



City of Richmond

Report to Committee

*To Public Works & Transportation -
July 23, 2008*

To: Public Works and Transportation Committee
From: Dave Semple
Acting General Manager,
Engineering and Public Works

Date: July 14, 2008
File: 10-6340-20-P.08312/Vol
01

Re: No. 2 Road Box Culvert – Transfer of Funds

Staff Recommendation

That the transfer of \$750,000 from the 2008 Gilbert North Drainage Area Capital Project into the 2008 Steveston Drainage Area capital project be approved to complete the replacement of a section of box culvert on No. 2 Road, south of Steveston Highway.

Dave Semple
Acting General Manager, Engineering and Public Works
(604-233-3350)

FOR ORIGINATING DEPARTMENT USE ONLY					
ROUTED TO:		CONCURRENCE		CONCURRENCE OF GENERAL MANAGER	
Budgets	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
Sewerage & Drainage	Y	<input checked="" type="checkbox"/>	N	<input type="checkbox"/>	
REVIEWED BY TAG	YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>	REVIEWED BY CAO
		<i>65</i>			YES
		<i>mk</i>			<input checked="" type="checkbox"/>
					NO
					<input type="checkbox"/>

Staff Report

Origin

As part of the 2008 Capital Program, staff completed the condition assessment of a section of No. 2 Road Box Culvert south of Steveston Highway. Staff have identified the need for the immediate replacement of a 75m section of box culvert.

The purpose of this report is to obtain Council authorization to transfer \$750,000 in funding from an existing capital project which will allow the replacement of this section of box culvert to proceed.

Analysis

The purpose of these large drainage box culverts is to collect drainage flow from local residential neighbourhoods and convey the flow to the nearest drainage pump station. Box culverts are critical component to protect residents and businesses from the risk of flooding.

During 2006 and 2007, operations staff completed repairs to the box culvert where materials (gravel, soil) were entering the box culvert through large cracks. In late 2007 this situation further deteriorated resulting in development of a significant sinkhole requiring partial closure of the No. 2 Road right of way.

To reduce these local costly repairs, the need to complete a detailed condition assessment of this box culvert was warranted and included as part of the 2008 Capital Program under the Steveston Drainage Area Capital Project.

The condition assessment of any box culvert is typically done in the dryer summer months. Staff commenced the assessment of this section of box culvert in June 2008 and discovered that this section of box culvert has settled to the point where the hydraulic capacity has been greatly reduced. Staff also observed significant gaps between sections of the box culvert allowing material to enter the box culvert, again reducing the ability to convey drainage flow during rain events.

It is important to complete replacement of this section of box culvert. The consequence of not proceeding with this work is the risk of flooding and development of another sinkhole, both of which can have significant impact on property, public health and safety.


Staff are recommending the transfer of \$750,000 from the 2008 Gilbert North Drainage Area project into the 2008 Steveston Drainage Area project to complete the replacement. As part of the upcoming 2009-2013 Capital Program, staff will prepare for Council's consideration, the addition of a \$750,000 Gilbert North Drainage Area project.

Financial Impact

The financial impact to the City is a \$750,000 funding transfer between two existing 2008 drainage capital projects. No additional funds are required at this time.

Conclusion

A section of box culvert along No. 2 Road, South of Steveston Highway has been identified to require immediate replacement. Staff request Council's authorization to transfer \$750,000 in funds from the 2008 Gilbert North Drainage Area project into the 2008 Steveston Drainage Area project to complete this replacement.



Roeland Zwaag, P. Eng.
Acting Manager Engineering Design and Construction
604-276-4377

RZ:rz

