

Agenda

## **City Council**

Council Chambers, City Hall 6911 No. 3 Road Monday, May 25, 2015 7:00 p.m.

#### Pg. # ITEM

## **MINUTES**

- 1. *Motion to:* 
  - (1) adopt the minutes of the Regular Council meeting held on Monday, May 11, 2015 (distributed previously); and
- CNCL-13
- (2) adopt the minutes of the Regular Council meeting for Public Hearings held on Tuesday, May 19, 2015.

## **AGENDA ADDITIONS & DELETIONS**

## COMMITTEE OF THE WHOLE

- 2. Motion to resolve into Committee of the Whole to hear delegations on agenda items.
- 3. Delegations from the floor on Agenda items.

(PLEASE NOTE THAT FOR LEGAL REASONS, DELEGATIONS ARE NOT PERMITTED ON ZONING OR OCP AMENDMENT BYLAWS WHICH ARE TO BE ADOPTED.)

#### Pg. # ITEM

4. *Motion to rise and report.* 

## RATIFICATION OF COMMITTEE ACTION

## CONSENT AGENDA

#### (PLEASE NOTE THAT ITEMS APPEARING ON THE CONSENT AGENDA WHICH PRESENT A CONFLICT OF INTEREST FOR COUNCIL MEMBERS MUST BE REMOVED FROM THE CONSENT AGENDA AND CONSIDERED SEPARATELY.)

## CONSENT AGENDA HIGHLIGHTS

- Receipt of Committee minutes
- British Columbia Earthquake Preparedness Consultation Report
- Emergency Communications Service Delivery in British Columbia -Strategic Vision and Discussion Paper from the Ministry of Justice
- Amendments to Water Use Restriction Bylaw and Consolidated Fees Bylaw to Support Chafer Beetle Biocontrol
- London/Steveston Park Concept Plan
- Update on Signage on Private Properties
- Council Term Goals 2014-2018
- Land use applications for first reading (to be further considered at the Public Hearing on Monday, June 15, 2015):
  - 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway – Rezone from CEA, IL, and AG1 to ZI12 (Steveston No. 6 LP – applicant)
  - 10311 River Drive Zoning Text Amendment to ZMU17 (Parc Riviera Project Inc. – applicant)
  - 5600 Parkwood Crescent Zoning Text Amendment to CV (Ryan Cowell on behalf of 0737974 B.C. Ltd. – applicant)
  - West Cambie Area Plan OCP Amendment (City of Richmond applicant)
- Street Furniture Program
- Alexandra District Energy Utility Expansion Phase 4
- Smart Thermostats Pilot Program
- 2014 Annual Water Quality Report

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		5.	Motion to adopt Items No. 6 through No. 20 by general consent.
Consent Agenda Item		6.	COMMITTEE MINUTES
Item			That the minutes of:
	CNCL-34		(1) the Community Safety Committee meeting held on Tuesday, May 12, 2015;
	CNCL-40 CNCL-44		(2) the Special General Purposes Committee meeting held on Monday, May 11, 2015 and the General Purposes Committee meeting held on Tuesday, May 19, 2015;
	CNCL-51		(3) the <b>Planning Committee</b> meeting held on Wednesday, May 20, 2015;
	CNCL-79		(4) the <b>Public Works and Transportation Committee</b> meeting held on Thursday, May 21, 2015;
			be received for information.
Consent Agenda Item		7.	BRITISH COLUMBIA EARTHQUAKE PREPAREDNESS CONSULTATION REPORT

(File Ref. No. 09-5126-20-01) (REDMS No. 4559378 v. 3)

CNCL-85

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See Page CNCL-85 for full report

COMMUNITY SAFETY COMMITTEE RECOMMENDATION

That a letter be sent to the Members of Parliament and Members of the Legislative Assembly for the City of Richmond, requesting that the recommendations and key actions contained in the British Columbia Earthquake Preparedness Consultation Report, dated December 2014, be acted upon.

			Council Agenda – Monday, May 25, 2015	
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Consent Agenda Item		8.	<b>EMERGENCY COMMUNICATIONS SERVICE DELIVERY IN BRITISH COLUMBIA - STRATEGIC VISION AND DISCUSSION PAPER FROM THE MINISTRY OF JUSTICE</b> (File Ref. No. 09-5130-01) (REDMS No. 4570329 v. 2)	
	CNCL-99		See Page CNCL-99 for full report	
			COMMUNITY SAFETY COMMITTEE RECOMMENDATION	
			(1) That the staff report titled Emergency Communications Service Delivery in British Columbia – Strategic Vision and Discussion Paper from the Ministry of Justice be forwarded to the Ministry of Justice, in response to their request for written feedback by May 15, 2015 and Metro Vancouver and UBCM for information; and	
			(2) That the Ministry of Justice be advised that the City of Richmond would be pleased to participate in further consultation and stakeholder meetings.	
Consent Agenda Item		9.	AMENDMENTS TO WATER USE RESTRICTION BYLAW AND CONSOLIDATED FEES BYLAW TO SUPPORT CHAFER BEETLE BIOCONTROL (File Ref. No. 10-6125-04-01; 12-8060-20-009247/9248) (REDMS No. 4561394 v. 3)	
	CNCL-114	ļ	See Page CNCL-114 for full report	
			GENERAL PURPOSES COMMITTEE RECOMMENDATION	
			(1) That Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9247 be introduced and given first, second and third readings; and	
			(2) That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248 be introduced and given first, second and third readings.	
Consent Agenda Item		10.	LONDON/STEVESTON PARK CONCEPT PLAN (File Ref. No. 06-2345-20-LSTE1) (REDMS No. 4540721 v. 8)	
	CNCL-120	)	See Page CNCL-120 for full report	
		GENERAL PURPOSES COMMITTEE RECOMMENDATION		
			That the London/Steveston Park Concept Plan, as outlined in the staff report titled "London/Steveston Park Concept Plan," dated May 1, 2015, from the Senior Manager, Parks, be approved.	

#### GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) That Option 2: "De-cluttering without a language provision" which entails the continuation of outreach effort and updating Sign Bylaw No. 5560 be approved. The Sign Bylaw update will include decluttering without a language provision and addressing non language related regulatory gaps; and
- (2) That staff be directed to review the Sign Permit Application fees and bring an update to the Consolidated Fees Bylaw No. 8636 for consideration by Council along with the new Sign Bylaw.

#### Consent Agenda Item

Consent

Agenda

Item

#### 12. **COUNCIL TERM GOALS 2014-2018**

(File Ref. No. 01-0105-07-01) (REDMS No. 4537297 v. 12)

CNCL-333

See Page CNCL-333 for full report

#### GENERAL PURPOSES COMMITTEE RECOMMENDATION

That Council consider the information contained in the report from the Corporate Programs Consultant, dated May 5, 2015, and either adopt the 9 themes and priorities presented herein as their Council Term Goals for the 2014-2018 term of office, or identify and adopt any modifications, deletions or additions to this information for their Council Term Goals for the 2014-2018 term of office.

#### Council Agenda – Monday, May 25, 2015

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Consent Agenda Item		13.	APPLICATION BY STEVESTON NO. 6 LP FOR REZONING AT 13751 AND 13851 STEVESTON HIGHWAY, 10651 NO. 6 ROAD, A PORTION OF 13760 STEVESTON HIGHWAY AND A PORTION OF THE ROAD ALLOWANCE ADJACENT TO AND NORTH OF 13760 STEVESTON HIGHWAY FROM ENTERTAINMENT AND ATHLETICS (CEA), LIGHT INDUSTRIAL (IL) AND AGRICULTURE (AG1) ZONING TO LIGHT INDUSTRIAL AND LIMITED ACCESSORY RETAIL – RIVERPORT (ZI12) (File Ref. No. 12-8060-20-009210/9211; RZ 13-630280) (REDMS No. 4575191)
	CNCL-35	2	See Page CNCL-352 for full report

#### PLANNING COMMITTEE RECOMMENDATION

- (1) That Official Community Plan Amendment Bylaw 9210, to redesignate 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Commercial" and "Industrial" to "Mixed Employment" in Attachment 1 to Schedule 1 of Official Community Plan Bylaw 9000, be introduced and given first reading;
- (2) That Bylaw 9210, having been considered in conjunction with:
  - (a) the City's Financial Plan and Capital Program; and
  - (b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act;

- (3) That Bylaw 9210, having been considered in accordance with Official Community Plan Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation;
- (4) That Richmond Zoning Bylaw 8500, Amendment Bylaw 9211 to create the "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zone, and to rezone 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Entertainment & Athletics (CEA)", "Light Industrial (IL)" and "Agriculture (AG1)" to "Light Industrial and Limited Accessory Retail – Riverport (ZI12)", be introduced and given first reading; and

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			(5) That the public hearing notification be expanded to include all properties in the area shown on the map contained in Attachment J to the staff report dated May 11, 2015 from the Director of Development.
Consent Agenda Item		14.	APPLICATION BY PARC RIVIERA PROJECT INC. FOR A ZONING TEXT AMENDMENT TO THE "RESIDENTIAL MIXED USE COMMERCIAL (ZMU17) - RIVER DRIVE/NO. 4 ROAD (BRIDGEPORT)" ZONE FOR THE PROPERTY AT 10311 RIVER DRIVE (File Ref. No. 12-8060-20-009237; ZT 15-691748) (REDMS No. 4539005 v. 3)
	CNCL-435	;	See Page CNCL-435 for full report
			PLANNING COMMITTEE RECOMMENDATION
			That Richmond Zoning Bylaw 8500, Amendment Bylaw 9237, for a Zoning Text Amendment to the "Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)" zone to amend the maximum permitted density on the property at 10311 River Drive, be introduced and given first reading.
Consent Agenda Item		15.	APPLICATION BY RYAN COWELL ON BEHALF OF 0737974 B.C.LTD. FOR A ZONING TEXT AMENDMENT TO INCREASE THEPERMITTED FLOOR AREA RATIO TO 0.78 FOR THE PROPERTYLOCATEDAT5600PARKWOODCRESCENT(File Ref. No. 12-8060-20-009245; ZT 15-694669) (REDMS No. 4557676 v. 2)
	CNCL-455	5	See Page CNCL-455 for full report
			PLANNING COMMITTEE RECOMMENDATION
			That Richmond Zoning Bylaw 8500, Amendment Bylaw 9245, for a Zoning Text Amendment to the "Vehicle Sales (CV)" zone, to increase the overall allowable Floor Area Ratio (FAR) to a maximum of 0.78 for the property, be introduced and given first reading.

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Consent Agenda Item 16. **REFERRAL: WEST CAMBIE ALEXANDRA NEIGHBOURHOOD BUSINESS** OFFICE AREA REVIEW (File Ref. No. 12-8060-20-009121; 08-4375-01) (REDMS No. 4565876 v. 11)

**CNCL-469** 

#### See Page CNCL-469 for full report

#### PLANNING COMMITTEE RECOMMENDATION

- (1) That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use Employment-Residential designation, be introduced and given first reading;
- (2) That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:
  - (a) the City's Financial Plan and Capital Program; and
  - (b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act;

- (3) That, in accordance with section 879 (2)(b) of the Local Government Act and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:
  - (a) Vancouver International Airport Authority (VIAA) (Federal Government Agency); and
  - (b) The Board of Education of School District No. 38 (Richmond);
- (4) That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing;
- (5) That upon adoption of the above bylaws the West Cambie Alexandra Neighbourhood Mixed Use Employment – Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy be approved;
- (6) That staff not proceed with the implementation of an interim sidewalk/walkway along Odlin Road and Alexandra Road, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years;
- (7) That staff consider the inclusion of interim sidewalk/walkway along Garden City Road as part of the City's 2016 capital program, if there are no immediate/imminent development applications for these fronting properties in the foreseeable future; and

Pg. # ITEM (8) That lands along No. 3 Road not be redesignated from residential use to employment use. Consent STREET FURNITURE PROGRAM 17 Agenda (File Ref. No. 10-6360-03-03) (REDMS No. 4491651 v. 4) Item **CNCL-551** See Page CNCL-551 for full report **PUBLIC** WORKS AND TRANSPORTATION **COMMITTEE** RECOMMENDATION That staff be directed to issue a Request for Proposals for the supply, **(1)** installation and maintenance of a city-wide street furniture program that includes advertising, as described in the staff report dated May 4, 2015, from the Director, Transportation; and (2) That staff report back on the responses to the above Request for Proposals with a recommendation prior to December 1, 2015. Consent 18. ALEXANDRA DISTRICT ENERGY UTILITY EXPANSION PHASE 4 Agenda (File Ref. No. 10-6600-10-02) (REDMS No. 4557795 v. 5) Item **CNCL-571** See Page CNCL-571 for full report PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION That funding of up to \$7.6 million through borrowing from the Utility General Surplus be approved for capital expenditure for design, construction and commissioning of the Phase 4 expansion of the Alexandra District Energy Utility and that the Five Year Financial Plan (2015-2019) be amended accordingly. Consent 19. SMART THERMOSTATS PILOT PROGRAM Agenda (File Ref. No. 10-6125-07-02) (REDMS No. 4565860) Item

See Page CNCL-580 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION

That the development and implementation of a "Smart Thermostats Pilot Program" for homes be endorsed.

**CNCL-580** 

		Council Agenda – Monday, May 25, 2015
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	20.	2014 ANNUAL WATER QUALITY REPORT (File Ref. No. 10-6375-01) (REDMS No. 4550012)
CNCL-584	ŀ	See Page CNCL-584 for full report
		PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION
		That the staff report titled "2014 Annual Water Quality Report," dated April 28, 2015, from the Director, Public Works be received for information.
		**************************************
		NON-CONSENT AGENDA ITEM
		PUBLIC WORKS AND TRANSPORTATION COMMITTEE Councillor Chak Au, Chair
	21.	<b>BI-WEEKLY GARBAGE COLLECTION</b> (File Ref. No. 10-6405-03-01) (REDMS No. 4567623)
CNCL-676	5	See Page CNCL-676 for full report
		PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION
		Opposed: Cllr. Loo
		(1) That City garbage collection service for single-family dwellings be changed from weekly to every other week (bi-weekly) commencing the first quarter of 2016, with recycling services (i.e. Blue Box and Green Cart) continuing to be provided on a weekly basis;
		(2) That, as part of implementation of bi-weekly collection service, the City provide one garbage cart per household to residents in single- family dwellings, where residents have the opportunity to select the cart size of their choice;

Consent Agenda Item

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- (3) That the Chief Administrative Officer and General Manager, Engineering and 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 garbage carts, and related operational service changes associated with this program;
- (4) That an amendment to the City's Five Year Financial Plan (2015 2019) to include capital costs of \$2.6 million with \$2.3 million funding from the City's General Solid Waste and Recycling Provision and \$300,000 from the City's General Utility Surplus, be approved; and
- (5) That appropriate bylaw amendments be brought forward as part of the 2016 solid waste and recycling utility budget process and amending rates, to enact this service.

## PUBLIC ANNOUNCEMENTS AND EVENTS

## **NEW BUSINESS**

## **BYLAWS FOR ADOPTION**

- **CNCL-697** Housing Agreement (10440 and 10460 No. 2 Road) Bylaw No. 9246 Opposed at  $1^{st}/2^{nd}/3^{rd}$  Readings – None.
- CNCL-719 Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9097 (11900/11902 Kingfisher Drive, RZ 13-647579) Opposed at 1<sup>st</sup> Reading – None. Opposed at 2<sup>nd</sup>/3<sup>rd</sup> Readings – None.

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## ADJOURNMENT



## **Regular Council meeting for Public Hearings** Tuesday, May 19, 2015

Place:	Council Chambers Richmond City Hall
Present:	Mayor Malcolm D. Brodie Councillor Chak Au Councillor Derek Dang Councillor Carol Day Councillor Ken Johnston Councillor Alexa Loo Councillor Bill McNulty Councillor Linda McPhail Councillor Harold Steves
	Michelle Jansson, Acting Corporate Officer
Call to Order:	Mayor Brodie opened the proceedings at 7:00 p.m.
1.	RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9183 (RZ 14-657378) (Location: 2080/2100 No. 4 Road; Applicant: Peter Harrison)
	Applicant's Comments:
	The applicant was not available to respond to queries.

Written Submissions:

None.

Submissions from the floor: None.

PH15/5-1

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9183 be given second and third readings.

CARRIED

1.

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## Regular Council meeting for Public Hearings Tuesday, May 19, 2015

#### 2. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9201 (RZ 14-677417)

(Location: 4760/4780 Fortune Avenue; Applicant: 1015553 B.C. Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

(a) John Borkyto, 4746 Fortune Avenue (Schedule 1)

Submissions from the floor:

None.

PH15/5-2 It was moved and seconded

# That Richmond Zoning Bylaw 8500, Amendment Bylaw 9201 be given second and third readings.

The question on Resolution PH15/5-2 was not called as Barry Konkin, Program Coordinator-Development, commented that the concerns raised by Mr. Borkyto regarding the proposed driveways will be reviewed with the developer during the design phase. Also, he commented that staff have spoken with Mr. Borkyto regarding the removal of the holly tree identified as No. 9 on the Tree Retention and Removal Plan.

In reply to a query from Council, the Acting Corporate Officer confirmed that the Notice of Public Hearing was provided to residents within a 50-metre radius of the subject property resulting in 48 mailings for 39 parcels.

The question on Resolution PH15/5-2 was then called and it was **CARRIED** with Cllr. Day opposed.

3. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9233 (Applicant: City of Richmond)

#### Applicant's Comments:

The applicant was available to respond to queries.

#### Written Submissions:

(a) Monika Mccormack, Richmond resident in the Edgemere area (Schedule 2)

Submissions from the floor: None.

2.



### Regular Council meeting for Public Hearings Tuesday, May 19, 2015

PH15/5-3 It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9233 be given second and third readings.

The question on Resolution PH15/5-3 was not called as discussion ensued regarding the potential for an additional meeting and expanded notification to residents within a radius of all coach house units in the city.

As a result of the discussion the following **referral** was introduced:

PH15/5-4

#### It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9233 be referred back to staff for further public consultation.

DEFEATED

Opposed: Mayor Brodie Cllrs. Dang Johnston Loo McNulty McPhail Steves

In reply to a query from Council, Wayne Craig, Director of Development, noted that Ms. Mccormack's concerns regarding parking in the Edgemere area have been forwarded to the Community Bylaws Department. He further noted that staff would contact Ms. Mccormack to clarify coach house land use regulations.

The question on Resolution PH15/5-3 was then called and it was **CARRIED** with Cllr. Day opposed.

PH15/5-5 It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9233 be adopted. CARRIED

#### 4. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9234 (RZ 13-644767)

(Location: 7751 Heather Street; Applicant: Matthew Cheng Architect Inc.)

Applicant's Comments:

The applicant was available to respond to queries.

3.



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Written Submissions:

- (a) Ruo Huang and Jin He, 7733 Heather Street (Schedule 3)
- (b) Jun Liu, 7733 Heather Street (Schedule 4)
- (c) Eddy Law, Richmond resident (Schedule 5)

*Submissions from the floor:* None.

PH15/5-6

5 It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9234 be given second and third readings.

The question on Resolution PH15/5-6 was not called as in reply to a query, Mr. Craig advised that the application was reviewed by the City's Transportation Department to ensure compliance with the City's residential parking requirements.

The question on Resolution PH15/5-6 was then called and it was CARRIED.

# 5. RICHMOND ZONING BYLAW 8500, AMENDMENT Bylaw 9235 (ZT 15-694251)

(Location: 3531 Bayview Street; Applicant: Penta Builder's Group)

Applicant's Comments:

The applicant was not available to respond to queries.

Written Submissions:

None.

Submissions from the floor:

None.

PH15/5-7

#### It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9235 be given second and third readings.

The question on Resolution PH15/5-7 was not called as in response to a query, Mr. Konkin noted that the proposed amendment is to the site specific zoning, which was previously approved by Council.

The question on Resolution PH15/5-7 was then called and it was CARRIED.



### Regular Council meeting for Public Hearings Tuesday, May 19, 2015

PH15/5-8 It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9235 be adopted. CARRIED

#### 6. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9240 (RZ 14-669511)

(Location: 9560 Alexandra Road; Applicant: Yamamoto Architecture Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

None.

*Submissions from the floor:* None.

PH15/5-9

#### It was moved and seconded

# That Richmond Zoning Bylaw 8500, Amendment Bylaw 9240 be given second and third readings.

The question on Resolution PH15/5-9 was not called as in reply to a query, Mr. Craig advised that several site planning options were reviewed with the applicant; however, the orientation of the driveway alignment along the west property line allows emergency vehicles better access to the development. Also, he advised that the application was reviewed in conjunction with the Council-approved development to the east with regard to an opportunity to create a north/south wildlife corridor.

The question on Resolution PH15/5-9 was then called and it was CARRIED.

#### 7. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9241 (RZ 10-516067)

(Location: 6731, 6751 Eckersley Road and 6740 Cooney Road; Applicant: Andrew Cheung Architects Inc.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

(a) Theodore Hsiung, Owner, 8333 Anderson Road (Schedule 6)



### Regular Council meeting for Public Hearings Tuesday, May 19, 2015

- (b) Siu Fong, Hong Kong, China, 8333 Anderson Road (Schedule 7)
- (c) Robert Hsiung, Hong Kong, China, 8333 Anderson Road (Schedule 8)
- (d) Brandon Hsiung, Hong Kong, China 8333 Anderson Road (Schedule 9)
- (e) Joy Yuan, 6828 Eckersley Road (Schedule 10)

*Submissions from the floor:* None.

PH15/5-10

It was moved and seconded

# That Richmond Zoning Bylaw 8500, Amendment Bylaw 9241 be given second and third readings.

The question on Resolution PH15/5-10 was not called as in response to queries, Mr. Craig commented that the Richmond School District is aware of the proposed development, noting that school site funds will be collected through the building permit process. Also, Mr. Craig stated that staff can work with the architect to increase bicycle parking stalls should Council desire. He further stated that signalized traffic controls would be installed at the intersection of Cooney Road and the proposed Park Road extension, and the proposed development is lower than the permitted height for the City Centre area.

The question on Resolution PH15/5-10 was then called and it was CARRIED.

As a result of the discussion, the following **referral** was introduced:

PH15/5-11

It was moved and seconded

That staff examine the bicycle parking stall requirements for multiresidential units in Richmond Zoning Bylaw 8500.

CARRIED

#### 8. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9242 (RZ 14-673732)

(Location: 8491 Williams Road; Applicant: Casa Mia Projects Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

6.





## Regular Council meeting for Public Hearings Tuesday, May 19, 2015

Written Submissions:

None.

Submissions from the floor: None.

It was moved and seconded

PH15/5-12

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9242 be given second and third readings.

The question on Resolution PH15/5-12 was not called as in reply to a query, Mr. Craig noted that the subject site is the remaining parcel between two existing townhouse developments.

The question on Resolution PH15/5-12 was then called and it was CARRIED.

9. RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9244 (RZ 14-665401)

(Location: 9840 Seaton Court; Applicant: Sukinder Mangat)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

None.

Submissions from the floor:

Graeme and Rebecca Masson, 9880 Seaton Court, spoke to concerns with the proposed application and read from their written submission (attached to and forming part of these Minutes as Schedule 11).

Staff was directed to examine the front yard paving work at 9800 and 9820 Seaton Court.





## Regular Council meeting for Public Hearings Tuesday, May 19, 2015

In reply to queries regarding the proposed application, Mr. Konkin stated that (i) the trees will retained and protected throughout the construction phase, (ii) there will be no construction encroachment into the statutory right-of-way on the subject property, (iii) perimeter drainage will be addressed through the building permit process, (iv) the application is in compliance with off-street parking requirements and residents have been encouraged to contact the Community Bylaws Department regarding any violations, and (v) the separation required as per the BC Building Code would result in limited windows and unprotected openings adjacent to the south property line.

Discussion ensued regarding the public consultation process and a motion was introduced, but failed to receive a seconder, for the application to be referred back to staff for further public consultation.

PH15/5-13

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9244 be given second and third readings.

**CARRIED** Opposed: Cllr. Day

## ADJOURNMENT

PH15/5-14

It was moved and seconded *That the meeting adjourn (7:43 p.m.).* 

#### CARRIED

Certified a true and correct copy of the Minutes of the Regular meeting for Public Hearings of the City of Richmond held on Tuesday, May 19, 2015.

Mayor (Malcolm D. Brodie)

Acting Corporate Officer (Michelle Jansson) Schedule 1 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

4746 Fortune Avenue Richmond, B.C. V7E 5J8

To Public Hearing Date: May 19/15 Item # Re: 4760/4780 Forture RZ 14-107741

City of Richmond Council Chambers, 1<sup>st</sup> Floor, Richmond City hall 6911 #3 Road, Richmond, B.C. V6Y 2C1

#### May 18, 2015

#### Re: Richmond Zoning Bylaw 8500, Amendment Bylaw 9201 (RZ 14-677417) 4760/4780 Fortune Avenue

#### Honorable Members of Council,

Our home is adjacent to the aforementioned property. The neighbors were good neighbors, but due to their age and health, the property was sold.

Before it was sold however, owner Les Bendo advised that he had received a letter from the City of Richmond expressly stating that if the duplex were demolished, a replacement duplex could NOT be built. We believe such a pre-emptive restriction is counter-productive to good neighborhood development, and may even contravene the re-zoning application progress.

We are currently seeking a copy of that letter from the heirs of the estate.

In the mid-1970s Council was very smart to ensure that a mixed group of homes existed in every neighborhood to prevent pockets of "ghettoization" in Richmond. As a result, our neighborhood is well balanced with bungalows, backsplits, and two level homes ranging in 2, 3, and 4 bedroom configurations, as well having as 1 and 2 car garages.

In the last 5 years however, three perfectly good condition bungalows were demolished to build three "monster homes" at 10300, 10211 and 10271 Freshwater. The home at 10400 Cornerbrook was demolished last week, and 4771 Hermitage slated for demolition and well as the subject property. Neighbors understand that no one has lived in one of the homes as the owners were denied entry into Canada.

While no doubt these monster homes squeeze more taxes out of the neighborhood by increasing assessments, todays City Council decisions have dire social consequences as a result of their "out of control" building approval process.

What happens when Council approves building a "monster home" in a balance of DATE neighborhood, is that increased prices and taxes hurt the vulnerable people in our society, and bad things happen to good people.

**CNCL - 21** 

Specifically, at 10400 Cornerbrook four families were squeezed into a duplex that was partitioned into four dwellings. The social pressure had intolerable consequences, that being a grandmother and young child were murdered and the building partially destroyed by fire. According to persons having bought into the neighbor when new, this type of event had never before occurred.

The reason it had never previously occurred can be answered by any sociologist – this has been a solid, economically diversified neighborhood where people rose to the highest common level, as opposed to the lowest. City council in the 1970s clearly understood this social imperative.

Will city council understand that imperative today?

I am opposed to the re-zoning of this property for these reasons:

- 1) From written communication with the previous owner, clear determination that the City would change the zoning, regardless of the rezoning procedure.
- 2) Destruction of the mixed social fabric of the neighborhood, which has proven effective and strong for nearly 50 years.
- 3) The destruction of some trees on the property which are inaccurately mapped on the rezoning application, and which should not be destroyed.
- 4) The true cost of disposing of the materials is not reflected in the cost of the demolition permit, nor is the economic utility cost of the structure that has decades of potential future use.
- 5) Input into the design of the property so that the driveway goes straight to the street instead of creating a concrete pad that covers the front yard, and goes against the spirit of Richmond's environmental objectives.
- 6) <u>Before the building is demolished, fumigation of rodents that have lived in</u> <u>this abandoned property for 3 years, and are currently infesting the</u> <u>neighborhood</u>.

Thank-you for your attention to these issues.

Yours Truly,

John Borkyto

604-448-0820

**CNCL - 22** 

#### MayorandCouncillors

From: Sent: To: Subject: Schedule 2 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

MayorandCouncillors
Tuesday, 19 May 2015 2:57 PM
'MONIKA AND KELLY'
RE: Coach Houses in the Edgemere Neighbourhood

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Dato: May 19/15	
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This is to acknowledge and thank you for your email of May 19, 2015 to the Mayor and Councillors, in connection with the above matter, a copy of which has been forwarded to the Mayor and each Councillor for their information and will be available at the Public Hearing meeting tonight.

In addition, your email has been referred to Edward Warzel, Manager, Community Bylaws regarding cars parked on the street. If you have any questions or further concerns at this time, please call Mr. Warzel at 604.276.4000.

Thank you again for taking the time to make your views known.

Yours truly,

#### Michelle Jansson

#### Manager, Legislative Services

City of Richmond, 6911 No. 3 Road, Richmond, BC V6Y 2C1 Phone: 604-276-4006 | Email: mjansson@richmond.ca

From: MONIKA AND KELLY [mailto:monkel@shaw.ca] Sent: Tuesday, 19 May 2015 2:52 PM To: MayorandCouncillors Subject: Coach Houses in the Edgemere Neighbourhood

Good afternoon,

I understand that Coach Houses are on the agenda for the Public Hearing tonight.

We live in the Edgemere neighbourhood and have watched as properties on Williams Road have been developed from 1 residential home to 2; and now with the addition of 2 coach houses as well.

The property on the corner of Williams Rd and Aquila Rd was allowed to develop 2 homes with 2 coach houses (over garages) with what seems to be no yard space and minimal parking.

There is a lot of traffic at this intersection as it is the main entrance to our section of the Edgemere neighbourhood. There is also a main crosswalk located at this intersection for foot traffice to McNair High School. The addition of vehicles parked on the road from this property alone can make driving on Aquila Rd very dangerous.

Please advise who we need to contact if too many parked cars are encroaching on the driving portion of Aquila Road.

thank you, Monika Mccormack 604-274-7133

Schedule 3 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

#### MayorandCouncillors

From: Sent: To: Subject: Webgraphics Sunday, 17 May 2015 3:32 PM MayorandCouncillors Send a Submission Online (response #831)

Categories:

12-8060-20-9234

A LOUGH TO A LOUGH	To Public Hearing
	Date: May 19/15
TRUCK BUILD	Item # 40
<b>MORE ADDRESS</b>	Ro: 7751 Heather St.
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# Send a Submission Online (response #831)

## Survey Information

Site:	City Website
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Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/17/2015 3:31:31 PM

Your Name	RUO XIN HUANG AND JIN BO HE
Your Address	#8-7733 HEATHER STREET,RICHMOND, BC, V6Y 4J1
Subject Property Address OR Bylaw Number	RICHMOND ZONING BYLAW 8500,AMENDMENT BYLAW 9234(RZ 13-644767)
Comments	Dear City Clerks: I and my husbang JIN BO HE are not able to attend the hearing which will be held on Tuesday, May 19, 20157pm due to we will be out of town at that time. We are sorry about that, and hope you have a good long weekend! Thanks! RUO XIN HUANG AND JIN BO HE



#### MayorandCouncillors

Schedule 4 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

From:	
Sent:	
To:	
Subject:	

Webgraphics Tuesday, 19 May 2015 1:11 PM MayorandCouncillors Send a Submission Online (response #832)

Categories:

01-0170-02

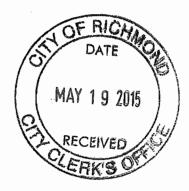
To Public Hearing
Date: May 19/15
Item # 4
Ro: 7751 Heather St.
no. <u>L'OT richirer OT</u>
127 13-644767
1.2.0 011/0/

## Send a Submission Online (response #832)

## Survey Information

Site:	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/19/2015 1:11:02 PM

Your Name	jun liu
Your Address	7733 Heather St.
Subject Property Address OR Bylaw Number	28
Comments	There should be too much crowded on the street parking.



Schedule 5 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

#### Jansson, Michelle

Subject:

FW: City of Richmond BC - General Comments, Compliments and Questions - Case [0515-CS-COMMENT-005387] Received

	To Public Hearing	· .
	Date: May 19/15	
	Item #4	
******	Ro: 7751 Heatherst.	videnadora vición
	R2 13-644767	

From: <u>donotreply@richmond.ca</u> [mailto:donotreply@richmond.ca] Sent: Sunday, 10 May 2015 11:59

To: InfoCentre

**Subject:** City of Richmond BC - General Comments, Compliments and Questions - Case [0515-CS-COMMENT-005387] Received

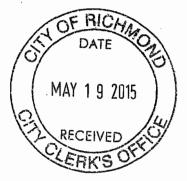


#### Attention: Administrator

A general comment, compliment, or question has been submitted through the City of Richmond online Feedback Form. Below is the information which was provided by the person submitting the feedback.

General Comments,	Compliments	and Question	S		
Category: Comment		an a shalaran ta Turi a shakara			
Comment/Compliment/ I have a reservation abor nearby area on Heather, a complex for more resid	ut the Rezoning 77 Granville and Gar	den City. Therefo	ore, a rezoning t	hat purely allows	to build
Personal Information: Eddy Law					
604-244-1832					lande an teacharan ann an teacharan an teacharan an teacharan an teacharan an teacharan an teacharan an teachar Na teacharan an teac
law_eddy@yahoo.ca Tech Information: Submitted By: 199.175.1 Submitted On: May 10, 2					

<u>Click Here</u> to open this message in the case management system. You should immediately update the Case Status either to Received to leave the case open for further follow-up, or select the appropriate status based on your activity and work protocols. Click Save to generate the standard received message to the customer, add any additional comments you wish to and click Save & Send Email. Close the browser window to exit.



Schedule 6 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

### MayorandCouncillors

From: Sent:	Webgraphics Saturday, 16 May 2015 11:43 PM
To:	MayorandCouncillors
Subject:	Send a Submission Online (response #827)
Categories:	. 12-8060-20-9241 - 6731 & 6751 Eckersley Rd & 6740 Cooney Rd

	To Public Hearing
	Date: May 19/15
	Item # // ////////////////////////////////
d	Re: 6731,6751 Eckersley
	\$ 6740 Cooney Rd
	R2 10-516067

DATE

MAY 1 9 2015

## Send a Submission Online (response #827)

## Survey Information

Site:	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/16/2015 11:42:54 PM

Your Name	Hsiung Theodore P
Your Address	Unicorn Gdns, Floor 2, Block I, 11 Shouson Hill Rd. East, Hong Kong
Subject Property Address OR Bylaw Number	6731, 6751 Eckersley Rd. & 6740 Cooney Rd. Richmond, B.C.
Comments	As owner of unit 1210 - 8333 Anderson Road, Richmond. we have a North East facing unit. The proposed amendment to the Bylaw will allow for Midrise Apartment which will 1) create heavy traffic on Eckersley and the car entrance to our unit, and 2) obstruct the current view North East facing view of the unit. In 2014, our property assessment has declined. The proposed amendment to the bylaw will only enhance the profit of the developer but cause irreparable damage and value erosion to the current residential property of 8333 Anderson. Thereby, I strongly object to the proposed amendment for the subject property

Schedule 7 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

#### MayorandCouncillors

From: Sent: To: Subject:

**Categories:** 

Webgraphics Saturday, 16 May 2015 11:50 PM MayorandCouncillors Send a Submission Online (response #828)

12-8060-20-9241 - 6731 & 6751 Eckersley Rd & 6740 Cooney Rd

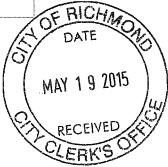
To Public Hearing
Date: May 19/15
Item # 7
Ro: 6731,6751 Eckersley
9.6740 Cooney Rd
R210-516067

## Send a Submission Online (response #828)

## Survey Information

Site	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/16/2015 11:49:41 PM

Your Name	Fong Siu Yee
Your Address	11 Shouson Hill Rd. East, Unicorn Garden, Block I, 2nd Fl., Hong Kong
Subject Property Address OR Bylaw Number	6731, 6751 Eckersley Rd. & 6740 Cooney Rd. Richmond, B.C.
Comments	I strongly object to the proposed amendment to the bylaw to allow the developer to build "Mid Rise apartment & Townhouse". The proposed dwellings will cause traffic congestion on Eckerseley and also obstruct the North East view of residents of 8333 Anderson Rd. where we have an existing unit. The 2014 property assessment already is showing a decline in value. The city should not allow the proposed amendment to profit the developer and should safeguard the value of existing property owners of 8333 Anderson Road.



Schedule 8 to the Minutes of the meeting of Public Hearing Richmond City Council held on Tuesday, May 19, 2015.

### MayorandCouncillors

From:	Webgraphics
Sent:	Sunday, 17 May 2015 12:00 AM
To:	MayorandCouncillors
Subject:	Send a Submission Online (response #829)
Categories:	12-8060-20-9241 - 6731 & 6751 Eckersley Rd



DATE

MAY 1 9 2015

## Send a Submission Online (response #829)

## Survey Information

Site:	City Website		
Page Title:	Send a Submission Online		
URL:	http://cms.richmond.ca/Page1	793.aspx	
Submission Time/Date:	5/16/2015 11:59:41 PM	01 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Your Name	Hsiung Robert S
Your Address	, 11 Shouson Hill Rd. East, Unicorn Garden, Block I, 2nd Fl., Hong Kong
Subject Property Address OR Bylaw Number	6731, 6751 Eckersley Rd. & 6740 Cooney Rd. Richmond, B.C.
Comments	I strongly object to the submission by the applicant to rezone the subject property for "Mid rise Apartment & Townhouse development", The proposed amendment will create 1) traffic congestion on Eckersley as there are already two multiple dwellings with car entrance and exit on Eckersley. Furthermore, it will also obstruct the North East view of current residential owners of 8333 Anderson Rd. The city should not allow the rezoning for the profit of the developer and erode the property value of the current residents who purchased property based on existing zoning and bylaws.

Schedule 9 to the Minutes of the Hearing of meeting Public Richmond City Council held on Tuesday, May 19, 2015.

### MayorandCouncillors

From: Webgraphics Sent: Sunday, 17 May 2015 12:05 AM To: MayorandCouncillors Subject: Send a Submission Online (response #830)

Webgraphics	To Public Hearing
Sunday, 17 May 2015 12:05 AM MayorandCouncillors	Date: May 19/15
Sand a Submission Online (response #820)	Item # 7
12-8060-20-9241 - 6731 & 6751 Eckersley Rd & 6740 Cooney Rd	Ro: 6731,6751 Eckersley \$6740 Cooney Rot
	RZ 10-516067

DATE

MAY 1 9 2015

## Send a Submission Online (response #830)

## Survey Information

Categories:

Site:	City Website
Page Title:	Send a Submission Online
 , URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/17/2015 12:04:17 AM

Your Name	Hsiung Brandon Y
Your Address	11 Shouson Hill Rd. East, Unicorn Garden, Block I, 2nd Fl., Hong Kong
Subject Property Address OR Bylaw Number	6731, 6751 Eckersley Rd. & 6740 Cooney Rd. Richmond, B.C.
Comments	I strongly object to the proposed rezoning application of the subject property to permit the development of 41 apartment units and 8 townhouses. The reason for objection is that it will destroy the current North East view of residents in 8333 Anderson Road and create traffic congestion on Eckersley Road. The city should protect the property value of current property owners who purchased property on the basis of current by-laws and should not act in favor of enhancing the profit of developers. I sincerely hope the city will reject the proposed re-zoning application.

Schedule 10 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

### MayorandCouncillors

From: Webgraphics Sent: Wednesday, 13 May 2015 10:02 PM To: MayorandCouncillors Subject: Send a Submission Online (response #826)

To Public Hearing Date: May 19 /15 Item # Re: 6731,6 12-8060-20-9241 - 6731 & 6751 Eckersley Rd & 6740 Cooney Rd 740

> RICH DATE

MAY 1 4 2015

## Send a Submission Online (response #826)

## Survey Information

Categories:

Site:	City Website
Page Title:	Send a Submission Online
URL:	http://cms.richmond.ca/Page1793.aspx
Submission Time/Date:	5/13/2015 10:01:29 PM

## Survey Response

Your Name	joy yuan
Your Address	6828 Eckersley road, richmond
Subject Property Address OR Bylaw Number	6731,6751 eckersley road and 6740 coney road
Comments	RE: 6731,6751 eckersley road and 6740 coney road ,Rezoning to Mid rise apartment& Townhouse As the residence, i strongly disagree the rezoning. 1: This area is already crowded with 2 high rises and few low/mid rise apartment&townhouses. with only 3 houses lot space, there will be at least 60 new homes to be built. it's very high density. At least 60-100 population increase in a small area . 2: Traffic: potential of increase car accidents . the left & right turn is already very difficult on coony& Eckersley roady without traffic lights. with at leaf 60 cars increased, the situation will be even worse. if have more traffic lights on both roads, then the traffic will slow down due to a 100 m road has 2-3 traffic lights which will be very inefficient. 3: parking issue: all empty space on the Eckersly /Park road are parked by cars, with 60 new homes, can't imagine how crowed the place will be 4: air polution, less green space, more people, more car, more CO2 5: student safety issue: there is a school

CNCL - 31

near by, with busy street there is potential risk for
those who walking to the school 6: not enough
public facility to share: there are lots of new
constructions going on in richmond, but not lots of
community centres, limited library resources.
therefore, i don't agree the rezoning

(RZ 14-665401)

Schedule 11 to the Minutes of the Public Hearing meeting of Richmond City Council held on Tuesday, May 19, 2015.

Rezoning of 9840 Seaton Court Submitted from: Graeme and Rebecca Masson 9880 Seaton Court

- We purchased our home at 9880 Seaton Court in 1980, a stable, family neighborhood. There were 6 homes on this quiet cul-de-sac with space in the yards for our children to play and mature trees in every lot. The homes were positioned on the lots in order to provide the residents privacy, enjoyment and quality of life in their home.
- There were 6 family homes, now 11 houses with multiple suites and individually rented rooms (exceeding the by-law). If the re-zoning of 9840 Seaton Court is passed there will be 13 houses plus 2 additional suites. However, this doesn't include the legal and illegal rental units in existing redeveloped houses on our court which add up to 9 individual renters/families already on our court.
- Cars, transient renters and congestion is a problem. This is turning into a rental, transient neighborhood and not the liveable family neighborhood we expect and Richmond advertises. This increased densification and increased car traffic has **negatively impacted our standard and quality of life as well as our privacy.**
- The large foot print of this new home will directly impact our privacy and enjoyment of our home, deck and back yard. Our home is situated at an angle on the lot with the back of our home facing the approx. 20 ft wall of the proposed new house not including the roof. The windows of our bathroom, bedroom, kitchen and dinning room face this wall which will be within 20 ft of our deck and 34 ft of our back windows. The new structure will tower above our living space and look directly into our bathroom, bedroom, kitchen and dinning room and down onto our deck which at this time is reasonably private as would be expected in a family neighborhood. This privacy will be lost with the proposed new development.
- We would request assurance that the Tree Retention and Preservation by-law be enforced to it's recommended extent based on the diameter of the tree truck and the drip line of the tree. We were informed that there is already a **revised tree retention plan and contract to** be based on the recommendations provided by city arborist Gordon Jaggs and that we will be consulted on this prior to final approval.
- There is a 10 foot easement on both sides of the property line. We would ask that no part of the footings and or structure encroach into the easement area or any of the protected area for the trees based on the drip line as recommended in the **Tree Retention and Preservation by-law**.
- The re-development does not appear to be consistent with the city's Affordable Housing Strategy as these dwellings or neither affordable or appropriate in this neighborhood. Changing the zoning in our small area of Shellmont has in fact promoted real estate speculation and thus inflated house prices and therefore decreased affordability. Both of the new houses will probably be priced at significantly more than the existing home.
- Loss of pleasure, quality of life and privacy of our property due to the proposed development
- Increase in rentals results in increase in the transient nature of the neighborhood and safety.
- Loss of trees is contrary to Richmond City objectives, and generally negative for our environment.
- Densification and overall lot size reduction within the interior of the subdivision has negative impacts on residence, children, infrastructure demand, affordability, and quality of a "liveable neighborhood".
- Parking on the front yard that usually get paved in as seen at 9800 and 9820 Seaton Court.



## **Community Safety Committee**

Date:	Tuesday, May 12, 2015
Place:	Anderson Room Richmond City Hall
Present:	Councillor Bill McNulty, Chair Councillor Derek Dang Councillor Ken Johnston Councillor Alexa Loo Councillor Linda McPhail
Also Present:	Councillor Carol Day (entered at 4:10 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 Community Safety Committee held on Tuesday, April 14, 2015, be adopted as circulated.

#### CARRIED

## NEXT COMMITTEE MEETING DATE

Tuesday, June 9, 2015, (tentative date) at 4:00 p.m. in the Anderson Room

Minutes

1.

### LAW AND COMMUNITY SAFETY DIVISION

# 1. COMMUNITY BYLAWS MONTHLY ACTIVITY REPORT – MARCH 2015

(File Ref. No.) (REDMS No. 4556252)

Ed Warzel, Manager, Community Bylaws, noted that vandalism and meter failure resulted in decreased parking revenue in March 2015; however, the installation and design of new parking meters should result in decreased vandalism. He further noted that to ameliorate current bylaw enforcement activities an Animal Control Officer has been hired to patrol specific areas with respect to dog licensing and off-leash dog violations.

It was moved and seconded

That the staff report titled Community Bylaws Monthly Activity Report – March 2015, dated April 22, 2015, from the General Manager, Law and Community Safety, be received for information.

CARRIED

#### 2. RCMP'S MONTHLY REPORT - MARCH 2015 ACTIVITIES (File Ref. No. 09-5000-01) (REDMS No. 4544502 v. 2)

Superintendent Renny Nesset, Officer in Charge (OIC), Richmond RCMP, provided background information and commented on the rise of pickpocket thefts throughout the Lower Mainland, and that thefts from motor vehicles, while decreasing, exceeded the five year average.

In response to a query from Committee, Supt. Nesset advised that the Aston Martin vehicular accident has not been resolved as the investigative analysis is ongoing.

It was moved and seconded

That the report titled RCMP's Monthly Report - March 2015 Activities, dated May 4, 2015 from the Officer in Charge, Richmond RCMP, be received for information.

CARRIED

#### 3. RICHMOND FIRE-RESCUE MONTHLY ACTIVITY REPORT – MARCH 2015

(File Ref. No. 09-5000-01) (REDMS No. 4559289)

In reply to a query from Committee, Kim Howell, Deputy Fire Chief, Richmond Fire-Rescue (RFR), commented that, in preparation for the demolition of Fire Hall No. 1, hazard abatement will take place over the next three weeks. It was moved and seconded

That the staff report titled Richmond Fire-Rescue Monthly Activity Report -March 2015, dated April 20, 2015 from the Fire Chief, Richmond Fire-Rescue, be received for information.

CARRIED

*Councillor Day entered the meeting (4:10 p.m.).* 

#### 4. BRITISH COLUMBIA EARTHQUAKE PREPAREDNESS CONSULTATION REPORT

(File Ref. No. 09-5126-20-01) (REDMS No. 4559378 v. 3)

In response to queries from Committee, Deborah Procter, Manager, Emergency Programs, accompanied by Lloyd Bie, Manager, Engineering Planning, provided the following information:

- construction in Richmond is based on current industry standards including improved soil conditions;
- whether built on bedrock or soft soil, infrastructure damage would occur during a major seismic event;
- 100% of eligible response costs and 80% of recovery costs for noninsurable eligible costs are reimbursed by the Province; the Municipal Insurance Association of British Columbia is looking to develop a plan that would cover the additional 20%; and
- staff are working with the University of British Columbia regarding a seismic study that will provide information related to anticipated damages per Richter Scale magnitude earthquake.

Councillor Day spoke to information presented at a Local Government Management Association meeting that compared Lower Mainland municipalities' earthquake preparedness. The Chair requested that a copy of the said information be provided to Council.

#### It was moved and seconded

That a letter be sent to the Members of Parliament and Members of the Legislative Assembly for the City of Richmond, requesting that the recommendations and key actions contained in the British Columbia Earthquake Preparedness Consultation Report, dated December 2014, be acted upon.

#### CARRIED

3.

#### EMERGENCY COMMUNICATIONS SERVICE DELIVERY IN 5. **BRITISH COLUMBIA - STRATEGIC VISION AND DISCUSSION** PAPER FROM THE MINISTRY OF JUSTICE

(File Ref. No. 09-5130-01) (REDMS No. 4570329 v. 2)

John McGowan, Fire Chief, RFR, provided background information on the Ministry of Justice's Emergency Communications Service Delivery -Strategic Vision Discussion Paper.

In reply to a query from Committee, Fire Chief McGowan stated that E-Comm dispatches to approximately 80% of the population of British Columbia and options to provide 100% 911 coverage are being explored.

It was moved and seconded

- That the staff report titled Emergency Communications Service (1) Delivery in British Columbia – Strategic Vision and Discussion Paper from the Ministry of Justice be forwarded to the Ministry of Justice, in response to their request for written feedback by May 15, 2015 and Metro Vancouver and UBCM for information; and
- That the Ministry of Justice be advised that the City of Richmond (2) would be pleased to participate in further consultation and stakeholder meetings.

#### CARRIED

#### 6. FIRE CHIEF BRIEFING

(Verbal Report)

#### (i) Summer Safety

Fire Chief McGowan advised that upcoming safety messaging will focus on water and boat safety, such as reminding boaters to use personal flotation devices and to obtain a valid operator's certificate. He further advised that additional messaging will provide information on barbeque safety.

#### **Doors Open Richmond** *(ii)*

Fire Chief McGowan stated that RFR will be participating in the Doors Open Richmond event scheduled for June 6 to 7, 2015, at Fire Hall No. 2 -Steveston.

#### Tim Horton Camp Day (iii)

Fire Chief McGowan advised that an update on the Tim Horton Camp Day will be provided in the near future.

#### (iv) Engineering and Public Works Open House

Fire Chief McGowan spoke of the City's Engineering and Public Works Open House to be held on Saturday, May 23, 2015 and noted that RFR's Public Safety trailer will be on site and that a new obstacle course will be unveiled at the event.

In response to a query from Committee, Fire Chief McGowan commented that limited resources and on-going training and inspection schedules resulted in off-duty RFR personnel attending the McHappy Day event held on Wednesday, May 6, 2015.

#### 7. **RCMP/OIC BRIEFING**

(Verbal Report)

#### (i) Police Week

Supt. Nesset advised that, as part of National Police Week from May 11 to 15, 2015, Richmond RCMP will be holding several events including (i) a food hamper drive in Steveston on Tuesday, May 12, 2015, (ii) a carwash at Ironwood Mall between 10 a.m. and 4 p.m. on Thursday, May 14, 2015, and (iii) participation in random acts of kindness at Lansdowne Centre Mall on Friday, May 15, 2015.

#### 8. MANAGER'S REPORT

Councillor Day spoke to the fuel spill at the Shelter Island Marina and Boatyard. She raised concerns regarding the containment efforts of the Harbour Authority, the Canadian Coast Guard and the environmental agency on site and requested that staff report back to Committee on actions taken by the City.

Phyllis Carlyle, General Manger, Law and Community Safety, stated that staff could comment on the agencies' response efforts to said fuel spill; noting that the City's Public Works and Environmental Departments' efforts on the matter were focused on ensuring that the City's water supply was not impacted.

Committee requested that staff prepare a memorandum updating Council on the efforts of the various agencies.

### ADJOURNMENT

It was moved and seconded *That the meeting adjourn (4:37 p.m.).* 

#### CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Community Safety Committee of the Council of the City of Richmond held on Tuesday, May 12, 2015.

### Councillor Bill McNulty Chair

Heather Howey Committee Clerk



Minutes

# **Special General Purposes Committee**

Date: Monday, May 11, 2015

Place: Anderson Room Richmond City Hall

Present:

Mayor Malcolm D. Brodie, Chair Councillor Chak Au Councillor Derek Dang Councillor Carol Day Councillor Ken Johnston Councillor Alexa Loo Councillor Bill McNulty Councillor Linda McPhail Councillor Harold Steves

Call to Order:

The Chair called the meeting to order at 4:02 p.m.

## MINUTES

It was moved and seconded That the minutes of the meeting of the General Purposes Committee held on Monday, May 4, 2015, be adopted as circulated.

#### CARRIED

### **AGENDA ADDITION**

It was moved and seconded

That "Fraser Surrey Docks – Public Comment Period, Consideration to Amend Permit No. 2012-072" be added to the Agenda as Item No. 2.

CARRIED

## **COMMUNITY SERVICES DIVISION**

#### 1. **MINORU COMPLEX MULTIPURPOSE ROOM ALTERNATIVES** (File Ref. No. 06-2052-55-01) (REDMS No. 4574174 v. 6)

With the aid of artist renderings, Serena Lusk, Senior Manager, Recreation and Sport, provided background information and spoke on potential new design alternatives for the Minoru Complex multipurpose room. She noted that Alternative 3 reconfigures the current sport storage area on the main floor area to provide approximately 800 ft<sup>2</sup> for a sport tournament support centre, and thus the sport storage space would be relocated to a modular space elsewhere in Minoru Park. Also, Ms. Lusk remarked that views to the fields adjacent to the room would be created as a result of the difference in elevation. Alternative 3 is anticipated to cost approximately \$250,000 and will impact the schedule by approximately three months.

With regard to Alternative 4, Ms. Lusk stated that a new building would replace the caretaker suite and washrooms at Minoru Park and include storage space for sport uses, an 800 ft<sup>2</sup> sport tournament support room and a veranda. She noted that this alternative would cost approximately \$2 million and require submission to the Capital budget process.

Ms. Lusk then commented on meetings with stakeholders, noting that the Richmond Sports Council has indicated that their preference is Alternative 4 – the "Hub."

In reply to queries from Committee, Ms. Lusk and Jim Young, Senior Manager, Project Development, provided the following information:

- Alternative 3 can be accommodated within the previously approved Minoru Complex capital project budget;
- the current caretaker suite at Minoru Park carries out a number of functions and as such, staff anticipate the continuation of this role;
- the "Hub" concept is not currently part of the approved Minoru Park Master Plan; however, this concept could be revisited at Council's discretion;
- the sport storage area proposed to be reconfigured was for use by field sport users; there are other storage areas throughout the building for other user groups; and
- storage below the multipurpose room cannot be accommodated due to flood plain regulations and use of the crawl space for mechanical equipment.

### Special General Purposes Committee Monday, May 11, 2015

Jim Lamond, Chair, Richmond Sports Council, commented on the number of meetings the Richmond Sports Council held in relation to the configuration of Minoru Park, noting that a representative from an array of sport organizations were invited to provide input. He then spoke on options previously presented to Council on the location of the multipurpose room, noting that Richmond Sports Council prefers the "Hub" concept as illustrated in Alternative 4.

Bob Jackson, Vice-Chair, Richmond Sports Council, commented on initial discussions regarding the Minoru Complex, noting that Richmond Sports Council was invited to provide input on the fields only. He remarked that Richmond Sports Council has not had the opportunity to meet with the Major Facility Building / Project Technical Advisory Committee or the Minoru Major Facility Stakeholder Advisory Committee, and expressed concern regarding the conveyance of Richmond Sports Council's preferences to Council.

Mike Fletcher, member of Richmond Sports Council and Vice-Chair, Richmond FC, commented on the benefits of a veranda, noting that Richmond Sports Council has requested that a veranda be incorporated in the building's design from the onset. In referencing Alternative 3, he expressed concern regarding the use of a modular building to meet storage needs as a result of the potential conversion of the sport storage area.

In reply to a query from Committee, Mr. Young advised that Alternative 3 may be converted in the future should Council wish to modify the design.

It was moved and seconded

- (1) That the Minoru Complex ground floor plan be revised to reconfigure the sport storage area to be an approximately 800 ft<sup>2</sup> Tournament Centre and that the storage area be relocated elsewhere in Minoru Park as described in Alternative 3 within the staff report titled "Minoru Complex Multipurpose Room Alternatives," dated May 7, 2015 from the Senior Manager, Recreation and Sport and the Senior Manager, Project Development; and
- (2) That the Council Appointed Advisory Committees for the Minoru Complex Project be informed of the proposed changes and any feedback received from these Committees be shared with Council prior to advancing any design changes.

CARRIED Opposed: Cllr. McNulty

#### 2. FRASER SURREY DOCKS - PUBLIC COMMENT PERIOD, **CONSIDERATION TO AMEND PERMIT NO. 2012-072** (File Ref. No. 01-0140-20-PMVA1) (REDMS No. 4574708, 4574968)

Discussion took place and concern was expressed regarding the use of the Annacis Island Wastewater Treatment Plant to process Fraser Surrey Docks' wastewater as many barge materials contain toxins. The Chair directed staff to incorporate comments regarding the use of Annacis Island Wastewater Treatment Plant in the letter to Fraser Surrey Docks.

Discussion further ensued on the potential risks to marshes and river banks as a result of dredging to a depth of 18 metres and the need to identify any potential modifications to the George Massey Tunnel.

The Chair requested that the response letter attached to the memorandum titled "Fraser Surrey Docks - Public Comment Period, Consideration to Amend Permit No. 2012-072," dated May 7, 2015 be revised to include Committee's comments.

#### It was moved and seconded

That the response letter attached to the memorandum titled "Fraser Surrey Docks – Public Comment Period, Consideration to Amend Permit No. 2012-072," dated May 7, 2015 from the Director, Intergovernmental Relations and Protocol Unit be endorsed for submission to Fraser Surrey Docks.

#### CARRIED

### ADJOURNMENT

It was moved and seconded That the meeting adjourn (4:32 p.m.).

#### CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Special General Purposes Committee of the Council of the City of Richmond held on Monday, May 11, 2015.

Mayor Malcolm D. Brodie Chair

Hanieh Berg Committee Clerk



# **General Purposes Committee**

Date: Tuesday, May 19, 2015

Place: Anderson Room Richmond City Hall

Present:

ent: Mayor Malcolm D. Brodie, Chair Councillor Chak Au Councillor Derek Dang Councillor Carol Day (entered at 4:06 p.m.) Councillor Ken Johnston Councillor Alexa Loo Councillor Bill McNulty Councillor Bill McNulty Councillor Linda McPhail Councillor Harold Steves (entered at 4:05 p.m.)

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

# AGENDA ADDITION

It was moved and seconded *That bed bugs be added to the agenda as Item No. 6.* 

### CARRIED

## **MINUTES**

It was moved and seconded That the minutes of the special meeting of the General Purposes Committee held on Monday, May 11, 2015, be adopted as circulated.

CARRIED

Minutes

### DELEGATION

Craig Richmond, President and Chief Executive Officer, Vancouver Airport Authority (VAA), accompanied by Anne Murray, Vice President, Community and Environmental Affairs, VAA, and Howard Jampolsky, City of Richmond representative on the Vancouver International Airport Board, provided an update on the Airport Authority's activities over the past year and spoke of upcoming economic opportunities.

Councillor Steves entered the meeting (4:05 p.m.).

*Councillor Day entered the meeting (4:06 p.m.).* 

In response to Committee comments, Mr. Richmond was of opinion that the conditional environmental approval for the jet fuel pipeline is the best alternative, noting that environmental standards will be maintained. Also, he commented that the VAA is subject to federal regulations regarding provisions for multilingual personnel and signage in both official languages; however, where possible, additional translation is provided for international flights.

### ENGINEERING AND PUBLIC WORKS DIVISION

1. AMENDMENTS TO WATER USE RESTRICTION BYLAW AND CONSOLIDATED FEES BYLAW TO SUPPORT CHAFER BEETLE BIOCONTROL

(File Ref. No. 10-6125-04-01; 12-8060-20-009247/9248) (REDMS No. 4561394 v. 3)

It was moved and seconded

- (1) That Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9247 be introduced and given first, second and third readings; and
- (2) That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248 be introduced and given first, second and third readings.

The question on the motion was not called as in reply to queries from Committee, Lesley Douglas, Manager, Environmental Sustainability, advised that the effectiveness of the insecticide will be dependent on the infested lawn area receiving ample water before and after its application.

The question on the motion was then called and it was **CARRIED**.

### COMMUNITY SERVICES DIVISION

### 2. LONDON/STEVESTON PARK CONCEPT PLAN

(File Ref. No. 06-2345-20-LSTE1) (REDMS No. 4540721 v. 8)

Mike Redpath, Senior Manager, Parks, accompanied by Clarence Sihoe, Park Planner, provided background information on the London/Steveston Park Concept Plan.

In response to queries from Committee, Mr. Redpath provided the following information:

- the geographic distribution of off-leash dog parks throughout the city identified a need for such a park in the London-Steveston area;
- a wider multi-use trail is proposed to allow for two-way circulation;
- the existing park washrooms are anticipated to be open from dawn to dusk, which is an extension of what is permitted at other parks;
- the two smaller ball diamond backstops will be re-located elsewhere within the City's park system;
- the proposed off-leash dog park will be reviewed and an update provided to Committee accordingly;
- design details for the play area have not been determined; however, preliminary designs do not include a water feature; and
- several options are being explored regarding the proposed hard surface trail for the site.

Discussion ensued regarding promoting public awareness for the Park. Committee requested that staff provide an update on (i) the current park space inventory, (ii) minimum standards for park space, (iii) future needs, and (iv) Park hours of operation.

#### It was moved and seconded

That the London/Steveston Park Concept Plan, as outlined in the staff report titled "London/Steveston Park Concept Plan," dated May 1, 2015, from the Senior Manager, Parks, be approved.

CARRIED

### LAW AND COMMUNITY SAFETY DIVISION

#### 3. SISTER CITY ADVISORY COMMITTEE 2014 YEAR IN REVIEW (File Ref. No. 01-0100-30-SCIT1-01) (REDMS No. 4562749)

In reply to a query from Committee, Amarjeet Rattan, Director, Intergovernmental Relations and Protocol Unit, advised that the Sister City Advisory Committee (SCAC) is currently working on a three-year work plan that will be presented at a future Committee meeting.

It was moved and seconded

That the staff report titled "Sister City Advisory Committee 2014 Year in Review," dated May 1, 2015, from the Director, Intergovernmental Relations and Protocol Unit, be received for information.

The question on the motion was not called as in reply to a query from Committee, Mr. Rattan stated that the budget for the current three-year term for SCAC activities is approximately \$220,000, which included allocations for the annual Richmond-Wakayama Student Exchange program, the Youth Honour Park, and the Wakayama-Richmond Anniversary commemoration.

The question on the motion was then called and it was **CARRIED**.

### FINANCE AND CORPORATE SERVICES DIVISION

### 4. UPDATE ON SIGNAGE ON PRIVATE PROPERTIES

(File Ref. No. 03-0900-01) (REDMS No. 4403117 v. 12)

Cecilia Achiam, Director, Administration and Compliance, provided background information and commented that, in an effort to promote community harmony, staff are recommending Option 2 that includes continuing of outreach efforts to improve compliance with Sign Bylaw No. 5560, and updating Sign Bylaw No. 5560.

In response to queries from Committee, Cathryn Volkering Carlile, General Manager, Community Services, advised that plans to address the language issue are based on creating opportunities for Richmond's cultural mosaic to gather together. Also, Doug Long, City Solicitor, commented that an Ontario court upheld minimum language on signage regarding Canada's official languages; however, no case law has been established under the *Charter of Rights and Freedoms* on foreign language signage.

In response to further queries from Committee, Ms. Achiam provided the following information:

 staff have spoken with the 13 business owners whose signage is strictly in a foreign language in an effort to seek voluntary compliance with Sign Bylaw No. 5560;

- it is anticipated that costs associated with a temporary full-time sign/business license inspector will be recovered through application fees;
- approximately 60% of respondents favoured some form of combined outreach education and regulation to address the matter;
- respondents held strong views on the matter;
- the Canadian Sign Association will provide valuable input in any future proposed sign regulations; and
- Sign Bylaw No. 5560 regulates exterior signage; however, staff anticipate that updates to the bylaw would include limiting store front window advertising.

Discussion ensued regarding (i) the merits of continuing outreach and education efforts to business owners, (ii) the need to update Sign Bylaw No. 5560, (iii) the community's will to seek voluntary compliance with regard to sign regulations, and (iv) the feasibility of regulating exterior and interior signage and/or implementing a "Sign Watch" program.

In reply to a query from Committee, Mr. Long commented that forthcoming revisions to Sign Bylaw No. 5560 would be comprehensive, including regulations related to advertisements, posters, and maximum window area coverage.

It was moved and seconded

- (1) That Option 2: "De-cluttering without a language provision" which entails the continuation of outreach effort and updating Sign Bylaw No. 5560 be approved. The Sign Bylaw update will include decluttering without a language provision and addressing non language related regulatory gaps; and
- (2) That staff be directed to review the Sign Permit Application fees and bring an update to the Consolidated Fees Bylaw No. 8636 for consideration by Council along with the new Sign Bylaw.

CARRIED

## CHIEF ADMINISTRATOR'S OFFICE

#### 5. COUNCIL TERM GOALS 2014-2018

(File Ref. No. 01-0105-07-01) (REDMS No. 4537297 v. 12)

Discussion ensued regarding (i) creating a separate theme for the "community social services component" included as part of Theme 2, (ii) expanding the definition of a well-informed citizenry under Theme 9, (iii) adding to subsection 8.2 to include City policies and regulations related to the maintenance of the city's industrial land base, and (iv) ensuring that each Term Goal Theme is of equal priority.

#### It was moved and seconded

That Council consider the information contained in this report from the Corporate Programs Consultant, dated May 5, 2015, and either adopt the 9 themes and priorities presented herein as their Council Term Goals for the 2014-2018 term of office, or identify and adopt any modifications, deletions or additions to this information for their Council Term Goals for the 2014-2018 term of office.

The question on the motion was not called as the following **amendments** were introduced:

#### It was moved and seconded

That the community social services component, including subsection 2.2 and other references to social service networks, be separated to create "Theme 10" to the Council Term Goals 2014-2018.

Discussion ensued on the merits of the community social services component being a stand-alone theme.

The question on the amendment motion was then called and it was **DEFEATED** with Mayor Brodie and Cllrs. Dang, Johnston, Loo, and Steves opposed.

It was moved and seconded

That the second bullet of subsection 8.2 be amended to include the following at the end, "and to protect the industrial land base."

DEFEATED Opposed: Mayor Brodie Cllrs. Au Dang Johnston Loo McNulty McPhail Steves

The question on the main motion was then called and it was CARRIED.

#### 6. **BED BUGS**

(File Ref. No.)

Councillor McPhail circulated background information regarding the potential of a bed bug infestation at public facilities and/or public places (copy on file, City Clerk's Office) and the following **referral** was introduced:

It was moved and seconded

That the matter of bed bugs be referred to staff to discuss with Vancouver Coastal Health the potential of a bed bug infestation at public facilities and/or public places, the protocols, and report back.

The question on the referral was not called as discussion ensued regarding staff liaising with other facilities and organizations for best practices.

The question on the referral was then called and it was CARRIED.

### ADJOURNMENT

It was moved and seconded *That the meeting adjourn (5:39 p.m.).* 

#### CARRIED

Certified a true and correct copy of the Minutes of the meeting of the General Purposes Committee of the Council of the City of Richmond held on Tuesday, May 19, 2015.

Mayor Malcolm D. Brodie Chair Heather Howey Committee Clerk



# **Planning Committee**

Date: Tuesday, May 20, 2015

Place: Anderson Room Richmond City Hall

- Present: Councillor Linda McPhail, Chair Councillor Bill McNulty Councillor Chak Au Councillor Carol Day Councillor Harold Steves (entered at 4:25 p.m.) Mayor Malcolm Brodie
- 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 Planning Committee held on Tuesday, May 5, 2015, be adopted as circulated.

#### CARRIED

The Chair advised that Medicinal Marihuana Dispensaries will be considered as Item No. 5A.

## NEXT COMMITTEE MEETING DATE

Tuesday, June 2, 2015, (tentative date) at 4:00 p.m. in the Anderson Room

Minutes

### DELEGATION

Lynda Terborg, representing the Westwind Ratepayers Association for Positive Development, spoke of the referral made at the April 20, 2015 Public Hearing regarding building massing and construction of high ceilings and read from her submission (attached to and forming part of these minutes as Schedule 1).

Jonathan ter Borg, representing the Westwind Ratepayers Association for Positive Development, spoke of the City's website, expressing concern that information on the Advisory Design Panel's membership was not readily available.

In reply to queries from Committee, Joe Erceg, General Manager, Planning and Development, noted that staff anticipate bringing forward a report on the referral regarding building massing and construction of high ceilings at the June 16, 2015 Planning Committee meeting. Also, he noted that staff are examining options to expedite the proposed building massing recommendations to a Public Hearing.

Discussion ensued with regard to public consultation on the matter and Mr. Erceg noted that consultation with the Advisory Design Panel, residents and builders will take place.

In reply to queries from Committee regarding building height, Mr. Erceg noted that the City's policy on building massing has been reviewed and updated several times since 2008.

### PLANNING AND DEVELOPMENT DIVISION

APPLICATION BY STEVESTON NO. 6 LP FOR REZONING AT 1. 13751 AND 13851 STEVESTON HIGHWAY, 10651 NO. 6 ROAD, A PORTION OF 13760 STEVESTON HIGHWAY AND A PORTION OF THE ROAD ALLOWANCE ADJACENT TO AND NORTH OF 13760 **STEVESTON HIGHWAY** FROM **ENTERTAINMENT** AND ATHLETICS (CEA), LIGHT INDUSTRIAL (IL) AND AGRICULTURE ZONING ТО LIGHT INDUSTRIAL (AG1) AND LIMITED ACCESSORY RETAIL RIVERPORT (ZI12) (File Ref. No. 12-8060-20-009210/9211; RZ 13-630280) (REDMS No. 4575191)

Wayne Craig, Director, Development, briefed Committee on the proposed application and noted that (i) Port Metro Vancouver (PMV) supports the creation of industrial lands but has expressed concern with regard to the retail accessory component of the proposed application, (ii) traffic from the proposed development is anticipated to be lower compared to the current zoning, (iii) the applicant has noted that incorporating solar photovoltaic (PV) installations to provide power to the entire development is not feasible; however, there are opportunities for PV pre-ducting and PV installations for lighting parking and landscaped areas, and (iv) the notification area for the proposed application will be expanded.

In reply to queries from Committee, Mr. Craig noted that the proposed zoning would allow for warehouses and limited accessory retail development.

Paul Woodward, Ledcor Properties Inc., spoke to the proposed application, noting that (i) approximately 14 acres is subject to rezoning, (ii) that approximately 2.5 acres will be made up of an Agricultural Land Reserve (ALR) buffer and green space, (iii) traffic generation is anticipated to be less compared to current zoning, (iv) market conditions will be a factor in the site's development, and (v) there will be opportunities to incorporate PV installations on-site.

Discussion ensued with respect to concerns from PMV regarding the limited inventory of market-ready industrial land in Metro Vancouver and the limited interest expressed by PMV to develop the site.

In reply to queries from Committee, Mr. Woodward stated that discussions with PMV regarding site development will continue.

Discussion then ensued with regard to the potential truck traffic in the area and in reply to queries from Committee, Mr. Woodward noted that the proposed application will provide passenger car parking for customers and employees, and there will also be allowance for large vehicles including tractor trailers.

Discussion then ensued with regard to the potential for local businesses utilizing the proposed site.

It was moved and seconded

- (1) That Official Community Plan Amendment Bylaw 9210, to redesignate 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Commercial" and "Industrial" to "Mixed Employment" in Attachment 1 to Schedule 1 of Official Community Plan Bylaw 9000, be introduced and given first reading;
- (2) That Bylaw 9210, having been considered in conjunction with:
  - (a) the City's Financial Plan and Capital Program; and

(b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act;

- (3) That Bylaw 9210, having been considered in accordance with Official Community Plan Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation;
- (4) That Richmond Zoning Bylaw 8500, Amendment Bylaw 9211 to create the "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zone, and to rezone 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Entertainment & Athletics (CEA)", "Light Industrial (IL)" and "Agriculture (AG1)" to "Light Industrial and Limited Accessory Retail – Riverport (ZI12)", be introduced and given first reading; and
- (5) That the public hearing notification be expanded to include all properties in the area shown on the map contained in Attachment J to the staff report dated May 11, 2015 from the Director of Development.

The question on the motion was not called as discussion ensued regarding interest from PMV to develop the site, and potential traffic in the area.

Councillor Steves entered the meeting (4:25p.m.).

The question on the motion was then called and it was **CARRIED**.

2. APPLICATION BY PARC RIVIERA PROJECT INC. FOR A ZONING TEXT AMENDMENT TO THE "RESIDENTIAL MIXED USE COMMERCIAL (ZMU17) - RIVER DRIVE/NO. 4 ROAD (BRIDGEPORT)" ZONE FOR THE PROPERTY AT 10311 RIVER DRIVE

(File Ref. No. 12-8060-20-009237; ZT 15-691748) (REDMS No. 4539005 v, 3)

Mr. Craig briefed Committee on the proposed application and advised that the proposed text amendment would distribute density equally throughout the site, and the delivery of amenities would be implemented in phases.

In reply to queries from Committee, Sara Badyal, Planner 2, noted that each future subdivided lot on-site will be permitted to achieve an increased density of 1.38 Floor Area Ratio (FAR) as a result of the Affordable Housing contribution already received by the City.

In reply to queries from Committee, Mr. Craig advised that the proposed child care facility on site will be in addition to the approximately \$9 million in cash contributions, and the 'no development' covenant on Title requires that amenities be provided prior to development of the property, and also secures infrastructure improvements.

Dana Westermark, representing Parc Riviera Project Inc., commented on the proposed application, noting that proposed community amenities include a three acre central park. He added that infrastructure improvements include waterfront dike and trail improvements and works along River Road.

In reply to queries from Committee, Mr. Westermark noted that the proposed central park will be open to the public.

#### It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9237, for a Zoning Text Amendment to the "Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)" zone to amend the maximum permitted density on the property at 10311 River Drive, be introduced and given first reading.

