

DISPUTE REVIEW BOARD RECOMMENDATION

September 6, 2005

Mr. Rusty Birchall
Project Manager
Cone & Graham, Inc.
5201 Cone Road
Tampa, Florida 33610

Mr. David "Mick" Jameson
Project Engineer
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22091 US Highway 19 North
Clearwater, Florida 33765

Ref: FPN: 256957, Contract Number: 21562
Pinellas County; SR 55 (US 19) From North of SR 60 to North of CSX RR

Gentleman:

Cone & Graham, Inc. (Cone Graham) requested a hearing before the Disputes Review Board (Board), and the Florida Department of Transportation (Department) agreed. The hearing is to resolve a dispute regarding the removal of unsuitable material along Drew Street in order to install the City of Clearwater's 10" sanitary sewer line. Cone Graham is of the opinion that this is unforeseeable work. The Department is of the opinion that the work is covered in the City of Clearwater (Clearwater) Specifications which are included as Technical Specifications for the project.

A hearing was held in the offices of Washington Infrastructures, Inc. (Washington) on August 24, 2005, to determine resolution of the above issue as to entitlement only.

CONTRACTOR'S POSITION

Cone Graham has requested payment for the following costs:

1. The cost of removing and disposing of material unsuitable for use as backfill as defined by TSP Section 2.5, Backfill.
2. The cost of replacing unsuitable material with suitable backfill material as specified in TSP Section 2.5, Backfill.

The Department has indicated in writing that neither of the above noted costs are compensable. Clearwater has only responded through Washington that no additional compensation is warranted.

Summary of Negotiations

Cone Graham initially notified the Department, of their intent to file a claim on this issue on March 26, 2003, when the material was first encountered. Washington responded on March 27, 2003, stating that only unsuitable material removed in accordance with index 505 for proposed roadway construction would be paid for under existing pay items for subsoil excavation and embankment. Cone Graham indicated verbally at the weekly progress meeting that, "We would continue to maintain our costs to dispose of the unsuitable material and import granular backfill and would present the issue to the Department as a claim upon completion". This claim was subsequently submitted to Washington on February 6, 2004, for additional compensation in the amount of \$22,021.43. Washington responded on February 13, 2004, that no additional

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compensation was warranted. With the exception of the mention of discussions with Clearwater in the February 13, 2004, letter, Cone Graham has received no denial of this claim from Clearwater. It is apparent that the Department considers this issue to be a Clearwater issue and has not expressed an interest in further resolution.

Contractor's Position Statement

It is best to dispense with the most obvious contractual defense first. Below is the text of TSP 2.5, Backfill, in its entirety.

2.5 Backfill

Material for backfill shall be carefully selected from the excavated material or from other sources as may be required by the Engineer. Such material shall be granular, free from organic matter or debris, contain no rocks or other hard fragments greater than 3" in the largest dimension and all fill shall be similar material.

Backfill placed around pipes shall be carefully placed around the sides and top of pipe by hand shovels and thoroughly compacted to 12" above the pipe by tamping or other suitable means.

Backfill under all types of paving shall be compacted in layers not to exceed 12" in thickness unless alternate method is approved by the Engineer. Backfill shall be a minimum of 98% compaction as determined by the modified Proctor Density Test to the bottom of pavement.

Backfill outside of pavement areas shall be compacted the full depth to the ground surface to a minimum of 95% compaction of AASHTO T-1 80 Standard Density Test.

The cost of backfill shall be included in the unit price bid per lineal foot of the pipe, or, in the case of other underground structures, in the cost of such structure. This shall also include the removal and replacement of unsuitable material.

On the surface, it would appear that the Clearwater specification clearly indicates that the Contractor is to include the costs of all unsuitable removal and replacement in the cost of the pipe. However, such a provision can only be enforceable if the Owner has provided the bidding contractor with the necessary information upon which to base a reasonable bid. In this case, Clearwater has not done so.

If unsuitable material removal and replacement is to be included in the unit price of the pipe, the Contractor needs, at a minimum, subsurface information of sufficient frequency and depth to allow a reasonable estimate of the quality and quantity of materials that exist in the running line of the trench.

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Clearwater chose to provide no subsurface information in their plans. The Department also provided no subsurface information in the Utility Relocation Plans. The only area where any subsurface information for Drew Street was provided was in the roadway cross sections for Drew Street and Access Road A. Table I summarizes the available borings for the areas of utility installation on Drew Street, which is from approximately Sta. 3 1+00 to Sta. 3 7+2 1.

