

DISPUTES REVIEW BOARD RECOMMENDATION

June 15, 2004

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

Mr. Barry Wilson
Project Engineer
Genesis CE&I Services, LLC
14161 SR-54
Odessa, Florida 33556

Ref: FPN: 256337 1 52 01; Contract No. 21591, SR-54 From E of Gunn Hwy to W of North Suncoast Parkway, DRB Hearing concerning Weather Related Damage/Elevated Water Table.

Gentleman:

The Florida Department of Transportation (Department) and their Construction, Engineering and Inspection (CE&I) firm, Genesis CE&I Services, LLC (Genesis) and the Contractor on this project, Cone & Graham, Inc. (Cone Graham) requested a hearing before the Disputes Review Board (Board) to determine if Cone Graham is due payment for weather related damages caused by the storms of December 2002 and January 2003 and the resulting high water table.

Cone Graham in their position paper states: "Cone & Graham, Inc. has requested additional compensation for additional work associated with abnormal weather events and associated high water table conditions that occurred on the project."

The Department states: "The Department does not believe that effects from the weather qualify as extensive or catastrophic damage; therefore there is no entitlement for additional compensation."

A hearing was held in the Departments project office on June 4, 2004, to determine resolution of the above issue. The Board has not included any of the exhibits from either of the parties position papers or rebuttals, but has left the reference to those exhibits in the narratives.

CONTRACTORS POSITION

Statement of Issue

Cone & Graham, Inc. has requested additional compensation for additional work associated with abnormal weather events and associated high water table conditions that occurred on the project. Specifically, rain events that occurred in late December of 2002 caused severe damage to the project. This damage was in excess of what Cone & Graham, Inc. could have been reasonable expected to protect against and repair. These rain events were part of a pattern of increased rainfall that elevated the groundwater table well in excess of the information contained in the plans. This high water table resulted in

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design changes to the project and required Cone & Graham, Inc. to employ additional methods to dewater the project in order to maintain construction progress.

Cone & Graham, Inc.'s Position

Cone & Graham, Inc. commenced work on the project on November 11, 2002. Shortly thereafter, rainfall not characteristic in the normal dry season began to fall. December was extremely wet, with a total of 14.10 inches of rainfall, a departure of 11.80 inches from the normal expected rainfall. Cone & Graham, Inc. experienced two issues as a result of this abnormal rainfall. The first issue was damage to completed work. The second was extra work as a result of the high water table condition that existed on the project. Each of these is further detailed below.

Damage

Cone & Graham, Inc. experienced damage to the project as a result of two very intense storm events separated by a week. These storm events occurred on December 24, 2002 and December 31, 2002. On the first event, approximately two inches of rain fell in a very short (< 6 hr) duration. The second event was 2.68 inches. The National Weather Service notes that December 2002 was the second wettest December since taking records in 1890 (Attachment I) During this phase of the work, Cone & Graham, Inc. was actively involved with embankment and excavation operations, primarily constructing roadway fills and excavating and grassing roadway ditches. When these rain events hit, Cone & Graham, Inc. suffered extensive damage to the finished slopes and ditches. In order to repair the damage, Cone & Graham, Inc. utilized additional labor and equipment to pump excess water, remove sediment from ditches and structures and regrade and regrass damaged areas of the project. The majority of the repair work was performed in the week following the second rainfall. Additional costs were incurred after this primarily due to pumping excess water and pump maintenance.

These events were concentrated storms with unusually intense rainfall. Cone & Graham, Inc. had employed proper "best management practices" with regard to erosion control. However, even these practices are intended to only handle rainfall intensities in the range of 1/4" to 1/2" per hour. Rainfall intensities were well in excess of this range. As a result, the erosion control devices that were installed were inundated and rendered ineffective. Permanent erosion control features such as sod had also been installed along the ditches were also ineffective in preventing the erosion caused by the rain. Cone & Graham, Inc. fulfilled the contract requirements indicated in Specification Section 7-14, Contractor's Responsibility for Work "to take every necessary precaution against injury or damage to the work by the action of the elements." The damage was the result of "unforeseeable causes beyond the control of and without the fault or negligence of the Contractor." As a result, Cone & Graham, Inc. should be compensated for the repair of damage resulting from these intense, isolated storm events.

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Changed Site Condition

The contract plans were based on water table data obtained from soil borings performed between August 1995 to November 2001. Four borings were done in October 1995, seven in February 1996, three in October 2001 and five in November 2001. These borings coincide with the end of a period widely recognized as a drought phase in Central Florida. Water table elevations were at a record low during the period of time these borings were performed. The contract plans were prepared based on these borings.

