DATE:

February 6, 2019

TO:

Mayor and City Council

FROM:

Assistant City Manager

SUBJECT:

Stormwater CIPP Lining Project - Contract Change Order



RECOMMENDED ACTION

Approve the contract change with Stokes Plumbing, LLC in the amount of \$ 138,820 and authorize the City Manager to sign the change order.

BUDGET IMPACT

The 2019 capital budget has been approved up to \$300,000 in improvements planned to include a portion of this work and the completion of repairs to the Oaks at Lanier drainage system. The base contract as currently amended included the application of contingency funds, taking it to \$190,000. Thus, this change requires an additional \$138,820 to complete the project. Since the budget spans fiscal years, adequate funds are available with the deferral of the balance of this year's program by one year.

DISCUSSION

This project, when presented last year, contemplated the cured-in-place-pipe (CIPP) construction method as the appropriate solution for three project locations—based on pipe sizes, pipe condition and depths suitable for such. The proposal was based on visual-inspection by field-staff and was subject to contractor verification prior to construction. The first two locations and installations were completed as planned with only one change within the first allocation of owner contingency funds applied to extend to another pipe segment not originally accounted for.

Once the staff shifted attention to the last project location in the Links neighborhood at Eagle Close Lane, a segment pipe dislocation and partial collapse had occurred between the time of inspection last fall and scope development and the planned installation. Therefore, additional methods need to be used to clear the 30-foot deep pipe and allow for lining the host pipe. The most-effective solution will be to ram a smaller, smooth-walled pipe into the dislocated segment, forcing the realignment of sections through the process and grouting between the host and new pipe. Hydraulically, the new smooth-walled pipe capacity will substantially carry the same flows as the corrugated metal previously in place.

Therefore, staff directed the contractor to provide a price to mobilize and install using this different method. As a consequence of the late discovery, the pipe liner for the 30-inch pipe in the Links has already been manufactured and purchased, requiring remobilization to use in a new location. The price proposed for all of this work, including some unknown unit-priced variables is estimated at \$126,200 and staff is requesting an additional 10% in owner contingency to handle unforeseen conditions and repairs during the process, bringing to total requested change to \$138,820 and total contract amount to \$328,820.

Staff is requesting and recommending approval of this rather urgent and necessary change to the contract. Attached is the preliminary change order request, exhibit, and change document.

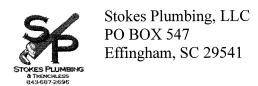
Stormater CIPP Lining Project CHANGE ORDER #2

| Item No. | Description | Units | Quantity | Unit Price | | Amount | |
|---|--|-------------|--|------------|-----------|-----------|------------|
| NEW | Pipe Ramming/Bursting | LS - NTE | 1 | \$ | 98,500.00 | \$ | 98,500.00 |
| NEW | Remobilization for liner - new location | LS | 1 | \$ | 16,000.00 | \$ | 16,000.00 |
| NEW | Grout | CU YD | 45 | \$ | 260.00 | \$ | 11,700.00 |
| NEW | Owner's Contingency | LS | 10% | \$ | 12,620.00 | \$ | 12,620.00 |
| | | | | | Total | \$ | 138,820.00 |
| ANGE IN CONTRA | ACT PRICE: | | | | | | |
| Line 1 Original Contract Price: | | | | | | \$ | 160,000.00 |
| Line 2 Previously Amended Contract Price: | | | | | \$ | 30,000.00 | |
| Line 3 | Line 3 Contract Price Due to this PCO is increased by: | | | | | \$ | 138,820.00 |
| Line 4 | 1 | NEW C | ONTRACT PRICE | : | <i>J</i> | \$ | 328,820.00 |
| | MMENDED BY: TIM SCHICK, FACILITY DIRECTOR/PROJECT MANAGER | | | | | | DATE |
| RECOMMENDED | BY: | | | | | | 57112 |
| RECOMMENDED | BY: | TROY BESSEC | HE, P.E., ASSISTANT CI | TY MANA | GER | | DATE |
| | | | HE, P.E., ASSISTANT CI D. RADFORD, CITY MAI | | GER | | |

| Line 3 | Contract Price Due to this PCO is increased by: | 30.00 |
|--------|---|--|
| Line 2 | Previously Amended Contract Time: | 0.00 |
| Line 1 | Original Contract DAYS: | 60.00 |
| | Line 2 | Line 2 Previously Amended Contract Time: |

NEW CONTRACT TIME:

73%



Date: February 4, 2019 TO: Tim Schick

RE: City of Sugar Hill-Storm water rehab

Dear Mr. Schick,

While preparing existing storm drains for liner installation last week, it was determined one of the two lines on Eagle Close Lane has a major collapse present. The collapse crushed the top of the pipe allowing large boulders to penetrate the line. It also created a very large void in the earth between the storm drain and finished grade above the pipe. The soils from this void washed into the creek changing the path of the stream, and destabilized the soils. Thus, putting the roadways, public utilities, and surrounding properties in danger.

We determined two possible methods of repairing the pipe. The first option is to excavate to complete a point repair; then, we install a cured-in-place-pipe liner inside the host pipe. This method will cause major damage to the residential property, curve work, and paving in the cul-de-sac. This option will also require the relocation of public utilities including power, fiber optic cable, and telephone. The point repair method will be the most expensive option. The second option is utilization of the pipe-ramming method. This method calls for set up at the bottom of the creek to hammer high-density polyethylene piping inside the damaged corrugated metal pipe. This option allows us to use zero excavation with a proper repair with no damage to any surrounding properties. We will stabilize the soils, and fill the void by injection of hydrophobic grout. Lead time for material to be shipped is ten days. If the pneumatic hammer gets stuck, we will be responsible for excavation.

Equipment required:
Pipe-ramming/bursting setup
Ground penetrating radar
Large excavator to move equipment down hill
2-1600 CFM air compressors
Complete bypass pumping of the creek
24 inch HDPE
Pipe-fusing equipment

Cost Estimate: \$98,500.00 (Grout cost is not included.)

Grout cost, (in addition to above figure), will be priced on a volume basis. Hydrophilic grout pumping is \$260 per yard.

Notes: Remobilization, (if requested), to install a 30-inch bag located in a vehicle on a separate jobsite will be \$16,000.00.

Sincerely,

Wesley Stokes Stokes Plumbing, LLC 843-773-0036