#### CARRIED

3. APPLICATION BY RYAN COWELL ON BEHALF OF 0737974 B.C. LTD. FOR A ZONING TEXT AMENDMENT TO INCREASE THE PERMITTED FLOOR AREA RATIO TO 0.78 FOR THE PROPERTY LOCATED AT 5600 PARKWOOD CRESCENT (File Ref. No. 12-8060-20-009245; ZT 15-694669) (REDMS No. 4557676 v. 2)

Mr. Craig stated that the proposed application is part of the expansion of the Richmond Auto Mall and will allow the increase of allowable FAR to 0.78 FAR.

In reply to queries from Committee, Mr. Craig noted that (i) the base density within the Vehicle Sales (CV) zone is 0.5 FAR, (ii) no amenity contributions are anticipated to be provided as part of the proposed application, and (iii) the increased density will be achieved through the construction of multiple floors in the proposed building.

Discussion ensued with regard to the building height and Mr. Craig noted that design details for other buildings in the Auto Mall were currently unavailable, however this information could be provided.

#### It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9245, for a Zoning Text Amendment to the "Vehicle Sales (CV)" zone, to increase the overall allowable Floor Area Ratio (FAR) to a maximum of 0.78 for the property, be introduced and given first reading.

#### CARRIED

#### 4. AGRICULTURAL LAND RESERVE APPEAL APPLICATION BY ARUL MIGU THURKADEVI HINDU SOCIETY OF BC FOR NON-FARM USE AT 8100 NO. 5 ROAD (File Ref. No. AG14-657892) (REDMS No. 4521405 v. 2)

Mr. Craig commented on the proposed application, noting that it complies with the City's No. 5 Road Backlands Policy and the 2041 Official Community. Also, he remarked that should the application be approved by Council, the application would be forwarded to the Agricultural Land Commission.

Discussion ensued with regard to ensuring that active agricultural activity along the No. 5 Road backlands takes place and the potential for the City to acquire said sites.

In reply to queries from Committee, Mr. Craig advised that (i) the No. 5 Road Backlands Policy does not require dedication of land at the rear of the site to the City, (ii) farming activity is secured through a legal agreement with a farm plan and security as part of the rezoning process, and (iii) the proposed application will have a farm access road at the rear of the site.

In reply to queries from Committee, Mr. Erceg noted that although the No. 5 Road Backlands Policy does not require dedication of the backlands to the City, the Parks Department is examining options for the transfer of such lands to the City.

Discussion ensued with regard to examining acquiring right-of-ways along the backlands to facilitate farm road access from Blundell Road to Steveston Highway.

In reply to queries from Committee, Mr. Craig noted that should the proposed application proceed, staff will discuss the potential of a right-of-way to facilitate a farm access road along the extension of the property with the applicant.

Discussion ensued with regard to the size of the proposed development relative to the depth of the lot. Mr. Craig noted that the No. 5 Road Backlands Policy does not distinguish the depth of property and only considers the 110 metre frontage.

In reply to queries from Committee, Mr. Craig noted that the City has not approached any property owners along Blundell Road with regards to acquiring land to facilitate a farm access road along the backlands.

#### It was moved and seconded

That the application by Arul Migu Thurkadevi Hindu Society of BC for a non-farm use at 8100 No. 5 Road to develop a Hindu temple and off-street parking on the westerly 110m of the site be endorsed and forwarded to the Agricultural Land Commission.

The question on the motion was not called as discussion ensued with regard to options for the acquisition of the No. 5 Road backlands and agricultural activity in the backlands.

As a result of the discussion, the following **referral** was introduced:

It was moved and seconded

That the staff report titled Agricultural Land Reserve Appeal Application by Arul Migu Thurkadevi Hindu Society of BC for Non-Farm Use at 8100 No. 5 Road, dated April 29, 2015, from the Director, Development, be referred back to staff.

The question on the referral was not called as discussion ensued with regard to (i) tax exemptions related to farm activity, (ii) the potential to examine farming plans and criteria for agricultural activity, (iii) a farm access road from Blundell Road to Steveston Highway, and (iv) City access and control of the backlands.

The question on the referral was then called and it was CARRIED.

Discussion then took place with regard to the overall vision for the backlands along No. 5 Road.

As a result of the discussion, the following **referral** was introduced:

It was moved and seconded *That staff examine:* 

- (1) the overall vision for the No. 5 Road backlands;
- (2) options for a farm access road along the backlands from Blundell Road to Steveston Highway;
- (3) options to assemble properties along No. 5 Road to create an agricultural "green" zone; and
- (4) the properties that comply with the requirements of the No. 5 Road Backlands Policy No. 5037;

and report back.

#### CARRIED

#### 5. REFERRAL: WEST CAMBIE ALEXANDRA NEIGHBOURHOOD BUSINESS OFFICE AREA REVIEW (File Ref. No. 12-8060-20-009121; 08-4375-01) (REDMS No. 4565876 v. 11)

Terry Crowe, Manager, Policy Planning, briefed Committee on the West Cambie Alexandra Neighbourhood Business Office Area Review, noting that following consultation with stakeholders, staff are recommending a mix of 30% residential use and 70% employment use for the area. He added that 15% of the residential component would be allocated for built rental housing.

Victor Wei, Director, Transportation, briefed Committee on sidewalk gaps in the area, noting that costs to fill in these gaps along Odlin Road and Alexandra Road would cost approximately \$170,000 to \$200,000 for asphalt and \$1.5 million to \$2 million for concrete. Also, he commented on estimated sidewalk costs along Garden City Road, noting that it would cost approximately \$350,000 for asphalt and \$2 million for concrete.

Mr. Wei noted that staff are not recommending the installation of interim sidewalks because of anticipated future development in the area that may provide frontage improvements. Also, he remarked that future development in the area could damage interim sidewalks.

In reply to queries from Committee, Mr. Crowe noted that the residential floor space is comprised of a minimum of 5% built affordable housing, 7.5% built modest rental controlled units and 2.5% market rental housing. He added that in the Westmark development, the rental units would be completed prior to the development's completion. Also, he noted that rental units would include quality finishings and remain rental units in perpetuity.

Discussion ensued with regard to the proximity of the West Cambie Alexandra employment lands to the Canada Line and the amount of rental housing available in the city. In reply to queries from Committee, Mr. Erceg noted that incentives such as density bonuses are available to developers who build rental housing.

In reply to queries from Committee, Mr. Wei noted that the City makes a consistent effort to request frontage improvements from developers.

Discussion then ensued with respect to further possible adjustments in the percentage mix of employment and residential lands in the West Cambie Alexandra area in the future.

In reply to queries from Committee, Mr. Crowe noted that (i) should the proposed recommendations proceed, the proposed recommendations would be put in place as policy, (ii) there could be opportunities for adjustments to land use if rezoning applications are brought forward, and (iii) the Economic Advisory Committee was consulted earlier in the review process.

Discussion took place with regard to the historical zoning in the area and it was noted that the subject site was originally zoned industrial.

Discussion then ensued regarding the quality of employment within West Cambie Alexandra area and opportunities for the proposed land use mix to attract affordable housing and rental housing development.

Staff were then directed to update the West Cambie Area Plan Land Use map with regard to the area's Fire Hall on Cambie Road.

It was moved and seconded

- (1) That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use Employment-Residential designation, be introduced and given first reading;
- (2) That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:
  - (a) the City's Financial Plan and Capital Program; and
  - (b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act;

- (3) That, in accordance with section 879 (2)(b) of the Local Government Act and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:
  - (a) Vancouver International Airport Authority (VIAA) (Federal Government Agency); and
  - (b) The Board of Education of School District No. 38 (Richmond);
- (4) That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing;
- (5) That upon adoption of the above bylaws the West Cambie Alexandra Neighbourhood Mixed Use Employment – Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy be approved;
- (6) That staff not proceed with the implementation of an interim sidewalk/walkway along Odlin Road and Alexandra Road, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years;
- (7) That staff consider the inclusion of interim sidewalk/walkway along Garden City Road as part of the City's 2016 capital program, if there are no immediate/imminent development applications for these fronting properties in the foreseeable future; and
- (8) That lands along No 3 Road not be redesignated from residential use to employment use.

The question on the motion was not called as discussion took place on (i) finalizing the land use mix, (ii) the city centre's changing demographics, (iii) the demand for affordable housing, (iv) the land use mix in the immediate area outside the subject area, (v) the current rental housing supply in the city, and (vi) ensuring the land use mix does not fall below the proposed levels.

The question on the motion was then called and it was CARRIED.

### 5A. **MEDICINAL**

### MARIJUANA

#### **DISPENSERIES**

(File Ref. No.)

Discussion ensued with regard to policies brought forward by Lower Mainland municipalities regarding the licensing of medicinal marihuana dispensaries.

As a result of the discussion, the following **referral** was introduced:

#### It was moved and seconded

That staff examine the pros and cons of licensing medicinal marihuana dispensaries in the city and report back.

#### CARRIED

#### 6. MANAGER'S REPORT

#### (i) Lingyen Mountain Temple

Mr. Craig advised that developers of the Lingyen Mountain Temple will be hosting a public consultation on their proposed expansion plans in June 2015, and noted that staff will be attending the event.

#### (ii) Solar Energy Policy

Reference was made to an article titled "Vancouver ranks lowest for solar energy policies," dated May 20, 2015 from the *Vancouver Sun* (attached to and forming part of these minutes as Schedule 2) and discussion took place on the potential to utilize solar power in the city.

As a result of the discussion, the following **referral** was introduced:

#### It was moved and seconded

# That staff examine using solar energy as a source of power in the city and report back.

The question on the referral was not called as discussion ensued regarding (i) global solar energy innovations, (ii) the costs of installing solar power units in new homes, and (iii) incentives to reduce installation costs of solar power units.

The question on the referral was then called and it was CARRIED.

## **ADJOURNMENT**

It was moved and seconded *That the meeting adjourn (5:42 p.m.).* 

### CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Planning Committee of the Council of the City of Richmond held on Wednesday, May 20, 2015.

Councillor Linda McPhail Chair Evangel Biason Auxiliary Committee Clerk

Schedule 1 to the Minutes of the Planning Committee meeting of Richmond City Council held on Wednesday, May 20, 2015.

# **City of Richmond**

# PLANNING COMMITTEE MEETING SUBMISSION PACKAGE

# May 20, 2015

# Presented by WRAPd

(Westwind Ratepayer Association for Positive development)

### TABLE of CONTENT

- 1) Delegation report to planning committee May 20, 2015
- 2) History and summary of massing concerns
- 3) 6140 Tranquille Place correspondence and pictures
- 4) Zoning Bylaw Massing Controls
- 5) Strengthen Permit Drawing requirements
- 6) Utilized Certified Professional representatives on the Advisory Design Panel
- 7) Building Heights in Metro Vancouver table

### Planning Committee Meeting – Building Height and Massing May 20<sup>th</sup>, 2015

To be clear we are talking about Zoning, not Land-Use Contracts.

We are talking about the process being undertaken to control massing and height of new houses. This is not an exercise to support increased massing but to control it and most definitely to reduce it.

Ten years ago citizens submitted petitions to complain about increasing mass and height of houses. Bill and Harold may remember 6140 Tranquille Place as they were on Council at that time. What did the citizens get, but a Bylaw change in 2008 that actually increased the overall height of houses by 5 feet. The exact opposite of what was needed and asked for. Giving a new overall building height of 34.5 feet.

Another seven years of concerns and complaints from 2008 continued with no substantive review of those changes to height calculations. The results are now houses that overshadow everything built before. The review is now past due to assess the impact of that building height change. It is time to return the heights back to where they were, the 29.5 foot standard measured to the peak of the roof, not the mid-point of the roof.

The Westwind Group's presentation at the public hearing was focused in large part on the lack of double counting floor space for excessively high rooms. But this is only a sample of the Bylaw breeches we see and hear about in Richmond. Infill of void spaces after occupancy is a temptation that should not exist.

Reduce the height as Delta has done in 2011, and tighten the Bylaws as Surrey has done. Rigorously enforce our Bylaws and stand behind the plan checkers and inspectors because it is obvious they cannot sustain the pressures being put on them to look the other way.

Double height is not about ceilings. That word ceiling does not appear in the Bylaw clauses or the definitions. Double counting is an architectural tool used to control building form, meaning massing. It is used effectively in Vancouver, Burnaby and Surrey and is 12.1 feet in those cities. Richmond allows a very generous 16.4 feet that is being abused to a full two story height of 20 and 22 feet.

It has now been 10 years and a 4<sup>th</sup> attempt to get massing under control. We cannot accept any more excuses about Bylaw intents that are misinterpreted.

We need to hire an experienced code consultant to review the wording of the Bylaws so there is no misinterpretation as to the intent. The double height standard was effectively applied for 10 years from 1994 to 2004. In the last 5 to 10 years we have seen an escalation in massing to the front, sides, and now the back of houses

The usual massing controls; overall building height, the double height standard, and the vertical envelopes all need a serious review combined with proper enforcement.

We appreciate that these matters have been referred back to staff, yet again, and that in due course we expect to see the opportunity for community engagement. We expect to see broader input from citizens, homeowners, architects, and building designers.

The process for tightening the controls on new house massing and height must be transparent, accountable, and public in its exposure. It is not a negotiation to ratify rules that have been broken.

James Cooper emailed me last night at 8:30pm, so I know he is working late on these problems. He is proposing a beta test for a small sample group next week, but when does the public get an opportunity to see and vet the proposed changes recommended by staff?

What is the plan for the public process?

What is the timeline for broader community interaction and education?

And what shall we tell our subscribers who are looking to be involved and informed?

A rushed solution could be worse than the original problem.

# Richmond Citizens Massing & Height Concerns Staff & City Responses - History to Present

DATE	CITIZENS CONCERNS	ACTION	RESULTS
1992 to 1995	<ul> <li>Bulk &amp; height of large boxy 2 storey houses</li> <li>Over 500 people attended special council meeting at Gateway Theater</li> </ul>	<ul> <li>8 separate Amendment Bylaws to address massing &amp; height concerns</li> <li>With input from 11 member citizen task force</li> </ul>	<ul> <li>FAR reduced (55% on 1st 5,000 ft<sup>2</sup> + 30% over)</li> <li>Height set at 29.5 ft. (9 m) to top of roof pitch</li> <li>'double height' double count standard set at 16.4 ft (5 m) ***</li> </ul>
1995 to 2002		Bylaws enforced	Reduced massing & height concerns
2004 to 2006	Massing & size creeping up again		
2006 to 2008	CITIZENS PETITION • To reduce: BUILDING HEIGHT & MASSING • Of 2 <sup>1/2</sup> storey houses • 3rd storey balconies (6140 Tranquille Place)	<ul> <li>Refer to staff</li> <li>Fine tune 2<sup>1/2</sup> storey definition</li> <li>Change definition of building height</li> <li>Staff to monitor proposed changes to see if further action required</li> </ul>	<ul> <li>INCREASE OVERALL BUILDING HEIGHT</li> <li>to 34.5 ft (10.5 m) from 29.5 ft (9 m)</li> <li>Measurement now from midpoint of roof (eaves + roof ridge) `+` additional 5 ft (1.5 m) to roof peak</li> <li>NO action on massing</li> <li>NO restrictions to 3rd storey balconies</li> <li>NO staff review done to assess impact of building height change</li> <li>NO report back to council with recommendations</li> </ul>
2010	CONTINUING COMPLAINTS <ul> <li>"buildings greatly impacting adjacent properties"</li> </ul>	<ul> <li>Refer to staff</li> <li>Information Bulletin issued: 2010-09-14</li> <li>NO changes recommended</li> </ul>	<ul> <li>Only quoted standard definitions</li> <li>NO mention of `double height` controls for massing</li> <li>NO changes made to building height</li> </ul>
2015 February	BUILDING HEIGHT & MASSING • Of new 2 and 2 <sup>1/2</sup> storey houses • 3rd storey balconies • IDENTICAL to 2006 concerns • Plus houses are more massive	<ul> <li>Refer to staff</li> <li>April 20, 2015 public hearing</li> <li>Passed Bylaw Amendment</li> </ul>	<ul> <li>Only addresses 10% of problems (flat roof design, 3rd floor balconies)</li> <li>NO relief for 90% of problems (massing &amp; height of 2 storey peaked roof houses)</li> </ul>
2015 April	<ul> <li>In April 20, 2015 public hearing, citizens produced report, City's 'double height' standard is NOT consistently applied</li> <li>Majority of new houses being built in Richmond today breech Zoning Bylaw section 4.3.1 (c) (front, side &amp; back of houses)</li> <li>Massing &amp; height excesses creating huge concerns</li> </ul>		

\* Refer to Addendum for source documentation.

★★ Vancouver, Burnaby, and Surrey have set their 'double height' double count standard at 12.1 ft (3.7 m).

#### Addendum

DATE	Document		
1992 to 1995			
	Zoning Bylaw 5300		
1.	Amendment Bylaw 5728	1) Residential vertical envelope, 2) 2 <sup>1/2</sup> storey definition, 3) Maximum	
		Floor Area Ratio (FAR), 4) Maximum lot coverage (December 14, 1992)	
2.	Amendment Bylaw 6095	Set Minimum and Maximum setbacks (February 14, 1994)	
3.	Amendment Bylaw 6112	'Double height' double count standard (November 8, 1993)	
4.	Amendment Bylaw 6113	Increase live landscaping requirement (November 8, 1993)	
5.	Amendment Bylaw 6115	Set graduated side yard setbacks (November 8, 1993)	
6.	Amendment Bylaw 6116	Redefined residential vertical envelope (November 8, 1993)	
7.	Amendment Bylaw 6229	Exempted entrance foyers from 'double height' standard (March 14, 1994)	
8.	Amendment Bylaw 6447	Exempted one accessory building from FAR (June 13, 1995)	
2006 to 2008			
19 pgs	Report to Planning Committee, Re: Building Height and Half-Storey Building Area (June 30, 2008)		
Link:	http://www.richmond.ca/ shared/assets/Bylaw 8319 PH 09030821057.pdf		
2010			
4 pgs	Bulletin - Permits Section, Re: Zoning Bylaw 8500 Definitions (September 14, 2010)		
Link:	http://www.richmond.ca/ shared/assets/permits 4629416.pdf		
2015, February			
23 pgs	Report to Planning Committee, Re: Proposed Revision to Single-Family and Two-Unit Dwellings		
	Building Height and Half-Storey Building Area Regulations (March 5, 2015)		
Link:	http://www.richmond.ca/ share	d/assets/ 6 Application Revisions BuildingHeight Area Planning 03171540947.pdf	

#### **References:**

### Local Municipal Bylaw – 'Double Height' Double Count Sections

Richmond, 16.4 feet

4. General Development Regulations

4.3.1 (c) Calculation of Density in Single Detached Housing and Two-Unit Housing Zones <a href="http://www.richmond.ca/\_shared/assets/DevRegs24223.pdf">http://www.richmond.ca/\_shared/assets/DevRegs24223.pdf</a>

Vancouver, 12.1 feet RS-1 District Schedule 4.7.2 Floor Space Ratio \_http://former.vancouver.ca/commsvcs/BYLAWS/zoning/RS-1.PDF\_

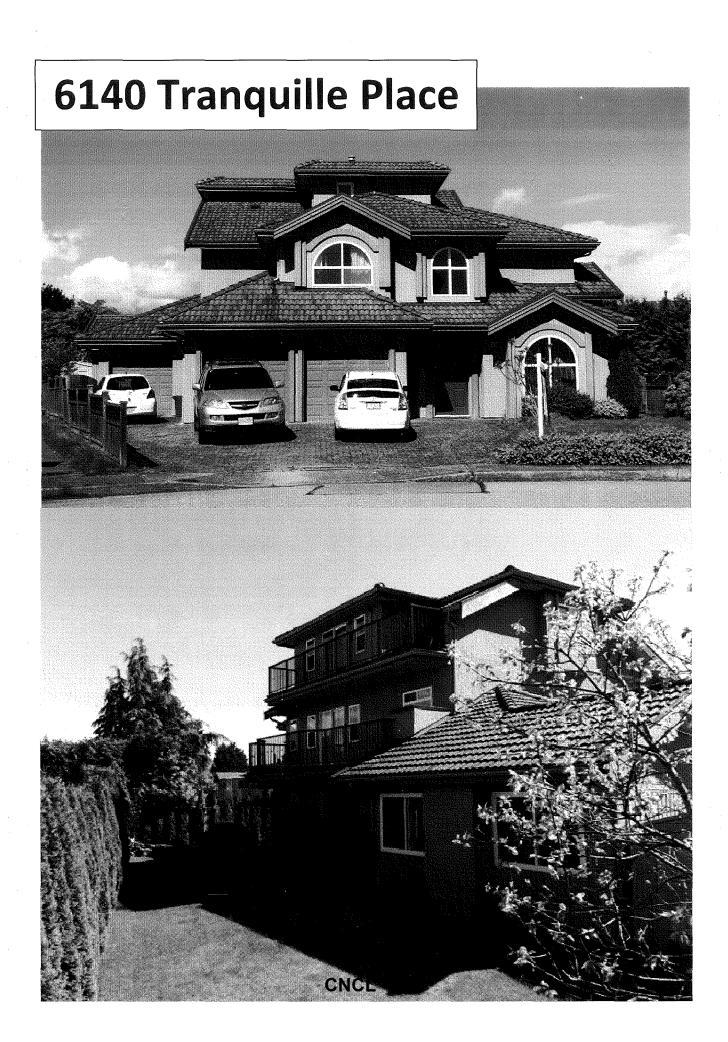
Burnaby, 12.1 feet SECTION 6 SUPPLEMENTARY REGULATIONS 6.20 (4) Computation of Gross Floor Area and Floor Area Ratio <u>https://burnaby.civicweb.net/Documents/DocumentList.aspx?Id=9769&Search=1&Result=1</u>

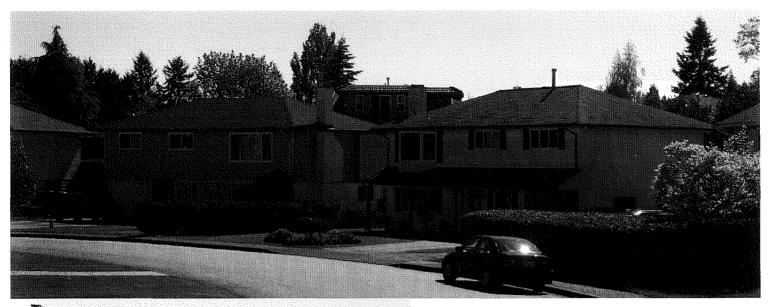
Surrey, 12.1 feet Surrey Zoning By-law 12000 Part 15A - D. Density, 4(b), ii, d. http://www.surrey.ca/bylawsandcouncillibrary/BYL\_Zoning\_12000.pdf

### Town Hall Presentation (April 29<sup>th</sup>, 2015) "10 Years of Deflected Concerns"

http://wrapd.org/PDF/townhallmeetinglynpresentationcomplete.pdf

### **CNCL - 66**







Schedule 1 to the minutes of the Planning Committee Meeting held on Tuesday, January 17<sup>th</sup>, 2006

January 11, 2006

To: Planning Committee Members: Richmond City Council Via email: mayorandcoucillors@richmond.ca

Distribute to Councilors:

Mr. Harold Steves Mr. Bill McNulty Ms. Linda Barnes Mr. Rob Howard Ms. Sue Halsey-Brandt

RE: R1 Zoning Loophole pertaining to 6140 Tranquille Place, Richmond, BC

We, the signatories, are neighbours of the aforementioned property. As the councilors charged with steering our planning rules and processes we draw your attention to a situation which will have a direct and negative consequence on our living standards and will set a troubling precedent for all Richmond neighbourhoods. We have pursued all available avenues within the city bureaucracy, but there is little willingness to stand-up to inappropriate development once a permit has been issued.

We appeal to you for assistance in rectifying a development situation that will have regrettable consequences for all R1/E zoning. In our view, when developers build only to the letter of the law rather than the spirit or intent, it is of equal violation.

Below is a summary of the situation complete with photos of the building. Upon review, we are anxious to hear from one of you with a plan of action to stop this misguided development from becoming a regrettable precedent for all R1 zoning.

#### Background:

- Neigbourhood in question is Brighouse Estates/Brighouse Gardens bordered by #2 Road, Westminster Hwy, Granville Avenue and Gilbert Road.
- Neigbourhood is approximately 40 years old and is under-going some redevelopment.
- There is not a neighbourhood plan developed for this area.
- Zoned for R1 development.
- In the News current hot topic for the neighbourhood is the new ownership of the Richmond Gardens apartments and the termination of rental agreements in order to renovate and charge higher rental rates.

#### Issue: Ocean View home in the middle of Richmond!

- Building currently under construction has 3 living storeys R1 zoning stipulates 2-1/2 storeys.
- Height of the 3<sup>rd</sup> storey is well-above roofline of existing neighbourhood.
- 3<sup>rd</sup> Storey overlooks the backyards of many homes (including homes with hedges) thereby infringing upon the privacy of the neighbourhood.
- This home is being built to the letter of the zoning but not the spirit; zoning stipulates 2-1/2 storeys to prevent 3<sup>rd</sup> floor living space yet, this is being built with a false wall to meet 'code' but with the full intent on having a liveable 3<sup>rd</sup> floor.
- The building is designed by an ex-Planner at the City of Richmond who
   a) knows the weakness of the code and is exploiting it, and
  - b) likely has appealed to past relationships to garner approval of this obtrusive design while avoiding the public-input aspect of the variance process.
- 3<sup>rd</sup> Floor deck space is not covered by the existing R1 bylaw. In addition to the visual privacy violation it adds the likelihood of noise violation that will undoubtedly occur when some uses a deck that is well above the rest of the neighbourhood.

While homes of a similar design have been built in Richmond, either on main arteries or on dyke-facing properties, it is not an appropriate design within the confines of an existing neighbourhood. It is frustrating that our city has not adopted a bi-law similar to the City of Vancouver which respects and protects the look of a neighbourhood by ensuring designs are appropriate.

#### City of Richmond – Division 100 Scope and Definitions

STOREY, HALF

"Half-Storey" means a habitable space situated wholly under a roof the wall plates of which on at least two opposite exterior walls are not more than 0.6 m (1.968 ft.) above the floor of such storey, and which does not have a floor area which exceeds 50% of the floor area of the storey situated immediately below it.

After numerous discussions with members of the planning and permits departments, the following information was gleaned:

#### Due Process? Re-do Process!

- According to one of the city's 'Plan Checkers', this application is in fact a variance from the R1 zoning bylaws.
- According to the Planning Department, variances are to be posted and notice provided to neighbours impacted by the proposed variance.
- A variance was sought by the developer and approved without soliciting public input.
- None of the signators listed below were notified of the proposed variance; the City sought no input.

We appreciate that the city is legally exposed once an approval is given to a developer and that it is difficult to "un-approve" a house that is already framed. We do however respectfully request that you, members of the Planning Committee, seek an immediate cease-work order until such time that the correct process can be employed so that reasoned and considered thought can be given to rectifying this inappropriate design and the precedent it will set.

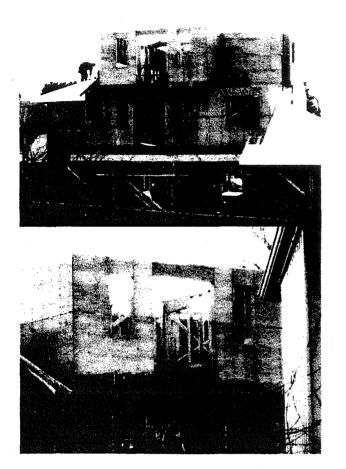
We look forward to hearing from you, soon.

Respectfully,

The affected neighbours of 6140 Tranquille Place

Contact: Vaughan (604.219,7400) or Wong (604.277.6718)

**CNCL - 71** 



The  $3^{rd}$  floor is being built complete with windows and a deck.

Note  $2^{nd}$  floor and  $3^{rd}$  floor have the same size windows and size door openings.

R1 stipulates "2-1/2" storeys – doesn't that appear to be a complete living space on the 3<sup>rd</sup> level? Schedule 2 to the minutes of the Planning Committee Meeting held on Tuesday, January 17<sup>th</sup>, 2006



# City of Richmond

Urban Development Division

# Memorandum

То:	Mayor & Councillors	Date:	January 17, 2006
From:	John Irving, P.Eng. Manager, Building Approvals	File:	

Re: 6140 Tranquille Place – Single Family Building Height

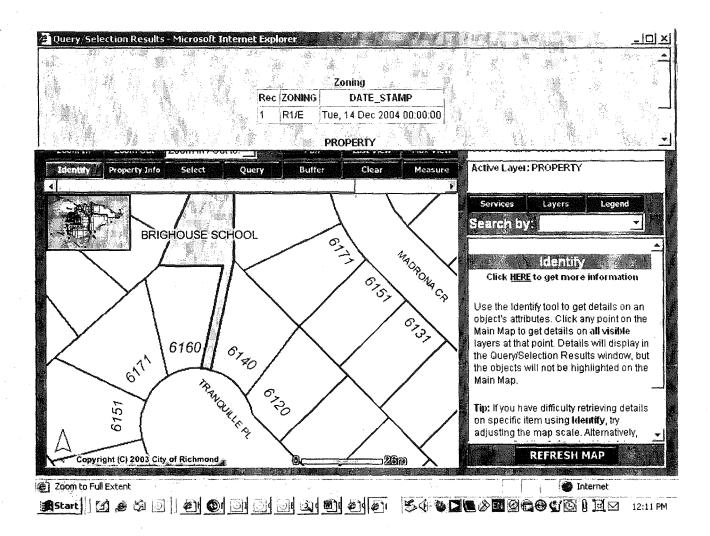
A building permit has been issued for a single family dwelling at the above address and construction is currently under way. The dwelling has a half storey above the second storey that complies with the letter of the zoning bylaw. The application and interpretation of the zoning bylaw in this case is consistent with the City's past practice.

If a building form is desired that differs from that which is typified in this case, it is recommended that the zoning bylaw be changed to reflect the desired form.

John Irving, P.Eng. Manager, Building Approvals

:ji





#### 4) Zoning Bylaw Massing Controls: Modifications required for single family houses

- a) Reduce overall building height.
- b) Modify "double height" clause 4.3.1(c) to 12.1 feet. In-line with our neighbouring municipalities.
- c) Introduce residential vertical envelope (lot width). % of lot width in combination with nominal values.
- d) Introduce deeper rear yard set-back requirements. % of lot depth in combination with nominal values.
- e) Introduce maximum "building depth" measure. Currently missing from Richmond's Bylaw and would help control building depth of new houses.
- These changes will not impact the livable floor area of the house.
- These changes will provide relief to neighbouring properties, and respect the character of existing neighbourhoods.

#### 5) Strengthen Permit Drawing requirements

- a) Require all the cross-section drawings necessary to enforce the By-Laws on site.
- b) Provide sufficient details at all profile, plane, and elevation sections.
- c) Ensure staff performing onsite inspections are enforcing the By-Law in the same way as planning staff are expecting
- Printing additional drawings is simple. Only a matter of a single key-stroke for today's computer-aided building design specialists.
- Building permit checklist (Vancouver example)
- Burnaby example

#### 6) Utilize Certified Professional representatives on the Advisory Design Panel

- a) An independent body regulated by professional practice, competence, and conduct standards in the public interest.
- b) Provides impartial, professional advice directly on any proposal or policy affecting the community's physical environment.
- c) Ensure Zoning By-laws are in compliance with Richmond's 2041 OCP vision for protecting single family neighbourhoods.
- d) AIBC Bulletin 65: Advisory Design Panels Standards for Procedures and Conduct provides examples of design criteria for review:

Neighbourhood Context

- Effect on adjacent buildings and streets
- Effect on quality of life issues such as privacy and safety Building Design:
- Building mass
- Roof forms

# **CNCL - 75**

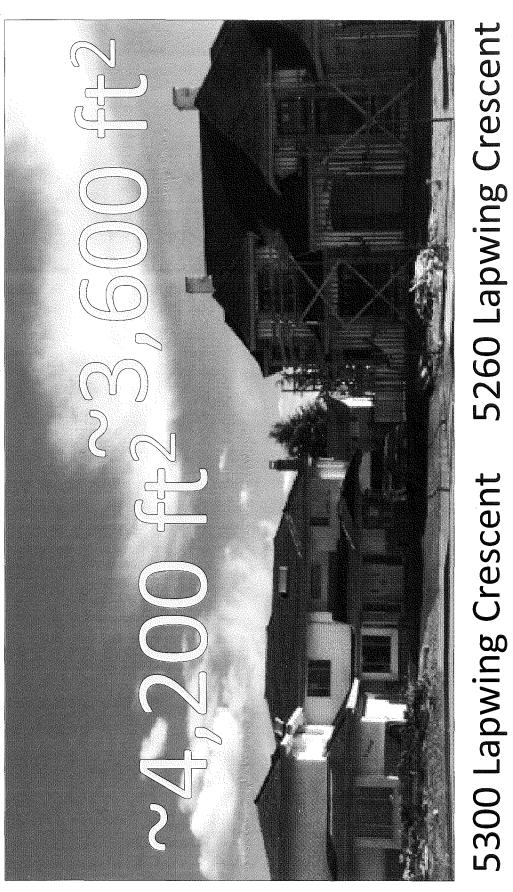
BUILDING HEIGHTS IN METRO VANCOUVER	HTS IN MI	ETRO VA	NCOUVER
Municipality		Max Overall Height to Roof Peak	Massing Control - Notes
•	Metre	Feet	)
1 Coquitlam		36.1	Steep slope sites require averaging of four corners of foundation to determine overall heights.
2 New Westminster	sr 10.7	35.0	25 ft to midboint of roof from the average elevation of lot
3 Richmond	10.5	34.5	9m (29.5 ft) to midpoint
4 Surrey			Definition of building height is to the midpoint of the roof at 9 m (29.5 ft).
5 Port Coquitlam			Definition of building height is to the mean elevatilon of the lowest part of the uppermost eave and the ridge at 9 m (29.5 ft)
6 Vancouver	9.5	31.2	Primary envelope formed by planes vertically extended 4.9 m in height which increase inward at an angle of 30 degrees to the horizontal.
7 Delta	9.5	31.2	8m (26.25ft) to midpoint
8 North Vancouver	- 9.1	30.0	Shall not exceed a height envelope of 4.57m (15 ft) which increases inward at an angle of 45 degrees to the horizontal.
9 Langley	9.0	29.5	
10 Burnaby	9,0	29.5	
11 White Rock	7.7	25.3	Shall not exceed a height envelope of 6m (19.69 ft) which increase inward at an angle of 45 degrees to the horizontal.
12 West Vancouver			25 ft to midpoint of roof, measured from the lower of average of natural grade or average finished grade.
BUILDING HEIGHTS IN METRO VANCOUVER	SHTS IN ME	ETRO VA	NCOUVER
Municipality			Reference Bylaw
*			μ.
1 Coquitlam	Bylaw 10	01 – RS-1 (	Bylaw 1001 – RS-1 One-Family Residential
2 New Westminste	r Bylaw 31(	0 – RS-1 Si	New Westminster   Bylaw 310 – RS-1 Single Detached Dwelling Districts
3 Richmond	Bylaw 85(	00 – Sectic	Bylaw 8500 – Section 8 Residential Zones
4 Surrey	Bylaw 12(	00 – Single	Bylaw 1200 – Single Family Residential Zone
5 Port Coquitlam	Bylaw 36:	30 - Residε	Bylaw 3630 - Residential Regulations
6 Vancouver	Bylaw 35.	75 – RS-1 I	Bylaw 3575 – RS-1 District Schedule
7 Delta	Bylaw 698	80 - RS1 Zi	Bylaw 6980 – RS1 Zone: Single Family Residential
8 North Vancouver		95 – Resid	Bylaw 1995 – Residential Zone Regulations
9 Langley		<b>00 – Sectic</b>	Bylaw 2500 – Section 400 Residential Zones

 10
 Burnaby
 Zoning bylaw - 101.6 R1 District

 11
 White Rock
 Bylaw 2000 - 6.1 RS-1 One Unit Residential Zone

 12
 West Vancouver
 Bylaw 4662 - Section 200 Single Family Dwelling Zones





2015 Construction

**1990** Construction

CNCL - 77

Schedule 2 to the Minutes of the Planning Committee meeting of Richmond City Council held on Wednesday, May 20, 2015.

#### SUNNEWSTIPS@VANCOUVERSUN.COM

# Vancouver ranks lowest for solar energy policies

City is reviewing fees related to residential photo-electric systems

# GERRY BELLETT

ENVIRONMENT

Vancouver wants to be known as the world's greenest city but, according to the Society Promoting Environmental Conservation, it is failing to encourage residents to turn to solar power. A study of 17 western Canadian cities and communities finds Vancouver — which has set lofty renewable-energy targets to reduce greenhouse gas emissions — has the worst ranking for solar energy policies, while Edmonton and Toronto score far better.

A breakdown of the total cost of installing a residential photoelectric system on the roof shows it would cost a Vancouver resident \$2,255 in fees and inspections, while the cost in Edmonton is only \$285 and in Toronto \$342.

\$342. Vancouver deputy city manager Sadhu Johnston said the city was reviewing the fee structure associated with solar power installations.

"I don't agree Vancouver is the least solar-friendly city. We were the first in Canada to mandate solar-ready buildings and put it in the building code," said Johnston.

"However, I agree we can do more to incentivize the installation of solar and a review of permit fees is underway."

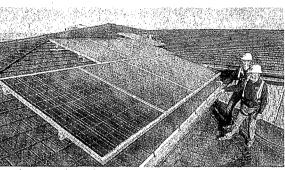
According to the study, Cawston, B.C., was found to be the cheapest, with residents paying only \$80 for an electrical permit.

The report says Vancouver tharges \$600 for an electrical permit with \$60 being added for taff time. Then a \$225 building permit is needed, with \$120 in taff time added, then structural ngineering costs of \$1,000, then the development permit, which

Surrey was two places above ancouver on the list with a otal cost of \$1,860 in munici-

al fees. "Vancouver's place at the botom of the list is especially notevorthy given that the city has set target of moving to 100-perent renewable energy," said the tudy.

"Prior to 2014 Vancouver rould have ranked number 10 when the cost was only \$620) ut new policies moved it further own the list," said the report.



A study by the Society Promoting Environmental Conservation suggests fees Vancouver charges related to the installation of residential solar panels don't reflect the city's green ambitions.

total

#### Western Canadian Solar Cities Ranking 2015

Cities ranked on the cost of municipal requirements for a 5 kW photovoltaic system (standard flush mount on a residential roof)

#### Rank City

1	.Cawston, BC	\$80
2	Keremeos, BC	\$144
3	Edmonton, AB	\$285
4	Toronto, ON	\$342
5	Calgary, AB	\$375
б.,	Regina, SK	\$450
7	Winnipeg, MN	\$560
8 <sup>.</sup>	Colwood, BC	\$602
9	Dawson Creek, BC	\$642
10	Van. (2005-'13)	\$620
11	Kelowna, BC	\$904
12	Osoyoos, BC	\$988
13	Pentiction, BC	\$1,574
14	Ottawa, ON	\$1,620
15	Victoria, BC	\$1,642
16 · .	Surrey, BC	\$1,860
17	Summerland, BC	\$2,113
18	Van. (current)	\$2,255

Johnston said it was misleading to compare fees in Vancouver with Toronto. He said Ontario is committed to reducing the reliance on coal-powered electricity plants and offers incentives to cities to encourage other forms

of green energy, such as solar. "Ninety-eight per cent of our electricity generation is carbon free because it comes from hydro. I'm not saying that as an excuse, but the issue is slightly more complicated than the study indicates."

SPEC member Robert Baxter admitted the study was

incomplete as researchers were unable to gather information on solar panel permitting fees from other major Canadian or B.C. cities.

"We did an online survey and we couldn't get information from some cities, for instance Montreal," said Baxter who works for Vancouver Renewable Energy, a company that installs solar panel systems.

He said Vancouver's high permit costs showed a disconnect between the city's green ambitions and how they can be achieved.

Baxter estimates there are about 25 residences in the city with solar panels on the roof.

The average system costs about \$20,000 and will produce 550 kilowatts of power, resulting in a savings of \$600 a year in electricity costs, he said.

Baxter said one of the reasons given by the city for requiring a structural engineering plan and a building permit was to ensure the solar panels were earthquake proof.

proof. "They say they could be an earthquake danger, but othercities in earthquake zones such as Seattle and San Jose don't worry about it. All they ask for is an electrical permit," he said.

Johnston said the city has to ensure that solar panels would not be a danger from earthquakes or from being blown off the roof by wind, or endanger the roof by adding to the snow load.

"That's why we require a structural review CNCL - 78

gbellett@vancouversun.com

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# Minutes

# **Public Works and Transportation Committee**

Date:	Thursday, May 21, 2015
Place:	Anderson Room Richmond City Hall
Present:	Councillor Chak Au, Chair Councillor Harold Steves (entered at 4:05 p.m.) Councillor Derek Dang Councillor Alexa Loo Mayor Malcolm Brodie (entered at 4:41 p.m.)
Absent:	Councillor Ken Johnston
Also Present:	Councillor Carol Day (entered at 4:06 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 and Transportation Committee held on Wednesday, April 22, 2015, be adopted as circulated.

#### CARRIED

1.

# DELEGATIONS

- (1) With the aid of a PowerPoint presentation (copy on file, City Clerk's Office), Goran Oljaca, Director, Engineering and Construction, Water Services, Metro Vancouver, spoke on the Seymour-Capilano Twin Tunnels, and the following information was highlighted:
  - the Capilano Raw Water Pump Station was commissioned in March 2015, and as one the largest municipal pump stations in Canada, it boasts eight 2,000 horsepower pumps; and

the Seymour-Capilano commission plan included disinfecting of the tunnels, filling and flushing of the tunnels, and commissioning the Capilano Raw Water Pump Station, Energy Recovery Facility and Break Head Tank.

Mr. Oljaca then commented on water quality benefits as a result of the completion of this decade long infrastructure project, noting turbidity removal, improved primary disinfection, pH adjustment and corrosion control, and lower chlorine dosages for secondary disinfection.

*Cllr. Steves entered the meeting (4:05 p.m.)* 

#### Cllr. Day entered the meeting (4:06 p.m.)

In reply to queries from Committee, Mr. Oljaca remarked that the decrease in water consumption in Richmond may be a result of increased conservation efforts. Also, he stated that the Seymour-Capilano Twin Tunnels treat approximately 1.8 billion litres of drinking water daily.

(2) Achilles Mallari, Operations Manager, Sierra Waste Services, provided an overview of Sierra Waste Services' operations in Richmond. He commented on the company's commitment to their partnership with the City, noting that they wish to see the City meet its solid waste diversion goals.

Mr. Mallari then spoke to the Sierra Waste Services' safety and customer training protocols, remarking that both areas are of utmost importance to the company. Also, he commented on Sierra Waste Services' participation in local events such as the City's annual Public Works Open House.

In reply to queries from Committee, Mr. Mallari advised that Sierra Waste Services only operates in Richmond and Langley as this allows the company to provide quality service to both communities. Also, he noted that staff are trained monthly on safety protocol and that new technologies for solid and organic waste collection are examined as the need arises.

# PLANNING AND DEVELOPMENT DIVISION

#### 1. STREET FURNITURE PROGRAM

(File Ref. No. 10-6360-03-03) (REDMS No. 4491651 v. 4)

In reply to queries from Committee, Victor Wei, Director, Transportation, advised that the bus shelters, including the benches in the shelters are owned by the supplier and therefore, staff are not aware of what happens to them once they are removed.

Also, he stated that the installation of bus shelters is determined by the amount of transit user traffic at any given transit location. Mr. Wei then commented on vandalism of bus shelters, noting that it is not an area of concern.

It was moved and seconded

- (1) That staff be directed to issue a Request for Proposals for the supply, installation and maintenance of a city-wide street furniture program that includes advertising, as described in the staff report dated May 4, 2015, from the Director, Transportation; and
- (2) That staff report back on the responses to the above Request for Proposals with a recommendation prior to December 1, 2015.

CARRIED

# **ENGINEERING AND PUBLIC WORKS DIVISION**

2. ALEXANDRA DISTRICT ENERGY UTILITY EXPANSION PHASE 4 (File Ref. No. 10-6600-10-02) (REDMS No. 4557795 v. 5)

In reply to queries from Committee, Alen Postolka, Manager, District Energy, advised that the business case for the Alexandra District Energy Utility reported that payback for the project is 21 years; however, he highlighted that as a result of ongoing development, the most current business case reports that payback for the project is 17 years. Also, he stated that the project's internal rate of return is comparable to that of other utility projects.

It was moved and seconded

That funding of up to \$7.6 million through borrowing from the Utility General Surplus be approved for capital expenditure for design, construction and commissioning of the Phase 4 expansion of the Alexandra District Energy Utility and that the Five Year Financial Plan (2015-2019) be amended accordingly.

#### CARRIED

#### 3. SMART THERMOSTATS PILOT PROGRAM

(File Ref. No. 10-6125-07-02) (REDMS No. 4565860)

In reply to queries from Committee, Brendan McEwen, Manager, Sustainability, stated that should the smart thermostat project be successful, staff would report back to Council to consider increasing funding for the program to add to the number of maximum dparticipants.

Discussion ensued regarding other manners in which residents can save costs associated with energy consumption, and it was suggested that a list of these methods be compiled in an effort to promote energy savings.

*Mayor Brodie entered the meeting (4:31 p.m.)* 

# Public Works & Transportation Committee Thursday, May 21, 2015

It was moved and seconded That the development and implementation of a "Smart Thermostats Pilot Program" for homes be endorsed.

#### CARRIED

#### 4. 2014 ANNUAL WATER QUALITY REPORT

(File Ref. No. 10-6375-01) (REDMS No. 4550012)

Bryan Shepherd, Manager, Water Services, noted that the City's water meter program, leak protection program, and washing machine rebate program have likely contributed to the reduction in water consumption in Richmond.

In reply to queries from Committee, Mr. Shepherd stated that water turbidity has likely decreased as a result of the quality of water delivered by Metro Vancouver. Also, he commented on water infrastructure, noting that ongoing maintenance and Capital projects ensure that the infrastructure can properly deliver drinking water. Mr. Shepherd then stated that if residents suspect they may have a leak, the City has a leak rebate program and staff will assist residents in investigating their concerns.

It was moved and seconded

That the staff report titled "2014 Annual Water Quality Report," dated April 28, 2015, from the Director, Public Works be received for information.

#### CARRIED

#### 5. **BI-WEEKLY GARBAGE COLLECTION**

(File Ref. No. 10-6405-03-01) (REDMS No. 4567623)

Suzanne Bycraft, Manager, Fleet and Environmental Programs, provided background information, highlighting that residents in single-family homes met the 70% waste diversion target in 2013. She commented on the number of garbage and recycling options provided to residents, such as the large item pick up program, noting that bi-weekly garbage collection will further encourage residents to recycle. Ms. Bycraft then stated that in an effort to meet the City's objective to divert 80% of waste by 2020, the bi-weekly garbage collection initiative is important in advancing recycling performance in the single-family residential sector.

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

- overall cost savings under the proposed bi-weekly garbage collection program will be minimal in the initial transition year as a result of the purchase of new garbage carts and the loss in collection efficiency as these carts take longer to service when compared to the manual collection process;
- with regard to odour concerns, organics collection will continue to be provided weekly with the proposed bi-weekly garbage collection;

# Public Works & Transportation Committee Thursday, May 21, 2015

- depending on the cart size selected by residents, staff are projecting a cost saving of approximately 2% to 15%; for instance, residents who opt for a smaller cart will be rewarded with costs savings;
- the 240-litre cart was utilized for the bi-weekly garbage collection pilot and will be the standard size of cart for the proposed program;
- residents will have the opportunity to influence their garbage collection costs; for instance, a 120-litre cart will result in costs savings, and should residents with a 120-litre cart wish to have additional garbage collected, they may purchase an additional garbage tag for \$2;
- garbage tipping fees are set by Metro Vancouver; although there may be a decrease in tipping fees as a result of the proposed bi-weekly garbage collection program, the City will incur costs related to communication and outreach initiatives and illegal dumping; and
- the City's garbage collection provider is committed to customer service and in the event a resident has missed their scheduled collection, an additional collection service may be provided; however, should this circumstance become reoccurring, staff would identify options to address this need and report to Council accordingly.

Discussion ensued on the potential for a garbage bin at the Works Yard for residents who have missed their scheduled collection, and it was noted that such a program is not advisable.

It was moved and seconded

- (1) That City garbage collection service for single-family dwellings be changed from weekly to every other week (bi-weekly) commencing the first quarter of 2016, with recycling services (i.e. Blue Box and Green Cart) continuing to be provided on a weekly basis;
- (2) That, as part of implementation of bi-weekly collection service, the City provide one garbage cart per household to residents in singlefamily dwellings, where residents have the opportunity to select the cart size of their choice;
- (3) That the Chief Administrative Officer and General Manager, Engineering and 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 garbage carts, and related operational service changes associated with this program;

# Public Works & Transportation Committee Thursday, May 21, 2015

- (4) That an amendment to the City's Five Year Financial Plan (2015 2019) to include capital costs of \$2.6 million with \$2.3 million funding from the City's General Solid Waste and Recycling Provision and \$300,000 from the City's General Utility Surplus, be approved; and
- (5) That appropriate bylaw amendments be brought forward as part of the 2016 solid waste and recycling utility budget process and amending rates, to enact this service.

CARRIED Opposed: Cllr. Loo

#### 6. MANAGER'S REPORT

#### (i) Utility Box Art Wraps

With the aid of photographs, Romeo Bicego, Manager, Sewerage and Drainage, commented on the attractiveness of utility boxes that have been wrapped in art.

#### (ii) Project WET

Tom Stewart, Director, Public Works, highlighted that over 600 kids from 13 Richmond elementary schools participated in Project WET – an interactive program aimed at educating students about the importance of water.

#### (iii) Public Works Open House

Mr. Stewart stated that the annual Public Works Open House is scheduled for Saturday, May 23, 2014 at the Works Yard from 11 a.m. to 3 p.m.

# **ADJOURNMENT**

It was moved and seconded *That the meeting adjourn (5:14 p.m.).* 

#### CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Public Works and Transportation Committee of the Council of the City of Richmond held on Thursday, May 21, 2015.

Councillor Chak Au Chair Hanieh Berg Committee Clerk



Re:	British Columbia Earthquake Preparedness Consultation Report		
From:	Phyllis L. Carlyle General Manager, Law & Community Safety	File:	09-5126-20-01/2015- Vol 01
То:	Community Safety Committee	Date:	April 20, 2015

# Staff Recommendation

That a letter be sent to the Members of Parliament and Members of the Legislative Assembly for the City of Richmond, requesting that the recommendations and key actions contained in the British Columbia Earthquake Preparedness Consultation Report, dated December 2014, be acted upon.

Phyllis L. Carlyle General Manager, Law & Community Safety (604-276-4104)

REPORT CONCURRENCE			
ROUTED TO:			
Corporate Communications Richmond Fire-Rescue	র্ম ব		
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:		
APPROVED BY CAO			

# Staff Report

# Origin

On March 25, 2014, the Auditor General issued the report "Catastrophic Earthquake Preparedness in BC". The Auditor General's report focused on Emergency Management BC (EMBC) and concluded:

*EMBC* cannot demonstrate that it is adequately prepared to manage the effects of a catastrophic earthquake and it is not reporting publicly on the Province's preparedness.

The Auditor General's report was the subject of a previous report to Council.

As part of the Province's response to this report, the Province engaged a consultant to confer with various stakeholders with respect to issues, priorities and opportunities to improve the ability of British Columbians to prepare for and respond to a catastrophic seismic event. The report on this public consultation, British Columbia Earthquake Preparedness Consultation Report (http://www.embc.gov.bc.ca/em/hazard\_preparedness/earthquake/prep-consult-report/pdf/prep-consultation-report.pdf) was issued March 6, 2015 and this report summarizes its findings.

This report supports Council's Term Goal #1 Community Safety:

To ensure Richmond remains a safe and desirable community to live, work and play in, through the delivery of effective public safety services that are targeted to the City's specific needs and priorities.

# <u>Analysis</u>

The City has a well-established, robust and effective emergency program and is prepared to respond to a major emergency or disaster. Section 6 (1) of the British Columbia Emergency Program Act states that:

"A local authority is at all times responsible for the direction and control of the local authority's emergency response."

In order to respond to emergencies and disasters, the City has developed an emergency management program for a disaster resilient community.

Emergency management is a shared responsibility and the Province and the Federal government, as senior levels of government, need to do more than is currently being done to provide the leadership, funding, intergovernmental, inter-agency and critical infrastructure coordination, public education, training, exercising, emergency management risk data and enhanced emergency management capabilities.

# Background

The consultant engaged stakeholders from local authorities, elected officials, first responders, First Nations, federal agencies, private sector and critical infrastructure organizations, nongovernmental organizations, insurance and housing sector representatives, neighbouring jurisdictions, representatives of vulnerable populations, faith-based communities, and animal welfare groups to seek their input on earthquake preparedness concerns and priorities.

Approximately 300 representatives from over 100 local authorities (including Richmond) and First Nations attended community stakeholder sessions and numerous written submissions were also received. Also consulted were over 200 stakeholders representing provincial ministries, federal agencies, private sector, professional associations, non-governmental organizations, emergency management professionals, scientific organizations and other jurisdictions.

#### Recommendations and Key Actions

The recommendations in the report are broad in scope and focus on a holistic approach to creating a culture of preparedness in British Columbia.

#### Recommendation #1: Leadership, Authority and Responsibility

The provincial government must provide EMBC with additional resources and the authority required to effectively deliver emergency management leadership to provincial crown agencies and local authorities. Further, EMBC must be positioned within government in such a fashion that its authority is greatly enhanced.

- 1.1 *The provincial government must augment EMBC's authority to require action of other provincial crown agencies in the realm of emergency management.* 
  - 1.1.1 The provincial government must support EMBC in the establishment of preparedness requirements for other ministries and crown agencies, and establish mechanisms to track and enforce these requirements.
  - 1.1.2 The provincial government must also address EMBC's ability to "task" or require action of other ministries and crown agencies during an emergency response.
  - 1.1.3 The provincial government must position EMBC within government in such a fashion that its authority is greatly enhanced. For example, EMBC could be moved to report directly to the Office of the Premier.
- 1.2 *The provincial government must augment EMBC's authority, staffing and budget to set minimum standards for local authority emergency management programs.*
- 1.3 *The provincial government must provide additional resources to EMBC in order for it to meet its earthquake preparedness mandate.*
- 1.4 *The provincial government must provide for EMBC's emergency operations centres in seismically active areas to be housed in post-disaster facilities.*
- 1.5 *The federal government must provide additional regional resources to Public Safety Canada, Aboriginal Affairs and Northern Development Canada, and other applicable*

agencies, in order for them to meet their emergency management mandates to support emergency management in  $B.C.^{1}$ 

While emergency management is a shared responsibility, this recommendation focuses primarily on EMBC's role in coordinating the emergency management activities of many organizations and suggests that they require resources and authority to effectively do so.

Richmond has a very positive relationship with EMBC, both with the local office for the Southwest region and in Victoria. While the City does not formally report to EMBC on its readiness, there are regular updates as to the City's level of emergency preparedness.

One recommendation is to set minimum standards for local authority emergency management programs and this concept is a positive one that will be helpful for local authorities to meet the expectations of the Province. However, during the public consultations, local authorities expressed concern that the establishment of standards would mean further downloading of responsibilities but the report also points to local authorities having responsibilities in shared planning.

# Recommendations #2: Funding and Accountability

The provincial and federal governments must implement a funding program to support local authority preparedness efforts, and leverage emergency management funding to increase emphasis on planning and mitigation and increase local authority accountability.

- 2.1 The provincial and federal governments must implement a funding program to support emergency management preparedness efforts at the local authority level.
- 2.2 The federal government must increase emergency management funding and personnel available to support First Nations emergency management.
- 2.3 *The provincial government must link new and existing local government emergency management funding to accountabilities, such as planning and mitigation efforts.*
- 2.4 The provincial government must formally assess mechanisms for local authorities to share in the costs for emergency responses, while ensuring that no community bears an undue burden.<sup>2</sup>

The report recognizes that emergency management is underfunded in British Columbia at all levels of government and refers to the elimination in 2012 of the federally funded Joint Emergency Preparedness Program, a grant program for local authorities. The City had previously benefitted through this program by receiving funding for plans, training and equipment.

The current Provincial funding model for emergency management focuses on response. 100% of eligible response costs incurred by local authorities and 80% of recovery costs for non-insurable eligible costs are reimbursed by the Province.

The Province has some mitigation funds available to local authorities and the City of Richmond has taken advantage of these programs to enhance our dikes for flood protection. Additional

<sup>&</sup>lt;sup>1</sup> British Columbia Earthquake Preparedness Consultation Report, pages 11 - 15

<sup>&</sup>lt;sup>2</sup> British Columbia Earthquake Preparedness Consultation Report, pages 15 - 18

funding for local authorities to mitigate risk would significantly reduce future response costs in British Columbia but there is reduced incentive for local authorities to engage in mitigation if 100% of response costs are reimbursed by the Province. The report identifies the potential to reduce the reimbursement of response costs to local authorities and to pass any savings back to local authorities for planning and mitigation efforts.

# Recommendation #3: Intergovernmental and Inter-Agency Coordination

Federal, provincial, and local authorities, as well as other entities, such as those in the private sector, must ensure that they have the integrated plans and capacities in place to deal with a catastrophic event.

- 3.1 *EMBC*, in concert with stakeholders, must complete province-wide catastrophic response and recovery plans. This work is already underway.
- 3.2 All provincial crown agencies must develop and exercise catastrophic event plans that link to provincial-level plans.
- 3.3 *All provincial crown agencies must complete and exercise realistic business continuity plans.*
- 3.4 The provincial government must implement mechanisms, such as Provincial Coordination Teams, to support all authorities during emergency events.
- 3.5 *EMBC*, and other provincial government partners, must be provided with additional funding and staff to complete work required to operationalize and exercise out of province assistance agreements and associated procedures.
- 3.6 *EMBC* and partners must complete the work required to clarify procedures with respect to provincially directed mutual aid between local authorities, and allocation of out-of-province aid to local authorities during a catastrophic event.
- 3.7 *The provincial government must mandate that all local authorities participate in regional planning, training and exercises.*
- 3.8 The provincial government must support regional planning efforts directly through funding to local authorities, and indirectly through creation of additional EMBC positions to guide and support this work.
- 3.9 *The federal government must ensure that First Nations communities on reserves have adequate resources to effectively participate in regional planning effort.*<sup>3</sup>

EMBC is responsible for coordinating preparedness efforts for earthquakes and leads the response to provincial level emergencies and disasters. They have started work on an immediate earthquake response plan for the first five to seven days of response with plans for a sustained response plan and a recovery to plan follow and while the immediate response plan is at a high level, it requires the support of agency specific plans for earthquake response, for example in the health sector. These organization plans are required for all levels of government, the private sector and non-governmental organizations.

<sup>&</sup>lt;sup>3</sup> British Columbia Earthquake Preparedness Consultation Report, pages 18 - 22

Business continuity planning is required of provincial ministries and agencies to ensure the continued delivery of critical services following an earthquake and these plans need to be exercised.

When the response to an emergency exceeds a local authority's capacity, assistance can come through mutual aid with a neighbouring local authority or from the Province. The process of allocating and sharing of resources is not formally articulated by the Province. Enhanced planning is required to ensure the efficient distribution of resources takes place for a successful response.

As a result, the Integrated Partnership for Regional Emergency Management (IPREM) was formed as a partnership between the Province and Metro Vancouver on behalf of the 23 local authorities to coordinate regional emergency management planning activities.

IPREM's initiatives include:

- 1. Regional Hazard/Risk Assessment: A report was completed in 2013 and will be revisited every 3 5 years to ensure it reflects the regional hazards that may cause the greatest impact to Metro Vancouver.
- Regional Emergency Communications Strategy: Following the fall of 2013 regional communications exercise, draft Site Support Communications Procedures were developed to define communications procedures between Local Authority Emergency Operations Centres and EMBC's South West Provincial Regional Emergency Operations Centre. A draft Regional Emergency Communications Strategy is still in the process of being finalized.
- 3. Regional Disaster Debris: A Regional Disaster Debris Management Working Plan has been developed, but it is a framework with guiding principles and recommendations to move forward with the development of a regional disaster debris plan. Metro Vancouver's Regional Engineers Advisory Committee (REAC) Solid Waste Sub-Committee has begun to work on this project with IPREM staff.
- 4. Disaster Response Routes: This project is evolving from a land-based system of routes for emergency responders, equipment and supplies to use during a disaster to a multi-modal route system with muster stations providing access to various modes of transportation. The Ministry of Transportation and Infrastructure has taken the lead for disaster response routes and provides leadership to the Provincial Disaster Response Transportation Advisory Group, formed as a provincial committee to create and maintain a disaster response transportation system for British Columbia. The program is under review with the understanding that it will be re-vamped to include multi modes of transportation.
- 5. All Hazard Integrated Regional Concept of Operations: A model is being developed for how local authorities will share information and collaborate on decision-making in events of regional emergency significance, those major events that cross jurisdictional boundaries. A number of models were researched, extensive outreach and consultation occurred with stakeholders, and mini workshops were held with seven local authorities

CAOs to validate the concept of operations. Training will take place for all of Metro's CAOs in preparation for a Metro wide tabletop exercise in September 2015.

IPREM has limited resources and relies on stakeholder agencies to provide subject matter expertise. Richmond's Fire Chief participates as a member of the Regional Emergency Communications Strategy Working Group, the Manager, Emergency Programs participates on the All Hazards Integrated Regional Concept of Operations Working Group and the Manager, Fleet and Environmental Programs participates on the Regional Disaster Debris REAC Solid Waste Sub-Committee.

# Recommendation #4: Public Education, Awareness and Engagement

*EMBC, together with significant agencies at all levels of government and private sector partners, must launch a long-term and coordinated earthquake preparedness public education and awareness campaign. New funding and staff will be required.* 

- 4.1 All partners, with EMBC leadership, must establish a mechanism to jointly develop and deliver long-term and coordinated earthquake preparedness public education.
- 4.2 All partners must contribute to developing and implementing resources in support of curriculum in this area for kindergarten to grade 12.
- 4.3 All levels of government, and involved partners outside of government, must devote additional resources to support coordinated earthquake preparedness public education.
- 4.4 Senior elected officials, at all levels, must demonstrate visible and vocal support for a culture of preparedness. Inclusion of earthquake preparedness initiatives in a Speech from the Throne, for example, would be an excellent example of such support.<sup>4</sup>

Emergency preparedness is a shared responsibility with every individual and their family having a responsibility to be personally prepared for emergencies. It is a responsibility shared by all levels of government, individual departments and ministries within government, and includes the private sector corporations, non-governmental organizations and others.

# Community Education in Richmond

Community education is a cornerstone of the emergency program at the City of Richmond. The Get Ready Richmond program was established in 2011 and currently includes free Personal Preparedness and Fire Life Safety modules at multiple City facilities. Planned for this fall is a more holistic approach to community safety public education with combined personal preparedness, fire life safety and home safety presentations jointly facilitated by Emergency Programs, Richmond Fire Rescue and the RCMP. This innovative approach to community preparedness will be assessed and influence the future of community education initiatives.

Potential future topics of preparedness include First Aid, Rapid Damage Assessment, Pet Preparedness, and Light Urban Search and Rescue. Additional considerations include presenting these modules in different languages (personal preparedness is currently offered in Chinese) and developing online training and providing videos for the City's website.

<sup>&</sup>lt;sup>4</sup> British Columbia Earthquake Preparedness Consultation Report, pages 23 - 26

Staff and volunteers also provide personal preparedness presentations upon request and in multiple languages to both the general public and to businesses located in Richmond. In the last four years, Personal Preparedness presentations have been made to over 2,500 people.

Staff and volunteers participate in approximately ten community events every year by staffing display booths to engage and educate the public to becoming personally prepared for emergencies.

Staff are developing an enhanced public education strategy that will engage the public through Community Safety presentations, presentations on demand, at community events, on our website, through social media, and through greater outreach into the community with our stakeholder agency partners.

# Recommendation #5: Private Sector and Non-Governmental Organizations

The Province must prepare and resource a strategy for further engagement of the private sector in emergency management planning, including mandated requirements for private sector entities.

- 5.1 The provincial government must augment EMBC's resources for Critical Infrastructure (CI) coordination and expand the Provincial CI Steering Committee's coverage to include all 10 federally designated (recognized) CI sectors.
- 5.2 *EMBC* must conduct focused discussions with CI partners to determine mechanisms for enhanced coordination (e.g. addressing confidentiality barriers to information sharing).
- 5.3 The provincial government must provide guidance and templates for the preparation of emergency and business continuity plans for crown agencies and critical private sector services.
- 5.4 As a backstop to voluntary engagement, the provincial and federal government must mandate appropriate private sector preparedness, including sharing of CI information and engagement in joint planning with emergency management organizations.
- 5.5 *EMBC* must clarify and communicate its powers to direct actions by CI asset owners (e.g. restoration priorities) during and following a catastrophic event, and clarify provincial expectations of CI asset owners.
- 5.6 Existing and future contracts executed by the Province with private sector vendors must reference services, materials and equipment that may be needed and used during response and recovery activities.<sup>5</sup>

Private sector vendors based in Richmond have approached the City regarding the services, materials and equipment they may offer during the response or recovery from an emergency. Their ability to support the City in an emergency response will depend on their own preparedness and business continuity planning.

Recommendation #6: Training and Exercising

The provincial government must resource EMBC with additional staff and funding to develop and implement comprehensive training and exercise strategies with partners.

<sup>&</sup>lt;sup>5</sup> British Columbia Earthquake Preparedness Consultation Report, pages 26 - 28

- 6.1 The provincial government must work with partners to develop an emergency management training strategy that improves access, increases integration between delivery organizations, and includes consistent training guidelines. Federal participation and funding will be required to ensure adequate training opportunities for all regional federal staff in B.C., as well as First Nations communities.
- 6.2 The provincial government, with partners, must develop and implement a robust, provincial exercise strategy that includes full-scale exercises. Additional provincial resources (funding and people) will be required. Federal funding and people will be required to ensure adequate participation by national and regional federal assets, in addition to First Nations.<sup>6</sup>

#### **Emergency Training**

The City has a comprehensive training program in place to ensure staff receive emergency management training for their role in an emergency. Incident Command System training is provided to staff who work at emergency scenes. Emergency Operations Centre (EOC) training is provided to staff identified to work in the EOC and includes a self-study introductory booklet, a two day EOC Essentials class, and an additional day of specialized training in their role if the course is available. Some courses are offered online and provide greater flexibility for staff.

There is also training for those individuals who have roles in the provision of prompt, coordinated and accurate information to all internal and external stakeholders as outlined in the Emergency Information Plan, as well as those who have roles within the Emergency Call Centre.

Training is also provided to City staff that form part of a Rapid Damage Assessment Team, a program which currently has 84 trained staff.

There is currently no training offered by the Province or the Justice Institute of BC (JIBC) on earthquake preparedness or response.

Emergency Programs offers staff access to emergency preparedness information through offerings of lunch and learn opportunities, access to information booths, and employee purchase programs for emergency preparedness kits. Emergency Programs staff also participate in the Works Yard Core Safety program for staff by presenting an Emergency Preparedness module.

#### **Emergency Exercises**

The City has a multi-year exercise program to validate emergency plans, test procedures, identify gaps and weaknesses and give employees an opportunity to practice their emergency response roles. This program usually involves a tabletop discussion-based exercise in the spring and a functional exercise in the fall, typically in conjunction with the BC ShakeOut earthquake drop, cover and hold on drill in October. In recent years, these exercises have focused on earthquake scenarios and build in complexity with a goal of developing staff skills and abilities to respond.

The 2009 Richmond full scale on the ground exercise was a Chemical Biological Radiological Nuclear Explosive (CBRNE) scenario and validated the City's Emergency Management and

<sup>&</sup>lt;sup>6</sup> British Columbia Earthquake Preparedness Consultation Report, pages 28 - 31

CBRNE Response Plans. This exercise gave numerous staff an opportunity to practice their roles and confirmed that the temporary EOC used during the Olympics Games was operational. These types of multi-agency live exercises are resource intensive and expensive to conduct. A minimum of approximately \$110,000 is required for a future similar scale exercise.

The City participates in other stakeholder agencies' exercises where there is a benefit to the City. Examples of stakeholder agency exercises include Richmond Hospital, a Translink tabletop discussion-based earthquake exercise, YVR's annual tabletop and full scale exercises, and the Integrated Partnership for Regional Emergency Management (IPREM) tabletop and functional exercises.

# Recommendation #7: Province Wide Risk Analysis

In the long-term, EMBC and its partners must develop a strategy for enhanced hazard risk and vulnerability analysis and for increasing the availability of emergency management risk data for use by local authorities, the private sector, First Nations and the public.

- 7.1 All partners must assess opportunities to develop, consolidate and share sources of risk data. Such work could include development and sharing of additional tsunami inundation modeling, inventories of public essential services facilities, building stock inventories, mapping of hazardous materials locations, etc.
- 7.2 Governments must provide additional funding to support the enhanced use of geospatial data within emergency management information systems, and assessment of unique issues such as vulnerable populations, hazardous materials, or animals. Often, these unique risks and vulnerabilities can be overlooked or inadequately considered in emergency plans due to lack of data, complexity, confidentiality concerns, etc.
- 7.3 *The Province must fund a small, dedicated EMBC team to lead HRVA efforts at the provincial level and assist local authorities with local HRVA needs.*<sup>7</sup>

The City conducted a hazard risk and vulnerability analysis in 2008 against the 47 listed hazards in the Emergency Program Management Regulation. IPREM conducted a regional hazard risk and vulnerability analysis and released their report in 2014 identifying hazards with the greatest potential impacts to Metro Vancouver.

City Hazard Risk and Vulnerability Analysis	<u>IPREM Regional Hazard Risk and</u> Vulnerabilit <u>y Analysis</u>
Aircraft incident	Chemical, Biological, Radiological, Nuclear,
Chemical, Biological, Radiological, Nuclear,	Explosives (CBRNE)
Explosives (CBRNE)	Earthquake
Critical infrastructure failure	Extreme weather
Dangerous goods spill release	Flooding
Earthquake	Imported insect infestation
Flooding	Infectious disease or pandemic

<sup>&</sup>lt;sup>7</sup> British Columbia Earthquake Preparedness Consultation Report, pages 31 - 33

Medical emergency (Pandemic)	Internet disruption
Severe weather	Transportation accidents
Urban fire	Wildfire

While there are similar hazards with different names, imported insect infestation was the only one not included in the City's analysis.

The City has been fortunate to leverage partnerships with academia to gain information on hazard risks to Richmond. For example, in 2005, Dr. John Clague and his team from Simon Fraser University did a study on the tsunami hazard to Richmond and Delta. His report concluded that there was "no evidence of tsunami deposits in Richmond, Delta, or other areas of the Fraser River delta." and suggests that the tsunami threat to the Fraser delta lowlands is very small.

More current work is being done with Dr. Carlos Ventura and his team of students from the University of British Columbia who conducted a seismic study of Richmond. Students used micro-tremor equipment on the soil and are modeling different earthquake intensities, casualties at different times of the day, estimated structural damage, functionality and more. This is a multi-year project that is not complete and will be the subject of a report to council at a future date.

# Recommendation #8: Emergency Management Capability Priorities

Federal, provincial, and local governments must invest in emergency management capability enhancements in such areas as alerting, logistics, urban search and rescue, rapid damage assessment and 911.

- 8.1 *EMBC*, and other partners, must select and implement improved emergency alerting mechanisms for British Columbians including both new technologies and operational practices.
- 8.2 The provincial government and other partners must establish and resource a framework and capacity for post-disaster logistics. At the provincial government level, such a framework will need to include ministries and agencies well beyond EMBC alone.
- 8.3 The provincial government and other partners must establish and resource a framework and capacity for urban search and rescue, with particular emphasis on light and medium urban search and rescue capacity.
- 8.4 *The provincial government and other partners, must establish and resource a framework and capacity for rapid damage assessment, including use of appropriate technology.*
- 8.5 The provincial government, local authorities, and key partners must assess opportunities to enhance the resiliency and capacity of the 911 system, and establish situational awareness linkages between the 911 system and emergency management structures.<sup>8</sup>

The Province has just upgraded their tsunami notification system. There is a new emergency alert system being introduced in Canada, developed in partnership with federal, provincial and territorial emergency management, Environment Canada and the broadcast industry. Called Alert

<sup>&</sup>lt;sup>8</sup> British Columbia Earthquake Preparedness Consultation Report, pages 34 - 36

Ready, emergency alerts will be delivered through television and the radio. This system isn't completely operationalized yet, although advertising is actively taking place.

The City is launching its own public alerting system, a new emergency notification system capable of notifying the public by telephone, email, SMS text and fax. Key to its success will be the public signing up for notifications. A marketing and communications strategy is in place for the launch to encourage sign-ups. The public may sign up at <u>www.RichmondBCAlert.ca</u> or calling 604.233.3333.

The City already has a rapid damage assessment program in place to assess buildings after a flood or an earthquake. The City's 84 trained staff have exercised their assessment skills as part of the City's emergency management training and exercise program.

The City also participated as part of a working group with representatives from the City of Vancouver, North Shore Emergency Management, BC Housing and the University of British Columbia to develop an application to be used on IOS and Android cellular phones and tablets for electronically documenting rapid damage assessment results and transmitting that information along with photo documentation to a mapping function in the Emergency Operations Centre for improved situational awareness. This application will be rolled out to all local authorities in British Columbia later this year.