The year prior to the starting the project, Florida entered a wetter period. In 2002, Tampa International Airport experienced higher than average rainfall amounts for the year, with 62.07" of rainfall recorded, which is 17.3" above the 44.77 average rainfall amount. Regionally, lake levels and water table elevations not seen in over ten years began to manifest themselves. During one meeting Cone & Graham, Inc. attended with Mark Brown, and environmental scientist with the Southwest Florida Water Management District, Mr. Brown stated that water tables were at record elevations. Cone & Graham, Inc. has also graphed surface water and monitoring well data from SWFWMD. These graphs (Attachments 2A-2I) clearly show a trend of rising water elevations around the project area beginning in 2002.

The elevated water table affected the project in several ways. Two of the access roads on the project that connect old SR-54 to new SR-54 had to be redesigned from Type B Stabilization and limerock base to black base due to water table elevations not present at the time of design (Attachment 3). Changes to the mitigation ponds on the site, including hydraulic connections and plant zones, were made due to the high water table changing the hydrologic features of the mitigation areas. Following the extremely wet month of December 2002, there was discussion between Cone & Graham, Inc., Genesis CE&I Services and representatives of the Department regarding a suspension of the project until such time as workable conditions resumed. The project had become saturated due to the elevated water table conditions and the abnormally high amount of rainfall in December 2002.

In order to keep the project on schedule, Cone & Graham, Inc. had a sock drain installed in the primary fill area near Sta. 200 to attempt to dry the fill and allow embankment construction to proceed. The sock drain and associated pumping were successful in drying the embankment. Construction continued on schedule despite the high water table and abnormal rainfall.

It is Cone & Graham, Inc.'s position that the costs of installing the sock drain and pumping are additional work eligible for payment in accordance with Section 4-3, Alteration of Plans or of Character of Work and Section 4-4, Unforeseeable Work. The elevated water table was not a condition known to the designer when designing the project. Likewise, it was a changed condition from the information contained in the plans at bid time. This, when combined with abnormal rainfall, forced several design changes on the project to deal with the changed condition. Cone & Graham, Inc. and FDOT successfully

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negotiated the majority of these changes, but have not been able to agree on the additional work created with regard to drying the embankment on the project.

During Cone Graham's rebuttal of the Departments position they referred to the Departments memorandum of March 11, 1998, regarding weather impacts of the sort they felt they were experiencing on this project. Cone Graham felt that they had met all the conditions of the memorandum.

In addition Cone Graham negotiated a settlement for damage caused by these same storms in District 1, Lakeland. Cone Graham felt that the Department received a benefit from the sock drain. They were able to continue working despite the high water table when otherwise they would have had to shut down, possibly delaying the project completion.

Conclusion

Cone & Graham, Inc. experienced abnormal weather and an elevated water table during the construction of the project. The abnormal weather created additional work due to damage as a result of intense, heavy rainfall. The damage was not the fault or result of contractor negligence. Specification Section 7-14 gives the Department the ability to compensate Cone & Graham, Inc. for this additional work in cases of damage beyond the control of the Contractor. The elevated water table created a changed condition from that shown in the plans. This changed condition altered the character of the work for the placement of embankment in an area of the project. Several other design changes were made throughout the project to accommodate the high water table condition. Cone & Graham, Inc. installed dewatering devices to dry the area, and requests compensation for this additional work in accordance with Specification Sections 4-3, Alteration of Plans or of Character of Work and Specification Section 4-4, Unforeseeable Work.

DEPARTMENTS POSITION

Request for Additional Compensation - Weather Related Damage:

The dispute at hand is one of Contractual merit and/or entitlement. Is the Contractor entitled to additional compensation for weather related damage during the month of December 2002 and January 2003? Additionally is the Contractor entitled to additional compensation to install and maintain a roadway dewatering, - system, for erosion repairs and for temporary drainage allegedly caused by an abnormal weather event?

The matter in dispute is the Contractor's request for additional compensation for the effects of abnormal weather related events during the month of December 2002 and January 2003. The Department does not believe that effects from the weather qualify as extensive or catastrophic damage; therefore there is no entitlement for additional compensation.

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Status:

The escalation matrix established at the beginning of the project was followed. At the last meeting regarding this issue both parties, the Department and the Contractor, agreed to refer this matter to the Disputes Review Board.

