



Public Works & Transportation Committee

Anderson Room, City Hall
6911 No. 3 Road

Wednesday, September 18, 2013
4:00 p.m.

Pg. # ITEM

MINUTES

PWT-4 *Motion to adopt the minutes of the meeting of the Public Works & Transportation Committee held on Wednesday, July 17, 2013.*



NEXT COMMITTEE MEETING DATE

Wednesday, October 23, 2013, (tentative date) at 4:00 p.m. in the Anderson Room

ENGINEERING AND PUBLIC WORKS DEPARTMENT

1. **AGEING INFRASTRUCTURE PLANNING - 2013 UPDATE**
(File Ref. No. 10-6060-01/2013) (REDMS No. 3878967 v.3)

PWT-10

See Page **PWT-10** for full report

Designated Speaker: John Irving

STAFF RECOMMENDATION

That the Ageing Infrastructure Planning – 2013 Update be utilized as critical input in the annual utility rate review and capital program process as described in the staff report dated August 14, 2013 from the Director, Engineering.



2. **ENHANCED PESTICIDE MANAGEMENT PROGRAM**
(File Ref. No. 10-6125-04-01) (REDMS No. 3960199)

PWT-23

See Page **PWT-23** for full report

Designated Speaker: Lesley Douglas

STAFF RECOMMENDATION

That, in accordance with the original program objectives, the Enhanced portion of the Enhanced Pesticide Management Program be discontinued.



3. **DETAILED ARCHITECTURAL FEATURES – NO. 1 ROAD NORTH
AND WILLIAMS ROAD DRAINAGE PUMP STATIONS**
(File Ref. No. 10-6340-01) (REDMS No. 3971897 v.3)

PWT-36

See Page **PWT-36** for full report

Designated Speakers: Anthony Fu & Eric Fiss

STAFF RECOMMENDATION

That the staff report titled Detailed Architectural Features – No. 1 Road North and Williams Road Drainage Pump Stations dated September 3, 2013 from the Director, Engineering, be received for information.



PLANNING & DEVELOPMENT DEPARTMENT

4. **ICBC-CITY OF RICHMOND ROAD SAFETY PARTNERSHIP**
(File Ref. No. 01-0150-20-ICBC1-01/2013) (REDMS No. 3833578 v.2)

PWT-44

See Page **PWT-44** for full report

Designated Speaker: Victor Wei

STAFF RECOMMENDATION

- (1) *That a letter be sent to the Chair of the Board of Directors of ICBC expressing the City's appreciation of ICBC's comprehensive and collaborative approach to improving road safety in Richmond for all users;*

- (2) *That a copy of the report dated August 21, 2013 from the Director, Transportation outlining ICBC-City partnerships that have contributed to improved road safety in Richmond be forwarded to the Richmond Council / School Board Liaison Committee for information;*
- (3) *That the additional proposed road safety improvement projects, as described in the report, be endorsed for submission to the ICBC 2013 Road Improvement Program for consideration of cost sharing funding; and*
- (4) *That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to negotiate and execute the cost-share agreements and the 2013 Capital Plan and 5-Year (2013-2017) Financial Plan be amended accordingly.*



5. **MANAGER'S REPORT**

ADJOURNMENT





Public Works & Transportation Committee

Date: Wednesday, July 17, 2013

Place: Anderson Room
Richmond City Hall

Present: Councillor Linda Barnes, Chair
Councillor Chak Au
Councillor Derek Dang
Councillor Linda McPhail
Councillor Harold Steves
Mayor Malcolm Brodie (entered at 4:04 p.m.)

Call to Order: The Chair called the meeting to order at 4:00 p.m.

MINUTES

It was moved and seconded

That the minutes of the meeting of the Public Works & Transportation Committee held on Wednesday, June 19, 2013, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Wednesday, September 18, 2013, (tentative date) at 4:00 p.m. in the Anderson Room

PLANNING & DEVELOPMENT DEPARTMENT

1. **APPLICATION BY GARDEN CITY CABS TO PASSENGER TRANSPORTATION BOARD**

(File Ref. No. 12-8275-02) (REDMS No. 3900474)

The Chair referenced an article from the Vancouver Sun, dated July 13, 2013, titled 'Taxis fare road to profit' (copy on file, City Clerk's Office).

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Paramjit Randhawa, 12180 Woodhead Road, Principal, Garden City Cabs of Richmond Ltd., provided background information related to his company, and spoke in favour of the proposed application to the Passenger Transportation Board.

Mayor Brodie entered the meeting (4:04 p.m.).

Mr. Randhawa stated that all taxi companies in the lower mainland are permitted to transport passengers originating from the Vancouver International Airport (YVR), with the exception of Garden City Cabs. He stated that in June 2013, the Vancouver Airport Authority renewed a five-year term agreement with taxi companies, whereby increasing the number of additional licences by five. Garden City Cabs' application to the Passenger Transportation Board is to permit five accessible vehicles to service the main terminal of YVR as these vehicles are in high demand as they can accommodate more passengers and more pieces of luggage.

Mr. Randhawa concluded his remarks by requesting that Committee approve the proposed staff recommendation.

It was moved and seconded

- (1) *That a letter be sent to the Chair of the Passenger Transportation Board of BC:*
 - (a) *expressing the City's concern with the potential erosion of taxicab service within Richmond should the application from Garden City Cabs be approved in whole;*
 - (b) *requesting that the application be approved in part with the number of additional five accessible vehicles to be associated only with the specific service area of Richmond including Vancouver International Airport, with all other fleet vehicles continuing to be excluded from servicing YVR; and*
- (2) *That should the Passenger Transportation Board approve an increase in the number of accessible and conventional taxicabs, that staff be directed to bring forward a bylaw amendment to the Business Regulation – Vehicle for Hire Bylaw No. 6900 to increase the number of licensed Vehicle for Hire vehicles.*

CARRIED

ENGINEERING AND PUBLIC WORKS DEPARTMENT

2. **HAMILTON CHILD CARE CENTRE PROJECT**
(File Ref. No. 06-2052-25-DCHA1) (REDMS No. 3872940 v.2)

2.

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It was moved and seconded

That the approved project description be revised to include construction methods other than modular building as acceptable construction methodologies for the Hamilton Child Care facility.

CARRIED

3. NO. 2 ROAD DRAINAGE BOX CULVERT REPLACEMENT FUNDING
(File Ref. No. 10-6340-01) (REDMS No. 3893782 v.4)

It was moved and seconded

That \$251,500 of Drainage Utility Reserve funding be approved for the No. 2 Road Drainage Box Culvert Replacement, and that the 2013 – 2017 Five Year Financial Plan be amended accordingly.

CARRIED

4. OPTIONS FOR FOOD SCRAPS AND ORGANICS COLLECTION SERVICES FOR MULTI-FAMILY DWELLINGS AND COMMERCIAL BUSINESSES

(File Ref. No. 10-6370-10-05) (REDMS No. 3898787)

In reply to queries from Committee, Suzanne Bycraft, Manager, Fleet and Environmental Programs provided the following information:

- approximately 100 sites will participate in the proposed pilot program, whereby a variety of approaches would be tested at various sites in an effort to measure the volume of food scraps and organics being recycled;
- a variety of multi-family and mixed-use developments will be approached to participate in the proposed pilot program; in addition, residents who have approached the City for such services will also be invited to participate;
- the proposed pilot program is voluntary, therefore there is no obligation to participate should there be no interest; and
- there may be an increase in the number of businesses that collect organics as the demand for such facilities increases.

It was moved and seconded

(1) That a pilot program for food scraps and organics collection services for multi-family dwellings and commercial businesses, as outlined in Option 1 of the staff report dated June 24, 2013 from the Director – Public Works Operations, be approved;

3.

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- (2) *That the Chief Administrative Officer and General Manager, Engineering & Public Works be authorized to negotiate and execute an amendment to Contract T.2988, Residential Solid Waste & Recycling Collection Services, to service, acquire, store, assemble, label, deliver, replace and undertake related tasks for the carts, kitchen containers and related items associated with this temporary pilot program; and*
- (3) *That an amendment to the City's Five Year Financial Plan (2013-2017) to include capital costs of \$200,000 and operating costs of \$120,000 for undertaking a pilot program for food scraps and organics collection services for Multi-Family Dwellings and Commercial Businesses, with funding from the City's general solid waste and recycling provision, be brought forward for Council consideration.*

CARRIED

5. 2012 UPDATE: RECYCLING AND SOLID WASTE MANAGEMENT – PROPOSED INCREASED SERVICE LEVELS

(File Ref. No. 10-6370-01) (REDMS No. 3877881 v.6)

Ms. Bycraft spoke of preliminary statistics related to the organics collection for multi-family residences, highlighting that for the month of June 2013, the City has seen a 69.2% waste diversion from these residences.

She provided an overview of the 2012 Recycling and Solid Waste Management program, noting that key recycling and solid waste management actions focused on establishing foundational elements for expanding organics recycling services to include multi-family residences; also, expanding the scope of materials accepted at the City's Recycling Depot and increasing recycling in public spaces, and at public events was another focus area. Staff continued to promote recycling through its community engagement initiatives.

Ms. Bycraft commented on the Large Item Pick Up program, noting that a significant number of residents have already taken advantage of this newly introduced program. Also, she spoke of key initiatives for 2013 such as a review of the City's garbage collection service.

Discussion ensued regarding the proposed inclusion of used books to the scope of material accepted at the City's Recycling Depot. Committee expressed concern in relation to the proposed agreement with Discover Books Ltd., and it was suggested that the Friends of the Richmond Library be given a right of first refusal for books received at the City's Recycling Depot.

Ms. Bycraft was requested to distribute hardcopies of the 2012 Recycling and Solid Waste Management Report to all members of Council. Also, she was directed to provide a memorandum to Council regarding the City's diversion rates.

4.

Public Works & Transportation Committee

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Ms. Bycraft spoke of public education pieces related to the Recycling and Solid Waste Management program, noting that staff continue to educate the public through workshops, displays, multiple brochures, an annual schedule, and youth involvement through the Green Ambassador volunteer program. Also, she stated that staff would further promote the Large Item Pick Up program through advertisements in the local newspaper.

In reply to queries from Committee, Ms. Bycraft provided the following information:

- the 2012 Update: Recycling and Solid Waste Management Plan would be made available at City facilities;
- staff could examine the feasibility of utilizing compost to grow food with the City's sustainability division;
- the trucks utilized by the City's contractor for organics collection are equipped with devices that can determine whether a load is contaminated or not; if a load is found to be contaminated, the load is not collected; and
- a company in the lower mainland is recycling Styrofoam and utilizing it to make household items like picture frames.

It was moved and seconded

- (1) *That the annual Report 2012: Recycling and Solid Waste Management – Expanding Services to Achieve Our Goals be endorsed and made available to the community through the City's website and other communication medium;*
- (2) *That dry-cell batteries (up to 5 kgs) and cell phones be added to the scope of materials accepted at the City's Recycling Depot and that the Chief Administrator Officer and General Manager, Engineering and Public Works be authorized to negotiate and execute an agreement with Call2Recycle Canada, Inc. on the terms and conditions set out in the staff report from the Director, Public Works Operations dated June 24, 2013, including specifically that the City grant an indemnity to Call2Recycle Canada, Inc. for any losses they may suffer in connection with the agreement;*
- (3) *That used books be added to the scope of materials accepted at the City's Recycling Depot and that the Chief Administrator Officer and General Manager, Engineering and Public Works be authorized to negotiate and execute an agreement with Discover Books Ltd. on the terms and conditions set out in the staff report from the Director, Public Works Operations dated June 24, 2013, subject to a right of first refusal to the Friends of the Library; and*

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- (4) *That polystyrene foam (Styrofoam) be added to the scope of materials accepted at the City's Recycling Depot.*

CARRIED

6. MANAGER'S REPORT

(i) *Steveston Highway and No. 5 Road Intersection*

In reply to a query from Committee, Victor Wei, Director, Transportation, advised that paving in the area has been completed, and that the next step is to paint the lanes, so that these additional lanes can be functional. Also, Mr. Wei commented on the Steveston Highway interchange, noting that staff are currently in discussions with staff at the Ministry of Transportation and Infrastructure.

John Irving, Director, Engineering, spoke of the delay in relocating utility poles along Steveston Highway, noting that it is anticipated that this work occur on weekends throughout the summer months.

(ii) *Loading Zone in Steveston*

Discussion ensued regarding the Steveston Marine and Hardware store's loading zone, and it was noted that there is a post in an inconvenient location, making it difficult to manoeuvre goods off trucks into the store.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:47 p.m.).

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works & Transportation Committee of the Council of the City of Richmond held on Wednesday, July 17, 2013.

Councillor Linda Barnes
Chair

Hanieh Berg
Committee Clerk



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: August 14, 2013

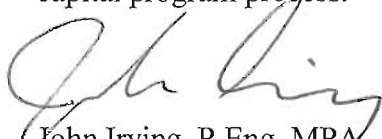
From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6060-01/2013-Vol
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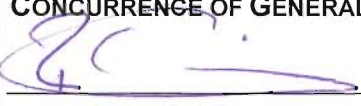

Re: Ageing Infrastructure Planning - 2013 Update

Staff Recommendation

That staff utilize the attached "Ageing Infrastructure Planning – 2013 Update" report dated August 14, 2013 from the Director, Engineering as input in the annual utility rate review and capital program process.


John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 5

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Finance Division	<input checked="" type="checkbox"/>		
Roads & Construction	<input checked="" type="checkbox"/>		
Sewerage & Drainage	<input checked="" type="checkbox"/>		
Water Services	<input checked="" type="checkbox"/>		
Transportation	<input checked="" type="checkbox"/>		
REVIEWED BY DIRECTORS	INITIALS: DW	REVIEWED BY CAO	INITIALS: 

Staff Report

Origin

In July 2001, March 2006 and June 2011 the Engineering Department reported to Council the estimated long-term capital requirements for age-related infrastructure renewal. This report updates those estimates to reflect current inventory, evolving theory on infrastructure service life and changing infrastructure replacement pricing.

Background

The 2011- 2014 Council Term Goals recognize the need to manage ageing infrastructure and identifies the following related priorities:

- Priority 5.3 – Update the Long-Term Financial Management Strategy (LTFMS) to ensure relevancy and representation of needs relative to growth, *ageing infrastructure*, changing demographics, and other City strategies.
- Priority 11.1 – Continued and improved funding for ageing infrastructure replacement programs at a pace that matches long-term infrastructure deterioration.

This report outlines the current and long-term financial requirements for maintaining and replacing the City's ageing infrastructure.

Existing Infrastructure

Table 1 is a summary of the City's inventory of water, sanitary, drainage, and roads infrastructure. The replacement value assumes that infrastructure will be replaced using the existing size or upgraded where current infrastructure does not meet the City's current minimum size requirement.

Staff has reported ageing infrastructure assessments to Council in 2001, 2006 and 2011. The 2001 and 2006 reports to Council identified that infrastructure replacement funding levels were insufficient to maintain existing service levels over the long-term. The 2006 report proposed a number of strategies to address funding shortfalls, and a strategy of gradual rate increases to close the identified funding gaps was adopted. Substantial progress has been made since 2006. Closing the funding gap in the Water utility was an early priority and that gap was closed in 2011. The gap in Drainage funding has been the priority for the last two years and that gap is nearly closed. **Table 2** is a breakdown of funding levels by infrastructure type.