# <u>Plans</u>

Section 2 (1) of the Local Authority Emergency Management Regulation of the British Columbia Emergency Program Act requires local authorities to prepare emergency plans that reflect:

The local authority's assessment of the relative risk of occurrence and the potential impact on people and property of the emergencies or disasters that could affect all or any part of the jurisdictional area for which the local authority has responsibility.

The City of Richmond developed a number of comprehensive emergency plans that would address the response to an earthquake as an earthquake response plan on its own would not be comprehensive enough.

The City's Plans include:

- Emergency Management Plan a comprehensive over-arching all hazard emergency response plan that:
  - Provides an overview of the City's emergency management and reporting structure.
  - Outlines the roles and responsibilities of City staff and departments and other agencies involved in the response effort.
  - Provides overall strategy for the City's emergency mitigation preparedness, response and recovery measures.
  - Identifies key priorities and actions to be undertaken in preparing for and responding to a major emergency or disaster.

- Outlines the procedures for Declaring a State of Local Emergency and delegating the required powers.
- Encompasses Richmond's jurisdictional boundaries for response operations and the type of emergencies that are beyond routine events.
- Emergency Information Plan a comprehensive plan that provides a communication strategy for the provision of prompt, coordinated and accurate information to all internal and external stakeholders in the event of an emergency or disaster.
- Emergency Social Services Plan a plan for the immediate needs of evacuees for food, clothing, shelter, transportation and medical services.
- Evacuation Plan a framework for a coordinated evacuation response.
- Pandemic Plan a plan for the continuity of government operations when numerous staff are away due to illness.
- Dangerous Goods Spill Response Plan a plan for the response to a hazardous materials release.
- Chemical Biological Radiological Nuclear Explosives (CBRNE) Response Plan a plan for the response to a threat of terrorism from an attack with the use of chemical, biological, radiological, nuclear or explosions.

These plans are reviewed annually after the completion of emergency exercises, after every major emergency and updated as needed to ensure they are current.

Staff consults with neighbouring communities to ensure community emergency plans are congruent, and during a response, that actions that impact other communities are planned and jointly coordinated. EMBC holds a copy of the City's Emergency Management Plan.

The Province will be introducing their Immediate Response Plan to Earthquakes in the coming months. Staff will assess this Plan for integration with the City's emergency response planning.

# **Emergency Facilities**

The City's primary Emergency Operations Centre (EOC) and Emergency Call Centre are located at City Hall and a secondary EOC facility is located at the Works Yard. In a major earthquake, these locations would require a damage assessment prior to being used. A post disaster Emergency Operations Centre will be constructed in the new Firehall #3.

#### **Emergency Volunteers**

The City has 94 Emergency Programs volunteers who provide a number of services to our community. All have been trained to provide referrals to essential services of food, clothing, shelter, transportation and medical services to evacuees in reception centres and provide group lodging facilities in accordance with Emergency Social Services program standards.

Emergency communication capabilities are an important function in an emergency when telephones and cellular phones may be out of service. Approximately one third of our volunteers are amateur radio operators who will be able to assist with providing emergency radio communications during an emergency. The City has a new emergency communications vehicle and trailer that can be deployed when required.

To engage our emergency radio communications volunteers and exercise their skills, they also participate in many community events by providing communications services and coordination. Examples of these include the Steveston Salmon Festival, Ships to Shore, Terry Fox Run and SOS Children's Village Charity Run.

Other Emergency Programs volunteers who receive facilitation training present the Get Ready Richmond Personal Preparedness Workshops at community centres and to groups in the community. They also staff an educational emergency preparedness display booth at community events.

# **Financial Impact**

None

# Conclusion

It is a challenge for any level of government to be staffed and resourced for a catastrophic earthquake. In the City, the fundamental pieces of emergency management are in place to be built upon within the Emergency Programs work plan. In the event of a major emergency or disaster, Richmond is well positioned to respond, and will work with the Province to obtain the support the City requires.

Deborah Procter Manager, Emergency Programs (604-244-1211)

DP:dp



# **Report to Committee**

Re:	Emergency Communications Service Delivery in British Columbia - Strategic Vision and Discussion Paper from the Ministry of Justice			
	Anne Stevens Senior Manager, Community Safety Policy & Programs			
From:	John McGowan Fire Chief	File:	09-5130-01	
То:	Community Safety Committee	Date:	May 1, 2015	

#### **Staff Recommendation**

That the staff report titled "Emergency Communications Service Delivery in British Columbia – Strategic Vision and Discussion Paper from the Ministry of Justice" be forwarded to the Ministry of Justice, in response to their request for written feedback by May 15, 2015 and Metro Vancouver and UBCM for information.

That the Ministry of Justice be advised that the City of Richmond would be pleased to participate in further consultation and stakeholder meetings.

John McGowan Fire Chief (604-303-2734)

Anne Stevens

Anne Stevens Senior Manager, Community Safety Policy & Programs (604-276-4273)

**REPORT CONCURRENCE** CONCURRENCE OF GENERAL MANAGER INITIALS: **REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE** APPROVED BY CAO **CNCL - 99** 

#### **Staff Report**

#### Origin

This report supports Council's Term Goal #1 Community Safety:

1.5. Improved perception of Community Safety by the community.

#### **Findings of Fact**

In July 2013 UBCM circulated a report titled "9-1-1 Service in British Columbia" and requested comments from Local Municipalities.

The UBCM report highlighted a number of service gaps and technological changes in the delivery of 911 services that would require new revenue sources to meet public demand (i.e. video, pictures, text etc.). The UBCM requested municipalities to provide comments and suggestions in support of the Call Answer Levy (CAL) initiative.

In December of 2013 Council adopted the following resolutions with respect to the report which were forwarded to UBCM:

That UBCM be advised that should the Province establish a province-wide CAL, the City of Richmond would request the following:

- 1. Municipalities would continue to be included in the discussion, development, implementation and funding allocation of a province-wide 911 CAL.
- 2. The province-wide levy would be cost neutral for municipalities and any new additional revenue sources (such as from mobile phones) would be used to fund system improvements and integration.
- 3. Scope for the province-wide 911 CAL levy be strictly for the provision of 911 services, and administrative overhead from the telephone companies would be limited to a minimal amount.

In March 2015 the Ministry of Justice submitted a discussion paper on "Emergency Communications Service Delivery in British Columbia – Police Communications Centres and 911 PSAP".

The Ministry of Justice is "seeking input in order to inform the future of emergency communications across the Province". The Province's vision includes a consolidated 911 Public Service Answering Point (PSAP) and police communications service delivery model with enhanced support from a provincial call answer levy on wireless devices.

There are a number of questions the Ministry is posing to key stakeholders and would like the City's feedback by May 15, 2015 on the following two discussion areas.

1) Consolidated 911 PSAP and police dispatch service delivery model

**CNCL - 100** 

British Columbia has 10 PSAPs under local government authority, and 17 police communication centres across the province. From both a public interest and public safety perspective, the Ministry is interested in exploring options to develop a more streamlined service delivery model.<sup>1</sup>

#### **Discussion** Questions

**Vision**: Is the current service delivery model as efficient as it could be? **City's Response**: Currently Metro Vancouver contracts the service to E-COMM for 911 PSAP. Police and fire dispatch services are contracted by the City through E-COMM. Yes, the City feels the delivery model of E-COMM is efficient.

**Service Delivery**: What are the key factors to consider in consolidating 911 PSAP and police communications across the province?

**City's Response**: The key factors to consider for consolidation are to ensure public interest and safety is maintained, and the funding structure is equitable for users. Any system established should have built in redundancy. This will allow for full back up for any operational centre in the event of a failure of any one centre

**Funding**: How does local government in your community currently fund 911 PSAP? **City's Response**: The 911 PSAP service delivery for Richmond is under the authority of Metro Vancouver. The funding of Richmond's 911 PSAP is collected through property taxes, on behalf of Metro Vancouver and this amount is a direct flow-through to E-COMM with no administrative overhead.

**Funding:** Will local government be able to fund these and enhanced services such as NG911 in the future?

**City's Response**: As this is a technical/operational matter, this would be a discussion between Metro Vancouver and E-COMM. Annual E-COMM budgets are established by the E-COMM board, and as a stakeholder of E-COMM the City has a representative appointed to the Board.

**Funding**: What funding model options exist and would be successful? Why or why not? **City's Response**: The 911 report commissioned by the UBCM indicated that six Canadian provinces have established, or are introducing, a province-wide CAL: Alberta, Saskatchewan, Québec, New Brunswick, Prince Edward Island and Nova Scotia. In five of those provinces, the CAL applies to all devices which can connect to 911 services. Alberta has also introduced a CAL which is limited to wireless devices. The Maritime Provinces and Saskatchewan approach 911 services as a provincial responsibility. In Québec and Alberta, 911 services remains the responsibility of local governments. In the Québec system, the provincial government set detailed requirements ranging from location and infrastructure, to operational requirements, procedures and quality assurance processes.

The local government's perspective on a province-wide CAL must:

A. provide new revenue to assist in the development of local 911 services;

<sup>&</sup>lt;sup>1</sup> Emergency Communications Services Delivery in British Columbia – Police Communication Centres and 911 PSAP, Ministry of Justice B.C., March 2015, pg 5

- B. ensure that all users of the local 911 service help pay for the service, both wireless and landlines; and
- C. respect the delivery of 911 services by local government.

In principle, the above provincial and local government perspectives are sound. The establishment of a province-wide 911 CAL would enhance public safety and it is envisioned that the system would improve the integration of the province's emergency response strategy.

**Funding**: With respect to existing funding for emergency communications, what works well, needs improvement, or could be done differently?

**City's Response**: The current funding for emergency communications works well for the City of Richmond, where the 911 PSAPs are collected through property taxes and is a direct flow-through to E-COMM with no administrative costs. The police and fire dispatch is funded through City's tax revenue.

**Next Generation 911**: What is the most appropriate response to infrastructure and technological pressure related to Next Generation 911?

**City's Response**: As stated in the Ministry report "NG911" "refers to ongoing efforts to improve the capacity of PSAP's to leverage increasing powerful internet protocol (IP) based systems, sensors and devices in a manner that enhances 911 services and emergency response. Examples of NG 911 functionality include text messages, integrated photo /video and global positioning systems (GPS)."A technical/operational matter, this would be a discussion between Metro Vancouver and E-COMM. To ensure adequate funding the cost will not be insignificant.

**Resiliency**: How can resiliency of emergency communications best be addressed (e.g. appropriate back-up, redundancies)?

**City's Response**: As this is a technical/operational matter, this would be a discussion between Metro Vancouver and E-COMM.

**Governance**: What is an appropriate method for emergency communications governance and regulations in British Columbia? Would standardization be of benefit to emergency communications? If so, in what areas (e.g. policies, procedures, standards, education, other)? City's Response: A provincial emergency communications standard that applies for all 911 PSAPs in British Columbia is ideal. A local governance board would oversee the policies, procedures and standards as specific to the local needs, such as Metro Vancouver currently is for the Greater Vancouver region. It is suggested this model be used for the remainder of the Province.

#### 2) Modernizing funding model

Local governments currently rely on a wire line (landline) call answer levy and property taxes to fund 911 PSAP services. With the increase of cell phones, 67% of 911 calls originated from cell phones, the Ministry is of the view that it would be reasonable for cell phone users to contribute to funding the emergency communication system.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Emergency Communications Services Delivery in British Columbia – Police Communication Centres and 911 PSAP, Ministry of Justice B.C., March 2015, pg 6

#### Discussion Questions

**CAL Scope**: What scope of services would be appropriate to be funded by a provincial CAL? Emergency communications only or broader services? If broader services, what else should be included?

**City's Response**: As previously reported, the province-wide levy would be cost neutral for municipalities and any new additional revenue sources (such as from mobile phones) would be used to fund system improvements and integration. The scope for the province-wide 911 CAL levy be strictly for the provision of 911 services, and administrative overhead from the telephone companies would be limited to a minimal amount.

**CAL Administration**: What would be the most effective process for administering the CAL? How should the revenue be managed?

City's Response: There is currently no proposed framework or information on how a provincewide 911 CAL would be implemented in British Columbia. In the event that a province-wide 911 CAL is to be implemented, it is envisioned that devices that have access to 911 services would be charged. This would increase the funding sources to not only property taxes and landlines, but also to mobile or internet-based phones.

One option, the collection of the 911 CAL, could be the responsibility of the telecommunication service providers that is overseen by the CRTC. Under this proposal, the telecommunication service provider has the ability to claim \$0.07 per line per month<sup>3</sup> for the administration of the program. Currently, the funding sources collected for 911 PSAPs have no administrative overhead. Staff feels this administration overhead collected by telecommunication is high and should be negotiated to a lower rate.

An alternative source to fund 911 PSAP improvements is through the provincial sales tax and other provincial revenue sources such as the Maritime Provinces and Saskatchewan.

**CAL Amount**: What would be the most appropriate way to determine the amount of the CAL? **City's Responses**: The province-wide levy would be cost neutral for municipalities and any new additional revenue sources (such as from mobile phones) would be used to fund system improvements and integration.

<sup>&</sup>lt;sup>3</sup> This amounts to approximately \$4.2M additional revenue for telecommunication service providers (based on estimated 5 million subscribers provided in the UBCM 911 report, p.27)

# Financial Impact

None at this time.

## Conclusion

In December 2013, staff submitted a report titled "*Province-wide 911 Levy in British Columbia*" to UBCM. The City's position on a CAL has not changed.

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This report titled "*Emergency Communications Service Delivery in British Columbia - Strategic Vision and Discussion Paper from the Ministry of Justice*" be submitted to the Ministry of Justice in response to their discussion paper.

John/McGowan Fire Chief (604-303-2734)

Anne Stevens

Senior Manager, Community Safety Policy & Programs (604-276-4273)

Att. 1: Emergency Communications Services Delivery in British Columbia – Police Communication Centres and 911 PSAP, Ministry of Justice B.C.

Attachment 1

# EMERGENCY COMMUNICATIONS SERVICE DELIVERY IN BRITISH COLUMBIA

# **Police Communication Centres and 911 PSAP**

# STRATEGIC VISION DISCUSSION PAPER

MARCH 2015



Ministry of Justice

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#### INTRODUCTION

The Ministry of Justice (the Ministry) is seeking input from key stakeholders in order to inform the future of emergency communications across the province. This Discussion Paper outlines the background, challenges, and strategic vision for emergency communications service delivery involving 911 PSAP (Public Safety Answering Point). Specifically, the vision includes a consolidated 911 PSAP and police communications service delivery model, with enhanced support from a provincial call answer levy on wireless devices.

911 PSAP is the initial service a caller, requiring immediate emergency services, reaches when dialling 911. The PSAP creates an immediate link between individuals in crisis and their local emergency response agencies (police, fire, ambulance). 911 operators function in a crisis environment where incoming calls must be handled promptly and information conveyed in an accurate and timely manner. In this context, 911 PSAP is an integral component of the overall emergency communications system, and plays a significant role in public safety.

911 PSAP is a local government responsibility in British Columbia and is optional. Local governments have worked to manage and improve service since the 911 system was implemented in the late 1980s, when the technology was predominantly wireline telephone services (landlines). Three decades later, the system faces new and distinct challenges related to:

- Migration of households from wireline services to mobile wireless service;
- Implementation of Next Generation 911 (NG911) technologies;
- Gaps in the provision of 911 service;
- Ensuring resiliency of the 911 system amid major catastrophic events.

Given these challenges, there is a need – indeed, an opportunity – to revisit and renew the overall approach to 911 service delivery in British Columbia. By modernizing the current approach to a more streamlined, equitable and resilient system, the emergency communications system will be better positioned to enhance service province-wide.

#### BACKGROUND

There are currently ten 911 PSAPs in British Columbia under local government authority, with a patchwork of different service providers. Local governments voluntarily contract with the RCMP Provincial Police Service, deliver the service through E-Comm (Emergency Communications for BC, Inc), or provide the 911 service themselves.

- 1. E-Comm
- 2. Nanaimo (RCMP)
- 3. West Shore (RCMP)
- 4. Chilliwack (RCMP)
- 5. Prince George (RCMP)
- 6. Victoria Police
- 7. Saanich Police
- 8. Nelson Police
- 9. Abbotsford Police
- 10. Prince Rupert Fire Rescue

E-Comm is governed by the *Emergency Communications Corporation Act*, and has integrated emergency communications in much of the Lower Mainland. E-Comm handles 80% of the 1.5 million 911 calls in the province each year.

Many PSAPs are co-located with police dispatch services. There are currently seventeen police communication centres across the province, and similar to 911 PSAPs, is a patchwork of RCMP, E-Comm and independent municipal police departments. Funding of the two functions (911 PSAP and police dispatch) is separate. There are two general funding sources available to local governments for 911 PSAP: a call answer levy (CAL) on wireline telephone services and a levy charged on residential property taxes.

In the past the Union of British Columbia Municipalities (UBCM) endorsed a number of resolutions calling for the Province to introduce legislation that would allow the implementation of a province-wide 911 CAL on wireless devices. In July 2013, UBCM released a report on the issue and requested that local governments provide further input on the provincial call answer levy issue. In May 2014, UBCM advised there was not sufficient support for the CAL among local governments.

The Ministry would like to acknowledge the work of UBCM on this issue and the July 12, 2013 report by Dave Mitchell and Associates Ltd. "911 Services in British Columbia: Background Review in Relation to a Province-Wide Call Answer Levy". The report is an invaluable resource on issues related to 911 PSAPs and can be found at:

<u>http://www.ubcm.ca/assets/Resolutions~and~Policy/Policy/Community~Safety/911%20Services%20in%</u> 20BC.pdf

#### CHALLENGES

When the 911 system was implemented several decades ago it reflected the organizational and technical realities of the day. For example, in the 1980s physical landlines served as the primary means of telephone communication, and mobile/cellular devices with embedded functionality (e.g., global positioning systems) were merely nascent technologies. Moreover, our awareness and readiness for natural and human-based threats to public safety – earthquakes, tsunamis, and terrorism, for example – was comparatively unrefined.

Now, some 30 years later, the pace of technological change has placed increasing and inevitable pressure on 911 PSAPs – not only in terms of how services are delivered, but also how the system and its constituent parts interact and function. In this context, several distinct challenges to the 911 PSAP status quo have emerged.

#### Changing landscape – wirelines to wireless

The number of wireline (landline) telephones is declining as more people migrate from wireline to wireless services. This declining number means reduced revenue collected by local governments to support PSAPs in British Columbia. It also means that more and more calls to 911 are generated from cell phones – in fact 67% of 911 calls are from cell phones.

#### The wave of Next Generation 911 (NG911) technology

"NG911" broadly refers to ongoing efforts to improve the capacity of PSAPs to leverage increasingly powerful internet protocol (IP) based systems, sensors and devices in a manner that enhances 911 services and emergency response. Examples of NG911 functionality include text messaging, integrated photo/video, and Global Positioning Systems (GPS) to assist in conveying critical situational details from the location of an emergency directly to a 911 PSAP and first responders.

Despite the potential they offer, harnessing NG911 capacities remains a challenge as it involves considerable investments to upgrade and/or replace legacy infrastructure and associated business processes (e.g., staffing, training). Nonetheless, citizens are increasingly information-oriented and dependent on personal mobile devices, and with that transformation come reasonable expectations that public safety mechanisms such as 911 will be appropriately aligned to emergent technologies. As such, there is value in emphasizing the imperative to embrace and enable NG911.

#### Gaps in the provision of 911 service

In some areas of the province there are gaps in 911 services. These gaps include areas where no landline or wireless connectivity is available, however the focus of this discussion is on areas where 911 services are not provided (regardless of whether connectivity exists). These areas include the Stikine Region, Central Coast Regional District, Northern Rockies Regional Municipality, and the Skeena-Queen Charlotte Regional District (outside the City of Prince Rupert).

Although much of the territory within these jurisdictions is vast, isolated and inaccessible, it nonetheless encompasses numerous, long-standing communities with typical emergency service needs. Moreover, their local economies are increasingly premised on burgeoning industries such as energy and tourism, which not only elevate demands on existing services but also create unique service pressures.

#### Ensuring resiliency of the 911 system amid major catastrophic events

The inherent critical nature of emergency situations necessitate that the supporting 911 system must be robust and resilient across the entire service continuum, fully capable of functioning amid wide-scale and severe emergency events. A system that falls short of these fundamental business continuity requirements threatens public safety, jeopardizes the lives and safety of citizens and emergency responders, and endangers private property and strategic assets.

Achieving the required measure of resiliency for 911 services, however, is an ongoing and costly pressure, and involves a number of aspects including human resources (e.g., appropriate staffing levels, training); information technology (e.g., capacity, redundancy, back-up systems); physical infrastructure (e.g., structural integrity of buildings, communications systems, powers connections); organizational preparedness (e.g., procedural, planning and response functions); and business continuity (e.g., workflow maintenance).

#### STRATEGIC VISION

The following sections outline what is needed on a provincial level to address the challenges described above. The proposed approach is for discussion, and represents the strategic vision that the Ministry of Justice is currently considering. The Ministry welcomes comments and input on the discussion questions provided in the following sections.

#### Strategic Vision

Patchwork of 10 911 PSAPs, 17 police dispatch
Operational and financial efficiencies not fully realized

Consolidated service delivery model Economies of scale province-wide

Policies, standards inconsistent

Infrastructure, technology not coordinated

Approach to technology, standards consistent Resiliency and interoperability improved

Landline revenue declining

Cellphone users not contributing

Modernized funding model New revenue stream for NG911, infrastructure, etc.

#### 1. Consolidated 911 PSAP and police dispatch service delivery model

As described earlier, British Columbia has 10 PSAPs under local government authority, and 17 police communication centres across the province. From both a public interest and public safety perspective, the Ministry is interested in exploring options to develop a more streamlined service delivery model. Benefits of consolidation include economies of scale, and operational and financial efficiencies (for example, improved communication, reduced duplication, financial savings, volume purchasing, uniform policies and procedures, etc.).

There are a number of guiding principles to inform the vision:

- > Enhanced public safety
- > Improvements to resiliency, interoperability and capacity building
- > Leverage existing efficiencies and economies of scale
- > Equitable funding
- > Cost-recovery for consolidation
- > Consistency province-wide: approach to NG911, policies, standards etc.
- > Accountability for performance

#### **Discussion Questions:**

#### Vision

• Is the current service delivery model as efficient as it could be?

#### Service Delivery

• What are the key factors to consider in consolidating 911 PSAP and police communications across the province?

#### Funding

- How does local government in your community currently fund 911 PSAP?
- Will local governments be able to fund these and enhanced services such as NG911 in the future?
- What funding model options exist and would be successful? Why or why not?
- With respect to existing funding for emergency communications, what works well, needs improvement, or could be done differently?

#### Next Generation 911

• What is the most appropriate response to infrastructure and technological pressures related to Next Generation 911?

#### Resiliency

• How can resiliency of emergency communications best be addressed (e.g., appropriate back-up, redundancies)?

#### Governance

- What is an appropriate method for emergency communications governance and regulation in British Columbia?
- Would standardization be of benefit to emergency communications? If so, in what areas (e.g., policies, procedures, standards, education, other)?

#### 2. Modernized funding model

Local governments currently rely on a wireline call answer levy (CAL) and property taxes to fund 911 PSAP services. This varies by local government. With the proliferation of cell phones, and with 67% of 911 calls from cell phones, the Ministry is of the view that it would be reasonable for cell phone users to contribute to funding the emergency communications system. In fact, seven other provinces already have provincial CAL legislation in place.

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### **CNCL - 112**

As described earlier, UBCM had looked at a provincial CAL on all wireless devices that connect to 911 services, and the Ministry was part of a working group exploring the issue. Although UBCM withdrew the proposal, the Ministry considers there is still merit in considering a CAL on wireless devices.

#### **Discussion Questions:**

#### CAL Scope

• What scope of services would be appropriate to be funded by a provincial CAL? Emergency communications only or broader services? If broader services, what else should be included?

#### CAL Administration

- What would be the most effective process for administering the CAL?
- How should the revenue be managed?

#### CAL Amount

• What would be the most appropriate way to determine the amount of the CAL?

Thank you in advance for your time and consideration of these important issues. Please provide written feedback via email to the following email address: <u>SGPSPB@gov.bc.ca</u>

All input is requested by May 15, 2015.

#### NEXT STEPS

In addition to seeking feedback on this paper, the Ministry of Justice is meeting with select key stakeholders such as UBCM, local governments and police agencies. A summary of information received will be provided to those who submit feedback. The Ministry will consider the results of this targeted stakeholder engagement as part of the analysis of the strategic vision. Thank you for your feedback.



## **Report to Committee**

Re:	Amendments to Water Use Restriction to Support Chafer Beetle Biocontrol	Bylaw and Cons	olidated Fees Bylaw
From:	John Irving, P.Eng. MPA Director, Engineering	File:	10-6125-04-01/2015- Vol 01
То:	General Purposes Committee	Date:	April 27, 2015

#### Staff Recommendation

- 1. That Water Use Restriction Bylaw No. 7784, Amendment Bylaw No.9247 be introduced and given first, second and third readings.
- 2. That Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248 be introduced and given first, second and third readings.

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

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Parks Services Water Services Community Bylaws Law	র র র	ac -
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO

#### Staff Report

#### Origin

In order to control the damage to lawns associated with pest damage on private property, amendments to the City's Water Use Restriction Bylaw No. 7784 and Consolidated Fees Bylaw No. 8636 are being proposed. These amendments will allow watering of lawns on private property during summer months, when water restrictions are in place, in order to support biocontrol of the European chafer beetle.

#### Analysis

#### European Chafer Beetle Control

European chafer beetle *Rhizotrogus majalis* has become a serious lawn pest found in residential, commercial and city landscapes. It was first discovered in New Westminster in 2001 and has subsequently spread to Richmond, Burnaby, Vancouver and Coquitlam. Since first observations in 2010, the European chafer beetle has spread across the City, with significant damage occurring over the past twelve months.

Currently, there are no permitted chemical insecticides for use on chafer larvae under the City's Pesticide Use Control Bylaw No. 8514. For infested lawn areas, the application of nematodes (naturally occurring microscopic round worms) has proven to be the most effective control. Products containing *heterorhabditis bacteriophora* nematodes are available at local garden centres. The beneficial nematodes should be applied to the infested lawn area at the end of July when chafer is in the beginning of its grub/larvae stage. Ample watering is required before and after application of nematodes for at least two weeks to allow the nematodes to percolate into the soil profile to the chafer grubs. The amount of watering required is greater than allowed under Stage 1 and Stage 2 water restrictions as set out in Bylaw 7784.

An amendment to Bylaw No. 7784 is proposed to provide the means for property owners to obtain a water exemption permit (See Attachment 1, Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9247). Applicants will be required to provide proof of purchase of nematodes via receipt or invoice from a company to the applicant's address showing nematode treatment is required. A company may apply for nematode permits on behalf of a property. The application fee for this permit is proposed to be \$33.50 for properties without metered water and free for properties with metered water (see Attachment 2, Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248). Properties without a water meter will have to accept a water meter installation as part of the permit approval process as well, where applicable. The permit will allow sprinkling outside of restricted days/hours to the area of lawn treated with nematodes under Stage 1 and Stage 2 water restrictions. Permits are not valid during Stage 3 and Stage 4 water restrictions. The permit will only be valid between July 15 and August 15 for 21 days within the validity period and cannot be renewed. The City reserves the right to revoke and/or cancel a permit for non-compliance within the terms or conditions of this permit. A resident applying for a water exemption permit must have the permit affixed to a post facing the street serving the premises, beside the principal driveway or in a visible location on the front yard.

As part of the City's Enhanced Pesticide Management Program, information on European chafer beetle control can be found in Richmond's *European Chafer in Your Lawn* brochure and at Richmond.ca/chafer. City Staff continue to respond to telephone calls and provide expert advice including recommendations to home owners experiencing lawn damage associated with the European chafer beetle. The City's 2015 spring and summer Natural Lawn Care workshops include more sessions specific to European chafer beetle control to address the growing concern of this pest in the community.

#### **Financial Impact**

There are no financial impacts associated with these bylaw amendments.

#### Conclusion

Due to the recent proliferation of European Chafer Beetle damage to lawns on private property in the City, the use of nematodes for biocontrol of this pest is recommended. Amendments to the Water Use Restriction and Consolidated Fees bylaws support the requirement for successful biocontrol of the European chafer beetle on private properties.

Lesley Douglas, B.Sc., R.P.Bio. Manager, Environmental Sustainability (604-247-4672)

LD:th

Att. 1: Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9247.
2: Consolidated Fee Bylaw No. 8636, Amendment Bylaw No. 9248.

Attachment 1

Bylaw 9247



### Water Use Restriction Bylaw No. 7784, Amendment Bylaw No. 9247

The Council of the City of Richmond enacts as follows:

- 1. The Water Use Restriction Bylaw No. 7784, as amended, is further amended by deleting Section 3.1 in its entirety and substituting the following:
  - **"3.1 Permits** 
    - 3.1.1 A person may apply to the General Manager, Engineering & Public Works for a permit authorizing the person to water when Stage 1 Restrictions or Stage 2 Restrictions are in force if:
      - (a) the **person** has installed a new lawn, either by placing sod or turf or by seeding, or new landscaping on a substantial part of the outdoor portion of a property; or
      - (b) the **person** is applying nematodes to a lawn to control the growth of European Chafer Beetle.
    - 3.1.2 An application for a **permit** must be accompanied by supporting documents, as required by the **General Manager, Engineering & Public Works**, and the application fee specified in the Consolidated Fees Bylaw No. 8636, as amended or replaced from time to time.
    - 3.1.3 The General Manager, Engineering & Public Works, upon being satisfied that an applicant qualifies under subsection 3.1.1(a) or (b) and has complied with subsection 3.1.2, may issue a **permit** to the applicant and include terms and conditions in respect to the **permit**.
    - 3.1.4 Notwithstanding Stage 1 Restrictions or Stage 2 Restrictions, the holder of a valid permit is authorized to water in accordance with the terms and conditions of the permit.
    - 3.1.5 A permit does not exempt the permit holder from Stage 3 Restrictions or Stage 4 Restrictions.
    - 3.1.6 A **permit** must be affixed to a post facing the street servicing the property, beside the principal driveway or if there is no driveway, in a visible location in the front yard of the property.

- 3.1.7 A **permit** is valid for the period of 21 days from the date of issue, except that a **permit** issued for the purpose of subsection 3.1.1(b) may only be valid for a period of 21 days between July 15 and August 15 of each year.
- 3.1.8 A **permit** holder may apply for an extension of a **permit** issued for the purpose of subsection 3.1.1(a), but such extension must end on or before 42 days from the original date of issue under subsection 3.1.3. A **permit** issued for the purpose of subsection 3.1.1(b) cannot be extended."
- 2. This Bylaw is cited as "Water Use Restriction Bylaw No. 7784, Amendment Bylaw 9247".

FIRST READING	 CITY OF RICHMOND
SECOND READING	 APPROVED for content by originating dept.
THIRD READING	 <u>A</u>
ADOPTED	APPROVED for legality by Solicitor

MAYOR

CORPORATE OFFICER

**Bylaw 9248** 



### Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248

The Council of the City of Richmond enacts as follows:

1. The Consolidated Fees Bylaw No. 8636, as amended, is further amended by deleting the table under Schedule – Water Use Restriction and substituting the following:

Description	Fee
Permit application fee for new lawns or landscaping (s. 3.1.1(a))	\$33.50
Permit application fee for nematode applications for European Chafer Beetle control, where property does not have water meter service (s. $3.1.1(b)$ )	\$33.50
Permit application fee for nematode applications for European Chafer Beetle control, where property has water meter service (s. 3.1.1(b))	NIL

2. This Bylaw is cited as "Consolidated Fees Bylaw No. 8636, Amendment Bylaw No. 9248".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

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MAYOR

CORPORATE OFFICER



**Report to Committee** 

То:	General Purposes Committee	Date:	May 1, 2015
From:	Mike Redpath Senior Manager, Parks	File:	06-2345-20-LSTE1/Vol 01
Re:	London/Steveston Park Concept Plan		

#### Staff Recommendation

That the London/Steveston Park Concept Plan, as outlined in the staff report titled "London/Steveston Park Concept Plan," dated May 1, 2015, from the Senior Manager, Parks, be approved.

Mike Redpath Senior Manager, Parks (604-247-4942)

Att. 4

R	EPORT CONCURRE	ENCE
ROUTED TO: Development Applications	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO

#### Staff Report

#### Origin

Polygon 273 Development Ltd. has applied to rezone a 7.0 acre portion of a 13.0 acre site at 10440 and 10460 No. 2 Road to a site specific "Town Housing (ZT72) – London/Steveston (No.2 Road)" zone to permit a 133-unit townhouse development on a proposed Parcel 1. The remaining 5.8 acres of the site will maintain the current School and Institutional Use (SI) zoning taking into account minor widening of No. 2 Road required for the development. A 5.0 acre portion of the former Steveston Secondary School property will be transferred to the City and added to the existing site of London/Steveston School Park and a 0.8 acre portion transferred to the City for a childcare site facing No. 2 Road.

A series of Open Houses were held in February and March 2015 to gain public input towards the development of a concept plan that integrates the portion of the old Steveston High site to be transferred to the City, with the existing properties of London/Steveston School Park. The purpose of this report is to summarise the findings of the public consultation process, and to present the London/Steveston Park Concept Plan for approval.

#### Analysis

#### The Existing Site

The existing London/Steveston School Park comprises of properties owned by the City of Richmond and School District No. 38. The Steveston-London Secondary School opened in 2007 after the merger of Steveston Secondary and Charles E. London Secondary. The new Steveston-London Secondary School faces both Williams Road and Gilbert Road, and the old Steveston Secondary School fronts onto No. 2 Road.

The portion of the old Steveston Secondary site that is proposed to become City park property is an open lawn approximately 4.0 acres in size, another 1.0 acre within in two greenways linking the park to No. 2 Road, and a small portion of the property will also locate a childcare facility (Attachment 1). This area is being transferred to the City from Polygon as described above as a condition of rezoning. From a park planning perspective the proposed addition of accessible open space has presented a unique opportunity to engage the community and surrounding established neighbourhoods through consultation for master planning the London/Steveston community park as a whole.

The existing City property is located between the new and old school sites and is approximately 18 acres in area. Its main feature is a softball complex of four ball diamonds that is supported by a caretaker suite/field house/pubic washroom building, a batting cage and a parking lot that runs parallel with Williams Road. A natural grass sand field exists in the north part of the property and a small playground and seating area is located near the site's Goldsmith Avenue frontage. Lighting has been provided so that the field and one ball diamond can be programmed for use in the evenings. The existing athletic facilities were not included within the scope of the design for the new concept plan, since at present they are regularly programmed and well used by community sport groups.

#### Public Consultation Process

The public was invited to provide input and feedback towards the preparation of the concept plan for the expanded park at a series of Open Houses held at Steveston-London Secondary School over a six week period from February 12 to March 31, 2015. Approximately 1,200 notices were sent to residential properties in the surrounding neighbourhood. The public engagement process was advertised in the local newspapers, and information was posted on the City's website. The public engagement process was intentionally designed to build on ideas generated from the community and participants at each stage of the process.

#### February 12 and February 14, 2015 – Ideas Generation Consultation

Phase one was considered the ideas generation and discovery phase, where the public was invited at two sessions, to describe concerns with the existing park and to share ideas and express their aspirations for the future development.

Twenty four people attended the first session and twenty nine people participated at the second open house. The analysis of the input revealed some consistent themes including:

- Improving opportunities for fitness and walking;
- Creating more diversity of spaces, including social spaces, within the park;
- Improving circulation around the site;
- Providing activities that are suitable for a wide range of ages; and
- Improving drainage at the site.

The majority of the participants did not express an interest in sports fields being part of the redevelopment plan.

#### March 5, 2015 Meeting – Concept Options Consultation

From the feedback received at the first two Ideas Generation sessions, three concept design options were prepared and presented for review at the third open house. Each concept was presented with a large plan, perspective sketch, as well as precedent images to illustrate the park program in each option. Twenty four participants attended this event and they appeared to enjoy playing their part in the design process. Comments were received relating to each concept design and these were amalgamated with the findings of the ideas fair to help develop the final concept plan.

#### March 31, 2015 Meeting – Draft - Final Concept Consultation

The purpose of the final Open House was to present the preferred concept design that was generated based on the progressive feedback from the community received to date. Thirty one participants attended this event where participants were encouraged to interact through informal discussions regarding the concept plan. The final concept design was presented with a large plan, cross sections, and a perspective sketch as well as precedent images to illustrate the

proposed park plan. In addition, a sketch was presented that showed the proposed layout of a proposed new play area integrated with existing trees and new site features.

Parks staff also met with the Principal and Vice Principals of Steveston-London Secondary School to gather their feedback on the proposed preferred concept design plan. School staff were very supportive of the concept proposal to increase the diversity of uses at the site.

Concurrent to the Open House process, the community was also invited to view all of the engagement process materials and complete the questionnaires on the Let's Talk Richmond website, <u>www.LetsTalkRichmond.ca</u>.

Interest shown at the Open Houses was strong and response to the park proposal was generally favorable. Most of the local residents who participated in the design process attended all of the sessions, and this provided valuable consistency in discussion and commentary as the concept design plan progressed from start to finish. A complete review of the planning process and its results are included (Attachment 3 and 4).

#### Proposed London/Steveston Park Concept Plan

The concept design (Attachment 2) for London/Steveston Park proposes two distinct areas for the site:

- Park Addition a large, flexible use, open space and a central area that focuses on social activities and play; and
- Greenways two 30 foot wide greenways, located to the north and south of the Polygon townhouse development, that connect the Park Addition to No. 2 Road.

A proposed open lawn which is approximately 2 acres in size is included that can be used for informal activities, games and sports, and also for larger neighbourhood scale programs and events. Around its edges and planted within it trees are proposed to be planted in groups, as specimens, and as rows flanking the walkways creating an enjoyable walking experience and greening the park.

The concept proposes a grading plan to ensure that the pathways and main use areas remain dry throughout the year, with some areas adjacent the pathways at lower elevations designed to accept water during the wet season. These detention areas will allow water to infiltrate the ground slowly, thereby reducing pressure on the City's storm drainage system.

A variety of trees and shrubs may be planted within these areas to increase biodiversity and enhance habitat creation for wildlife. This open space improves upon the old school site's existing lawn. The two smaller ball diamond backstops will be removed and replaced at new sites within the park system. A contained/fenced, dog off leash area (0.75 acres) is proposed to be located in the northwest section of the park.

A large mound, approximately 4 metres in height, is proposed to anchor the middle of the park. This feature will add prominence and variety to the park's topography, become a play feature unto itself, and reinforce the park's unique character within the City's park system.

The central area located close to Goldsmith Drive is proposed to enhance the existing play ground with the proposed future addition of new play elements, and a covered structure that could provide shelter for outdoor activities and programs. Seating and picnic tables are also proposed to encourage social gathering and the making of connections among the neighbourhood residents.

The new concept presents a major revision of the park's pathway/trail system. Primary pathways, including a 650 metre long circular loop, are proposed which can include distance markers and fitness equipment placed along the routes. The existing main trails will be increased to 3 metres in width, and will ensure neighbourhood connections to Williams Road, Gilbert Road and to No. 2 Road through the proposed two Greenways.

#### Next Steps and Advancing Phased Future Park Development

Approval of the London/Steveston Park Concept Plan will advance Polygon satisfying rezoning considerations, including transfer of the proposed park and childcare lands to the City. Subsequently, the Polygon rezoning and development permit applications will be brought forward to Council for consideration before the final adoption.

The rezoning considerations for the Polygon development project provided for two options of either the applicant constructing the park works under a Servicing Agreement based on an approved park plan or the City electing to do the work.

The Community Services Division has elected to the construct the Park Addition, as such Polygon will construct the proposed two east-west Greenways and will be eligible for Park Development DCC credits for the actual cost of the park construction works (from part of the maximum payable DCCs of approximately \$600,000 to be paid by Polygon). The estimated cost of full implementation of the London/Steveston Park Concept Plan park construction is \$ 4.0 million to be phased in over time.

#### **Financial Impact**

This report presents the London/Steveston Park Concept Plan for approval. Subject to Council's approval of the park concept plan, capital submissions will be considered as part of the City's five-year financial capital plan with proposed phased construction of the park improvements targeted for commencement in 2017, concurrent with the Polygon Development.

#### Conclusion

The transfer of land to the City will lead towards the renewed development of London/Steveston Park. The park will better function both as a quiet neighbourhood green space and as a place for local residents to gather, socialize and entertain within an active setting. The recommended London/Steveston Park Concept Plan is the result of a comprehensive public engagement

process, and approval of the plan will advance the rezoning application of Polygon's development project to the zoning adoption stage.

Clarence Sihoe Park Planner (604-233-3311)

Att. 1: Site Map - Proposed Addition to London-Steveston Park

- 2: Final Concept Design Plan
- 3: London/Steveston Park Concept Design volume 1 Report
- 4: London/FSteveston Park Concept Design volume 2 Appendices





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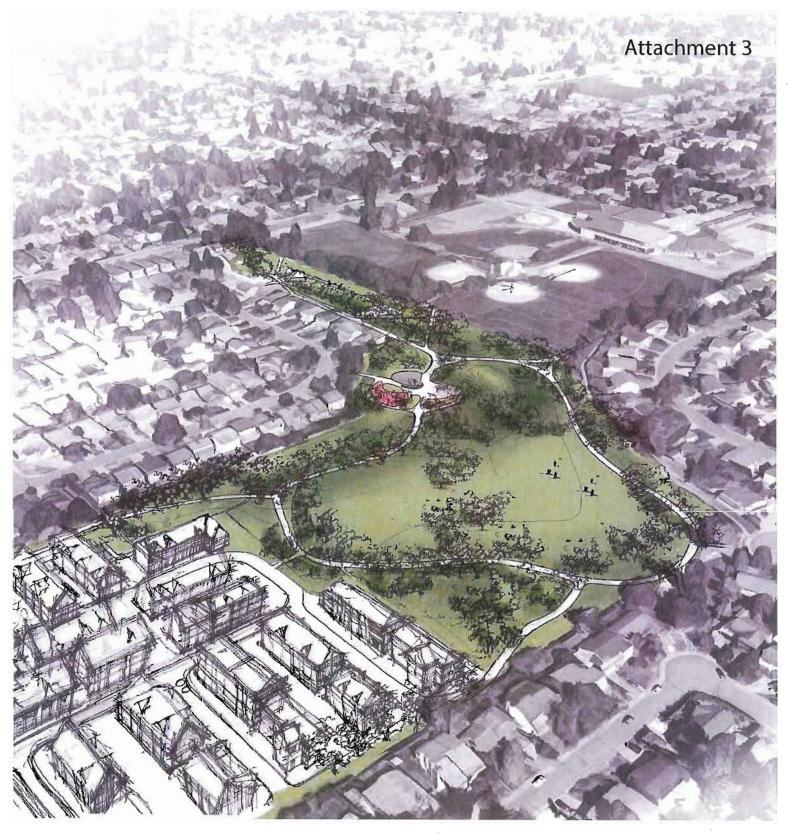
Richmond

London / Steveston Park



PICNIC TABLES

Attachment 2



City of Richmond 29th April 2015







## **Project Team**

#### **City of Richmond**

Nike RedpathSenior Manager, ParksClarence SihoeParks PlannerTricia BuemannArea Coordinator, Parks ProgramsMarie FenwickManager, Parks ProgramsMark McMullenSenior Coordinator, Major Projects, Planning & DevelopmentGregg WheelerManager, Sports and Community Events

#### space2place

Jeff Cutler Phil Wyatt Principal Project Manager

#### **Polygon Homes**

Chris Ho Emma Cartwright VP Development Development Coordinator





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Appendices

A Public Ideas Fair Presentation Material

B Public Ideas Fair Summary Report (event 01 + 02)

C Concept Design Review Presentation Material

**D** Concept Design Review Summary Report (event 03)

E Final Concept Design Review Presentation Material

Final Concept Design Review Summary Report (event 04)

G Let's Talk Richmond Survey Responses

## **O1 INTRODUCTION**

Polygon Homes have purchased the old London-Steveston High School to build a residential development. As part of this development Polygon Homes is passing over approx. 4.5 acres of land to London-Steveston Park.

This additional parcel of land is great news for the park and the local community and its a good opportunity for the City of Richmond to review the use of the park and decide how best to connect the additional land to the park while also establishing a larger plan to revitalize the park with the involvement of the local community. This document is intended to summarise the process that was used to prepare a preferred concept design with community involvement. Refer to all presentation material and summary reports in Volume 2 of this document for more detail relating to the design process.

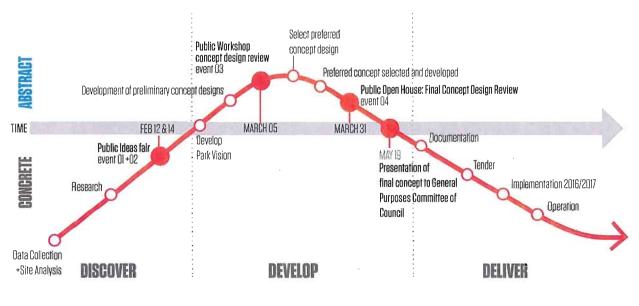
### **Design Process**

The design process has been structured around three main phases: **DISCOVER, DEVELOP, and DELIVER**.

During the **DISCOVER** phase, research and analysis was carried out in preparation for a public ideas fair to understand the current uses of the whole park site, and expectations, issues, and concerns of the community regarding the renovation of the park.

During the **DEVELOP** phase, concept options were developed, public workshops helped to decide the direction before developing a preferred concept design. Again, the public attended an event to comment on this preferred concept before presenting the design to Council.

Space2place is not currently providing services for the **DELIVER** phase, however in theory this phase would include the detailed design and implementation of the project over a period of time depending on the number of phases and allocation of funds.



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## **02 DATA COLLECTION & SITE ANALYSIS**

This first part of the work included the collection of background data, policies and guidelines; review of relevant precedents and theory; and analysis of the site. Following a detailed review of the background materials we undertook an analysis of the site, including important contextual linkages to the surrounding park and community. This material has been presented to participants at all of the open houses and it forms a key element in the design process as well as helping to determine the park programme.

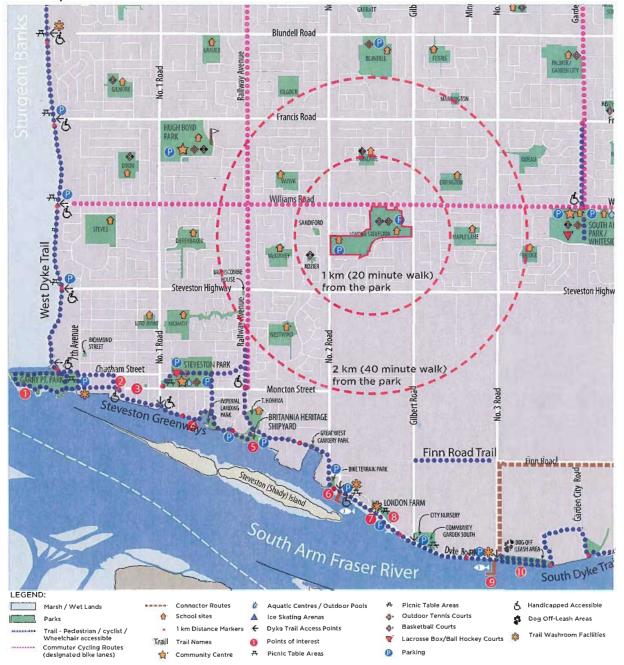
#### **Existing Site Plan**



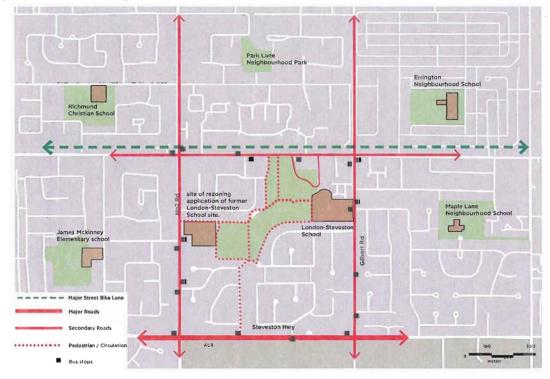
Existing site photos - credit Clayton Perry (http://claytonperryphotography.tumblr.com/)

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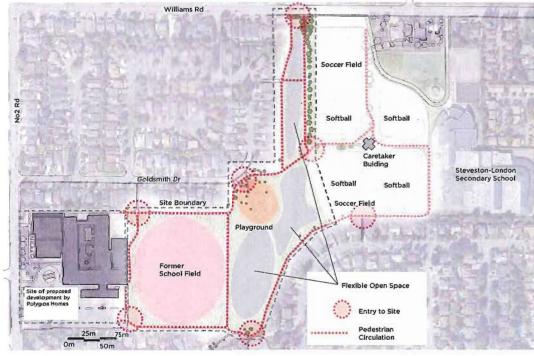
Community Plan



### Neighbourhood Plan - Existing Connections



### Site Plan - Existing Spatial Uses, Connections, Vegetation



**CNCL - 134** 

## **03 PUBLIC IDEAS FAIR**

## Events 01 + 02

24 participants attended event 01 29 participants attended event 02

## Objective

The purpose of the ideas fair was for discovery; to understand the current uses of the whole park site, and expectations, issues, and concerns of the community regarding the renovation of the park. The results from this event informed the park program and concept options that were presented at the next open house.

## Framework

Boards were displayed to communicate the existing site conditions including park context, circulation, connections, and spatial uses. Next, we asked participants to respond a series of high level questions regarding the existing park conditions and the potential for the park redevelopment. Participants responded with sticky notes that were placed in context on the park plans.



To supplement these questions, we followed with an exercise where the participants identified their preferences for activities within the park redevelopment. The input from the ideas fair events was supplemented with feedback received from the Let's Talk Richmond online survey.

## **Summary of Findings**

The analysis of the input received from the public events and Let's Talk Richmond has revealed some consistent themes including: improved opportunities for **fitness and walking**, creating **more diversity of spaces** within the park, the provision of more **social spaces** within the park, **improved circulation** around the site, provision of **activities that are suitable for a wide range of ages** (from children to seniors), and **improved drainage** in the park to make it more accessible for year round use.

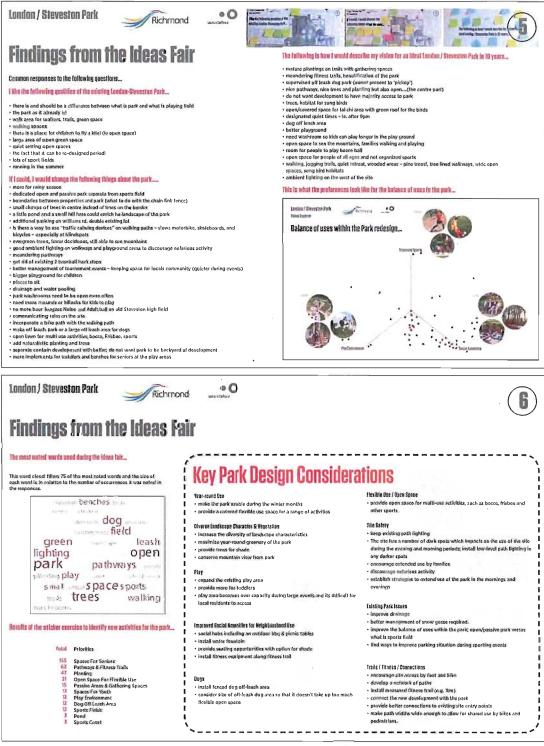
The majority of the participants did not express an interest in sports fields being part of the park redevelopment apart from those that exist on the Secondary School site. There was a sentiment that softball was a potential conflict with more passive park functions.

There was some diversity of opinion regarding the suitability of a fenced off-leash dog area within the park.

All of the feedback that we received at this stage was used to define 'Key Park Design Considerations'. These considerations were used to prepare the concept design options and were also presented at the Concept Design Review event.

For a more detailed report, refer to Appendix B - Ideas Fair Summary Report in Volume 2.

All of the feedback and findings from the two public ideas fair events were presented at the Concept Design Review (event 03). Refer to Appendix C for the full presentation material of the Concept Design Review located in Volume 2.

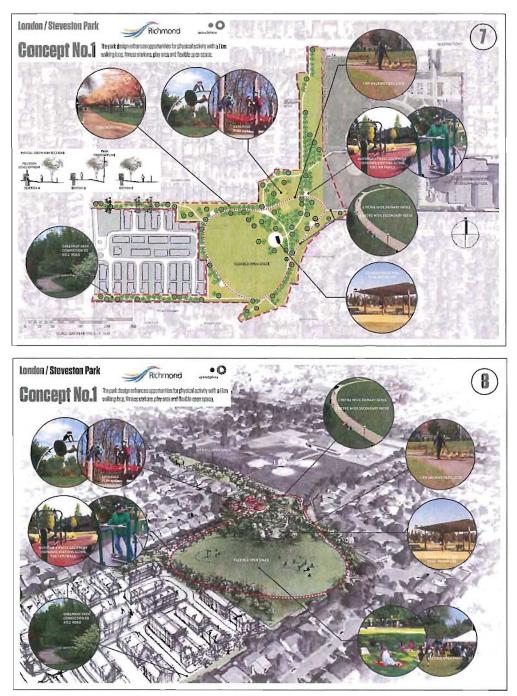


**CNCL - 136** 

## **04 PRELIMINARY CONCEPT DESIGNS**

#### **Concept No.1**

The park design enhances opportunities for physical activity with a 1 km walking loop, fitness stations, play area and flexible open space.

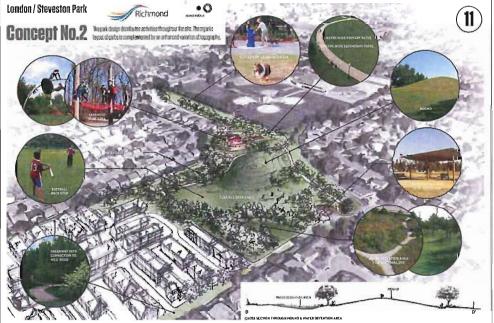


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#### **Concept No.2**

The park design distributes activities throughout the site. The organic layout of paths is complemented by an enhanced variation of topography.





**CNCL - 138** 

#### **Concept No.3**

The park design features the central organization of activities in the park with enhanced tree planting and water management using bioswales.



**CNCL - 139** 

## **05 CONCEPT DESIGN REVIEW**

## Event 03

24 participants attended event 03



### Objective

The purpose of this event was to present the community with concept design options based on the feedback received during the two ideas fair events in February. Participants were invited to make comments on all three concept designs in an informal setting through notes and discussions with city staff and consultants.

## Framework

Boards from the previous events were displayed to communicate the existing site conditions including park context, circulation, connections, and spatial uses. The findings from the two ideas fair events were also presented as well as the key park design considerations used for the development of all three concept options.

The three concepts were presented with a large plan, perspective sketch, as well as precedent images to illustrate the park program in each concept. Participants were asked to comment on each concept. Participants provided comments on sticky notes that were placed in context on a separate sheet. To supplement this exercise, separate forms were handed out where participants selected their preferred concept as well as adding any additional comments.

All of the concept design review material was posted onto the Let's Talk Richmond website for further feedback.

## Findings

The event was very informative and participants appeared to be enjoying playing their part in the design process. A number of comments were received relating to each concept design and these were amalgamated with the findings from the ideas fair events to help to refine the Key Park Design Considerations for developing the final concept design. At this stage we also prepared summary with a hierarchy of decisions relating to the park program and its overall design.

For a more detailed report, refer to Appendix D - Concept Design Review Summary Report in Volume 2.

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All of the feedback and findings from the Concept Design Review (event 03) was referenced when developing the final concept design. It was also presented at the Final Concept Design Review (event 04). Refer to Appendix E for the full presentation material of the Final Concept Design Review located in Volume 2.



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## **06 FINAL CONCEPT DESIGN**



### **Overview**

Based on the findings from the concept design review, elements from all three concepts were selected for the development of the preferred concept design:

- The organic layout of paths with enhanced variation in topography from concept no.2
- A walking loop with fitness stations in concept no.1
- The central organisation of activities in concept no.3
- Water management using bioswales in concept no.2 & no.3
- Informal layout of trees in concept no.2
- Fenced off-leash dog area in concept no.3

The final concept design for London/Steveston Park features two distinct areas - **a large flexible use open space** and a **central activity hub** area focused on active use. The existing landscape character is enhanced with varied topography, tree planting as well as water management with infiltration areas to create biodiversity. The central activity hub area replaces the existing play area with renewed play elements, a sheltered space for neighbourhood activities and a relocated small sport court. A new walking loop with fitness stations will enhance opportunities for physical activity. This design also features a small fenced off-leash dog area for neighbourhood residents.

The following pages provide a description of the key park elements along with drawings that illustrate the final concept design.

**CNCL - 142** 

# **Key Park Elements**



#### Pathways

There are now two path sizes; the primary paths are 3 metres wide and the secondary paths are 2 metres wide. The path layout has been revised to enhance the connections with the existing and new features within the park environment. The path layout also includes a fitness loop measuring 645 metres long for walking, running and dog walking.

The layout of paths has been designed to move all paths away from the property line which will also help with the grading of the site to ensure that paths are kept free of water to maximize use year-round use of the park.



#### Mounds

Increasing the diversity of landscape characteristics with the addition of a mound received good support from a majority of the participants. Mounds should be well integrated with pathways and should increase the view of the mountains from within the park. In the final concept design the mounds also help to stabilise the environment underneath the canopy structure by providing wind protection.

Canada Geese only like very flat ground therefore the addition of mounds could see a reduction in issues with these geese on the site.



#### Fenced off-leash dog area

The final concept design includes a small fenced off-leash dog area measuring 0.58 acres with a double gated entry positioned at the north and the south of this area. The area should include diversity in landscape characteristics with tree planting and topography to establish a more natural integration with the rest of the park. 58% (1400 sq m) of this dog park area is grass. The remainder consists of gravel paving. The final concept includes seating with opportunities for shade and dog waste bins.



#### Recreational open lawn

A majority of participants showed a consistently strong level of support for open flexible green space for a variety of activities including bocce, frisbee and sports.



#### **Tree planting**

Based on feedback from the ideas fair events, there was consistent interest from the participants in increasing the diversity of landscape characteristics throughout the park with the use of additional trees.

Some recommendations for tree planting from the public:

- Keep trees away from the fence line in order to avoid casting shadows onto neighbouring properties
- Make gaps between trees to not block existing views of the mountains.
- Use trees to add greater spatial diversity enhance the feeling of 'openness'
- Small deciduous trees should be used to enhance diversity in the landscape character and not plant too many evergreen trees.
- Provide shade opportunities.
- The layout of trees should be more random and informal.
- Incorporate tree-lined paths.



#### Drainage - Infiltration area for seasonal use

Poor drainage of the study area is a clear constraint of the project. Therefore the requirement to regrade the majority of the site to ensure positive drainage is essential for extending use of the park throughout the year.

Grass infiltration areas have been included in the final concept design however their size requirements will need to be determined during the detail development of the park.



# Canopy Structure (within central activity hub)

The use of a 'flexible' covered open space received good support throughout all of the events as a way to make the park more usable throughout the year. The structure should be well integrated within central activity hub; near the play area, facing south. Consideration should be given to wind protection and ensuring good visibility into the space to reduce the risk of any undesirable activities. It is anticipated that the space will be used in a number of ways therefore the covered spaced should have a minimal amount of picnic tables.

The intended size of the structure is 14 metres long x 6 metres wide.



# Basketball Area (within central activity hub)

The basketball area is proposed to be relocated and shaped to better integrate with the design of the central activity hub. The basketball area is intended to have one hoop with court markings on asphalt paving.



# **Improved Social Amenities**

Opportunities for social gathering space including benches and picnic tables as well as space for an outdoor bbg should be provided. In addition it is recommended that garbage cans and recycling containers are provided. The design of the central activity hub includes seat walls to increase opportunities for social interaction among the community.



#### **Fitness stations**

Four fitness stations with basic fitness equipment will be installed along the 645 metre long, 3 metre wide primary loop path. The stations will consist of simple rubber safety surfacing area with a concrete edge.

**CNCL - 145** 



# Greenway path connection to No.2 Road

Greenways are positioned north and south of the Polygon Development connecting the Park with No.2 Road. Three metre wide meandering paths will be connected to the primary loop path and it is intended that the landscape character of these greenways will integrate these paths with the rest of the park. Removable bollards will need to be positioned at the entry to these paths from No.2 to stop vehicles from entering the park.

# Play Area (within central activity hub)



The new play area replaces the old play area but has been moved slightly to be set amongst existing trees for children to freely explore and experience open-ended play in a natural setting. The design is integrated within the central activity hub so that parents and guardians have the opportunity to socialise with other members of the community.

This area was designed with the goal of creating a well-rounded play environment that offers a rich variety of experiences. Children of all ages will have unique opportunities to play, explore, imagine, learn, socialize and experience movement and challenge.

The play area should also be large enough to accommodate more capacity during peak times when large events are taking place in the Secondary School site.

Refer to the following pages to view the concept design for the play area and its key elements. Refer to Appendix F for the full presentation material used in Final Concept Design Review, located in Volume 2.

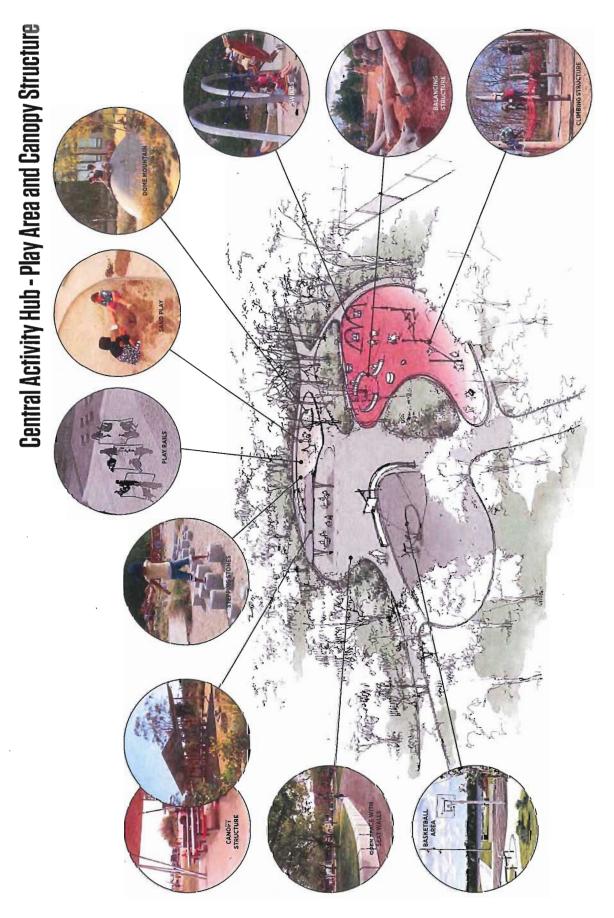
# Considerations

# Baseball and Soccer Courts

In the final concept design, no softball backstops or soccer fields were shown in the final concept design due to the conflict that was identified between the sporting facilities and the passive uses of the park. Note however that the layout of trees in the south west of the park site were chosen to allow the future accommodation of an informal backstop and soccer field. No further comments were made about softball in the site as participants felt satisfied that softball would not be a permanent fixture on the new site.







CNCL - 149

# **07 FINAL CONCEPT DESIGN REVIEW**

# Event #4

31 participants attended event 04

# Objective

The purpose of the final concept design review was to present the preferred concept design to the community. Participants were encouraged to interact through informal discussions with city staff and consultants as well as to make comments on the final concept design by adding notes to the presentation material. The feedback gathered from this event has been documented for refinement to the final concept design.

# Framework

As in the previous events, boards were displayed to communicate the existing site conditions as a refresher for returning participants or participants attending for the first time.

The findings from all previous open houses were also presented including refined key park design considerations based on all of the participant comments and findings from the Concept Design Review event on March 05.

The final concept design was presented with a large plan, cross sections, perspective sketch as well as precedent images to illustrate the proposed park program. In addition a sketch was presented that showed the proposed layout of the new play area integrated with existing trees as new site features such as a covered structure and a basketball area.

All participants were asked to comment on each concept. Participants provided comments on sticky notes that were placed in context on a separate sheet. To supplement this exercise, separate forms were handed out so that participants could add any additional comments relating to the final concept design.

All of the final concept design material was also posted onto the Talk Richmond website. The feedback from the 'Let's Talk Richmond' website is located in Volume 2 as Appendix G.

# Findings

Participants shared their positive feedback about the final concept design and the whole process to City staff and consultants. The comments received throughout the public engagement process have been combined to form a hierarchy of decisions relating to the park program and its overall design.

Based on the feedback received during the final round of engagement, there appears to be support for the final concept as suggested.

For a more detailed report, please refer to Appendix F - Final Concept Design Review Summary Report located in Volume 2.

# **O8 COST ESTIMATE - CLASS D**

ltem	Detail	Notes	Qty	Units	Unit \$	Cost
Site preparation	Demolition and disposal of on-site asphalt		3,500	sq m	\$16	\$56,000
	Tree protection		810	lin m	\$15	\$12,150
	Drainage works (refer to note #1)		1	allow	\$300,000	\$300,000
SUB TOTAL				is and any	TA BUL	\$368,150
Grading	Rough grading (refer to note #2)	Refer to grading calculations	24,445	cu m	\$10	\$244,447
Crocking	Import of non-structural fill (refer to note #2)	table Refer to grading calculations	12,702	cu m	\$39	\$495,363
SUB TOTAL		table	3.91		LINE SAM	\$739,810
Deving & Curfoolng	Apphalt Daving	tamped edge	5,853	60 m	\$70	\$409,679
Paving & Surfacing	Asphalt Paving	C.I.P Concrete	879	sq m	\$150	\$131,915
	Concrete Paving	C.I.F Concrete		sq m		
	Sand (450mm depth)		171	sq m	\$50	\$8,550
	Rubber Safety Surfacing - on slope, 2" thick		402	sq m	\$130	\$52,260
	Line Balance	for boolers half and	290	sq m	\$70	\$20,300
SUB TOTAL	Line Painting	for basket ball area	1	allow	\$500	\$500 \$623,204
SOBIOTAL						<b>\$020,204</b>
Walls	Sand Edge (in play area)	C.I.P Concrete	4.6	cu m	\$2,500	\$11,400
SUB TOTAL	Seating Wall	C.I.P Concrete	5.8	cu m	\$2,500	\$14,500 \$25,900
SUBTOTAL			-			\$20,500
Covered Structure	Architectural scope	85 sq m structure	1	allow	\$120,000	\$120,000
SUB TOTAL						\$120,000
		Planting only		-		
Planting	Planted areas		2,030	sq m	\$30	\$60,895
	Growing medium for planted areas	450mm depth	913	cu m	\$40,	\$36,537
	Seeded lawn	Seeding only	47,530	sq m	\$6,	\$285,182
	Growing medium on regraded areas	150mm depth	5,400	cu m	\$40	\$216,003
	Trees		373	each	\$750	\$279,750 \$878,368
SUB TOTAL						\$070,300
Site furnishings	Standard benches	incl. shipping+installation+footing	21	each	\$3,000	\$63,000
	Picnic tables	incl. shipping+installation+footing	10	each	\$4,000	\$40,000
	Bollards	incl. shipping+installation+footing	19	each	\$1,500	\$28,500
	Bike Racks	incl. shipping+installation+footing	10	each	\$500	\$5,000
	Waste receptacles	incl. shipping+installation+footing	4	each	\$2,500	\$10,000
	Basket Ball Net	incl. shipping+installation+footing	1	each	\$1,750	\$1,750
SUB TOTAL		State of the state			18 A. P. N.	\$148,250
Play Equipment	See saw	installed with concrete footing	1	unit	\$5,850	\$5,850
SIN A TIME	Concrete Dome Mountain	cast-in-place concrete	1	unit	\$2:5,000	\$25,000
	Concrete Stepping Stones	cast-in-place concrete	1.50	cu m	\$2,500	\$3,750
	Steel Rail Climber	installed with concrete footing	1	unit	\$3,750	\$3,750
	Concrete Seats with rubber safety surfacing or	topcast-in-place concrete	2	unit	\$2,450	\$4,900
	Concrete Sand Table	Cast-in-place Concrete	0.70	cu m	\$2,500	\$1,750
	Balancing Bar	Including concrete footing	13	lin. m	\$1,050	\$13,650
	Swing	incl. shipping+installation	1	unit	\$17,960	\$17,960
	Corocord spinner bowl	incl. shipping+installation+footing	3	unit	\$1,200	\$3,600
A STATE OF STATE	Corocord Rope Parkour Elements	incl. shipping+installation+footing	1	unit	\$24,000	\$24,000
SUB TOTAL		A STREET AND A STR			- An er all	\$104,210

#### London-Steveston Park - Class D cost estimate

**CNCL - 151** 

Fitness Stations	Rubber Safety Surfacing - on slope, 2" thick		121	sq m	\$130	\$15,787
an ana a ana ana ana ana ana ana ana an	Concrete Paving	Cast-in-place Concrete	86	sq m	\$150	\$12,954
Fitness Equipment		incl. shipping+installation+footing	4	each	\$5,500	\$22,000
SUB TOTAL		ng an un s − a there is been a sector. Here are not an are set and a sector and a sector are are set are a set and a sector are are are are are are are are are ar		· · · · · · · · · · · · ·		\$50,741
Item	Detail	Assumptions	Qty	Units	Unit \$	Cost
Fenced Off-leash Dog	Post + page wire (1.2m)		211	lin m	\$120	\$25,320
Area	Access gate (1.5m wide; 2 at each entrance)		2	each	\$1,000	\$2,000
	Crushed gravel paving (0.2m thick) and base prep		1,005	sq m	\$50	\$50,250
	Waste receptacles	2 single bins at entry if required	2	each	\$2,500	\$5,000
a series and a series of a	Standard benches	Including concrete base	6	each	\$3,000	\$18,000
SUB TOTAL						\$100,570
FINAL CONCEPT SUB	TOTAL	n nyang kant sa mang gi mangkan ngi kant ngi kant sa tang kant gi kant sa Reference sa	. سرد ا ا	·	ماندي محمد بين المانية رياسية	\$3,159,202
General conditions (7%						\$221,144
Contingency (20%)	· · · · · · · · · · · · · · · · · · ·		ana 0 ao am ao am a'			\$631,840
TOTAL (evoluting cros	ssing improvements - see table 5)	2. Représente l'annéatres réconstruction transforme attaine air à tablété d'inconserve e	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	and the second s	a na sunt sudan analas sub-	\$4,012,187

#### NOTES

1) High Level Cost Estimate - Further investigation will be required to determine the approach and methods to drain the site. Once the approach for drainage

2) There maybe an opportunity to reduce this estimated cost if coordinated with a local development project.

#### EXCLUSIONS

Land costs.

Disbursements. Planning, administration and financing costs.

Legal fees and expenses.

Logar loss and expenses.

Building permits and development cost charges.

Temporary facilities.

Removal of hazardous materials.

Loose fumishings and equipment.

Unforeseen ground conditions and associated extras.

Off-site works.

Phasing of the works and accelerated schedule.

Decanting and moving.

Project commissioning.

Erratic market conditions, such as lack of bidders.

Proprietary specifications.

Cost Escalation beyond 2015.

Government Tax (GST) 5 % on value of goods

Construction of Greenways

Path Lighting

Note: Opinions of probable construction costs provided by the Landscape Architect are based on the designer's familiarity with the landscape construction industry and are provided only to assist the Client's budget planning; such opinions shall not be construed to provide a guarantee or warranty of the actual construction costs at the time

# Grading Calculations

			Area (sq.m)	Depth(m)	Volume (cu.m
andscape build up	1	Asphalt Paving (incl. base prep)	5,853	0.2	1,171
in the provide the second second	2	Concrete Paving (incl. base prep)	879	0.275	242
n gi na meli na meli na si di provinsi na na situktika persentu la danan manaka semenan se	3	Crushed gravel paving (0.2m thick) and base prep	1,005	0.15	151
in the second	4	Planting w/ 450mm growing medium	2,030	0.45	913
	5	Growing medium on regraded areas	36,000	0.15	5,400
<ul> <li>a state for state on the state of the state</li></ul>	dener 1	Section of Section 1 March 1 Ma Ann ann ann ann ann ann ann ann ann ann	a a a an a		7,87
Civil 3d calculation based on existing vs. proposed contours	6	Cut Volume			1933.2
	tanit sources	Fill Volume	a balance as as in the second	emate the so-motion at t	22511.4
	1				
Net Volume (#7 minus #6)	1		······································		20,578
Net Volume less landscape build up	1.1 -	, we can the transformed state on the set of matrix on the measurement of the measurement of the set of the s	an at these . Another a set of the set of the	a de la competencia d	12.702

# London-Steveston Park Final Concept Design Phasing Strategy - Phase 1

connect the Polygon development to the existing grade

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- build greenways and west portion of primary loop path
- build water infiltration area adjacent to Polygon development
- install trees and planting



# Phase 2

demolish existing path connections in work area

- drainage works
- rough grading works to be completed to achieve desired grades including mounds seed all disturbed areas
  - build remaining water infiltration areas
- install remainder of primary path loop including the widening of the school south access path and install new south path connections.