Summary of Department's Position

The Department's position is outlined below:

1. The Contractor submitted a letter dated January 2, 2003 wherein he advised the CEI Consultant and Department of his concerns with recent weather events and how the events would require unforeseen repair work. The Contractor went on to attribute the events to an El Nino weather phenomenon. The Contractor's letter requested to utilize procedures contained in a March 11, 1998 Department Memorandum about Statewide Weather Impacts.

The Contractor's request and notification was based solely upon following procedures described in the March 11, 1998 Memorandum:

"The following process will be utilized pursuant to Article 7-14 to strengthen and "standardize" our response to contractors concerning recent weather events statewide. If in the District's sole determination the following conditions exist and each verification is to the engineer's satisfaction, the District has the discretion to enter into a supplemental agreement for additional compensation.

1. **DOT and Contractor agree that project experienced extensive or catastrophic damage due to recent weather events; and**
2. **DOT elects to pay Contractor for recovery effort (minor repair) or replacement (total rework of a unit of work).**
 - a. **Project Engineer and Contractor must determine extent of damage.**
 - b. **Contractor provides detailed description with dates.**
 - c. **Contractor submits cost estimate - "NOT A CLAIM". Work is priced based on bid items to extent possible or using markups in specs.**
 - d. **Project Engineer verifies report and determines Contractor had taken "required" precautions to "safe up", the job - erosion control, etc.**
 - e. **Resident Engineer and DCE review report and make recommendation for payment.**
 - f. **Supplemental Agreement is prepared using ... language ... form:
(Supplemental Agreement Language not included)**

Please keep Central Office Construction apprised of the intent to process supplemental agreements on this basis. The work for paragraph four is intended to maintain DOT discretion for payment while not setting precedence for future weather events."

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One of the key objectives to the Memorandum is to underscore that the District has final *discretion* with regard to payment for weather events. This is the fundamental stipulation that must be met and is referenced in both the first and next-to-last paragraphs of the Memorandum. Another key point to the Memorandum is that use of this method is contingent upon conditions 1 and 2 each being met and that each verification is to be to the engineer's satisfaction. It is the Department's position that the conditions have not been met. The DOT has not agreed that the events caused extensive or catastrophic damage. Furthermore the DOT has not agreed to pay the Contractor for recovery or replacement efforts.

It must be noted that the Contractor did not follow the procedures outlined in conditions 2b and 2c of the Memorandum. In fact the Contractor submitted his request for additional compensation in the form of a claim, which is prohibited by condition 2c. [See January 2, 2003 Cone & Graham Letter (Exhibit 5-1 thru 5-3)]

2. The Contractor's responsibility for the work is defined in Section 7-14 of the Standard Specifications which states: "**Until the Department's acceptance of the work, take charge and custody of the work, and take every necessary precaution against injury or damage to the work by the action of the elements or from any other cause whatsoever, arising from the execution or from the nonexecution of the work. Rebuild, repair, restore and make good, without additional expense to the Department, all injury or damage to any portion of the work occasioned by any of the above causes before its completion and acceptance, except that in case of extensive or catastrophic damage. The Department may, at its discretion reimburse the Contractor for the repair of such damage due to unforeseeable causes beyond the control of and without the fault or negligence of the Contractor, including but not restricted to Acts of God, of the public enemy, or of governmental authorities.**"

It is the Department's position that the Department has sole discretion in determining if it will reimburse the Contractor for work associated with extensive or catastrophic damage. [See Standard Specifications Article 7-14 (Exhibit 3-1)]

3. On January 27, 2004 the Contractor submitted a request for additional compensation for weather related damage occurring in late December 2002 and early January 2003. We have reviewed the costs presented in the Contractor's letter and have separated the costs into the following categories:

- a. Roadway Dewatering Costs
- b. Erosion Repair Costs
- c. Temporary Drainage Costs

The roadway dewatering costs presented by the Contractor were for the installation of dewatering materials (sock drain) and pumping associated with the left roadway embankment. The costs presented were approximately \$ 13,570 or 51% of the claimed amount. Certainly, the Contractor should have considered dewatering cost when

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preparing his bid for the embankment work near the wetlands where he utilized the horizontal dewatering apparatus.

The erosion repair costs were for replacement / placement of erosion control devices as well as for regrading eroded areas of the site. Customary procedures were followed with regard to payment for erosion control devices. The Contractor was paid for work at the existing contract unit prices for erosion control devices that were damaged and/or required replacement as a result of the weather.