Table 1: Infrastructure Inventory

Infrastructure	Total Length	Other Features	Funding Source	Replacement Value (2013 \$)
Water	629 km	12 PRV Chambers 58 Valve Chambers	Water Utility	\$535 M
Sanitary	565 km	152 Pump Stations	Sanitary Utility	\$498 M
Drainage	622 km	39 Pump Stations 43 km Culverts 178 km Watercourse	Drainage Utility	\$1,018 M
Dike	49 km		Drainage Utility	\$200 M
No. 2 Rd Bridge	0.5 km	Excluding abutments	To Be Determined	\$73 M
Road Pavement (non-MRN)	1285 lane km	212,000 sq. m of Parking lot	General Revenue	\$576 M
Total Replacement Value				\$2,900 M

Table 2: Annual Capital Infrastructure Funding and Reserves

Infrastructure Type	2013 Funding (2013 \$)	Funding Source	Reserve Balance¹ (Dec 31, 2010)	Reserve Balance¹ (Dec 31, 2012)
Water	\$7.5 M	Water Utility	\$46.4 M	\$41.8 M
Sanitary	\$4.3 M	Sanitary Utility	\$27.7 M	\$33.7 M
Drainage and Dikes	\$8.9 M	Drainage Utility	\$18.2 M	\$27.9 M
Road Paving (non MRN)	\$3.4 M	General Revenue	N/A	N/A
Total	\$24.1 M		\$92.3 M	\$103.4 M

¹ Includes committed funds.

Funding increases for water, sewer, and drainage were achieved through the annual utility rates review process, where infrastructure funding gaps were considered when establishing utility rates. Roads are not part of a utility and the paving budget is funded from the City's General Revenue. Road funding increases are accomplished through the City's capital prioritization process.

Short and long-term infrastructure replacements and upgrades are planned utilizing asset management and capacity models developed for Richmond's extensive water, sanitary, drainage and roadway systems.

Analysis

Total Replacement Value and Schedule

Attachments 1 to 4 show estimated infrastructure replacement costs for the City's water, sanitary, drainage, and road infrastructure over the next 75 years. The charts also show the estimated long-term average annual funding levels (in 2013 dollars, excluding inflation) that are required to perpetually replace assets, compared to the current 2013 funding levels. The Funding Requirement Range represents the estimated level of uncertainty in the long-term annual funding levels, which is due to a number of variables including:

- potential overlap between capacity based improvements due to development or climate change;
- variability in the potential service life of the infrastructure;
- variability in the economy and the cost of infrastructure replacement; and
- unanticipated or emergency events that initiate early infrastructure replacement or repairs in excess of operating budget provisions.

Infrastructure replacement costs continue to increase due to inflation, environmental requirements and sanitary and drainage pump station complexity.

Water

The City is meeting its long-term funding target for water infrastructure replacement.

Attachment 1 predicts a long-term annual water infrastructure funding requirement of \$7.2 million, which is within the current \$7.5 million funding level.

Asbestos cement pipelines make up approximately 50% of the City's watermain inventory and are predicted to require replacement within the next 30 years. During this period replacement costs will exceed the long-term required funding level for a number of years, which will require utilization of reserves and borrowing. In the long-term (75 year horizon), the required funding level will repay debts incurred and allow for continued water infrastructure renewal.

Engineering staff are currently assessing the viability of water pressure management strategies that reduce water pressure during non-peak demand periods. This strategy has potential to extend

watermain service life and attenuate the predicted spike in watermain replacement between 2031 and 2041.

Sanitary

Attachment 2 predicts a long-term annual funding requirement of \$6.4 million for the sanitary utility with no identified backlog of replacement needs.

The City has made gains in operational efficiency in the Sewer utility since 2012. Those efficiencies will be presented to Council through the utility budget process with options for consideration.

Sanitary pump stations are becoming larger and more complex as the demands on them increase. Additionally, building pump stations in a built out urban environment creates significant challenges beyond those encountered during green field development, including working in close proximity to existing structures and infrastructure as well as accommodating existing flows during the construction period. As such, cost estimates for replacing the City's 152 sanitary pump stations have increased, which has a corresponding impact on the long-term annual funding requirement.

Drainage

The City has made significant increases to its drainage utility funding in recent years and is close to meeting its long-term funding target for drainage infrastructure replacement. **Attachment 3** predicts a long-term annual funding requirement of \$10.4 million for the drainage utility.

The estimated costs of replacing the City's drainage pump stations has increased due to the Province enforcing seismic upgrading requirements and the City's need for service level improvements over existing stations. The new pump stations are larger, more powerful and more reliable than the stations they replace, which is a response to changing flood and stormwater risk profiles.

In the last 10 years, the City has rebuilt 11 of its 39 drainage pump stations and has performed significant upgrades on a further 4. Over the next 20 years the remaining Lulu Island drainage pump stations will be rebuilt or receive significant upgrades provided the funding levels are maintained or improved. Since 2010, the City has obtained \$6.8 million of Provincial and Federal grant funding which substantially offset drainage pump station upgrade costs.

Dikes

The 2008-2031 Richmond Flood Protection Strategy identifies climate change induced sea level rise as a future threat to be mitigated. Staff estimate conventional dike upgrade costs to address the predicted 100 year sea level rise scenario to be between \$200 million to \$300 million. Staff are developing a Dike Master Plan to identify the specific long-term infrastructure needs for flood protection. Phase 1 of the Dike Master Plan was completed earlier this year and addresses a strategy for future dike improvements for Steveston and the Southern West Dike. The Phase 1 plan was endorsed by Council at the regular Council Meeting of April 22, 2013.

Financial requirements will be reported through subsequent ageing infrastructure reports as this information is developed.

Roads

The non-MRN long-term annual re-paving funding requirement is estimated at \$4.6 million (see *Attachment 4*). This estimate is the same as in 2011. Higher uncertainty exists in this value than those for the utilities as road re-paving is heavily influenced by oil price, which has fluctuated widely in the past seven years. *Attachment 5* documents the fluctuating cost of asphalt paving between 2006 and 2012.

Based on paving prices over the last seven years, re-paving annual funding requirements range between \$4.0 million and \$5.6 million. For long-term planning purposes, staff have assumed that the ebb and flow of asphalt pricing will average out and have utilized the average value of \$4.6 million as the long-term annual funding requirement for re-paving.

No. 2 Road Bridge

While not included in previous ageing infrastructure reports, the No. 2 Road Bridge is a significant piece of municipal infrastructure with an estimated replacement value of \$73 million. As the No. 2 Road Bridge is situated within the region's Major Road Network (MRN) it is eligible for regional maintenance and replacement funding. The City currently receives regional funding to operate, maintain and rehabilitate the bridge deck, which includes an allowance for re-paving. It does not, however, receive funding to maintain the bridge structure. This is a regional issue that has been a concern since Translink's establishment. Alongside the region's other municipalities, City staff are participating on Translink's Operation, Maintenance and Rehabilitation Sub-Committee to secure adequate bridge maintenance and rehabilitation funding.

Staff are currently performing a detailed assessment of the bridge's condition to identify a long-term maintenance program. Staff will report on bridge condition along with any proposed remediation work later this year. Subsequent rehabilitation funding will be requested through the annual capital budgeting process.

Required Funding Levels

Table 3 summarizes current and required annual infrastructure replacement funding levels, in 2013 dollars, as well as the current ageing infrastructure funding gaps. The City has made considerable infrastructure funding gains since initiating its strategy to close the funding gap in 2006.

Table 3: Infrastructure Funding Levels

Infrastructure Type	2013 Actual Annual Funding Level	Required Annual Funding Level	Funding Range	Funding Source	Estimated Additional Funding Required
Water	\$7.5 M	\$7.2 M	\$6.4 M - \$9.6 M	Water Utility	No shortfall
Sanitary	\$4.3 M	\$6.4 M	\$5.9 M - \$7.0 M	Sanitary Utility	\$2.1 M
Drainage*	\$8.9 M	\$10.4 M*	\$9.4 M - 11.5 M	Drainage Utility	\$1.5 M
Road Paving (non MRN)	\$3.4 M	\$4.6 M	\$4.0 M - \$5.6 M	General Revenue	\$1.2 M
Totals	\$24.1 M	\$28.6 M			\$4.8 M

*Long-term dike replacement costs are yet to be determined and are excluded

Funding Strategies

Adequate annual funding levels will allow the City to implement proactive and sustainable infrastructure replacement programs. The proactive replacement of infrastructure enables the City to smart sequence utility replacement and use competitive bidding to ensure the best value for money. Replacing infrastructure at its time of failure has proven to be considerably more expensive than proactive replacement and is more disruptive to residents, City services and programs.

Closing the current \$4.8 million funding gap is achievable within the next decade or sooner. Putting this amount into rate payer terms, Richmond has approximately 70,000 businesses and households that pay utility rates. Approximately, an annual increase of \$10 to each rate payer would close the gap in 7 years. An annual increase of \$20 to each rate payer would close the gap in 4 years.

Staff have pursued available federal and provincial grants from programs such as the Building Canada Plan and BC's Flood Protection Program and will continue to do so. While grant funding has been helpful over the last few years, as a funding source grants will always be unpredictable and therefore non-sustainable.

Development also facilitates significant infrastructure replacement that has a positive impact on the City's overall ageing infrastructure picture. However, development is subject to external forces such as the economy and does not always coincide with infrastructure that is beyond its useful life. Therefore, development is not considered a sustainable resource for ageing infrastructure replacement.

Staff will evaluate funding options and make a recommendation to Council as part of the annual utility rate review and capital program process. Significant progress has been made over the last decade in closing the funding gap, and continuation on this path will allow the City to effectively mitigate the challenge of ageing infrastructure.

Financial Impact

None.

Conclusion

Staff will continue to gather information to better predict infrastructure replacement schedules and funding peaks and will continue to explore new technologies and best practices. Staff will also continue to recommend that the utility funding gaps between current and required funding levels be closed over time through the annual budgeting process. The rate of increase and timeframe to close the funding gaps will be impacted by Metro Vancouver's regional Solid and Liquid Waste Management plans, which are a non-discretionary costs imposed on the City. The funding shortfalls outlined in this report should be considered in conjunction with the City's Long-Term Financial Management Strategy.



Lloyd Bie, P.Eng.
Manager, Engineering Planning
(604-276-4075)



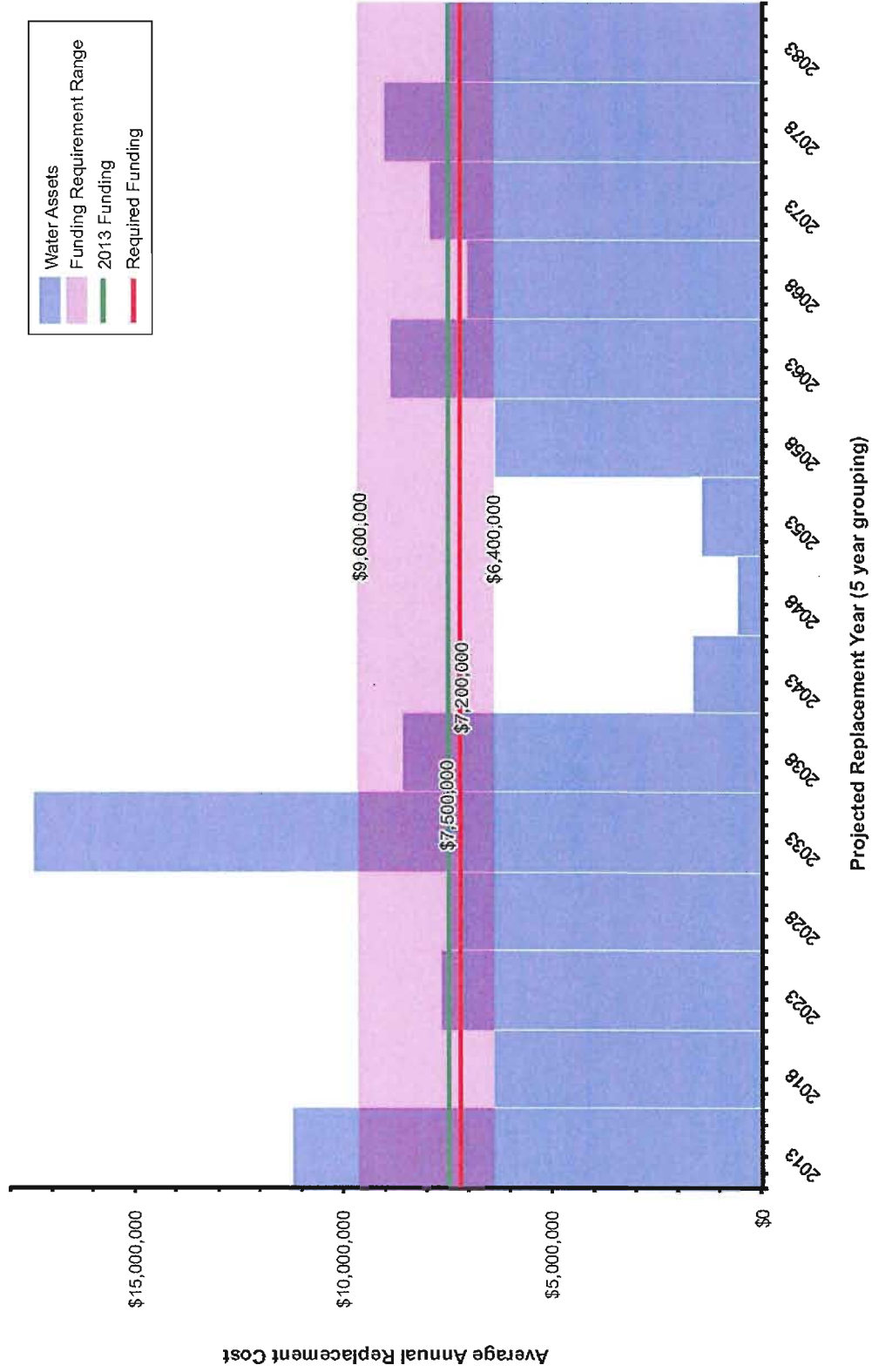
Andy Bell, P.Eng.
Project Engineer
(604-247-4656)

LB:ab

- Att.1: Ageing Infrastructure Report – Water Assets
- Att.2: Ageing Infrastructure Report – Sanitary Assets
- Att.3: Ageing Infrastructure Report – Drainage Assets
- Att.4: Ageing Infrastructure Report – Non MRN Road Assets
- Att.5: Historical Costs for Capital Paving Program (2006 – 2012)

