

January 16, 2003

Mr. Charles J. Sukanek, P.E.
URS Corporation
2698 Orlando Drive
Sanford, FL 32773

Mr. Kenneth Hudson
Modern Continental South, Inc.
278 Garrison Road
Pelzer, SC 29669

RE: Seminole Expressway, Project 2 - Section 1
FIN No. 240258-2-52-01
Dispute Review Board Recommendation
Rework of 8" Sewer at Southgate Drive

Dear Sirs:

The Florida Department of Transportation (Department) and Modern Continental South (MCS) requested a hearing concerning the rework of the 8" sanitary sewer line at Southgate Drive. Summaries of the Department's and MCS's positions were forwarded to the Dispute Review Board (DRB), and a hearing was held on December 20, 2002.

ISSUE: Is the Contractor entitled to compensation for the reworking of the 8" sanitary sewer line at Southgate Drive?

Contractor's Position

Modern Continental South, Inc. (MCS) proposes that it should be fully compensated to include all associated and indirect costs for the rework of the 8-inch Sanitary Sewer Line located along South Gate Road. The sewer line was installed in accordance with the contract documents and accepted by the CEI as is evident by the fact that the Department compensated MCS in full before the line was inspected by the City of Sanford and found to have a "bow" in the line.

*Project records indicate that MCS's subcontractor installed the 8-inch PVC Sanitary Sewer Line between Manhole No. 1 and No. 2 on November 24, 2000. Manhole No. 1 was installed on November 25, 2002. A representative of the CEI witnessed the installations. Subsequently, the Department compensated MCS for this installation. The line was inspected by the City of Sanford on or about July 23, 2002 and found to have a "bow or bend" in the line in the horizontal plane. Since that time the following correspondence (copies are contained in **Appendix 1**, "Correspondence ") has been initiated which will be the subject of the Discussion section of this paper.*

- *August 9, 2002- URS initiates Letter No. 1496 concerning the City of Sanford inspection that identified a "bow" in the sewer line stating that it had to be repaired before it would be accepted by the City and the department.*
- *August 15, 2002- MCS initiates Letter No. 201-2976-02 stating the facts associated with the history of the sewer line and that MCS would seek compensation for the rework.*
- *August 16, 2002- URS initiates Letter No. 1503 stating the facts in their perspective concerning the history of the sewer line and stated that the Department would not compensate MCS for any rework associated with the repair.*
- *September 4, 2002- MCS initiates Letter No. 201-3010-02 requesting that the City of Sanford consider an extended warranty (additional one year) on the line in lieu of rework.*

- *September 17, 2002- URS initiates letter No. 1524 stating that the City of Sanford would not accept an extended warranty, that the line would have to be reworked and requested notification of the schedule for the rework.*
- *September 21, 2002- MCS initiates letter no. 201-3037-02 stating that in interviews with Project personnel, MCS found that the City of Sanford had on several occasions excavated along South Gate Road to repair a rupture in a clay pipeline. The rupture had caused several sinkholes to develop in the road. This letter notified the Department that MCS would seek compensation for the rework and set a start date of September 23, 2002.*

MCS's position remains that the sewer line was installed in accordance with applicable contract documents. At no time from the date of installation in November of 2002 until the City of Sanford inspection (on or about July 23, 2002) was MCS notified that the line was installed incorrectly. As stated in URS Letter No. 1503, a representative of the CEI witnessed the installation. Subsequent to this the Department compensated MCS for the installation. This would indicate that the sewer line had been inspected for all applicable design/acceptance criteria and accepted. Additionally, the line was video taped which was submitted to the CEI and MCS assumes that the CEI submitted a copy to the City, the line was subjected to a leakage test and received DEP clearance to be placed into service. The sewer line was placed into service during the month of July 2002. MCS asserts that based on these facts, the line was installed in accordance with all applicable subcontract documents.