- demolish existing play area and basketball court and adjacent existing paving
- build play area; install play quipment, basketball area, covered structure and plaza paving

LICE LA

sale and b all

- install planting and trees
- install site furnishings (benches, bins, picnic tables)



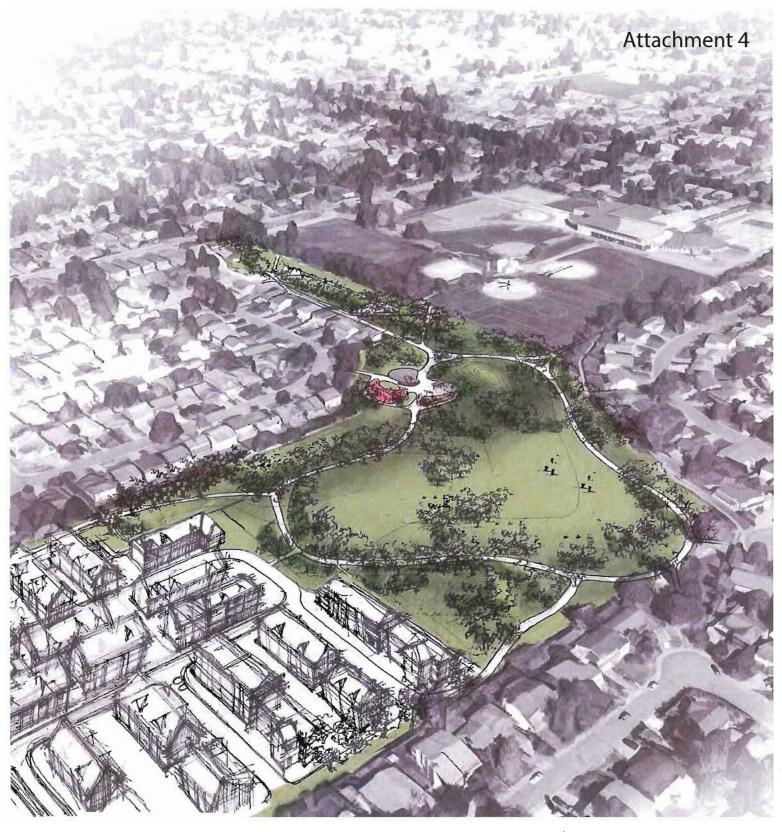
# Phase 4

- demolish existing paths in north portion of site
- install north access path to Williams and Roads and other connections

iinii Wife

- install fences off-leash dog area, including fences, site furnishings and paving.
  - install planting and trees
- install fitness stations and adjacent rubber paving





City of Richmond 29th April 2015

# **LONDON-STEVESTON PARK** CONCEPTIBLE Volume 2 - Appendices





# **Project Team**

#### **City of Richmond** Mike Redpath

Clarence Sihoe Tricia Buemann

Marie Fenwick

Gregg Wheeler

Mark McMullen

Senior Manager, Parks Parks Planner Area Coordinator, Parks Programs Manager, Parks Programs Senior Coordinator, Major Projects, Planning & Development Manager, Sports and Community Events

#### space2place

Jeff Cutler Phil Wyatt Principal Project Manager

#### Polygon Homes

Chris Ho Emma Cartwright VP Development Development Coordinator





**CNCL - 159** 

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- **01** Introduction 03
- 02 Site Analysis 05
- **03** Public Ideas Fair (event 01 + 02) 09
  - 04 Preliminary Concept Designs 11
- 05 Concept Design Review (event 03) 15
  - 06 Final Concept Design 17
- 07 Final Concept Design Review (event 04) 25
  - 08 Cost Estimate Class D 27
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Volume 2

#### **Appendices**

A Public Ideas Fair Presentation Material

B Public Ideas Fair Summary Report (event 01 + 02)

C Concept Design Review Presentation Material

D Concept Design Review Summary Report (event 03)

E Final Concept Design Review Presentation Material

F Final Concept Design Review Summary Report (event 04)

G Let's Talk Richmond Survey Responses





ĕ space2place

# Welcome to the ideas fair...







# London/Steveston Neighbourhood Park The City of Richmond invites your input about

The planning process for the redesign of the western part of London/Steveston Neighbourhood Park is underway.

pen House

Williams Road

This process will focus on the area of the park proposed to be transferred to the City as part of the rezoning application for the former Steveston School site at 10440 and 10460 No. 2 Road.

We invite you to participate by sharing your ideas and providing input toward the preparation of the park concept plan.

Gilbert Road

study Area Proposec

beof S.oN

Ways to be involved:

12 to learn more about the plans and provide Visit www.LetsTalkRichmond.ca after February comments

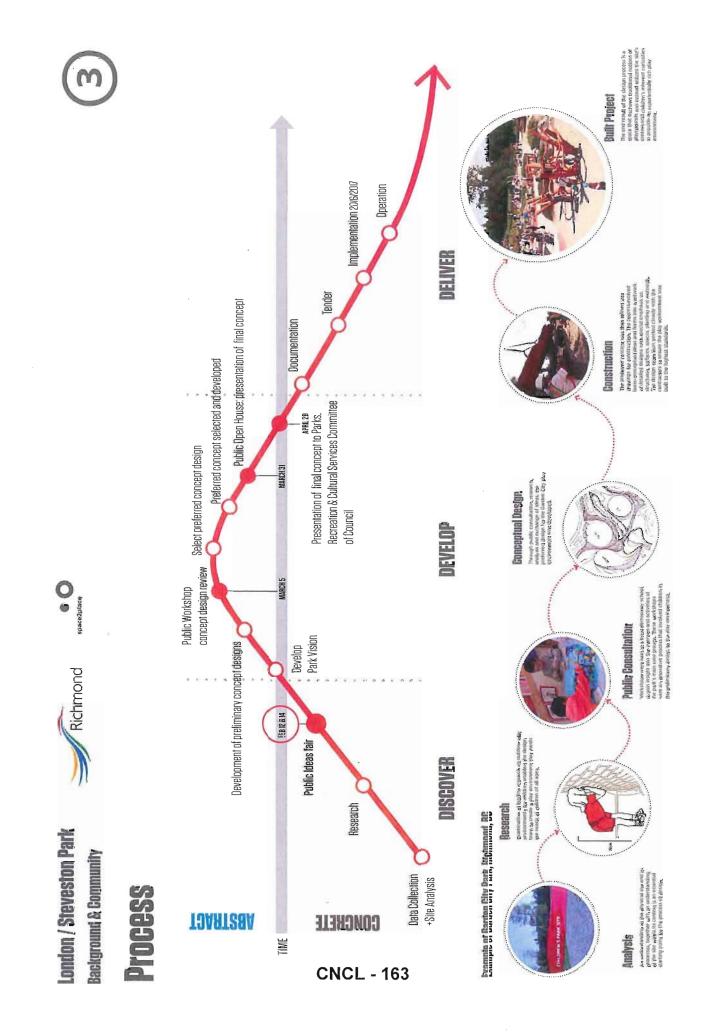
steveston High

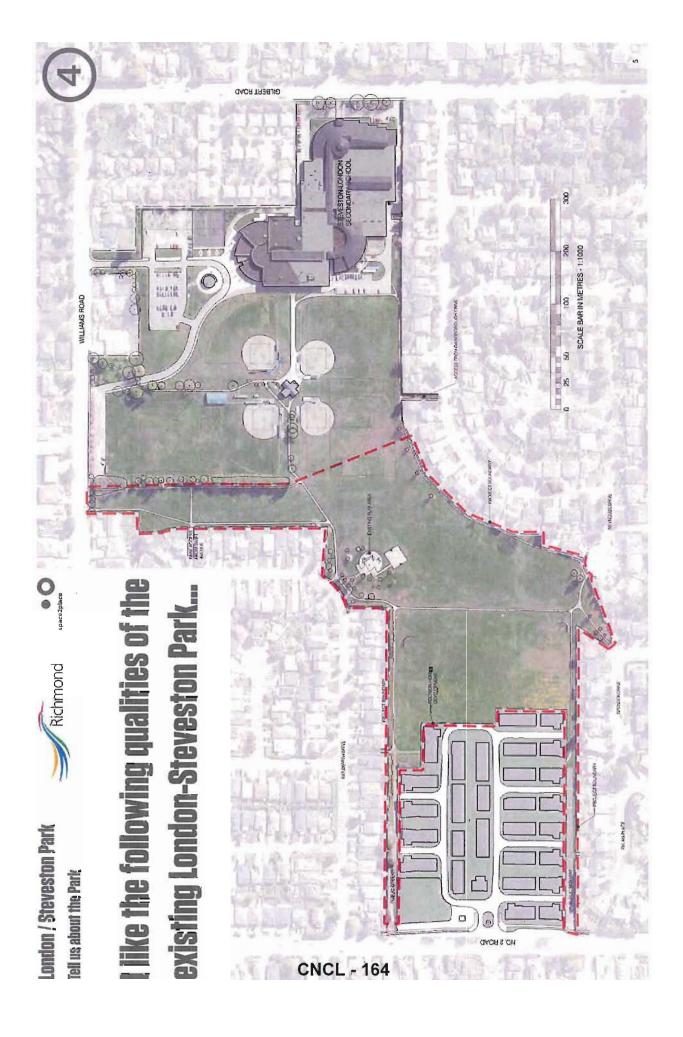
Attend the series of drop-in style public open houses for one-on-one interaction with City staff, display boards, handouts and comment form. •

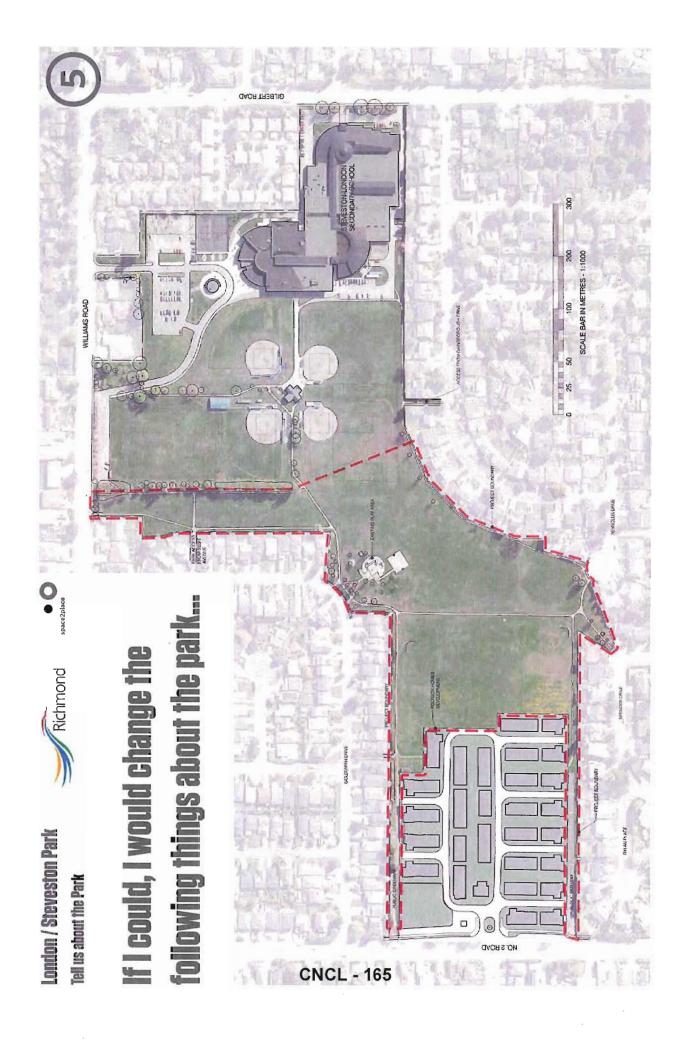
Dates, Times and Agenda:         Thursday, Feburary 12 7:00 – 9:00 p.mSharing ideas         Saturday, Feburary 12 7:00 – 9:00 p.mSharing ideas         Thursday, March 5         Thursday, March 14
---

Yon Tube + www.richmond.ca









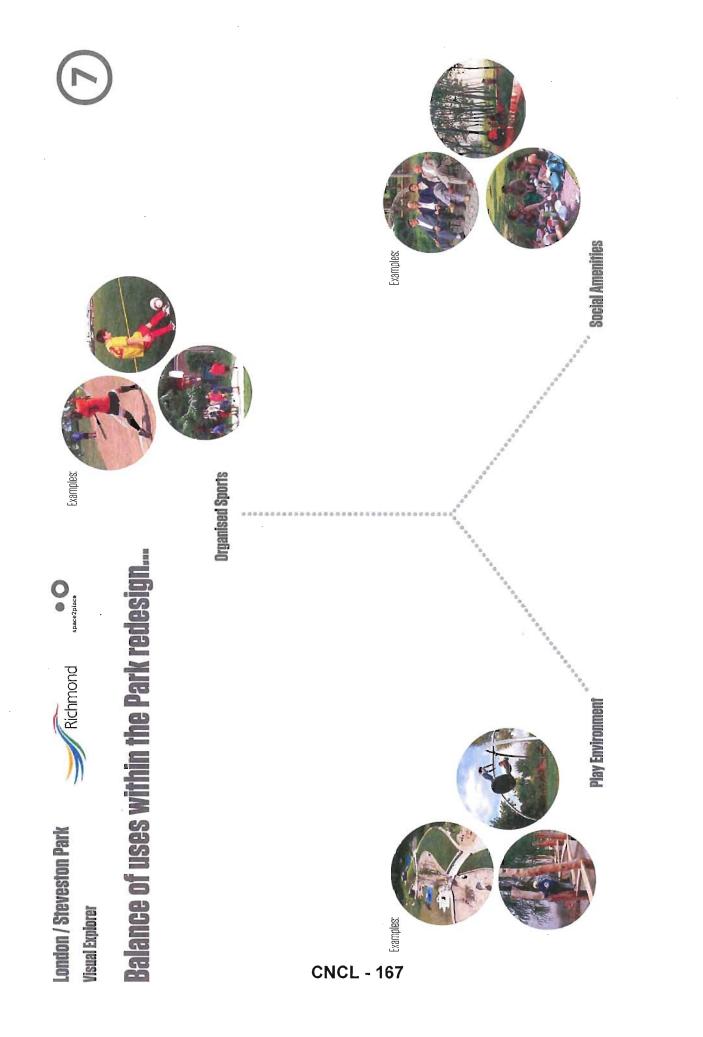
London / Steveston Park future for the park / vision

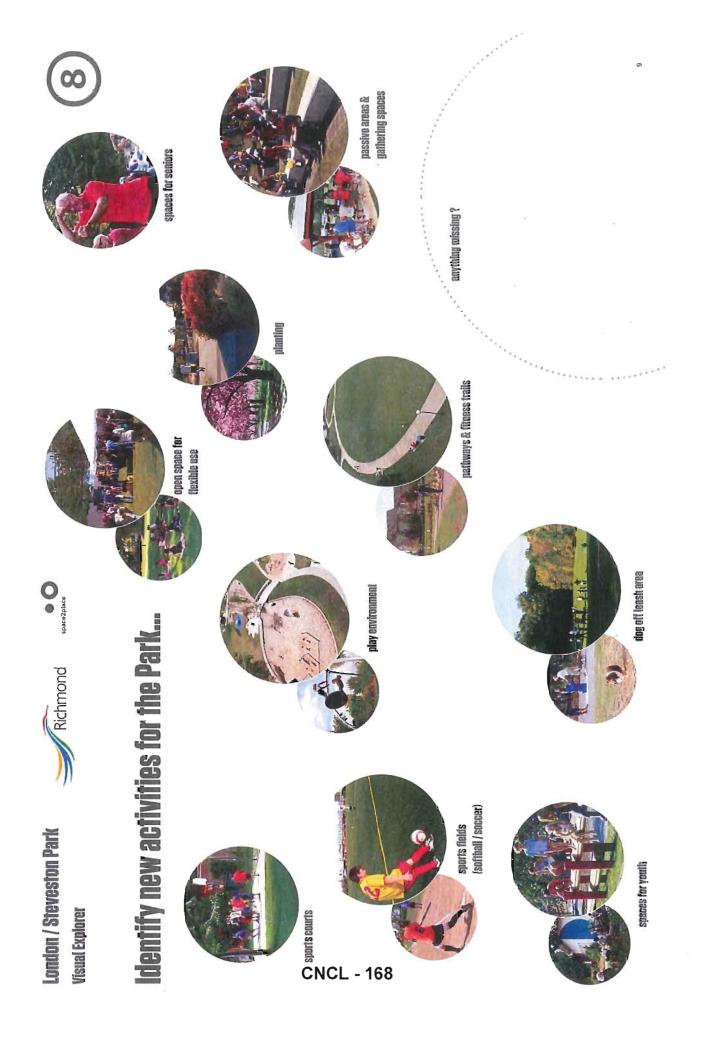




# The following is how I would decribe my vision for an ideal London / Steveston Park in 10 years...

2





# **APPENDIX B**

# **Public Ideas Fair Summary Report**

# Ideas Fair #1

Date: Location: 7-9pm February 12, 2015 Gilbert Lounge of London-Steveston School

# Ideas Fair #2

Date:1-3pm February 14, 2015Location:Gilbert Lounge of London-Steveston School

Prepared by:Phil Wyatt - space2placeDate Prepared:February 17, 2015

# **Participants**

# **Polygon Homes Representatives**

Chris Ho, Emma

# **City of Richmond**

Mike Redpath	Senior Manager, Parks
Clarence Sihoe	Parks Planner
Tricia Buemann	Area Coordinator, Parks Programs
Marie Fenwick	Manager, Parks Programs
Mark McMullen	Senior Coordinator, Major Projects, Planning & Development
Gregg Wheeler	Manager, Sports and Community Events

# space2place

Jeff Cutler Principal Phil Wyatt Project Manager

# **Objective**

The ideas fair was the first touch point with the community. The purpose of the ideas fair was to listen and understand the current uses of the whole park site, expectations, issues, and concerns of the community regarding the renovation of the Park. Participants were able to express their ideas and expectations surrounding the park renovation in an informal setting through notes and discussions with city staff and consultants. The results will inform the park program and the concept options that will be presented in the second Open House.

# Framework

Boards were displayed to communicate the existing site conditions including park context, circulation, connections, spatial uses. Another board identifying the project process and schedule was displayed so that Participant's were aware of the upcoming events to follow the Idea's Fair.

Next we asked participants to respond to the following high level questions (illustrated on the images below) regarding the existing park conditions and the potential for the park redevelopment. Participants responded with sticky notes that were placed in context on the park plans.



To supplement these questions we followed with an exercise where the participants identified their preferences for activities within the park redevelopment. This included a station where people were given 3 dots to identify their top three preferred activities and a single red dot to identify how they feel the activities should be balanced in the new park program.

The input from the ideas fair events was supplemented with feedback received from the Talk Richmond online survey. This input was incorporated in this summary report.

# **Findings**

# **Existing Park Use**

The primary participants in the two events were older residents from the surrounding neighbourhood. These residents either had properties backing onto the park space or were regular users of London/ Steveston Park. The park is considered by many to be the 'backyard' for local residents. The site receives waves of large groups during sports events during the summer months and it would appear that the park site becomes 'over capacity' during this period. This issue not only extends to the car parking capacity and the play area but also leaves local residents feeling 'pushed out' during these periods. The park is used regularly by seniors walking and walking with dogs. It was noted that the drainage in the existing park is poor, especially during the winter months.

The feedback responding to the questions was transcribed and is available in the appendix for reference. To get a quick snapshot of the frequency that items were noted we have prepared the following Word Cloud. The word cloud filters the 75 most noted words and the size of each word is in relation to the number of occurrences it was noted in the responses.

activities ball baseball benches birds block bocce border building centre chi children community connecting covered deciduous design diamonds dog drainage events evergreen exercise existing fence field fitness fly goose grass green hill kids landscape learning leash lighting mountains nature off-leash Open park parkland pathways people planting play pond quiet safe safety school senior shade small softball Space sports summer trails trees view walking washrooms The comments documented were analysed and organised into categories to gain an understanding of the prevalent patterns. These categories have been organized into Opportunities and Constraints for consideration in the park redevelopment. The opportunities highlight areas for new potential and the constraints identify areas of concern regarding the redevelopment of London/Steveston Park.

# Opportunities

# YEAR-ROUND USE

There were a number of comments to find more ways to promote fitness as well as to make the park usable during the winter months. This included the opportunity to provide a covered flexible use space for a range of activities such as Tai Chi or Yoga.

# TRAILS/FITNESS/CONNECTIONS

There were a large amount of people who like to exercise using the network of paths to walk, run, including walking with dogs on a leash. Developing this network of paths to perhaps include fitness equipment either as part of the trail or within a specific area; make the most of the mountain view within the new design of the pathways as well as provide opportunities to view the sports events while using these pathways.

# **DIVERSE LANDSCAPE CHARACTER / VEGETATION**

A number of participants expressed interest in increasing the diversity of landscape characteristics throughout the park site including a little pond; small mounds for play whilst also maintaining the view of the mountains; habitat for song birds; a balance between deciduous trees and coniferous trees to maximize year-round greenery of the park. One comment stated that replacement trees should be at least 12ft high when installed so as to make a better impact to the site.

# PLAY

Of the small number of comments related to the playground area, it was suggested that the play area be expanded and renovated to replace the safety surfacing as well as providing more opportunities for toddlers and social amenities for seniors.

# IMPROVED SOCIAL AMENITIES FOR NEIGHBOURHOOD USE

A couple of social hubs including an outdoor bbq, picnic tables, a water fountain, trees (for shade), benches, room for people to play bocce ball. A flexible covered exercise area for use by seniors was mentioned on a number of occasions.

# SPORTS

There is an opportunity to fit renewed sports fields within the study area however this was a preference stated by a minority of participants.

# SITE SAFETY

Review existing path lighting throughout the park and install low-level path lighting in any darker spots. Encourage use by families as well as extend use of the park in the mornings and evening and discourage nefarious activity.

# FLEXIBLE USE / OPEN

A majority of participants showed a lot of support for open flexible green space for multi-use activities, bocce, frisbee and sports.

# DOGS

There are quite a large amount of local residents who walk their dogs (on leash) around the park on a daily basis. It was also identified by a minority of participants that a dog off-leash area could be part of the new park development.

# Constraints

# **EXISTING PARK ISSUES**

Poor drainage of the study area is a clear constraint as well as issues with Snow Geese. In addition there is a very clear conflict between the balance of uses within the park; local residents would like there to be a difference between what is an open/passive park versus what is sports field.

# TRAILS/FITNESS/CONNECTIONS

A number of comments arose around the connectivity of the new Polygon Development. Can the public walk through the new development or is it just the new home owners of the properties that able to walk through this site?

# CAR PARKING / SITE ACCESS

Capacity of parking is currently limited, especially with the removal of the parking lot on the old school site. During sporting events, the site becomes 'over capacity' and participants of events park their cars in the local neighbourhood which causes friction.

# **DIVERSE LANDSCAPE CHARACTER / VEGETATION**

There were pretty consistent concerns about views from surrounding properties; planting trees or adding natural landforms maybe difficult when trying not to block the view of the mountains.

#### PLAY

When large events are on the play area is over capacity and its difficult for local residents to access.

#### SPORTS

Too congested around baseball diamonds during tournaments, as well as noise issues; potential conflicts with passive park activities.

#### SITE SAFETY

The site has a number of dark spots which impacts on the use of the site during the evening and morning periods.

#### DOGS

There were quite a number of people who spoke out against having an off-leash dog area as it would make less usable space.

# Additional Items to be Considered

- The 'beer league' use the existing soft ball courts located east of the old school site during the summer period.
- The public washrooms only appear to be open during sporting events.
- There are a number of issues relating to the sports groups using the field; with flood lights on late at night; loud music on late at night. It was requested that organized sports groups have more accountability in respecting the surrounding neighbourhood.
- A washroom is needed so that kids can play longer in the playground.
- There are a number of noise issues associated with the sports fields in the summer.

# NEW POLYGON DEVELOPMENT ISSUES - COMMENTS

- Do not want development to have majority access to park
- Contain development with buffer; do not want park to be backyard of development
- Like to move the last 2 buildings on the south east to the north and get a straight border line would be much better The both sides of the pathway would have the equal open view.
- Ensure home owners of the new development are not parking their vehicles in existing neighbourhoods that surround the new Polygon development.
- One safe path open at all times during demo and construction (greenways connecting No.2 Road with the whole site.)
- When demolishing the old building, do you have plans for the rats and skunks? Especially if we have problems with Racoons.

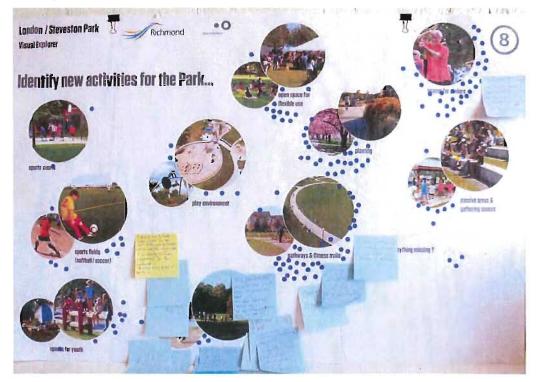
# **Program Priorities**

Below is a visual representation of the preferred activities for the new park program based on the feedback from the participants, one board represents the feedback from each event.

The Thursday Evening Event:



The Saturday Event:

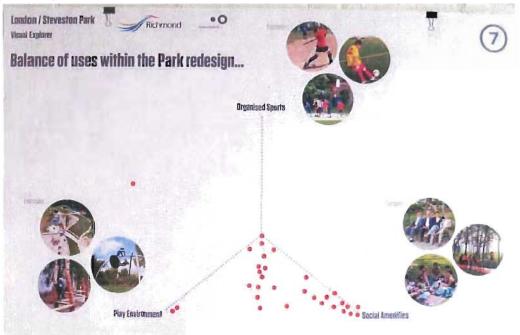


**CNCL - 175** 

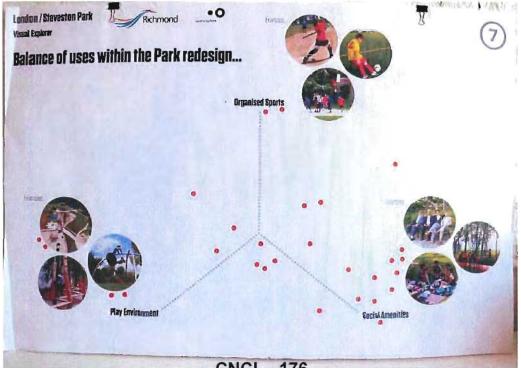
# **Balance of Activities**

Below is a visual representation of the preferred activities for the new park program based on the feedback from the participants, one board represents the feedback from each event.

The Thursday Evening Event:



The Saturday Event:



**CNCL - 176** 

# Summary

Overall the events were constructive and the input received from the community was helpful and informative to understand the potential for the park redevelopment. The content covered a wide range of topics reflecting the ideas and concerns of the surrounding neighbourhood.

The analysis of the input received from the public events and Talk Richmond has revealed some consistent themes including: improved opportunities for **fitness and walking**, creating **more diversity of spaces** within the park, the provision of more **social spaces** within the park, provision of **activities that are suitable for a wide range of ages** (from children to seniors), and **improved drainage** in the park to make it more accessible for year round use.

There were a couple of categories where there is some diversity of opinion regarding their suitability for the park redevelopment. These include the following items:

#### Sport Fields

The majority of the participants did not express an interest in sports fields being part of the park redevelopment apart from those that exist on the High School site. A small group expressed interest in more sports fields. The general impression is that users of the sports fields are generally not from the surrounding neighbourhood and they arrive by car. The Polygon development will remove a number of parking stalls from the site putting greater pressure on street parking on the residential streets. If the park redevelopment includes sports fields they should also be accompanied with more parking on site. There was also a sentiment that softball was a potential conflict with more passive park functions.

#### **Tree Planting**

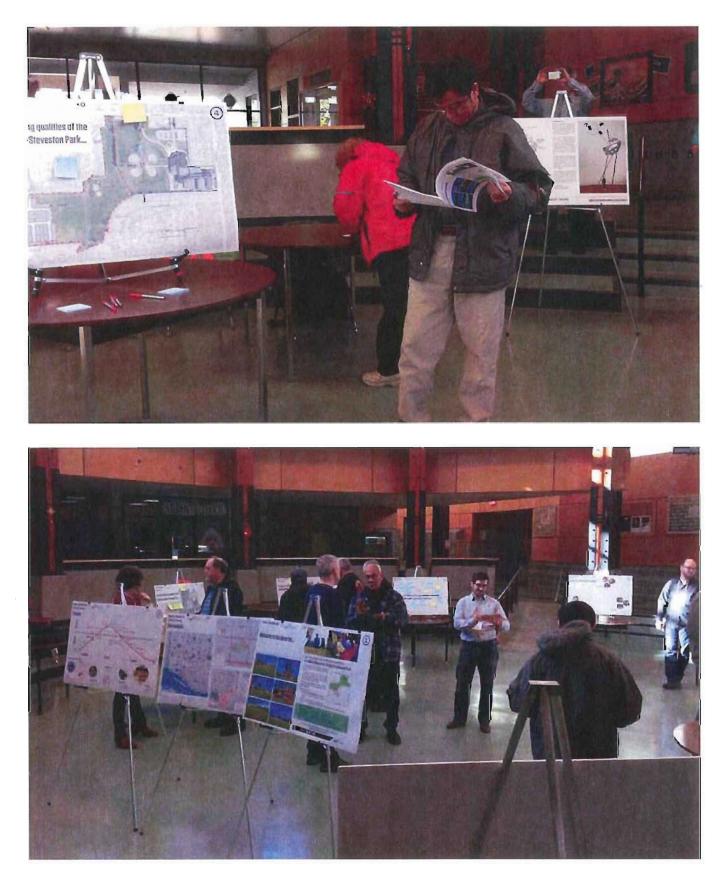
There were a lot of requests for more trees and planting within the park to provide shade opportunities and greater spatial diversity. There were also a number of respondents that preferred to keep the park space open and to maintain the views within and across the park.

#### Dogs in the Park

A small number of participants requested a dog off leash area within the park. This was balanced by a similar number of participants expressing a strong opposition to a dog off leash area. For the majority of participants this appeared to be a category that was not a priority for the park redevelopment.

The feedback illustrates the potential for this park and that the park redevelopment has the opportunity to strengthen its role in serving the surrounding neighbourhood. A greater diversity of activities is desired ranging from places for seniors, play opportunities for children, improved circulation throughout the site and places for small social gatherings. The participants expressed a preference for the new redevelopment to be weighted toward more passive activities over more active sports. Though there was a recognition that the park should be integrated with the sports facilities to the east of the study area.

The findings from this initial round of consultation provides valuable insight into how London/Steveston Park fits within this community. These will help to guide the design team as candidate concepts are prepared for the redevelopment of the park.



# Appendix

The following notes were generated in the ideas fairs held on February 12 and February 14, 2015.

#### London Steveston Park Open House Feb 12 2015

#### Station #1 - Background & Community

#### **Site Analysis**

- New Green Zone!

#### Station #2 - Tell us about the park

#### I like the following qualities of the existing London-Steveston Park...

- there is and should be a difference between what is park and what is playing field
- the park as it already is
- if the beer league is removed where will they go?
- walk area for walkers, trails, green space
- why isn't the washrooms open to the neighbours during weekdays? Only open when baseball is in session
- dedicated open and passive part separate from sports field
- walking spaces
- small clumps of trees in centre instead of trees on the border
- boundaries between properties and park (what to do with the chain link fence)
- there is a place for children to fly a kite! (ie open space)
- large area of open green space
- quiet setting open spaces
- a little ponds and a small hill here could enrich he landscape of the park
- the fact that it can be re-designed period!
- lots of sport fields
- running in the summer

# Station #2 - Tell us about the park

# If I could, I would change the following things about the park.....

- Additional parking on Williams Rd. Double existing lot
- Is there a way to use "traffic calming devices" on walking paths slows motorbike, skateboards, and bicycles
- especially at blind spots
- Evergreen Trees, fewer deciduous
- Berms and a few coniferous trees, still able to see mountains
- better lighting around for safety
- bigger playground
- dog park

- the parks dept MUST update bylaw 7301 about model aircraft in the field. There is a petition which the Parks Dept. has forgotten

- sports groups need to stop driving their golf cart across the field and on Gainsborough Dr
- Meandering Pathways
- passive park enhancing what we already have
- need the open space for kids to fly their kites
- get rid of existing 2 baseball back stops
- more accountability from organized sports groups in respecting our neighbourhood
- bigger playground for children
- existing baseball diamond in Maple Lane School Park has never been used in 25 years
- need more park benches
- bocce court
- removed the rusty baseball diamond. DO NOT REPLACE
- add ambient lighting. Low lights not high
- sloped grade, connect Polygon Development to park Grass?
- Poor drainage of field (all over)
- good low level lighting all over park
- Park washrooms need to be open more often
- What does the Care taker do?

- 1. Firm quiet period – NO GAMES AFTER 9pm!!. 2. Better access for police to patrol park – I have had my fence smashed twice!!

- better management of tournament events keeping space for locals community (quieter during events)
- need more mounds or hillocks for kids to play

- no more beer leagues Noise and Adult ball on old Steveston high field
- low density shrubbery, low planting along walkway so views to north are not further obscured (Mountains)
- communicating rules on the site
- pathway should be lit at night
- drainage and water pooling
- A conflict between balance of uses within the park
- more berms
- balance between deciduous trees and coniferous trees
- places to sit, evergreen trees
- incorporate a bike path with the walking path
- redo drainage for the entire green space! Without proper drainage nothing will last
- rolling hills, seating, light the pathway?, good pathway, dog off leash, washroom
- make off leash park or a large off leash area for dogs
- keep park open to see the mountains
- enforce dogs on leash by-law
- open lawn for multi use activities, bocce, Frisbee, sports
- add naturalistic planting and trees
- bylaw on dogs without leash
- need a new playground
- 1. better paths for people and bicycles. 2. expand playground for young children
- public toilet would be nice
- desirable landscape could be similar to Russ Baker area by YVR with rolling hills, very light density in terms of trees
- better walkways in and around
- more for rainy season
- good ambient lighting on walkways and playground areas to discourage nefarious activity
- add lighting to new site

- no need for more sports fields, more trees, quiet buffer by residences, drainage along border, walking/ jogging trails, some more not too many land contours

- separate contain development with buffer; do not want park to be backyard of development
- old playground needs improvement, limited age, save the trees, safety surface replace playground, multi purpose

- we were promised that lights would be out by 9pm, lights on timer?, should turn off before 11pm, lower lights?? Pedestrian safe?, goose control, trees / but not forest preserve some open space!

### Station #3 - Future for the park/vision

### The following is how I would describe my vision for an ideal London / Steveston Park in 10 years...

- meandering fitness trails, beautification of the park

- supervised off leash dog park (owner present to 'pickup')

- nice pathways, nice trees and planting but also open....(the centre part)

- do not want development to have majority access to park

- trees, habitat for song birds

- can the public walk through the new development? Better connecting through new site

- open space for tai chi area with green roof for the birds

- convert old steveston high field/playground into old folks home in 10 years

- improve life expectancy. Open/covered space with green roof for birds. For senior exercise (tai chi) (for growing population of seniors)

- 1. green space, pathways for people and bicycles. 2. slightly bigger children's area (playground). 3. designated quiet times – ie. after 9pm

- no high density townhouse in our area

- dog off leash area and better playground

- need washroom so kids can play longer in the play ground

- MORE OPEN SPACE

- open space to see the mountains, families walking and playing

- room for people to play bocce ball

- more implements for toddlers and benches for seniors at the play areas

- 1. trees, paths, green spaces. 2. all noisy activities stop by 9pm - ABSOLUTE LATEST

- mature plantings trails and gathering spaces

- green space for people of all ages AND not organized sports

- fitness trails

- walking, jogging trails, quiet retreat, wooded areas – pine trees!, tree lined walkways, wide open spaces, song bird habitats

senior learning centre to keep healthy and family learn to care elder members

- ambient lighting on the west of the site

Station #4 - Visual Explorer - sticker vote

Identify New activities for the Park...

Sports court = 1 Sports fields = 3 Spaces for youth = 4 Play environment = 7 Open space for flexible use = 9 Spaces for seniors = 25 Planting = 23 Passive areas & gathering spaces = 8 Pathways & fitness trails = 26 Dog off leash area = 9

Additional Comments park too small for dog trail

# London Steveston Park Open House Feb 14 2015

# Station #2 - Tell us about the park

# I like the following qualities of the existing London-Steveston Park...

I like the openness of the Park

openness of Park – green areas

openness of the park; Good – more trees/ plants along pathway

openness and original park and maybe best to keep it.

The size of the green space and quiet nature of the parkland.

Where is the Mayor and the Aldermen?

New site is well connected to existing park.

Openness is good but these green spaces haven't been used for years as they should be; just by dog owners. You can create a small fenced dog park but make the rest usable. Better Sod so the geese don't wreck it. Better Lighting for Safety. Maybe a bigger play area for kids to play.

Open space

Walking trails, openness & pathways.

Openness, view, play area, green, sports field.

Adults use these informal softball diamonds a lot in the summer.

I'd like to keep everything

Like the pathways, to the see the mountains, like to watch a few minutes of softball in the summer as I walk the pathways.

Where is the mayor and city aldermen?

The play area isn't used enough, only when events are on in the softball area does the play area become busier.

Important to have trees and pathways for strolling – well lit park to encourage use by families. Add "contours" to the land with a pond, fountain, benches and a children's playground.

I like the ability to walk a fair distance from No.2 Road, south of the existing school, around the fields and back on the north side of the school. I particularly like the path by the line of trees in the green space that goes up to Williams Road.

Pathways, greenery, dog walking.

I like to see the softball and the snow geese.

# Station #2 - Tell us about the park

# If I could, I would change the following things about the park.....

Better drainage Any additional parking Leave as park Are there parking problems? Bordering houses need higher fences - if current old. Clean up the grass clippings on the sidewalks after you mow; they are a hazard especially in the rain when you slip on them. Remove the old baseball back splashes on the new area. Improve the pathways. In the new development put in a new all purpose field. Add trees and picnic tables. Existing benches close to Reynolds Drive and Spend Drive are in direct sunlight. Add more trees for the environment, shade and for birds. Fix flooding close to Reynolds Drive and Spend Drive. More nature, trees and a pond. Add small areas with benches and trees (with shade). Fence the sports fields - flying baseballs are dangerous. Open up washrooms in caretaker building Fix flooding issues and broken pavement west of base ball diamonds (south of line of trees) If you want people to use these green spaces then they need to be re-sod. More plants/Trees along the pathway. More car parking. More birds, trees. Feeders, flowers. Nicely landscaped and a small hill. Have social areas in the centre of the park. Outdoor exercise equipment in a specific area. Make the new section a non-sports field. Make it as a park with trees and benches for the daily walkers. Deciduous and non deciduous trees. Would like to see fitness trails, pond and benches and small trees only please!! I'm on the spender walkway: get buried in leaves from maples on walkway - ken Peterson. Washrooms are "never" open to the public. Don't block view with trees. Garbage pick-up.

One safe path open at all times during demo and construction (greenways connecting No.2 Road with the whole site.)

Tamed Eagles for goose control

Flexible space for yoga – what about a raised platform?

Area for Tai Chi

Flooding in park to be improved.

Open space

Too congested around baseball diamonds during tournaments.

Have the washrooms open daily not just when they have organised sports; I have seen children and adults squat & urinate in the park because the washrooms are never open.

Keep the green space as it is, keep the softball (on behalf of the residents of Steele Crescent)

More landscaping – fewer geese.

Lighting to be improved between the school and the play area.

Lighting along path areas for night walking.

Pathways are "blocked" during tournaments.

Walking with dogs

I like open space

More tree should be added to the remaining parkland to compensate for the many trees (mature & large) that will be lost to the new development. Replacement Trees should be at least 12ft when installed not just small spindly young trees that take decades to develop.

Maximise green space.

Minimise parking space for properties and cars in the new development.

Would like to have the park green as its not crowded.

Walkway must be open to Steveston-London School and Park during demo & construction.

Rat Traps / Skunk Traps.

Maximise the green space

Add community garden

It would be great to have 2 more skinned softball diamonds to make Steveston-London an elite complex.

Don't like to enlarge the building area. Please keep the green field as much as possible.

Would love to have some areas of slight elevation (not crucial)

When demolishing the old building, do you have plans for the rats and skunks? Especially if we have problems with Racoons.

The 2 new properties / homes being developed in the south-east corner of the Polygon area should be retained as parkland. Right now these 2 homes jut into the parkland.

Like to move the last 2 buildings on the south east to the north and get a straight border line would be much better – The both sides of the pathway would have the equal open view.

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### Station #3 - Future for the park/vision

### The following is how I would describe my vision for an ideal London/Steveston Park in 10 years...

Small trees on please - evergreens

Two more washrooms

A lot of lighting

Small trees with lighting on the paths

Ensure home owners of the new development are not parking their vehicles in existing neighbourhoods that surround the new Polygon development.

Keep the original landscape as it is the bats option.

Benches made of inflammable materials - anchored.

Environmental friendly design - open space.

Not too many trees. Can be unsafe, just a few trees - poplar and cherry tree - not evergreen.

Please, no, no, no trees as they will block the view the nice green park

We need a park, not another sports field!

How much is being set aside for a new hospital?

More lighting on paths

South arm design could serve as a model.

More greenery, shrubs, trees, pathways safe for elderly & dog walkers.

A couple of community hubs (smaller). Outdoor bbq use, water fountain, trees (shade), benches, Conversations.

More kids play grounds.

Leave the park as is now.

Leave the park as it is now and maybe a few more trees.

Leave it mush as is now.

Leave it alone, lots of trees, walks, open space.

Please keep it open as it is now.

Safe protected green space.

Regional Park - no sports

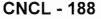
Keep it open but with some small areas of planting.

Some benches, more open, but more trees and landscaped but maintain open aspect, better play area.

Safe, visually appealing, cultural & environmental, friendly, more trees and plants

Rose Garden, new parking area off Williams Road, covered rood area

Raised flower beds & shrubs



Add plastic strips into Chain-link fence.

Consider using some of the parkland for the fenced-off dog off-leash park. More off-leash areas are needed in Richmond.

An area for the local community to use for walking, sports, playing, multi-generational area. Some trees, some open areas and benches.

I represent 33 people of 11+ houses. Object rezoning. Just using the area for adult and senior health learning centre to promote life expectancy. Indoor & covered exercise area.

As with almost all other parks with natural grass; a way must be found to stop the snow geese from destroying the park turf and fouling the walkways with goose feces. Most Richmond parks and school yards are unusable from November through to March due to snow geese.

# Station #4 - Visual Explorer - sticker vote

# Identify New activities for the Park...

Sports courts = 2 Sports fields = 9 Play environment = 5 Open space for flexible use = 12 Spaces for seniors = 130 Planting = 24 Passive areas & gathering spaces = 7 Pathways & fitness trails = 36 Dog off leash area = 3 Spaces for youth = 9 Anything Missing People should have leash on their dog = 1 Pond = 3

# **Additional Comments**

I don't like to have more spaces for the sports fields, more for flexible use or more for playground, it is already crowded especially for the weekend. Please keep as it is quiet.

No, no - Dog off leash area

I don't want to step on poop -  $\operatorname{Dog}\nolimits$  off leash area

Small off leash dog park – enclosed, dogs and poop is controlled.

No dogs

No - Dog off leash area

No - Dog off leash area

 $Off \, leash - No \, !!$ 

No no, no - Dog off leash area

No !!! - Dog off leash area

Yes: Consideration should be given for a small off-leash dog area. This area should be fenced in. There are too few off-leash areas for dogs in Richmond.

Pathway design should be both aesthetic and functional

Only paving the pathways.

Bark mulched fitness trails

Selected tree areas (deciduous)

Spaces for seniors - 14 houses (33 people) wish to have health learning centre, simple exercise equipment and empty space to do work out. - No rezoning.

London / Steveston Park



space2place

# Welcome to the Public Workshop Concept Design Review...

tumblr,com/) Existing site photos - credit Clayton Perry (http://claytonperryp





# London/Steveston Neighbourhood Park The City of Richmond invites your input about

The planning process for the redesign of the western part of London/Steveston Neighbourhood Park is underway.

Dpen House

Villiams Road

This process will focus on the area of the park proposed to be transferred to the City as part of the rezoning application for the former Steveston School site at 10440 and 10460 No. 2 Road.

We invite you to participate by sharing your ideas and providing input toward the preparation of the park concept plan.

DEON JISGIL

Proposed Study Area

Z'ON

Ways to be involved:

Visit www.LetsTalkRichmond.ca after February 12 to learn more about the plans and provide comments

Steveston High

Attend the series of drop-in style public open houses for one-on-one interaction with City staff, display boards, handouts and comment form.

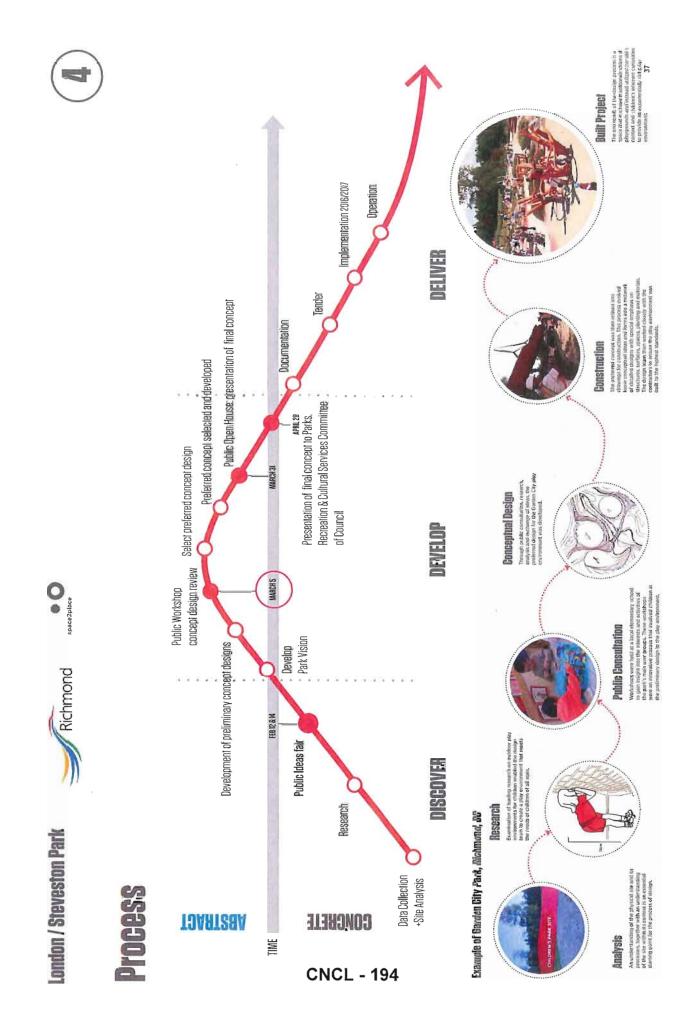
A DE ALL AND A DEAL	haring ideas sharing ideas teviewing concept options 7reparing a preferred design	ary School, 6600 Williams Road	ent at 604-244-1208 or visit	rojects.
Dates, Times and Agenda:	m.d 00:9 0 m.m.d 00:9 0 0 m.m.d 00:0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Place: The Gilbert Lounge, Steveston-London Secondary School, 6600 Williams Road	For more information, contact the Parks Department at 604-244-1208 or visit	www.richmond.ca/parksprojects.

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Richmond

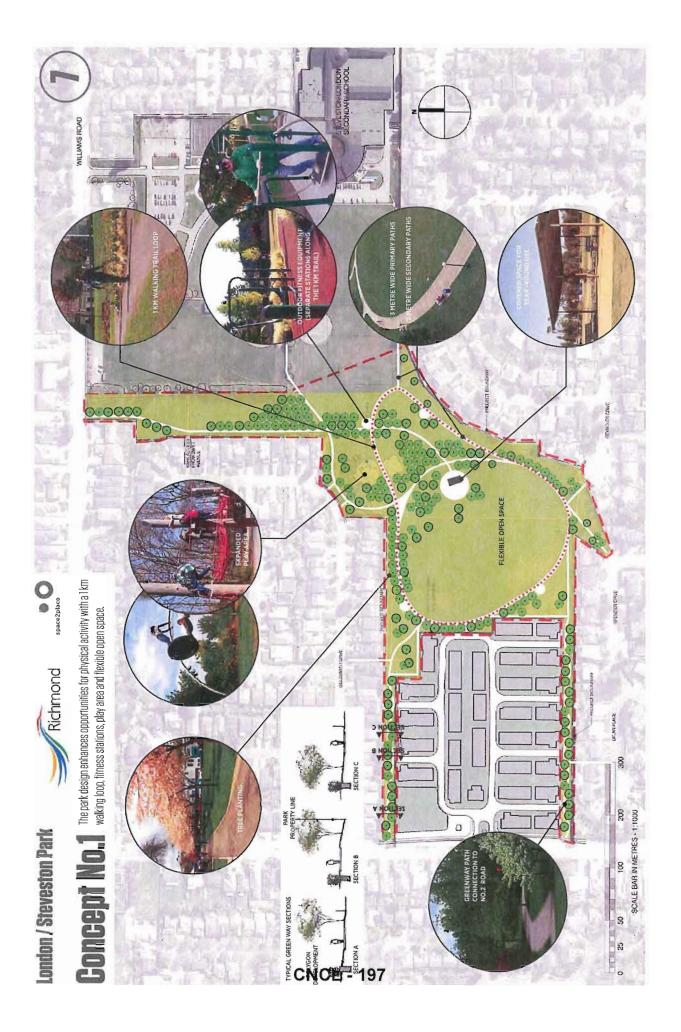






<ul> <li>Spaceblace</li> <li>Spaceblace</li> </ul>	The following is how I would describe my vision for an ideal London / Steveston Park in 10 years	<ul> <li>mature plantings on trails with gathering spaces</li> <li>meandering fitness trails, beautification of the park</li> <li>supervised off leash dog park (owner present to 'pickup')</li> <li>nice pathways, nice trees and planting but also open(the centre part)</li> </ul>	<ul> <li>do not want development to have majority access to park</li> <li>trees, habitat for song birds</li> <li>open/covered space for tai chi area with green roof for the birds</li> <li>designated quiet times - ie. after 9pm</li> </ul>	<ul> <li>dog off leash area</li> <li>better playground</li> <li>need washroom so kids can play longer in the play ground</li> <li>open space to see the mountains, families walking and playing</li> </ul>	<ul> <li>room for people to play bocce ball</li> <li>open space for people of all ages and not organized sports</li> <li>walking, jogging trails, quiet retreat, wooded areas - pine treesl, tree lined walkways, wide open spaces, song bird habitats</li> </ul>	<ul> <li>ambient lighting on the west of the site</li> <li>This is what the preferences look like for the balance of uses in the park</li> </ul>	Landbari Steveston Park	eboards, and Balance of uses within the Park redesign	ity Angel Stant	er during events)		
London / Steveston Park	rindings from the loeas fair	Common responses to the following questions Like the following muelities of the existing fondon-Steveston Park	<ul> <li>there is and should be a difference between what is park and what is playing field</li> <li>the park as it already is!</li> <li>walk area for walkers. trails: crean suare</li> </ul>	<ul> <li>walking spaces</li> <li>there is a place for children to fly a kite! (ie open space)</li> <li>large area of open space</li> <li>quiet setting open space</li> </ul>	• the fact that it can be re-designed period! • Or sport fields • Sming in the summer	<ul> <li>Provide the second secon</li></ul>	<ul> <li>Dundaries between properties and park (what to do with the chain link fence)</li> <li>The source of trees in centre instead of trees on the border</li> <li>a little pond and a small hill here could enrich he landscape of the park</li> </ul>	<ul> <li>additional parking on williams rd. double existing lot</li> <li>is there a way to use "traffic calming devices" on walking paths – slows motorbike, skateboards, and bicycles – especially at blindspots</li> </ul>	<ul> <li>evergreen trees, fewer deciduous, still able to see mountains</li> <li>good ambient lighting on walkways and playground areas to discourage nefarious activity</li> <li>meandering pathways</li> <li>get rid of existing 2 baseball back stops</li> </ul>	<ul> <li>better management of tournament events - keeping space for locals community (quieter</li> <li>bigger player on the statement of the statement</li></ul>	<ul> <li>drainage and water pooling</li> <li>park washrooms need to be open more often</li> <li>need more mounds or hillocks for kids to play</li> <li>or more horer increased with buil no old. Construction kink kink</li> </ul>	<ul> <li>not more over regues noise and Audit dan on our steveston myn neu</li> <li>commonicating rules on the site with the walking path</li> <li>incorporate a blike path whith the walking path</li> <li>make off leash park or a large off leash area for dogs</li> <li>open lawn for multi use activities, bocce, Frisbee, sports</li> </ul>

Lond	London / Steveston Park		
	Findings from the Ideas Fair		)
The mo:	the most noted words used during the ideas fair		
This word clou each word is ir the responses.	This word cloud filters 75 of the most noted words and the size of each word is in relation to the number of occurrences it was noted in the responses.	Key Park Design Considerations	lions
	11	Year-round Use • make the park usable during the winter months	Flexible Use / Upen Space • provide open space for multi-use activities, such as bocce, frisbee and
	tradition centre i criticien comparte consection	<ul> <li>provide a covered flexible use space for a range of activities</li> <li>ninered partnerers Bilaneters Bilaneters</li> </ul>	Stin Safety
10	memory watche existing fence field was a more field was a more field was a more field was a more field.	<ul> <li>increase the diversity of analysis and the activities</li> </ul>	<ul> <li>Keepe existing path lighting</li> <li>The site bas a number of dark enots which impacts on the use of the site</li> </ul>
NCL		<ul> <li>Inaximize year-outing greenery on the park</li> <li>provide trees for shade</li> <li>concerva montalin view form nach</li> </ul>	during the evening and morning periods; install low-level path lighting in an vdrske soots
	Dark methways people		<ul> <li>encourage extended use by families</li> </ul>
19	planting DIAV and quiet site on school senior	Play	discourage nefarious activity
6	small softball S Da Ce s ports	<ul> <li>expand the existing play area</li> <li>provide more for toddlers</li> </ul>	<ul> <li>establish strategies to extend use of the park in the mornings and evenings</li> </ul>
	trails trees walking	play area becomes over capacity during large events and its difficult for	
	-	local residents to access	Existing Park Issues
			improve draInage
Results	Results of the sticker exercise to identify new activities for the park	Improved Social Amenities for Neighbourhood Use <ul> <li>social hubs including an outdoor bbq &amp; picnic tables</li> <li>including constraint</li> </ul>	<ul> <li>better management of snow geese required.</li> <li>Improve the balance of uses within the park; open/passive park versus what is sports field</li> </ul>
		<ul> <li>Instant Mater Tournant</li> <li>provide seating opportunities with option for shade</li> <li>install fitness equipment along fitness trail</li> </ul>	<ul> <li>find ways to improve parking situation during sporting events</li> </ul>
	155 Spaces For Seniors 62 Pathways & Fitness Trails .		Tralls / Fitness / Connections
		Dogs	encourage site access by foot and bike
	15 Passive Areas & Gathering Spaces 13 Spaces For Youth	<ul> <li>install fenced dog off-leash area</li> </ul>	develop a network of paths     install measured fitness trail (e.g. 1km)
		<ul> <li>consider size of off-leash dog area so that it doesn't take up too much lexible open space</li> </ul>	<ul> <li>connect the new development with the park</li> </ul>
			<ul> <li>provide better connections to existing site entry points</li> <li>make path widths wide enough to allow for shared use by bikes and</li> </ul>
	3 Sports Court		





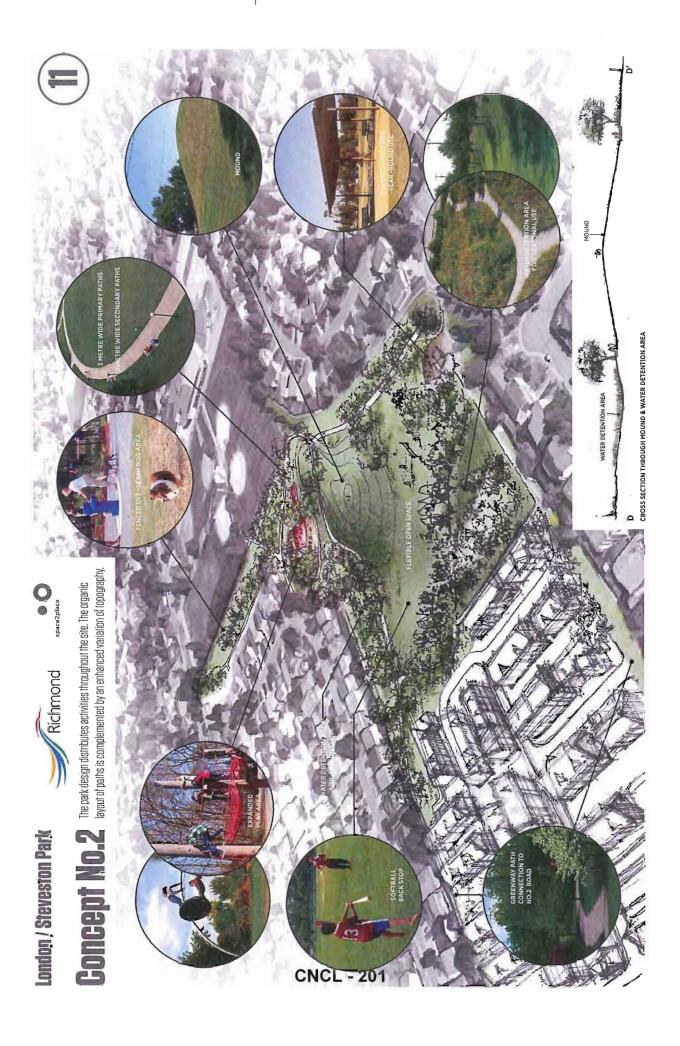


Richmond

London / Steveston Park

# What are your thoughts on Concept No.1 ?







# What are your thoughts on Concept No.2 ?

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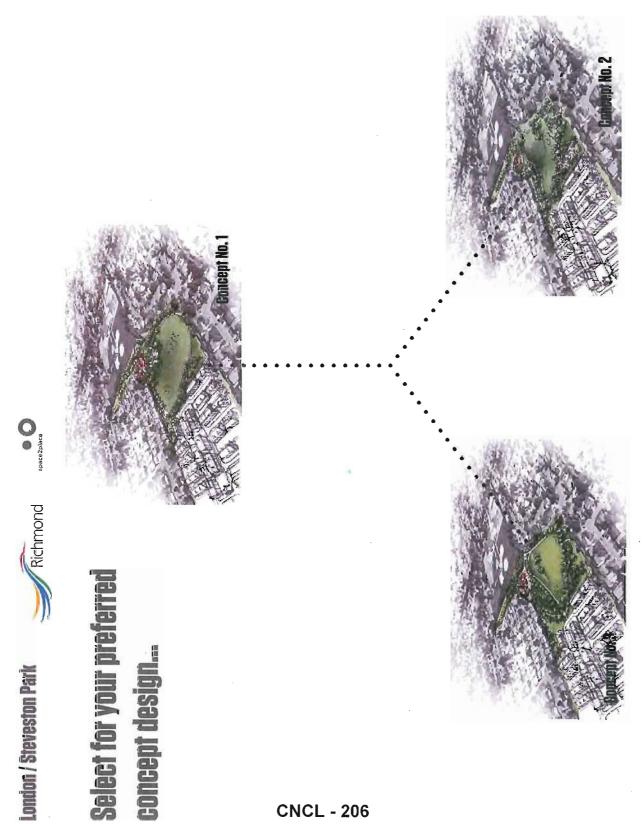


# What are your thoughts on Concept No.3 ?

London / Steveston Park

Richmond





5

# APPENDIX D

# Public Workshop: Concept Design Review Summary Report

# **Concept Design Review - Event 03**

Date:7-9pm March 05, 2015Location:Gilbert Lounge of London-Steveston School

Prepared by:Phil Wyatt - space2placeDate Prepared:March 11, 2015

# **Participants**

# **City of Richmond**

Clarence SihoeParks PlannerTricia BuemannArea Coordinator, Parks ProgramsMarie FenwickManager, Parks ProgramsGregg WheelerManager, Sports and Community Events

### space2place

Jeff Cutler Principal Phil Wyatt Project Manager

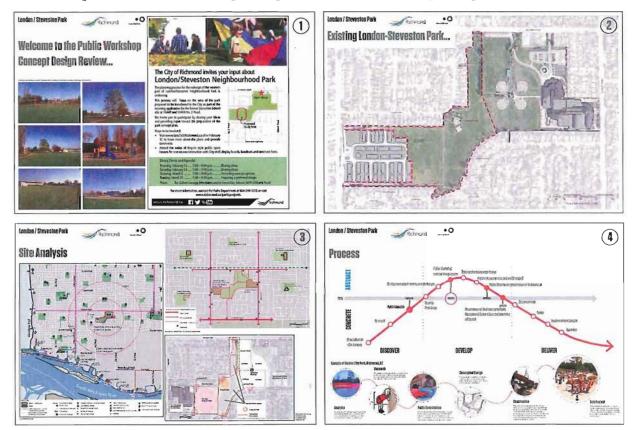
# Objective

The concept design review was the second touch point with the community surrounding London-Steveston Park. The purpose of the concept design review was to return back to the community to present concept design options based on the feedback received during the two ideas fair events in February. Participants were encouraged to make comments on all three concept designs in an informal setting through notes and discussions with city staff and consultants.

The results from this second event will inform the park program as well as final concept design that will be presented to the public in the third open house on March 31 2015.

# Framework

Boards were displayed to communicate the existing site conditions including park context, circulation, connections, spatial uses. Another board identifying the project process and schedule was displayed so that Participant's were aware of the upcoming event to follow the Concept Design Review.



The findings were presented from the two ideas fair events which were intended to clearly explain the findings and layout the key park design considerations we used for the development of all three concepts options.

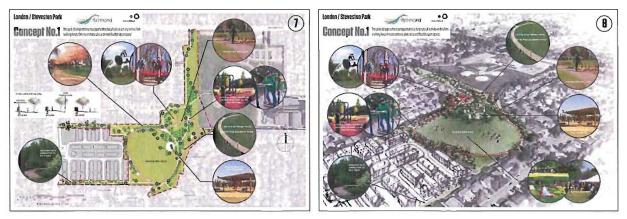
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- Information generation - Information generation - Start generation	<ul> <li>In the Signal Analysis of the Signal S</li></ul>	Gorg Gorg Felder Lighten G Open Dark prificers Space bort Hees Address Hees Address Light to space bort	American Carlos Carlos Carlos     American Carlos Carlos Carlos     American Carlos Carlos Carlos     American Carlos Carlos     American Carlos Carlos Carlos     American     American Carlos     American     Amer	In Life of the second s
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**CNCL - 208** 

Next all three concepts were presented with a large plan, perspective sketch as well as precedent images to illustrate the park program in each concept. Participants were asked to comment on each concept. Participants responded with sticky notes that were placed in context on a separate sheet.

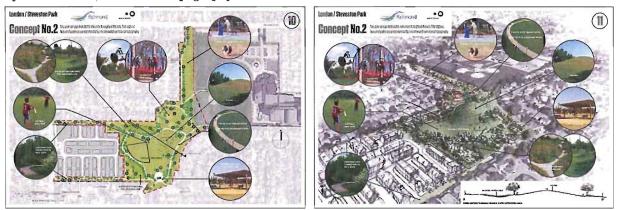
# **Concept No.1**

The park design enhances opportunities for physical activity with a 1 km walking loop, fitness stations, play area and flexible open space.



# Concept No.2

The park design distributes activities throughout the site. The organic layout of paths is complemented by an enhanced variation of topography.

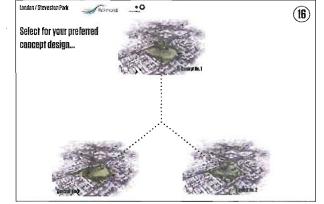


# Concept No.3

The park design features the central organisation of activities in the park with enhanced tree planting and water management using bioswales.



Next, participants were given a single red sticky dot to identify their preferred concept on the board pictured below.



To supplement this exercise, separate forms handed out where participants selected their preferred concept as well as adding any addition comments related to the any of the concept designs.

All of the concept design review material has also been posted onto the Talk Richmond website. This input has been incorporated into this summary report.

# Findings

# COMMENTS FOR CONCEPT NO.1

This concept received 58% of the participant vote but is important to understand why this concept received so much support. Concept No.1 has no softball back stops which were a contentious issue from the beginning. This concept also did not include a fenced off-leash dog area



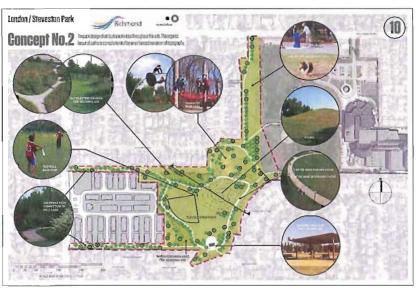
Below are some of the comments summarized:

- good support for the flexible open spaces
- good support trees along the pathways with lighting improvements consider adding lines on pathways
- some support to add a small mound
- some support to add an fenced off leash dog area
- little support for fitness stations
- some participants dislike the idea of the water detention (on concepts 2 & 3) because of its negative link to the history of flooding issues within the park
- some support to add a back stop
- general comment to keep trees away from the fence line views for existing homes are already suffering – leave some gaps - less big trees - consider shadows cast along north boundary of existing homes
- deciduous trees great idea to allow for different views through the seasons disagree with too much evergreen growth. Ie. no forests please. deciduous would also provide shade during hot months
- support for the trees along the west boundary to naturalize and create a buffer between park and development
- consider moving covered area should be closer to play area like in Concept No.3 also consider wind protection some concern was raised about late night usage
- consider additional parking capacity to be added to Williams Rd
- small support for adding commGNCgarde211

### **COMMENTS FOR CONCEPT NO.2**

This concept received 17% of the public vote, which is the least support out of all three concepts.

Concept No.2 includes a large mound, water detention area, softball back stop, fenced off-leash dog area



'Concept 2 is conducive to my idea of the outdoors'

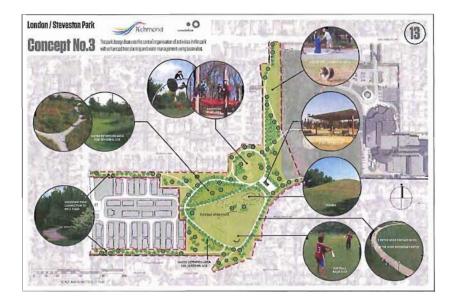
Below are some of the comments summarized:

- good support for the flexible open spaces
- good support for the less formal tree layout 'sprinkling of trees'
- some support for the spreading out of site features
- good support for a fenced off leash dog area
- good support for trees along the pathways with lighting improvements consider adding painted lines on pathways
- keep park maintenance low
- general comment to keep trees away from the fence line views for existing homes are already suffering leave some gaps less big trees consider shadows cast along north boundary of existing homes
- little support for the large mound consider making mound smaller
- little support for location of covered open space consider moving next to play area (like in concept 3), to allow for more open space
- consider use of cyclists on greenway
- add perimeter drainage
- water retention area there was a preference for a grassy basin vs. rain garden planting the grassy basin will require less maintenance and is more use able during dry periods.

### COMMENTS FOR CONCEPT NO.3

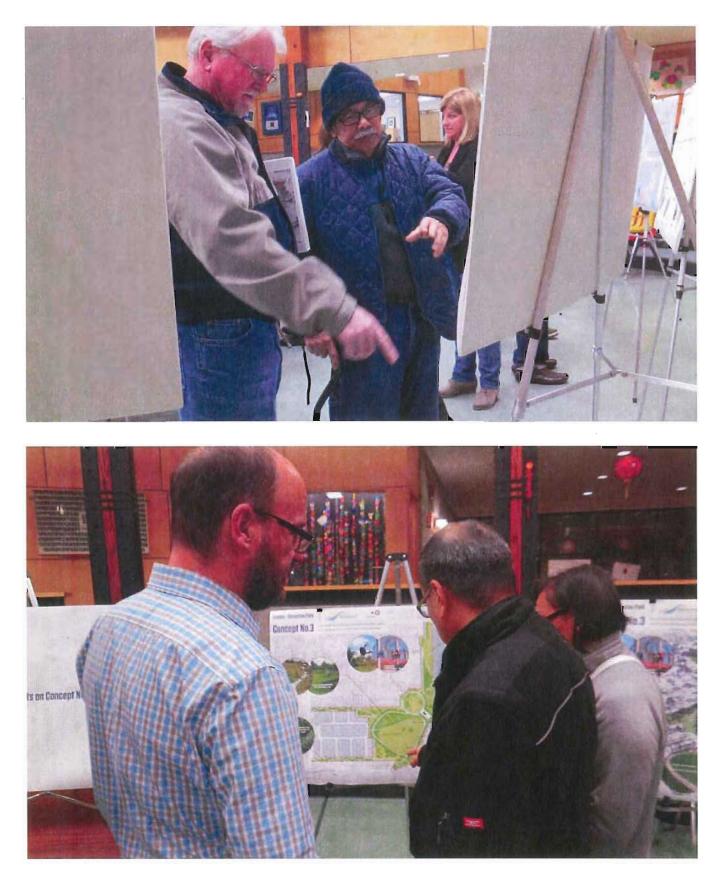
This concept received 25% of the public vote, which comes in second place out of all three concepts.

Concept No.3 includes a small mound, 2 water detention areas, softball back stop, fenced off-leash dog area.



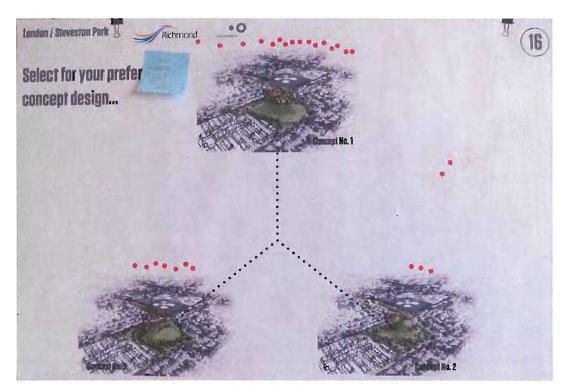
Below are some of the comments summarized:

- good support for the location of the covered open space consider position in concept 1.
- mixed support for the softball back stop.
- some support for a fenced off leash dog area
- some support for the mound.
- some support for the extra middle walkway
- consider use of cyclists on greenway
- consider adding a water feature to enhance the landscape character
- general comment trees too dense. Random sprinkling preferred spaces don't need to be overly defined should allow the users flexibility to figure out what to do shade is good but vision of children needed consider shadows cast along north boundary of existing homes
- Consider connecting water detention area to new development. "innovative storm water management"



# Summary of concept choices

Below is a visual representation of the preferred concept design based on the feedback from the workshop participants.

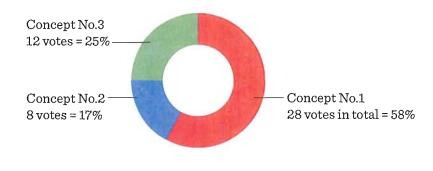


Analysing the votes on the preferred concept board and the votes made on separate sheets ,the statistics are as follows:

# Preferred concept board Voting exercise on the separate sheet

Concept No.1 = 16 votes Concept No.2 = 3 votes Concept No.3 = 7 votes Concept No.1 = 12 people Concept No.2 = 5 people Concept No.3 = 5 people

# Combined numbers = 48 votes in total



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# **Summary**



The event was very informative and participants appeared to be enjoying play their part in the design process. A number of comments were received relating to each concept design which has been amalgamated with the findings of the ideas fair summary report to generate a hierarchy of decisions relating to the park program and its overall design.

Based on the feedback received, there was no critical feedback regarding the similarities between all three concepts. These included the location of the play area, the general location of the flexible open space and the greenways.

The development of the final concept design to be presented to the public on March 31 will be developed based on the following items within this summary:

# **Strong Support**

# YEAR-ROUND USE

At the ideas fair events, there were a number of comments to find more ways to promote fitness as well as to make the park usable during the winter months. This included the opportunity to provide a covered flexible use space for a range of activities such as Tai Chi or Yoga.

During the concept design review event, the covered open space was presented and received good support. Base on the feedback the covered open space should be located near to the existing play area, facing south. Consideration should be given to the wind protection but also consider how the covered open space would be integrated into the lighting design to reduce the risk of late night use for nefarious activity.

# FLEXIBLE USE / OPEN

A majority of participants showed a lot of support for open flexible green space for multi-use activities, bocce, frisbee and sports.

During the concept design review event, flexible open space has been fully supported. There have been a number of requests to maximize the feeling of openness by not planting too many trees and spreading amenities too far apart.

# IMPROVED SOCIAL AMENITIES FOR NEIGHBOURHOOD USE

At the ideas fair events, there was a general request for a couple of social hubs including an outdoor bbq, picnic tables, trees (for shade), benches. These will be included within the final concept design.

#### TRAILS/FITNESS/CONNECTIONS

At the ideas fair events, there were a large amount of people who like to exercise using the network of paths to walk, run, including walking with dogs on a leash. Therefore it was clear that the paths would need to be widened to allow more capacity and better connect the existing and new features within the park environment. There were also several requests to the make most of the mountain view.

In all three concepts presented at the concept design review, the network of paths had been developed to respond to above requirements which received good support. There were some comments supporting the use of the tree-lined paths with lighting which has been received as a consistent message throughout the ideas fair events. The measured fitness trail was not explicitly mentioned but based on the findings the fitness stations didn't seem to resonate well with participants of this event.