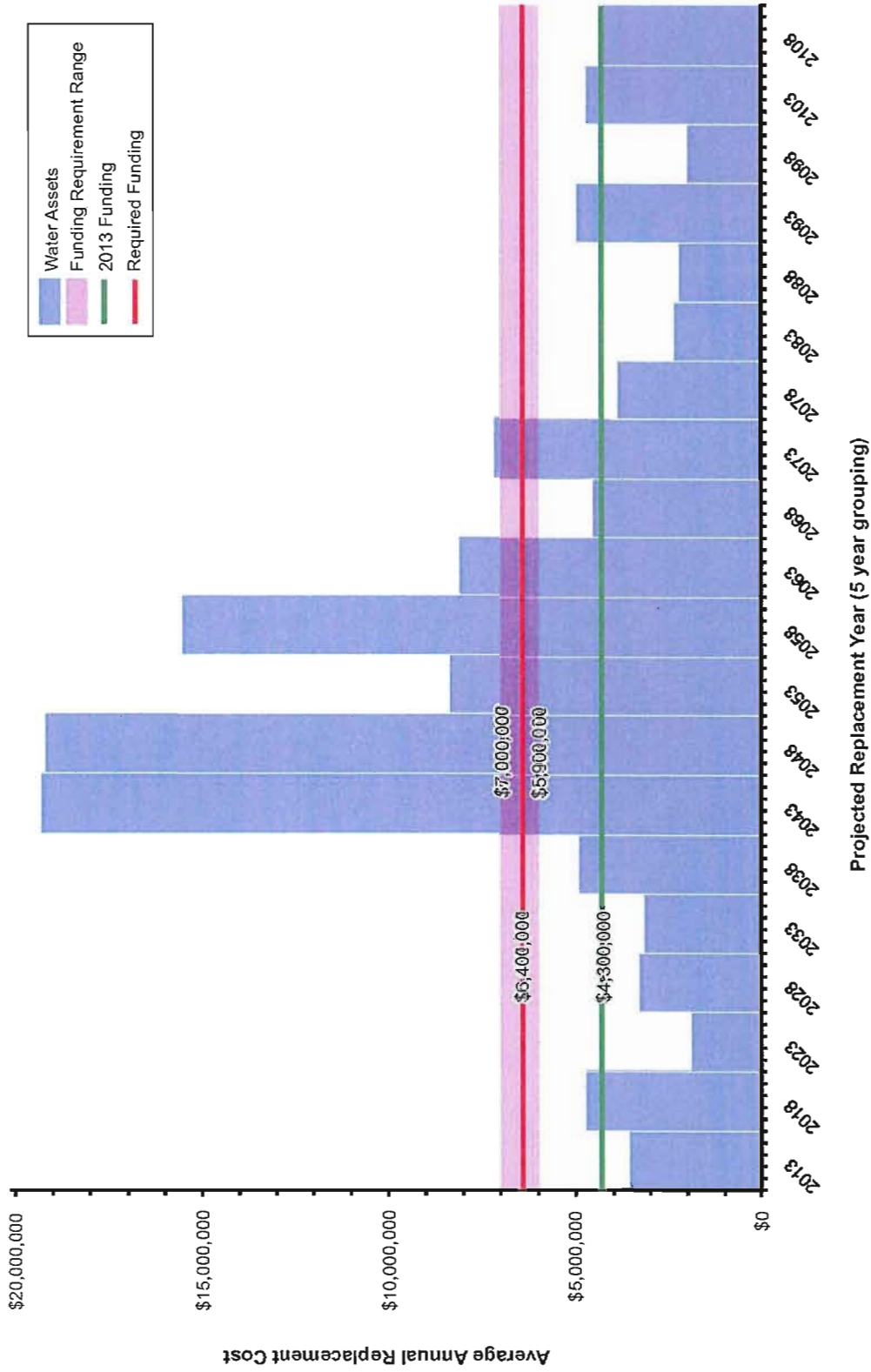
Attachment 1

2013 Ageing Infrastructure Report – Water Assets



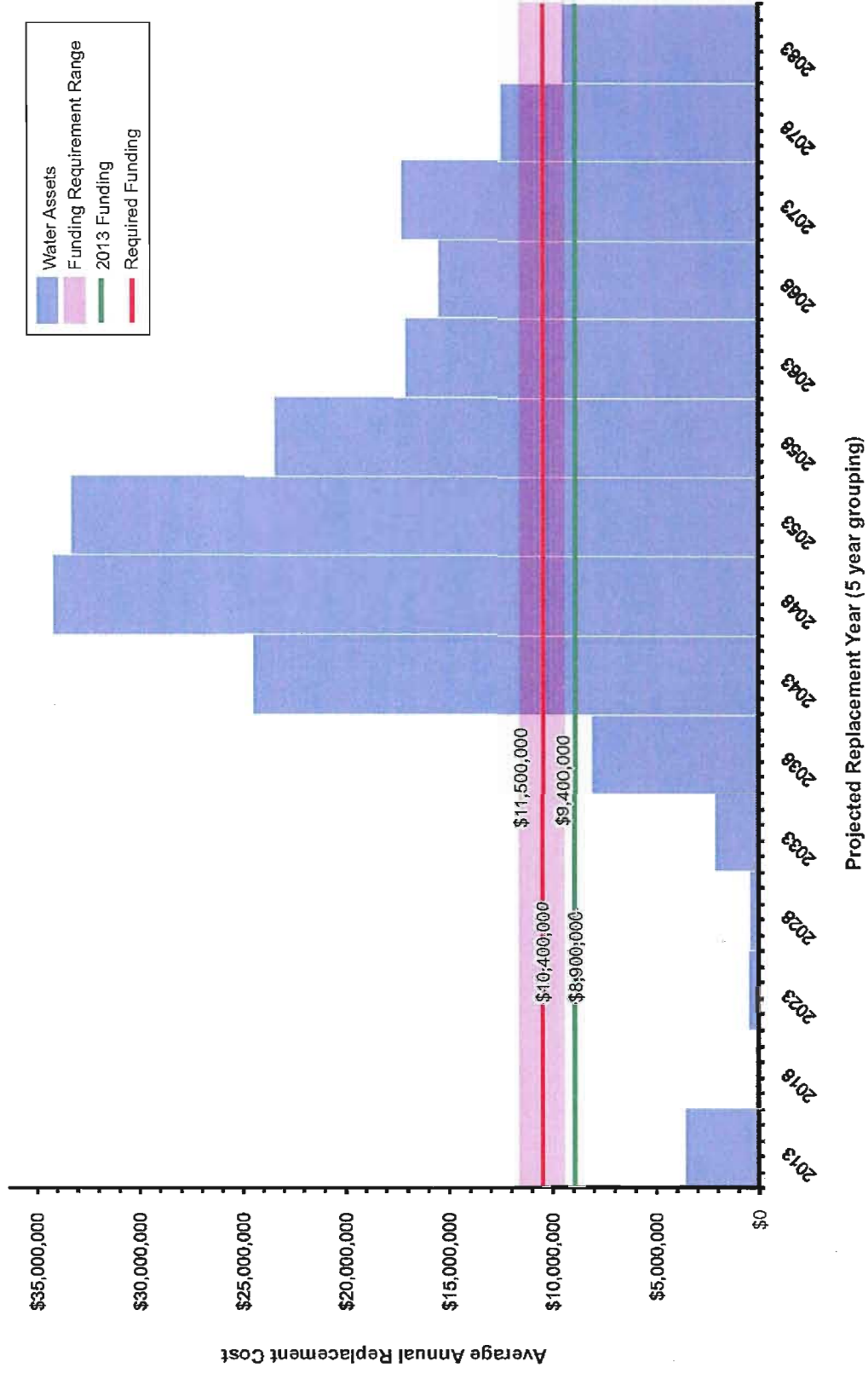
Attachment 2

2013 Ageing Infrastructure Report – Sanitary Assets



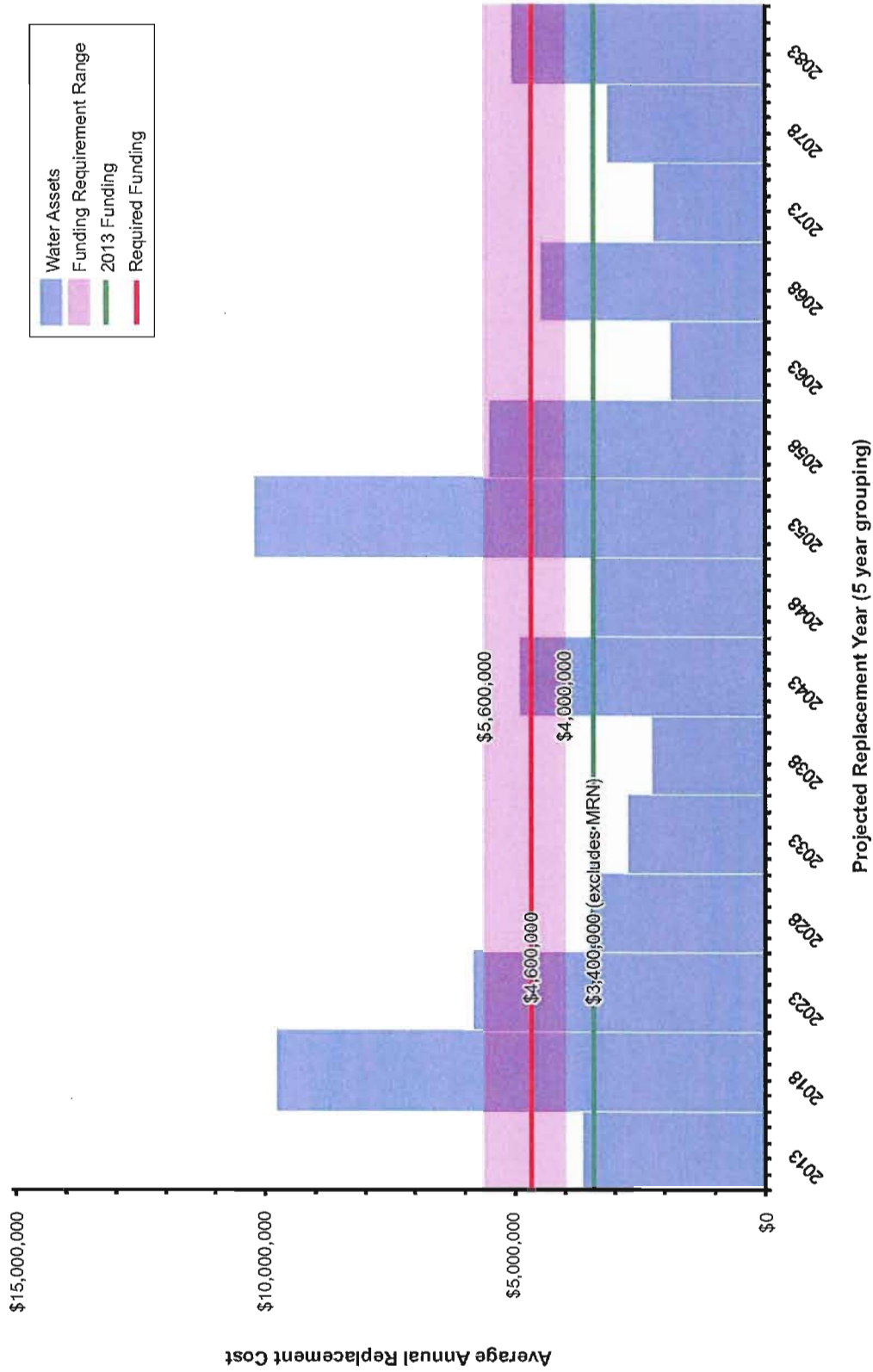
Attachment 3

2013 Ageing Infrastructure Report – Drainage Assets



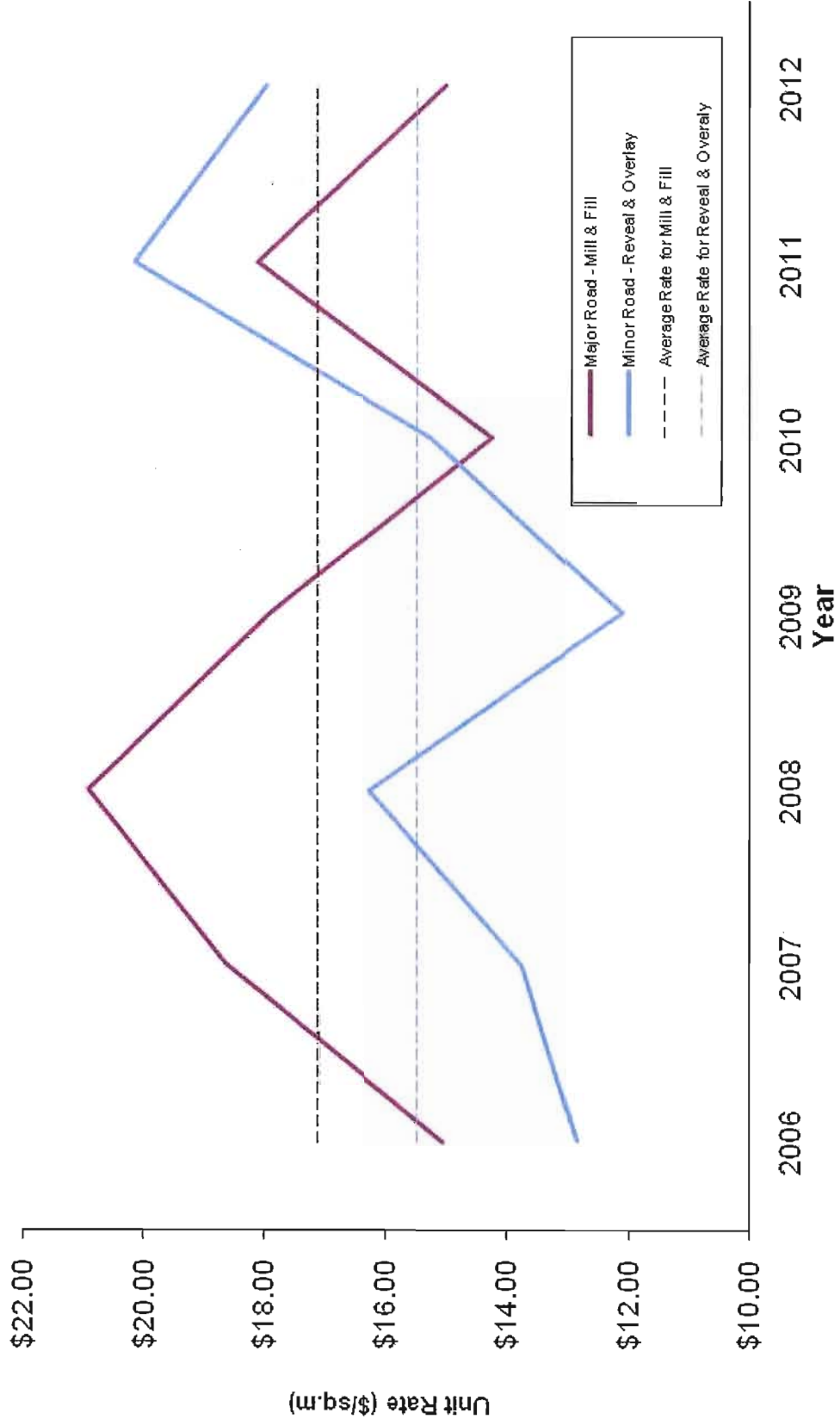
Attachment 4

2013 Ageing Infrastructure Report – Non-MRN Road Assets



Attachment 5

Historical Costs for Capital Paving Program (2006 - 2012)





City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: John Irving, P. Eng, MPA
Director, Engineering
Re: **Enhanced Pesticide Management Program**

Date: September 3, 2013
File: 10-6125-04-01/2013-
Vol 01

Staff Recommendation

That, in accordance with the original program objectives, the Enhanced portion of the Enhanced Pesticide Management Program be discontinued.

