



City of Richmond

Report to Committee

To: General Purposes Committee

Date: March 26, 2005

From: Robert Gonzalez, P. Eng.
Director, Engineering

File: 10-6000-01/2005-Vol 01

Re: 6280 No. 3 Road Sewer Main Relocation Additional Funding

Staff Recommendations

That additional funding of \$200,000 through the 2005 Sanitary Utility Reserve Account be approved as the funding source for the 6280 No. 3 Road Sewer Main Relocation project.

Robert Gonzalez, P. Eng.
Director, Engineering
(4150)

FOR ORIGINATING DIVISION USE ONLY

ROUTED TO:

CONCURRENCE

CONCURRENCE OF GENERAL MANAGER

Sewerage & Drainage..... Y ☒ N ☐
Building Approvals..... Y ☒ N ☐
Finance..... Y ☒ N ☐
Law..... Y ☒ N ☐

REVIEWED BY TAG

YES

NO

☒☐

REVIEWED BY CAO

YES

NO

☒☐

Staff Report

Origin

On January 21, 2005 a local state of emergency at the subject address was issued by the City as a consequence of a sinkhole and resulting in disruption of sanitary sewer service and undermining of a one storey commercial building at 6280 No. 3 Road. On March 7, 2005 Council approved funding as part of the 2005 Capital Program through the Sanitary Utility Reserve account to reinstate the sanitary sewer to normal service. Since funding approval, staff have received quotations to complete the required work that exceed the approved level of funding and transfers all risk to the City.

The purpose of this report is to request additional funding to allow staff to return the sanitary sewer system to normal service.

Background

The City owns a right-of-way immediately adjacent to 6280 No. 3 Road where a 200 mm diameter sewer is located. This sewer, which was constructed in 1960, is immediately below the sinkhole approximately 4 metres below ground level and 2 metres from the face of the building. This main has been damaged, the extent to which has not been confirmed, and is not in service. An emergency sanitary sewer bypass system remains in place on a temporary basis and this service for all customers including the subject address has been continuous.

Analysis

On March 18, 2005 staff received three quotations to complete relocation of the sanitary sewer main near 6280 No. 3 Road as summarized in Attachment 1. The quotes received exceeded the approved funding level and specifically relinquished any risk to the City associated with possible impacts to the adjacent buildings.

Given the results of the quotations received, staff have reviewed the options available to the City to return the sanitary sewer system to normal service as follows.

Option 1 (do nothing) – This requires that the portable generator, pump and overland pipe remain in service indefinitely. While this set-up provides reliable service in the short term, it is not recommended for an indefinite period of time given the noise impact to residents and businesses, the high vulnerability to vandalism, immediate impacts to public health should the bypass system be compromised and the high operating cost. This option is therefore not recommended.

Option 2 (cancel the quotations and re-tender) – This option is not recommended for reasons as outlined below.

- ❑ Given the depth of the main and proximity to the buildings along the alignment, there are very few contractors who possess the expertise to complete this work.
- ❑ During the quotation process, staff contacted those contractors who were considered capable of completing the work. Of the six organizations contacted, only three were prepared to

quote and the remaining indicated that they were either too busy or were concerned about their ability to complete the work.

- ❑ Re-tendering would result in more delay in completing the project and it is unlikely that any new bids would be received.

Option 3 (negotiate with contractors) – Staff commenced discussion with the low bidder in an attempt to identify areas where savings could be found. However, given their bid (as with the other bids received) relinquished all risk to the City, there were no savings readily identified.

Option 4 Recommended (proceed based upon the bids received) – Staff received a commitment from three contractors to complete the work. However each of them would not accept any risk and their bids exceeded the estimate prepared by staff. The City is able to acquire project specific insurance at a cost of \$5,000. This option will allow the City to proceed with the work in the most timely and cost effective manner. A breakdown of the additional funding requirement of \$200,000 which includes insurance and the cost that exceeded the staff estimate to hire a contractor is provided in Attachment 1.

Option 5 (construct pump station) – Constructing a pump station would allow the sewer main to be installed at a depth of approximately 1.0 metre as compared to the current requirement of 4.0 metres. While there would be an expected savings associated with this new depth, the cost to construct a pump station (approximately \$300,000) and the long term operating, maintenance and replacement costs exceed Option 4.

Option 6 (alternative routing) – As the sinkhole site represents the lower end of the sanitary sewer area, any changes to its present routing will impact those areas upstream of its present location. Staff reviewed and developed a configuration for the area that would return the damaged sewer to normal operating condition. While this option provides for a long term solution for the area in general, a substantially higher additional cost associated with installation of more pipe and another pump station accompanied with the other impacts noted below make this option unfavourable at this time.

- ❑ Disruption of newly placed asphalt on Saba Road.
- ❑ Pipe installation on No. 3 Road where conflict with RAV Line construction may be likely.

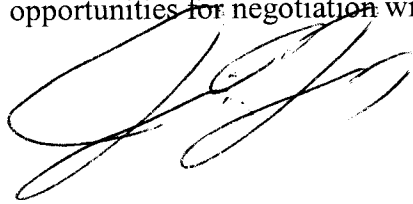
Financial Impact

Council approved \$363,000 funding for this project (40634) on March 7, 2005.

The additional funding required to proceed with the work is estimated to be \$200,000. Funding is available in the Sanitary Sewer Utility Reserve Fund.

Conclusion

Staff have reviewed several alternatives to return the 6280 No. 3 Road sanitary sewer system to normal service. The alternative to increase funding, award the work to the lowest tenderer and purchase project specific insurance represents the best alternative. Staff will continue to seek opportunities for negotiation with the contractor as the work proceeds.

A handwritten signature in black ink, appearing to read 'J. V. Young', is written over the end of the paragraph.

Jim V. Young, P. Eng.
Manager Engineering Design and Construction
(4610)

JVY:jvy

Attachment 1**Table 1 – Summary of Quotation Received**

Contractor	Bid
Sandpiper	\$379,958.71
Progressive	\$395,800.00
Merletti	\$406,247.00

Table 2 – Summary of Additional Funding Requirement

Project Specific Insurance	\$ 5,000
Contractor Funding Shortfall	\$195,000
Total	\$200,000