Some consideration should be given to the connectivity & borders relating to the Polygon Development. Although some people liked the central path in concept 3, it is understood that the public will not be able to walk through this gated-private development.

#### **DIVERSE LANDSCAPE CHARACTER / VEGETATION**

Base on feedback from the ideas fair events, there was a consistent interest in increasing the diversity of landscape characteristics throughout the park.

#### **Tree planting**

In all three concepts, trees formed a major element within the park designs, in varying scales. It was interesting to see the responses of where and how trees should be used with the site:

- Keep trees away from the fence line in order to avoid casting shadows onto neighbouring properties
- Make gaps between trees to not block existing views to the mountains.
- Adding greater spatial diversity seemed to be important to the participants.
- Small deciduous trees should be used to enhance diversity in the landscape character and not planting too many evergreen trees.
- Provide shade opportunities within the summer.
- The layout of trees should be more random and informal; stating that the spaces don't need to be overly defined.

#### SITE SAFETY

Based on the current feedback, the review of existing path lighting with the addition of low path lighting has received consistent support. The main reasons are to encourage use by families as well as extend use of the park in the mornings and evening and discourage any nefarious activity.

# **Moderate Support**

#### DIVERSE LANDSCAPE CHARACTER / VEGETATION

Base on feedback from the ideas fair events, there was a consistent interest in increasing the diversity of landscape characteristics throughout the park

#### Mound

Increasing the diversity of landscape characteristics with the addition of a small mound seems to have received good support from a majority of the participants. It should be well integrated as well as to maintain the view of the mountains.

#### DOGS

In both public engagement events, there were quite a number of people who spoke out against having an

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off-leash dog area as it would make less usable space, although there was evidence of mixed opinion on this item.

A fenced off leash dog area was presented in the 2 concepts at the concept design review and received moderate support.

#### PLAY

Of the small number of comments related to the playground area in the ideas fair, it was suggested that the play area be renovated to replace the safety surfacing as well as providing more opportunities for toddlers and social amenities for seniors. It should also be expanded to accommodate more capacity locally as well as visitors during peak times when large events are taking place.

#### SPORTS

An informal softball backstop was present in concept 2 and 3 which received mixed support from participants at the concept design review. Consideration should be given to the programming of the softball backstop so that it doesn't conflict too much with the passive activities within the park.

# **Considerations**

#### EXISTING PARK ISSUES

Poor drainage of the study area is a clear constraint as well as issues with Snow Geese. Concepts 2 & 3 presented the use of water detention areas, and some participants dislike the idea of the water detention (on concepts 2 & 3) because of its negative link to the history of flooding issues within the park. There were also some maintenance concerns related to this feature therefore a grassy basin would be preferred over a rain garden with water tolerant planting to be more use able during dry periods.

#### CAR PARKING / SITE ACCESS

Capacity of parking is currently limited, especially with the removal of the the parking lot on the old school site. During sporting events, the site becomes 'over capacity' and participants of events park their cars in the local neighbourhood which causes friction.

The expansion of car parking was not presented within any of the comments but there were some comments from participants who didn't understand why additional parking had not been added into any of the concept designs.

All of the feedback responding to the 3 concept designs was transcribed and is available in the appendix for reference.

# Additional Items to be Considered

(repeated from ideas fair summary report)

- The 'beer league' use the existing soft ball courts located east of the old school site during the summer period.
- The public washrooms only appear to be open during sporting events.
- There are a number of issues relating to the sports groups using the field; with flood lights on late at night; loud music on late at night. It was requested that organized sports groups have more accountability in respecting the surrounding neighbourhood.
- A washroom is needed so that kids can play longer in the playground.
- $\bullet \quad {\rm There} \ {\rm are} \ {\rm a} \ {\rm number} \ {\rm of} \ {\rm noise} \ {\rm issues} \ {\rm associated} \ {\rm with} \ {\rm the} \ {\rm sports} \ {\rm fields} \ {\rm in} \ {\rm the} \ {\rm summer}.$

#### NEW POLYGON DEVELOPMENT ISSUES - COMMENTS

- Do not want development to have majority access to the park
- Contain development with buffer; do not want park to be backyard of development
- Like to move the last 2 buildings on the south east to the north and get a straight border line would be much better The both sides of the pathway would have the equal open view.
- Ensure home owners of the new development are not parking their vehicles in existing neighbourhoods that surround the new Polygon development.
- One safe path open at all times during demo and construction (greenways connecting No.2 Road with the whole site.)
- When demolishing the old building, do you have plans for the rats and skunks? Especially if we have problems with Racoons.

# Appendix

The following notes were generated in the concept design review held on March 05, 2015.

#### Notes collected from the Public Workshop : Concept Design Review on March 05, 2015

Preferred Concept: 1

Comments: Im happy, looks great

#### Preferred Concept: 1,2,3

Comments: \*\* Trying to do too much. Keep simple, green, open. Look to all other green spaces inside other quadrants – the freshness of "openness" space green is "calming" – these plans are toooo busy.

#### Preferred Concept: 1

Comments: Fence off the playground area too keep out the dogs, leashed or otherwise. Do not over populate the play area when the play area is expanded. For option 1,2 or 3 PLEASE make sure that whatever plan is finally chosen it is chosen with the view to keep maintenance costs down and is relatively easy to maintain.

#### Preferred Concept: 1,3

 $Comments: 3-I \ like the multi use \ design-passive enjoyment and washable; out of the way place for dogs; maintain ball field for adults - minimal mound ok. I also like concept 1 b/c full use of space - no we to water detention areas and no mound$ 

#### Preferred Concept:1

Comments: drainage of field at west end (water detention area) is bad now, therefore I don't feel a low spot to retain more is good. I like concept 1 for its paths and open areas but would like the off leash area incl. low level path lights would be great all over the paths. Not sure about covered area just because of late night use but does offer more use time during spring/fall. Don't care for mounds. Drainage of fields is of concern. Needs to be done better than it is now.

#### Preferred Concept: 3

Comments: I like #3 the best, it has the more trees throughout and I like the path through the middle

#### Preferred Concept: 3

Comments: Clem ThibaulT - NO ORGANIZE SPORT. Bocce ok, badminton ok. Kid game ok

#### Preferred Concept: 1

Comments: like: some pathways, don't mind mounds...can add to landscape without being hardscapes. Could include an off leash dog run too

Don't like: tall of overly dense perimeter trees esp along pathways (I love trees in general) but no "forests" please – keep it light and random (love landscaping & fitness pathways) but don't over define spaces...let uses decide... more imaginative use Suggest: slight expansion of parking strip to North along Williams. Not crazy about covered "BBQ" space unless its more attractive than the example pictured on the poster board

#### Preferred Concept: 1

Comments: #1 looks clean and uncomplicated

#2 and #3 is going to give the fellow cutting the grass heartburn as he negotiates the curves

Take the best features from 2&3 and incorporate them into #1 such as berms, keep the covered space adjacent to the playground area as in option 1

#### Preferred Concept:1

Comments: covered area closer to kids park, small hills in the flex area, lines on pathways, no outdoor fitness stations

#### Preferred Concept: 1,2,3

Comments: \*\* Need space for community gardens. Less big trees, more open unstructured space, perimeter pathway, rainwater gardens, native plants

#### Preferred Concept: 2

Comments: Concept 2 is conducive to my idea of 'outdoors': 1, larger mound. 2. the 2 water detention areas. 3, the way trees are spread out.

I like the feeling of 'outdoors' as I walk into the park from my neighbourhood. Im greeted by trees spread throughout on walkways. The two water detention area the one larger mound that simulates "real" outdoor atmonsphere, and yet it has the basic needs of both kids and adults that I think supports an "escape" from our day to day scene within the neighbourhood. It is the layout of the park as a whole that attracts my interests. Dody Sison @ 6200 Goldsmith Dr

Preferred Concept: 1

Comments: I like #1 layout. Still needs parking added to North Side. No baseball. Less trees in greenways.

#2 No Baseball

#3 No baseball

Where is the parking (additional)

#### Preferred Concept: 1, 2(conditional see below)

Comments: \* Concern that trees along N border are too tall or will get too tall casting shadows on house and yards on N. side. Note: shadow effects are prominent on that side, while none on the S. side. Small hedge or shrubbery

\* would like to see increased continuity to east green space and north side

\* option 2 with smaller mount that of opt 3

\* perimeter drainage please

Preferred Concept: 1 (but if 2 or 3 is selected)

Comments: with mound. For water retention area like grassy basin vs bush vegetation as I believe the bushy retention will attract more litter, cups, food packages etc. and become unsightly. The grassy basin require less maintenance and is more useable during dry periods. Would like to see less tree density in the southwest corner of park as would be visually more appealing to see more open space. Also opens the south west corner more use as greased area. That corner would be less dark looking during fall/winter sundown.

Preferred Concept: 2

Comments: like the spread out concept, drainage issues addressed, off leash fenced dog park

Preferred Concept:

Comments:

\* represent 14 house and over persons

we prefer concept #1

cover spaces back to houses to avoid wind with open area facing south. Minimum 2 cover spaces. One large area for dancing or other purpose like "Robson Square" \*MORE trees to separate the park from houses.

#### Comments collected for each Concept at the Concept Design Review on March 05, 2015

#### **Comments for Concept No.1**

- don't like water detention area. We have worked hard to get this park area dry in winter. It can still flood in heavy rain season which creates a mess for everyone to navigate. Also NO more baseball diamonds backstops.
- I like the concept #1 but would include the area for dog off leash
- need at least 2 cover areas Prefer concept #1
- I like the flexible open spaces
- park benches?
- I like the trees on the path, and lighting improvements
- deciduous trees great idea to allow for different views through the seasons disagree with too much evergreen growth. Ie. no forests pls. deciduous would also provide shade during hot months
- like trees along the path good idea
- please keep trees away from fence line roots go into the residents adjacent
- flat benches so that they can be used for board games ie: chess
- make sure trees along fence line do not root into residents properties. Otherwise, great concept
- extra cover area with flat benches for games
- more backstops!
- · more trees along west boundary to naturalize and create a buffer between park and development
- why did the project boundary changes from earlier versions.
- 44persons 14 houses consider wind with the position of the covered open space. Its too way in the centre
- flex area with a mound would be nice
- covered area should be close to kids park
- more tree to separate the park from houses
- lighten up on perimeter trees on S pathway. Views for existing homes ae already suffering leave some gaps.

#### **Comments for Concept No.2**

- more flexible space not defined for any defined purpose
- don't like the mound
- there is nothing here that we asked for, no open space. No water detention area, we want this drained
- only good part of this plan is fenced off-leash area
- #2 Bad location for covered area move in North
- think about cyclists using park as greenway
- more backstops
- greenway to No 2Road and to Williams good idea
- please no tall trees casting shadows on N perimeter
- located covered space at playground, allows more greenspace

#### Comments for Concept No.3

- no back stops, no mound, the rest is fine
- I like concept #3 the best with the extra middle walkway and the trees. You need open public washrooms for the childrens playground
- I like the backstop, I don't like the mound. The rest is good
- 2 ball diamonds which are currently used by seasonal softball
- public washrooms are never open, so what good is a park open washrooms dawn to dusk daily
- trees too dense. Random sprinkling preferred. Spaces don't need to overly defined should allow the users flexibility to figure out what to do. I'm sure we'll figure it out
- less trees, shade is good but vision of children needed
- I like #3 but get rid of backstop
- more backstops
- good location for covered area
- plan paths for cyclists using park as greenway
- do not put in baseball park (one already exists). consider the higher population density in park. Put in a fountain or water feature and enhance landscape
- statue in fountain, spray fountains, art into life
- no baseball backstop, safety, damage to houses, parking, water fountain next to mound, pathways around pond fountain
- No backstops!!
- would like to see some consultation between the people developing the playground area plan for London/ Steveston park and the people developing the new Steveston Community Centre Park
- Please no tall tree shadows on N side
- I like it, I like it, I like it, I like it, no playing ball
- connect water detention area to new development. "innovative storm water management"





# Welcome to the Public Workshop Final Concept Design Review...

Existing site photos - credit Clayton Perry (http://claytonperryphotography.tumblr.com/)





# The City of Richmond invites your input about London/Steveston Neighbourhood Park

The planning process for the redesign of the western part of London/Steveston Neighbourhood Park is underway.

Williams Road

This process will focus on the area of the park proposed to be transferred to the City as part of the rezoning application for the former Steveston School site at 10440 and 10460 No. 2 Road.

We invite you to participate by sharing your ideas and providing input toward the preparation of the park concept plan.

Cilbert Road

Proposed Study Area

No.2 Road

Ways to be involved:

- Visit www.LetsTalkRichmond.ca after February
   12 to learn more about the plans and provide comments
- Comments steves on Highway Steves on Highway Attend the series of drop-in style public open houses for one-on-one interaction with City staff, display boards, handouts and comment form.

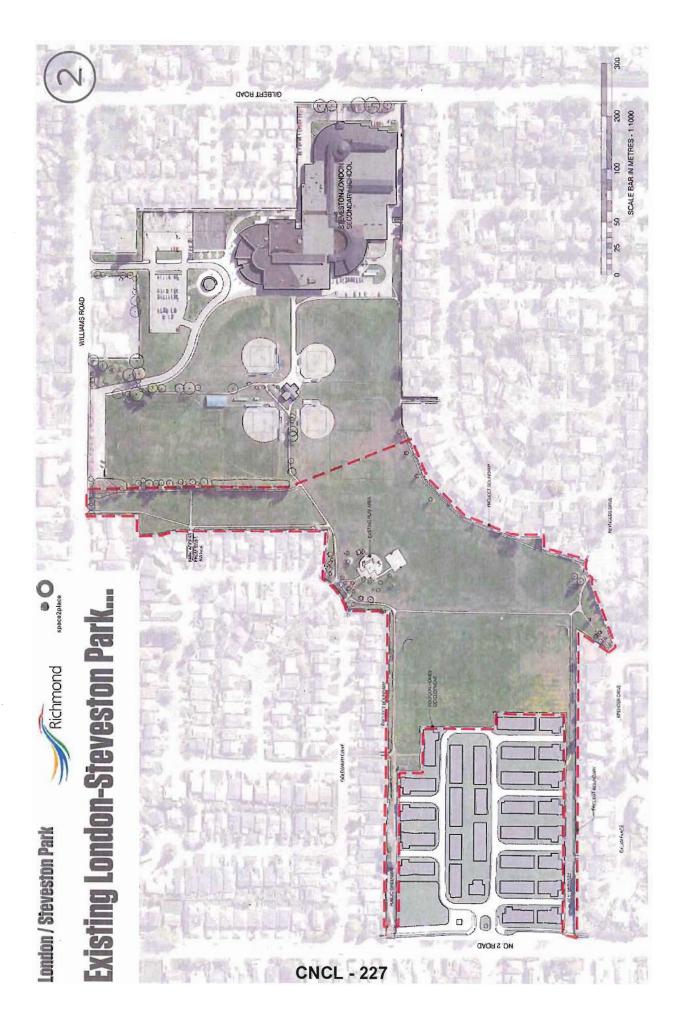
Thursday, Feburary 12	Thursday, Feburary 127:00 – 9:00 p.mSharing ideas         Saturday, February 141:00 – 3:00 p.mSharing ideas         Thursday, March 57:00 – 9:00 p.mReviewing concept options         Tuesday, March 317:00 – 9:00 p.mReviewing a preferred design         Place:       The Gilbert Lounge, Steveston-London Secondary School, 6600 Williams Road         For more information, contact the Parks Department at 604-244-1208 or visit	Dates, Times and Agenda:
Thursday, March 5	Thursday, March 5	Thursday, Feburary 127:00 – 9:00 p.mSharing ideas Saturday, February 141:00 – 3:00 p.mSharing ideas
Place: The Gilbert Lounge, Steveston-London Secondary School, 6600 Williams Road	Place: The Gilbert Lounge, Steveston-London Secondary School, 6600 Williams Road For more information, contact the Parks Department at 604-244-1208 or visit	Thursday, March 5
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Richmond

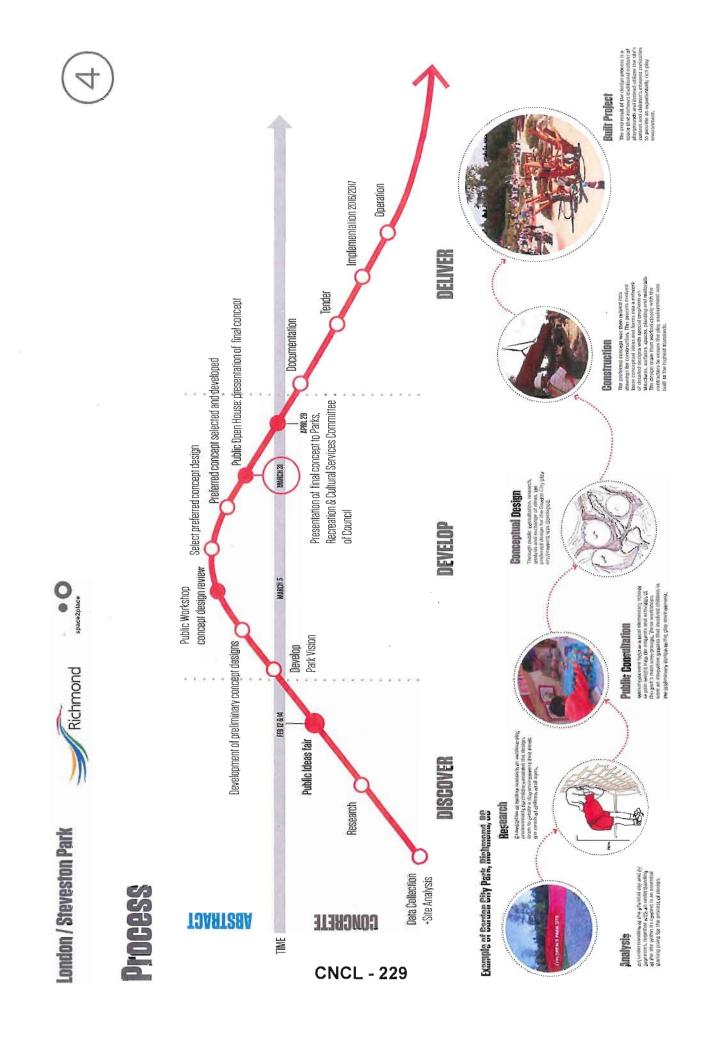
You Tube

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www.richmond.ca







termination of the second	The following is how I would describe my vision for an ideal London / Steveston Park in 10 years • mature plantings on trails with gathering spaces	<ul> <li>meandering fitness trails, beautification of the park</li> <li>supervised off leash dog park (owner present to 'pickup')</li> <li>nice pathways, nice trees and planting but also open(the centre part)</li> <li>do not want development to have majority access to park</li> </ul>	<ul> <li>trees, habitat for song birds</li> <li>open/covered space for tai chi area with green roof for the birds</li> <li>designated quiet times - ie. after 9pm</li> <li>dog off leash area</li> </ul>	<ul> <li>better playground</li> <li>need washroom so kids can play longer in the play ground</li> <li>need washroom so kids can play longer in the play ground</li> <li>need washroom so kids can play longer in the play ing</li> <li>open space to see the mountains, families walking and playing</li> <li>noom for people to play bocce ball</li> <li>open space for people of all ages and not organized sports</li> <li>walking, logging trails, guiet retreat, wooded areas - pine treesl. tree lined walkwavs, wide open</li> </ul>	spaces, song bird habitats • ambient lighting on the west of the site This is what the preferences look like for the balance of uses in the park	tondon / Steveston Park	Balance of uses within the Park redesign	Particular Partic
London / Steveston Park	HINDINGS TROM THE IDEAS FAIL	Gommou responses to the following questions I like the following qualities of the existing London-Steveston Park	<ul> <li>there is and should be a difference between what is park and what is playing field</li> <li>the park as it already is!</li> <li>walk area for walkers, trails, green space</li> <li>walking spaces</li> </ul>	<ul> <li>there is a place for children to fly a kite! (ie open space)</li> <li>large area of open green space</li> <li>quiet setting open spaces</li> <li>the fact that it can be re-designed period!</li> </ul>	· Zoung in the summer Provided in would change the following things about the park • There for tainy season	<ul> <li>Security the second and park (what to do with the chain link fence)</li> <li>Security of the second park (what to do with the chain link fence)</li> <li>Second areas of these in center instead of the sort the border</li> <li>a little pond and a small hill here could enrich he landscape of the park</li> <li>a additional parking on williams rd. double existing lot</li> </ul>	<ul> <li>is there a way to use "traffic calming devices" on walking paths - slows motorbike, skateboards, and bicycles - especially at blindspots</li> <li>evergreen trees, fewer deciduous, still able to see mountains</li> <li>evergreen trees, fewer deciduous, still able to see mountains</li> <li>evergreen trees, fewer deciduous, still able to see mountains</li> <li>good ambient lighting on walkways and playground areas to discourage nefarious activity</li> <li>meandering pathways</li> <li>get rid of existing 2 baseball back stops</li> <li>better management of tournament events - keeping space for locals community (quieter during events)</li> <li>bigger playground for children</li> </ul>	<ul> <li>places to sit</li> <li>drainage and water pooling</li> <li>drainage and water pooling</li> <li>and water pooling</li> <li>need more mounds or hillocks for kids to play</li> <li>no more beer leagues Noise and Adult ball on old Steveston high field</li> <li>communicating rules on the site</li> <li>incorporate a bike path with the walking path</li> <li>make off leash park or a large off leash area for dogs</li> <li>open lawn for multi use activities, bocce, Frisbee, sports</li> <li>add naturalistic planting and trees</li> <li>separate contain development with buffer, do not want park to be backyard of development</li> <li>more implements for toddlers and benches for seniors at the play areas</li> </ul>

0	)		<ul> <li>Hexibie Use / Dpen Space</li> <li>provide open space for multi-use activities, such as bocce, frisbee and other sports</li> </ul>	Site Safety • keep existing path lighting • The site has a number of dark spots which impacts on the use of the site during the evening and morning periods; install low-level path lighting in any darker spots • encourage extended use by families • encourage extended use of the park in the mornings and evenings • establish strategies to extend use of the park in the mornings and evenings • improve drainage	better management of snow geese required. Improve the balance of uses within the park; open/passive park versus what is sports field find ways to improve parking situation during sporting events	ails / Finarss / formections encourage site access by foot and bike encourage site access by foot and bike develop a network of paths install measured fitness trail (e.g. 1km) install measured fitness trail (e.g. 1km) connect the new development with the park provide better connections to existing site entry points make path widths wide enough to allow for shared use by bikes and pedestrians.
		y Park Design Considerations		Si haracteristics - park 	ic tables	
Richmond SpaceSpisse	eas Fair		Year-round Use         Mater months           • make the park usable during the winter months         • make the park usable during the winter months           • provide a covered flexible use space for a range of activities	Eliverse increa maxin provic conse expan play provic	Improved Social Amenifies for Neighbourhood Use         social hubs including an outdoor bbq & picnic tables           • install water fountain         • install water fountain           • install fitness equipment along fitness trail	<ul> <li>Dogs</li> <li>Install fenced dog off-leash area</li> <li>Install fenced dog off-leash dog area so that it doesn't take up too much flexible open space</li> </ul>
London / Steveston Park	Findings from the Ideas Fair	The most noted words used during the ideas fair This word cloud filters 75 of the most noted words and the size of each word is in relation to the number of occurrences it was noted in	the responses. baseball benches birds as an under reading centre children common converting	Anoma of the second sec	Results of the sticker exercise to identify new activities for the park Total Priorities	



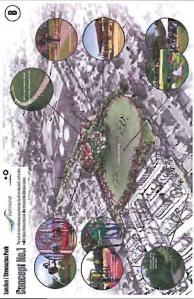


# **Original Concept Design options**

# Concept No.1

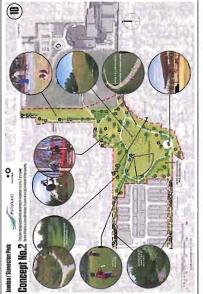
The park design enhances opportunities for physical activity with a 1 km walking loop, littness stations, play area and flexible open space.





## **Concept No.2** The nark ripsinn

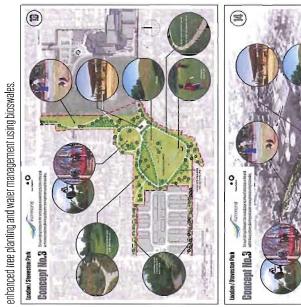
The park design distributes activities throughout the site. The organic layout of paths is complemented by an enhanced variation of topography.

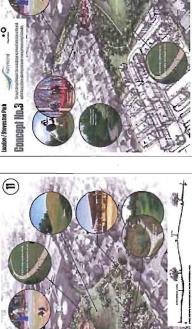




# Concept No.3 The part device fo

The park design features the central organisation of activities in the park with enhanced tree chantion and water management usion binewales.







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mond space2place	Recritication and the construction and the could control of the control of the could control	8 voles = 17% 28 voles in loial = 53%
London / Steveston Park	<ul> <li>Comments fragment in the second rest of the second rest o</li></ul>	require less meintenance and is more use able during dry periods.

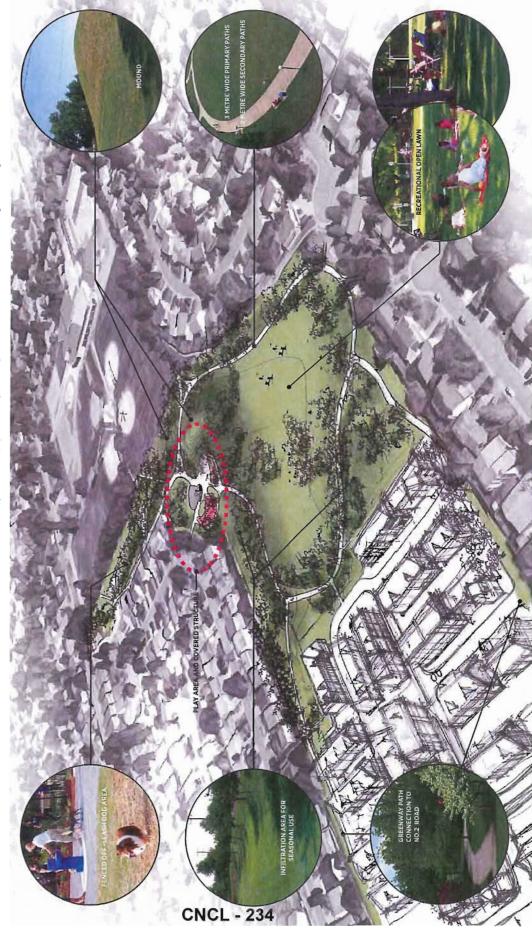


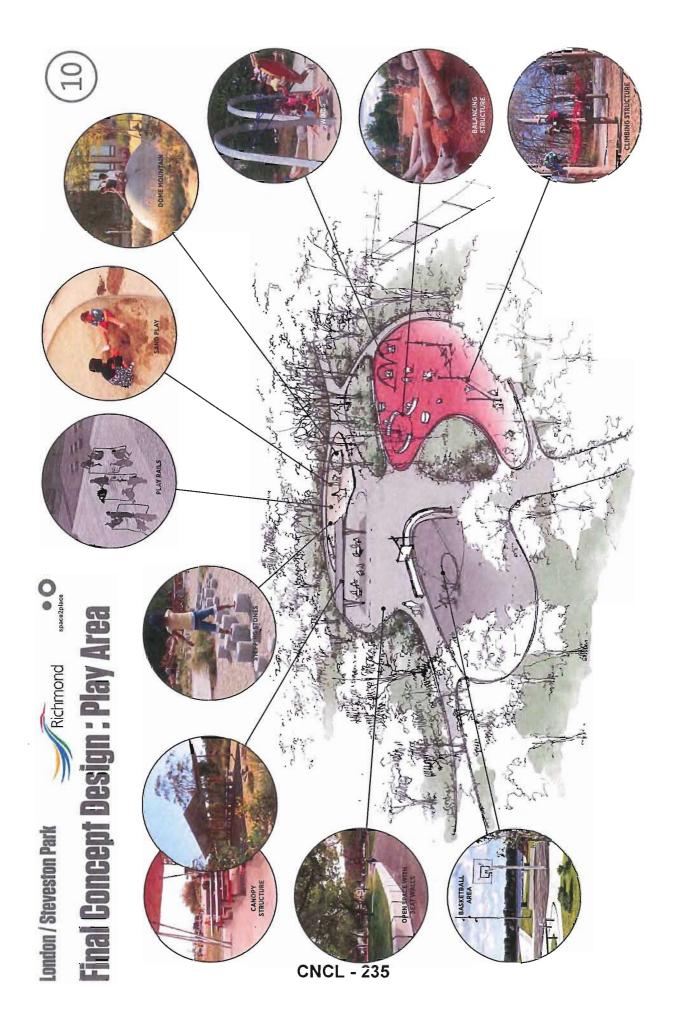




active use. The existing landscape character is enhanced with varied topography, tree planting as well as water management with The design for London/Steveston Park features two distinct areas - a large flexible use open space and a central area focused on infiltration areas to create biodiversity. The central area replaces the existing play area with renewed play elements, a sheltered space for neighbourhood activities and a relocated small sport court. A new walking loop with fitness stations will enhance opportunities for physical activity This design also features a small fenced off-leash dog area for neighbourhood residents.

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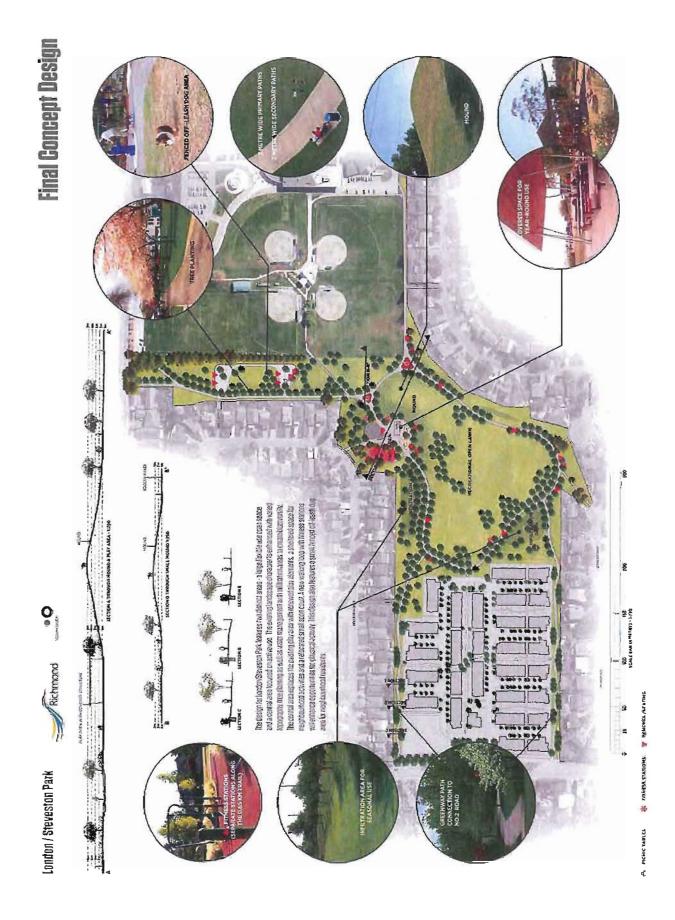




Richmond space2place

London / Steveston Park





# **APPENDIX F**

# Public Workshop: Final Concept Design Review Summary Report

#### Final Concept Design Review

Date:7-9pm March 31, 2015Location:Gilbert Lounge of London-Steveston School

Prepared by:Phil Wyatt - space2placeDate Prepared:April 07, 2015

### **Participants**

#### **City of Richmond**

Mike Redpath	Senior Manager, Parks
Clarence S <b>i</b> hoe	Parks Planner
Tricia Buemann	Area Coordinator, Parks Programs
Marie Fenwick	Manager, Parks Programs
Mark McMullen	Senior Coordinator, Major Projects, Planning & Development
Gregg Wheeler	Manager, Sports and Community Events

#### space2place

Jeff Cutler Principal Phil Wyatt Project Manager

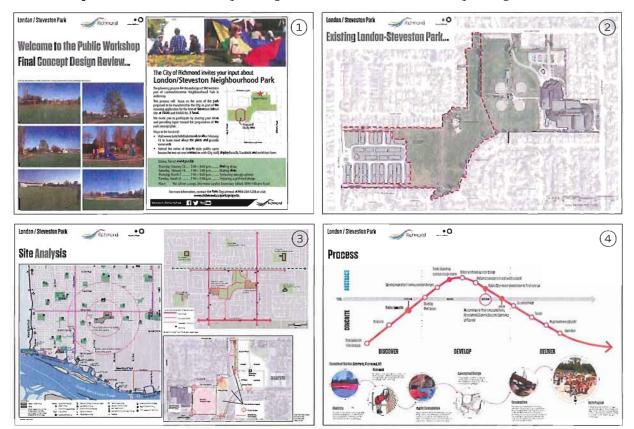
# Objective

The final concept design review was the third point of contact with the community surrounding London-Steveston Park. The purpose of the final concept design review was to return back to the community to present a final preferred concept design based on the feedback received during the review of three initial concept designs in March and the ideas fair events in February. Participants were encouraged interact through informal discussions with city staff and consultants as well as to make comments on the final concept design by adding notes to the presentation material.

The feedback gathered from this event will be documented for further refinement to the final concept design. This summary report will be combined with previous summary reports along with the final concept design for presentation to General Purposes Committee of Council on April 28 2015.

# Framework

Boards were displayed to communicate the existing site conditions including park context, circulation, connections, spatial uses. Another board identifying the project process and schedule was displayed so that Participant's were aware of the upcoming event to follow the Final Concept Design Review.

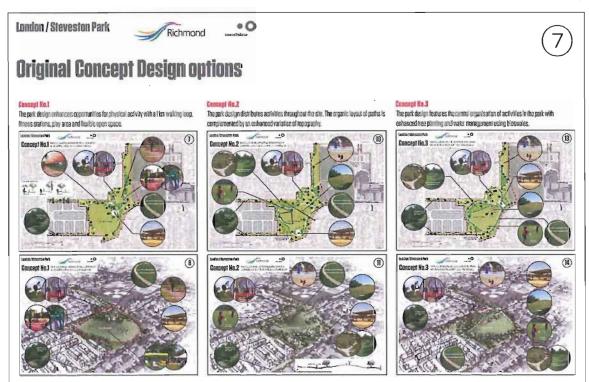


The findings from the two ideas fair events were presented which were intended to clearly explain the findings and the key park design considerations we used for the development of all three concepts options.

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**CNCL - 239** 

Next, all three concept options were presented in a smaller format so that participants could refresh their memories of the concept design review event on March 05.



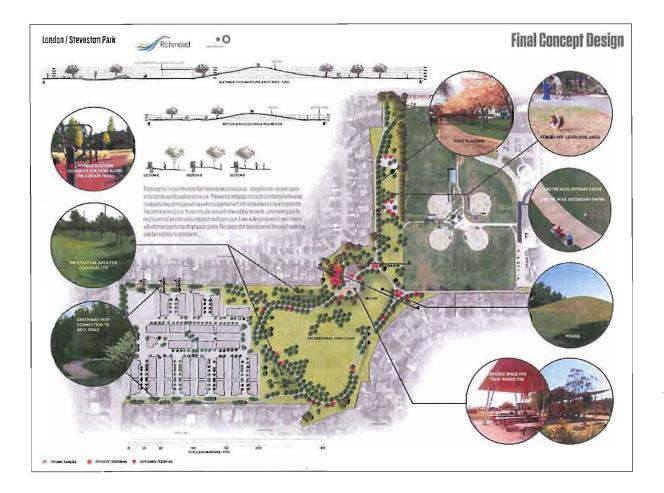
Then we presented a board that consolidated all of the participant comments and findings from the concept design review. This helped us to refine our key park design considerations.



**CNCL - 240** 

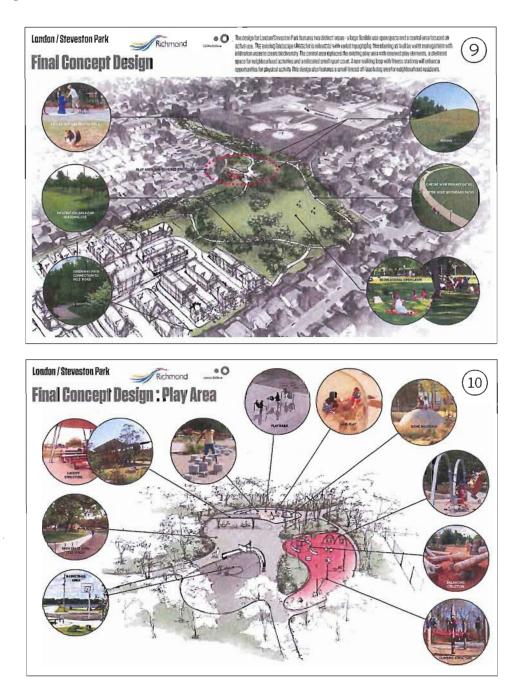
#### Final Concept Design

The design for London/Steveston Park features two distinct areas - a large flexible use open space and a central area focused on active use. The existing landscape character is enhanced with varied topography, tree planting as well as water management with infiltration areas to create biodiversity. The central area replaces the existing play area with renewed play elements, a sheltered space for neighbourhood activities and a relocated small sport court. A new walking loop with fitness stations will enhance opportunities for physical activity This design also features a small fenced off-leash dog area for neighbourhood residents.



The final concept design was presented with a large plan, cross sections, perspective sketch as well as precedent images to illustrate the proposed park program.

In addition a sketch was presented that showed the proposed layout of the new play area integrated with existing trees as new site features such as a covered structure and a basketball area.



All participants were asked to comment on the concept. Participants responded with sticky notes that were placed in context on a separate sheet.

To supplement this exercise, separate forms were handed out so that participants could add any additional comments relating to the final concept design.

All of the final concept design material has also been posted onto the Talk Richmond website. The feedback has been incorporated into this summary report.

**CNCL - 242** 



## **Participants**

City staff and consultants that facilitated the Final Concept Design Review received a lot of positive feedback. Particants also expressed their enjoyment and satisfaction to be involved in the design development of their park.

Approximately 30 - 40 participants attended the Final Concept Design Review. It is important to note that the majority of participants who attended this event also attended the Ideas Fair Events and the Concept Design review. This continuity of attendance is important as it meant that the participants gained trust in the event facilitators and the overall design process but the messages that we were receiving were generally consistent.

# Summary

This event was very positive and participants shared their positive feedback about the final concept design to City staff and consultants. The comments received throughout the public engagement process have been combined to form a hierarchy of decisions relating to the park program and its overall design (see below):

Based on the feedback received during the final round of engagement, there appears to be support for the concept as suggested.

#### STRONG SUPPORT

#### Year-round Use

At the ideas fair events, there were a number of comments to find more ways to promote fitness as well as to make the park usable during the winter months. This included the opportunity to provide a covered flexible use space for a range of activities such as Tai Chi or Yoga.

During the concept design review event and final concept design review event, the covered structure received good support. Based on all the feedback, the covered structure should be integrated within the hub of activity; near to the play area, facing south. Consideration should be given to the wind protection but also consider how the covered structure would be integrated into the lighting design to reduce the risk of late night use for nefarious activity.

#### Flexible Use / Open

A majority of participants showed a consistent strong level of support for open flexible green space for multi-use activities, bocce, frisbee and sports.

There have been a number of requests to maximize the feeling of openness by not planting too many trees and spreading amenities too far apart.

There were no specific comments relating to flexible open space during the final concept design review, which indicates that participants were satisfied with the amount of flexible open space within the final concept design.

#### Improved Social Amenities For Neighbourhood Use

At all of the public events associated with this project, there was a general request for a couple of social hubs including picnic tables, trees (for shade), benches as well as space for an outdoor bbq. These were included in the final concept design. During this review, comments called for more benches throughout the park as well as garbage cans and recycling containers.

#### **Trails/Fitness/Connections**

At the ideas fair events, there were a large amount of people who like to exercise using the network of paths to walk, run, including walking with dogs on a leash. Therefore it was clear that the paths would need to be widened to allow more capacity/flexibility of uses and better connect the existing and new features within the park environment. There were also several requests to the make most of the mountain view.

There were some comments supporting the use of the tree-lined paths with lighting which has been received as a consistent message throughout the ideas fair events.

The measured fitness trail with fitness stations was not explicitly mentioned during the concept design review or the final concept design review, however this trail assists the overall objective to enhance opportunities for exercise within the park. **CNCL - 244** 

#### Diverse Landscape Character / Vegetation

Based on feedback from the ideas fair events, there was a consistent interest in increasing the diversity of landscape characteristics throughout the park.

#### **Tree planting**

In all three concepts, trees formed a major element within the park designs, in varying scales. It was interesting to see the responses of where and how trees should be used with the site:

- Keep trees away from the fence line in order to avoid casting shadows onto neighbouring properties
- Make gaps between trees to not block existing views to the mountains.
- Adding greater spatial diversity seemed to be important to the participants.
- Small deciduous trees should be used to enhance diversity in the landscape character and not planting too many evergreen trees.
- Provide shade opportunities within the summer.
- The layout of trees should be more random and informal

#### Site Safety - Lighting

Based on the current feedback, the review of existing path lighting with the addition of low path lighting has received consistent support. The main reasons are to encourage use by families as well as extend use of the park in the mornings and evening and discourage any nefarious activity.

During the final concept design review, there were a couple of comments stating that lighting should be considered carefully so that adjacent properties don't receive too much light pollution from park lighting, especially along the Greenways.

# **Moderate Support**

#### ${\bf Diverse\,Landscape\,Character\,/\,Vegetation}$

Based on feedback from the ideas fair events, there was a consistent interest in increasing the diversity of landscape characteristics throughout the park

#### Mound

Increasing the diversity of landscape characteristics with the addition of a mound seems to have received good support from a majority of the participants. It should be well integrated as well as to maintain the view of the mountains.

It is understood also that snow geese only like very flat ground therefore the addition of mounds could see the reduction in the issues of snow geese on the site (refer to Constraints - Existing Site Issues).

#### Play

Throughout the public engagement process, it was clear that the play area be renovated to provide more opportunities for toddlers and social amenities for seniors. It should also be expanded to accommodate more capacity locally as well as visitors during peak times when large events are taking place.

The concept design of the play area as an enhanced, larger area was presented at the Final Concept Design Review. This design received positive support from a number of participants.

#### Sports

There was a clear conflict between sporting activities such as softball and the passive activities of the park. An informal softball backstop was presented in two of the concepts which received mixed support from participants at the concept design review.

Consideration should be given to the programming of the softball backstop so that it doesn't conflict too much with the passive activities within the park.

In the final concept design, the layout of trees in the south west of the park site were chosen to allow the future accommodation of an informal backstop and soccer field, however the lines of these courts were not shown on the plan presented to the public. As a result no further comments were made about softball in the site as participants felt satisfied that softball would not be a permanent fixture on the new site.

The basketball court in the existing play area was relocated to be better integrated into the design of the play area and covered structure.

#### Dogs

The initial public engagement events, there were quite a number of people who spoke out against having an off-leash dog area as it would make less usable space, although there was evidence of mixed opinion on this item. A fenced off leash dog area was then presented in 2 concepts at the concept design review and received moderate support.

The final concept design included a small fenced off-leash dog area and the majority of comments we received were positive. There were some comments requesting the area to be made larger and there were also a number of concerns raised about maintenance of this area.

# **Considerations**

#### **Existing Park Issues**

Poor drainage of the study area is a clear constraint as well as issues with Snow Geese. Concepts 2 & 3 presented the use of water detention areas, and Some participants disliked the idea of the water detention (on concepts 2 & 3) because of its negative link to the history of flooding issues within the park. There were also some maintenance concerns related to this feature therefore a grassy basin would be preferred over a rain garden with water tolerant planting to be more usable during dry periods.

The infiltration areas required throughout the site to improve the natural drainage has received good support at the final concept design review. It would appear participants are happy that these areas will only be dry throughout the summer months.

#### Car Parking/Site Access

Capacity of parking is currently limited, especially with the removal of the parking lot on the old school site. During sporting events, the site becomes 'over capacity' and participants of events park their cars in the local neighbourhood which causes friction.

The expansion of car parking was not presented within any of the comments but there were some comments from participants who didn't understand why additional parking had not been added into any of the concept designs.

All of the feedback responding to the 3 concept designs and the final concept design was transcribed and is available in the appendix for reference.

#### **CNCL - 246**

# Appendix

The following notes were generated in the concept design review held on March 31, 2015.

#### 15-001 London Steveston Park – Comments 2015.03.31

Below are a categorized list of the comments that were posted on the presentation boards at the Final Concept Design Review on 2015.03.31:

#### GENERAL COMMENTS

- like it love it lets do it thanks for a job well done
- i like the design and ideas developed. it looks like a good neighbourhood park, lots of walkways and open areas. great to see the playground bigger and better. i am leaving richmond but am glad to see the end results and after 20 years and living here like the way the park will move forward.
- i am grateful that we were asked to vote on concepts for the park. i like the final concept, thank you
- the designers are very helpful from 44 neighbours
- To the Parks Dept and the design team kudos for a job well done and thank you for your courtesy and engagement with the neighbourhood for developing the concept design. I hope it was fun for you all as it was fun for me to advance many of my wishes for the park design.

#### YEAR-ROUND USE

- i'm glad the overhead shelter is in the play area
- cover area need to be 20m x 30m open area for group tai chi or group exercise with benches on both ends from 44 neighbours face south and wind proof

#### IMPROVED SOCIAL AMENITIES FOR NEIGHBOURHOOD USE

- more benches needed in park
- recycling bins and compost bins
- please add more benches for the seniors. not just in the play area, throughout the park
- the covered area is good, a small stream or some water feature would be nice the sound of water is so peaceful
- include water feature, more benches
- water fountains
- more trees more recreation & more facility for seniors
- flower beds in style, benches, types of stoves
- garbage cans recycling bins and compost

#### PLAY

- please put in slides in play area for children
- maybe if there are more kids they should put a fun station.
- maybe they should put a slide in

#### TRAILS/FITNESS/CONNECTIONS

- separate bike lanes from walkways increase pathway width, lane markers
- paint lines to separate bike lanes and walking path on shared pathway
- please widen path to 5m and have separated path for bikes roller blades, skateboards, just painted line would be fine
- maybe consider dividing pathways for pedestrians and cyclists so as to avoid accidents. thanks.

#### DIVERSE LANDSCAPE CHARACTER

- would like a variety of trees but not too many heavy pollinators (thinking of hay fever here)
- ideal trees: katsura, japanese maples, armstrong maples, redwood, ashes, tulip trees.
- please keep trees low in front of houses shades properties from sun.
- shade for summer
- good to see trees planned bird habitat is important
- i like it, just watch out not too many trees planted
- would prefer infiltration areas have grass only
- no big trees on north side please, they cast long shadows!
- i would like to see a pond with ducks etc.
- All those trees, please make them evergreen or small leaf variety, I am buried in leaves at housman and spender every fall. Thanks K.Peterson
- great concept. please keep trees low near homes so as to not block the sun.

#### ${\bf FENCED\, OFF\text{-}LEASH\, DOG\, AREA}$

- the green area needs to be maintained.
- i do not think it is wise to have a fenced dog area.
- go easy on the tax payers...make the off leash area bark mulch
- like the dog off-leash area.
- i am against a fenced off leash dog area. how would you maintain that area?
- garbage cans for dog poop
- thank you for all your hard work i cant wait to enjoy a new park. would like a bigger dog walking space though!
- why is the off leash area so small?
- include more dog area
- woof woof! (translation) thank you for a dog park
- has the city ever thought about a roster or alternating days or times for all parks to be for dog owners (off leash) and non dog owners?
- a great concept but could do with a larger dog off leash area. thank you
- no one will clean up after his dog, therefore there is no need for fence off leash dog area
- saying that the city will maintain the fenced off lease area is easy but i don't think it will be maintained. no need for it.
- i am worried about the fences off leash area i cant see that it will be maintained
- bigger dog walking area please
- i cant see areas for a fenced dog area who will maintain that area
- smaller dog area or none at all please
- why is the dog park tucked away in the corner and so small?

#### CAR PARKING / SITE ACCESS

- please no additional parking at expense of parkland
- additional parking off Williams road increase existing lot or add new in area of off leash dog area

#### SITE SAFETY

- no intrusive lighting between project and existing neighbourhoods
- care should be taken to ensure that park lighting doesn't overwhelm. ie: directional lamps that don't offer excess glare into backyards at night
- greenway lighting non invasive to properties around development no light spilling into yards
- prefer less lighting between development and neighbourhood.

#### EXISTING PARK ISSUES

- need to implement pest control
- make sure the street parking on side streets are not used up.

#### SPORTS

• keep the basketball courts

#### NEW POLYGON DEVELOPMENT ISSUES - COMMENTS

- from 44 neighbours no mound on park centre to allow future development of sport area and not water problems around the mound footing and path
- can the developer make a temporary pathway along the blue fencing edge of development
- 44+ neighbours are strongly object the city loss control of public land to protect safety and interest for our neighbourhood
- mound should be along west side to block 3 storage townhouses! from 44 neighbours path on top of mound and other on foot of mound for easy and difficult choices from 44 neighbours (to block development)
- A child care facility on a busy street?

Let's Talk Richmond

#### **Survey responses**

Period: 08 Mar 2015, 12:00 AM - 06 Apr 2015, 11:59 PM

**Projects:** London-Steveston Neighbourhood Park Design

Sharing ideas survey - February 2015

#### 1

Respondent Name : MartaJ

Responded at 09 Mar 2015, 11:54 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

a.Bike path along the northern road b.Many public transit stops c.Large green space

#### 2.If I could, I would change the following things about the park:

a.Create a â€~gathering' place for people to meet and events can be held b.Make the park accessible and enjoyable for all ages (8-80 years old) c.Increase shaded areas with more trees for gathering on warmer days d.Installation of a covered area so that people can be outdoors during inclement weather e.Increased bike parking facilities f.Install public water fountains gPublic art could enhance the grounds and create spaces for gathering and help social interactions h.Bike paths through the park would allow for accessibility i.I didn't see access to public washrooms? j.Increased access to the park via transit or other active modes of travel k.Larger play spaces for kids

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

a.A park where people come together to mingle and play. This park could be a local gathering spot for outdoor music or events in the summer. I see this park being accessed by all modes of active travel (walk, cycle, roll, bus) and used throughout the year.

#### 2

#### Respondent Name : FrankY

Responded at 16 Mar 2015, 03:44 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

I like how vast the space is.

#### 2.If I could, I would change the following things about the park:

I would love to have a community center with Gym facilities and a swimming pool in the area. Also I would like to have more lights at night on **CNGL**k-a**254**II.

#### 3. The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I would like to see the same high quality residences enjoying clean efficient community facilities on the park.

#### 3

Respondent Name : Mark Sakai

Responded at 19 Mar 2015, 10:30 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

To be honest, there's not much too it right now. It's the 'home field' for the RGSA, which is good; it has a couple of community-use softball fields and a playground which are also good.

#### 2.If I could, I would change the following things about the park:

I would create a lot more visual interest, through changes in topography, the creation of more winding, serpentine footpaths, and more plantings of trees and shrubs. I would find some way to commemorate and recognize the historical importance of Steveston Secondary School, at the west end of the park. It was an important building to many many people who grew up in Steveston, and to have no recognition of this as its previous location would be a shame.

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I really like Options 2 and 3 of the concept plans. Both bring that more diverse experience for park visitors, whether they are local residents, people walking their dogs, community softball players, or RGSA tournament attendees. I think the retention of at least one softball diamond for adult rec league play is important -- I find it somewhat offensive to have read a comment from the Open House that there should be no more adult softball in the park -- we should be encouraging outdoor activities, not restricting them. I hope that a fitting tribute to the old Steveston Secondary School can be installed on the west side of the park.

#### 4

#### Respondent Name : Kim

Responded at 20 Mar 2015, 02:13 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

The green space and location.

#### 2.If I could, I would change the following things about the park:

I would add a track like the one at Minoru Park. Minoru Park is very busy and I think Richmond could use a second track for walkers and runners **CNCL - 252** 

#### 3. The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Lots of green space with a safe running and walking track to promote physical fitness for all ages.

### 5

#### Respondent Name : JenP

Responded at 22 Mar 2015, 09:55 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Flexible, community use View

#### 2.If I could, I would change the following things about the park:

Better year round use Create more wildlife spaces Walking route with varied terrain Include naturalized areas for wildlife

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Inclusive of full community Space for many activities Includes natural areas and walking spaces Home to wildlife

### 6

#### Respondent Name : sand

Responded at 29 Mar 2015, 07:15 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

provides a place for softball

#### 2.If I could, I would change the following things about the park:

make it more natural. Provide a place that people can get away from the city and children can feel like they are in a natural environment-trees, bushes, water, rocks and logs to climb on, pathwaysthings that children can manipulate, not more plastic uninspiring playgrounds that children can only do so much with. Most playgrounds have little to offer to promote children's development, I think the city is headed in the right direction with garden city park and terra nova, but I think it can be even more natural with more malleablility offered in the environment.

3. The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now: CNCL - 253 An area that is an oasis of nature, that children can play freely-off leash.

### 7

#### Respondent Name : Steve May

Responded at 31 Mar 2015, 04:47 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Open Green space.

#### 2.If I could, I would change the following things about the park:

I am a resident on Goldsmith Dr. who has attended all 3 previous meetings and reviewed the proposals. I don't think an off leash dog park is a necessary part of the park plan. Check the city website at http://www.Richmond.ca/parks/parks/dogsinparks.htm you will see there are 2 off leash parks only a few miles away from this park already. If anything they need one at Terra Nova lots of space up there. Check the map. Maybe the city could be persuaded to change the location for an off leash dog park to that corner of the city where it makes more sense. If this plan goes through as is, you can see, because we would be closest to the city center all those residents will converge on our park and be parking on Swift Ave. and Goldsmith Drive because there is not enough existing parking. I have proposed increased parking in the area slated for this off leash park, only to told this is to be a neighbourhood park not a destination park. So much for a neighbourhood park and the privacy of the homeowners in our subdivision. I strongly feel there is more of a need for parking near the existing sports fields than an off leash dog park in that area of their proposal. Currently the existing parking fills up and parking spills over into the residential areas on both sides of the sports fields. For these reasons I am Opposed to the off leash dog park, and prefer to see additional parking added to that area. I will be going to the Mar 31 meeting and will again voice my concerns about this issue. Regards Steve May

#### з.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Meandering pathways, mature colorfull seasonal trees and landscaping, park benches to quietly relax under trees and open sunshine to enjoy the space. A passive open green space area for children to play.

### 8

Respondent Name : Kai Tham

Responded at 01 Apr 2015, 07:21 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

peaceful.

#### 2.If I could, I would change the following things about the park:

let it be peaceful like an oasis.

#### 3. The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I would like to add a number of concerns to the Final Concept Design which I reviewed last night. After having digested some salient features of the plan I would like the design/implementation team to add this to their list. Adjacent to the proposed play area is the mound feature. This is a great idea and will be loved by the children especially when we have some snow so they can toboggan off it with some help. The elevation is such that residents on Gainsborough Dr will not have direct line of sight from their decks into the play area on the other side of the mound. Whoever does the actual physical design should consider this in their plan so that neighbours can help keep an eye on what happens in the play area. The secondary pathway from Goldsmith/Swift to the play area should be wide enough to allow emergency vehicles to access this location and removable posts should be installed for this purpose where the existing fence currently exists. There is a BCHydro transformer also next to the fence so the path must be designed on the west side of the transformer. The final concept design does not show this. To the Parks Dept and the design team kudos for a job well done and thank you for your courtesy and engagement with the neighbourhood for developing the concept design. I hope it was fun for you all as it was fun for me to advance many of my wishes for the park design. Having lived here for 29 years and raised two girls and their many cousins in the playground and baseball diamond, I am ready for their offspring to now enjoy the park with lots of exciting features in the next few years. We will also continue to have our father(s) vs daughter(s) baseball games on Father's Day at the west side of the park without the backstop but we will improvise. It has been a tradition for the past 20 years or so for my girls, their cousins and uncles and aunts. We always got beat. Thank you again on a job well done! Regards Kai Tham and family

### 9

#### Respondent Name : TedH

Responded at 05 Apr 2015, 08:19 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

1. Open fields for a variety of misc. uses; for example - flying kites, throwing a Frisbee, playing catch, etc. 2. Pathways around and across field. 3. Play / activity center for children.

#### 2.If I could, I would change the following things about the park:

1. Pathways wider and slightly higher (drier). 2. A few more activities and equipment in the play / activity center for children; more lighting at the play area to deter vandalism. 3. Tall field lights should be turned off at more reasonable hour - say 9:00 pm, with accompanying cessation of sports activities and associated noise.

#### 3.

## The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

1. No more baseball diamonds than we have now; four is enough. 2. More / better pathways. 3. Better access for police / firemen to deal with vandalism. 4. Limits / curfew for noisy activities, and lights off by 9:00 pm. 5. Section of park patterned after park at Garden City & just north of Granville. 6. Absolutely no more trees that block views of residents facing the park; limit the height of any new greenery to low shrubs or bushes, maybe a few flower beds - as per item 5. As illustrated in the latest drawings of the proposed park, the additional two rows of trees planned for the pathways around the park that will obstruct resident's views must not be implemented.

### **CNCL - 255**

### **Survey responses**

**APPENDIX G - LET'S TALK RICHMOND** 

#### Period: 07 Jun 2010, 12:00 AM - 22 Apr 2015, 11:59 PM

**Projects:** London-Steveston Neighbourhood Park Design

Sharing ideas survey - February 2015

#### 1

Respondent Name : licorise

Responded at 12 Feb 2015, 05:40 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Open area, walking paths, able to see the mountains, Places to see our beautiful mountains are getting less and less in Richmond because of the high rises being built. A true neighborhood park without too much "stuff".

#### 2.If I could, I would change the following things about the park:

Finish the playground that was promised 25 years ago. Make the girls baseball turn down their music while practicing, this is not very conducive with a park setting.

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

People out getting exercise by walking around the paths. Families playing in the fields.

### 2

#### Respondent Name : YVR-DJM

Responded at 12 Feb 2015, 07:32 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

parking!!! big green space

#### 2.If I could, I would change the following things about the park:

drainage

3.

The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I like it the way it is now.

#### Respondent Name : Burnro

Responded at 12 Feb 2015, 08:05 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

- the open field spaces - sports fields/diamonds

#### 2.If I could, I would change the following things about the park:

- I would install a very large modern children's playground. - I would also install a large modern children's water park. - I would build 2 new artificial turf soccer/sports fields. - I would re-design and re-pave the walking path so it circumvents the outside of the entire park along with the diagonal path crossing the middle of the park. - perhaps install a small skateboard bowl/park.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Modern new turf sports fields for use by the city and school with recreational space such as a modern playground for children and young families including a water park. As a child growing up in Richmond, London-Steveston park was always such a wide open space, and until early adulthood did I begin to realize what a wasted space it was and how much more could be done to utilize the space so as to benefit the local residents as well as be a destination park for other residents of Richmond to visit with their families, much like Steveston park/playground/waterpark.

### 4

Respondent Name : Monty

Responded at 13 Feb 2015, 07:35 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

large area with minimal pavement or buildings

#### 2.If I could, I would change the following things about the park:

Add some forested area. Add some shade trees

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Some open field space for certain sports. Some large wooded areas for play, for shade of people, flora and fauna. A few water fountains for drinking water. Non paved walkways to allow water permeation to be easy.

### **CNCL - 257**

Respondent Name : doestandish

Responded at 13 Feb 2015, 07:36 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Improvements to allow people to bicycle to and from the baseball park would be beneficial to healthy life style.

#### 2.If I could, I would change the following things about the park:

Add bike sharing program. Also a place to lock up bikes as part of the transit and bicycle mix. Additionally, it would be nice to have a secured bicycle parking facility at the Templeton Canada line. This would allow people to pick up a bike at London park, bike to Templeton, and then take the transit into town. The opposite transit connection would also be possible. ie. It would be possible for reverse direction bicycle ride.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

The park could be a nice place to pick up a rental bike or to secure your own bicycle . Rentals would allow visors to take a bicycle to Steveston village or Richmond trails. People playing baseball at the park could easily bike to and from the games. Secure bicycle storage is required. Secure locking and dry from the rain and other environmental elements. ( examples of secured bicycle parking are available at train stations near Amsterdam, Holland)

### 6

#### Respondent Name : Eggplant

Responded at 13 Feb 2015, 12:06 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Fields for organized sports, walking/jogging paths.

#### 2.If I could, I would change the following things about the park:

Bathroom facilities, better small children playground structures, community gardens.

#### з.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

A balance between organized sports fields, play structures, adequate bathroom facilities, community gardens, and a picnic area.

Responded at 13 Feb 2015, 01:13 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

greenspace, natural, suitable for snow geese

#### 2.If I could, I would change the following things about the park:

perimeter walkway

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

no formal play equipment, just greenspace

### 8

Respondent Name : kevin mcd

Responded at 13 Feb 2015, 04:21 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

I like the park, walking trails etc. Please consider to add walk way lighting to all the walkways like Minoru/ King George Park. Many people walk/excercise in the park including in the morning. There is Tai Chi in the morning but no lights. I go there every morning at 6:00 am to walk and exercise but in the dark months I stay close to the school due to the lack of lighting.

#### 2.If I could, I would change the following things about the park:

Remove the softball pitch(s). Too noisy in summer.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Add lighting for extended use in mornings and evenings.

### 9

#### Respondent Name : cmackenzie

Responded at 16 Feb 2015, 09:29 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

- Provides a large car-free public space - Sevent spa259 run - feels safe

#### 2.If I could, I would change the following things about the park:

- Significantly more tree cover for parts not needed for organized sports. - Effective integration with future local street bikeway network

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

- A multi-element park with a significant natural forested component complete with mature trees. -Attractive space for neighbourhood residents to simply have a picnic, or to ready and study in an outdoor environment. - Opportunities for organized sports mostly maintained - Mostly straight North/south active transportation route established to form part of future bike-route between No. 2. and Gilbert.

### 10

#### Respondent Name : kathbeau

Responded at 17 Feb 2015, 03:18 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

There's not much I like about it as it currently exists is just a big barren open space.

#### 2.If I could, I would change the following things about the park:

I would like to see it less open with more planted areas between zones. I don't care for the big open postage stamp view. It lack a serendipitous feel. Almost over planned. Is there anywhere for picnics? Wind break areas where people can sit in the early spring in the sunshine but out of the wind.

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I would like to see a park that has a mature feel to it with lots of plantings and trees. i would like it to have a sense of place and permanence. No cheep finishes like black top. Use more crushed granite on surfaces. In the spring I would like it to feel inviting would like it to feel Inviting with lots of coastal flowering shrubs which announce the arrival of spring on the lower mainland. Would like to see mature Rhododendrons, Azelias, Camellias, Cherry Blossoms. Avoid plantings which are used purely because the a re easy to maintain but lack colour, character, and texture. Shaded areas for people to sit under the trees in the summer. Places for family picnics which are close to the children's playground so the older children can play while parents watch from the picnic tables.

### 11

#### Respondent Name : elianachia

Responded at 19 Feb 2015, 08:43 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Sports field for recreation

#### 2.If I could, I would change the following things about the park:

Boring aesthetic - needs more planting and landscaping, perhaps around the margins to encourage pedestrians and cyclists to use the park's trails.

#### з.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Priorities include: pathways and fitness trails, planting, passive areas & gathering spaces. Particularly gathering spaces for neighbourhood events to encourage community members to connect with each other.

### 12

#### **Respondent Name :** vineliving

Responded at 21 Feb 2015, 09:25 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Wide green area.

#### 2.If I could, I would change the following things about the park:

Plant more trees.

3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Build a city garden.

### 13

#### Respondent Name : mrak

Responded at 23 Feb 2015, 01:15 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Open park feel near the west side of park

#### 2.If I could, I would change the following things about the park:

An open place for children to play More benches for seniors to walk and sit Less organized sports No model airplanes!!!! **CNCL - 261** 

#### з.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

With lots getting smaller and a lot more hoisin going up in Richmond I think it's important to have free space that is open and free. Free to do what we have been doing right now not full of organized sports that will not allow us to continue to use

### 14

#### Respondent Name : whiteoakhouse

Responded at 23 Feb 2015, 01:21 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

In the Western part of the park, I like the open field. I like to take my walks there and my jogs.

#### 2.If I could, I would change the following things about the park:

More shade trees, so I can sit and read or maybe some park benches. Perhaps some dedication benches and people will donate towards them.

з.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

A place where kids can play in the open space at any time of the year.

### 15

#### Respondent Name : nimat

Responded at 24 Feb 2015, 04:27 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

The way the park sits today has a nice and open feeling and I would like it to stay that way.

#### 2.If I could, I would change the following things about the park:

It should remain a tranquil area. A place that families can walk, a place for children to play flying kites (not remote control planes!) How about adding some benches, a few more trees for shade and change it to a non-sports designation reducing the weekend noise levels

3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

All parks should be a peaceful place. We have ough pough ports fields and areas for such activities

#### Respondent Name : smeixner

Responded at 24 Feb 2015, 08:24 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Multiple access points around the perimeter of the park from residential areas.

#### 2.If I could, I would change the following things about the park:

More dense vegetation providing wildlife habitat with multi-use trails winding through it.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Well established vegetation that looks wild rather than manicured and clearly man-made. Tall deciduous trees.

### 17

#### Respondent Name : pcmatthews

Responded at 24 Feb 2015, 11:47 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

I like the open space and peacefulness offered by the park and grounds. Especially the Western area of the park which I frequent often.

#### 2.If I could, I would change the following things about the park:

I would add more trees spread out across the park to offer more shade and to provide more of a park 'feel' to the area. This would provide a nice park environment to be enjoyed by families who wish to escape from city life. Kids would have a nice place to play and people would have a place to go for walks (some new pathways with benches and other aesthetic enhancements should be included instead of the existing straight pathways). I would also have less organized sports occupying the park grounds during spring/summer weekends as it gets quite noisy and hectic during these times.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

My vision is what I have described above. This vision builds upon the current openness I enjoy of the existing grounds with additions that will make the park a nice peaceful place to enjoy with family and friends.

### **CNCL - 263**

#### Respondent Name : jchoi

Responded at 06 Mar 2015, 12:01 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

a. Multiple entries to the site for improved accessibility. b. Potential for growth.

#### 2.If I could, I would change the following things about the park:

a. Increase amenities to attract larger social groups and opportunities for social interaction. b. Improve existing play structures to incorporate the natural environment and promote greater levels of physical activity. c. Increase connectivity to the park from other community centres and transportation hubs. d. Improve landscape to increase vegetation and enhancement of natural environment.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

a. Increase the integration of social gathering areas while utilizing well-designed play environments as a focal point b. Integration of urban agriculture and community level food services c. Creation of safe and accessible areas to the park through highly visible and welcoming entry points d. Easy access through public transit to the location via increased bus services or transit hub

### 19

#### Respondent Name : K Gelhorn

Responded at 07 Mar 2015, 10:29 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

It is limited in its use by other than games and the kids park

#### 2.If I could, I would change the following things about the park:

I would add a dog park

#### 3.

The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Concept number 3 is the selection I would make

### 20

Respondent Name : MartaJ

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

a.Bike path along the northern road b.Many public transit stops c.Large green space

#### 2.If I could, I would change the following things about the park:

a.Create a  $\hat{a} \in \tilde{g}$  gathering  $\hat{a} \in \tilde{g}$  place for people to meet and events can be held b.Make the park accessible and enjoyable for all ages (8-80 years old) c.Increase shaded areas with more trees for gathering on warmer days d.Installation of a covered area so that people can be outdoors during inclement weather e.Increased bike parking facilities f.Install public water fountains gPublic art could enhance the grounds and create spaces for gathering and help social interactions h.Bike paths through the park would allow for accessibility i.I didn $\hat{a} \in \mathbb{T}$  t see access to public washrooms? j.Increased access to the park via transit or other active modes of travel k.Larger play spaces for kids

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

a.A park where people come together to mingle and play. This park could be a local gathering spot for outdoor music or events in the summer. I see this park being accessed by all modes of active travel (walk, cycle, roll, bus) and used throughout the year.

### 21

#### Respondent Name : FrankY

Responded at 16 Mar 2015, 03:44 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

I like how vast the space is.

#### 2.If I could, I would change the following things about the park:

I would love to have a community center with Gym facilities and a swimming pool in the area. Also I would like to have more lights at night on the park as well.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I would like to see the same high quality residences enjoying clean efficient community facilities on the park.

### 22

#### Respondent Name : Mark Sakai

<sup>3.</sup> 

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

To be honest, there's not much too it right now. It's the 'home field' for the RGSA, which is good; it has a couple of community-use softball fields and a playground which are also good.

#### 2.If I could, I would change the following things about the park:

I would create a lot more visual interest, through changes in topography, the creation of more winding, serpentine footpaths, and more plantings of trees and shrubs. I would find some way to commemorate and recognize the historical importance of Steveston Secondary School, at the west end of the park. It was an important building to many many people who grew up in Steveston, and to have no recognition of this as its previous location would be a shame.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I really like Options 2 and 3 of the concept plans. Both bring that more diverse experience for park visitors, whether they are local residents, people walking their dogs, community softball players, or RGSA tournament attendees. I think the retention of at least one softball diamond for adult rec league play is important -- I find it somewhat offensive to have read a comment from the Open House that there should be no more adult softball in the park -- we should be encouraging outdoor activities, not restricting them. I hope that a fitting tribute to the old Steveston Secondary School can be installed on the west side of the park.

### 23

#### Respondent Name : Kim

Responded at 20 Mar 2015, 02:13 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

The green space and location.

#### 2.If I could, I would change the following things about the park:

I would add a track like the one at Minoru Park. Minoru Park is very busy and I think Richmond could use a second track for walkers and runners.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Lots of green space with a safe running and walking track to promote physical fitness for all ages.

### 24

#### Respondent Name : JenP

Responded at 22 Mar 2015, 09:55 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

Flexible, community use View

#### 2.If I could, I would change the following things about the park:

Better year round use Create more wildlife spaces Walking route with varied terrain Include naturalized areas for wildlife

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Inclusive of full community Space for many activities Includes natural areas and walking spaces Home to wildlife

### 25

#### Respondent Name : sand

Responded at 29 Mar 2015, 07:15 AM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

provides a place for softball

#### 2.If I could, I would change the following things about the park:

make it more natural. Provide a place that people can get away from the city and children can feel like they are in a natural environment-trees, bushes, water, rocks and logs to climb on, pathwaysthings that children can manipulate, not more plastic uninspiring playgrounds that children can only do so much with. Most playgrounds have little to offer to promote children's development, I think the city is headed in the right direction with garden city park and terra nova, but I think it can be even more natural with more malleablility offered in the environment.

#### 3.

# The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

An area that is an oasis of nature, that children can play freely-off leash.

### 26

#### Respondent Name : Steve May

Responded at 31 Mar 2015, 04:47 PM

#### 1.1 like the following qualities of the existing London-Steveston Neighbourhood park: CNCL - 267

Open Green space.

#### 2.If I could, I would change the following things about the park:

I am a resident on Goldsmith Dr. who has attended all 3 previous meetings and reviewed the proposals. I don't think an off leash dog park is a necessary part of the park plan. Check the city website at http://www.Richmond.ca/parks/parks/dogsinparks.htm you will see there are 2 off leash parks only a few miles away from this park already. If anything they need one at Terra Nova lots of space up there. Check the map. Maybe the city could be persuaded to change the location for an off leash dog park to that corner of the city where it makes more sense. If this plan goes through as is, you can see, because we would be closest to the city center all those residents will converge on our park and be parking on Swift Ave. and Goldsmith Drive because there is not enough existing parking. I have proposed increased parking in the area slated for this off leash park, only to told this is to be a neighbourhood park not a destination park. So much for a neighbourhood park and the privacy of the homeowners in our subdivision. I strongly feel there is more of a need for parking near the existing sports fields than an off leash dog park in that area of their proposal. Currently the existing parking fills up and parking spills over into the residential areas on both sides of the sports fields. For these reasons I am Opposed to the off leash dog park, and prefer to see additional parking added to that area. I will be going to the Mar 31 meeting and will again voice my concerns about this issue. Regards Steve May

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

Meandering pathways, mature colorfull seasonal trees and landscaping, park benches to quietly relax under trees and open sunshine to enjoy the space. A passive open green space area for children to play.

### 27

#### Respondent Name : Kai Tham

Responded at 01 Apr 2015, 07:21 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

peaceful.