MCS believes the cause of the "bow" to have been caused by several ruptures that occurred to an existing clay sewer line that runs adjacent to the line MCS installed. MCS interviewed Project personnel and found that the City of Sanford excavated along the subject line and roadway on several occasions due to the development of sinkholes on South Gate Road. The sinkholes were the result of the existing clay pipe rupturing. The existing clay pipe is within approximately five (5) feet of the new line at approximately the same elevation. To safely excavate to facilitate the repair of a line approximately ten (10) feet below ground and have adequate working space, the area would have to either utilize a trench box or an open cut excavation, either of which would have exposed the line installed by MCS. After excavating the line for repair, MCS found the PVC line bowing in the direction of the clay line. MCS believes that the excavations by the City, which would have certainly exposed the new line and the pipe ruptures having saturated the soil in the area allowing the ground pressure to shift it, caused the new line to shift towards the clay pipe. The effort involved in repairing the sewer line encompassed:

- > *Approximately one week to de-water using well-points and a rental pump.*
- > *Approximately four days to excavate the area, move the line and backfill utilizing a Cat 320 excavator, a rented Cat 924 loader and sled tamps.*
- > *Trench boxes were required along Airport East.*

MCS is confident that the discussion and facts submitted provide the basis for the Dispute Review Board (DRB) to award entitlement to MCS concerning the rework of the 8-inch PVC Sanitary Sewer Line. In reviewing the above, MCS believes that the line was accepted by a representative of the City of Sanford or the Department otherwise it would not have been leak tested, submitted for DEP clearance nor would the Department had compensated MCS for the installation. Thus the only reasonable cause for the "bow" would have to be attributable to the repair work done by the City of Sanford. MCS should not be held accountable for work by others that detrimentally affect our work.

Department's Position

The contract drawings require Modern Continental South (MCS) to install a new 8-inch gravity sanitary sewer line along the Southgate Drive right-of-way. The new line is approximately 185 L.F. in length and three new manholes are included. A segment of the line was placed in a 20 inch casing under the new SR 417 embankment. The new sanitary line replaces an existing line along the Southgate Drive right-of-way. The existing line was to be removed; however, at MCS's request the line remained in place and was filled with grout.

MCS's subcontractor, Scarborough Civil Corp., installed the portion of the new line between manhole nos. 1 and 2 on May 24 and 25, 2000. Manhole no. 2 was installed on May 23, 2000 and manhole no. 1 was installed on May 25, 2000.

Based on MCS's intent to connect the new 8-inch sanitary line to the existing system in December 2000, URS submitted a DOMESTIC WATER COLLECTION/TRANSMISSION SYSTEMS CERTIFICATION OF COMPLETION OF CONSTRUCTION form to FDEP for approval to place the 8-inch sanitary line (gravity line) and the 6-inch force main (also along Southgate Drive) into service. On December 15, 2000, DEP cleared both lines for use. MCS connected the 6-inch force main during the week of June 12, 2001. The 8-inch sanitary line was not connected until the week of July 28, 2002.

MCS's letter dated August 15, 2002 made several statements regarding the 8-inch sanitary line for which the Department offers the following responses:

- 1. MCS statement - "The line was installed in November of 2000."
FDOT response - Project records indicate manhole no. 1 was installed on 5/25/00 and the 8-inch. PVC line between manhole 1 and manhole 2 was installed on 5/24/00.*
- 2. MCS statement - "The installation was witnessed by a representative of the Department."
FDOT response - URS's inspector was on site and observed the installation. However, refer to Section 5-9.2 of the Specifications.*
- 3. MCS statement - "The line was video taped and has been reviewed by the appropriate organizations."
FDOT response - Horizontal changes in pipes are difficult to pick-up in videos. Vertical changes usually are more easily recognized. Regardless, MCS is required to turn over an acceptable product.*
- 4. MCS statement - "The line was pressure tested."
FDOT response - A pressure test was not performed on the line; however, a leakage test was performed in accordance with the following technical special provision.*

1513-10.3 Leakage Tests:

All pipe sewers and appurtenant structures connected thereto shall be made as nearly watertight as practicable. Leakage tests shall be performed by the Contractor who shall be responsible for furnishing all necessary labor and equipment to conduct such testing.

a. *Type of Test:*

- (1) *Gravity sewers shall be required to pass a leakage test before Final Acceptance. Leakage tests shall be by the low-pressure air test as described below.*

5. *MCS statement - "The line received DEP clearance to be replaced into service"
FDOT statement - The 8-inch sanitary line was submitted for clearance based on MCS's intent to make the connection soon after clearance was issued by DEP. The documents sent to DEP state "the project has been completed substantially in accordance with the approved plans and specifications" The approved plans and specifications do not include curved runs of pipe.*

Clearance by DEP does not constitute acceptance of the line by the City and/or the Department.