John Irving, P. Eng, MPA
Director, Engineering
(604-276-4140)

Att: 5

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Finance Division	<input checked="" type="checkbox"/>		
Parks Services	<input checked="" type="checkbox"/>		
Community Bylaws	<input checked="" type="checkbox"/>		
REVIEWED BY DIRECTORS	INITIALS:	REVIEWED BY CAO	INITIALS:

Staff Report

Origin

On April 27, 2009 Council adopted the Enhanced Pesticide Management Program (EPMP) with the following resolutions:

1. *That the staff report dated April 16, 2009 from the Director of Parks and Public Works Operations, entitled "Pesticide Use Management in Richmond" be received for information;*
2. *That Option 4 (as outlined in the staff report dated April 16, 2009 from the Director of Parks and Public Works Operations, entitled "Pesticide Use Management in Richmond"), be enacted and related policies and procedures be reviewed in one year to measure its effectiveness and improve it; and*
3. *That the timing of budgetary implications be reviewed.*

The related Pesticide Use Control (PUC) Bylaw No. 8514 was subsequently adopted on October 13, 2009 with Municipal Ticketing Information (MTI) provisions.

The intention of this report is to update Council on the lack of Provincial action towards a ban for the use of pesticides for cosmetic purposes, provide an update on the EPMP since adoption in 2009 and present options for moving forward.

Analysis

EPMP Program Overview

At the time of the EPMP adoption, there was significant community interest for a municipal bylaw to ban the use of pesticides for cosmetic purposes. On April 27, 2009 Council adopted Option 4, the most comprehensive of the options presented (**Attachment 1**). The EPMP was modeled upon reporting by the Canadian Centre for Pollution Prevention (C2P2)¹ that placed emphasis upon regulatory cosmetic pesticide bylaws that are coupled with strong education and community outreach programs. The five delivery elements of the EPMP (detailed in **Attachment 2**) include:

1. Education and Community Partnership;
2. Corporate Reduction;
3. Senior Government Regulation;
4. Pesticide Use Control Bylaw; and
5. Cost/Resource Implications.

¹ *The Impact of By-Laws and Public Education Programs on Reducing the Cosmetic / Non-Essential, Residential Use of Pesticides: A Best Practices Review*, (2004), Canadian Centre for Pollution Prevention and Cullbridge Marketing and Communications: <http://www.c2p2online.com/documents/PesticidesBestPracticeReview-FINAL040324.pdf>

Since 2010, the EPMP has been funded annually through the Sanitation and Recycling utility budget. The *2013 EPMP Budget* below shows the Program breakdown.

2013 EPMP Budget

TFT Environmental Coordinator (1.0 TFT, salary and fringe)	\$ 87,373
Education and Community Partnerships	\$ 15,000
TFT Bylaw Enforcement (0.5 TFT, education, patrols and response)	\$ 40,675
TOTAL Budget	\$143,048

A Report to Council has been brought forward annually to provide an overview of each fiscal year of the Program and provide updates on the status of Provincial action towards a regulation to ban the use of pesticides for cosmetic purposes. The first two years of the Program focused significant efforts towards Bylaw compliance, Bylaw support, retailer programs, outreach activities and education workshops to transition from the use of traditional pesticides to the use of new-generation, low-toxicity pesticides. At the same time, considerable changes were undertaken to manage City lands in the absence of traditional pesticides.

With high public awareness and compliance for the Bylaw in the first two Program years, efforts over the past two years have steadily increased the focus towards:

- The identification, monitoring and control of invasive species on City lands including infrastructure such as dikes and storm drainage (e.g. Early Detection and Rapid Response (EDRR) approaches for Giant hogweed, Common reed and Parrot feather management, control of Japanese knotweed and containment of European fire ants).
- Ongoing research and trials for new generation pesticides, machinery & treatments for City lands (e.g. corn gluten meal, compost tea for sports fields, *Aquacide* machine).
- Improving natural lawn care and organic gardening workshops (e.g. Edible Wilds, Lawn Alternatives, Seasonal Kitchen, Local Foods and Fall Lawn Care). A total of 1,545 residents have participated in the City workshops since 2010. In 2013, sustainable food choices workshops were added to support local consumer awareness of genetically engineered (GE/GMO) foods with an emphasis on consumption of fresh and locally produced items.

Highlights of the EPMP

Since its adoption, the City's EPMP has garnered significant recognition and interest. Overall program highlights are outlined on **Attachment 3**. Recent and notable highlights from 2013 include:

- An invitation for City staff to present the EPMP at the 50th Western Turf Grass Association Conference and Trade Show in Penticton, BC in March 2013.
- The Honourable Gordon Mackintosh, Minister of Conservation and Water Stewardship for the Province of Manitoba, contacted and met with Staff to learn about the EPMP successes and challenges to inform the introduction of legislation restricting the use of cosmetic pesticides for Manitoba.
- A successful EDRR effort to eradicate the Common reed, an aggressive invasive plant first recorded provincially in Richmond by EPMP staff.
- The City's EPMP supports the provision of pesticide free organic wastes for Harvest Power. Agriculture Canada recently informed Harvest Power of new findings from Pacific Agricultural Certification Society (PACS), an organic certification body. PACS has confirmed that organic waste sources originating from municipalities such as Richmond, with cosmetic pesticide restrictions in place, enable the usability of Harvest Power organic waste products for organic farming without affecting the farms' organic certification.

Provincial Action on Cosmetic Pesticides

Since the Provincial *Special Committee on Cosmetic Pesticides* first reported their findings in the spring of 2012, there has been little progress on their 17 recommendations. The *March 15th, 2013*, Information Memorandum entitled *Amendments to the Integrated Pest Management Act* provided a general update on the recent amendments to the Provincial *Integrated Pest Management (IPM) Act* that relate to specific recommendations put forward by the *Special Committee*. The intent of the amendments was to establish greater oversight regarding the use of cosmetic pesticides on all private lands (i.e. residential, commercial, industrial, etc.). The new provisions require private landowners to hire licensed cosmetic pesticide applicators. The amendments also establish the ability to allow the use of new generation, low toxicity pesticides to unlicensed pesticide users.

Further public consultation on the details of the IPM regulatory amendments is anticipated.

The *Special Committee on Cosmetic Pesticides* has not recommended any action towards a provincial ban on the use of pesticides for cosmetic purposes.

EPMP Options for 2014

Option 1. Discontinue the Enhanced portion of the EPMP.

At the time of the EPMP adoption, there was significant community interest for a municipal bylaw to ban the use of pesticides for cosmetic purposes. Since Bylaw adoption in 2009, there have been no violations issued through Community Bylaws. Staff outreach strategies with local pesticide retailers, attendance at community events and Community Bylaw incident reporting suggest a high level of Bylaw awareness by residents and associated industry partners (i.e. landscaping professionals, pesticide retailers, nursery trades etc.). Over that same period of time, City practices continue to evolve and adapt to the use of new-generation, low-toxicity pesticides and practices on City lands.

The transition from traditional pesticide use to new-generation pesticides and best practices requires ongoing dedication of resources to minimize the future risks and costs posed by this new era of vegetation management.

The EPMP has received wide-spread recognition for its robust design to facilitate community awareness and compliance towards the use of pesticides for cosmetic purposes. During the past four years of EPMP implementation, the objective to meet Bylaw compliance for the non-use of traditional pesticides for cosmetic purposes has been met. At the same time, the Province has not taken any action towards a Provincial ban on the use of pesticides for cosmetic purposes despite significant consultation and efforts undertaken by the *Special Committee on Cosmetic Pesticides*.

Option 1 will result in an overall reduction in the level of service for the EPMP while retaining the Bylaw. Option 1 includes:

- The loss of the enhanced components of the EPMP, detailed in **Attachment 4**, that include:
 - i) community outreach and education workshops; research;
 - ii) pilot programs and training for new generation pesticide use on City lands;
 - iii) invasive species management; and
 - iv) technical support for community inquiries regarding weeds, pests, invasive species and pesticides.
- The retention of Pesticide Use Control Bylaw No. 8514 as well as the technical funding of \$63,425 required to support the Bylaw.²
- The reduction of budgeting in the Sanitation and Recycling budget from the current 2013 budget of \$143,048 to \$63,425.

² This amount includes the \$40,675 from the 2013 EPMP budget for Bylaw Enforcement as well as \$22,750 for consultancy provisions of service for the technical support. The hourly consultant rate used to calculate these costs is a standard \$125 per hour.

Option 1 responds to the original intent to establish temporary enhanced support to meet the implementation objectives of a restrictive cosmetic pesticide use bylaw.

In light of the lack of Provincial action to develop a regulation to ban the use of pesticides for cosmetic purpose, retention of the Bylaw components of the Program is recommended.

Option 2. Establish a permanent EPMP.

This Option would establish dedicated resources for the long term and position the City in a risk and cost reduction scenario for the response and action towards pesticide and vegetation management.

Option 2 allows the City:

- To maintain the current level of service.
- To deal with ongoing and burgeoning EPMP issues as they arise. This includes:
 - Invasive Species management for: the new EDRR program for *Parrot feather*; ongoing *Giant Hogweed* and *Common reed* EDRR programs; *European Fire Ant* containment; *Japanese knotweed* mapping and control; European fire ant containment; and community gardens & urban agriculture initiatives (e.g. Terra Nova and Garden City Lands)
 - Research and staff training for new generation pesticide products and trials on City lands.
 - Respond to invasive species and weed management for current trends such as the expansion of community gardens and urban agriculture initiatives (e.g. Terra Nova, Railway Corridor, Garden City Lands etc.).
 - Research and review of turf management practices on City lands. This includes compost tea trials, the possible recommendation to purchase new machinery, mowing regime amendments, research trials, etc.
- Flexibility to support other sustainability objectives that are related to outreach, public engagement and educations, included within the City's Sustainability Framework and Council priorities.
- To continue the delivery of popular natural lawn care and organic gardening workshops throughout the year.

The EPMP provides the community with a robust tool kit for responding to this new era of lawn and garden care. Landscape industry practitioners and City Operations staff are supported with training and education to facilitate new approaches to landscape management and new-generation pesticide practices. A permanent EPMP enables a sustainable approach to pesticide management and positions the City to respond to the ecological shifts related to climate change and the associated proliferation of invasive species.

Option 2 would require the conversion of the Temporary Full Time Environmental Coordinator into a Regular Full Time position, requiring the creation of a new Position Control Compliment number. This option requires no changes to the EPMP funding and has no impact on the

Program budget that has been in place from 2010 through 2013. The EPMP is included annually in the Sanitation and Recycling utility budget.

Option 2 is not recommended as it prolongs the temporary scope of the program that was intended for the EPMP. The EPMP was originally adopted as a temporary measure pending Provincial action towards a ban on the use of pesticides for cosmetic purposes.

Financial Impact

The EPMP is currently funded annually in the Sanitation and Recycling utility budget. Option 1 would result in a reduction of \$79,623 from the current Sanitation and Recycling utility budget.

Conclusion

The recent adoption of restrictive bylaws for the cosmetic use of pesticides across Canada set the stage for the City to adopt a comprehensive EPMP in 2009. Since that time, the City has become recognized as a leader for its pro-active approach to all aspects of the Program. The main objective of the EPMP was to achieve compliance for a cosmetic pesticide use control bylaw. In light of the lack of Provincial regulation to ban the use of pesticides for cosmetic purposes and the high level of compliance achieved for the Pesticide Use Control Bylaw 8514, the original intent of the EPMP has been met, as such it is recommended that the enhanced portion of the program be discontinued.



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Attachment 1	Comparison of Recommended Approach with Alternative Options (from April 16, 2009 - Report to Committee)	REDMS 3965077
Attachment 2	EPMP – Current Program Summary	REDMS 3900982
Attachment 3	Overview of Richmond's Enhanced Pesticide Management Program (EPMP) highlights	REDMS 3867152
Attachment 4	Enhanced Pesticide Management Program Service Delivery Allocations	REDMS 3890706

Comparison of Recommended Approach with Alternative Options (from April 16, 2009 - Report to Committee - REDMS 2537280)

Aim	Option 1- Recommended Strategy: Enhanced Management and Policy-Based Program				Option 2: Policy and Existing Management Program	Option 3: Restrictive Cosmetic Pesticide Bylaw (rescind Policy)	Option 4: Policy, Enhanced Management Program and Restrictive Bylaw
	Targets all types of pesticide use (commercial, agricultural, residential) based on level of risk and benefit				Targets all types of pesticide use (commercial, agricultural, residential) based on level of risk and benefit	Targets pesticide use for cosmetic purposes on residential and/or City-owned land	Targets all types of pesticide use (commercial, agricultural, residential) based on level of risk and benefit
Service Delivery Levels	Corporate Reduction	<ul style="list-style-type: none"> Accelerated IPM program¹ that maintains current aesthetic levels Expanded local education program to encompass more user groups and partnerships (e.g., working with retail) Work with industry on accreditation Explore problem prevention measures (e.g. landscaping guidelines) Encourage Metro Vancouver to take strong regional role in community education Liaising/consulting with community 				<ul style="list-style-type: none"> IPM continual improvement base program Education program changed to inform and advise on restrictive bylaw and alternative practices for residential property care Significant consultation for draft bylaw recommended 	<ul style="list-style-type: none"> Cease use of non-exempted pesticides immediately Expanded education program that includes initiatives to inform on the restrictive bylaw Work with industry on accreditation Explore problem prevention measures (e.g. landscaping guidelines) Encourage Metro Vancouver to take strong regional role in community education Significant consultation for draft bylaw recommended Ongoing liaising/consulting with community
	Education & Community Partnerships	<ul style="list-style-type: none"> Base education program (e.g. website and residential pesticide use workshops) Work with industry on accreditation 				<ul style="list-style-type: none"> Not a focus area 	<ul style="list-style-type: none"> Actively lobby provincial government to better regulate sales (e.g. ban "Weed and Feed") Consideration given to lobbying federal government to better regulate product approvals Explore partnership opportunities (e.g. joint distribution of information on regulations, alternative practices)
	Senior Government Regulation	<ul style="list-style-type: none"> Identified lobbying senior governments as a strategic focus but no meaningful progress achieved due to resource limitations 				<ul style="list-style-type: none"> Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property² 	<ul style="list-style-type: none"> Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property²
	Municipal Regulation	<ul style="list-style-type: none"> Continue to enforce pesticide notification bylaw 				<ul style="list-style-type: none"> Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property² 	<ul style="list-style-type: none"> Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property²
Cost/Resource Implications	\$110,000 annual operating cost; 1.6 FTE (1 FTE education/advocacy; .6 FTE Parks labour)				No added cost or resources	\$170,000 annual operating impact plus \$15,000 for bylaw consultation; 2.2 FTE (1.2 FTE Parks labour; 1 FTE Bylaw enforcement/education)	\$210,000 annual operating impact plus \$15,000 for bylaw consultation; 2.7 FTE (1.2 FTE Parks labour; 1 FTE education/advocacy; .5 FTE bylaw enforcement)

¹ e.g., no use of non-exempted pesticides within 3 years, development of strengthened IPM management system (policy, monitoring, reporting), dedicated IPM improvement budget

² Exemptions can be specified, and could include lawn bowling greens, the pitch and putt course, or other scenarios in which eliminating pesticide use may lead to substantial loss or damage of amenities.