#### 2.If I could, I would change the following things about the park:

let it be peaceful like an oasis.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

I would like to add a number of concerns to the Final Concept Design which I reviewed last night. After having digested some salient features of the plan I would like the design/implementation team to add this to their list. Adjacent to the proposed play area is the mound feature. This is a great idea and will be loved by the children especially when we have some snow so they can toboggan off it with some help. The elevation is such that residents on Gainsborough Dr will not have direct line of sight from their decks into the play area on the other side of the mound. Whoever does the actual physical design should consider this in their plan so that neighbours can help keep an eye on what happens in the play area. The secondary pathway from Goldsmith/Swift to the play area should be wide enough to allow emergency vehicles to access the location and removable posts should be installed for this purpose where the existing fence currently exists. There is a BCHydro transformer also next to the fence so the path must be designed on the west side of the transformer. The final concept design does not show this. To the Parks Dept and the design team kudos for a job well done and thank you for your courtesy and engagement with the neighbourhood for developing the concept design. I hope it was fun for you all as it was fun for me to advance many of my wishes for the park design. Having lived here for 29 years and raised two girls and their many cousins in the playground and baseball diamond, I am ready for their offspring to now enjoy the park with lots of exciting features in the next few years. We will also continue to have our father(s) vs daughter(s) baseball games on Father's Day at the west side of the park without the backstop but we will improvise. It has been a tradition for the past 20 years or so for my girls, their cousins and uncles and aunts. We always got beat. Thank you again on a job well done! Regards Kai Tham and family

### 28

#### Respondent Name : TedH

Responded at 05 Apr 2015, 08:19 PM

#### **1.I like the following qualities of the existing London-Steveston Neighbourhood park:**

1. Open fields for a variety of misc. uses; for example - flying kites, throwing a Frisbee, playing catch, etc. 2. Pathways around and across field. 3. Play / activity center for children.

#### 2.If I could, I would change the following things about the park:

1. Pathways wider and slightly higher (drier). 2. A few more activities and equipment in the play / activity center for children; more lighting at the play area to deter vandalism. 3. Tall field lights should be turned off at more reasonable hour - say 9:00 pm, with accompanying cessation of sports activities and associated noise.

#### 3.

#### The following is how I would describe my vision of an ideal London-Steveston Neighbourhood Park 10 years from now:

1. No more baseball diamonds than we have now; four is enough. 2. More / better pathways. 3. Better access for police / firemen to deal with vandalism. 4. Limits / curfew for noisy activities, and lights off by 9:00 pm. 5. Section of park patterned after park at Garden City & just north of Granville. 6. Absolutely no more trees that block views of residents facing the park; limit the height of any new greenery to low shrubs or bushes, maybe a few flower beds - as per item 5. As illustrated in the latest drawings of the proposed park, the additional two rows of trees planned for the pathways around the park that will obstruct resident's views must not be implemented.



То:	General Purposes Committee	Date:	May 14, 2015
From:	Cecilia Achiam Director, Administration and Compliance	File:	03-0900-01/2014-Vol 01
Re:	Update on Signage on Private Properties		

#### **Staff Recommendations:**

That:

- 1. Option 2: "De-cluttering without a language provision" which entails the continuation of outreach effort and updating Sign Bylaw No. 5560 be approved. The Sign Bylaw update will include de-cluttering without a language provision and addressing non language related regulatory gaps; and
- 2. Staff be directed to review the Sign Permit Application fees and bring an update to the Consolidated Fees Bylaw No. 8636 for consideration by Council along with the new Sign Bylaw.

Cecilia Achiam Director, Administration and Compliance (604-276-4122)

REPORT CONCURRENCE				
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER		
Community Social Development Community Bylaws Law		A		
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE		APPROVED BY CAO		

#### Staff Report

#### Origin

This report is in response to the Council resolution of October 27, 2014, as follows:

That:

- 1) as a priority, staff consult with the sign owners to encourage more use of the English language on their signs;
- 2) staff engage in a broad public consultation on the language on signs issue;
- 3) the language on signs issue be referred to the Intercultural Advisory Committee, the Richmond Chamber of Commerce, the Richmond Chinese Community Society, and other appropriate business associations for comment;
- 4) staff compile relevant information on the effect of the sign issue on community harmony that would be necessary to support adoption of a bylaw regulating language on signs should that option be considered in the future; and
- 5) staff report back to Council within 6 months on the effectiveness of the measures identified in recommendations 1, 2, and 3 for Council to determine if a bylaw needs to be considered.

At the October 27, 2014 meeting, City Council had indicated that the priority approach to the language on sign issue during the six months outreach initiative would be to promote community harmony through inclusion and open communication vs. an enforcement based approach. In addition to following Council direction throughout the public engagement process, the City engaged external expertise to fully address Council's referral. The Simon Fraser University - Wosk Centre for Dialogue was engaged to plan, implement and moderate the public workshop to address item 2 of the referral, and the University of British Columbia (UBC) was contracted to conduct research on community harmony/social cohesion and linguistic landscape in diverse communities to address item 4 of the referral.

#### Analysis

1. Consultation With Sign Owners

A pilot outreach initiative was undertaken. This involved deployment of temporary staff, fluent in Mandarin, Cantonese and English, who conducted site visits to businesses in the City Centre area (Sea Island Way to the north, Garden City Road to the east, Granville Avenue to the south, and Minoru Boulevard to the west), and parts of Bridgeport Road and River Road, to promote community harmony by encouraging the inclusion of English on signage and advertisement, and to remind businesses about sign permit requirements under the current Sign Bylaw.

Additional visual inspection was completed by Bylaw Officers in commercial centres in the Steveston and Hamilton areas. No business signage solely in another language other than English was found in these areas (Figure 1).

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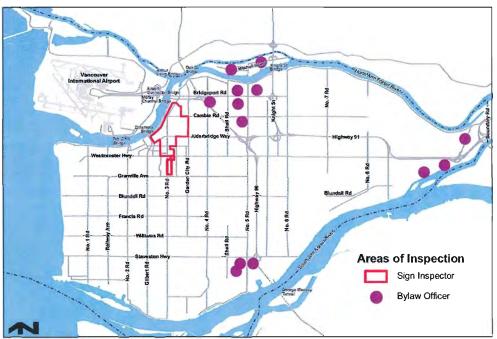


Figure 1: Areas of Inspection Map

Area	Estimated No. of Businesses Requiring Inspections <sup>1</sup>	Businesses that had Signs Visually Inspected	Businesses without Sign Permits <sup>2</sup>	Door to Door Meetings with Business Operator <sup>3</sup>	Sign Permit Applications Received <sup>4</sup>	Businesses with Language Issue Based on Current Sign Bylaw
City Centre <sup>5</sup>	2,000	1,394	868	784	504	13
Outside City Centre <sup>6</sup> (beginning March 20, 2015 only)	855	156	103	93	93	0
Total	2,855	1,550	971	877	597	13

Figure 2: Inspection Summary from December 17, 2014 to May 1, 2015

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<sup>&</sup>lt;sup>1</sup> Source: Business Licence data excluding those for home occupations, and businesses that do not require sign permits because they are located in the interior of a structure (e.g. stores inside a shopping mall).

<sup>&</sup>lt;sup>2</sup> Approximately 60% of signs visually inspected do not have a sign permit.

<sup>&</sup>lt;sup>3</sup> Door to Door Meeting with Business Operator means that the sign inspector, after having conducted a visual inspection of a sign, met with the business owner/manager/employee in person to discuss the City's sign permit requirement and/or to request that their sign be modified to include or incorporate more English wording.

<sup>&</sup>lt;sup>4</sup> Businesses may have submitted more than one sign permit application. The increase in the number of applications received is not attributable alone to outreach efforts. <sup>5</sup> Sea Island Way to the north, Garden City Road to the east, Granville Avenue to the south, and Minoru Blvd. to the west.

<sup>&</sup>lt;sup>6</sup> Primarily Bridgeport Road and River Road.

Since winter 2014, staff began notifying all Richmond "commercial businesses" (excluding home business and home-based businesses which are exempted from the Sign Bylaw), through the year round Business License renewal process, regarding the sign permit requirement and encouraging them to include at least 50% English content on signs. Of the over 10,000 commercial business license holders with storefront premises, over 50% have received the notification to date. By December 2015, all commercial business license holders will have been notified. A special insert in both English and Chinese with City contact information has been produced for this purpose to ensure that language is not a barrier to communication with commercial businesses.

As a result of these combined efforts, a total of 597 new sign applications have been received as of May 1, 2015. More sign permit applications are anticipated to be submitted. The majority of these new applications rectify the current situation whereby existing signs have been installed without a sign permit.

One finding from the pilot outreach initiative is that posters and other advertisement material are not regulated under the current Sign Bylaw. In addition, signs on construction sites advertising the development or construction services, for sale, and for lease signs erected in some residential areas also do not require a sign permit. Some of these materials are in a language other than English. An abundance of these signs that are either clearly noticeable on storefront windows or visible in some residential neighbourhoods in the City are significant contributors to "visual clutter" and contribute to the perception of a proliferation of non-English "signage". As an example, the City of Surrey incorporated "de-cluttering" provisions into the Surrey Sign By-Law No. 13656 in July 2013 to address some similar concerns from its community.

#### 2. Broad Public Consultation

All of the material related to the language on sign issue including the staff report to Council, the consultant reports from UBC and SFU, as well as videos, will be made available on the City's website at <u>http://www.richmond.ca/busdev/signs/community.htm</u> after the presentation to Council.

The City's outreach and engagement efforts included the following:

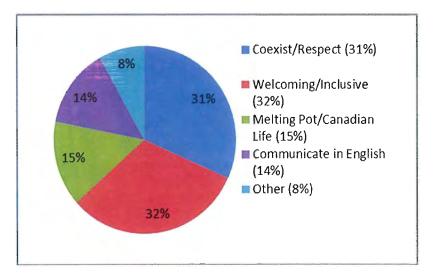
- Approximately 100 people attended a community workshop, moderated by the SFU Centre for Dialogue, which was held on Thursday, March 12 from 6:30- 8:30 p.m. at the John M.S. Lecky UBC Boathouse, 7277 River Road. Workshop participants heard about Richmond's efforts to promote and strengthen community harmony, explore the topics of language on signs and community harmony and share their own perspectives on the topic. *Attachment 1* provides a summary of the workshop. The SFU Centre for Dialogue also produced a short video from exit interviews of the attendees at the workshop.
- In addition to the community workshop, community members and groups were able to obtain more information on the program and respond to an online survey via the City's online discussion platform at LetsTalkRichmond.ca from March 6-

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#### **Outreach** Numbers:

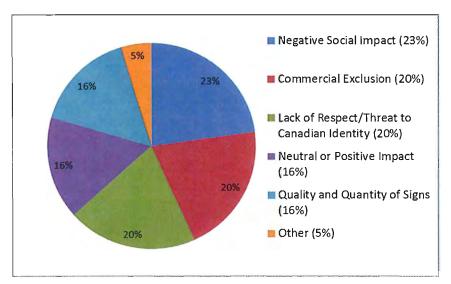
Input Opportunity Since Council Referral	Response
Signsconsult @richmond.ca	24 emails received
Let's Talk Richmond	260 responses
Sign Workshop on March 12, 2015	100 participants
Sign Companies	79 contacted in writing
Community Consultation	Over <b>1000</b> face to face meetings
	<b>10</b> community partners/ agencies meetings





1) What does community harmony in Richmond mean to you?

The survey verified the complexity of defining community harmony. Key themes identified included: coexistence, working towards common goals, understanding differences, embracing different cultures, contributing to a welcoming and inclusive environment, reciprocal obligation of host community to welcome newcomers and for newcomers to integrate and assimilate, and ongoing communication. In many of the responses, there was an element of unease that the once European majority was becoming a minority and invisible. The feeling of uneasiness manifested in part by the presence of foreign languages on signs and the perception that foreign languages are taking over the urban landscape.

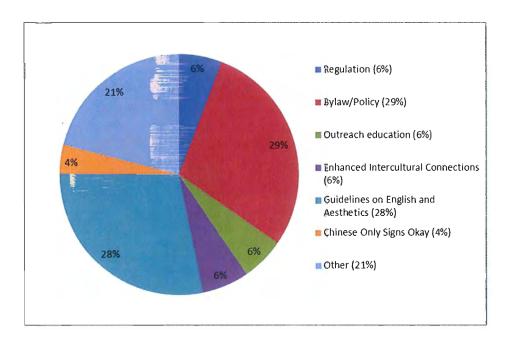


2) How do you feel about the signage in the community? Does it affect your quality of life?

Some respondents referenced the negative impact experienced through the perception of foreign language on signs as these signs elicited feelings of exclusion, and disconnect from the surroundings. Some respondents felt that non English signage displayed a lack of respect for Canada and the Canadian identity.

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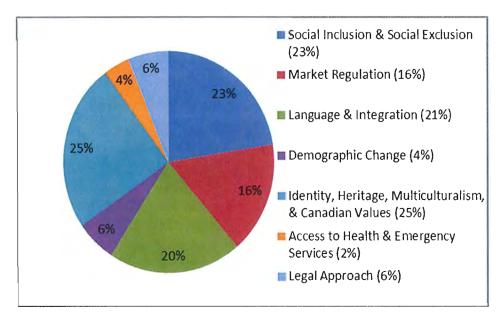
No responses were received indicating that having English on signage would have a negative impact.



*3)* Please share any additional comments that can assist the City of Richmond in developing future recommendations and measures related to language on signage.

Nearly 60% of the respondents favoured some form of guidelines/bylaw/policy to provide clear expectations for business owners to follow in terms of the use of language and aesthetics of signage. Many suggested that the official languages (i.e. English) should be visually prevalent, however, need not be the sole language on signage.

• Comments were also received via email to <u>signsconsult@richmond.ca</u> or by mail or hand to Richmond City Hall. These comments are summarized in *Attachment 3*. A total of 24 emails were received. The scope of the responses in the email submissions was wide-ranging as they were not limited to the questions posted in Let's Talk Richmond. The chart below illustrates the emerging themes from the emails



• 79 sign companies were contacted in writing throughout the region as well as their provincial and national organizations to inform them of Council's direction to encourage the inclusion of 50% English content in future sign applications.

This initiative resulted in active interest by the Canadian Sign Association and specifically the Association's BC Chapter. An Association representative attended the public workshop and provided valuable comment from the industry's perspective. Staff will continue to consult with the Association on any future signage related initiatives.

• Meetings were held and correspondence sent to some local property management companies to explain the purpose of the outreach program and to provide information/support to assist in their communication with the business operators.

These meetings were triggered by feedback from some business owners/operators at strip malls who indicated that they were not aware that a separate sign permit would be required. They were under the impression that their monthly management fees included all necessary permits.

- Extensive media coverage on television, radio, print and digital kept the interest on this issue active throughout the consultation period.
- 3. Referral to Advisory Committee and Community Partners
  - As directed by Council, staff consulted with the Richmond Intercultural Advisory Committee, Richmond Chamber of Commerce and the Richmond Chinese Community Society.

On February 23, 2015, Council approved the 2012-2015 Richmond Intercultural Strategic Plan and Work Program (RISPWP) prepared by the Richmond Intercultural Advisory Committee (RIAC). Support for the City initiative regarding language on signage was one of the actions cited in the work program which contributes to the RIAC mandate:

"To enhance intercultural harmony and strengthen intercultural co-operation in Richmond."

The RIAC Chair participated in the community workshop as a member of the panel. Other RIAC members also attended the workshop.

- Staff also met with or consulted by mail or email with other community/business partners such as the Chinese Federation of Commerce of Canada, Chinese Real Estate Professionals Association of BC, the Canadian Sign Association, S.U.C.C.E.S.S., local builders, sign companies and property management firms to promote community harmony by including 50% English in any signage.
- Other national organizations such as the Canadian Race Relations Foundation, the Laurier Institution and the Civic Education Society reached out to the City as a result of their mandate/programs. The general feedback from these organizations include:
  - 1. The issue on language on signage is the "tip of the iceberg" on community harmony/cohesion.

- 2. Encourage a common language (English) in signage, in addition to any language, to be inclusive and to promote community harmony.
- 3. The use of outreach to disseminate information and dialogue to promote intercultural understanding is preferable to enforcement alone.
- 4. Relevant information on the effect of the sign issue on community harmony

The City engaged Elanna Nolan (PhD student) and Dr. Daniel Hiebert from UBC with speciality in community harmony/social cohesion to perform academic research to address Council's referral to "compile relevant information on the effect of sign issue on community harmony that would be necessary to support adoption of any bylaw regulating language on signs should that option be considered in the future".

The executive summary of the report "Social Cohesion and Visual Landscapes in Richmond" by Elanna Nolan and Daniel Hiebert is provided in *Attachment 4*.

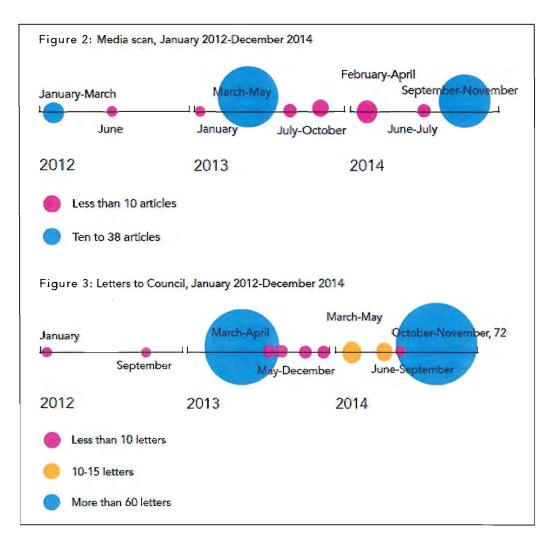
The UBC Study (Study) examined the ethnicity/country of origin of Richmond over time. This review also included an analysis of media and written submissions to the City. Some of the key observations regarding the inter-relationship between super-diversity and social cohesion include:

- "There is often a tendency to see diversity in terms of ethnicity or country-of origin, however, in so doing it can be easy to miss details that shape the contours and textures of every day experiences. The concept of super-diversity helps us see the various population details, such as language, religion, age, immigration stream, that are often overlooked when we talk about diversity based on country-of-origin or ancestry. Recognizing super-diversity in Richmond reveals the multiple groups, communities, and cultures that make it a unique and vibrant city."
- In the Canadian context, social cohesion has been distinguished from multiculturalism. Seen as complementary to multiculturalism, social cohesion can be interpreted as providing a vision of what social relations under multiculturalism might look like, but ultimately it does not tell the full story of the successes and failures of a super-diverse society.
- Research around signage in public spaces (i.e. linguistic landscapes) revealed that *"illegibility, or an inability to read all that is written in the linguistic landscape, can produce feelings of anxiety and alienation. This experience goes both ways – for official and non-official languages."* Most believe that social inclusion and a sense of belonging are prerequisites for immigrant integration. However, some scholars believe that inclusion is not exclusively the result of official-language proficiency.
- Much of the research around signage in public space (i.e. linguistic landscapes) focuses on super-diverse cities where citizens speak multiple languages. The Study noted that today:
  - o 70% of Richmond's population identifies as being "visible minority".
  - There are 161 ethnicities represented in Richmond.
  - Over 60% of Richmond's population are immigrants to Canada.
  - $\circ~$  About 90% of the population can speak English.

• The analysis of the media and written submissions to Council from January 2012 to December 2014 indicated that the media has reported the signage issues in a fairly balanced way overall. Public opinion, on the other hand, can sometimes be emotionally charged and "*expressed with a tone that is more emotive and sometimes antagonistic.*" The issue often engages questions of home, belonging and recognition.

Emergent themes across the 98 media reports and 166 written submissions to Council between January 2012 to November 2014 are consistent and include:

- Social inclusion and exclusion
- Regulation of language on signage
- Demographic change
- o Identity politics, heritage, multiculturalism, and Canadian values
- Health and safety concerns
- Legalistic approach to a by-law
- Federal immigration policy
- Immigrant integration and language



- Of the 166 objections to foreign language on signs, 19 per cent (31) were sent by a single individual.
- More than half (91) of the submissions came from individuals who had previously objected (i.e. sent more than one objection).
- $\circ$  In seven per cent of the submissions (11), the text was repeated exactly.

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These points serve to highlight both that objections to the foreign language on signage is not necessarily as widespread as it might first appear, but also, that for some citizens this issue is very important to them, to which their commitment to continued or coordinated campaigning is testament.

Following Dr. Hiebert's methodology, staff continued to analyse the written submissions (284 from Let's Talk Richmond and emails from <u>signconsults@richmond.ca</u>) and media coverage (over 30 spots on television, radio and newspapers) from December 2014-March 2015. The major themes (noted on page 7 of this report) remain unchanged.

#### **Summary of Key Findings**

1. Legal Analysis

The following two excerpts are from a legal opinion obtained from Sandra Carter of Valkyrie Law Group LLP previously in response to a Council referral from October 14, 2014 regarding the City's ability to regulate signage and mandate a percentage of English on signage on private property are included for completeness of information:

"In our opinion, a bylaw which imposed an English language content requirement, whether or not in addition to another language, would violate section 2(b) of the *Charter* of *Rights and Freedoms* ("Charter") by infringing on the right to freedom of expression. It is not certain whether that infringement would be justifiable under section 1 of the Charter as being a reasonable limit on the right to freedom of expression. In order to be justifiable, the City would need to establish there is a compelling or sufficiently important issue to be remediated, that the City has the necessary legal authority to impose a restriction or condition on the content of signs, and that the proposed restriction or condition is both proportional to the issue to be remediated and only minimally impairs freedom of expression. Courts will be more likely to support the validity of a restriction on freedom of expression if the regulator has undertaken both relevant studies of the issue and engaged in broad public consultation."

"...To be justifiable as a limit on a Charter freedom, the City would need to establish that compelling health, safety, economic or social welfare objectives are at stake. A strong factual basis would need to be established that requiring English on signs would correct or achieve a significant and important problem or purpose which is not being met in the absence of that regulation."

#### 2. Outreach

- The pilot outreach efforts yielded result with respect to compliance amongst business operators to obtain sign permits. Before the outreach initiative, the City received 250-300 applications annually on average. The City has received 597 new applications for sign permits as of May 1, 2015 since the outreach initiatives began in December, 2014. All sign permit submissions to date include English wording on their signs.
- For signage/posters that do not currently require a Sign Permit, the outreach process achieved only moderate success in encouraging the inclusion of English on business signage. The cost and/or inconvenience for replacing signs/posters were the most commonly cited reasons for maintaining status quo.
- In response to feedback from some of the business operators visited and input from the Richmond Chamber of Commerce, the City prepared new multilingual information packages on starting a small business in Richmond, in consultation with the Richmond Chamber of Commerce, to help ensure businesses are aware of regulatory requirements including the need for sign permits. The Chamber is using this as a resource for their members and hard copies have been handed out to business operators during sign inspections. This brochure is also available on line at <a href="http://www.richmond.ca/busdev/econdev/access.htm">http://www.richmond.ca/busdev/econdev/access.htm</a>.
- There is potential to collaborate with national agencies, such as the Canadian Race Relations Foundation (CRRF) to strengthen community harmony through their "Our Canada 2015-2017" initiatives to celebrate Canada's 150 years as a nation "by building awareness and understanding of Canadian values, promoting good citizenship, and deepening a sense of belonging for all Canadians." Administration & Compliance Department staff and Community Services Division staff will collaborate to follow up on community harmony/cohesion initiatives arising from the language on signage initiatives that support the City's Social Development Strategy and/or the Richmond Intercultural Advisory Committee Work Plan.
- 3. Outdated Sign Bylaw
  - Staff received general feedback from businesses and the sign industry that the City's Sign Bylaw is outdated. While changes to the Sign Bylaw will not include any language provisions, efforts to de-clutter will be strengthened and embedded in the Bylaw. The update to the Bylaw will address deficiencies in the definition section; accommodate trends in sign technology and respond to business needs (e.g. electronic signs, multi-faceted free standing signs, etc.); additional types of signs to be regulated; correct errors and omissions and clarify inspection responsibilities.
  - The City's sign permit fees are relatively low when compared to neighbouring Metro Vancouver municipalities. Fees for some types of signs are less than 50% of the fees charged by Burnaby, Surrey and Vancouver, for example. An increase in permit fees will help with cost recovery of any enhanced sign outreach initiative/application processes provided that the City continues to streamline application process to ensure reasonable processing time. The BC Sign Association has cited that it is desirable for sign permit processes to be both simple and clear.

4. Signage and Community Harmony

The reports from the community workshop and UBC, and feedback from Richmond citizens, confirm the complexity of the link between public signage and community harmony.

The UBC report concluded that:

"As measures of social cohesion cannot tell the full story, neither can linguistic landscapes be used to correlate degrees of integration of immigrant publics, or be seen as indicative of exclusive and anti-social intentions. As such, linguistic landscapes cannot accurately be used as a platform for measuring degrees of social harmony."

Based on findings from academic research, requiring English on signage does not appear to be an effective means to achieve community harmony.

- 5. Enforcement Gaps
  - Currently there are not any staff resources specifically dedicated to inspect business signs after installation to verify that the signs are in compliance with permits issued. This was previously handled through building inspections and is currently managed on a compliant basis. The updated Sign Bylaw will have to consider the issue of enforcement as this enforcement gap was well known in the sign industry and could have been a contributing factor to the proliferation of illegal signs.
  - Dedicated resources in the City are needed to continue the outreach effort. In addition to fluency in English, the ability of City staff to read Chinese and speak Mandarin and Cantonese are critical in breaking down the language barrier during site visits.
  - Current practice is to rely solely on professional letters of assurance to ensure structural integrity, proper installation and safety of signs rather than via site inspections by Building Inspectors as per Sign Bylaw. The necessary permits or assurances are not always obtained.
- 6. Visual Clutter

Based on inspection in the City Centre and other business areas, very few regulated business signs are in a language that is solely non-English (13 signs or <1%). Nonetheless, the perception of a growing presence of foreign language in the "visual landscape" is real as some of the posters and decals adhered to the storefront windows or sandwich boards (not permitted) contain languages other than English.

Including a "de-cluttering" provision in the Sign Bylaw will go a long way to minimize visual clutter in storefront windows in the future.

7. Use of Language

The UBC Study noted that Richmond has 161 ethnicities and associated languages and dialects. The majority of Richmond residents can speak English and use English as a working language.

### Options for Council Consideration

Based on the key findings and staff analysis, the three options to address the language on signs issue and compliance with the Sign Bylaw are as follows:

	Option 1 (status quo) (Not Recommended)	Option 2 (De-cluttering) (Recommended)	Option 3 (Minimum English Requirement) (Not Recommended)
Service Delivery	Discontinue outreach and return to the practice of inspections and enforcement conducted on a complaints basis.	Continue with outreach efforts to improve compliance with Sign Bylaw to promote community harmony.	Continue with outreach efforts to promote community harmony and use enforcement to improve compliance with the Sign Bylaw. Use regulation to require the use of English as a common language on business signage.
Sign Bylaw	No change to existing Sign Bylaw.	Repeal of the existing Sign Regulation - Bylaw 5560 (1990) and creation of a new Sign Bylaw to address regulatory gaps and emerging signage technologies/needs and to include a "de- cluttering" provision to control visual clutter.	In addition to the changes from the "de-cluttering" option, include a requirement of a minimum of 50% of the copy area on business signs to be in English.
		The new bylaw will be accompanied by the development and production of new communication tools (e.g. brochures, video on line) to educate on the benefits of "de-cluttering" storefront windows, and the benefits to community harmony by including English as a common language for communication.	
Staffing	No additional staff resources required.	Continuation of the outreach initiative for one year with one Temporary Full Time (TFT) Sign/Business License Inspector position to encourage the inclusion of English on business signs and to improve compliance with Sign and Business License Bylaws. Staff will report back after one year (Summer 2016) of implementation of the community outreach on results and cost effectiveness of the program for Council consideration on whether to further extend the outreach	Creation of one Regular Full Time (RFT) Sign/Business License Inspector position to continue outreach efforts and enforcement to promote compliance with the Sign and Business License Bylaws.



	Option 1	Option 2	Option 3
	(status quo)	(De-cluttering)	(Minimum English Requirement)
	(Not Recommended)	(Recommended)	(Not Recommended)
		program.	
Timeline	N/A	One year	Continuing
Sign Fees	No change to fees structure.	Fees structure will be reviewed and modified accordingly.	Fees structure will be reviewed and modified accordingly.
<b>Pros/Cons</b>	<ul> <li>Pros: No additional resource requirement and no change to the Bylaw or application, inspection and enforcement processes.</li> <li>Cons: This approach does not address the functional issues related to the outdated Sign Bylaw. Examples include the lack of ability to address the posters that is causing "visual clutter"; deficiencies in the Definition section (e.g. interior vs. exterior signs) and difficulty to enforce.</li> <li>Cons: This approach does not build on the momentum achieved during the outreach project nor does it respond to the ideas collected from the public consultation. The City will continue to inspect business signs/signage issues based only on complaints.</li> <li>Cons: This approach will likely lead to lost revenues from sign permit fees due to non-compliance.</li> </ul>	<ul> <li>Pros: This approach addresses the visual clutter caused by posters and other promotional material that are not currently regulated under the Sign Bylaw. It extends the pilot project having Sign Inspectors fluent in Mandarin, Cantonese and English to continue to ensure that signs are installed based on approved permits and to continue proactive outreach.</li> <li>Pros: The outreach along with improved regulations provides clarity while maintaining a "user friendly" interface to encourage cultural harmony.</li> <li>Cons: This does not address the expressed desire by some community members to require the inclusion of English on signs.</li> <li>Cons: Additional resources will be required and there is no guarantee that all businesses will voluntarily include English on signage.</li> </ul>	<ul> <li>Pros: The approach addresses the visual clutter caused by posters and other promotional material, and the erection of non-English signs language which are currently not regulated under the Sign Bylaw. This approach will provide clarity of the City's intent to enforce the inclusion of English on all business signs on a going forward basis and eliminate reliance on voluntary compliance to modifying unilingual signs.</li> <li>Cons: This approach is highly regulatory and the business community may not receive this alternative as positively as other proposed options.</li> <li>Cons: Potential legal challenge related to the Charter of Rights and Freedom.</li> <li>See Legal Analysis above. It is anticipated that fees for external counsel related to a legal challenge will be in the range of \$40,000-\$50,000 not including</li> </ul>
Financial Impact	There will be no financial impact.	It is anticipated that redrafting of the Sign Bylaw including	The cost for redrafting the Sign Bylaw will be similar to Option
		the use of external expertise (policy and legal), public consultation, communication and accompanying collateral material will result in a one- time cost of \$120,000 which can be funded through general contingency. The Temporary Full-Time Business Licenses/Sign Inspector	2 resulting in a one-time cost of \$120,000 which can be funded through general contingency. The funding of the Regular Full- Time Business Licenses/Sign Inspector position would be submitted for consideration in the 2016 Budget. Similar to option 2, the Business Licenses/Sign Inspector

Option 1 (status quo)	Option 2 (De-cluttering) (Recommended)	Option 3 (Minimum English Requirement)
(Not Recommended)	(Kecommended)	(Not Recommended)
	position can be absorbed by the Divisional budget through gap funding for existing vacancies.	proposed may be partially recovered from increased revenues from sign application fees and fines and improved collection of Business License
	The Business Licenses/Sign Inspector proposed may be partially recovered from increased revenues from sign application fees and fines and improved collection of Business License fees.	fees. In addition to the cost estimate noted above, if a legal challenge ensues, then it is anticipated that fees for external counsel will be in the range of \$40,000-\$50,000 excluding any appeals.

#### Financial Impact

The financial impact of Option 2 is estimated to be \$120,000 which can be funded through general contingency. This one-time expenditure will support the use of external expertise (policy and legal) for the drafting of the Bylaw, public consultation, communication and accompanying collateral material to improve the Sign Bylaw and promote community harmony. (See table above for details). Any unspent funds will be returned to the general revenues.

Staff will report back after one year (Summer 2016) of implementation of the community outreach on results and cost effectiveness of the program for Council consideration on whether to further extend the outreach program.

If the updating of the Consolidated Fees Bylaw No. 8636 to bring sign application fees and fines up to par with other jurisdictions is endorsed, the City will be able to bring in additional revenue to offset any additional cost to implement the options.

#### Conclusion

Option 2 represents a balanced approach without infringing the Charter of Rights and Freedom. The continuing outreach initiative will reinforce efforts to promote the use of English as the "working language" in Richmond to support community harmony, and the creation of a new Sign Bylaw with a "de-cluttering" provision will help address issues associated with visual clutter on storefronts. The City's pilot project indicates that public outreach and regular enforcement increases compliance with the Sign Bylaw. Public consultation and research undertaken illustrate that the issue of use of language on signage is indicative of a much deeper concern in the community around community harmony, social cohesion and Canadian values. To address these complex community issues, an approach that focuses purely on enforcement should be considered a last resort. The City already has many strategies/initiatives to promote community harmony (e.g. Richmond's Social Development Strategy, the Richmond Intercultural Advisory Committee, grants to community agencies, support of faith and inter-faith organizations etc.). Cooperation/collaboration with the multitude of government agencies and community partners working on inter-cultural issues is already a priority of the City and should be continued.

Cecilia Achiam Director, Administration and Compliance (604-276-4122)

- Att. 1: Summary of March 12, 2015 Workshop prepared by Dr. Joanna Ashworth, The Simon Fraser University
  - 2: Summary of survey response from www.LetsTalkRichmond.ca
  - 3: Summary of email received from <u>signsconsult@richmond.ca</u> or by mail or hand to Richmond City Hall
  - 4: Executive summary of the University of British Columbia report titled "Social Cohesion and Visual Landscapes in Richmond" by Elanna Nolan and Dr. Daniel Hiebert

# City of Richmond Community Workshop // March 12, 2015

# PUBLIC SIGNAGE and COMMUNITY HARMONY in RICHMOND

### REPORT

Submitted to City of Richmond By Dr. Joanna Ashworth and Associates Senior Dialogue Associate, Wosk Centre for Dialogue Simon Fraser University

April 17, 2015



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Thanks to Sam Bradd, Graphic Recorder for Illustrations; Donaleen Saul for Writing Services; & Michelle Vandermoor for Report Design

> City of Richmond Community Workshop PUBLIC SIGNAGE AND COMMUNITY HARMONY IN RICHMOND 2 CNCL - 288

# 1

# **INTRODUCTION** "Today We Are On A Path For A Better Quality Of Life In Richmond"

On the evening of March 12, 2015, over 100 citizens gathered at the John M.S. Lecky UBC Boathouse to listen, learn and offer their ideas about how to address Richmond's public signage in a way that contributes to community harmony.

City staff opened up the gathering by noting the broad cross-section of people present, including City Council representatives, Mayor Malcolm Brodie and Councillors Chak Au, Bill McNulty and Carol Day; members of the Richmond Intercultural Advisory Committee; The Laurier Institute; the Canadian Race Relations Council; representatives from the business and non-profit sectors; and other concerned citizens of Richmond.

Using the metaphor of a scale, City staff emphasized that, in creating cultural harmony in its approach to business signage, the City of Richmond is attempting to balance two domains. The first is plans and policies, which would include the Richmond Social Development Strategy and Official Community Plan, and the second is regulations and other measures such as the sign by-law, education, and outreach.

### City staff then highlighted the evening's four broad objectives:

- To increase opportunities for understanding and relationship among cultural groups.
- To welcome a respectful exchange of diverse viewpoints from members of the community on the public signage issue.
- To learn from best practices in other jurisdictions.
- To seek recommendations for action from the community for Richmond City Council's consideration.



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"We're Here To Create Something New"



Senior Dialogue Associate at the Wosk Centre for Dialogue at Simon Fraser University, **Dr. Joanna Ashworth**, the moderator of the workshop, acknowledged that "This is a difficult conversation" with a lot of emotion surrounding it.

CONTEXT

To foster a fresh flow of ideas and to spark new conversations, she suggested that people make an extra effort to step beyond the typical polemic that can dominate public meetings, and to suspend their prejudgments, let go of certainty, and temporarily relax their viewpoints.

Joanna advocated respectful listening, but admitted that, "Respectful listening is extremely hard work because it requires that you put the speaker in the foreground and your desire to express your ideas in the background."

While encouraging people to share their views, she asked them to also be mindful while doing so: "When you speak, be aware of the potential impact of your words on others."

To set a collegial tone and building on the principles of intercultural connections, she invited participants to share stories of how they welcome one another - to their homes, their community and or their workplaces. In small groups, people spoke of simple kindnesses like saying hello and making eye contact, offering a cup of tea or a beer, bringing muffins to someone new in the neighbourhood, inviting neighbours to a barbecue, and walking each others' kids to school.

Some spoke of misunderstandings such as not removing footwear in a "no shoes" home or confusing guests accustomed with more formality with the message, "Make yourself at home." Others shared their discomfort at not feeling welcome by newcomers to Richmond and no longer feeling at home in their community.

In hearing some of these stories, Joanna observed that, "It seems that there's a real desire to welcome others, although sometimes we don't feel welcome and other times our efforts to welcome aren't understood."

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# 3 VIDEO "If We Bring People Together They Will Flourish"

**Simon Fraser University Creative Media Services** presented a short video featuring a series of "streeter" interviews of Richmond residents who described Richmond as "peaceful," "friendly," and "convenient." One interviewee said, "I love the diversity of it... All different kinds of cultures. I like the Nature, there's a lot of green space. There's really a lot of things to like about Richmond."

When asked about their views on Chinese signage in Richmond, a range of views were expressed. One young newcomer was "overwhelmed by Chinese signage at first," but then said "Chinese is the dominant culture here, so it kind of makes sense." Another young woman thought that there should be other languages on the signs to encourage non-Chinese-speaking people to come to the city. In interviewing Chinese-speaking residents, one said, "Some Chinese, some English, that's better" and another said he preferred signs in both languages, "so people know what the business is about." A resident who'd lived in Richmond since the 1980s said, "I think everyone should just get along. I don't think (signage) makes that big of a difference."

Those interviewed felt that creating community harmony required bringing people together in various ways – community outreach programs, informal chats at Tim Horton's, and festivals "that can draw everybody together (so we can) get to know each other and understand each other."



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# WHAT WE KNOW ABOUT CREATING COMMUNITY HARMONY

"We Want Richmond To Be The Most Welcoming, Inclusive And Harmonious Community In Canada"

Chair of the Richmond Intercultural Advisory Committee (RIAC), **Diane Tijman**, informed the gathering of RIAC's work in creating harmonious community in the city. As a proud citizen of Richmond, and District Curriculum Coordinator of English Language Learning & Multiculturalism, at the Richmond School Board (RSB), Diane shared her delight in regularly receiving new families from all over the world. "It's a joyful job."

She also spoke of RIAC's broad Council-appointed representation that embraces community services, education, seniors, youth, the disabled community, law enforcement, health services, the BC Ministry of Children and Family Development, as well as six members from the general public.

She went on to describe how this diverse group of 18 citizens addresses issues referred to it by City Council and provides information and recommendations to Council and community stakeholders regarding intercultural issues and opportunities. Their mandate is to "enhance intercultural harmony and strengthen intercultural cooperation in Richmond" and to promote pride in and acceptance of Canadian values and laws, respect for diverse heritages and traditions, and participation in community life.

Diane mentioned many recent RIAC projects, including the January 2015 **City of Richmond Diversity Symposium**, which brought together community leaders and staff to share information on community building; a **National Aboriginal Day celebration** in City Hall in 2014; and the May 2013 **Richmond Civic Engagement Forum**, which brought together diverse sectors to focus on community cohesion. She also drew attention to the *City of Richmond Newcomers' Guide*, which is available in English, Chinese, Russian, Punjabi, and Tagalog, and provides up-todate information about the city, its government and the services provided by different civic and community organizations.

Diane emphasized that creating community harmony is a many-faceted undertaking that requires facilitating partnership among Richmond's many community stakeholders, educating themselves and others on the meaning of culture and diversity, extending information and welcome to newcomers, and providing opportunities for the city's many cultures to learn and celebrate together.

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# 5

# SEEKING A SHARED VISION ON COMMUNITY HARMONY

"A Good Community May Have Conflicts. Acknowledging These Conflicts Can Lead To Harmony."

SHARED VISION MULTIPLE SOUNDS **DIFFERENCE** CONSISTENCY FEELING OF BELONGING MUNITY PINCUSIVE CONVERSATION COMPARMONY UNITY HIROUGH DIVERSITY COMMUNICATION + LANGLIAFE SHARED EXPERIENCES RESPEC OMULTICULTURALISM UNDERSTANDING CAPACITY BEFORE TUNGENINT FOR DIFFERENCE RACISM

To engage the participants in reflecting on what they had heard in the video and the presentation on the work of Richmond Intercultural Advisory Committee Joanna then posed the following question to the group: **"What does community harmony mean to you?"** 

The resulting response was dynamic with many people putting forth their views. Some spoke about what it meant to them personally, with sentiments like "feeling welcome," "feeling at home," and "a feeling of belonging." Others took a more abstract view with words like "empathy," "inclusive of everyone," "respectful of every culture and individual," and "shared experiences."

Still others moved into the governance sphere and emphasized "Consistency. Council needs to apply bylaws equally and consistently." Related to that was the view, "We all live in the same box. Respect the rules. Live in harmony."

A resident of Chinese origin pointed out that, "In Chinese culture, 'harmony' needs many sounds. This creates resonance." Supporting that perspective, another said, "Harmony implies differences; it's about acknowledging and respecting differences." A third participant added, "A good community may have conflicts. Acknowledging these conflicts can lead to harmony." A fourth participant offered a related view, "not unity by conformity, unity in diversity."

A longstanding resident emphasized "the ability to communicate," pointed out that "communal' comes from the same root as 'communicate," and concluded that "a shared language is fundamental to creating community." In a similar vein, a participant said, "It's important to understand that English and French are Canada's official languages." Another said, "Multiculturalism is entrenched in Canadian constitution but that doesn't mean that anything and everything goes."

This discussion suggested a need to find a meeting ground between residents who welcome diversity and those who seek greater uniformity. As one participant put it, "We need to develop our capacity to manage conflict and differences."

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# THE CITY OF RICHMOND'S ROLE IN ADDRESSING THE SIGNAGE ISSUE "City Council Has Consulted Broadly With The Community"

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City staff provided an overview of citizens' concerns about signage and the City's efforts to address them.

Noting some residents' discomfort with the number of signs that are in languages other than English, and with the non-English ads, flyers and promotional materials in the mailboxes, staff explained that the City has no jurisdiction over material that comes in the mail and that the bylaw limits the types of signs that it can regulate.

City staff informed the group that Richmond's Sign Bylaw #5560 applies to exterior signage and rezoning/development signs but not to those on the inside of windows of places of businesses, in the interior of shopping centres or in bus shelters. It also does not apply to directional, "For Sale", "For Lease", and related types of signs. Any amendment to the bylaw applies on a "going forward" basis only and existing signage will not be required to comply.

Staff said that there are penalties for not meeting bylaw requirements, but that the City has preferred to employ an educational outreach method to a punitive approach. Asking people to include English in their signage at the sign permit stage has been more effective in encouraging the inclusion of English on signage, as has intervening when new business license applicants require a sign permit and when they are renewing their business licenses.

Staff said that City Inspectors' door-to-door campaign to educate businesses on the importance of having signs that all citizens can understand and on the City's sign permit requirement has also been successful in generating sign permit applications. Non-English-speaking business people have been informed of City Council's message that not including English on their signs can lead to losing 50% of their potential customers, and most of these business people have indicated that they will include or provide additional English in future signage. Of the City's inspection visits to over 1000 places of businesses, only 10 signs had no English on them at all. The rest were in both English and Chinese with some size variance.

Staff also pointed out that the City has established <u>www.richmond.ca/signage</u>, a webpage which provides research and background information on the signage issue and ongoing efforts to address it. It has also created an on-line, three-question signage and community harmony survey to which all residents can respond. They can also email their responses to <u>signsconsult@richmond.ca</u> or they can post them on <u>Letstalkrichmond.ca</u>.

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City staff said that overall, the majority of people consulted wanted some English language requirement in business signage. Staff also drew the group's attention to some related signage concerns, notably poor translation and visual clutter. Concerning the latter, staff mentioned the City of Surrey's de-cluttering campaign and recently updated bylaw, which limits all signs to 25 per cent of a business' storefront windows.

The group was informed that staff will be presenting a report on the signage issue to City Council this Spring.



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# LEARNING FROM OTHER CITIES THAT HAVE FACED CONFLICTS OVER SIGNAGE "All Found Ways To Turn Challenges Into Opportunities"

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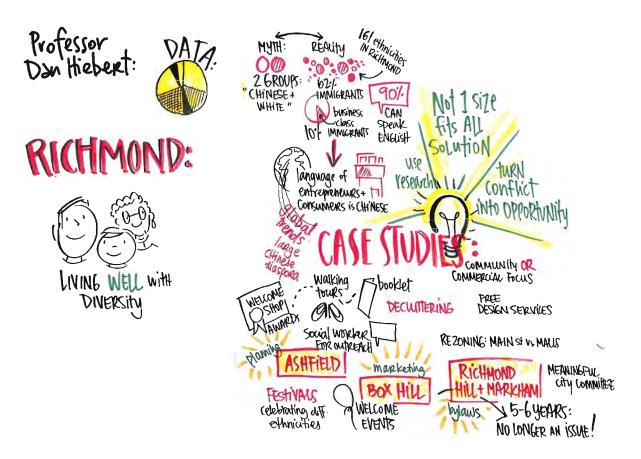
The next presenter, Dr. Dan Hiebert, Professor of Geography at UBC, has studied the signage issue extensively and, with PhD student, Elanna Nolan, has prepared a study, "Social Cohesion, Diversity and Lessons Learned From Other Jurisdictions." He affirmed his and his co-author's neutrality on the issue, saying that neither lives in Richmond and neither is about to suggest what Richmond should or shouldn't do.

Dan began by debunking "The Big Myth," which is that Richmond is divided into two cultural/ language groups – Chinese and British. In reality, there are 165 different ethnic groups in Richmond and 77 different languages. **To flesh out the picture, he offered the following facts:** 

- 62% of Richmond's 190,000 residents are immigrants
- Since 1980, 94,000 immigrants, approximately 50% of which are ethnic Chinese, have come to Richmond
- Approximately 90% of the population can speak English; 10% cannot
- 12,000 people living in Richmond, most of whom are Chinese, work in a language other than English
- 108,000 people speak English in the home; 82,000 do not

Dan informed the group that from 1980-2011, 21,000 immigrants came to Richmond through the Business Class category. Immigrants entering Canada through this category are required to start a business as a condition of entry. He explained that it is likely due to this immigration stream, and a concentration of Economic immigrants in Richmond, that we see a proliferation of businesses operated by merchants for whom English is an additional language. He went on to explain that a commercial district with Chinese-dominated signage is common worldwide and is symptomatic of a global Chinese diaspora of 40 to 50 million people. He then described three multi-ethnic communities, similar in character to Richmond, who have successfully addressed similar challenges.

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Fifty percent of the population of **Ashfield**, near Sydney, Australia, is foreign-born and its "Anglo-Celt" community, many of whom are elderly, complained that Ashfield no longer felt like home. City council took a social planning approach and hired a social worker of Chinese origin to mediate concerns and to encourage Chinese merchants to be more welcoming and inclusive to residents.

Other initiatives included free translation services; a "Welcome Shop Day" to introduce the public to Chinese commercial areas; walking tours with visits to restaurants, herbalists, etc.; and "Welcome Shop Awards" for aesthetically pleasing signage. Council also produced a booklet in both Chinese and English that explained Ashfield's socio-cultural policies and strategic plans.

The City Council of **Box Hill**, a high-density suburb of Melbourne, had been receiving complaints about the "changing character" of the population and the plethora of Chinese signs. Council took a commercial approach to resolving the issue and funded "Annual Harmony Day" to showcase Box Hill's ethnic diversity, and funded separate festivals for its larger cultural groups.

In addition, they hired a multilingual consultant and initiated a "Shopfront Improvement Program" with a focus on decluttering. The program included discounted translation services and free graphic design to assist merchants in creating more attractive signs.

Comparable in population to Richmond, **Richmond Hill and Markham**, Ontario, have a diverse population, 55% of which are immigrants and nearly half of which are Chinese. Sixty-five percent of Richmond Hill's citizens speak a non-official language in their home.

Responding to complaints from long-term residents about Asian-themed malls and visual clutter, Richmond Hill used its municipal powers and enacted a sign bylaw that required 50% of the text on all commercial signs to be in English or French. They also rezoned areas near residential communities as "not for mall building" and encouraged more "Main Street" commerce (as opposed to malls.).

In addition, they established a Race Relations Committee to listen to people's complaints. Because it included three Council members along with other community representatives, the committee had the political clout to act on the recommendations arising from their Diversity Action Plan.

As a result, Richmond Hill and Markham were able to manage what had been a pressing issue in the 1990s such that it became a non-issue within five to six years. Today, Richmond Hill and Markham enjoy considerable condo and commercial development with a mix of both Asian and North American-style malls, including the largest Asian-Western-style mall in North America.

#### Dan identified a number of key lessons from this survey of the three communities:

- 1. Different communities require different solutions. Ashfield's solution was oriented toward social planning, Box Hill favoured marketing and economic planning, and Richmond Hill and Markham chose a blend of legislation, zoning, and race relations.
- 2. All solutions required a serious investment of time, energy and money on the part of the municipality.
- 3. A combination of top-down and bottom-up initiatives proved effective.
- 4. All three communities established structures to encourage dialogue.
- 5. All three communities commissioned research to understand issues and to help design solutions.
- 6. All three communities found ways to turn their challenges into opportunities to improve residents' quality of life and to promote understanding among cultures.

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# **IDEAS FOR ACTION**

"Despite Disparate Views And Interests At Our Table, There Was A Shared Genuine Interest In Finding Solutions."

Inviting the group to share their views on the ideas offered by Dan and other presenters and fellow participants, Joanna kicked off a plenary discussion with this question: **"From what you have heard tonight, what ideas inspire you and how might they contribute to intercultural harmony?"** 

The table responses, an informal show of hands and the posted notices indicated strong support for more robust bylaw regulation of signage, although other than calls for "more teeth" and "consistency" on the part of some participants, few were explicit about what the amendments would consist of.

Some felt that more data was required to ensure that bylaw amendments would reflect the realities of the community. Another urged that the City work with the business community to arrive at a workable bylaw: "The [Chinese business community] want to be part of the solution, not part of the problem."

There was also a call for leadership on the part of City Council, "Council needs to set a vision and lead us toward it, as opposed to trying to please everyone." Long-term residents were clear: "We need signage legislation to show that the City is invested in this issue and is prepared to protect English as the hegemonic language."

Those who were specific about bylaw regulation tended to favour the Richmond Hill and Markham solution – i.e., requiring 50% of the text on commercial signage to be in English or French.

A large number of people favoured a decluttering initiative. Box Hill's Shopfront Decluttering Program with its discounted translation services and free graphic design appealed to many. One individual suggested having a contest of best business signs. "Richmond citizens can vote on the best signs."

Few participants considered bylaw regulation to be sufficient to address the issues. As one participant said, "The law is a blunt instrument. Analysis is required. Voluntary compliance is preferred."

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One viewpoint that surfaced frequently was the idea that signage is symptomatic of a deeper division in the community. As one participant expressed it, "Signage is the tip of the iceberg and can be resolved through good governance. We need social cohesion and respect." Another put it more bluntly, "We live in a community in which white people and ethnic Chinese people discriminate against one another. They should get it together. There should be more love."

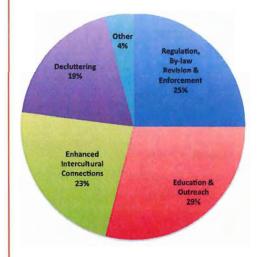
Most attendees recognized the multidimensionality of the problem and supported more education, outreach and intercultural enhancement. According to one attendee, "The bylaw discussion is a red herring. Ideas of intercultural events and resources for immigrants solve the core problem."

Apart from Box Hill's effective approach to decluttering, a number of people also appreciated its cultural outreach initiatives – i.e., hiring a multilingual consultant and funding festivals involving a number of ethnicities.

Initiatives like open house shopping days were also favoured. Support was expressed for the Ashfield model with an emphasis on more social-cultural initiatives such as a Chinese social worker, walking tours, and welcoming events.

#### FIGURE 1

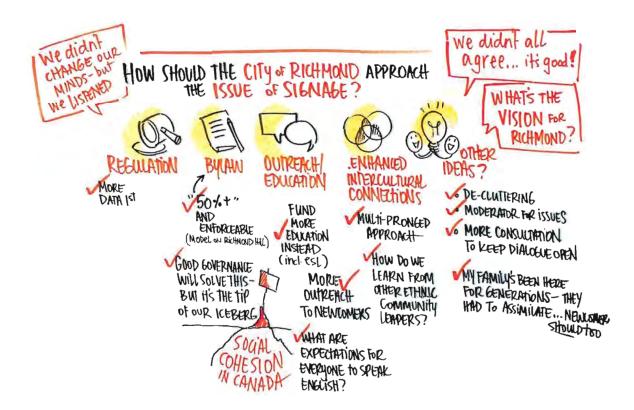
75 responses were collected from participant post-it notes. These have been categorized according to their support for different solutions.



As a way of strengthening intercultural relations, one person suggested funding summer students to create plasticized "cheat sheets" of common English consumer-oriented phrases to assist non-English-speaking business owners in communicating with English-speaking customers.

There was a persistent call among some participants for respecting the existing culture ("Newcomers need to respect those who built the community.") and for making learning English mandatory among younger newcomers, although not among the elderly.

While there was support for funding more ESL and citizenship programs, one spokesperson said, "It's not just about ESL. It's about outreach, breaking down the silos of communities, bringing people into the community."



### **NEXT STEPS** "There's A Lot Of Potential For Really Interesting Change In Richmond."



Despite the divisions evident in the comments, by meeting's end, there was a prevailing sense of optimism about the possibilities for resolution. As one spokesperson admitted, "We haven't changed our minds but we have begun to understand one another in new ways." One person was surprised that the signage issues "was not as difficult to discuss as I thought it would be." Another was gratified to discover "that it is possible to have a reasonable discussion and to really 'hear' all parties." A third person said something similar: "I learned that a reasonable response can be had among a diverse group of people over a contentious issue."

According to people's comments on the feedback forms, they also gained a greater understanding of what signs can and cannot be regulated, of the diverse nature of Richmond's population, of the city's current efforts to improve community harmony, of how other cities have successfully addressed a similar problem. They also learned that the actual percentage of signs with no English on them is not as high as they had originally thought.



An important new understanding shared by one participant had to do with "the feelings of being excluded on the part of long-term residents."

In concluding remarks, City staff expressed how impressive participants' enthusiasm and energy had been and how evident the shared desire was among those present to bring signage and cultural harmony together.

The overarching message from the meeting was that more discussion is needed, that a creative, multidimensional approach is essential, and that devising as many formal and informal ways as possible to bring disparate groups together is necessary.

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### I Agenda



Community Workshop Agenda 6911 No. 3 Road, Richmond, BC V6Y 2C1

#### Signage and Community Harmony in Richmond Thursday March 12, 2015 6:30-8:30 p.m.

- 1. Welcome, Goals of the Workshop and Setting the Context John Foster, Manager, Community Social Development, City of Richmond
- Guidelines and Overview of the Workshop
   Dr. Joanna Ashworth, Senior Dialogue Associate, Wosk Centre for Dialogue, Simon Fraser
   University, Workshop Moderator
- 3. Video: Living in Richmond, Non-English Signs & Creating Community Harmony • Produced by Simon Fraser University Creative Media Services
- Presentation: The Work of the Richmond Intercultural Advisory Committee
   What do we know about creating harmonious community? Diane Tijman, Chair Richmond Intercultural Advisory Committee
- Moderated Plenary: Seeking a Sharod Vision on Community Harmony
   What does community harmony mean to you? What ideas inspire you? Dr. Joanna Ashworth, Facilitator
- 6. Presentation: The Role of the City in Addressing the Signage Issue Cecilia Achiam, Director, Administration & Compliance, City of Richmond
- 7. Presentation: Living well with diversity: Learning from other cities that have faced conflicts over signage

Dr. Dan Hickert, Professor of Geography, University of British Columbia

- Small Group Discussion & Report Out: Ideas for Action
   From what you've heard so far this evening, how do you think the City of Richmond should approach the issue of signage?
  - · How might these approaches contribute to intercultural harmony?
- 9. Closing Remarks

John Foster, Manager, Community Social Development, City of Richmond

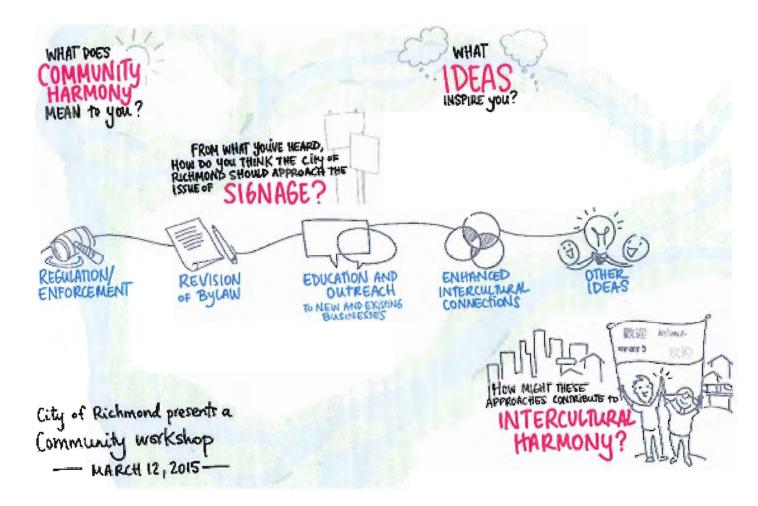
10. Next Steps: Feedback Forms & Report

Dr. Joanna Ashworth, Moderator

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### II Map of Workshop Questions



# III Post-Its Reponses To Workshop Questions

#### What does community harmony mean to you?

- "compassion respectfully helpfully"
- "being respectful of each other irrespective of culture, language, religion"
- "intercultural harmony is a two-way street"
- "understanding which values are cultural"
- "respect for self, others, other values"
- "understanding what fixed and what are cultural values"
- "conflict resolution, not peace at any cost"
- "separate the sign issue from racism"

#### General Comments

- "Bylaws aren't the only way. It's better to explore other options. UBC research was very helpful"
- "Being inclusive is positive tor the bottom line"
- "After 40 years, we don't feel welcome or included any longer here."
- "After (addressing) signs, where else will it go? There is still racism."
- "Consider safety in emergency situations where communication is a problem."
- "Countering public apathy (on so many topics)"
- "I want to feel welcome at all businesses."
- "Can't get into the real estate market. Lost sense of community."

- "problem is immigrants settle in major areas and spread out."
- "Root is unnecessarily high immigration policy."
- "(need) greater analysis of issue."
- "Signage is the tip of a big iceberg in Richmond. This is about waves of immigrants NOT WANTING to integrate into Canadian society in general and Richmond community specifically."

- "As an English speaker, what about my Charter of Rights?"
- "Create a desire to include non Chinese speakers in all aspects of community. Common language."
- "I don't understand why people come to our country and don't respect English."
- "Identify and establish what are our 'Canadian values'"
- "50% of business lost if signs strictly one language."
- "When no English (speakers) feel excluded."
- "Include everything in business and speak to size." (?)
- "Sign regulation won't work."
- "signage by-laws are weak to nonexistent in this municipality"
- "how do we educate people who speak limited English to understand our way of living and culture"
- "The main problem is communication through language. One language for everybody."
- "to promote intercultural harmony, we need to have Chinese business community reach out to Canadian-born residents."
- "Language issue makes it difficult and makes it hard to be inclusive"
- "Copy Richmond Hill and Markham. That's what we need."
- "None of the examples (of successful approaches) presented relied solely on a by-law."

#### Support for regulation/enforcement

- "size of signs; French and English; regulation at all levels of government municipal, provincial and federal"
- "rezoning of residential and commercial areas. More main street."
- "regulate interior and exterior signs"
- "regulate a wider category of signs (e.g., in front of single houses), which are often Chinese only"
- "We need signage legislation to show that the City is invested in this issue and is prepared to protect English as hegemonic language"
- "if there's a penalty, then enforce it. Otherwise it's useless."

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#### Support for revision of by-law

- "renew the by-laws and give them teeth. This will result in harmony."
- "enact a by-law in both English and French and apply it consistently."
- "Bylaws contribute to cultural harmony by being applied consistently."
- "signs need to be 50% English/French or other language"
- "create a by-law"
- "Have a decluttering by-law" (counted under "by-law" not "decluttering")
- "Bylaws 50% English. Regulate more signs than done now."
- "Sign bylaw 80% minimum English/French
- "Start with some basic rules around signs with 50% + English as a basis"
- "comprehensive sign by-law"
- "create by-law"

### Support for Education and Outreach

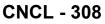
- "education"
- The law is a blunt instrument. Analysis is required. Voluntary compliance is preferred."
- "Richmond should stay the course of using persuasion to influence more English signage."
- "More English learning services for immigrants"
- "More citizenship classes/services for new immigrants"
- "education at licensing level"
- "talk to business owners about respect for all"
- "encourage businesses with programs and encourage them to understand how they make the community feel"
- "public education"
- "education, consultation, encouragement"
- "Education. Outreach."
- "Merchant education"
- "outreach help. Encourage English usage."
- "Reaching out to business."

- "Education is key."
- "Education and outreach"
- "A regulatory regime is dictatorial and costly and would only affect approximately 4.5% of existing signs (and zero new signs are non-English only). Outreach and education are key and more effective."

### Support for Enhanced Intercultural Connections

- "Fund summer students to do plasticized cheat sheets (translating) English (consumeroriented) phrases (e.g., "How much is that?") into other languages." (Intercultural)
- "The bylaw discussion is a red herring. Ideas of intercultural events and resources for immigrants solve the core problem."
- "willingness to change. Empathy, dialogue, openness." (Intercultural)
- "Participation in community events (e.g., open doors)"
- "Increase interaction/contact amongst different cultures."
- "Cultural share. Food fair."
- "Universal welcome sign in business windows."
- "Bring people together."
- "Cultural ambassador/social worker to work with businesses."
- "Reframe thinking and approach. Instead of advising businesses of their potential loss of business, emphasize the importance of letting people feel included. Welcome ALL PEOPLE. Do not exclude non-Chinese speakers.
- "free translation of signs, menus, etc. would be a great start. Or at least discounted translation" (intercultural)
- Support for "Other" (including combined approaches)
- "Create City Immigrant Affairs office." [other]
- "Make learning English mandatory." (other)
- "Ashfield model. Social worker welcoming shop owners; walking tours; booklet; welcoming events; decluttering. (Intercultural + decluttering)
- "Change must be dialogical. A sign bylaw unilaterally imposes a dominant culture on a group. Festivals, education, welcoming tours and outreach build the capacity of the entire community to appreciate other cultures." (Intercultural + Education & Outreach)
- "Immigrants are generally aware that English is important in Richmond and want to connect with the community. Services like accessible ESL classes, translation services,

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tips on marketing, cards with common English translation will be most effective." (Outreach/Education + intercultural)

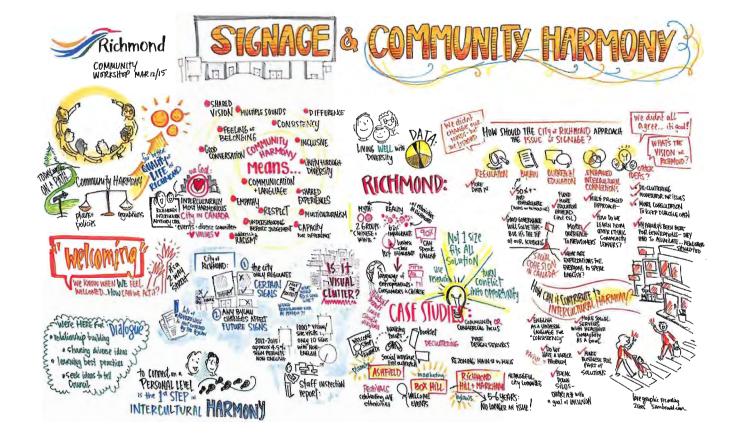
- "Try the approaches of other cities with similar populations free translation services, education and outreach is a very good approach because most Chinese/other immigrants can't learn English." (education/outreach + intercultural)
- "Box Hill commercial focus; decluttering; multilingual consultant; festivals involving a number of ethnicities; free graphic design" (decluttering + outreach)
- "Use Richmond Hill as an example. Establish by-law + race relations committee." (bylaw + intercultural)
- "bylaw is not the most effective solution. Education, persuasion is. An open house shopping day is a fabulous idea." (education + intercultural)
- Reaching out to business and encouraging English signs along with Chinese if wanted. Double-sided bilingual signs should also be enforced. Force will never create harmony (no bylaw). Intercultural committee = expensive." (enforcement + outreach)
- "Address clutter"
- "clutter limitation is worth investigating."
- "decluttering will help immensely"
- "have a contest of best business signs. Richmond citizens can vote on the best signs"
- "declutter to decrease the perceived volume of single language signage"
- "declutter: window signs/ vinyl...Limit the text to a specific amount i.e., 25%
- "declutter!"
- "decluttering has some merit"
- "encourage decluttering"
- "shop front improvement program"
- "Appearance."

23

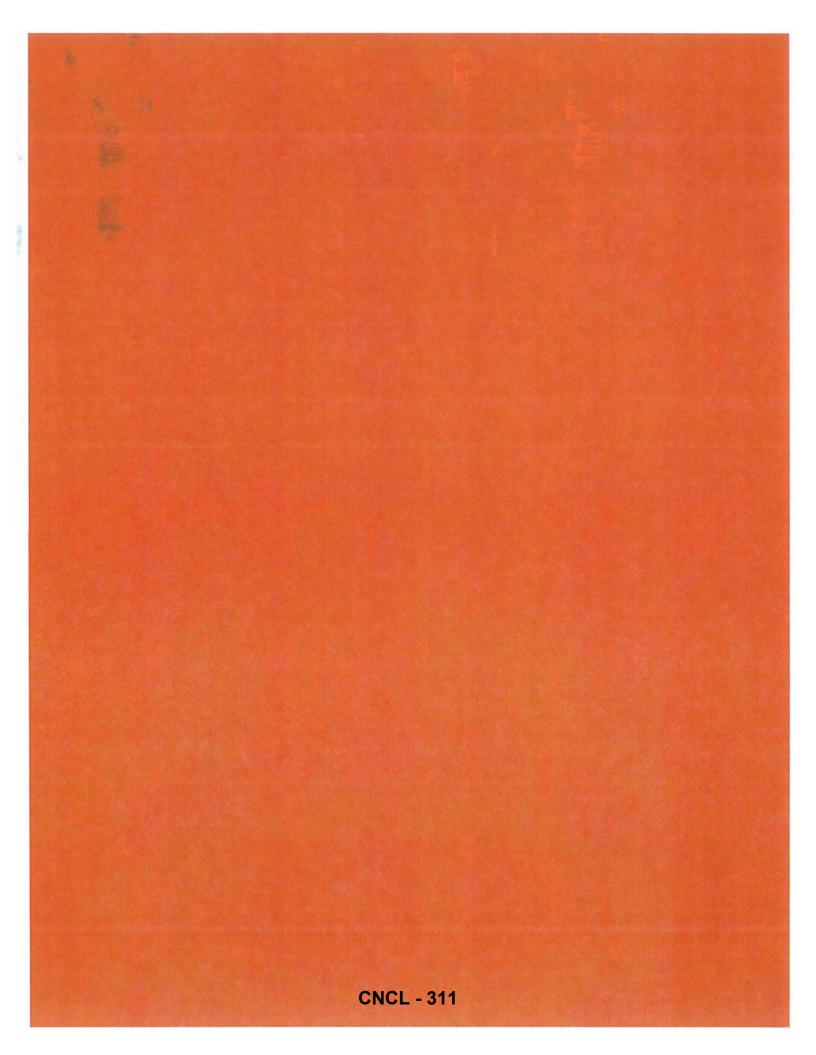
• "active integration (long term approach) of immigrants into Canadian society" (other)

City of Richmond Community Workshop
PUBLIC SIGNAGE AND COMMUNITY HARMONY IN RICHMOND

# IV Graphic Illustration of Community Workshop Ideas



City of Richmond Community Workshop 24

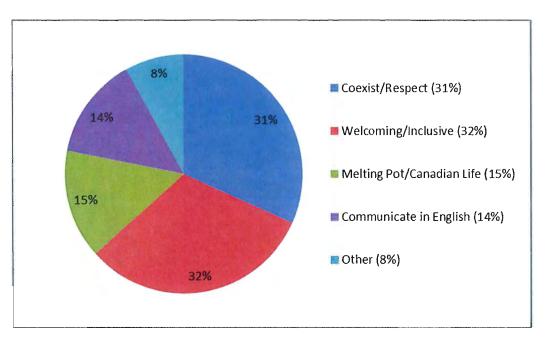


### Data Summary: Language on Signs Let's Talk Richmond Survey

The City implemented a multi-pronged public consultation process between January 30 and March 20, 2015 to gauge community perceptions on the language on signs in Richmond. The community was invited to have their say and provide their thoughts on the language on signs issue through mail, email, an online survey hosted at Let's Talk Richmond, or by attending a community workshop hosted by the City.

This document provides a brief overview of the observations from the responses received through the online survey. The survey was offered in English and Chinese, however all responses received were in English.

A total of 260<sup>1</sup> responses were received to the online survey. The summary below includes paraphrased findings to provide a flavor of the diversity and spectrum of responses and is not intended to present verbatim feedback received.



### 1) What does community harmony in Richmond mean to you?

31% of the responses were related to community harmony being about the coexistence of people from different cultures in a community. Descriptions included a community where everyone works towards achieving the same goals, respecting one another, and conflict is avoided.

<sup>&</sup>lt;sup>1</sup> The survey had 3 open ended questions, not all respondents responded to each question. 260 is the number of responses received to the questions with the most responses.

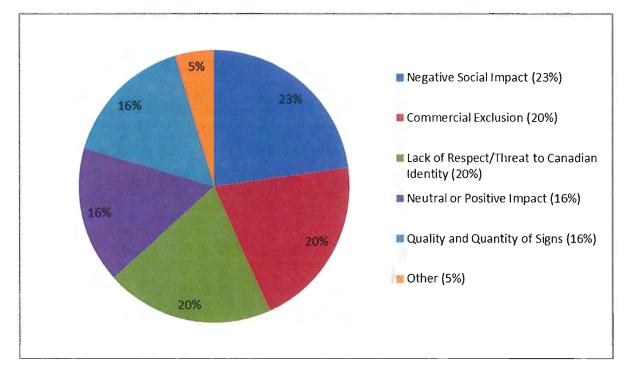
Almost as many responses were received (32%) where community harmony was described as a process where community members make a conscious effort to understand one another and each other's differences, embrace each other's cultures and contribute to a welcoming and inclusive environment. Many expressed the opinion that welcoming was not a one way street where host community residents were required to extend a welcome to newcomers/immigrants. They indicated that there was an obligation on the part of newcomers to welcome and integrate with the host community members as well.

Another 15% of the responses envisioned community harmony to be achieved only if immigrants and newcomers assumed and assimilated to Canadian values and ways of life. That is learning and speaking English, and putting their cultural practices and mother tongue aside to replace with that of Canada's - in essence equating community harmony to an environment of a "melting pot".

Close behind at 14%, indicated community harmony was about communication, more specifically, about the ability of community members to be able to communicate with one another in English. Those with this perspective believe that without communication, and without being to understand one another, that community harmony is not possible as not being able to communicate in English creates silos and mini "Asian communities".

Concepts of respect, lack of conflict, welcoming and inclusiveness were the dominant opinions received in the responses. A strong notion within the responses was that coming to Canada was a choice on the part of immigrants; therefore they should assimilate and adapt to the Canadian way of life, and assume a Canadian identity.

There was an element of fear in many of the responses that immigrants were taking over Richmond and the once European majority that founded this Country was becoming a minority and invisible in the very Country they created. As a consequence, non-official languages are beginning to take over the landscape that should belong to the official languages of Canada.

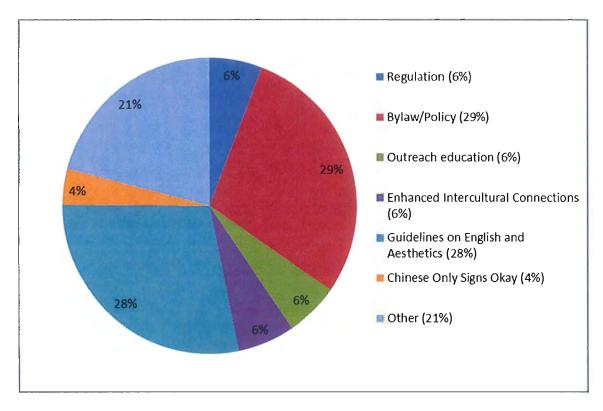


2) How do you feel about the signage in the community? Does it affect your quality of life?

23% of responses referenced the negative impact of language on signs to the quality of life of a community, a few spoke of personal experiences resulting in negative emotional consequences for them. Personal feelings of social exclusion from the community, and feelings of not being welcome in specific areas of the community were prevalent among those noting a negative impact of language on signs. A few responses noted a disconnect from surroundings that is experienced when an individual is not able to read the signs around them.

20% of the responses noted that language on signs led to commercial exclusion or a feeling that they were not wanted or welcome as consumers in a particular store. Not being able to read the business sign also created a lack of understanding of what services a store was offering.

Another 20% of responses were of the opinion that signage that was not in English displays a lack of respect for Canada and Canada's way of life, and a threat/negative consequence to Canadian identity. A message the resonated among many of the responses was that seeing signs in a language other than English made community members feel like they were no longer in Canada, and that Richmond is being transformed into having an Asian feel rather than a Canadian feel. 3) Please share any additional comments that can assist the City of Richmond in developing future recommendations and measures related to language on signage.



The top 2 categories of recommendations (29% and 28% respectively) were Bylaw/Policy and Guidelines on English Aesthetics.

Responses noting the need for some form of guidelines were suggesting that the City take some form of action that would provide clear expectations for business owners to follow in terms of signage. Although the majority specifically noted the need for guidelines on the use of one of the official languages (English and/or French), some also referenced the need for guidelines around visual elements and aesthetics of signs. There was a sense that signs were not visually appealing, and too large. In some cases, it was noted that signs presented a visual clutter to the community and guidelines needs to be implemented to eliminate this clutter.