Table I - Summary of Borings in Vicinity of Drew Street Sanitary installation

Boring No.	Location	Station	Offset	Bottom Elev.	Strata Indicated	Sanitary Invert
R-110	Drew	31+89.34	40' RT	27	1,6,4	19.25
R-111	Drew	33+70.62	40' LT	26.5	2,4	19.5
R-118	Drew	36+20	40' RT	25	2,5	20.25
R-119	Drew	38+00	40' RT	22.5	2,5	No Sewer
R-120	Acc-A	31+40	20' RT	26	1,6	20.35
M-1	Acc-A	32+50	28' RT	19	1	20.35
M-2	Acc-A	32+00	18' LT	20.5	1	20.35
M-3	Acc-A	33+00	20' LT	18.5	1	20.35
M-4	Acc-A	33+00	28' RT	17.5	1	20.35

Table 2 - Summary of Soil Strata

Strata No.	AASHTO Group	Description
1	A-3	Fine Sand w/ Occasional Occurrence of Limerock
2	A-2-4	Slightly Silty to Silty Fine Sand w/ Minor Roots
3	A-2-4	Slightly Silty to Silty Fine Sand
4	A-2-6	Slightly Clayey to Clayey Fine Sand
5	A-6	Very Clayey Fine Sand to Very Sandy Clay
6	A-7-6	Clay
7	A-8	Sandy Silt to Silty Sand w/Roots and Organics (Muck)
8	-	Limerock

Next it is important to consider the placement of these available borings with respect to the sewer line work. The sanitary line was installed along Drew Street at offset of 19' left of the centerline. Only one boring along Drew Street was located left of the centerline, and that boring did not indicate the presence of unsuitable material. In fact, no subsoil excavation of any kind was intended left of the centerline on Drew Street. (In actuality, the majority of Drew Street required removal of unsuitable material in accordance with Index 505, despite what the plans predicted.) The next closest set of borings was along Access Road A, which intersects Drew Street perpendicularly at Sta. 36+50. The closest boring on Access Road A (ACC-A) was approximately 188' left of the Drew Street centerline. All borings shown on ACC-A within 400 feet of Drew Street indicated only the presence of A-3 material down to depths near the invert of the sewer line.

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This summarizes the Contractor's dilemma: The plans provide no substantive information with regard to material properties from the invert elevation of the pipe to roughly five feet below grade. The available information seems to indicate that the only unsuitable material is on the right roadway, 60 feet away from the sewer line, and provides no information on how deep that unsuitable may be. The one boring on the left roadway indicates suitable material to within seven feet of the invert of the sewer line. Roadway borings on ACC-A, (almost 200 feet away) show A-3 material down to the invert elevation of the pipe. What is the best course of action for the Contractor?

Experience tells the Contractor to do the following based on the way FDOT contracts are administered. Since there is no definitive information available regarding the suitability of the material in the pipe trench, the Contractor must assume that it will be useable. There is some thin basis of support for this based on the sketchy information provided by the Owner, and to do other may compromise his bid. If the conditions are not as anticipated, FDOT Specifications provide two means by which the Contractor should address the situation. The first is by utilizing **Specification Section 4-3.7, Differing Site Conditions**. This specification allows for a Contract adjustment if a subsurface or latent physical condition are encountered that differ materially from those indicated in the Contract, or if there are unknown physical conditions that differ materially from those inherent to the work. The second is by utilizing **Specification Section 4-4, Unforeseeable Work**, which states, "*When the Department requires work that is not covered by a price in the Contract and such work does not constitute a "Significant Change" as defined 4-3.2. 1, and the Department finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the Department will make an adjustment to the Contract. The Engineer will determine the basis of payment for such and adjustment in a fair and equitable amount.*" In this case, the use of Unforeseeable Work seems appropriate, as the material encountered was not indicated on the plans, and the Contractor had no legitimate method to determine what, if anything, to include in the unit price of the pipe.

It is one thing to require the inclusion of a certain type of work in a pay item that is wholly different from the work being done, in this case removal of unsuitable material in the cost of laying pipe. It is another thing entirely to require a Contractor to make a wild guess about something unspecified and then include a cost with no basis into a bid item. **If an Owner is going to require removal of certain materials but is not going to delineate the location of these materials, then it is incumbent upon the Owner to establish a pay item for the contingent removal of these materials. A Contractor cannot be expected to guess on a latent and possibly nonexistent item of work.**

Next, it is important to deal with the reasons for rejection offered by the Department through the correspondence provided by Washington.

In letter no. Washington/Cone Graham-067, the Engineer indicates that the Department is not required or allowed to provide the information critical to determining all costs involved with the pay item. Washington also confirms that Clearwater did not provide this information either but nonetheless required the cost of its removal to be included in

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an existing pay item. This is an unfair attempt to shift risk when it does not need to be shifted. It is likely that the Department did have boring information that extended below the elevations they included in the plans. However, the Department only included the borings to the depths required for roadway construction in accordance with Standard Index 505. Instead of coordinating with one another and providing information critical to determining a legitimate bid cost, both the Department and Clearwater elected to provide no information and throw unnecessary risk onto the Contractor.