		Policy, Enhanced Management Program and Restrictive Bylaw (As Adopted on April 27, 2009)
Aim		Targets all types of pesticide use (commercial, agricultural, residential) based on level of risk and benefit
Service Delivery Levels	Corporate Reduction	<ul style="list-style-type: none"> • Cease use of non-exempted pesticides immediately
	Education & Community Partnerships	<ul style="list-style-type: none"> • Expanded education program that includes initiatives to inform on the restrictive bylaw • Work with industry on accreditation • Explore problem prevention measures (e.g. landscaping guidelines) • Encourage Metro Vancouver to take strong regional role in community education • Significant consultation for draft bylaw recommended • Ongoing liaising/consulting with community
	Senior Government Regulation	<ul style="list-style-type: none"> • Actively lobby provincial government to better regulate sales (e.g. ban “Weed and Feed”) • Consideration given to lobbying federal government to better regulate product approvals • Explore partnership opportunities (e.g. joint distribution of information on regulations, alternative practices)
	Municipal Regulation	<ul style="list-style-type: none"> • Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property¹
Cost/Resource Implications		<p>\$210,000 annual operating impact plus \$15,000 for bylaw consultation; 2.7 FTE (1.2 FTE Parks labour; 1 FTE education/advocacy; .5 FTE bylaw enforcement)</p> <p>Note: The 1.2 FTE Parks labour funding was only provided in the first funding year of the EPMP</p>

¹ Exemptions can be specified, and could include lawn bowling greens, the pitch and putt course, or other scenarios in which eliminating pesticide use may lead to substantial loss or damage of amenities.

Overview of Richmond's Enhanced Pesticide Management Program (EPMP) Highlights

	Policy, Enhanced Management Program and Restrictive Bylaw
Aim	<i>Targets all types of pesticide use (commercial, agricultural, residential) based on level of risk and benefit</i>
Corporate Reduction	
<i>Cease use of non-exempted pesticides immediately</i>	<ul style="list-style-type: none"> • Developed in-house monitoring program to determine the efficiency of trials for compost tea applications on City sports fields • Increased mechanical, manual and cultural weed control methods • Acquisition and retrofit of equipment allowing non-traditional approach to weed management (e.g. <i>Greensteam™</i>, <i>Aquacide™</i> machine, corn gluten meal and compost tea applicators) • Continuous research and evaluation of new science, products, practices and technologies related to cosmetic pest management • Parks Department ceased and substituted cosmetic use of non-exempted pesticides by exempted (i.e. permitted and low-toxicity) pesticides
Education and Community Partnership	
<i>Expanded education program that includes initiatives to inform on the Pesticide Use Control Bylaw</i>	<ul style="list-style-type: none"> • 116 Natural Gardening, Tree Care & Lawn Care workshops, including Chinese languages were held (38 scheduled for 2013, including four on local and sustainable food choices) with over 1545 residents in overall attendance since 2010. • Advertisements and promotion for the PUC Bylaw (e.g. local newspapers, Leisure Guide, City website, community events, etc.) • PUC Bylaw Information (including in Chinese language) Environmental Sustainability Workshop brochures distributed to City facilities, retailers, and through information booths on <i>Natural Gardening</i> public during events • City website updated with comprehensive resources on the Bylaw, and workshops and technical information on pesticide alternatives • Established EPMP Natural garden phone line • PUC Bylaw Information inserts sent with utility and property tax bills (2010)
<i>Work with Industry on Accreditation</i>	<ul style="list-style-type: none"> • Provide pesticide free weed management-training workshops to licensed landscaping practitioners, in partnership with the British Columbia Landscape and Nursery Association (BCLNA). City staff continues to network with other municipalities and organizations for strategies to reduce city costs and risk exposure for landscape and vegetation management. • Bylaw information brochures, surveys and training opportunity letters were sent to all licensed landscapers operating in Richmond

<p><i>Explore problem prevention measures</i></p>	<ul style="list-style-type: none"> • The Ministry of Forests, Lands and Natural Resource Operations is proposing to add the aquatic invasive plant Parrot Feather to the Provincial Noxious Weed List due to the City's request for to management and control assistance • Collaborate with the Province and other partners in the development of a regional and local response plan for European fire ant infestations. • Developed and published <i>Giant Hogweed Identification and Response</i> webpage on City website and reporting phone line • Assisted residents and responded to Giant Hogweed reports, concerns and removal information on their property. Monitoring known properties and providing advanced notices and information to owners were resulted in a dramatic decrease of GH distribution. The City has a 24 hour response program for reporting of Giant hogweed from the general public. • Continue to collaborate with the provincial invasive plant EDRR program to monitor the treated infestation site of <i>Phragmites</i>, the Common reed, in Richmond • With the advent of many new non-traditional pesticides on the market for residential use, considerable staff time has utilized for research, product efficacy and product awareness. This information is shared with residents, the landscaping community and City staff • Working with invasive plant specialists, integrated pest management practitioners and horticultural specialists, to ensure the City is optimizing problem prevention practices • Established new City standard for the removal of Japanese knotweed roots and stems for all dike upgrade projects • Respond to City staff and community information calls on invasive species (e.g. purple loosestrife, Japanese knotweed, Giant hogweed, English ivy, parrot feather, European fire ants, etc) • Lead community stewardship projects involving noxious weeds and other invasive plant removal in natural areas (e.g. parks, riparian management areas, environmentally sensitive areas)
<p><i>Encourage Metro Vancouver to take strong regional role in community education</i></p>	<ul style="list-style-type: none"> • Metro Vancouver is considering the launch of a coordinated community education program including natural lawn gardening, organic gardening and pest management.
<p><i>Significant consultation for draft Bylaw recommended</i></p>	<ul style="list-style-type: none"> • Completed and reported in staff report dated September 11, 2009, entitled "<i>Pesticide Use Control Bylaw</i>"
<p><i>Ongoing liaison/consulting with community</i></p>	<ul style="list-style-type: none"> • Feedback from the community solicited through a number of items including: voluntary survey indicating 79% awareness of PUC Bylaw; a telephone survey for licensed landscapers (indicating 50% interest in natural lawn care training; booths at public events; e-mails; phone calls, and letters to staff • City staff routinely visited local pesticide retailers. All retailers were receptive and agreed to post information on the Bylaw and Workshops at point of sale • Through staff visits, three retailers have voluntarily removed non-exempted pesticides from their shelves • The Environmental Coordinator fielded and Responded to numerous information and complaints calls, e-mails and front of house requests from public and local landscapers, to support compliance with the Bylaw

Senior Government Regulation	
<i>Actively lobby provincial government to better regulate sales.</i>	<ul style="list-style-type: none"> • Ongoing City Staff communication with Provincial Staff to obtain updates on any action pertaining to a cosmetic pesticide regulation or action on the <i>Special Committee</i> recommendations • Provided the City's Response to the <i>Special Committee on Cosmetic Pesticides Consultation</i> • Letter to Richmond MLA John Yap, appointee to the Special Committee on Cosmetic Pesticides, re-iterating the City's commitment to reducing the use and exposure to pesticides for cosmetic purposes • Letter to the Province sent by Mayor and Council, to advocate and support the introduction of province wide legislation prohibiting the cosmetic use of pesticides. • City Staff provided a response to the Province's <i>Cosmetic Use of Pesticides in British Columbia Consultation</i> paper in support of a provincial cosmetic pesticide regulation
<i>Consideration given to lobbying federal government to better regulate product approvals</i>	<ul style="list-style-type: none"> • The City's response to Health Canada Pest Management Registration Agency's Re-Evaluation program (REV2010-18) Consultation
<i>Explore partnership opportunities</i>	<ul style="list-style-type: none"> • All local pesticides retailers continue to provide City information on the Bylaw and the education program in their stores. • Presented the EPMP at the 50th Western Turf Grass Association Conference and Trade Show in Penticton, BC in March 2013 • The Honourable Gordon Mackintosh, Minister of Conservation and Water Stewardship for the Province of Manitoba, contacted and met with Staff to learn about the EPMP successes and challenges to inform the introduction of legislation restricting the use of cosmetic pesticides in his province; • Parks hosted the <i>Integrated Pest Management Best Practices Field Day</i> in 2012, to learn and share Best Practices with neighboring municipal parks managers and staff • Partnered with the BC Landscape and Nursery Association (BCLNA) to provide training opportunities for practitioners in the City • Collaborated with the Richmond School District (RSD) to apply restrictions on RSD lands • The City's PUC Bylaw continues to be cited as a model bylaw to regulate the cosmetic use of pesticides in the province
Municipal Regulation	
<i>Enforce a Bylaw that restricts the cosmetic use of pesticides on residential and City owned property</i>	<ul style="list-style-type: none"> • The Environmental Coordinator fielded and Responded to numerous information and complaints calls, e-mails and front of house requests from public and local landscapers, to support compliance with the Bylaw (43 to date in 2013) • Community Bylaws officers promoted public awareness and compliance of the PUC Bylaw by conducting weekend patrols and inspections through summer months • Assisted Community Bylaws with technical expertise, education and regulatory context regarding pesticide use • Community Bylaw officers visited retailers of cosmetic pesticides to promote awareness of the Bylaw • While no violations were issued, the staff assisted Community Bylaws with complaints and conducted on-site visits with Bylaw staff to educate residents on alternatives to traditional pesticides • Adoption of Pesticide Use Control (PUC) Bylaw No. 8514 (October 2009)

Enhanced Pesticide Management Program Service Delivery Allocations

Service	%	Actions/Items
Corporate Reduction Delivery Level 30		
1. Research and evaluate new cosmetic pest management products, practices and technologies	10	<ul style="list-style-type: none"> • Training opportunities for City Staff • Evaluate newly registered products and practices compliant with Bylaw • Networking with local, regional and provincial stakeholders
2. Develop and implement pilot program monitoring	5	<ul style="list-style-type: none"> • Research and develop specific methodologies to collect data for each new program designed to pilot new generation, low toxicity pesticides • Collect and analyze program data and make recommendations
3. Optimize problem prevention practices including invasive species management	15	<ul style="list-style-type: none"> • Provide technical assistance and Training for City Staff • Collaborate with regional and provincial invasive species NGOs and agencies to collaborate on invasive species management priorities, new invaders, control methods and best practices for invasive plant species management in Richmond (e.g. Giant hogweed, Japanese knotweed, Wild chervil, Common reed, Parrot feather, European Fire Ants) • Respond to City's Giant Hogweed Control Program phone line and reports • Leading community invasive plant stewardship projects
Education & Community Partnerships Delivery Level 40		
4. Expanded education program including information on Pesticide Use Control Bylaw	20	<ul style="list-style-type: none"> • Work with Industry to adopt compliant practices • Promotion and Advertisements • Natural Gardening, Tree Care & Lawn Care workshops, including Chinese languages • City website updated with comprehensive resources on the Bylaw, and workshops and technical information on pesticide alternatives
5. Community liaison/consulting	20	<ul style="list-style-type: none"> • Natural Gardening and Pest Solutions information at City and Community events • Natural gardening and pesticides phone line • Exploring partnership opportunities with Local retailers, associations and organizations • Community invasive plant removal events (e.g. Earth Day, Bath Slough & Middle Arm, Green Ambassadors events etc.)
Senior Government Regulation Delivery Level 10		
6. Actively lobby senior governments to better regulate sales and product approvals	5	<ul style="list-style-type: none"> • Mayor and Council Letters supporting the prohibition of cosmetic pesticides • City response to the Province's Cosmetic Use of Pesticides Consultations • City response to Health Canada Pest Management Registration Agency Consultations
7. Coordinate municipal response with provincial agency regulations and initiatives	5	<ul style="list-style-type: none"> • Elevate provincial support for key invasive species (i.e. Common reed, Parrot feather, European Fire Ant) • Lobby for EDRR programs (e.g. Common reed, Parrot feather) • Collaborate with agencies for technical information and research to support timely and effective responses to pesticide and invasive management scenarios.
Municipal Regulation Delivery Level 10		
8. Enforce a Pesticide Use Control Bylaw	10	<ul style="list-style-type: none"> • Assist Community Bylaws with technical expertise, education and regulatory context (e.g. Pesticide use reports, Giant hogweed EDRR) • Annual visit to retailers of cosmetic pesticides to promote awareness of the Bylaw and City education workshops. • Information queries regarding PUC Bylaw
9. Other projects	10	<ul style="list-style-type: none"> • Richmond Earth Day Youth (REaDY) Summit coordination • Climate Change Showdown program coordination • Genetically Engineered Free BC consumer choices support
TOTAL	100	PWT - 35



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: September 3, 2013

From: John Irving, P.Eng. MPA
Director, Engineering

File: 10-6340-01/2013-Vol
01

Re: **Detailed Architectural Features**
No. 1 Road North and Williams Road Drainage Pump Stations

Staff Recommendation

That the attached report "Detailed Architectural Features – No. 1 Road North and Williams Road Drainage Pump Stations" dated September 3, 2013 from the Director, Engineering, be received for information.

John Irving, P.Eng. MPA
Director, Engineering
(604-276-4140)

Att. 3

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Arts, Culture & Heritage	<input checked="" type="checkbox"/>		
REVIEWED BY DIRECTORS	INITIALS: DW	REVIEWED BY CAO	INITIALS:

Staff Report

Origin

The Williams Road Drainage Pump Station was constructed in 1964 and the No. 1 Road North Drainage Pump Station was constructed in 1976. Council approved upgrades to these drainage pump stations as part of the 2011 and 2012 Capital Program, and construction of both has been substantially completed over the last year.

The purpose of this report is to provide Council with information regarding the final detailed architectural features that will be installed at both drainage pump stations.

This initiative is in line with Council Term Goal 9.1:

“Build culturally rich public spaces across Richmond through a commitment to strong urban design, investment in public art and place making.”

Analysis

Council endorsed the general layout and architectural features of the designs for the Williams Road Drainage Pump Station Upgrade and the No. 1 Road North Drainage Pump Station Upgrade in December 2011 and February 2012, respectively. Installation of the final architectural features is the only work remaining to complete the pump stations.

For the No. 1 Road North Drainage Pump Station Upgrade, City staff invited nearby local schools to be involved in the process to integrate interpretive features with the architectural design. Spul’u’kwuks Elementary School accepted the invitation to be involved in this process.

City staff retained Richmond based writer and poet Joanne Arnott, experienced in working with school children, to assist in a series of workshops at the school. On March 13th and 15th, 2013, the role of pump stations, what makes them work and why they are important in Richmond was presented to grade four students at the school. The students were encouraged to "brainstorm" and select meaningful words that could be placed on the façade of the new pump station as an architectural feature (**Attachment 1**). The text panels will be painted in colours to complement the coloured glass panels on the façade fronting River Road (**Attachment 2**).

The selected words were provided by the schoolchildren, and speak to the cycle of storm water management and its relationship to the sensitive environment along the Fraser River. As a reference to the historical and cultural context of the pump station on traditional First Nation territory, two of the words have been translated into the Musqueam language: sləməx^w (rain water) and shəli (ecology).

Once the text panels have been installed, City staff plan to invite the participating students to a field trip to see the new pump station, with a tour led by staff.

For the Williams Road Drainage Pump Station Upgrade, City staff retained the services of an architectural firm to design the public realm enhancements to the drainage pump station in order to improve its physical appearance and strive to meet public expectations for a well designed high quality civic infrastructure. Design enhancements include the alluvial pattern integrated into

the concrete outflow channel, surface treatment to the concrete deck, and the cladding to the structure.