With regard to the installation of temporary cross drains, this is not an unusual requirement and one that the Contractor should have considered in his bid proposal. The specifications require that the Contractor maintain drainage across existing SR 54 during the course of construction. Section 8-4.5 of the Standard Specifications states: **"Conduct the operations and maintain the work in such a condition to provide adequate drainage at all times. Do not obstruct existing functioning storm sewers, gutters, ditches, and other runoff facilities."** The largest portion of cross drain related costs were associated with storm structure S-16. Plan Sheet No. 106 provided for the installation of temporary cross drain structure S-161. The only significant 'maintenance cost experienced by the Contractor was for opening temporary structure S-161 to move entrapped storm water across SR 54 and for installing adequate measures at each end of the structure to prevent erosion. Again, the installation of additional erosion control devices was paid by the Department at existing contract unit prices. [See January 27, 2004 Cone & Graham letter (Exhibit 5-5 thru 5-44), Standard Specifications Article 8-4.5 (Exhibit 3-2), Plan Sheet No. 106 (Exhibit 2-1), Genesis CE&I Services Daily Reports (Exhibit 6-1 thru 6-115)]

4. Rainfall during the period described was above average as documented by job site records and the Southwest Florida Water Management District. The heavy rainfall events occurred over eight (8) days between December 6, 2002 and January 9, 2003. While there was a significant amount of rainfall, we do not believe that 8 days constitutes an El Nino event, which typically lasts over a longer period of time. It must be noted that jobsite records indicate that eight (8) out of nineteen (19) contract months experienced less rainfall than the monthly average. [(See Spread Sheet of Rainfall Records (Exhibit 7-1), Job Site Rainfall Records (Exhibit 7-2 thru 7-7) and SWFWMD rainfall records (Exhibit 7-8 thru 7-59)]

CONCLUSION

Based upon the fact that the Department has the sole discretion to determine if project conditions justify reimbursement to the Contractor for extensive or catastrophic damage, as well as the other factors herein before described, the Contractor is NOT entitled to any additional compensation.

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DISPUTE REVIEW BOARD FINDINGS

The Departments March 11, 1998 memorandum was the result of a prolonged period of unusually wet weather during which Contractors all around the State were experiencing extensive, and in some cases catastrophic damage due to the prevailing weather conditions at that time.

With regard to the March 11, 1998 Department Memorandum:

- a) The rain events of December and January were not statewide weather events, but isolated storm events concentrated in the central and west coast areas of Florida in December of 2002 and January of 2003.
- b) The short period of heavy rains did not constitute an El Nino event.
- c) The Contractor was paid for work at the existing contract unit prices for erosion control devices that were damaged and/or required replacement as a result of the weather.
- d) There was not extensive or catastrophic damage.
- e) It is the Departments sole determination that the required conditions were not met.
- f) The wording of paragraph four is intended to maintain DOT discretion for payment while not setting precedence for future weather events.

With respect to the specifications:

- a) Specification 7-14 Contractor's Responsibility for Work allows the Department to reimburse the Contractor for the repair of extensive or catastrophic damages at its discretion.
- b) Specification 8-4.5 Drainage: Conduct operations and maintain the work in such condition to provide adequate drainage at all times.
- c) Specification 4-3.4 Differing Site Conditions: During the progress of the work, if subsurface or latent physical conditions are encountered at the site differing materially from those indicated in the Contract, ... the affected work. Differing conditions from those indicated in the Contract, as described in 4-3.4 above, were found at the site of work as evidenced by the redesign of some connector roads.

The installation of the sock drain allowed Cone Graham to continue placing embankment and mitigate potential delays to the project despite the high water table.

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The Board finds no entitlement for weather related damages caused by the storms of December 2002 and January 2003 and the resulting high water table.

The Board sincerely appreciates the cooperation of all parties and the information presented for its review in making this recommendation. The Disputes Review Board's 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. The Board acknowledges that the Department and Cone Graham may want to partner a negotiated settlement for the sock drain since the project appears to have received a benefit from its use. This allowed Cone Graham to continue placing

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embankment despite the high water table, and not suspend embankment operations as had been discussed with the Department. It also alleviated the potential that project completion could be delayed.

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 this recommendation by the non-responding party.

I certify that I have participated in all meetings of the Disputes Review Board regarding this issue and concur with the findings and recommendations.

Signed with the concurrence of all Board members

John C. Norton, P.E.

Chairman

Tom Rice

Member

Mark Puckett

Member