

TO: James L. App, City Manager
FROM: Joseph M. Deakin, Public Works Director
SUBJECT: Sludge Bed Modifications - Change Order Request
DATE: January 21, 2003

NEEDS: For the City Council to consider approving a Change Order to the construction contract for the Sludge Bed Modifications project.

FACTS:

1. The December 2000 Capacity Evaluation Study for the City Wastewater Treatment Facility determined the need to provide additional and improved sludge treatment and handling facilities.
2. The City Council approved a \$4,000,000 Capital Improvement line item for solids handling facilities improvements at the Wastewater Treatment Facility. The major projects include adding a digester, adding mechanical drying capability (installing a belt press) and improving the existing sludge drying beds. The major projects are progressing through design, the sludge beds are under construction.
3. On August 20, 2002, the City Council authorized staff to award a construction contract to Viborg Sand & Gravel to construct the sludge bed modifications, as designed, in the amount of \$251,032.00.
4. In mid-October 2002, during the sludge bed excavation, staff observed soil instability, so work was halted to allow staff and the engineer to re-evaluate the design assumptions. Because the soil conditions were less stable (due to moisture conductance) than assumed during design, the structural integrity needed to be recalculated.
5. Initially, the observed soil instability covered nearly two-thirds of the 24,300 square foot slab area. Staff and the design engineer worked to reduce the required slab modifications by consolidating the existing site soils, ultimately resulting in the need to modify just 7,300 square feet of the slab. The needed modification would double the slab thickness (from 6-inches to 12-inches) and add reinforcement steel in the modified section (the 7,300 square foot area).
6. The City's Payment and Purchasing Procedures Manual requires that the City Council approve any Change Orders exceeding 25% of the original contract.

**ANALYSIS
AND**

CONCLUSION: Viborg Sand & Gravel is on hold for now, awaiting determination by the City whether a contract modification will be authorized so work may continue. The contract modification accommodates the design changes in slab configuration to provide a more rigid concrete slab suitable for unstable soils, below.

Based upon the proposed slab modification, Viborg Sand & Gravel provided the attached estimate of \$95,270. Of this total amount, additional concrete would cost \$17,621 and reinforcing steel would cost \$26,485, with the remaining balance in labor, equipment and administrative cost. The cost for the changes represent reasonable costs for the work requested.

The original contract is \$251,032, and if the \$95,270 change order requested is authorized, the contract would increase to \$346,302. The change order request exceeds 25% of the original contract, therefore Council must authorize (or deny) the change.

Should the Council opt to deny the change order request, the project will need to be abandoned. The current slab design will not have the structural rigidity needed to withstand equipment loading typically applied during sludge preparation and removal operation.

POLICY

REFERENCE: Payment and Purchasing Procedures Manual; approved CIP Project List; City Council Resolution 02-185, August 20, 2002 (contract award to Viborg Sand & Gravel, Inc.).

FISCAL

IMPACT: The City Council allocated \$650,000 for this project under Budget Nos. 601.910.5452.636 and 221.910.5452.636. This budget is sufficient to fund the change order requested, and all other project costs, without additional allocation.

- OPTIONS:**
- a. For the City Council to authorize staff to approve a Change Order to the Sludge Bed Modifications contract to Viborg Sand and Gravel, Inc. in the amount of \$95,270.00
 - b. Amend, modify or reject the above option.

Attachments (1)

- 1) Change Order Estimate