The Department also presents the following additional facts:

- *The contract documents require the Contractor to perform a light test in accordance with the following technical special provision:*

1513-10.2 Light Test:

After backfilling to at least one (1) foot depth over any section of sewer, which should have a uniform grade and straight alignment, the Contractor shall flash a light from manhole to manhole, or from manhole to clean-out location. The view through the line shall show a vertical axis in full pipe diameter and a horizontal axis in at least 3/4-pipe diameter. The Contractor shall be responsible for the removal and relaying of pipe as necessary to meet these requirements.

Project records do not indicate any such light test was performed by MCS. The City performed a light test on July 23, 2002 and the results identified the horizontal bow in the line.

- *The "as-built" plans for the 8-inch sanitary line submitted by MCS and used for "as-built" conditions in the FDEP permit did not show a bow in the line. Note, the realignment of the 6inch force main along Southgate Drive was shown on the "As-Builts". The realignment was necessitated because Scarborough initially aligned the 6-inch line toward the wrong casing.*
- *Since the line was not put into service until late July 2002, the City and/or the Department did not perform any acceptance tests (light test) on the line at the time of installation. MCS allowed an extensive time period to go by between installation and final hook-up to the existing system.*

On September 30, 2002, MCS exposed the relocated 8-inch sanitary line between manhole nos. 1 and 2. The alignment of the sanitary line was recorded by URS's field staff. At a point 30 feet from manhole no. 1 the line was over 3-feet off the alignment shown on the plans. Manhole nos. 1 and 2 were constructed at the locations shown in the plans.

After Scarborough installed manhole no. 2, they started to install the 8-inch sanitary line from manhole no. 2 to manhole no. 1. There was an existing manhole approximately six feet east of the manhole no. 1. The alignment of the first 155 feet installed indicates that the Contractor was laying the pipe toward the

existing manhole. Approximately 30 feet from manhole no. 1, the 8-inch sanitary line was 3.04 feet off line. At this point, it appears the line was re-directed toward manhole no. 1; thus creating a horizontal bow in the line.

When MCS exposed the entire line between manhole nos. 1 and 2, they started the realignment from manhole no. 1 towards manhole no. 2. At manhole no. 2, the line had to be shortened by removing a few joints in order to make the connection at manhole no. 2.

The Department contends that the sanitary line was not installed in accordance with the plans; i.e. a straight alignment between manhole nos. 1 and 2. If the line had been installed in a straight alignment, it could not have moved 3 feet horizontally without pipe joints opening up due to lengthening of the line.

DRB Findings

The Contractor alleged the bow in the line was a result of the City of Sanford repairing several ruptures to the adjacent clay sewer line. The DRB believes that in order for this to occur the entire line would have to be exposed at one time. It was reported that the repairs to the existing line were spot repairs at several locations. Additionally, if the horizontal movement of the line was a result of excavating the adjacent line, a vertical displacement should have occurred as well. No vertical movement was reported. The line was reported to be up to 3 feet out of alignment between the manholes. For this much movement to occur a rupture of the line should be expected.

The DRB believes the alignment error occurred during the initial installation. It is possible that the alignment error occurred by the Contractor aligning on the wrong manhole, as the Department has alleged. If however, the light test had been performed according to the specifications, the error could have been corrected at the time of installation. Conducting the light test at the time of installation would also be proof-positive to the Contractor's position that the pipe moved.

DRB Recommendation

The DRB finds no justification for the Contractor's position and therefore finds no entitlement for the issue.

The Board appreciates the cooperation by all parties involved and the information provided to make this Recommendation. Please remember that failure to respond to the DRB and the other party concerning your acceptance or rejection of the DRB Recommendation within 15 days will be considered acceptance of the Recommendation.

Dispute Review Board Recommendation

I certify that I participated in all of the meetings of the DRB regarding the Dispute indicated above and concur with the findings and recommendations.

Respectfully submitted,

Dispute Review Board

Jim Vest, DRB Chairman
John Duke, DRB Member
John Coxwell, DRB Member

SIGNED FOR AND WITH THE CONCURRENCE OF ALL MEMBERS:

A handwritten signature in black ink that reads "Jim Vest". The signature is written in a cursive style with a large, looped initial "J".

DRB Chairman