



City of Richmond

Report to Committee

To: Public Works and Transportation Committee **Date:** August 20, 2021
From: Milton Chan, P.Eng **File:** 10-6050-01/2021-Vol
Director, Engineering 01
Re: **Sanitary Sewer Repairs – 8000 Block Capstan Way**

Staff Recommendation

That funding of \$800,000 from the Sanitary Sewer Reserve Fund for the sanitary sewer repairs in the 8000 Block of Capstan Way, be approved and that the Consolidated 5 Year Financial Plan (2021-2025) be amended accordingly.

Milton Chan, P.Eng
Director, Engineering
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REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Department Sewer & Drainage	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
SENIOR STAFF REPORT REVIEW	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

In May 2021, staff observed ground settlement in the westbound vehicle curb lane on Capstan Way just west of No. 3 Road. Investigation indicated that the settlement was due to a failing gravity sanitary sewer pipe.

The failed section of sanitary sewer was isolated and a temporary bypass system was installed by City forces to provide continuous sewer service to the surrounding properties. A new pipe has been installed that allows regular sewer service to resume.

Staff recommend that funding for the repairs be provided from the Sanitary Sewer Reserve Fund.

This report supports Council's Strategic Plan 2018-2022 Strategy #1 A Safe and Resilient City:

Enhance and protect the safety and well-being of Richmond.

1.2 Future-proof and maintain city infrastructure to keep the community safe.

Analysis

The City has a failed 350 millimeter diameter gravity sanitary sewer constructed around 1970 that is located under the road in Capstan Way and is approximately 5 metres below ground level.

City forces installed a temporary sanitary sewer bypass system to maintain sewer service to nearby properties. Repair of the sanitary sewer was initiated as there was a high risk of a blockage occurring in the bypass system and a high risk of further failures in the surrounding sanitary sewer system.

In accordance with the City's Procurement Policy (Policy 3104), a contractor was engaged for the repair work and procurement was excluded from normal purchasing practices under an unforeseeable urgent situation or emergency. An engineering consultant and a geotechnical consultant were retained to provide technical support and recommendations to minimise any further settlement and potential impacts to the surrounding area and nearby utilities.

The repair utilized trenchless technologies in order to restore regular sanitary service in a timely manner and to minimize the potential risk of settling and damage to the adjacent large diameter Metro Vancouver sanitary trunk sewers. While the repair was successful, the new pipe is smaller than the original due to the tight physical constraints of the work area. Staff will monitor and inspect the repair to determine its effectiveness and operational impact to the sanitary system. If a larger pipe is required, a Capital Submission will be prepared for Council's consideration as part of the Capital Budget process.

The repair work has been substantially completed and remaining works include final surface restoration and monitoring.

Financial Impact

The total estimated capital cost for the repair of the failed sanitary sewer in the 8000 Block of Capstan Way is \$800,000.

A temporary funding source has been utilized to fund the emergency repair until the Consolidated 5 Year Financial Plan (2021-2025) can be amended with this additional \$800,000 to be funded by the Sanitary Sewer Reserve Fund.

Conclusion

The sanitary sewer system in the 8000 Block Capstan Way failed and a new section of pipe was installed under an emergency situation. Staff are monitoring the effectiveness of the repair to assess if a future capital project is required for the upgrade and replacement of this section of sanitary sewer. Staff recommend that funding for the repair work be provided from the Sanitary Sewer Reserve Fund.



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