025, 2 MICPEL 165 (1987). The contractor has the burden of showing the actual costs as shown by their records. If, however, those records are inadequate or incomplete or do not fairly represent the full costs other sources are permitted (i.e. standard rate manuals). See Fruin-Colon Corp./Supra. Estimated labor costs have been accepted by this Board where unchallenged, Calvert General Contractors Corp., MDCIT 1004, 1 MICPEL 5, (1981), and a reasonable historic "actual" cost could be computed. Here the record, while incomplete as to labor, is sufficient to support the findings of labor for installation. Appellant's method of determining historic costs in its estimate was not provided in the recordⁱⁱ. However, it is uncontested the work was performed and Appellant is entitled to reasonable compensationⁱⁱ. The Board has stated previously, that a contractor need not prove his increased

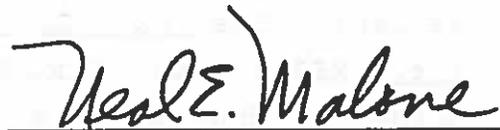
ⁱⁱ The Board has allowed the use of "historical" records where actual records were inadequate. "Historical" records would be evidence of what it actually costs a contractor to perform similar work, (i.e. example: it takes 1 electrician, 1 laborer and 1 truck driver, one (1) hour to pull a length of cable). No "historical" records were given during Appellants presentation.

ⁱⁱ The Board concludes that to disallow all labor costs would be unconscionable and contrary to the record taken as a whole and arbitrary since it is un-disputed Appellant's forces installed the 5 KV crane cable. Respondent offered no evidence to contradict the hours claimed but argued that there was no record of the actual hours spent on 5 KV work specifically identified as such in Appellant's records.

costs with absolute certainty or mathematical exactitude but must furnish a reasonable basis for computation, even if the result is only approximate. See, Traylor Brothers and Associates, MSEC 1026, 1 MICREL 86 (1984). However, while the Board will not engage in speculation, the record does support the Board's use of a jury verdict approach to calculate labor costs.

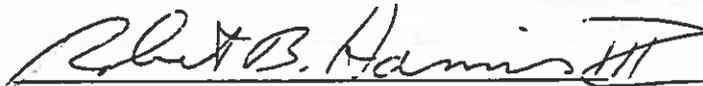
Based upon the reasoning above the Board sustains the appeal and finds quantum in the total amount of \$40,467.10. Post Decision Interest is awarded at the statutory rate on judgment interest.

Dated: 2/16/93

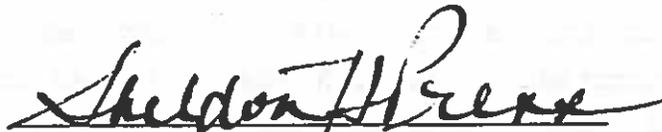


Neal E. Malone
Board Member

I concur:



Robert B. Harrison III
Chairman



Sheldon H. Press
Board Member

* * *

I certify that the foregoing is a true copy of the Maryland State Board of Contract Appeals decision in MSBCA 1636 appeal of C.J. Langenfelder & Son, Inc. under MPA Contract No. 289909.

Dated: February 16, 1993

Mary F. Priscilla
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Recorder