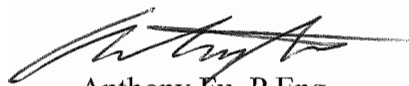
The selected cladding material for the structure is a punched aluminum panel. The suppliers for the aluminum panel cladding system are working with a design firm to provide an integral digital graphic image embedded on the panel surface (**Attachment 3**). The design was reviewed by a staff team representing Engineering, Parks and Arts, Cultural and Heritage Services.

Financial Impact

None.

Conclusion

Upgrades of the Williams Road Drainage Pump Station and the No. 1 Road North Drainage Pump Station were approved by Council in the 2011 and 2012 Capital Program. Construction of both pump stations is now substantially complete. The remaining installation of the architectural features will enhance the upgraded stations and the surrounding area.



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AF:af



Eric Fiss
Public Art Planner
(604-247-4612)

No. 1 Road Drainage Pump Station Architectural Features – Proposed Text

stəməx^w

nature

powerful

shimmering

glistening

shəli

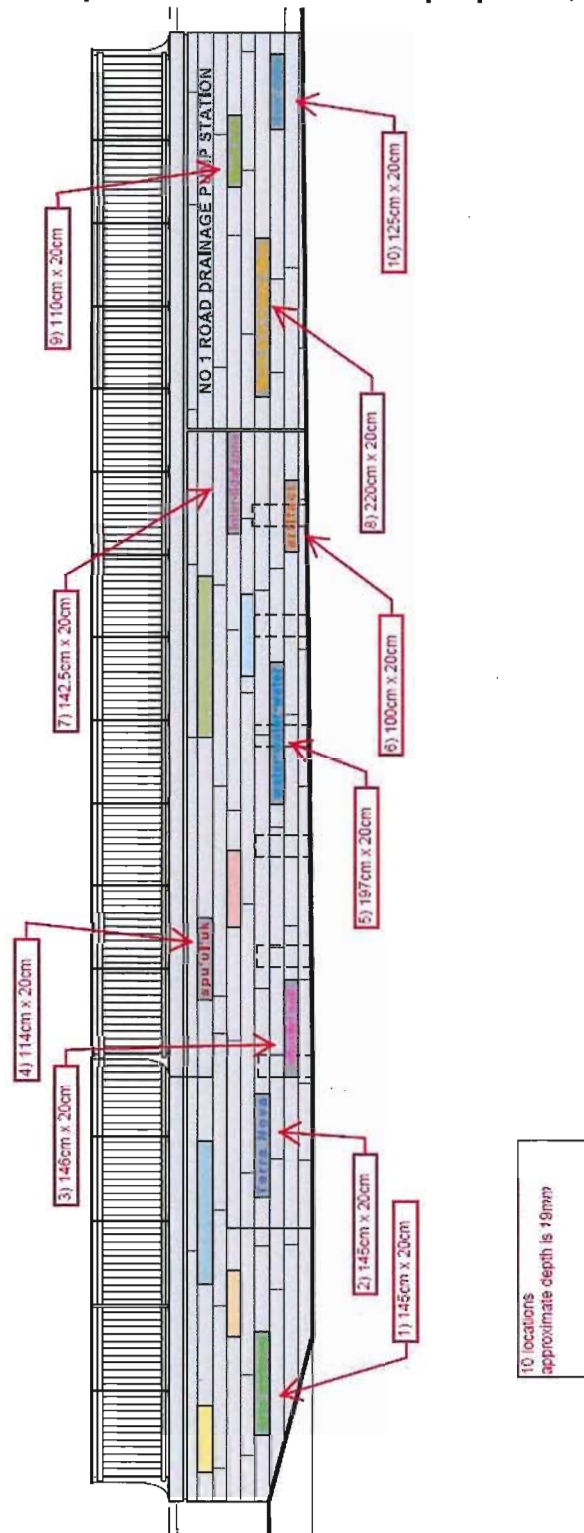
flowing

environment

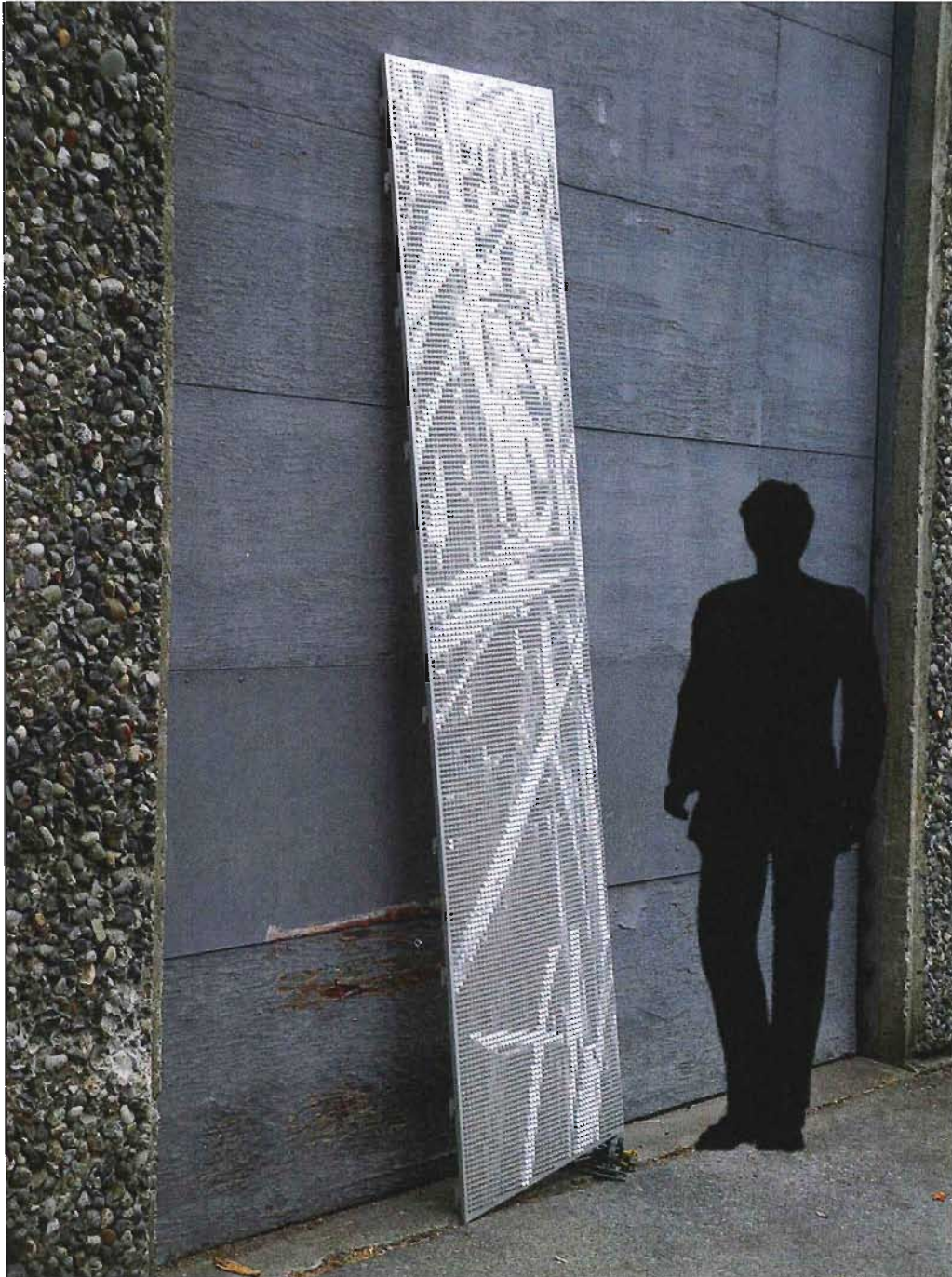
pumping

splashing

No. 1 Road North Drainage Pump Station – South Wall
Location of Text Panels and Coloured Glass Windows
 (Note: Sample text for illustration purposes, only)

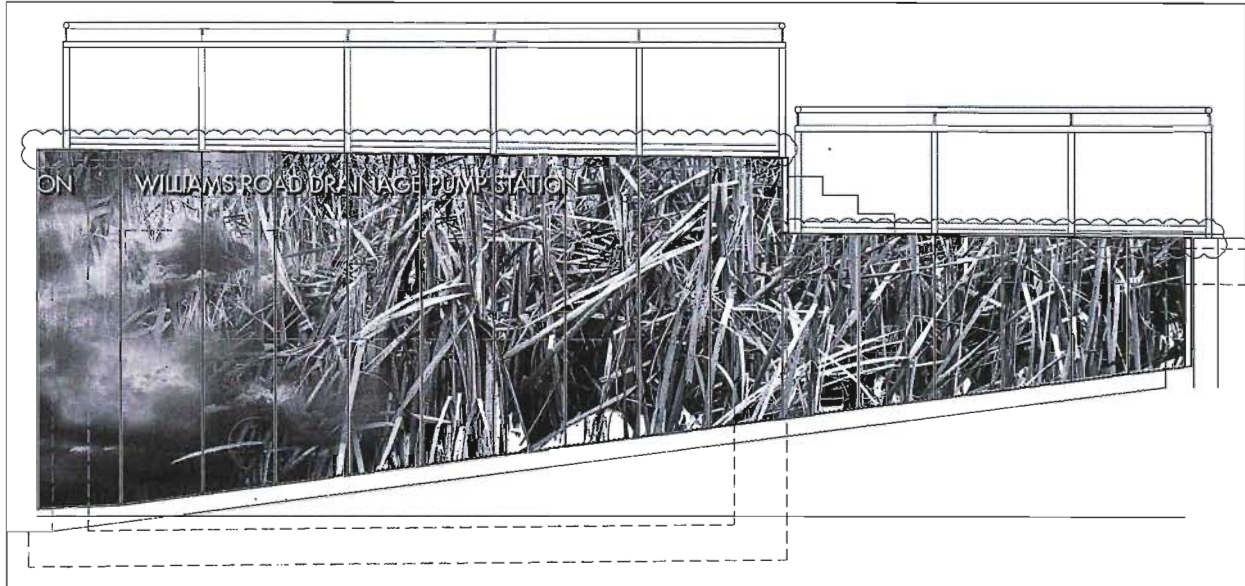


Williams Road Drainage Pump Station Architectural Features

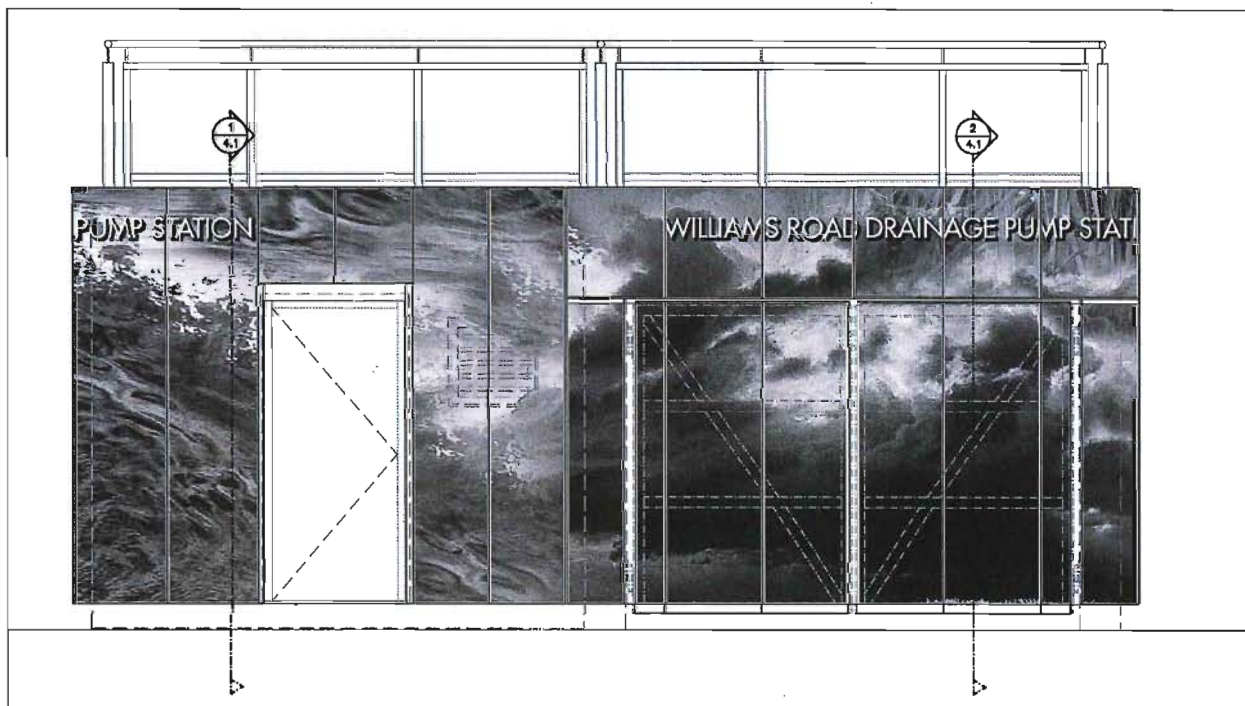


3ft wide x 10ft tall Sample Architectural Panel

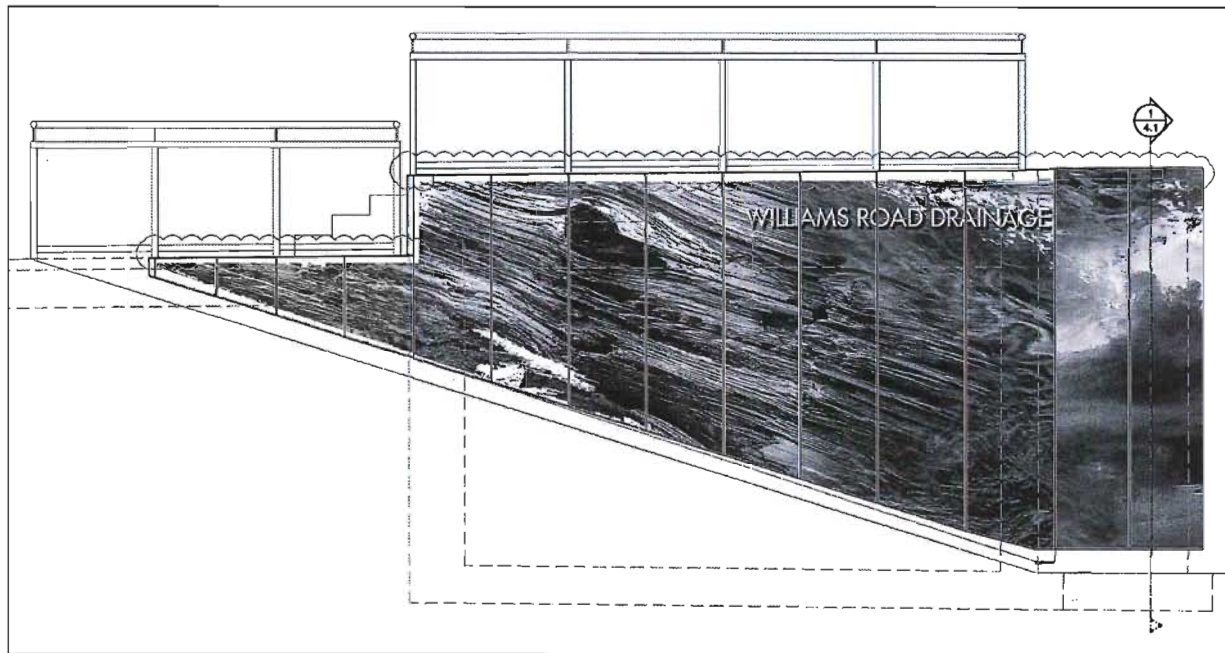
5'-6" tall silhouette shown for scale



Preliminary Layout – North Wall (Station labelling to be adjusted)



Preliminary Layout – East Wall (Station labelling to be adjusted)



Preliminary Layout – South Wall (Station labelling to be adjusted)




City of Richmond

Report to Committee

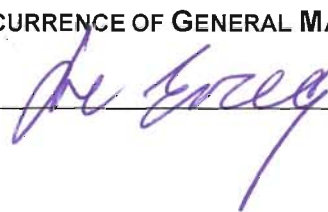
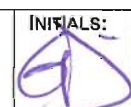
To: Public Works & Transportation Committee
From: Victor Wei, P. Eng.
Director, Transportation
Date: August 21, 2013
File: 01-0150-20-ICBC1-
01/2013-Vol 01
Re: ICBC-CITY OF RICHMOND ROAD SAFETY PARTNERSHIP

Staff Recommendation

1. That a letter be sent to the Board of Directors of ICBC expressing the City's appreciation of ICBC's comprehensive and collaborative approach to improving road safety in Richmond for all users.
2. That a copy of the report dated August 21, 2013 from the Director, Transportation outlining ICBC-City partnerships that have contributed to improved road safety in Richmond be forwarded to the Richmond Council-School Board Liaison Committee for information.
3. That the additional proposed road safety improvement projects, as described in the report, be endorsed for submission to the ICBC 2013 *Road Improvement Program* for consideration of cost sharing funding.
4. That should the above applications be successful, the Chief Administrative Officer and General Manager, Planning and Development be authorized to negotiate and execute the cost-share agreements and the 2013 Capital Plan and 5-Year (2013-2017) Financial Plan be amended accordingly.


Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)

Att. 3

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Finance Division	<input checked="" type="checkbox"/>		
Engineering	<input checked="" type="checkbox"/>		
Law	<input checked="" type="checkbox"/>		
RCMP	<input checked="" type="checkbox"/>		
REVIEWED BY DIRECTORS	INITIALS: DW	REVIEWED BY CAO	INITIALS: 

PWT - 44

Staff Report

Origin

The City and ICBC have a long-standing collaborative approach to improve road safety in Richmond, which supports Council's community safety term goal via the implementation of road-related measures that are targeted to the city's specific needs and priorities as well as contribute to a healthy and liveable community. This report summarizes traffic safety projects that have received funding from the ICBC-City Road Improvement Program and outlines other ICBC-City partnerships that together have contributed to improved road safety in Richmond for all users of city streets.

Analysis

1. Road Improvement Program

ICBC initiated the Road Improvement Program in 1990 to help fund the implementation of road safety engineering measures to reduce the frequency and/or severity of crashes at high-risk locations, reduce claims costs and reduce the potential for crashes. The Program has fostered committed partnerships with communities across BC such as Richmond, which began participating in 1996, based on a strong mutual interest of reducing crashes.

1.1. Types of Initiatives Funded

The Program provides funding to assist with road safety improvements specific to high-crash and high conflict locations, broader measures known to improve road safety and, more recently, pro-active and innovative safety measures (see **Attachment 1** for a list of the current priorities of the Program). Examples of eligible projects include:

- the upgrade of road signs and markings to a consistent standard;
- traffic signal head upgrades such as larger diameter lenses, provision of a primary signal head for each through lane, and installation of highly reflective tape on the perimeter of the yellow backboards;
- installation of uninterrupted power supply at signalized intersections to ensure that signals remain operational during power outages;
- anti-skid surfacing treatments to reduce collisions or conflicts occurring under wet pavement conditions or due to loss of control;
- improved curve delineation with signage and pavement markings on roads with a history of off-road crashes;
- "grey spot" safety treatments that attempt to pro-actively address safety concerns at sites with high conflict situations (e.g., school zones) but not necessarily a high recorded crash history;



**Anti-skid Surface & Delineators at
No. 6 Road S-Curve**



LED Street Name Signs

- the use of new technology and tools that currently may not have extensive research but show promise of potential benefits; and
- safety improvements for vulnerable road users (pedestrians and cyclists) such as pedestrian-actuated flashing beacons at crosswalks (i.e., special crosswalks), countdown timers at signalized intersections and shoulder widening for bike lanes.

1.2 Evaluation Criteria

Initially, ICBC funded only those retrofit road safety projects that were located at documented high crash and high conflict sites, and where the agency's analysis indicated that the proposed safety improvement and ICBC's contribution would meet a target return on investment of 2:1 over two years. In other words, for every dollar that ICBC invested into a road improvement project, ICBC would expect to save at least two dollars in claims costs within two years. This initial investment criterion of a 2:1 return over a two-year period remained in place until 2002.

In 2003, the funding criteria was changed to a target return on investment of 3:1 in two years to better reflect the actual rate of return that ICBC was achieving. However, subsequent review determined that the 3:1 criteria was too aggressive and caused a significant reduction in the level of ICBC contribution, which in turn marginalized ICBC's involvement in some projects. The funding criterion was therefore changed again in 2007, such that ICBC would expect to achieve a 50 per cent internal rate of return.

Effective 2013, ICBC broadened the eligibility of potential road safety projects to allow consideration of the implementation of new technology as well as pro-active measures to reduce the potential for crashes and to increase the safety of vulnerable road users such as pedestrians and cyclists.

1.3 Past Projects in Richmond

Attachment 2 summarizes the annual funding contributed by ICBC under the program as well as the major City projects that received the funding. Over the past 17 years (1996-2012), ICBC has contributed a total of nearly \$4.0 million to the City for an average of \$233,860 per year.

Recent projects around schools include the construction of neighbourhood walkways on Herbert Road (Afton Drive-Bates Road) and Aquila Road (lane north of Williams Road-Albion Road), both of which benefit students walking to/from school, and the installation of flashing school zone warning signs on Garden City Road at Garden City School to warn motorists of the presence of schoolchildren and remind drivers of the 50 km/h speed limit.



Flashing Beacons at Garden City Elementary School

This ICBC-City partnership is a vital component of the City's traffic safety program as it enables the City not only to undertake more traffic safety enhancements than it could alone but also to expedite some of these road safety improvement projects.

1.4 Program Results

In 2009, ICBC undertook an evaluation of the safety performance of a sample of locations across BC (including three in Richmond) that have been improved under the Program in order to quantify its overall effectiveness by:

- determining if the frequency and/or severity of collisions at the improvement sites was reduced after the implementation of the improvement; and by
- quantifying the program costs versus the economic safety benefits to determine the return on ICBC's road safety investment.

As summarized in Table 1, the results indicated that the goals and objectives of ICBC's Road Improvement Program have been achieved with an overall reduction in the frequency and severity of collisions and an excellent return on road improvement investments.

The same evaluation concluded that, within Richmond, ICBC sees a return four times the investment (i.e., for every dollar invested, ICBC saves \$4.00 in claims costs) – savings that get passed onto Richmond drivers.

Table 1: Road Improvement Program Evaluation Results (2009)

Criterion	Result
Collision Reduction	<ul style="list-style-type: none"> • Property damage only collisions reduced by 11.9% • Severe (fatal + injury) collisions reduced by 19.6%
Economic: 2-Yr Service Life	<ul style="list-style-type: none"> • Net present value of \$21.3M • Benefit/Cost ratio of 5.6
Economic: 5-Yr Service Life	<ul style="list-style-type: none"> • Net present value of \$54.1M • Benefit/Cost ratio of 12.8

Given the significantly positive results achieved by the Program, ICBC not only is continuing its operation but also, as noted in Section 1.2, has recently expanded its scope of eligible projects to realize even greater benefits for road users. Staff anticipate using this opportunity to submit additional neighbourhood traffic safety projects such as the construction of walkways on local streets and the implementation of traffic calming measures, particularly in school zones.

1.5 Additional 2013 ICBC-City of Richmond Road Improvement Projects

At its March 25, 2013 meeting, Council approved the submission of a number of proposed road safety improvement projects to the 2013 *Road Improvement Program* for consideration of cost-share funding. Since that time, staff have identified several additional projects related to the construction of the Railway Greenway for potential cost-share funding as shown in Table 2. With respect to the proposed project to install northbound left-turn arrows along Railway Avenue, ICBC has already pre-approved the project and prepared the cost-share agreements for execution.

Upon approval of a project by ICBC, the City would be required to enter into a funding agreement with ICBC. The agreement is provided by ICBC and generally includes an indemnity in favour of ICBC. Staff recommend that the Chief Administrative Officer and General Manager, Planning and Development be authorized to execute the funding agreements for approved projects and the 2013 Capital Plan and 5-Year (2013-2017) Financial Plan be amended accordingly to reflect the receipt of external grants.

Table 2: Proposed Additional 2013 City-ICBC Road Improvement Projects

Proposed Project⁽¹⁾	Est Total Cost	Source of City Funds⁽²⁾	External Agency Funding
Installation of NB left-turn arrows: <ul style="list-style-type: none"> Railway Ave at Steveston Hwy, Williams Rd, Francis Rd, Blundell Rd 	\$60,000	\$9,000 2013 Traffic Signal Program	\$42,000 ICBC (pending) \$9,000 TransLink (confirmed)
Delineation of greenway crossings with green anti-skid surface: <ul style="list-style-type: none"> Railway Ave south of Brunswick Dr and Steveston Hwy, Williams Rd, Princeton Ave, Francis Rd, Blundell Rd, Granville Ave 	\$75,000	\$37,500 2013 Active Transportation Improvement Program	\$37,500 TransLink (confirmed)
Installation of raised crosswalks: <ul style="list-style-type: none"> Granville Ave at McCallan Road Railway Ave west of Brunswick Dr 	\$67,000	\$33,500 2013 Neighbourhood Traffic Safety Program	\$33,500 TransLink (confirmed)

(1) Should additional proposed projects not listed be approved by ICBC to receive funding, the City's portion would be drawn from funding sources previously approved by Council.

(2) Should the submitted project receive funding from ICBC, the City's portion of the total cost would be reduced accordingly.

2. Municipal Road Safety Audit Program

Since 2001, ICBC has offered the services of its road safety specialists to perform road safety audits, which are formal and independent safety performance reviews of road transportation projects based on sound road safety engineering principles and undertaken from the perspective of all road users. The objectives of a road safety audit are to:

- minimize the frequency and severity of preventable collisions;
- consider the safety of all road users, including vulnerable road users;
- ensure that collision mitigation measures that may eliminate or reduce the identified safety problems are considered fully; and
- minimize potentially negative safety impacts outside the project limits (i.e., avoid introducing collisions elsewhere along the route or on the network).

The resulting reports document any identified safety issues and suggest improvements to address those issues at a conceptual level. These improvements can then be incorporated as each project proceeds through detailed design. Current major road projects that have benefitted from ICBC's review and expertise include the widening of Westminster Highway (Nelson Road-McMillan Way) and No. 6 Road (northbound between Westminster Highway and International Place).

3. Intersection Safety Camera Program

ICBC is a partner with the provincial government in the Intersection Safety Camera (ISC) Program, which was upgraded in 2010 with digital red-light cameras and expanded to 140 of B.C.'s most crash- and casualty-prone intersections. As part of this upgrade, eight new locations in Richmond were selected based on their rankings generated by a prediction model that considered crash frequency and severity, crash configurations, potential for improvement by an ISC, and the cost-benefit results derived by measuring predicted crash reduction against the projected cost of installing and operating a camera at a site. All eight cameras became fully operational in Spring 2011.

An independent study to evaluate the impact of the expanded and upgraded ISC program is in progress and the results will be available in early 2014. The most recent peer-reviewed research conducted by ICBC concluded that intersection safety cameras reduced total crashes at ISC sites by five per cent. The research also showed a similar decrease in crashes resulting in injuries and fatalities. ICBC anticipates that the upgraded and expanded program will improve these road safety benefits.



Intersection Safety Camera

4. Road Safety Education & Enforcement

ICBC works with Richmond RCMP and City staff to operate a number of recurring road safety campaigns in Richmond throughout each year that are often linked to seasonal events and changing weather conditions such as summer and holiday CounterAttack (June and December), back to school (September) and pedestrian safety (Spring and Fall at change of daylight savings time). For example, with respect to pedestrian safety, Richmond RCMP, ICBC and the City of Richmond jointly distributed 1,000 fluorescent wrist bands to pedestrians in high pedestrian locations throughout Richmond in Spring and Fall 2012 as part of a campaign to educate and remind pedestrians on safety tips when travelling in the dark or late at night.

These annual campaigns are supplemented by specific events directed at a particular behaviour such as driver distraction (e.g., using a handheld device while driving). **Attachment 3** identifies ICBC's 2013 calendar of road safety education campaigns. Active enforcement of the targeted behaviour by Richmond RCMP is a key component of the campaigns and all campaigns involve extensive use of media (e.g., television, radio, bus tail, and cinema advertising as well as staged demonstrations) for maximum dissemination of the messages to the public.

ICBC also supports the Speed and Auto Crime Watch Programs. Speed Watch seeks to promote safer driving habits by encouraging all drivers to slow down. Through the use of portable speed radar equipment electronic reader boards, drivers receive instant feedback on the speeds they are traveling as well as reminders of the posted speed by placement of signs indicating the allowable speed in the zone they are being monitored.



Speed Watch Volunteers

Volunteers track the number of speeders, their speeds and a number of other qualifiers. This information is forwarded to Richmond RCMP and used to assist in prioritizing enforcement efforts. In 2012, over 25 volunteers completed the ICBC Speed Watch Training course and, in total, volunteers in Richmond checked over 134,700 vehicles for their speed.

In September 2012, the Richmond RCMP and ICBC conducted "Project Swoop," which is a speed watch education and enforcement day throughout Richmond. Volunteers, Richmond RCMP traffic and auxiliary members set up speed watch deployments at five locations in the morning and five locations in the afternoon. If a motorist went through a speed watch

deployment and did not slow down, RCMP traffic members were set up just down the road to ticket those individuals who continued to speed.

With respect to auto crime, Crime Watch volunteers checked over 119,190 vehicles for signs of auto crime in various parking lots throughout Richmond in 2012. They also handed out 17,400 Lock Out Auto Crime notices to vehicles in parking lots to educate drivers about leaving valuables in their vehicles and to recognize when they were doing all the right things to avoid becoming an auto crime victim. These same volunteers ran over 42,500 vehicle license plates through the Stolen Auto Recovery Program.

ICBC also provides annual crash data for Richmond and tools for analysis to assist the City in identifying high-crash locations. Funding support is also available to undertake studies at those high-crash locations to identify countermeasures that would reduce crashes.

5. Membership on City Committees

ICBC is a valued member of the following City committees:

- *Traffic Safety Advisory Committee*: formed in 1997 to create a co-operative partnership between City staff, community groups and other agencies that seek to enhance traffic and pedestrian safety in Richmond. The Committee provides input and feedback on a wide range of traffic safety issues such as school zone concerns, neighbourhood traffic calming requests and traffic-related education initiatives, and has initiated a range of successful measures encompassing engineering, education and enforcement activities.
- *REACT (Richmond Events Approval Coordination Team)*: forum of cross-departmental and public safety agency staff that reviews event applications, initiates event approvals, ensures coordination of City and agency services, and provides a one-stop approval process for managers of events external to the City (i.e., not organized by the City).