In this same letter, Washington indicates that there are other borings on the project that show the presence of clay to depths lower than the invert of the pipe. While this may be true, there are just as many that show suitable material to depths well below the invert of the pipe. This is selective reasoning in which the Engineer turns a blind eye to the borings that do not support his case. Again, in the area where the sewer was located, there is no information regarding the quantity or quality of material that may be suitable or unsuitable. There is no possible way to translate bridge design and mast arm borings into a workable formula to generate a bid price.

After submission of the claim package, Washington again denied entitlement in their letter no. Washington/Cone Graham-140. In addition to the reasons stated above, this time the Engineer indicated that the outcome of a previous DRB hearing solidified their denial. The DRB ruling referenced was that of the use of select backfill and removal of unsuitable material for the 48" City of St. Petersburg water transmission main. This work was covered under a separate set of TSPs and involved dissimilar circumstances. In that case, the contract included pay items for both unsuitable removal and select backfill. . The disputed issue was whether or not our subcontractor's request for payment under these items was based on the Engineer's direction, as required by the TSP, or his own convenience. The affected contractor could not demonstrate that the material removed met the definition of unsuitable as defined by the TSP, nor could he demonstrate that the Engineer required or directed it. Therefore, he was not entitled to compensation for removing the material or for the backfill imported to replace it. This is clearly not the case here. There is no dispute that the material removed was unsuitable. There is no dispute regarding the amount of material removed or the amount of material imported to replace it. The dispute here revolves around Clearwater's inclusion of work with no definable cost or quantity in an arbitrary pay item. Comparisons to the issues raised in the City of St. Petersburg dispute are not valid.

Conclusion

In summary, Cone Graham has established entitlement to payment for the removal of the unsuitable material and import of granular backfill associated with the sanitary sewer construction. The plans failed to provide any means by which to quantify the amount of material requiring removal and replacement. The limited information regarding subsurface conditions in the area of the installation provided no evidence that unsuitable material would be encountered. This would appear to meet the requirements of **Specification Section 4-4, Unforeseeable Work**. Clearwater's specification attempts to include the cost of an unknown and unquantifiable item in an unrelated pay item. This

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type of exculpatory practice has been rejected many times in the court system and in formal dispute resolution processes. It is the duty of the Owner to provide the Contractor with the necessary information to prepare a proper bid. The Owner has failed to do so, and Cone Graham is entitled to the requested compensation.

In addition, during the hearing Cone Graham made the statement that they had done considerable other work on this project where they had removed unsuitable material and replaced it with suitable material, but because the borings showed unsuitable material in those areas no additional compensation was requested.

DEPARTMENT POSITION

The Department bases their refusal to grant entitlement to Cone Graham for the payment for the removal of the unsuitable material and import of granular backfill associated with the sanitary sewer construction on the Clearwater JPA Specifications and the soil borings taken throughout the project as follows:

ISSUE: Cone Graham encountered unsuitable soil, clay, during construction of the Clearwater sanitary sewer construction along Drew St. east of US 19. As the subsoil excavated was not suitable for backfill of the sewer construction, Cone Graham had to import suitable soil to complete the backfill. Cone Graham filed a claim to recover the costs of the backfill. Clearwater and the Department believe Cone Graham is not entitled to additional compensation for the backfill.

CONTRACT: Standard Specification Article 5-2 Coordination of Contract Documents assigns the Technical Special Provisions a higher level of precedence than the Plans and the Standard Specifications in "...the governing order of documents..."

Technical Special Provisions Sub Section 2.5 -BACKFILL...

- The first paragraph on page 700 of the "Specifications Package" says, "Material for backfill shall be carefully selected from excavated material or from other sources as may be required..."
- The fifth paragraph (bold print) on page 700 says, "**The cost of backfill shall be included in the unit price bid ... This shall also include the removal and replacement of unsuitable material.**"

The contract Plan Set for the Joint Project Agreement No. 256957-1-56-07 for the Relocation of the City of Clearwater Water and Sewer Facilities does not include information about the backfill material.

The JPA Contract does not include Pay Item 120-4 Excavation Subsoil.

The FDOT Standard Specifications Section 120 EXCAVATION AND EMBANKMENT addresses the removal of unsuitable material

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encountered within the roadway limits in subarticle 120-4.2 Subsoil Excavation on page 136 of the Standard Specifications. It says unsuitable material is to be removed and replaced with suitable material.

FINDINGS: Soil borings included in the Contract Documents show clay and other unsuitable material to exist at other locations throughout the project, below, at, and above the elevations where the Clearwater facilities were to be constructed. Contract Plan Sheets T-16, B-6, and B-7A provide information on borings that depict fat clays of high plasticity, liquid limit, natural moisture content, and percentage passing a 200 sieve.