Bylaw/Policy responses were related to those specifically noted that a Bylaw or formal policy dictating the requirement and mandatory use of English on signs be implemented by the City. Many suggested that English (or any one of the official languages) need not be the sole language, and that another language could be included on a sign, but in much smaller font.

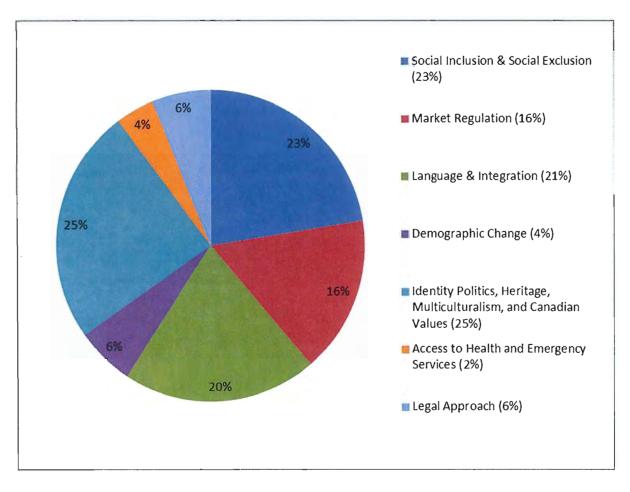
The themes of Outreach and Education, and Enhanced Intercultural Connections were each noted in 6% of the responses. Several responses noted that education on community harmony and the Canadian way of life was essential to include as part of the solution.

A small minority (4%) felt that Chinese only signs are okay. That is a business owners prerogative to promote to their target market as they wish. As well, some felt that language specific signs were a sign of the multiculturalism in our community, and therefore should not be seen as an issue but rather embraced.

### Data Summary: Language on Signs Emails received through signs consult email address

The City implemented a multi-pronged public consultation process between January 30 and March 20, 2015 to gauge community perceptions on the language on signs in Richmond. The community was invited to have their say and provide their thoughts on the language on signs issue through mail, email, an online survey hosted at Let's Talk Richmond, or by attending a community workshop hosted by the City.

This document summarizes the submissions received through the email address (<u>signsconsult@richmond.ca</u>) created for this engagement process. A total of 24 emails were received1. The figure below illustrates the emerging themes from the emails. To provide context to these themes, included below are verbatim examples of responses received. No names have been included to the examples to protect confidentiality.



<sup>&</sup>lt;sup>1</sup> This does not include the propaganda that forwarded to the City through this email. These items were not seen as a community member providing their thoughts on the issue of language on signs, and therefore not included in this summary.

1) Social inclusion and social exclusion are expressed in two ways – non- English signage excludes "host society" (belonging, recognition and heritage, market participation) versus non-English signage prevents populations from participating as they choose in the market and in everyday life. The argument of multiculturalism and the Canadian welcoming of newcomers are expressed in many instances with the analogy of a "two-way-street", and applied to both sides of the "for" and "against" City regulation of signage.

"As Canada has only two official languages, signage should be in both English and French. If a company wants to add another language - so be it, however English or French should be the dominant language.

I was born and raised in Vancouver, spent a lot of time in Richmond and moved to Richmond in 1990. I refuse to patronize shops where Chinese is the dominant language on signage as I have found that I am ignored or treated very shabbily. This is Canada, not Hong Kong or China. There are a great many people who do not speak either Chinese dialect who are being excluded by this immigrant class. This is reverse discrimination. Would we be allowed to act as they do if we moved to their "home" country - I think not.

I was in Superstore the other day and a young cashier of Asian descent was serving the customer in front of me. The Asian customer began speaking to the young lady in one of the Chinese dialects and when the young lady advised that she did not speak that Asian language, the customer was very rude. Where does this woman think she lives.....China?

While this is supposed to be an open and free society specific immigrants are trying to make it a closed one solely for their benefit, not for the benefit of all Canadians."

2) Market-regulation is another theme that is employed to make a case that markets will selfregulate and in time English language will increasingly be used in signage in order to access a broader market share.

"Here is an example: there is a business that sells chicken feet, coagulated pig blood, cow stomach, duck tongues, and duck necks, etc. Those foods are popular in Chinese speaking community. Will English speaking local residents ever think about purchase foods? Very likely, no. In this case, since the majority, if not all of its customers are Chinese, it is very natural for the business owner to make Chinese more prominent in their business signs because he or she wants to get as many customers as possible. Assuming all of a sudden, Chinese speaking customers change their appetites and do not eat those foods anymore and on the other hand, English speaking customers start to love those foods and buy them like crazy, what will the business owner do? Any rational business owner will change their former Chinese prominent signs to English prominent or English only signs. That is the power of market."

3) Language & integration are raised as a key issue for consideration of an amended signage bylaw. Language is interpreted as a marker of integration, and therefore non-English signage is seen to be a sign of failure to integrate. An argument is also presented in this way for a "tough-love" approach, in which English language is enforced in order to assert the primacy and common language of English (and French) in Richmond, and Canada.

*"I personally think that English should be on every sign, public or private. Not having English on signage, menus and the like is divisive, especially now that native english speakers are in the minority of Richmond's population. I wouldn't have a problem with another language alongside english, either larger* 

or smaller depending on their preferences. These immigrants are not being encouraged to integrated into our community if they can live their entire lives here without speaking a word of English. We should encourage them to integrate, and this would be a good first step. Having both languages–English and Chinese–on signage would encourage inclusion in businesses primarily serving Chinese."

4) Demographic change is cited by many, and is framed by some with a narrative of "Asian Invasion," of loss of what was seen to be a British heritage, and the perceived development of enclaves and ghettos.

"As a Canadian born citizen I embrace our diverse culture. I feel it makes us richer human beings by understanding our differences. However, myself and many Canadian born citizens I know (regardless of our family backgrounds) feel that there is a disrespect of the Canadian culture and our strong identity when you see an overwhelming amount of influence of other countries growing here and no recognition of the official Canadian languages."

5) Identity politics, heritage, multiculturalism, and Canadian values are raised both to defend freedom of expression through a lens of multiculturalism in a position against regulation; and in the affirmative by depicting the undoing of Canadian identity and values that is, in some cases, understood as the foundation of the signage issue.

"It is incomprehensible that English speaking Canadians in Richmond have to fight to keep the official language of the country on signage. Canada is a land of immigrants - we have integrated into our communities joined by a common thread, the English language. Canadians also pride themselves on being an inclusive society, welcoming newcomers. Now it appears that some newcomers don't have enough respect for the rest of us to include the common language of Canada (as well as the international language of commerce) on their signs. This is very disturbing. More disturbing is that to date this issue has been of little importance to our public officials.

For those non Chinese speakers who still choose to live in Richmond, this issue must be resolved. All signs posted in public places should be readable by all residents in the community by equally including one of the official languages of Canada."

6) Provision and access to and by health and emergency services are used to present a case for English as primary, and signage regulation by the City.

"No one seems to have mentioned that English on signage allows emergency services to find businesses faster when they are responding to calls for service when time is of the essence.

It is incredibly hard to find a business by name on a street or in a strip mall when one cannot read the signage and can only go by tiny street number lettering on the corners of buildings or on inconsistent places near the units in question. All emergency services have English language in common.

In an emergency, every second counts so clear signage with at least the business name displayed prominently in English is essential. No one really cares what language today's lunch special is displayed in."

7) Taking a legal approach, some cite the Charter of Rights & Freedoms and in so doing, make an affirmative case for the right to enforce official language, and an opposing case is made with the logic of freedom of expression, in whatever language one chooses.

"I feel the regulation of signage does relate to the Charter of Rights portion that states, **The City would** need to establish that compelling health, safety, economic or social welfare objectives are at stake to justify a limit on the Charter freedom", in that the social welfare of all our citizens doesn't benefit all if you see the dividing line that has been created by signage in areas that don't "feel" welcoming to all citizens. This has already created rifts with residence and many have left the city because of the frustration they feel and being "over run" with other countries values. (yes, economics has played a factor, and a higher population of Asian immigrants, but my children and some of their friends (heritage being very diverse) feel that in order for them to have opportunities for their future they have to leave because many of the jobs they see advertised say that "speaking Chinese is an asset" so they know that the opportunities here are fewer and fewer."

### Executive summary.

### Social Cohesion and visual landscapes in Richmond

Research prepared for the City of Richmond

Elanna Nolan & Daniel Hiebert

April 2015

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### Introduction

Following a referral from City Council in October 2014, City staff have been directed to undertake a comprehensive study and consultation regarding what has come to be known as the Richmond "signage issue." Coinciding with the lead up to the November 2014 City election, Council's directive follows a period of public interest and demand that the City take greater action to regulate signage language. In October 2014, the City received sixty-one letters and emails from the public requesting that the City take action and enforce English as the priority language on all signage (and in many cases advertisements). While regulation of advertising is beyond the City's jurisdiction, exterior commercial signage does require submission of an application for permit.

At present the Sign Bylaw (No. 5560) regulates the size, design and location of exterior signage. A permit is required prior to installation (Figure 1). Signage not covered in the Sign Bylaw includes interior signage (i.e. posters placed on the inside of a window, menus, mall signage, etc.), directional signs, property lease and sale signs, along with some others. Council have directed City staff to study the issue of language on signs, undertake public and stakeholder consultation and to compile critical and relevant information on the effect of signage issues locally and afar, to assist Council in determining if a bylaw or some other strategy would be most appropriate.



Figure 1. Only signs on the exterior of the building are regulated by the Richmond Sign Bylaw (No. 5560). Advertising and promotional material are not regulated under the Sign Bylaw.

### Background for this report

Concern over the language used in commercial signage is by no means a new issue. However, it has gained particular momentum on two occasions over the past three years: in March 2013 with the submission of a 1,000 signature petition requesting that Council introduce a Sign Bylaw condition of two-thirds of text in English language on all signage; and in October 2014 in the lead-up to the most recent City election. Between the letters and the news coverage, a common narrative has emerged connecting "rapidly" changing demographics and the ethnic make up of the City of Richmond with concern over a lack of immigrant integration.

A survey of news media and letters to Council reveal a gap between perceptions of demographic change and the demographic reality of the City of Richmond. In the report, we present data that shows this discontinuity, and busts some of the "myths" that have become the basis of many expressions of concern. However, we also acknowledge that this "myth" is still meaningful. It provides insight into the ways in which some citizens of Richmond are experiencing feelings of social exclusion, isolation and a lack of recognition.

We see the signage issue as involving two sets of concerns. In the foreground are issues related to the symbolic nature of visuals in the urban landscape of Richmond, specifically focused on the regulation of text in public and commercial spaces. In the background, we identify issues that frame this particular concern; these include questions over how visual landscapes represent people, history and culture in Richmond, as well as raising questions over the nature of intercultural engagement and social cohesion in Richmond.

It is important that we make clear, that while we seek to address the above listed issues, we are not legal scholars. As such we can only recognize the legal backdrop of the signage issue as they relate to the protection of freedom of expression as outlined in the *Charter* of *Rights and Freedoms*. With this legal backdrop in place, we have investigated the signage issue in relation to a mandate and commitment by the City of Richmond to enhance intercultural harmony and strengthen intercultural cooperation in Richmond (RIAC 2011). It being beyond our capacity to advise, we limit our contribution in this way. Put simply, we do not seek to offer "solutions" or specific regulatory recommendations, rather to provide resources to support thinking through the signage issue.

# Project structure & methodology

The research questions that guided this research study included:

- 1. What is the nature of the relationship between visual and linguistic landscapes with multiculturalism, social cohesion, and community harmony?
- 2. How can we think about the role of local government, in terms of these relationships in a super-diverse city?
- 3. Are there examples of urban governance and regulation/non-regulation of visual/linguistic landscapes that could cast light on the challenges faced by the City of Richmond?

The research was carried out in three parts:

Part One	Mapping super-diversity in Richmond and seeing the signage issue: Demographic context and discourse analysis, including review of news media and letters to Council
Part Two	Literature review: Multiculturalism, social cohesion, and community harmony in the linguistic landscape
	Learning from cities afar: An international jurisdictional scan
Part Three	Bringing it all together: Synthesising research, lessons, and reflections

# Super-diverse Richmond

There is often a tendency to see diversity in terms of ethnicity or country-oforigin, however, in so doing it can be easy to miss details that shape the contours and textures of every day experiences. The concept of super-diversity helps us see the various population details, such as language, religion, age, immigration stream, that are often overlooked when we talk about diversity based on country-of-origin or ancestry. Recognizing super-diversity in Richmond reveals the multiple groups, communities, and cultures that make it a unique and vibrant city. Longstanding diversity in Richmond: 1981-1996 to today

- In 1981 there were just over 96,000 people living in Richmond. Roughly ten per cent of the population were born in an Asian country.
- By 1996 the population of Richmond had grown to 148,000 people. Just under half of the population self-identified as a visible minority, and a third of the total population as Chinese-Canadian.
- 1981-1996 was a period of profound demographic change in Richmond. The proportion of almost 90 per cent "white" Canadians became a ratio of roughly 50 per cent, to a respective 50 per cent visible minority population.

Over the past twenty years, demographic change has been more incremental, leading to what is now a ratio of 70 percent visible minority. In terms of the pace of demographic change, the past twenty years has been far less profound than what happened between 1981-1996.

- Today in Richmond, 70 per cent of the population identifies as being "visible minority" and over 60 per cent of the population are immigrants to Canada.
- There are 161 ethnicities represented in Richmond.
- These figures represent a history of immigration to Canada and settlement in the City of Richmond, a testament to national immigration policies, along with a policy of multiculturalism since 1971.
- Since 1980, the largest number of immigrants has arrived through the Economic class, as skilled workers and business class applicants and family members (requiring them to start a business).

The majority of Richmond residents can speak English and use English as a working language.

- About 90 percent of the population can speak English (19,800 cannot).
- 57 per cent of residents speak English 'most often' at home.
- 43 per cent of residents speak a different language most of the time.
- Richmond residents are able to speak 77 non-official languages in total.
- 11 per cent of residents work in places where a non-unofficial language is used most of the time.

# Media scan and letters to Council

Media reports on the signage issue have been concentrated in three key moments (Figure 2): January-March 2012, March-May 2013 (coinciding with a Petition to Council for Bylaw), and September-November 2014 (coinciding with the 2014 City Election). These key moments are repeated in the survey of letters to Council (Figure 3).

Overall the signage issue has been reported in a fairly balanced way. Proregulation articles (particularly letters to the editor and editorials) are generally expressed with a tone that is more emotive and sometimes antagonistic, compared to other reports. This highlights the emotional nature of the issue – an issue that engages questions of home, belonging, and recognition.

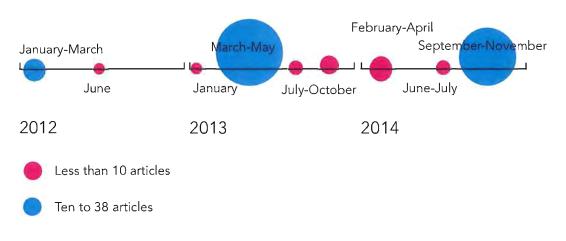


Figure 2: Media scan, January 2012-December 2014

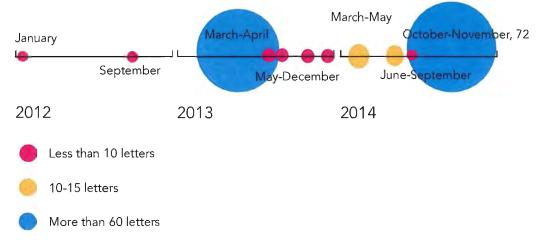


Figure 3: Letters to Council, January 2012-January 2015

The emergent themes across the media reports and letters to Council include:

- Concerns over social inclusion and exclusion
- Market self-regulation of language on signage (i.e. in order to attract a larger market share, merchants will advertise in official language/s)

- Concern over demographic change
- Identity politics, heritage, multiculturalism, and Canadian values
- Health and safety concerns
- Legalistic approach to a by-law
- Federal immigration policy
- Immigrant integration and language

# Learning from the research

The concepts of intercultural harmony and social cohesion have not been defined in ways that are universally accepted. We therefore begin by sketching out the origins of these concepts, in light of Canada's policy of multiculturalism, some of the debates over the efficacy of multiculturalism, and a turn toward language such as social cohesion and community harmony.

- Pioneered in Canada in the 1970s, multiculturalism recognizes the great ethnic, cultural, and religious diversity as a defining national characteristic. It outlined, invested in, and regulated diversity through social services, language training, resourcing, and legal infrastructure focused on countering discrimination and through practices supporting the recognition and celebration of difference.
- During the 1990-2000s there has been vigorous debate in Canada and elsewhere over the efficacy of multiculturalism as a policy and as a concept.
- Arguments circulate in academic research and policy discussions over the question of whether multiculturalism has led to polarized societies and citizens living "parallel lives" – communities divided with little contact between ethno-cultural groups.
- This allegation has not 'migrated' to Canada, and multiculturalism continues as an important part of Canadian social policy and national character.
- Social cohesion has been distinguished from multiculturalism largely in the way it focuses on membership to a national community, for instance, membership to a Canadian community of citizens, rather than focusing on difference. Over the past twenty years there have been ongoing debates in the literature over the definition of social cohesion and the best ways to measure it.
- In a super-diverse society, evaluating social cohesion does not always account for the different experiences between immigrant and native-born Canadians, challenges faced in immigrant settlement, and the barriers faced by newcomers to social, political, and civic participation.

 Seen as complimentary to multiculturalism, social cohesion can be interpreted as providing a vision of what social relations under multiculturalism might look like, but ultimately it does not tell the full story of the successes and failures of a super-diverse society.

Much of the research around signage in public space (a.k.a. linguistic landscapes) focuses on super-diverse cities where citizens speak multiple languages.

- Most of the research is on the problem of *under-representation* of immigrant groups and their languages on signage, and the domination of official languages.
- Increasing prevalence of English language has led to the linguistic dominance, worldwide, of English language on signage. In many countries English language is seen as a symbol of modernity, progress and "international panache".
- Language is encountered in a myriad of ways in the visual landscapes of our everyday lives. Of the various ways (i.e. graffiti, marketplace, consumer goods, street signs, etc.), most are outside the jurisdiction of most City administrations.
- Linguistic landscapes are rarely static; they shift and change over time with flows of migration and other processes of change. What we see today will inevitably be different to what we saw fifty years ago, and what we will see fifty years from now.
- Illegibility, or an inability to read all that is written in the linguistic landscape, can produce feelings of anxiety and alienation. This experience goes both ways for official and non-official languages.
- Some scholars argue that social inclusion and a sense of belonging, connectedness, and acceptance, are prerequisites for immigrant integration, including official-language proficiency (i.e. inclusion is not exclusively the result of language proficiency). For immigrants in the process of learning official languages, seeing familiar (mother-tongue) language in the linguistic landscape contributes to a sense of recognition, welcome and belonging, which can support integration into the host society.

# Learning from cities afar

Each of the cities presented in the report are unique, with specific geographies, social issues, economic contexts, immigration regimes, and more. These case studies do not so much present strategies that can be picked up and dropped into the Richmond context. Rather, they reveal some ways cities around the world are seeing similar challenges of planning for and managing diversity.

# #1 Ashfield, NSW, Australia

Ashfield had become known as an ethnically "Chinese" city/area. Elderly Anglo-Celtic Australian residents complained to Council that they felt displaced and that there is a lack of inclusion and belonging in the Ashfield landscape. Council's response was comprehensive, beginning with a research partnership with a local University, and was followed by a series of socially oriented interventions. The issue was effectively resolved in just one year. Interventions included:

- Appointing a Chinese-origin social worker to mediate concerns and encourage merchants to be more 'welcoming', 'inclusive'
- Free translation services for merchants
- Instituting a 'Welcome Shop Day' to introduce general public into 'Chinese' commercial areas
- Walking tours with visits to restaurants, herbalists, etc.
- Welcome Shop Awards (for 'de-cluttering' and signage), with clear suggestions on aesthetics
- Booklet (in Chinese and English) explaining socio-cultural policies/strategic plans of the City

# #2 Box Hill, VIC, Australia

Box Hill is an Activity Centre in Greater Melbourne, Australia, with a so-called distinctive "Asian character." It is a site of significant growth, and higher density residential and commercial development. While some complaints have been received by Council that echo those in Richmond BC, they have been successful at developing an approach that has been celebrated as inclusive. This strategy was developed and informed by research commissioned by the City, which drew on examples of "best practice" from the City of Richmond, BC. Interventions have been economically and market-focused, and include:

- Community events to showcase diversity in the area (i.e., acknowledge many groups)
  - Annual 'Harmony Day' with performances, foods, music, etc.
  - Festivals for several of the larger groups
- Shopfront Improvement Program
  - Encouraging de-cluttering of shop-fronts
  - o Multi-lingual consultant hired
  - Free consultation offered to merchants on graphic design, and discounted translation services

# #3 Richmond Hill & Markham, ON

A signage bylaw has regulated language on signs in Richmond Hill since November 1990 (50:50 official:non-official language). However, in the mid-1990s controversy began to develop in Richmond Hill and neighbouring Markham, relating to the rise of so-called "Asian themed malls." Strategies employed by City staff in Richmond Hill and Markham during this time involved a combination approach that included:

- Using municipal powers to diffuse immediate tensions
  - Sign bylaw, 1990 (50%+ English/French required)
  - Encouraged more 'Main Street' commerce
  - Re-zoning land near residential areas from commercial to residential use
  - Pushing malls away from residential areas
- Race Relations Committee established, supported by a *Diversity Action Plan* 
  - o Includes 3 Council Members
  - Developed procedures to consider complaints
  - o Has power to make 'actionable' recommendations

It took 5-6 years de-escalate, and today, the controversial sites have been developed with residential condominiums, which have dissipated tension. Markham is also home to the largest Asian mall in North America, and is slated for further development in coming years, with the addition of the Remington Centre, more North American in style.

# Conclusions

As measures of social cohesion cannot tell the full story, neither can linguistic landscapes be used to correlate degrees of integration of immigrant publics, or be seen as indicative of exclusive and anti-social intentions. As such, linguistic landscapes cannot accurately be used as a platform for measuring degrees of community harmony.

In one of the letters to Council, an individual suggested that the proliferation of Chinese language on signage in Richmond was a sign of things to come calling it the proverbial "canary in the coal mine." The author goes on calling for Richmond to take action and set an example for the rest of Canada.

The author of this complaint presents the canary in the coal mine with an ominous tone. However, we see the signage issue as an opportunity for Richmond. It is an opportunity for the City to demonstrate leadership, to recognize Richmond as a super-diverse city, committed to a vision of multiculturalism and community harmony, with a basis in open dialogue. As the public workshop demonstrated, there is community will to engage in difficult conversations, and with appropriate guidance the City and its citizenry can continue to address more of the important "background issues" that have given rise to calls for a new signage by-law.

We might ask to what degree should the City administration play a proactive role in framing and outlining what it might mean to live in Richmond? How can a shared vision be crafted in collaboration with Richmond's citizenry? We hope that by providing some context and research on the relationship between signage and the social life of super-diverse cities, the City and its residents will have some new tools and frames of reference to undertake these conversations as they come to choose a best course of action, moving forward.



To:	General Purposes Committee	Date:	May 5, 2015
From:	Lani Schultz Corporate Programs Consultant	File:	01-0105-07-01/2015- Vol 01
Re:	Council Term Goals 2014-2018		

#### Staff Recommendation

That Council consider the information contained in this report from the Corporate Programs Consultant, dated May 5<sup>th</sup>, 2015, and either adopt the 9 themes and priorities presented herein as their Council Term Goals for the 2014-2018 term of office, or identify and adopt any modifications, deletions or additions to this information for their Council Term Goals for the 2014-2018 term of office.

Lani Schultz

Corporate Programs Consultant (604-276-4129)

Att. 1

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R	EPORT C	ONCURRENCE
REVIEWED BY SMT	INITIALS:	APPROVED BY CAO

## Staff Report

# Origin

Council decisions guide and influence the City's social and physical development, the quality of life and lifestyle choices available to residents, the relative safety and protection of residents and businesses, and the role the City plays within the region. To help Council manage this important agenda, a "Term Goal Setting" process is undertaken at the start of each new term of office to determine Council's desired focus and priorities in order to ensure City work programs are appropriately aligned. This process forms an integral part of City operations, and helps to ensure a focused and productive workforce that makes the most effective use of public resources.

The purpose of this report is to facilitate discussion amongst members of Council at a public meeting, in order to determine a set of common priorities and Term Goals for the 2014-2018 term of Council.

# Analysis

Council Term Goals are intended to reflect the overarching "themes" Council would like to focus on. A clear, consistent set of goals allows for a visionary agenda as well as the flexibility to be responsive to new issues, opportunities, and challenges as they emerge during the term. Based on analysis of input garnered from members of Council leading to the preparation of this report, a number of common themes and priorities emerged for discussion in the adoption of Council Term Goals for the 2014-2018 term of office. This report presents the results of this analysis, and provides Council a basis for a public discussion on what should form Council's Term Goals for this term. A total of nine broad themes emerged from the collective information, each with a set of priority areas that help capture the interests identified in those themes. In addition, a number of specific "indicators of success" for each of the themes were identified that may be useful in helping to track progress in achieving Council's goals during this term of office. In alphabetical order, the nine themes that materialized include:

- **1.** A Safe Community: Maintain emphasis on community safety to ensure Richmond continues to be a safe community.
- 2. A Vibrant, Active, and Connected City: Continue the development and implementation of an excellent and accessible system of programs, services, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs and unique opportunities, and that facilitate active, caring, and connected communities.
- **3.** A Well-Planned Community: Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.
- **4. Leadership in Sustainability:** Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and maintain Richmond's position as a leader in sustainable programs, practices and innovations.

- **5. Partnerships and Collaboration:** Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.
- 6. Quality Infrastructure Networks: Continue support and diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impacts.
- **7. Strong Financial Stewardship:** Maintain the City's strong financial position through effective budget processes, the efficient and effective use of financial resources, and the prudent leveraging of economic and financial opportunities to increase current and long-term financial sustainability.
- **8. Supportive Economic Development Environment:** Review, develop and implement plans, policies, programs and practices that enhance business and visitor appeal and promote local economic growth and resiliency.
- **9. Well-Informed Citizenry:** Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged with regard to City business and decision making.

A more detailed description of the above common themes, along with example indicators of success that were identified, follows. In addition, a number of specific tasks were identified during this process that while not actual "goal" material, helped to determine the above themes. These items are listed in Appendix One, for information.

<u>Theme 1: A Safe Community</u> - Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

While Richmond continues to be a safe place to live, work, and play, Council recognizes community safety as fundamental to the City's livability, and views this area as a high priority. Council understands the importance of continuing to enhance the community's sense of safety to ensure Richmond is a healthy and livable community. Council is committed to ensuring that the City's community safety models of operation and services relate to Richmond's specific needs and concerns, and that these services are responsive to the safety needs of our residents and businesses as their primary focus.

## Priorities that emerged for A Safe Community

Under the safe community theme, the following priority areas emerged for the 2014-2018 term of office:

- 1.1 *Policy and service models that reflect Richmond-specific needs,*
- 1.2 Program and service enhancements that improve community safety services in the City,
- 1.3 Improved perception of Richmond as a safe community,
- 1.4 *Effective interagency relationships and partnerships.*

# Examples of indicators of success for A Safe Community that emerged from Council input:

To track progress towards achieving a Council goal related to a safe community, the following potential outcomes or "indicators of success" were identified:

1.1 Policy and service models that reflect Richmond-specific needs:

- The City is utilizing the most effective police and emergency service models to meet the community safety needs and priorities Richmond.
- The City is able to affect change in policies and models at the local level, to best serve our community.
- Community safety concerns are considered early in the City's planning and development processes so emergency responders can provide faster, more effective services.
- 1.2 Program and service enhancements that improve community safety services in the City:
  - Education, awareness, and community-based programs are effective and well-used tools for enhancing safety in the community.

# 1.3 Improved perception of Richmond as a safe community:

• The community feels safe and individuals' needs are being met.

## 1.4 Effective interagency relationships and partnerships:

• Richmond has effective working relationships with its key community safety partners (other levels of government, community organizations, and grassroots community initiatives) in the provisions of Community Safety services and programs in the City.

# Theme 2: A Vibrant, Active, and Connected City - Continue the development and

implementation of an excellent and accessible system of programs, service, and public spaces that reflect Richmond's demographics, rich heritage, diverse needs, and unique opportunities, and that facilitate active, caring, and connected communities.

Council is committed to weaving together a strong community fabric of programs, services and infrastructure that result in a healthy, vibrant, and sustainable City. To this end, Council seeks to nurture a thriving and engaged citizenry; neighbourhoods where there is a sense of belonging and connectedness; a culture of inclusiveness, diversity and social cohesion; and programs, facilities and services that are accessible and meet the needs of the demographics of the community for today and in the future. Council seeks a City that is full of opportunities for recreation, boasts a variety of outdoor green space, reflects our rich arts and cultural communities, celebrates Richmond's unique heritage and waterfront roots, and provides meaningful opportunities for volunteerism and engagement. In addition, Council is committed to looking for ways to best address changing social service needs within its limited mandate and resources, while effectively managing the downloading of services and funding from senior levels of government. This goal seeks as an outcome, a balanced system of programs, services and infrastructure that results in an active, caring, connected and engaged community where people belong and thrive.

# Council's priorities for A Vibrant, Active and Connected City

Under the vibrant, active and connected city theme, the following priority areas emerged for the 2014-2018 term of office:

- 2.1 *Strong neighbourhoods*,
- 2.2 *Effective social service networks,*
- 2.3 Outstanding places, programs and services that support active living, wellness and a sense of belonging,
- 2.4 *Vibrant arts, culture and heritage opportunities.*

# Examples of indicators of success for A Vibrant, Active and Connected City that emerged from Council input

To track progress towards achieving a Council goal related to a vibrant active, and connected city, the following potential outcomes or "indicators of success" were identified:

# 2.1 Strong neighbourhoods:

• We have neighbourhood plans and programs that protect and enhance the sense of identity, pride and liveability in our communities and neighbourhoods.

# 2.2 Effective social service networks:

- Continued implementation of the Social Development Strategy, that articulates our role and how we work with our partners in service provision, manages expectations, and targets our limited resources in the delivery of these services.
- Completion and implementation of an updated Older Adults Service Plan that addresses services and facilities needs for active older adults, and that facilitates the development of a volunteer base to service the older adult population, as well as providing opportunities for volunteering for this population.
- Establishment of a clear definition of affordable housing priorities and subsequent utilization of affordable housing funding.
- The development of community volunteer programs and strategies that build a broad, knowledgeable and keen volunteer base, and that provide positive and meaningful opportunities for volunteers to utilize their talents while helping to provide important services to the community.
- Implementation of the Youth Service Plan to address youths' needs and build on the assets of youth in the community, while continuously monitoring to ensure we are effectively reaching and responding to youth.

# 2.3 Outstanding places, programs and services that support active living, wellness and a sense of belonging:

- Implementation of the Garden City Lands Plan.
- Completion of the Memorial Garden Project.

- Richmond's parks, open spaces, and trail system continues to be developed, connected, and activated, with additional focus on waterfront opportunities.
- Creation of new urban environments that support wellness and encourage physical activity, particularly in the City Centre area.
- The City has capitalized on waterfront opportunities including working with partners and businesses.
- Recreation opportunities continue to expand and adapt to meet the needs of the community.

## 2.4 Vibrant arts, culture and heritage opportunities:

- Existing heritage sites are activated with more activities and things to do.
- Significant progress in the implementation plans of London Farm and Britannia has been achieved.
- We have created culturally rich public spaces across Richmond through a commitment to strong urban design, investment in public art and place making.
- A variety of innovative models are being effectively utilized to promote and highlight Richmond as a City with rich heritage, diverse cultural opportunities, and an active and vibrant arts community.
- Arts initiatives continue to grow and be supported.

<u>Theme 3: A Well-Planned Community</u> - *Adhere to effective planning and growth management practices to maintain and enhance the livability, sustainability and desirability of our City and its neighbourhoods, and to ensure the results match the intentions of our policies and bylaws.* 

Richmond is changing and growing at a rapid rate, inline with the rest of the lower mainland. A significant priority for Council over the next four years is preparing for and managing this change by continuing to implement the Official Community Plan (OCP) and make decisions around growth and development with the community in mind. Council is sensitive to the community's perception of the City's growth rate. To this end, Council would like to ensure communication regarding the OCP and its implementation is clear and ongoing with the community, and that developments, when completed do in fact reflect the intent of the City's policies and bylaws. Land Use Contracts (LUCs) are also an area of concern for many and Council has reiterated their desire to remove existing LUCs as a priority. Council would like to enhance the physical design of Richmond to build an attractive physical landscape, with ample visible green space in the urban core. Transportation affects everyone, and increasing livability by dealing with congestion issues through a transportation plan is a priority for Council. Looking at housing options in Richmond, Council would like to increase the variety of options by diversifying housing stock to increase accessibility for all housing needs. Planning our communities takes careful consideration of current and future needs and is a top priority for Council over this term of office.

# Priorities that emerged for A Well-Planned Community

Under the well-planned community theme, the following priority areas emerged for the 2014-2018 term of office:

- 3.1 Growth and development that reflects the OCP, and related policies and bylaws
- 3.2 *A strong emphasis on physical and urban design,*
- 3.3 *Effective transportation and mobility networks*,
- 3.4 *Diversity of housing stock.*

Examples of indicators of success for A Well-Planned Community that emerged from Council input

To track progress towards achieving a Council goal related to a well-planned community, the following potential outcomes or "indicators of success" were identified:

3.1 Growth and development that reflects the OCP and related policies and bylaws:

• Development results accurately reflect the intentions of our zoning, bylaws and policies.

# 3.2 *A strong emphasis on physical and urban design:*

• The physical design of the City is enhanced, including attractive development and increased ground-level urban green space, especially in the City Centre area.

# 3.3 *Effective transportation and mobility networks*:

• Traffic in Richmond is effectively managed with livability and convenient access in mind, especially around newly densified areas.

3.4 Diversity of housing stock:

• Creative opportunities to increase accessible housing options are identified and increased through working with other agencies and developers.

<u>Theme 4: Leadership in Sustainability</u> - Continue advancement of the City's sustainability framework and initiatives to improve the short and long term livability of our City, and that maintain Richmond's position as a leader sustainable programs, practices and innovations.

Celebrating and building on leading practices in sustainability, Council continues to view leadership in this area as a high priority. Sustainability is considered an overall approach to business within the City, not just a term goal area. Advancing green and sustainable initiatives is very important to Council, who also has a keen interest in combating and preparing for climate change. Continuing to build on the City's sustainability framework, Richmond aims to be a climate prepared City with sustainable resource use, a green-built and natural environment, local agriculture and food, and a leader in sustainable businesses and municipal government.

# Council's priorities for Leadership in Sustainability

Under the leadership in sustainability theme, the following priority areas emerged for the 2014-2018 term of office:

- 4.1 *Continued implementation of the sustainability framework*
- 4.2 Innovative projects and initiatives to advance sustainability.

Examples of indicators of success for Leadership in Sustainability that emerged from Council input

To track progress towards achieving a Council goal related to leadership in sustainability, the following potential outcomes or "indicators of success" were identified:

4.1 *Continued implementation of the sustainability framework:* 

• Continued implementation and significant progress towards achieving the City's Sustainability Framework and associated targets.

# 4.2 Innovative projects and initiatives to advance sustainability:

• Richmond's prominence as a leader in sustainability is enhanced through creative initiatives, innovative projects, and new models of business.

<u>Theme 5: Partnerships and Collaboration</u> - *Continue development and utilization of collaborative approaches and partnerships with intergovernmental and other agencies to help meet the needs of the Richmond community.* 

Council understands the important role that strategic partnerships and intergovernmental relationships play in delivering effective City services and achieving our goals and aspirations. Issues such as the downloading of services and funding by senior levels of government, a fusion of interests of other intergovernmental agencies and business partners, and changing legislation in general that impacts all layers of City business - from social services to transportation to community safety - make it essential to collaborate and enhance strategic relationships. Richmond believes that working with partners and other organizations helps us to better deliver services, improve our City's livability and raise the economic value most effectively.

# Council's priorities for Partnerships and Collaboration

Under the partnerships and collaboration theme, the following priority areas emerged for the 2014-2018 term of office:

- 5.1 Advancement of City priorities through strong intergovernmental relationships,
- 5.2 Strengthened strategic partnerships that help advance City priorities.

Examples of indicators of success for Partnerships and Collaboration that emerged from Council input

To track progress towards achieving a Council goal relating to partnerships and collaboration, the following potential outcomes or "indicators of success" were identified:

5.1 Advancement of City priorities through strong intergovernmental relationships:

- Strengthened relationships, protocols, and partnerships that promote collaboration and help make effective use of resources.
- Successful securing of joint funding opportunities for community projects and initiatives.

5.2 Strengthened strategic partnerships that help advance City priorities:

• Richmond is nurturing and leveraging productive working relationships with key players in Richmond business and beyond to achieve mutually beneficial goals that improve the City's livability and enhance the local economy.

**Theme 6: Quality Infrastructure Networks** - Continue diligence towards the development of infrastructure networks that are safe, sustainable, and address the challenges associated with aging systems, population growth, and environmental impact.

Municipal infrastructure is essential to the health, safety, mobility, economy, and quality of life of Richmond's residents, businesses, and visitors. As one of the City's core responsibilities, ensuring our physical infrastructure is safe, well-maintained and meeting current and future demand is of the utmost importance to Council. The maintenance of road, drain, sewer, and dike networks is essential, and maintaining these networks is increasingly challenging due to growing and changing capacity issues, climate change, and environmental needs. In addition, community facilities and amenity needs are on Council's mind, as existing community facilities are aging, and a growing and changing community is creating new demands. Balancing the needs of aging infrastructure, with the creation of new needs associated with growth, combined with the infrastructure challenges associated with climate change and new construction standards and practices requires a responsible, prioritized and resourced plan of action to ensure the City's infrastructure is safe, well maintained, resilient and meeting the needs of our growing and changing community.

Priorities that emerged for Quality Infrastructure Networks

Under the quality infrastructure networks theme, the following priority areas emerged for the 2014-2018 term of office:

- 6.1 Safe and sustainable infrastructure,
- 6.2 *Infrastructure is reflective of and keeping pace with, community need.*

# Examples of indicators of success for Quality Infrastructure Networks that emerged from Council input

To track progress towards achieving a Council goal related to quality infrastructure networks, the following potential outcomes or "indicators of success" were identified:

# 6.1 Safe and sustainable infrastructure:

- Continued and improved funding for aging infrastructure replacement programs at a pace that matches long-term infrastructure deterioration.
- The City's infrastructure is well maintained, effective, and resilient to climate change and environmental impacts.
- Continued and improved support of long-term dike master planning to meet the challenges of sea level rise due to climate change.
- Improved drainage network and pump station capacity to meet the challenges of predicted increasing storm intensity due to climate change.

# 6.2. Infrastructure is reflective of and keeping pace with, community need:

- The Richmond Fire-Rescue fire hall upgrade program has been completed.
- We have an updated comprehensive facilities plan.
- Provision of community amenities is keeping pace with growth and demographic changes, particularly in the City Centre area.

<u>Theme 7: Strong Financial Stewardship</u> - Maintain the City's strong financial position through effective budget processes, the efficient and effective use of financial resources, and the prudent leveraging of economic and financial opportunities to increase current and long-term financial sustainability.

The municipal government agenda is dynamic, multifaceted and broad in scope. Balancing the funding requirements associated with this agenda - growth, urbanization, aging infrastructure, increasing service needs and expectations from taxpayers, changing demographics, and rising external costs including senior government downloading - is a complex task. With limited resources, Council is keenly sensitive to the need for effective stewardship of taxpayers' dollars, and recognizes that ongoing diligence towards the efficient and effective use of these limited resources must be at the core of all City business.

# Priorities that emerged for Strong Financial Stewardship

Under the strong financial stewardship theme, the following priority areas emerged for the 2014-2018 term of office:

- 7.1 *Relevant and effective budget processes and policies,*
- 7.2 *Well-informed and sustainable financial decision making,*

- 7.3 Transparent financial decisions that are appropriately communicated to the public,
- 7.4 Strategic financial opportunities are optimized.

Examples of indicators of success for Strong Financial Stewardship that emerged from Council input

To track progress towards achieving a Council goal related to strong financial stewardship, the following potential outcomes or "indicators of success" were identified:

# 7.1 Relevant and effective budget processes and policies:

• Financial processes are reviewed and streamlined to ensure policies are effective and appropriate

# 7.2 Well-informed and sustainable financial decision making:

- Council and respective committees are well-informed in a timely fashion throughout budget and financial decision making processes.
- Richmond's Long Term Financial Management Strategy (LTFMS) is updated to ensure relevancy and representation of needs relative to growth, aging infrastructure, changing demographics, economic realities and opportunities, and other City strategies.
- 7.3 Transparent financial decisions that are appropriately communicated to the public:
  - Public information regarding financial decision making and priorities in the City is timely, accessible, understandable, and communicated through a wide range of media.

# 7.4 Strategic financial opportunities are optimized:

• The City has seized strategic opportunities to enhance the financial and economic health of the City over the long-term including grants, a strategic land program, and strategic borrowing and investing strategies.

<u>Theme 8: Supportive Economic Development Environment</u> - *Review, develop and implement plans, policies, programs and practices to increase business and visitor appeal and promote local economic growth and resiliency.* 

Council is keenly aware of the important role economic development plays in the well-being and financial sustainability of the City. Businesses in Richmond are pivotal to the success of our community and a variety of methods must be employed to support, protect and enhance our business community. Ensuring our businesses have space to grow, determining appropriate taxation levels, protecting our agricultural viability, exploring innovative business models for the future, and ensuring an effective and productive relationship with our business communities are all on Council's mind. Council is interested in exploring large scale events and creative attractions that bring people to the City and raise the profile of opportunities in the community. Through sport hosting, exploring opportunities in film, large-scale community events, and creative, redefined ways of conducting business, Richmond's economy will continue to grow and thrive.

# Priorities that emerged for a Supportive Economic Development Environment

Under the supportive economic development environment theme, the following priority areas emerged for the 2014-2018 term of office:

- 8.1 *Richmond's policies, programs, and processes are business-friendly*
- 8.2 *Opportunities for economic growth and development are enhanced*

Examples of indicators of success for a Supportive Economic Development Environment that emerged from Council input

To track progress towards achieving a Council goal related to a supportive economic development environment, the following potential outcomes or "indicators of success" were identified:

## 8.1 Richmond's policies, programs, and processes are business-friendly:

- City Hall is open for business through improved services and processes.
- Business taxation and development costs are competitive within the Lower Mainland and are attractive for businesses to locate and stay in Richmond

## 8.2 Opportunities for economic development are enhanced:

- City programs effectively and efficiently link business to economic development opportunities.
- City policies and regulations related to employment lands (agricultural, industrial, commercial and office) ensure businesses in strategic sectors have adequate space to locate and grow.
- The City's land inventory and strategy is being utilized strategically to capture unique economic development opportunities.
- Working cooperatively with Tourism and our community partners, there are expanded visitor attraction efforts enhancing the City's appeal as a destination with attractions for locals, visitors, and tourists.

<u>Theme 9: A Well-Informed Citizenry</u> - Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making.

Council views communication and transparency with the public as a top priority. Though a lot is being done already, Council continues to view the need for an open, responsive, accountable and transparent government as essential. Council understands that growth and change can cause anxiety when the public is not well-informed. Council wants to ensure information about growth, plans, financial decisions, and progress towards Council Term Goals is available through many mediums and is easily accessible, understandable and available to citizens. Equally important is

the opportunity for the community to be engaged in various levels of dialogue and decisions with the City. Council would like to see an increase in community engagement for all ages and segments of the community to ensure everyone has a voice and is involved in building a better Richmond together.

# Council's priorities for A Well-Informed Citizenry

Under the well-informed citizenry theme, the following priority areas emerged for the 2014-2018 term of office:

- 9.1 Understandable, timely, easily accessible public communication,
- 9.2 *Effective engagement strategies and tools.*

# Examples of indicators of success for A Well-Informed Citizenry that emerged from Council input

To track progress towards achieving a Council goal related to a well-informed citizenry, the following potential outcomes or "indicators of success" were identified:

- 9.1 Understandable, timely, easily accessible public communication:
  - The public is well-informed through the effective use of various communication tools that reach diverse populations, in a timely and accessible fashion.

# 9.2 Effective engagement strategies and tools:

• An effective engagement strategy is utilized to ensure opportunity for input and involvement for all ages and segments of the population.

The above information summarizes the goal related input provided from Council members for consideration in determining a set of Council Term Goals for 2014-2018. Based on Council input, and in accordance with appropriate protocol, this report has been prepared to facilitate Council discussion at a public meeting, in order for Council to provide direction to staff in regard to what they wish to adopt as their Council Term Goals for this term of office. While the above information has been presented as "themes" rather than as goals so as to not appear presumptuous before Council has had the opportunity to discuss and debate them, Council may choose to adopt the above themes and related priorities for their goals, or modify them accordingly based on the outcome of their discussions.

# **Financial Impact**

There is no financial impact to this report. Any actions requiring funding or resources related to Council Term Goals will be brought forward as part of the normal approval process.

# Conclusion

This report seeks Council's direction for the adoption of a set of common Council Term Goals to help guide City work programs during this four-year term of office. Once Council Term Goals

have been established, work programs will be developed to align and focus organizational efforts accordingly.

Council Term Goals will be monitored and reviewed on an ongoing basis to track progress. It is intended that these goals be reviewed with Council at least annually, and adjusted as required to ensure they remain relevant in light of changing community, organizational, and political priorities.

Cl. 80.

Claire Adamson Program Manager (604-247-4482) CA:ca

#### Summary of Additional Input Received During the Information Gathering Process for Council Term Goals for 2014-2018

The following items were specific topics identified for during the Council Term Goals information gathering process that helped inform the formation of the nine themes contained in this report.

#### Items related to theme 1: A Safe Community

- Completion of a strategic review of the City's community policing needs, including community policing needs of the City Centre.
- Completion of a review of the various policing models available to ensure that the best model is in place to meet City needs and priorities.
- Strengthen the working relationship with the RCMP's E-Division.
- Ensure services match changing community demographic needs.
- Improve clarity of roles between Richmond Fire Rescue and the BC Ambulance to ensure response times and services are as efficient as possible.
- Explore new community safety programs with our citizens through programs like Block Watch and Community Policing.
- Investigate expanding the scope of community policing.
- Continue progress in the cultural transformation of the Richmond Fire Department.

## Items related to theme 2: A Vibrant, Active, and Connected City

- Develop a new museum strategy, considering new, innovative models for museums and heritage sites. As part of this strategy, revisit the central museum concept as a priority once Britannia and other sites are made more vibrant and interactive.
- Promote existing cultural resources and activities to increase public awareness, enhance quality of place and engage citizens across generations.
- Consider uniting arts groups under one umbrella to promote the arts more effectively.
- Leverage partnerships for program opportunities and marketing/communications.
- Place greater emphasis on the Maritime theme in events.
- Clarify the City's role with respect to providing or facilitating the securing of space for non-profit groups.
- Maintain a continuously updated catalogue of affordable housing projects coming on stream for easy reference.
- Reduce barriers to living a physically active life for vulnerable populations and people living with a disability.
- Investigate, and if appropriate, develop a proper homeless shelter.
- Enhance boating and sailing skill development opportunities.

- Connect Terra Nova Slough to the Fraser River and stock it with Chum Salmon.
- Consider day-lighting more sloughs in the City.
- Dredge and/or fill Lot H for waterfront facility use.
- Explore opportunities to link parks and recreation more closely with economic development by providing services such as an RV park or boat moorage, etc.
- Investigate the feasibility of developing an entertainment zone (nightclubs, lounges, etc.)
   places that stay open later that keep young adults here in Richmond.
- Work with the Library on implementation of their Library Strategic and Long Term Plan.

## Items related to theme 3: A Well-Planned Community

- Continue to implement the OCP and ensure development is in keeping with this policy.
- Prioritize elimination of Land Use Contracts.
- Focus development primarily on downtown core as is planned, rather than in the neighbourhoods where it might be easier to do.
- Ensure our bylaws, policies, plans and zoning successfully reinforce and result in our intention for neighbourhoods and other areas.
- Consider appointing a work-group to ensure the effective coordination and delivery of the various community improvement projects taking place in Steveston.
- Evaluate policies such as housing options in light of growth and change driven by federal immigration.
- Ensure the City's planning takes into account the potential for changes in circumstances internationally that may create a sudden influx into currently vacant condos.
- Monitor demographic moves and changes to ensure plans accurately reflect assumptions and meet actual needs.
- Influence the physical design of our City where possible to improve overall appearance of built environment.
- Increase ground-level green space in the City Centre.
- Ensure the timely implementation of TransLink's Richmond Area Transit Plan.
- Ensure liveability is not compromised through traffic congestion.
- Develop and implement a transportation plan to address concerns around congestion and densification including exploring LRT down the Railway corridor as an option.
- Review the adequacy of developers' contributions towards affordable housing, public art and public amenities.
- Explore creative ways to address affordable housing options for older adults, first time buyers, and low-income families.
- Encourage rental development of a variety of accessible housing options including small, low-rent units.

Items related to theme 4: Leaders in Sustainability

- Communicate the City's sustainability goals to the public with details on how the City is meeting (or exceeding) these goals and how they support provincial goals.
- Continue to advocate for a coordinated regional approach to enhance local food security for Richmond and the region through policy development and initiatives such as community farms.
- Review opportunities for increasing sustainable development requirements for all new developments, including consideration of increasing requirements for sustainable roof treatments (e.g. rooftop gardens, solar panels, etc.) and energy security (e.g. use of local renewable energy sources, use of district energy systems, etc.).
- Explore more opportunities in the future for special initiatives such as District Energy Utility (DEUs).
- Adapt plans and infrastructure to address issues and prevention related to climate change (e.g. Steveston sea berms).

# Items related to theme 5: Partnerships and Collaboration

- Continue to develop collaborative working relationships with our other government and/or economic development partners.
- Strengthen our presence in Victoria and Ottawa, building stronger personal relationships, particularly at the staff level, in order to be a recognizable face and to be ready to seize funding and other opportunities as they arise.
- Continue to vigorously pursue joint funding opportunities between ourselves and federal and provincial governments for capital projects.
- Mitigate effects of government downloading of social services through strategic discussion and ongoing dialogue with the City's MLAs and MPs to ensure better representation of Richmond's needs in Victoria and Ottawa.
- In light of the changing business landscape in Richmond, assess the effectiveness of the City's relationship and working model with the Richmond Chamber of Commerce.
- Explore opportunities for international companies relocating to Canada to move to Richmond. Increase attraction by working with other levels of government.
- Develop an enhanced and more effective working relationship and collaborate on economic initiatives with YVR and Port Metro Vancouver (PMV).
- Through the Mayor's office, develop protocols, role definitions and communication approaches with our Friendship and Sister Cities.
- Utilize Richmond Community Services Advisory Committee (RCSAC) as a greater resource.
- Find ways to have more collaborative working relationships with our other government partners.



#### Items related to theme 6: Quality Infrastructure Networks

- Explore creative models for facility development by combining amenities such as seniors housing with community centres.
- Continue to develop and implement a strategy for the replacement of the animal shelter.
- Explore partnerships and opportunities for new cultural infrastructure including a new Richmond museum, performance venues, and affordable creation spaces.

#### Items related to theme 7: Strong Financial Stewardship

- Include Council in the departmental budget process before the budgets go to their respective committees in November.
- Review financial policies to ensure they are working and effective.
- Assess the practice of conducting job position reviews for its effectiveness and function.
- Consider performance-based budgeting.
- Where appropriate, consider borrowing to take advantage of the current low interest rates resulting in significant long term financial benefits for the City.
- Investigate opportunities to maximize investment returns while remaining fiscally responsible.
- Develop and implement an aggressive land strategy that addresses:
  - o replacement land for businesses and industry,
  - o land acquisition for future needs and for strategic purposes,
  - o protection of waterfront land and water lots for public benefit, and
  - o optimizing financial returns on the City's land inventory.

#### Items related to theme 8: Supportive Economic Development Environment

- Increase the focus on business retention.
- Review current tax incentives, such as Brighouse Taxation Legislation, as well as joint business licensing with other cities, as tools to attract or retain business.
- Review land use policies and regulations to ensure availability of space for business in strategic sectors, such as agriculture, transportation and logistics, technology and tourism.
- Promote Richmond to businesses we want to attract as a great place to locate.
- Ensure City policies are in alignment with attracting a skilled workforce.
- Review the City's Land Strategy and inventory for economic development opportunities.
- Investigate flexible land use policies that can adapt to new emerging business models.

- Seek and consider input from Richmond Economic Advisory Committee as part of the City's process in working with Tourism Richmond, the Richmond Chamber of Commerce, and the Asian business community.
- Continue to build on and support sub-sectors of the Richmond economy, such as filming, sport hosting and events.
- Develop an integrated strategy for the Steveston Waterfront that blends business and public interests in a manner that allows for continued sustainable development in this area. Specifically, work with the Steveston Harbour Authority and other levels of government to ensure land use, harbour improvements, and other economic development opportunities are integrated and implemented.
- Continue working with Tourism Richmond on the current framework for tourism in Richmond that broadens the City's focus and role, including utilizing the hotel tax to fund major attractions and/or large scale events to help draw people to the City.

## Items related to theme 9: Well-informed Citizenry

- Use the City's website and other communication tools to inform, communicate with, and regularly update the community on Council's Term Goals, priorities, progress, and decisions with an opportunity for input and engagement.
- Ensure the public is well-informed on the long-term vision and plan for growth in the City.
- Use social media and effective communications with diverse populations.
- Ensure effective processes to promote civic engagement and input into the plans and decisions being considered by Council.
- Develop a young adult engagement strategy that provides meaningful opportunities for young adults (age 19-29 years) to be involved in the community.



Report to Committee

Planning and Development Division

- To: Planning Committee
  From: Wayne Craig
- Director of Development

Date: May 11, 2015 File: RZ 13-630280

Re: Application by Steveston No. 6 LP for Rezoning at 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from Entertainment & Athletics (CEA), Light Industrial (IL) and Agriculture (AG1) Zoning to Light Industrial and Limited Accessory Retail – Riverport (ZI12)

#### Staff Recommendation

- That Official Community Plan Amendment Bylaw 9210, to redesignate 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Commercial" and "Industrial" to "Mixed Employment" in Attachment 1 to Schedule 1 of Official Community Plan Bylaw 9000, be introduced and given first reading.
- 2. That Bylaw 9210, having been considered in conjunction with:
  - the City's Financial Plan and Capital Program;
  - the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act.

- 3. That Bylaw 9210, having been considered in accordance with Official Community Plan Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.
- 4. That Richmond Zoning Bylaw 8500, Amendment Bylaw 9211 to create the "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zone, and to rezone 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Entertainment & Athletics (CEA)", "Light Industrial (IL)" and "Agriculture (AG1)" to "Light Industrial and Limited Accessory Retail – Riverport (ZI12)", be introduced and given first reading.

5. That the public hearing notification be expanded to include all properties in the area shown on the map contained in Attachment J to the staff report dated May 11, 2015 from the Director of Development.

Wayne Qraig

Director of Development

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# Staff Report

# Origin

At the February 17, 2015 Planning Committee meeting, the following referral was made to staff:

That the staff report titled Application by Steveston No. 6 LP for Rezoning at 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway from Entertainment & Athletics (CEA), Light Industrial (IL) and Agriculture (AG1) Zoning to Light Industrial and Limited Accessory Retail – Riverport (ZI12), dated February 5, 2015, from the Director, Development, be referred back to staff to examine:

- (1) potential port-related uses for the site through discussion with Port Metro Vancouver;
- (2) the impact of the proposed development on traffic congestion in the area;
- (3) the feasibility of adding a solar roof; and
- (4) the expansion of the notification area;

This report responds to the above referral and forwards the proposed rezoning application to Council for consideration.

# **Findings of Fact**

For references purposes, please see the following attachments to this report:

- Attachment A Location Map and Air Photo
- Attachment B Copy of Staff Report Reviewed at February 17, 2015 Planning Committee

Note: All information contained in the staff report reviewed at the February 17, 2015 Planning Committee meeting remains pertinent to this rezoning application, except where noted in this report.

- Attachment C Development Applications Data Sheet
- Attachment D Preliminary Site and Landscape Plans

## **Surrounding Development**

To the North:	A property in the Agricultural Land Reserve (ALR), zoned "Agriculture (AG1)" that contains a single-family dwelling.
To the East:	Across No. 6 Road properties zoned "Entertainment & Athletics (CEA)" that contain a movie theatre complex, hotel and the Richmond Ice Centre.
To the South:	Across No. 6 Road a property zoned "Light Industrial (IL)" that is owned by Port Metro Vancouver.
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To the West: A property in the ALR zoned "Agriculture (AG1)" that contains a single-family dwelling.

#### **Responses to Planning Committee Referrals**

#### Potential Port-Related Uses for the Site Through Discussion with Port Metro Vancouver

City staff forwarded the Planning Committee referral in conjunction with the proposed rezoning application report to Port Metro Vancouver (PMV) staff with a request for comment based on the direction by Planning Committee. PMV provided a letter in response (Attachment E). These comments have been reviewed by the applicant who have provided a letter in response (Attachment F). A general summary of PMV staff comments on the rezoning application is below, with applicant (Ledcor) responses highlighted in *bold italics*:

- PMV concerns over the general loss of industrial land across the Metro Vancouver region and limited inventory of market ready industrial land. *The applicant notes that the rezoning application facilitates the creation of 14 acres of proposed light industrial land that would add to this land base across the region and help bring to market industrial land to meet current and future market demands.*
- PMV support for the preservation of industrial lands of all types and particularly supportive of trade related and logistics uses for lands that have good access and close to existing industrial areas. PMV also notes that the proposed development may be better suited to larger format trade-related industrial and logistics uses.
   The applicant stresses that the proposed rezoning will create light industrial zoned land that is capable of providing space for a wide-variety of users, including trade related and logistics, of which market conditions would be a key factor in determining the end user.
- PMV support land use regulations that would maximize industrial development potential on the site and have concerns about the proposed accessory retail component in Ledcor's rezoning application as it reduces the amount of building area that could be allocated to industrial use.

The applicant notes that the proposal to include a limited amount of accessory retail was based on market research and consultation with the real estate community. Proposed zoning regulations restrict total amount of accessory retail to 2,350 sq. m or 25,295 sq. ft. with an accessory retail unit restricted to a floor area that is the lesser of either 10% area of the industrial unit to a maximum of 186 sq. m or 2,000 sq. ft. Industrial land uses will be the primary use of all businesses with a number of development restrictions that limit the floor area and configuration of accessory retail space. The applicant identifies that the limited accessory retail component may not be utilized by all industrial operations, but should be desirable to potential users and local businesses.

The applicant's and City staff's opinion is that the proposed industrial zoning for the site meets many of the stated PMV objectives in the letter, while also accommodating potential broader light industrial market needs in Richmond, which they have identified through market research.

In addition to the applicant's responses to PMV comments, Ledcor also submits the additional rationale in support of their development:

- Maintaining economic viability of the proposed industrial development through implementation of zoning that is flexible and able to react to future market conditions and user needs is critical in the applicant's development, as supported by the applicant's market research.
- The applicant's opinion that the proposed industrial development could result in higher job generation when compared to traditional trade-related industrial/warehouse uses and will provide industrial space where businesses can relocate, expand or downsize within Richmond.

City staff also discussed with the applicant (Ledcor) and PMV staff about each other's position regarding the potential acquisition or use of the site by PMV.

- Ledcor's Response During the rezoning process, the applicant had discussed with the Port to further understand their plans for the recently acquired Fraser Wharves site (across Steveston Highway from the applicant's development site) and potential impacts to their proposed light industrial development. At that time, the applicant understood that the Port did not have an interest in this site. If the Port's position has changed, the applicant's opinion is that the proposed zoning would allow for a range of complementary Port uses, including trade-related industrial/warehouse uses, if deemed viable by the market.
- PMV Response The Port is always interested in looking at opportunities for industrial land in close proximity to existing PMV land; however, were not aware of the Ledcor site being immediately available for purchase as they understood that the applicant had existing development plans. Currently, PMV cannot confirm if they would be in a position to acquire the Ledcor site as detailed review, analysis and due diligence needs to be completed before the Port is able to advise of their preference to purchase or not. PMV staff advises that they have not conducted their due diligence process.

The applicant emphasizes that although there has been limited interest in the development site by the Port to date, the applicant would be open to considering market viable Port supporting uses in the development.

Through the consideration of this rezoning application, City staff highlight that the proposal will increase the supply of industrial land in the City and that the proposed redesignation from "Commercial" to "Mixed Employment" in the 2041 Official Community Plan will benefit industrial development in the City. Furthermore, Council consideration of this rezoning application now does not preclude continued discussion between the applicant and PMV about potential land acquisition or lease opportunities.

# The Impact of the Proposed Development on Traffic Congestion in the Area

The applicant submitted an additional report (Attachment G) from their transportation consultant (Bunt & Associates) that addresses the questions raised at Planning Committee. Specifically, the report addresses the existing traffic congestion in the area and related traffic volumes based on these land uses and the resulting impact of the industrial uses proposed in this rezoning.

The key findings and recommendations of the supplemental report are summarized as follows:

- Potential traffic generation from the proposed light industrial development is anticipated to be lower compared to the office and entertainment/recreational uses permitted in the current zone (Entertainment and Athletics CEA) on the subject site. The report finds that during the highest peak traffic periods, the proposed development would generate approximately 33% of the traffic compared to the office and approximately 80% of traffic compared to entertainment/recreational use permitted in the exiting "Entertainment and Athletics (CEA)" zoning. Also, the proposed development is anticipated to generate little traffic during the weekday evening and Saturday midday periods when the adjacent Riverport entertainment and recreation facilities experiences the highest amount of traffic.
- In regards to impacts on the Steveston Highway overpass crossing of Highway 99, the traffic consultant has identified that the potential traffic generated from the proposed industrial development on the subject site can generally be accommodated within the existing capacity available on the area road system, particularly after the overpass is upgraded as part of the Massey Tunnel replacement project. MoTI staff have noted that there would be considerable traffic control management measures in place on this section of Steveston Highway as part of the Tunnel replacement project to assist the movement of existing traffic as well as the additional 1-2 vehicles per minute generated by the proposed industrial development.
- The report also addresses the potential for additional road connections south of Steveston Highway (i.e., via extension of Rice Mill Road) to improve traffic conditions to the proposed development and surrounding area. The report finds that this scenario is not feasible due to existing ownership and the requirement for the potential road extension to pass through lands within the Agricultural Land Reserve and Environmentally Sensitive Areas. Furthermore, such a road connection would divert traffic to the No. 5 Road/Steveston Highway intersection, which is already congested during peak period, and thus not a desirable option.

Transportation staff reviewed the proposed package of transportation related works and upgrades, including the widening of Steveston Highway (identified in the original report considered by Planning Committee) to determine if any additional transportation related upgrades are necessary. Based on this review, there is no technical rationale to require additional works or upgrades in order to accommodate the traffic generated by the proposed development.

In summary, the traffic consultant report confirms that the anticipated traffic generation from the applicant's proposed light industrial development is less compared to potential traffic generation for existing office and entertainment/recreational uses already permitted in the existing zone. Traffic volume generation for the proposed light industrial development will be minimal on weekday evenings and weekend midday periods, which is during the typical high traffic volumes experienced at the existing Riverport entertainment/recreational facilities.

## The Feasibility of Adding a Solar Roof

The developer has reviewed the feasibility of incorporating solar photovoltaic (PV) installations into the proposed development to provide an alternative energy source. Based on research conducted by the developer and their energy consultant, implementing solar PV installations is

not feasible on a scale that would enable the entire development to be independently powered by solar PV.

However, the developer has identified an opportunity to incorporate solar PV on a limited scale for the site. The applicant's energy consultant has recommended a solar PV system designed to provide power to all of the development site's exterior lighting needs (anticipated to be approximately 16 kilowatts of power). The preliminary solar PV design will consist of:

- Roof-top mounted panel array and battery system; and
- Stand-alone light standards (i.e., for illumination in parking lots) that would contain a solar panel, battery unit and energy efficient light source.
- Installation of pre-ducting throughout the entire development to enable expansion of the solar PV system in the future.

Attachment H contains a summary letter of the applicant's solar PV commitment as part of this development. The applicant advises that they are not able to implement a solar PV system over the entire development at this time as their energy consultant has noted it is not an economically viable energy system at this time. Other primary challenges to solar PV implementation noted by the applicant are that the overall anticipated power needs of the development are unknown at this time as no industrial tenants have been secured and final building design has not been determined, which are key factors in energy consumption for the site. In response to these challenges, the applicant is proposing a solar PV system capable of providing energy to meet all exterior lighting needs for the development and also pre-ducting of all buildings in the development to enable expansion of the system in future.

The percentage of total energy use for the development that the proposed solar PV system represents is not known at this time given the wide range of power demands that are dependent on the energy needs of the industrial user and final building design. Implementation of a solar PV system to power exterior lighting needs does represent a positive step in sustainability and would provide valuable case-study information for potential future implementation on other projects. Should Council wish to see additional solar PV on-site, further discussion with the applicant would be required, including further information on the proposed building design and potential tenant.

To secure implementation of the solar PV installation as part of the development, a legal agreement will be required to be registered on title of the consolidated site that will require installation of the proposed system prior to building occupancy for the site. A copy of the revised rezoning considerations including the solar PV legal agreement is contained in Attachment I.

# The Expansion of the Notification Area

Based on Planning Committee's comments, staff propose that the public notification area be expanded to include all properties bounded by Highway 99 to the west, Williams Road (allowance) to the north and the Fraser River to the east and south of the subject site and was determined by staff as an appropriate area to undertake notification based on the potential impact of the light industrial development on the surrounding areas. A map of the proposed notification area is contained in Attachment J.

# Conclusion

In response to Planning Committee's February 17, 2015 referral, staff have worked with the applicant to liaise with PMV to obtain feedback on the light industrial development proposal, undertake a supplemental study of traffic impacts and design a limited capacity solar PV system as part of the development. Staff are also recommending that the public hearing notification area be expanded as outlined in this staff report.

This application proposes to create a new "Light Industrial and Limited Accessory Retail (ZI12)" zoning district and rezone the consolidated 14.3 acre (57,880 sq. m) site to this new zone to allow for the development of a light industrial business park that would also permit limited accessory retail activities. Concurrent with this rezoning application, an amendment to the 2041 OCP is required to designate the site from "Industrial" and "Commercial" to "Mixed Employment".

It is recommended that Richmond 2041 Official Community Plan Amendment Bylaw 9210 and Zoning Bylaw 8500, Amendment Bylaw 9211 be introduced and given first reading.

Kevin Eng

Planner 2

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Attachment A: Location Map

Attachment B: Staff Report Considered at February 17, 2015 Planning Committee

Attachment C: Development Application Data Sheet

Attachment D: Preliminary Site and Landscape Plans

Attachment E: Port Metro Vancouver Response Letter

Attachment F: Ledcor Response Letter – Port Metro Vancouver Comments

Attachment G: Supplemental Traffic Report

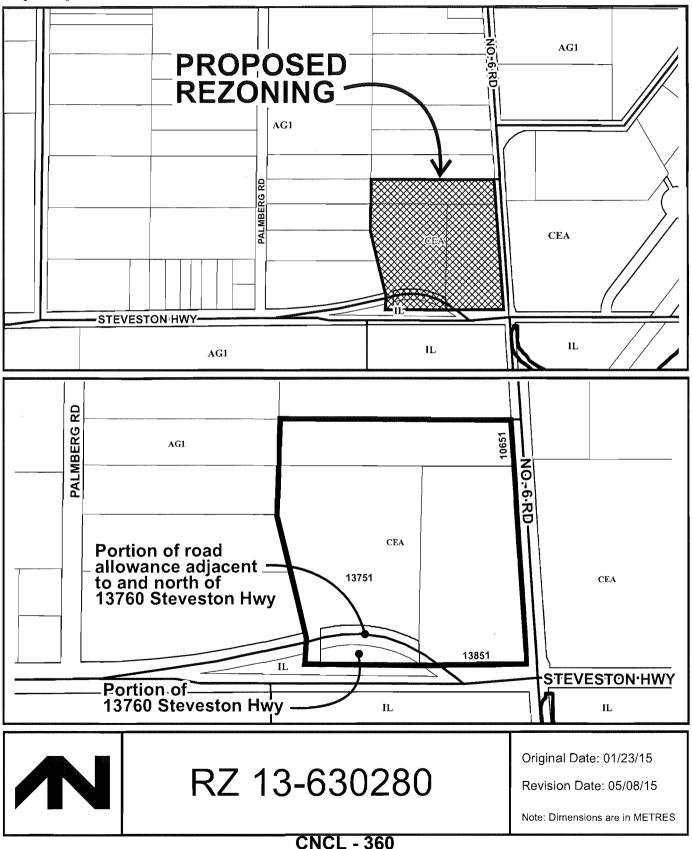
Attachment H: Ledcor Response Letter - Proposed Solar Photovoltaic Installation

Attachment I: Revised Rezoning Considerations

Attachment J: Proposed Expanded Public Hearing Notification Area

# ATTACHMENT A







# City of Richmond



Revision Date 01/27/15

Note: Dimensions are in METRES

## ATTACHMENT B



Referred back to staff.

**Report to Committee** Planning and Development Department To PLN - Fub (7, 20/5

То:	Planning Committee
From:	Wayne Craig Director of Development

Date: February 5, 2015

RZ 13-630280 File: 12-8060-20-009210/009211

Re: Application by Steveston No. 6 LP for Rezoning at 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway from Entertainment & Athletics (CEA), Light Industrial (IL) and Agriculture (AG1) Zoning to Light Industrial and Limited Accessory Retail – Riverport (ZI12)

#### **Staff Recommendation**

- That Richmond 2041 Official Community Plan Amendment Bylaw 9210, to redesignate 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Commercial" and "Industrial" to "Mixed Employment" in Attachment 1 to Schedule 1 of Richmond 2041 Official Community Plan Bylaw 9000, be introduced and given first reading.
- 2. That Bylaw 9210, having been considered in conjunction with:
  - the City's Financial Plan and Capital Program;
  - the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act.

3. That Bylaw 9210, having been considered in accordance with OCP Bylaw Preparation Consultation Policy 5043, is hereby found not to require further consultation.

4. That Richmond Zoning Bylaw 8500, Amendment Bylaw 9211 to create the "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zone, and to rezone 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and north of 13760 Steveston Highway from "Entertainment & Athletics (CEA)", "Light Industrial (IL)" and "Agriculture (AG1)" to "Light Industrial and Limited Accessory Retail – Riverport (ZI12)", be introduced and given first reading.

Wayne Craig Director of Development

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#### Staff Report

#### Origin

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Steveston No. 6 LP has applied to the City of Richmond for permission to rezone 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the road allowance adjacent to and north of 13760 Steveston Highway from "Entertainment & Athletics (CEA)", "Light Industrial (IL)" and "Agriculture (AG1)" to a new proposed "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zoning district in order to permit the development of a light industrial business park. This project also includes a proposal to permit limited accessory retail activities that are linked to the industrial businesses on the site (Attachment 1 – Location Map).

The proposed development includes the acquisition of City land (A portion of 13760 Steveston Highway and a portion of the road allowance adjacent to and north of 13760 Steveston Highway) on the Steveston Highway frontage of the subject site. Additional information on the land acquisition is contained in the Financial Impact section of this report.

#### Findings of Fact

A Development Application Data Sheet providing details about the development proposal is contained in Attachment 2.

#### Surrounding Development

- To the North: A property in the Agricultural Land Reserve (ALR), zoned "Agriculture (AG1)" that contains a single-family dwelling.
- To the East: Across No. 6 Road properties zoned "Entertainment & Athletics (CEA)" that contain a movie theatre complex, hotel and the Richmond Ice Centre.
- To the South: Across No. 6 Road a property zoned "Light Industrial (IL)" that is owned by Port Metro Vancouver.
- To the West: A property in the ALR zoned "Agriculture (AG1)" that contains a single-family dwelling.

#### **Related Policies & Studies**

#### 2041 Official Community Plan (OCP)

A majority of the development site is currently designated "Commercial" in the 2041 OCP. A portion of 13760 Steveston Highway (City lands proposed to be included in this development) is designated "Industrial". The applicant proposes an amendment to the 2041 OCP to designate the site "Mixed Employment". This proposed amendment will accommodate the proposed land uses including the accessory uses (i.e., supporting offices to the industrial operations) and limited accessory retail activities.

The proposed amendment to the 2041 OCP is supported by staff on the following basis:

- Given the location of the site and surrounding land use context (primarily agriculture with limited commercial/entertainment activities and industrial activities), the site is better suited to accommodate the proposed light industrial development.
- The light industrial proposal supports the City's Employment Lands Strategy and the 2041 OCP policies which ensure an adequate supply of employment lands to meet current and long term community economic needs.

#### 2040 Regional Growth Strategy (RGS)

The proposed 2041 OCP amendment is consistent with the 2040 Metro Vancouver Regional Growth Strategy (RGS). The site is located within the RGS "Urban Containment Boundary" and is designated a RGS "General Urban" area which allows a range of urban uses including mixed employment and support uses which have a minimal impact on urban and agricultural activities. For these reasons, it is not necessary to amend the 2040 RGS, or refer the proposed OCP amendment Metro Vancouver for comment.