6. Future Directions

As noted in Section 1, ICBC's Road Improvement Program originally focused only on retrofit projects at documented high crash locations for motor vehicles. Effective 2013, the Program's strategic focus for eligible projects expanded to include proactive measures as well as improvements specific to vulnerable road users (i.e., pedestrians and cyclists).

Both the Official Community Plan and Council have long- and near-term goals that seek to reduce greenhouse gas emissions, enhance community safety and mobility, and improve the overall health and liveability of Richmond. In line with these goals, staff intend to prioritize future road safety improvements that:

- support alternative travel modes such as the construction of walkways, particularly around school zones and neighbourhood centres;
- enhance the safety of vulnerable road users (e.g., upgrade of arterial road crosswalks, construction of new local street bikeways, and transit stop upgrades); and
- mitigate the negative impacts of vehicle traffic, particularly within neighbourhoods (e.g., traffic calming measures).

With respect to education and enforcement, ICBC and Richmond RCMP both align their campaigns to support City priorities for road safety, which include campaigns targeted at pedestrian safety, intersection safety, distracted driving (e.g., cell phone use), and seatbelt use.

In recognition of ICBC's multi-faceted and collaborative approach to improving road safety in Richmond through its support of engineering, education and enforcement measures, staff recommend that a letter be sent to the Board of Directors of ICBC expressing the City's appreciation of ICBC's continued efforts that have materially enhanced the level of community safety in Richmond.

Financial Impact

None.

The funding sources for the City's portion of the costs of the proposed projects have been previously approved or endorsed by Council as indicated in Table 2 in this report. Several of the identified projects have additional external grants either approved or pending approval from other agencies such as TransLink.

Conclusion

ICBC is a significant long-time partner working with the City to promote traffic safety in Richmond. The traffic safety initiatives jointly implemented by ICBC and the City together with Richmond RCMP, including various road and traffic management enhancements, educational efforts and enforcement measures, have expedited a higher number of projects being implemented, resulted in safer streets for all road users in Richmond and, in turn, enhanced the liveability of the city.



Joan Caravan
Transportation Planner
(604-276-4035)

JC:lce

ICBC Road Improvement Program: Eligible Projects



Esplanade (171 ESW)
North Vancouver, B.C.
V&M 3H9

Telephone: 604-542-1118
e-mail: david.hill@icbc.com

Date: April 19, 2013

RE: ICBC Cost Sharing Opportunities - Road Improvement Program

The following summarizes the various initiatives that funding assistance can be provided from ICBC's Road Improvement Program (RIP) towards safety improvements in BC communities. The Program aims to reduce crashes and claims costs, and reduce the potential for crashes, by financially supporting engineering measures that will improve safety at recognized high crash and high conflict locations.

RETROFIT PROGRAM (high crash areas)

Municipal Capital & Rehabilitation Projects

ICBC will cost share with municipalities on Road Improvement Projects that incorporate proven safety measures at documented high crash locations. These include but are not limited to traffic signals, modern roundabouts, corridor widening, street lighting and intersection channelization.

Modern Roundabouts

Roundabouts can help reduce serious crashes, particularly crashes involving bodily injury, while also lessening vehicle speed, improving pedestrian and bicycle safety and eliminating the need for traffic signals. In addition to providing cost sharing of modern roundabouts at high crash locations, ICBC can assist in identifying the benefits of roundabouts and appropriate locations, and in providing implementation assistance in terms of education material.

Road Sign & Road Marking Reviews & Upgrades

ICBC is encouraging smaller communities to upgrade their road signs and markings to a consistent standard. This is being undertaken by offering workshops, conducting a review of existing facilities and procedures and helping cost share towards recommended improvements.

Safety Studies

Funding will be available to cost share on safety studies of intersections, corridors or other areas of concern to the community. Typically, we undertake safety reviews that help the municipality to evaluate recognized safety concerns and identify safety improvement options for municipal consideration. The studies also indicate ICBC funding levels that may be warranted towards the various improvement options.

Uninterrupted Power Supply Systems (UPS)

ICBC also provides funding towards the installation of UPS at signalized intersections to ensure that the signals remain operational during power outages.

Traffic Signal Head Upgrades

Safety can be improved at signalized intersections by upgrading existing signal heads from 200mm to 300mm diameter lenses, providing a primary signal head for each through lane, and installing highly reflective tape on the perimeter of the yellow backboards. ICBC funding assistance will be available for these types of improvements.

Highly Reflective Pavement Markings

ICBC will consider funding treatments that include upgrading paint markings to highly reflective inlaid profiled thermoplastic, surface-mounted highly reflective profiled thermoplastic, or wet reflective tape (inlaid or overlay) that have demonstrated effectiveness in reducing collision frequency and severity.

ICBC Road Improvement Program: Eligible Projects



Page 2 of 2

Anti-Skid Treatments

Implementation of anti-skid surfacing treatments to reduce the frequency of collisions at locations where there are collisions occurring under wet pavement conditions or due to loss of control.

Enhanced Curve Delineation

ICBC will cost share towards improved curve delineation (i.e; signage & pavement markings) on roads with a history of off-road collisions.

Centre-line & Shoulder Rumble Strips

ICBC will help fund the installation of Centre-line and Shoulder rumble strips in areas where there has been a history of centre-line cross over and off road incidents.

Speed Reader Boards

In recent years this program was offered by ICBC, but it was not administered by the Road Improvement Program. Commencing in 2013, the RIP will be responsible for evaluating funding applications for these devices in areas where they are considered to be effective tools to address speed related concerns or increase driver awareness in high risk areas.

PROACTIVE PROGRAM (high conflict areas)

Road Safety Audits

ICBC will undertake road safety audits, at no cost to the municipality, of an existing or future road corridor or intersection improvement. Road safety audits can be used in any phase of project development from planning and preliminary engineering, design and construction.

Grey Spot Safety Treatments

ICBC will help cost share towards improvements that attempt to pro-actively address safety concerns at locations that are associated with high conflict situations. This will involve sites that may not be eligible for funding based on a recorded crash history.

Innovation & New Technology

New technology and new tools to respond to road safety issues are constantly being developed. ICBC will support municipalities to study and implement road improvements that may not currently have extensive research, but show promise of potential safety benefits.

Vulnerable Road User Improvements

ICBC will help fund safety improvements related to vulnerable road users (i.e; pedestrian & cyclists). This can include pedestrian crosswalks, countdown timers at signalized intersections, pedestrian activated flashing crosswalks, shoulder widening for bicycle use, sidewalks, etc...

It should be noted that ICBC's Road Improvement Program has limited resources and therefore applications are prioritized based on the available funding and review of the specific safety history at each site. Applications for ICBC funding consideration for your area can be forwarded to the Road Safety Engineer as indicated by the contact information contained in this letter.

David Hill, P.Eng.
Road Safety Engineer
 Lower Mainland Region,
 ICBC building trust. driving confidence.

.....
direct: 604-542-1118
mobile: 604-862-0807
e-mail: david.hill@icbc.com

ICBC Funding Contributions to Richmond Road Safety Projects: 1996-2012

Year	Major Projects Funded	ICBC Funding Contribution
1996	<ul style="list-style-type: none"> Traffic safety improvements along Hazelbridge Way 	\$49,000
1997	<ul style="list-style-type: none"> Traffic safety improvements along Blundell Road corridor (Phase 1) Improvements to Garden City Road and Alderbridge Way intersection 	\$129,000
1998	<ul style="list-style-type: none"> Traffic safety improvements along Blundell Road corridor (Phase 2) Traffic signal upgrades at various locations 	\$90,000
1999	<ul style="list-style-type: none"> Intersection signal & sign upgrades at various locations Traffic safety improvements along Westminster Highway corridor Installation of new traffic signal on No. 2 Road at MacDonalds (Blundell Centre) Construction of left-turn bays at Blundell Road and No. 2 Road 	\$408,000
2000	<ul style="list-style-type: none"> Replacement of 700 stop signs Traffic signal upgrades at various locations Various traffic safety improvements 	\$287,800
2001	<ul style="list-style-type: none"> Installation of four new traffic signals and one special crosswalk Traffic safety improvements to Sea Island Way and St. Edwards Drive 	\$400,000
2002	<ul style="list-style-type: none"> Installation of special crosswalk on River Road at Hollybridge Way Construction of bike lanes on Williams Road (No. 1 Road to west dyke) Upgrade of signal visibility at four intersections on Sea Island Installation of left-turn signals at seven intersections Installation of traffic safety features on Airport Connector Bridge 	\$364,000
2003	<ul style="list-style-type: none"> Installation of left-turn signals at various intersections Installation of new traffic signal at Hazelbridge Way and Leslie Road Construction of Garden City Rd extension (Sea Island Way-Bridgeport Road) Installation of pavement lane markings on Hazelbridge Way and Cooney Road Upgrade of traffic signals downloaded from Province (5 locations) Rehabilitation of Blundell Road (No. 4 Road to Shell Road) 	\$317,000
2004	<ul style="list-style-type: none"> Traffic safety reviews of various intersections Centre median installation on Westminster Hwy. (Buswell St. to Cooney Rd.) Centre median delineator installation on No. 2 Road south of Blundell Road Installation of roadside barriers on No. 2 Road north of Granville Avenue 	\$75,670
2005	<ul style="list-style-type: none"> Westminster Hwy and No. 4 Road intersection improvements City-wide upgrade of traffic signals (new backboards & reflective tape): Phase 1 Upgrades to 25 signalized intersections (volume-density treatments): Phase 1 Westminster Highway and No. 5 Road intersection improvements Steveston Highway and No. 5 Road intersection improvements: Phase 1 	\$261,000
2006	<ul style="list-style-type: none"> Upgrade of over 100 intersections with third primary signal head: Phase 1 Review & optimization of 24-hour signal setting at all signal locations Arterial road crosswalk upgrade at five locations Garden City Road and Cambie Road intersection improvements Citywide coordination of signalized intersections Alderbridge Way and Garden City Road intersection improvements Alderbridge Way and Shell Road intersection improvements City-wide upgrade of traffic signals (new backboards & reflective tape): Phase 2 Upgrades to 25 signalized intersections (volume-density treatments): Phase 2 Raised centre median on Great Canadian Way at Costco access Upgrade of pedestrian signal to full signal at Minoru Blvd. and Blundell Road Russ Baker Way at Hudson Avenue and Cessna Drive: left-turn upgrades Volume-density traffic signal improvements at 10 sites Steveston Highway and No. 5 Road intersection improvements: Phase 2 	\$295,156

ICBC Funding Contributions to Richmond Road Safety Projects: 1996-2012

Year	Major Projects Funded	ICBC Funding Contribution
2007	<ul style="list-style-type: none"> • Upgrade of over 100 intersections with third primary signal head: Phase 2 • Traffic signal head upgrades (reflective backboards) on MRN roads • Construction of turn bays and signal upgrades at two intersections • Arterial road crosswalk upgrade at three locations • Westminster Highway widening (McMillan Way-Highway 91 Interchange) • New traffic signals at two intersections • Traffic signal improvements at Gilbert Road and Williams Road 	\$321,400
2008	<ul style="list-style-type: none"> • Installation of left-turn signals at four intersections • Arterial road crosswalk upgrade at three locations • New traffic signal at Granville Avenue and Buswell Street • Construction of southbound left-turn bay on Garden City Rd. at Ferndale Rd. 	\$92,000
2009	<ul style="list-style-type: none"> • Installation of left-turn signals at Francis Road and No. 2 Road • Installation of overhead illuminated street name signs on No. 3 Road • Arterial road crosswalk upgrade at three locations 	\$104,000
2010	<ul style="list-style-type: none"> • Installation of left-turn signals at four intersections • No. 6 Road S-curve: anti-skid surfacing • Installation of overhead illuminated street name signs at various locations • Completion of southbound left-turn bay on Garden City Road at Cook Road • Intersection realignment at Railway Avenue and Moncton Street • Arterial road crosswalk upgrade at one location 	\$205,100
2011	<ul style="list-style-type: none"> • New westbound turn bays at Steveston Highway and No. 5 Road • Additional crosswalk on west leg at Minoru Gate and Granville Avenue • Electronic "Ped Caution" sign for drivers on Lansdowne Rd. at Garden City Rd. • Additional traffic signal heads and backboard upgrades (16 sites) • Speed humps and speed reader board on Gilbert Road south of Finn Road • Centre median railing on No. 3 Road from Cambie Road to Browngate Road • Arterial road crosswalk upgrades at two locations • Advisory warning flashers on Finn Road curve 	\$205,500
2012	<ul style="list-style-type: none"> • Centre median railing on No. 3 Road from Saba Road to Brighthouse Station • Arterial road crosswalk upgrade at two locations • Construction of neighbourhood walkways on Herbert Road (Afton Dr.-Bates Rd.) and Aquila Road (lane north of Williams Rd.-Albion Rd.) • Flashing school zone warning sign on Garden City Road at Garden City School • Signal co-ordination with installation of video-detection traffic cameras on No. 2 Road (Westminster Highway-Steveston Highway) and Westminster Highway (No. 2 Road-No. 3 Road) 	\$371,000
TOTAL		\$3,975,626
ANNUAL AVERAGE		\$233,860

Road Safety Issue	Enhanced Enforcement Period	Campaign Messages	Target Audience
Auto Crime	February	<p>Bait cars are everywhere.</p> <p>Steal a bait car, go to jail.</p> <p>Steal <i>from</i> a bait car, go to jail</p>	Auto thieves.
Intersections/ High Risk Driving	May	<p>Driving is one of the most complex things you do all day.</p> <p>If you don't notice all the things going on at an intersection, your mind's not on the road.</p> <p>Keep your mind on the road.</p>	<p>BC drivers.</p> <p>Motorcyclists, pedestrians, cyclists.</p>
Impaired (Summer)	July	<p>Share the responsibility of being a designated driver; take your turn to help your friends and family get home safe.</p> <p>You may have convinced yourself you're fine to drive, but are you fine to get pulled over?</p> <p>Choose a safe way home, plan ahead, call a cab, take transit, have a designated driver.</p>	BC drivers 19-45 years of age.
Distractions	September	<p>Driving is one of the most complex things you do all day.</p> <p>If you're distracted by your cell phone or anything else, your mind's not on the road.</p> <p>Keep your mind on the road.</p>	BC drivers.
Occupant Restraints	September	<p>Police enforcement of seatbelts is up. So remember to buckle up.</p> <p>Police enforcement is up. And a ticket will cost you \$167. So remember to buckle up.</p>	BC drivers.
Speed Relative to Conditions	November	<p>Driving is one of the most complex things you do all day.</p> <p>If you're rushing to be somewhere, your mind's not on the road.</p> <p>Keep your mind on the road.</p>	BC drivers.
Impaired (Winter)	December	<p>Share the responsibility of being a designated driver; take your turn to help your friends and family get home safe.</p> <p>You may have convinced yourself you're fine to drive, but are you fine to get pulled over?</p> <p>Choose a safe way home, plan ahead, call a cab, take transit, have a designated driver.</p>	BC drivers 19-45 years of age.
Safer Vehicles	Throughout 2013	<p>Seatbelts and airbags aren't the only features that keep you safe.</p> <p>Not all safety features are standard.</p>	<p>All new and used car buyers.</p> <p>Emphasis on used vehicles.</p> <p>Parents or potential parents with young children or teenage drivers.</p>