Soil boring information included in Contract Plan Sheets 118, 119, and 120 classify soils along Drew St. east of US 19 to be A-2-6 and A-6 (see Plan Sheet 88A), both unsuitable for backfill. Although the borings were shallower than the pipe trench cuts, the borings were indicative of the unsuitable soils encountered during construction.

The JPA Contract included water line and sanitary sewer construction throughout the project limits, not just on Drew St. east of US 19.

The Contractor has excavated unsuitable clay and sandy clay from the pipe trenches at various elevations through out the project limits consistent with information contained in the soil surveys included in the Contract Documents.

The Contractor used imported material for the pipe backfill.

Off site material was used for some of the backfill.

Clearwater Position:

The City of Clearwater believes the Contract is clear. The Technical Special Provision states the cost of backfill, including removal and replacement of unsuitable material, is included in the unit price bid for the work.

PRIOR NIEGOTIATIONS:

The Contractor and City representatives have discussed the issues several times at Weekly Progress meetings. No agreement has been reached to compensate the Contractor for the additional costs associated with disposing of unsuitable material and importing suitable soil for backfill.

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CONCLUSION:

The soils encountered throughout the project reasonably correlated with the soil boring information included in the Contract Plans. Therefore, Cone Graham is not entitled to additional compensation for the removal and replacement of the unsuitable material associated with the sanitary sewer construction on Drew St. east of US 19.

DISPUTE REVIEW BOARD FINDINGS

The Clearwater specifications included in the Technical Special Provisions for the sewer line work under section 2.5 backfill state in pertinent part that:

“The cost of backfill shall be included in the unit price bid per lineal foot of the pipe, or, in the case of other underground structures, in the cost of such structure. This shall also include the removal and replacement of unsuitable material.”

Soil boring information for the Drew Street work, both contract and Joint Project Agreement (JPA), was only supplied on the roadway cross sections in the contract plans, sheet numbers 118 through 120 and sheet T-16. These plan sheets included soil borings, all of which indicated either, slightly clayey to clayey fine sand (A-2-6), or very clayey fine sand to very sandy clay (A-6) at the bottom of the boring.

The supplied information went to a depth of approximately five feet below existing ground except for boring B-18 which went to a depth of approximately 35 feet. The sewer line was to be put in at a depth ranging up to thirteen feet below existing ground. This left up to eight feet of unknown material through which the pipe had to be placed.

The Department estimated, apparently based on the Drew Street boring information, that there would be a total of 800 CY of subsoil excavation (unsuitable material) for the roadway along Drew Street. However, it turns out that approximately 9,400 CY of subsoil excavation was removed, or almost twelve times the Department's estimate.

The issue here is not for payment under existing pay items as was the case in the City of St. Petersburg 48" waterline dispute, but could the contractor reasonably price the work without sufficient information as to the types of material to be encountered in the pipe trench.

The specifications define unforeseen work as follows;

Specification Section 4-4, Unforseeable Work

When the Department requires work that is not covered by a price in the Contract and such work does not constitute a "Significant Change" as defined 4-3.2.1, and the Department finds that such work is essential to the satisfactory completion of the Contract within its intended scope, the Department will make an adjustment to the Contract. The Engineer will determine the basis of payment for such and adjustment in a fair and equitable amount.

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The disposal of unsuitable material obtained from the pipe trench below the depth indicated by the Drew Street borings and replacement of same with suitable backfill is unforeseeable work.

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The Board is governed in our decision making process by the plans, specifications (standard, supplemental, technical, special), and the contract. The Board has carefully reviewed all the information presented at the hearing held on August 24, 2005, and the written position papers and their backup documentation presented by the Department and Cone Graham. Therefore, our recommendation is based on all of the above documents and our findings.

The Board recommends entitlement to Cone Graham for the cost of disposing of the unsuitable material located below the depth shown on the four borings included on the contract plan sheets 118 through 120, and the replacement of this material with suitable backfill.

The Board sincerely appreciates the cooperation of all parties and the information presented for its review in making these recommendations. The Boards recommendation should not prevent, or preclude, the parties from negotiating an equitable solution (should it be appropriate) to any issue pursuant to their partnering agreement.

Please remember that a response to the Board and the other party of your acceptance or rejection of the recommendation is required within 15 days. Failure to respond constitutes an acceptance of the recommendation by the non-responding party.

I certify that I have participated in all the meetings of this Board regarding these issues and concur with the findings and recommendation.

Signed by the Chairman with the concurrence of all Committee members:

John C. Norton. P.E.
Chairman
Gerald H. Stanley
Member
Lester C. Furney
Member