#### Development Permit Area – ALR Buffer

A Development Permit application is required due to the subject site's adjacency to the ALR. A Development Permit application (DP 14-676456) has been submitted by the applicant.

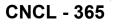
In accordance with the 2041 OCP policies on developments which are directly adjacent to the ALR, the proposal incorporates a 15 m (50 ft.) wide area along the west and north edges of the site. The applicant's conceptual landscape plan for the ALR buffer incorporates a double row of deciduous and coniferous trees, shrubs and groundcovers, and a bioswale/on-site storm water management system within the 15 m (50 ft.) space. This conceptual plan complies with OCP and ALR guidelines on buffers between agricultural and development areas (Attachment 3).

A rezoning consideration for this project is the registration of a legal agreement on title of the consolidated property to ensure that the landscaped buffer cannot be removed or modified and are for the purposes of mitigating typical farm activities. Additional detailing and refinement of the ALR buffer will be undertaken through the forthcoming Development Permit application that is required for developments with a direct adjacency to the ALR, including submission of an appropriate bond to secure implementation of the plan.

Through the processing of the Development Permit application, discussions with the developer will also address the general exterior form and character of the buildings in coordination with the on-site landscape plan to ensure a high standard of design and enhanced architectural detailing is implemented in the proposed industrial business park.

#### <u>Green Roofs and Other Options Involving Industrial and Office Buildings Outside the City</u> <u>Centre Bylaw (8385)</u>

This bylaw applies to the proposed industrial development and will require the applicant/developer to demonstrate appropriate on-site storm water retention methods (via green roof or alternative option), to reduce the site's overall discharge to the City's storm sewer system.



Details on compliance with the provisions of the bylaw will be provided through the subsequent Development Permit application and secured through the building permit for the development.

#### Public Art Program Policy (8703)

The applicant will be participating in the City's Public Art Program and will be making a voluntary contribution (\$90,994) based on the provisions of the policy. The applicant will work with Public Art staff to identify an artist and suitable art installation for this development site. This voluntary contribution will be secured as a rezoning consideration.

#### Flood Plain Designation and Protection Bylaw (8204)

The proposed development must meet the requirements of Flood Plain Designation and Protection Bylaw (8204). Registration of a Flood Plain Covenant on title is a rezoning consideration for this project.

#### Noise Regulation Bylaw (8856)

As the proposed light industrial development is directly adjacent to "Agriculture (AG1)" zoned properties that permit a residential use, a legal agreement will be required to be registered on title of the consolidated site, to ensure that noise generated from the development complies with the City's Noise Regulation Bylaw (8856).

#### Richmond Agricultural Advisory Committee (AAC)

The rezoning was reviewed by the AAC on September 13, 2013. In response to comments and requests for additional information by the AAC, the proposal was presented to the AAC again on May 22, 2014, where the AAC supported the rezoning application (Attachment 4).

#### Traffic, Access and Off-Street Parking

Vehicular access to the site will consist of one access along Steveston Highway (south west corner of the site) and one access on No. 6 Road (midpoint of site). A legal agreement will be secured through the rezoning to restrict commercial vehicles (over a specified weight limit) from entering or exiting the site from No. 6 Road to prevent commercial vehicle traffic on No. 6 Road north of the proposed access location.

The applicant's consultant submitted a Traffic Impact Assessment (TIA) for the proposed light industrial business park and limited accessory retail activities that was reviewed and approved by Transportation staff.

Based on the proposed site plan, a total of 398 off-street parking stalls can be provided on the development site, which complies with requirements contained in the Zoning Bylaw and provides 101 surplus parking stalls. The proposed parking is also sufficient to accommodate the required dedicating parking associated with the accessory retail uses proposed for this site.

#### Consultation

Signage has been posted on the site in compliance with rezoning requirements. Staff have responded to emails from the resident directly to the north of the site and have provided updates and information to the individual on the overall project. The applicant has also contacted the neighbouring resident to answer questions about the proposal and provided copies of the proposed conceptual site plan to the individual. To date, no additional comments or concerns have been communicated to staff by this resident.

#### Analysis

#### Project Description

The proposal involves development of the 14.3 acre (57,880 sq. m) consolidated site into a light industrial multi-tenant complex (Attachment 3 – preliminary site and landscape plans). The conceptual plans for the site involve two separate buildings with a central loading bay area in between. Remaining areas around the perimeter of the subject site are utilized for off-street parking, drive-aisles and a 15 m (50 ft.) wide landscaped ALR buffer along the north and west edges of the site. The buildings will contain a variety of typical light industrial businesses and include accessory supporting office space. The applicant has also requested the allowance for limited retail uses in the development that are restricted to the retailing of goods that are directly associated with the industrial businesses in the development. Further information on this accessory retail component of the project is contained in the Analysis section of the report.

#### Site Planning and Overall Design

The preliminary plan indicates two industrial buildings on the site with loading bays in between the buildings, which minimizes their visibility to the public street. Parking areas are primarily along the south, east and north edges of the site and are separated from the public roads (Steveston Highway and No. 6 Road) and neighbouring properties by a significant landscape buffer strip that also can accommodate any required parking setbacks (Attachment 3 – Preliminary site and landscape plan).

#### Riparian Management Area

There is an existing open watercourse located on the subject site east edge along No. 6 Road, which also has a 5 m (16.4 ft.) Riparian Management Area (RMA) designation. The proponent's environmental consultant has submitted a plan proposing the following RMA response (Attachment 5 – Environmental Consultant Report):

- Daylights portions of the watercourse that are currently contained in a covered culvert.
- Undertake appropriate works to install a new driveway crossing into the site and pedestrian crossing across the existing RMA designated watercourse.
- Compensation plantings in the RMA based on the consultant's submitted plan.

Environmental Programs has reviewed and support the proposed RMA revisions and compensation plan proposed as part of this development. Detailed planting information will be addressed through the forthcoming Development Permit application.

#### Proposed New Zoning District

A new light industrial zoning district is proposed to allow primarily for a range of industrial activities and limited accessory retail activity. The permitted uses, density and site coverage is generally consistent with zoning for other light industrial multi-tenant complexes throughout the City. Specific regulations proposed to be included in this zone are detailed in this section.

#### Permitted Uses and Density

The permitted uses proposed for the proposed new "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zone include light industrial and manufacturing activities, industrial/manufacturing services and some limited commercial services, all of which must be contained in a building, which are consistent with light industrial business activities. The proposed accessory retail activity must be accessory to and will support the primary industrial business. Standalone retail is not permitted in the proposed zone.

A density of 0.75 Floor Area Ratio (FAR) and 60% site coverage is proposed to be included in this zone to accommodate future industrial tenancy needs. The current conceptual site plan has been submitted to demonstrate that the necessary off-street parking stalls can be provided on site and includes a parking surplus compared to what the Zoning Bylaw requires.

#### Accessory Retail Limitations

The zone has been drafted to include limitations on the accessory retail activities that restrict the retailing of goods manufactured, assembled, fabricated, stored and/or distributed on-site. Floor area limitations are also proposed to place a maximum of 2,350 sq. m (25,295 sq. ft.) of floor area over the entire site and restrict the maximum size of an accessory retail unit to the lesser of 10% of the floor area of an industrial unit to a maximum of 186 sq. m (2,000 sq. ft.).

Additional restrictions for the accessory retail activity relate to requiring it to be owned and operated by the primary industrial business, capping the total number of accessory retail units (25 maximum) and ensuring that retail activities must be in a building and defined by walls and is located with direct access to the public entrance to a unit. Dedicated off-street parking is required to be provided for the accessory retail activities in addition to providing necessary off-street parking for the primary industrial use.

#### Sanitary Sewer

The site is not serviced by a City sanitary sewer system. The project proposes to connect to a private sanitary sewer utility, located on the existing Riverport development site to the east across No. 6 Road, which was implemented when that group of properties was redeveloped. The applicant has received confirmation from the existing private sanitary sewer utility that the system has sufficient capacity to accommodate the proposed development and will be able to service the subject site. An existing private legal agreement (private easement) registered on the group of properties east of No. 6 Road allows the project site to connect to the private sanitary service utility. The following is a summary of requirements associated with service by a private sanitary sewer utility:

• As the private sanitary sewer infrastructure has to cross a City road allowance (No. 6 Road) – A legal agreement between the proponent and the City of Richmond for the purpose of locating, constructing, operating and maintaining private sanitary sewer infrastructure within a dedicated City road allowance is required.

### **CNCL - 368**

• A legal agreement is required on the consolidated development site to identifying that the subject site is not serviced by a City sanitary sewer system and the City will not permit the development site to be serviced by sanitary sewer. This legal agreement will also identify that the development site is required to be serviced by the private sanitary sewer utility system, to be maintained and operated by the utility provider at the developer and/or utility provider's sole cost.

#### Site Servicing

General upgrades and scope of works to be completed as part of this development involve the following:

- No. 6 Road frontage Implementation of an on-site pedestrian pathway, RMA compensation and enhancement works to daylight portions of the watercourse, new pedestrian cross-walk, new driveway access and implementation of a northbound left turn lane into the subject site.
- Steveston Highway (generally between No. 6 Road to Palmberg Road) Road widening, shared pedestrian/bicycle sidewalk, implementation of an on-street dedicated bike lane, implementation of a east bound turning lane to the development site and modification to the existing median as needed.

A detailed list of identified works for this development is contained in the rezoning considerations (Attachment 6). All works will be completed through a Servicing Agreement application, which is a rezoning consideration for this development.

#### **Financial Impact**

#### Developer's Acquisition of City Lands

To facilitate the subject rezoning application proposal, the applicant proposes to acquire a portion of 13760 Steveston Highway (owned by the City of Richmond) and a portion of an unopened road allowance to the north of 13760 Steveston Highway for inclusion in the applicant's consolidated development site. The total approximate area of City lands proposed to be included in the development site is 3,400 sq. m (36,597 sq. ft.). As identified in the rezoning considerations for this project, the applicant is required to enter into a purchase and sales agreement with the City for the purchase of the lands, which is to be based on the business terms approved by Council. The primary business terms of the purchase and sales agreement, and road closure bylaw with respect to the unopened road allowance, will be brought forward by Council in a separate report from the Manager, Real Estate Services.

#### Conclusion

This application proposes to create a new "Light Industrial and Limited Accessory Retail (ZI12)" zoning district and rezone the consolidated 14.3 acre (57,880 sq. m) site to this new zone to allow for the development of a light industrial business park that would also permit limited accessory retail activities. Concurrent with this rezoning application, an amendment to the 2041 OCP is required to designate the site from "Industrial" and "Commercial" to "Mixed Employment".

Staff support the proposed 2041 OCP amendment and rezoning application to facilitate development of a light industrial business park on the subject site as it provides for additional employments lands and job generation in support of the 2041 Employment Lands Strategy. The proposed new "Light Industrial and Limited Accessory Retail – Riverport (ZI12)" zoning district has been developed to provide a range of uses that will accommodate light industrial businesses within a building that fits into the surrounding area.

On this basis, It is recommended that Richmond 2041 Official Community Plan Amendment Bylaw 9210 and Zoning Bylaw 8500, Amendment Bylaw 9211 be introduced and given first reading.

Kevin Eng

Planner 2

KE:cas

Attachment 1: Location Map

Attachment 2: Development Application Data Sheet

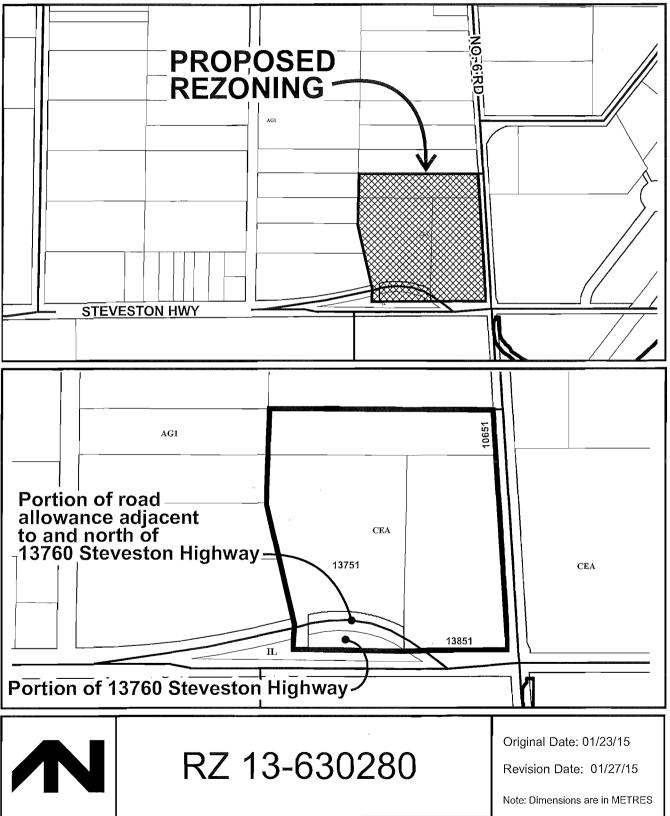
Attachment 3: Preliminary Site and Landscape Plans

Attachment 4: Excerpt of AAC Meeting Minutes (September 13, 2013 and May 22, 2014)

Attachment 5: Environmental Consultant Report - Riparian Management Area

Attachment 6: Rezoning Considerations

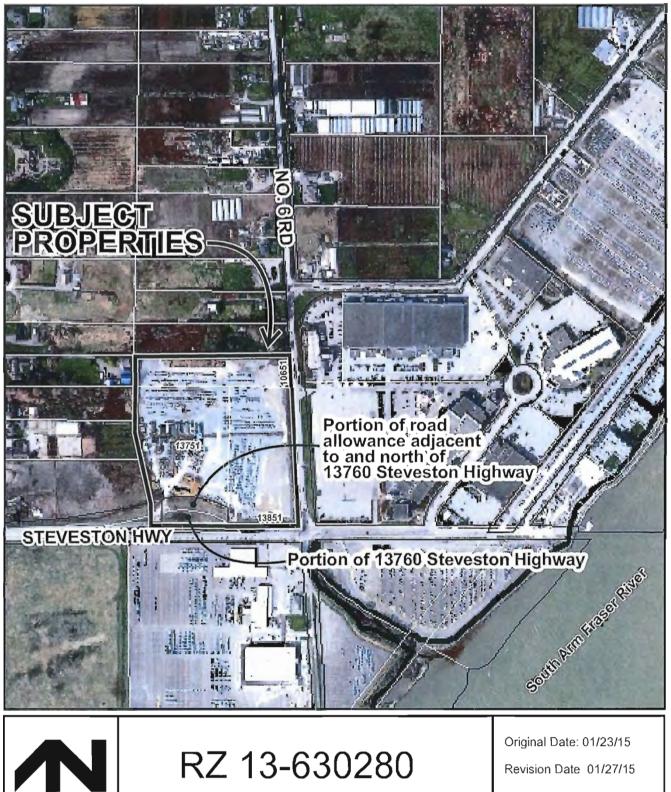




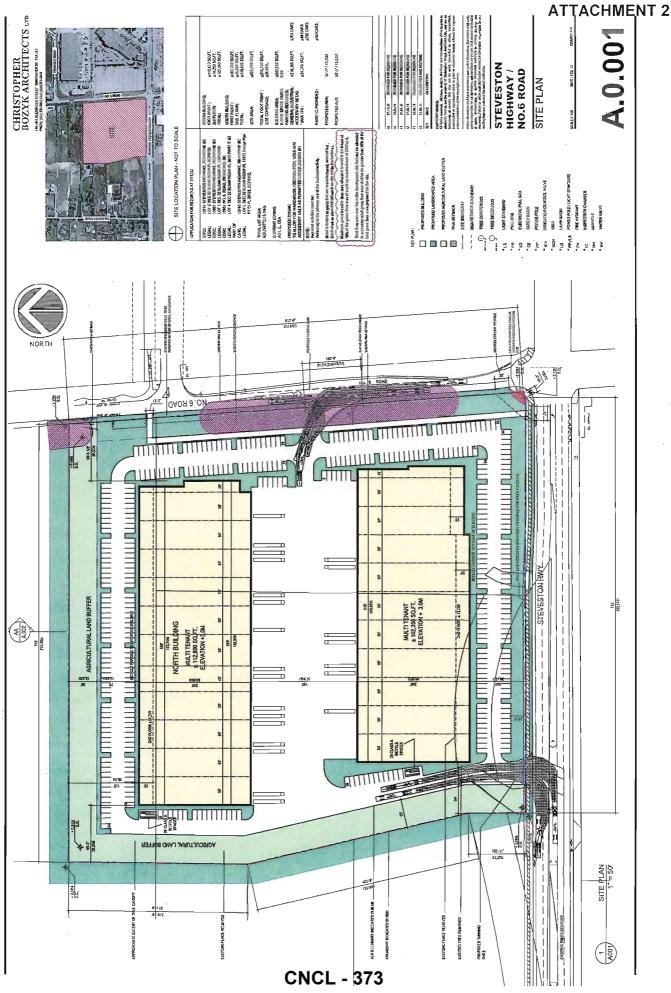
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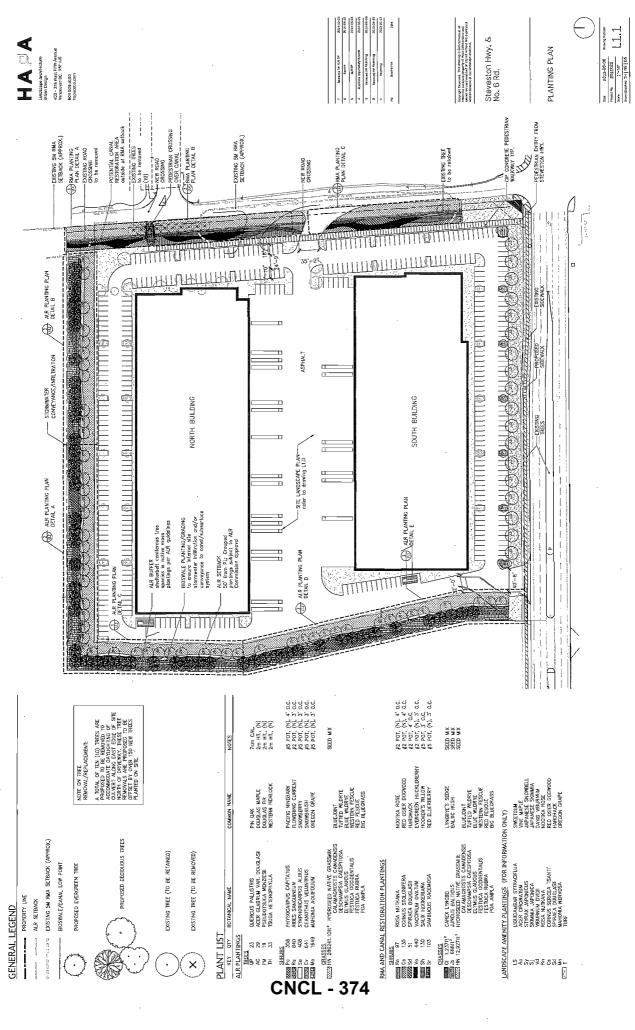


# City of Richmond

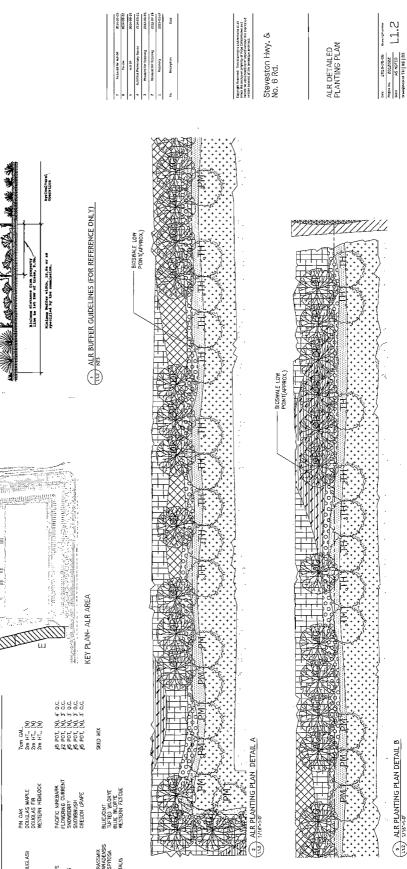


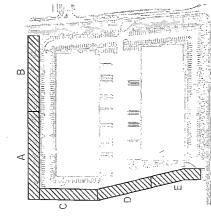
Note: Dimensions are in METRES





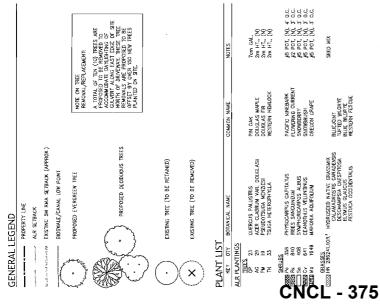




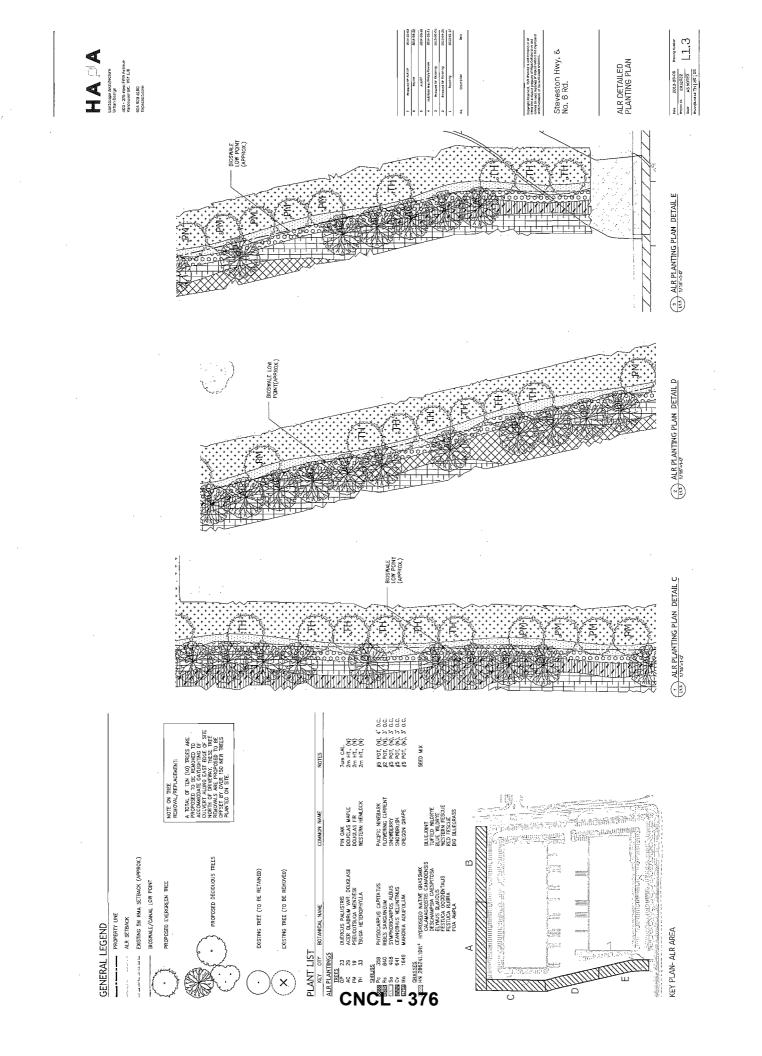


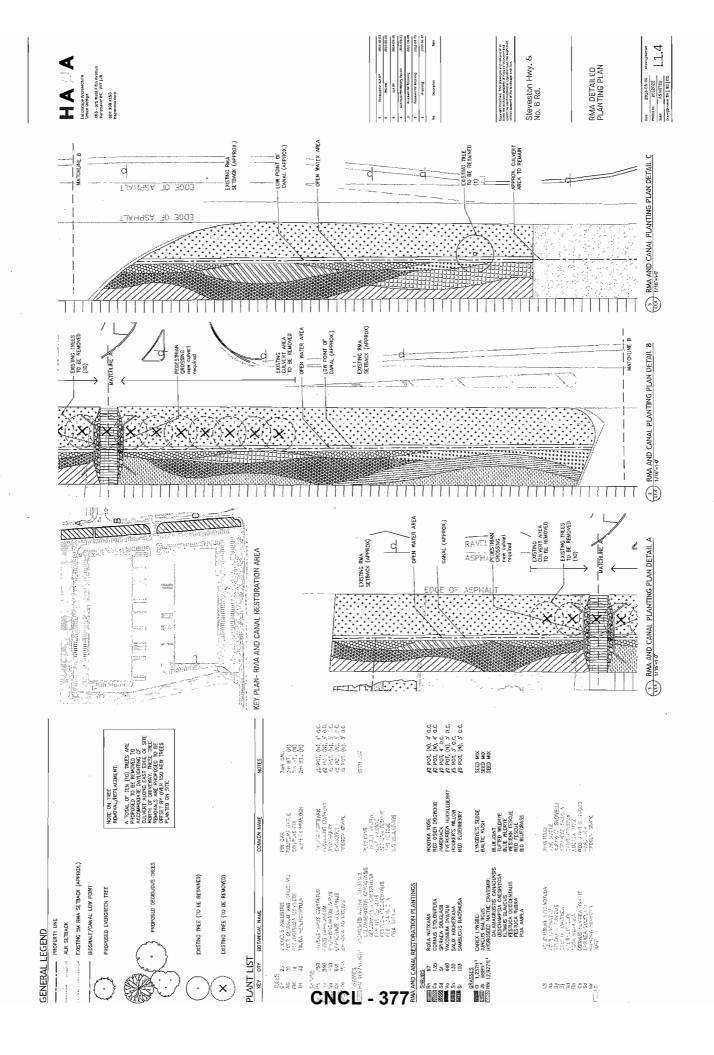
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ALR PLANTING PLAN DETAIL B







## **Development Application Data Sheet**

**Development Applications Division** 

### RZ 13-630280

#### Attachment 3

13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of Address: 13760 Steveston Highway

Applicant: Steveston No. 6 Road LP

	Existing	Proposed	
Owner:	0767606 B.C Ltd., Inc. No. 0767606	To be determined	
Site Size (m <sup>2</sup> ):	Combined lots (including City lands) – Approximately 58,053 m <sup>2</sup>	Consolidated net site area – Approximately 57,880 m <sup>2</sup>	
Land Uses:	Vacant site	Light industrial business park, limited accessory retail and supporting off-street parking and loading areas	
OCP Designation:	Commercial and Industrial	Mixed Employment	
Zoning:	Entertainment & Athletics(CEA) Light Industrial (IL) Agriculture (AG1)	Light Industrial and Limited Accessory Retail (ZI12) – Proposed new zone	
Other Designations:	5 m Riparian Management Area (RMA) along No. 6 Road	Modifications and enhancements to the RMA in accordance with the environmental consultant's recommendations.	

On Future Subdivided Lots	Proposed New Zoning District	Proposed	Variance
Floor Area Ratio:	Max. 0.75	0.39	none permitted
Lot Coverage – Building:	Max. 60%	35%	none
Lot Size (Area):	Min 5 ha (50,000 m²)	5.78 ha (57,880 m²)	none
Setback – Public Roads (m):	Min. 3 m	Approximately 30 m along Steveston Highway and No. 6 Road	none
Setback North & West Yard (m):	Not Applicable	Approximately 30 m	none
Height (m):	12 m	12 m	none
Off-street Parking Spaces – Permitted Uses (Industrial)	1 space required per 100 m <sup>2</sup> of general industrial use (203 stalls required)	304 stalls	none
Off-street Parking Spaces – Limited Accessory Retail	4 spaces required per 100 m <sup>2</sup> of gross leasable floor area (94 stalls required for retail)	94 stalls	none
Off-street Parking Spaces (primary industrial use plus accessory retail) – Total:	297	398	none

#### ATTACHMENT 4

#### Excerpt of Agricultural Advisory Committee Meeting September 19, 2013

## Development Proposal – Rezoning (ALR Adjacency) 13751 and 13851 Steveston Highway and 10651 No. 6 Road

Staff summarized the rezoning proposal for a light industrial redevelopment at the corner of No. 6 Road and Steveston Highway (summary table is attached to the AAC agenda package). The subject site has a direct abutting ALR adjacency along the north and west property line. At this stage, the land use proposal involves primarily light industrial uses with supporting services and potentially limited commercial and office functions. Staff noted that the developer and staff are working to confirm the ultimate land uses proposed for the rezoning. As the site has a direct abutting ALR adjacency to the north and west, an ALR Development Permit application is also required.

In response to questions from the Committee, staff noted that Engineering staff were in the process of reviewing the project to determine impacts on related City services and infrastructure in the area. A traffic impact study was also being reviewed by Transportation staff in relation to the development.

City staff identified that in review of the 2041 Official Community Plan, the conversion and redevelopment of the subject site to facilitate industrial and mixed employment land uses is supported.

AAC members noted specific concerns about the developments overall impact on storm drainage in the surrounding area, which also was servicing agricultural areas. Questions were asked about what City drainage canal will the subject site be utilizing and if it there are any downstream impacts to drainage infrastructure that also services farm land, with concerns noted about capacity and work being done to update the East Richmond Agricultural Water Supply Study. The proponents noted that they were currently examining some stormwater source control management and on-site retention measures to reduce the impact to the City's system. City staff also noted that Engineering staff are in the process of reviewing the storm drainage impacts. As a result, Committee members requested that Staff provide appropriate information on Engineering's review related to storm drainage and impacts to City infrastructure for the proposed redevelopment at future meeting prior to the AAC considering the project further.

#### Excerpt of Agricultural Advisory Committee Meeting May 22, 2014

# Development Proposal – Rezoning (ALR Adjacency) 13751 and 13851 Steveston Highway & 10651 No. 6 Road

Kevin Eng introduced the development proposal which is adjacent to the Agricultural Land Reserve (ALR) along the western and northern property lines. This proposal was considered by the Committee at the September 19, 2013 AAC meeting. At that meeting, the Committee requested additional information.

The proposal consists of approximately 250,000 square feet of light industrial/warehousing uses. The proposal includes a box culvert at the No. 6 Road and Steveston Highway intersection with the connection to be as close to the existing pump as possible. There will also be an on-site detention pond and swales along No. 6 Road. The application is still at the rezoning stage; there will be further landscaping detail when the proposal is at the Development Permit stage. The proposal will be forwarded to Committee once those details are known.

Committee members had the following questions and comments on the proposal:

- Committee members asked how many storeys the buildings will be. The buildings will be primarily a single storey, but in some cases may include a mezzanine level.
- Committee members asked about the possibilities of including a green roof. The proposal does not include a green roof. Committee members encouraged the proposal to have innovative ideas for the roof including solar panels.
- Committee members asked about the impacts to traffic. Traffic is proposed to exit on Steveston Highway. A traffic impact study will have to be updated as part of the Development Permit application.
- Committee members asked about the irrigation and landscaping plan and how it will be maintained. A legal agreement along with a landscaping bond will ensure that the proper landscaping is planted and maintained for a period of time.

The following motion was moved and seconded by Committee members:

That the Agricultural Advisory Committee endorse the rezoning proposal at 13751 and 13851 Steveston Highway & 10651 No. 6 Road subject to resolving the details of the landscaping buffer along the edge of the Agricultural Land Reserve and truck and traffic issues, and ensuring the appropriate legal agreements are in place.

Carried





September 26, 2014

ISSUED FOR USE 704-ENVIND03353-01 Via Email: keng@richmond.ca

Community Services Department City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1

Attention: Kevin Eng Policy Planning

Dear Mr. Eng,

Subject: Proposed Ledcor Properties Inc. Development at Steveston Highway and No. 6 Road Riparian Area Modifications

## 1.0 INTRODUCTION

Ledcor Properties Inc. (Ledcor) is proposing to develop its property (the 'Property') immediately northwest of the Steveston Highway and No. 6 Road intersection in Richmond, BC. The development will require the construction of driveway access to the site from No. 6 Road across a north-south running ditch and riparian leave strip. Currently, the ditch within this Property is partly open and partly enclosed within culverts. The proposed access would cross the riparian area and ditch about half way along the eastern boundary of the Property. Consequently, Ledcor has retained Tetra Tech EBA Inc. (Tetra Tech EBA) to assess the potential environmental effects of constructing this road access and to provide the services of a Qualified Environmental Professional (D. Morantz, R.P. Bio.) to prepare and justify a suitable compensation plan respecting the City of Richmond's Riparian Management Approach. That approach was established to satisfy the requirements of the British Columbia Riparian Areas Regulation (RAR). The RAR, which has been in effect since 2006, is intended to provide protection for riparian features and functions, which are necessary to maintain healthy, productive aquatic systems. Richmond has identified Riparian Management Areas (RMA) along watercourses that meet the specifications of the RAR.

This letter-report replaces the one issued on September 17, 2014, due to changes in the dimensions of the proposed driveway and pedestrian access to the site.

### 2.0 SITE DESCRIPTION

The ditch on the east side of the Property drains to the south under Steveston Highway and then through a pumping station to the Fraser River. Based on provincial records identified on iMap BC, only Threespine Stickleback (*Gasterosteus aculeatus*) have been recorded in this ditch, but only about 1.5 km north of the Property. Threespine Stickleback are common species in ditch networks due to their ability to withstand low flows, silted substrates, low oxygen levels, and relatively high water temperatures. Although the ditch does support this fish species in places, Richmond interactive resource mapping does not classify the ditch as a fish habitat upstream of Steveston Highway.

The City of Richmond subscribes to the provincial RAR, which requires the maintenance of suitably sized riparian zones along designated watercourses within municipal jurisdictions. In adherence to the RAR, the City of Richmond has established a 5 m wide setback along No. 6 Road at the east side of the Property. However, the regulated riparian area along the ditch on the west side of No. 6 Road is discontinuous, in that it does not fully

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extend to the north or south of the Property boundaries (Figure 1). The gap near the north of the Property represents an existing 46 m culvert with an external diameter of 600 mm. The ditch opens again for a distance of about 20 m north of this culvert before re-entering another 8 m culvert beneath an unused driveway access road at the northern Property boundary (Figure 2). South of the proposed driveway access road, the ditch enters a culvert 40 m north of Steveston Highway (36 m north of the southern Property boundary), which then extends under the Highway and opens at the pumping station 220 m from the Fraser River. Based on these existing conditions, almost 38% of the existing No. 6 Road ditch within the Property is presently contained in culverts.

Deciduous trees within the RMA are restricted to the 46 m length of ditch that is contained in the culvert near the north of the Property. Without an open watercourse at this location, these trees provide virtually no riparian benefits. Elsewhere along the ditch, riparian vegetation consists of grasses and low shrubs, including invasive species such as Himalayan blackberry.

### 3.0 PROPOSED CHANGES TO THE RIPARIAN MANAGEMENT AREAS

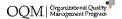
Ledcor proposes to provide driveway access to the Property via a turnoff from No. 6 Road, 128.6 m south of the north Property boundary (Figure 3). This driveway corridor will necessitate placement of a 31.9 m driveway culvert in the existing ditch. As a result, a 31.9 m length of the 5 m wide RMA will be eliminated at this location for a total loss of 159.5 m<sup>2</sup>. As indicated above, this streamside vegetation consists largely of grasses and low shrubs. No trees exist at this location (Photo 1).

To offset the loss of a portion of the RMA, Ledcor proposes the following plan, consisting of two parts:

- Removal of the 46 m culvert described earlier, resulting in daylighting of the ditch, except for a 4 m section which will be retained as a pedestrian crossing, as shown in Figure 3. The culvert for this crossing will be replaced if the culvert in this section is in poor condition. It has been determined that 10 trees along the 46 m length of the culverted section of ditch are growing within the ditch such that removal of the culvert will necessitate removal of these trees. To offset the loss of these trees, the plan includes the planting of over 150 new trees throughout the site (Appendix B). The daylighting of the ditch will result in an overall addition of 210 m<sup>2</sup> to the RMA; and
- Implementation of a planting plan (Appendix B) that will result in the replacement of much of the existing vegetation south of the existing 46 m culvert with native vegetation chosen to suit site specific growing conditions and soils. As part of this plan, all invasive species will be removed. Existing, native vegetation that is deemed to function well as riparian species will be maintained and supplemented with native shrubs and grasses. The culvert at the south end of the Property will not be removed; however, the planting plan will extend to this area as well, to reduce the potential for the incursion of undesirable invasive species into the newly planted riparian area and for aesthetic purposes.

This two-part plan will improve the overall area and quality of the RMA. Once completed, the plan will result in a net gain of 10.1 linear metres / 50.5 m<sup>2</sup> of riparian vegetation. The newly planted vegetation will provide considerably better riparian function due to the planting of vegetation that contain nitrogen fixing capabilities and provide habitats for terrestrial insects that make up a portion of the diet of downstream fish. Aesthetically, the new RMA will represent a considerable improvement over the existing condition due to the replacement of undesirable invasive species with a variety of beneficial native species.

For the above reasons, it is our opinion that the proposed plan to daylight an existing culvert and improve the vegetation composition of the RMA along No. 6 Road, will appropriately and beneficially offset the proposed removal of a 25 m length of the RMA for the purpose of constructing a driveway access to the subject Property.



#### FILE: 704-ENVIND03353-01 | SEPTEMBER 2014 | ISSUED FOR USE

### 4.0 LIMITATIONS OF REPORT

This report and its contents are intended for the sole use Ledcor Properties Inc., their agents, and the City of Richmond as part of their review procedures. Tetra Tech EBA does not accept any responsibility for the accuracy of any of the data, the analysis, or the recommendations contained or referenced in the report when the report is used or relied upon by any Party other than Ledcor Properties Inc. or the City of Richmond, or for any Project other than the proposed development at the subject site. Any such unauthorized use of this report is at the sole risk of the user. Use of this report is subject to the terms and conditions stated in Tetra Tech EBA's Services Agreement. Tetra Tech EBA's General Conditions are provided in Appendix A of this report.

### 5.0 CLOSURE

We trust this report meets your present requirements. If you have any questions or comments, please contact the undersigned.

Respectfully submitted, Tetra Tech EBA Inc.

Prepared by: David Morantz, M.Sc., R.P.Bio. Senior Biologist, Aquatics and Fisheries Environment Practice Direct Line: 604.685.0017 x352 David.Morantz@tetratech.com

Reviewed by:

Nigel Cavanagh, M.Sc., R.P.Bio. Director, Aquatics and Fisheries Environment Practice Direct Line: 250.756.2256 x240 Nigel.Cavanagh@tetratech.com

/sy

Attachments: Figures (3)

Photograph (1) Appendix A – Tetra Tech EBA's Geoenvironmental Report – General Conditions Appendix B – RMA Detailed Planting Plan

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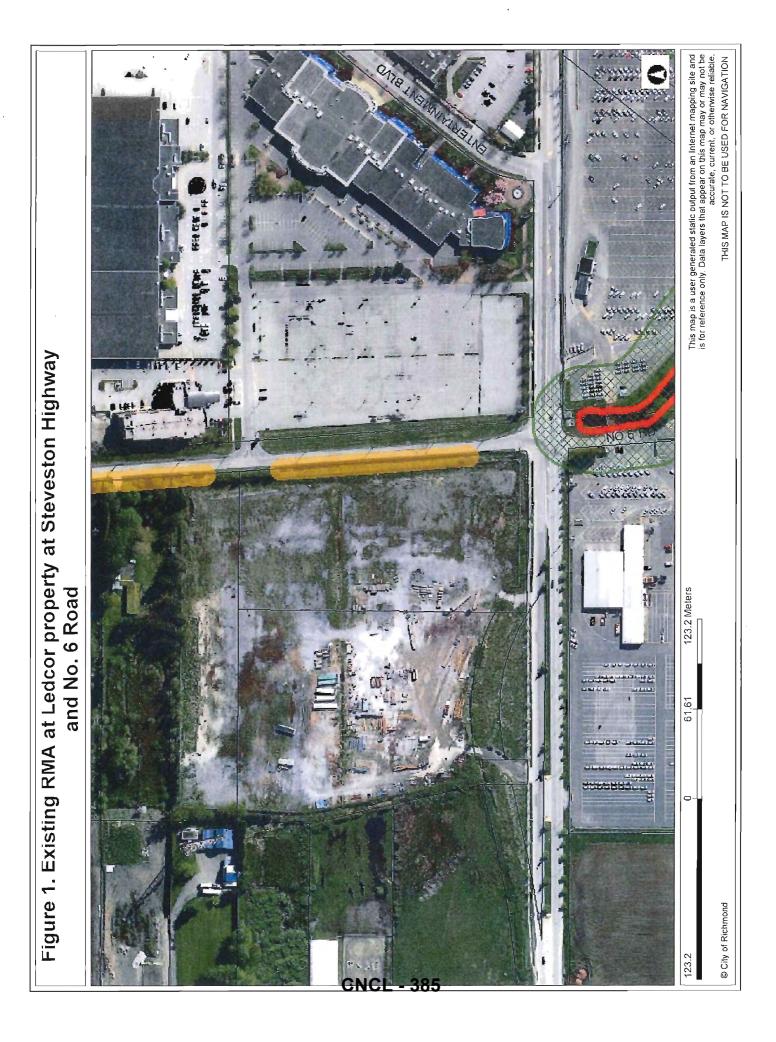
# **FIGURES**

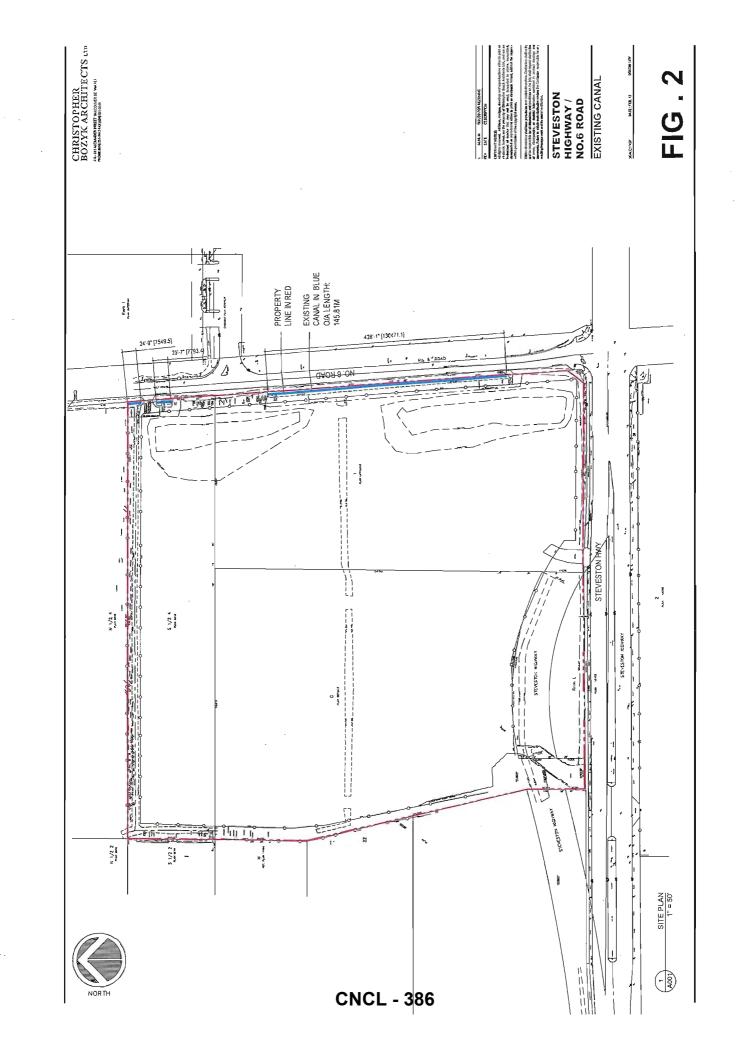
Figure 1 Existing RMA at Ledcor property at Steveston Highway and No. 6 Road

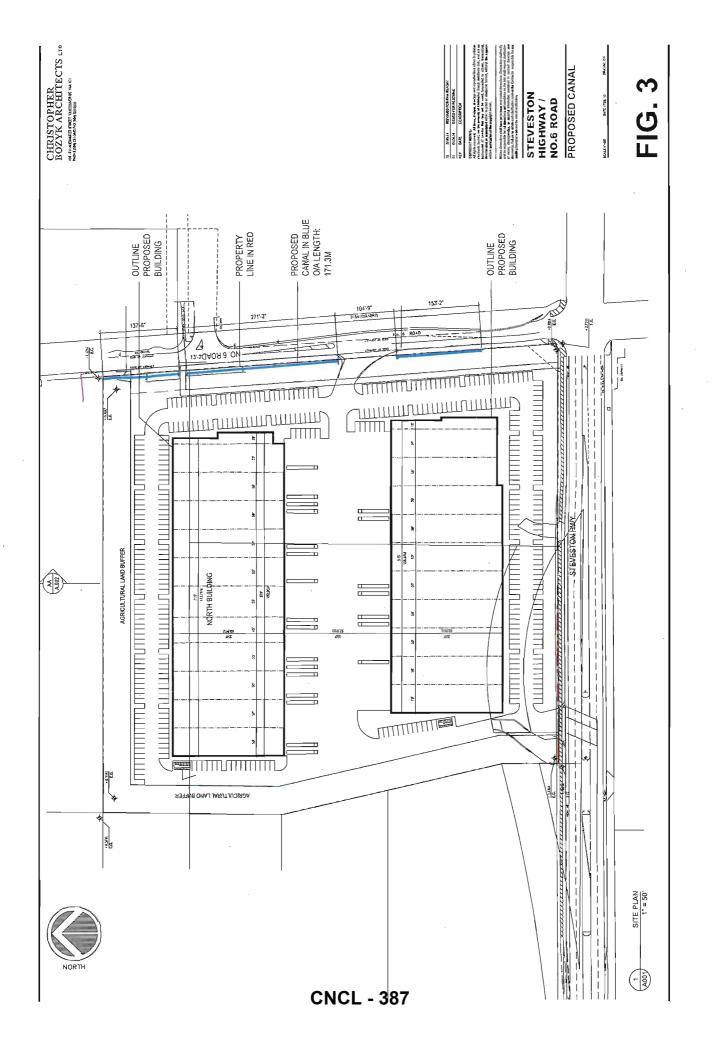
Figure 2 Steveston Highway / No. 6 Road Existing Canal

Figure 3 Steveston Highway / No. 6 Road Proposed Canal









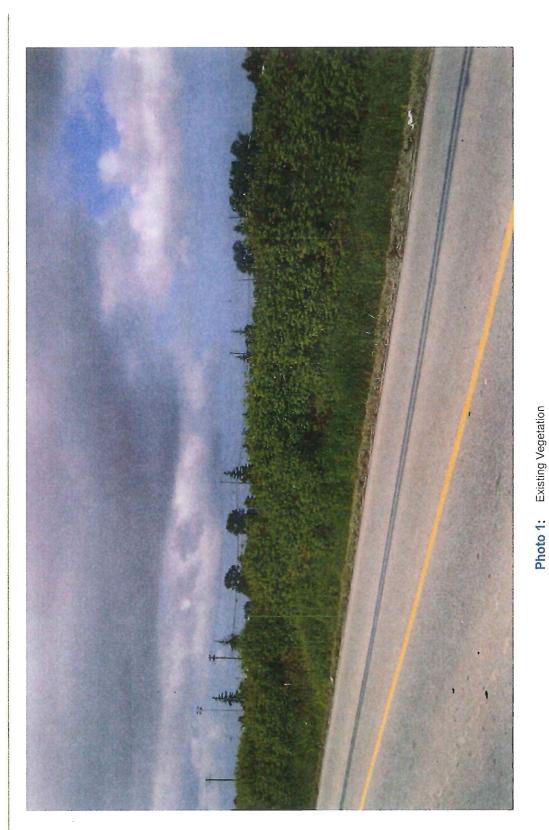
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# **PHOTOGRAPHS**

Photo 1 Existing Vegetation







## APPENDIX A TETRA TECH EBA'S GEOENVIRONMENTAL REPORT - GENERAL CONDITIONS

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## **GENERAL CONDITIONS**

#### **GEOENVIRONMENTAL REPORT**

This report incorporates and is subject to these "General Conditions".

#### 1.0 USE OF REPORT AND OWNERSHIP

This report pertains to a specific site, a specific development, and a specific scope of work. It is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site or proposed development would necessitate a supplementary investigation and assessment.

This report and the assessments and recommendations contained in it are intended for the sole use of Tetra Tech EBA's client. Tetra Tech EBA does not accept any responsibility for the accuracy of any of the data, the analysis or the recommendations contained or referenced in the report when the report is used or relied upon by any party other than Tetra Tech EBA's Client unless otherwise authorized in writing by Tetra Tech EBA. Any unauthorized use of the report is at the sole risk of the user.

This report is subject to copyright and shall not be reproduced either wholly or in part without the prior, written permission of Tetra Tech EBA. Additional copies of the report, if required, may be obtained upon request.

#### 2.0 ALTERNATE REPORT FORMAT

Where Tetra Tech EBA submits both electronic file and hard copy versions of reports, drawings and other project-related documents and deliverables (collectively termed Tetra Tech EBA's instruments of professional service), only the signed and/or sealed versions shall be considered final and legally binding. The original signed and/or sealed version archived by Tetra Tech EBA shall be deemed to be the original for the Project.

Both electronic file and hard copy versions of Tetra Tech EBA's instruments of professional service shall not, under any circumstances, no matter who owns or uses them, be altered by any party except Tetra Tech EBA. The Client warrants that Tetra Tech EBA's instruments of professional service will be used only and exactly as submitted by Tetra Tech EBA.

Electronic files submitted by Tetra Tech EBA have been prepared and submitted using specific software and hardware systems. Tetra Tech EBA makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

#### 3.0 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by Tetra Tech EBA in its reasonably exercised discretion.

#### 4.0 INFORMATION PROVIDED TO TETRA TECH EBA BY OTHERS

During the performance of the work and the preparation of the report, Tetra Tech EBA may rely on information provided by persons other than the Client. While Tetra Tech EBA endeavours to verify the accuracy of such information when instructed to do so by the Client, Tetra Tech EBA accepts no responsibility for the accuracy or the reliability of such information which may affect the report.





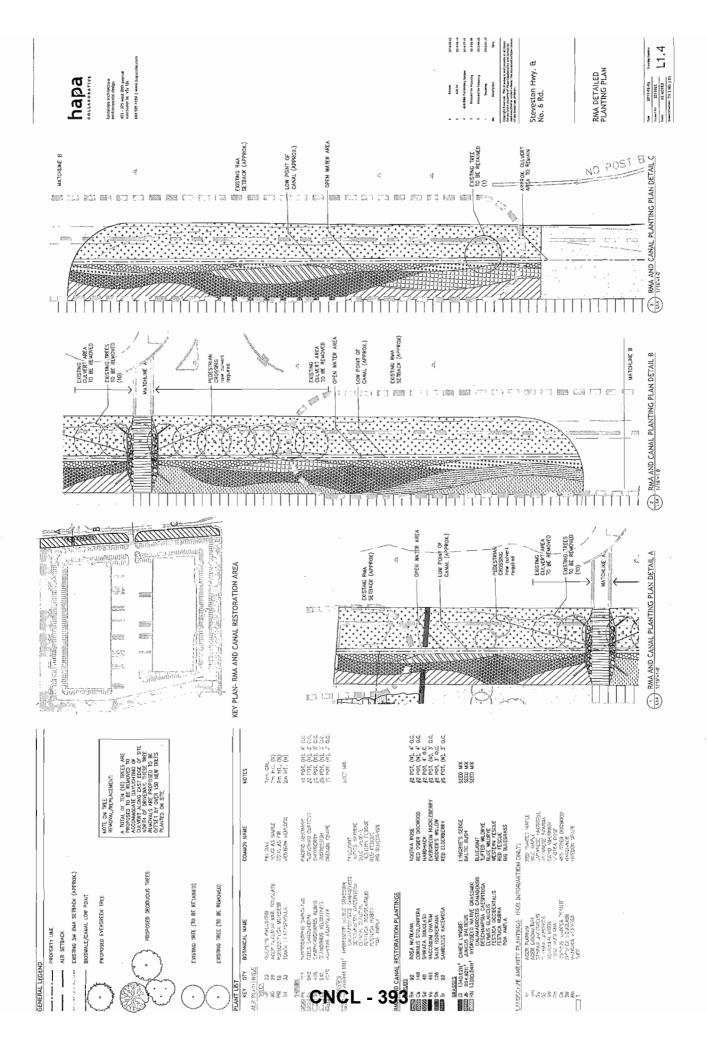
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## APPENDIX B RMA DETAILED PLANTING PLAN

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## **Rezoning Considerations**

Development Applications Division 6911 No. 3 Road, Richmond, BC V6Y 2C1

**Address:** 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway

File No.: RZ 13-630280

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9211, the developer is required to complete the following:

#### Note: Rezoning Considerations for RZ 13-630280 include the following schedules:

#### Schedule A – Subdivision, Consolidation and Road Dedication Plan

- 1. Final Adoption of OCP Amendment Bylaw 9210.
- 2. Registration of the necessary legal plan(s) to the satisfaction of the City to achieve a consolidated development site based on the following terms:
  - a) Acquisition of City lands, including:
    - Final adoption of the road closure and removal of road dedication bylaw for a 2,081.1 sq. m portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway (Schedule A).
    - Council approval of the sale of a 2,081.1 sq. m portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway (Schedule A)
    - Council approval of the sale of a 1318.7 sq. m portion of 13760 Steveston Highway (Schedule A).
    - The developer shall be required to enter into a purchase and sales agreement with the City for the purchase of the Land (portion of 13760 Steveston Highway and portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway), which is to be based on the business terms approved by Council. The primary business terms of the purchase and sales agreement will be brought forward for consideration by Council in a separate report from the Manager, Real Estate Services. All costs associated with the purchase and sales agreement shall be borne by the developer.
  - b) Subdivision of a portion of 13760 Steveston Highway and a portion of the road allowance adjacent to and north of 13760 Steveston Highway.
  - c) Consolidation of the City lands with 13751 and 13851 Steveston Highway and 10651 No. 6 Road into one development parcel (Schedule A).
  - d) Road dedications, including 173.3 sq. m of land generally along the consolidated development site's Steveston Highway frontage (Schedule A).
- 3. Registration of a flood plain covenant on title of the consolidated site identifying a minimum habitable elevation of 3.0 m GSC.
- 4. Registration of a legal agreement on title of the consolidated development site indicating that the development is required to mitigate noise and demonstrate that the building envelope is designed to avoid noise generated by the internal use from penetrating into residential areas that exceed noise levels allowed in the City's Noise Regulation Bylaw 8856 and noise generated from rooftop heating, ventilation and air conditions units will comply with the City's Noise Regulation Bylaw 8856.
- 5. Registration of a legal agreement on title of the consolidated development site identifying that, for commercial vehicles over the weight/load limitations (5 tonnes) in place along No. 6 Road, southbound to westbound and eastbound to northbound turning movements at the No. 6 Road driveway access is not permitted (to prevent

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Initial:

commercial vehicles over the weight/load limitations on No. 6 Road from travelling to the development site from No. 6 Road, north of the driveway access location).

- 6. Registration of a legal agreement on title of the consolidated development site identifying that the subject site is not serviced by a City sanitary sewer system and the City will not permit the development site to be serviced by a City sanitary sewer system. This legal agreement will also identify that the development site is required to be serviced by a private sanitary sewer utility system, located on properties east of No. 6 Road (as per legal documents BX558923, BX558924 and BX 558925), which is required to be maintained and operated by the private utility provider and/or developer.
- 7. The applicant/developer is required to enter into an appropriate legal agreement with the City of Richmond for the purpose of locating, constructing, operating and maintaining private sanitary sewer infrastructure within a dedicated City road allowance. This legal agreement will also identify that the applicant/developer is required to build any works associated with the private sanitary sewer infrastructure within a dedicated road allowance as part of the Servicing Agreement application (required as a rezoning consideration for this application) to be approved by the City. All works are at the applicant's/developer's sole cost.
- 8. Registration of a legal agreement on title of the consolidated development site in regards to the Agricultural Land Reserve (ALR) landscape buffer that includes the following information and provisions:
  - a) Submission of a reference plan (prepared by a BC Land Surveyor), to be approved by City staff, outlining the area of the ALR landscape buffer.
  - b) Applicant/developer and future owner of the site must maintain the ALR landscape buffer, which cannot be abandoned or modified without prior approval from the City.
  - c) The ALR landscape buffer is for the purposes of mitigating against typical farm nuisance activities related to noise, dust and odour generated from the agricultural operation.
- 9. The submission and processing of a Development Permit\* completed to a level deemed acceptable by the Director of Development.
- 10. Public art installation participation in the City's Public Art Program in the amount of \$90,994 OR City acceptance of the developer's offer to voluntarily contribute the same amount to the City's Public Art Reserve Fund.
- 11. Enter into a Servicing Agreement\* for the design and construction of the following works, at the applicants/developers sole cost, which include but may not be limited to:
  - a) Steveston Highway
    - Road widening from Palmberg Road to approximately 90 m west of the west property line of 13751 Steveston Highway to provide for the following in both east-bound and west-bound directions:
      - (a) Two traffic lanes (each lane at min. 3.5 m width).
      - (b) A minimum 1.65 m wide on-street bike lane and a 1.5 m wide gravel shoulder.
    - Widen the existing 1.5 m sidewalk to 3 m wide to provide a shared off-road pedestrian/cyclist pathway along the north side of Steveston Highway from No. 6 Road to Palmberg Road. The existing street trees and boulevard is to be maintained.
    - Provide a minimum 3.3 m wide east-bound to north-bound left turn lane, with a minimum storage of 35 m at the development site access along Steveston Highway, which will require modifications to the existing raised median.
    - On the north side of Steveston Highway, either provide an accessible bus landing pad and an accessible bus shelter or provide a voluntary contribution for the amount to implement the accessible bus landing pad and an accessible bus shelter in the future (construction costs and/or voluntary contribution shall not exceed \$25,000). The exact location of the accessible bus stop is subject to further consultation with Coast Mountain Bus Company.
  - b) No. 6 Road:
    - Provide a minimum 3.3 m wide north-bound to west-bound turn lane, with a minimum storage of 30 m at the development site access along No. 6 Road. All existing north-bound to south-bound traffic lanes are to be maintained. A 1 m wide shoulder on the east side is also to be provided. Due to the existing Riparian Management Area on the west side of No. 6 Road, all road widening should be accommodated on the east side of the road.

Initial:

- Construct a 3 m wide off-road shared pedestrian/cyclist pathway along the entire No. 6 Road frontage (i.e., on-site and west of the existing RMA) that includes necessary lighting and appropriate protection (i.e. railing if deemed necessary) along the entire length of the pathway. Registration of a Public-Rights-of-Passage (PROP) Right-of-Way (ROW) will be required along the consolidated development site's No. 6 Road frontage, which will include and provide for the following:
  - (a) 3 m wide north-south running PROP ROW along the entire No. 6 Road frontage of the consolidated development site.
  - (b) 3 m wide east-west running PROP ROW to align with the proposed pedestrian crossing across No. 6 Road.
  - (c) Include any necessary PROP ROW to facilitate transitions and/or tie-ins to sidewalks and pathways in the area.
  - (d) Additional PROP ROW may be required and will be determined through the detailed Servicing Agreement design process for any supporting works and/or required pathway lighting.
  - (e) The location of the PROP ROW on the consolidated development site will be determined based on the detailed Servicing Agreement design process.
  - (f) Applicant/developer will be required to construct all works within the PROP ROW
  - (g) PROP ROW to allow for public access for pedestrians, cyclists, scooters, wheelchairs (motorized and non-motorized) and similar types of non-vehicle related means of transport).
  - (h) Maintenance of the surrounding landscaping outside of the PROP ROW along with general upkeep of the walkway within the PROP ROW (snow, ice and debris removal; walkway upkeep in a safe condition) is the responsibility of the owner and/or future industrial strata corporation.
  - (i) Within the PROP ROW, the City will be responsible to maintain and repair the hard surface walkway and pathway lighting, including access to undertake such works.
- Provide for an at-grade crosswalk signal with overhead downward lighting and associated equipment on the north side of the proposed site access (design to be finalized through the Servicing Agreement).
- Works related to modifying the existing Riparian Management Area and watercourse (including culvert removal and replacements) along the consolidated development site's No. 6 Road frontage and related compensation works as proposed in the applicant's environmental consultants proposed plan. New culverts will be owned and maintained by the property owner and require a permit as per the requirement of Bylaw 8441 (to be managed through the Servicing Agreement drawing review and approval process).
- Any design for works associated with private sanitary sewer infrastructure to cross the City's dedicated road allowance (No. 6 Road) must be approved by the City and included in the Servicing Agreement design submission.
- c) General:

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- Install a new water service connections (size to be determined) complete with meter and meter box along the Steveston Highway frontage.
- Install 2 new hydrants along the No. 6 Road frontage to accommodate hydrant spacing requirements.
- Install a sump and safety grill on the existing 600 mm storm culvert's inlet located approximately 40 m north of the south property line along the No. 6 Road frontage.
- Through the Servicing Agreement design process, provide a sediment and erosion control plan.
- Cut and cap the existing storm service connection and inspection chamber located approximately 28 m west of the east property line at the Steveston Highway frontage.
- Upgrade the existing storm sewer service connection and remove the existing inspection chamber located approximately 15 m west of the east property line at the Steveston Highway frontage.
- Provide additional statutory Right-of-Ways to accommodate new inspection chambers within the property to be determined through the Servicing Agreement design process.
- Provide additional statutory Right-of-Ways to accommodate City storm system infrastructure along the consolidated development site's No. 6 Road frontage, including but not limited to existing open portions of the RMA canal/watercourse, portion **CNGL** can**396** there course to be daylighted and any related City

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works and infrastructure. The location and extent of the statutory Right-of-Ways will be determined through the Servicing Agreement design process.

# Prior to a Development Permit<sup>\*</sup> being forwarded to the Development Permit Panel for consideration, the developer is required to:

- 1. Submit a landscape bond/security based on the cost estimate (to be prepared by a professional landscape architect) of the final approved landscape plan that will generally include, but may not be limited to the following:
  - a) ALR buffer, along the site's north and west edges.
  - b) On-site landscape treatment along the consolidated development site's Steveston Highway and No. 6 Road frontage, generally between the off-street parking and public roads.
  - c) Compensation/enhancement plantings associated with the RMA along No. 6 Road, based on plans to be approved by City staff.
- 2. Other items may be identified through review of the development permit application.

## Prior to Building Permit Issuance, the developer must complete the following requirements:

- 1. Submission of a Construction Parking and Traffic Management Plan to the Transportation Division. Management Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of Transportation) and MMCD Traffic Regulation Section 01570.
- 2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
- 3. Registration of a legal agreement on title of the consolidated development site in favour of the City to indicate that the owner shall maintain any storm water management works, landscaping features and structural elements supporting such features, permeable pavers and asphalt, and bioswale in accordance with generally accepted building, landscaping and engineering maintenance practices so that the design volume of the storm water run-off from the site will, in perpetuity or until redevelopment, not be exceeded.
- 4. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Division at 604-276-4285.

#### Note:

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial Wildlife Act and Federal Migratory Birds Convention Act, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends CNCL - 397

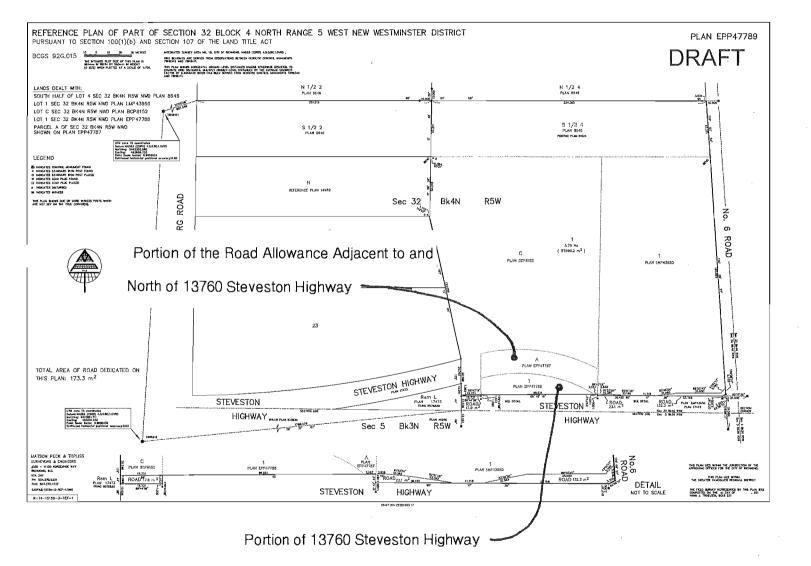
Initial:

that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

- Signed Copy on File -

Signed

Date





# **Development Application Data Sheet**

**Development Applications Division** 

# RZ 13-630280

# Attachment C

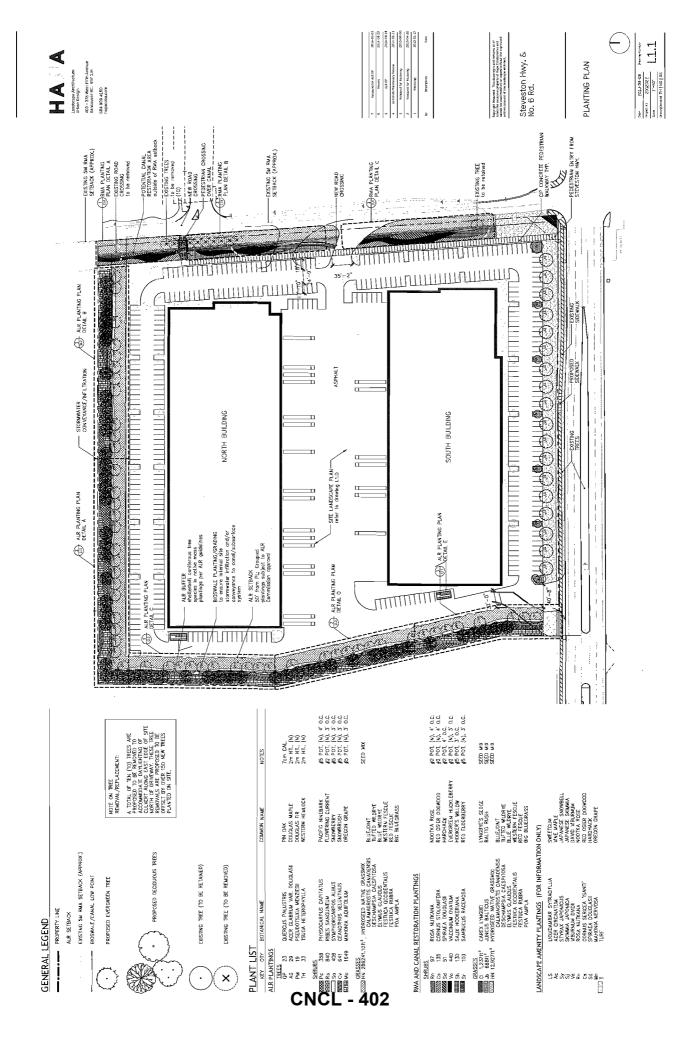
13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of Address: 13760 Steveston Highway

Applicant: Steveston No. 6 Road LP

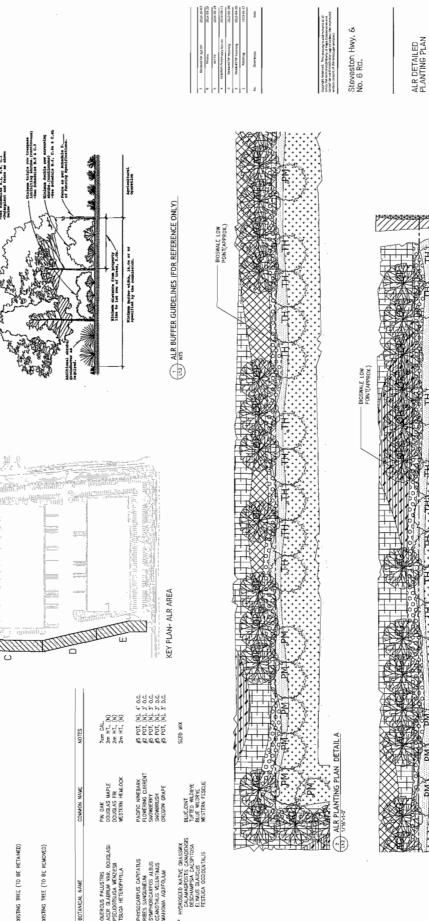
y 1942) - Alexandro and Santa Andro and Andro - Andro and	Existing	Proposed
Owner:	0767606 B.C Ltd., Inc. No. 0767606	To be determined
Site Size (m <sup>2</sup> ):	Combined lots (including City lands) – Approximately 58,053 m <sup>2</sup>	Consolidated net site area – Approximately 57,880 m <sup>2</sup>
Land Uses:	Vacant site	Light industrial business park, limited accessory retail and supporting off-street parking and loading areas
OCP Designation:	Commercial and Industrial	Mixed Employment
Zoning:	Entertainment & Athletics(CEA) Light Industrial (IL) Agriculture (AG1)	Light Industrial and Limited Accessory Retail (ZI12) – Proposed new zone
Other Designations:	5 m Riparian Management Area (RMA) along No. 6 Road	Modifications and enhancements to the RMA in accordance with the environmental consultant's recommendations.

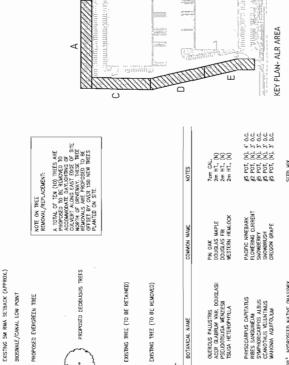
On Future Subdivided Lots	Proposed New Zoning District	Proposed	Variance
Floor Area Ratio:	Max. 0.75	0.39	none permitted
Lot Coverage – Building:	Max. 60%	35%	none
Lot Size (Area):	Min 5 ha (50,000 m²)	5.78 ha (57,880 m²)	none
Setback – Public Roads (m):	Min. 3 m	Approx. 30 m along Steveston Highway and No. 6 Road	none
Setback – North & West Yard (m):	Not Applicable	Approximately 30 m	none
Height (m):	12 m	12 m	none
Off-street Parking Spaces – Permitted Uses (Industrial)	1 space required per 100 m <sup>2</sup> of general industrial use (203 stalls required)	304 stalls	none
Off-street Parking Spaces – Limited Accessory Retail	4 spaces required per 100 m <sup>2</sup> of gross leasable floor area (94 stalls required for retail)	94 stalls	none
Off-street Parking Spaces (primary industrial use plus accessory retail) – Total:	297	398	none











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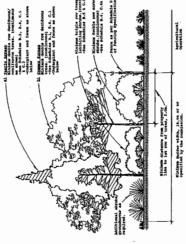
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PROPERTY LINE ALR SETBACK

**GENERAL LEGEND** 



PLANT LIST KEY OTY I ALR PLANTINGS OP 23 AG 29 PM 19 PM 13 PM 13



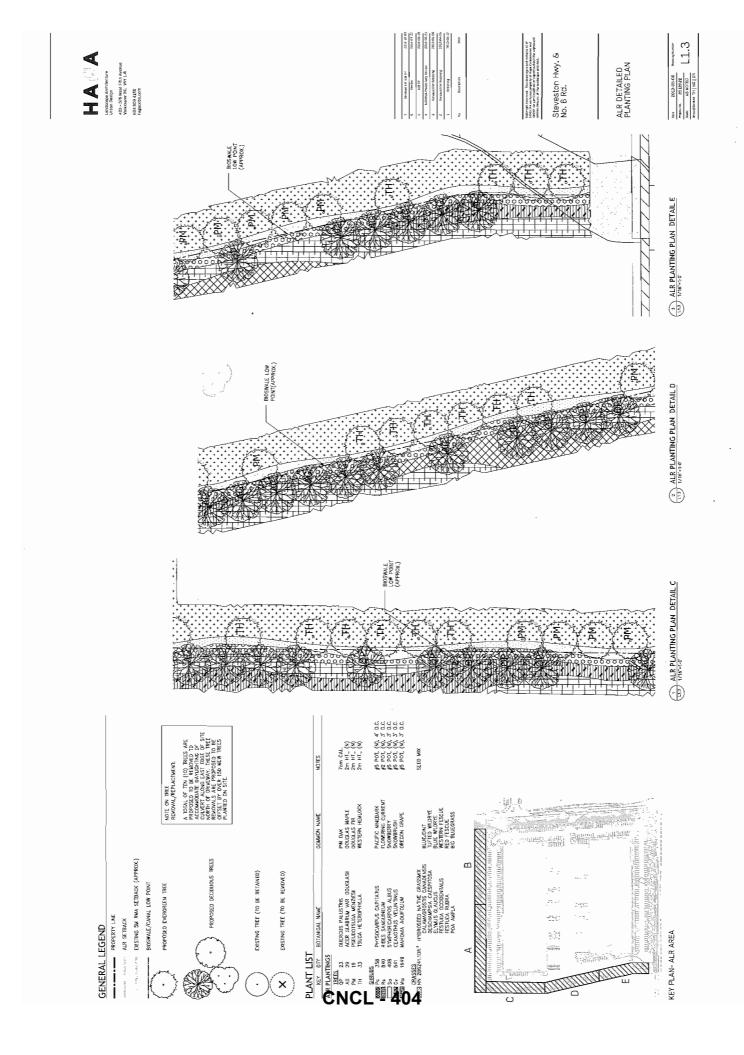
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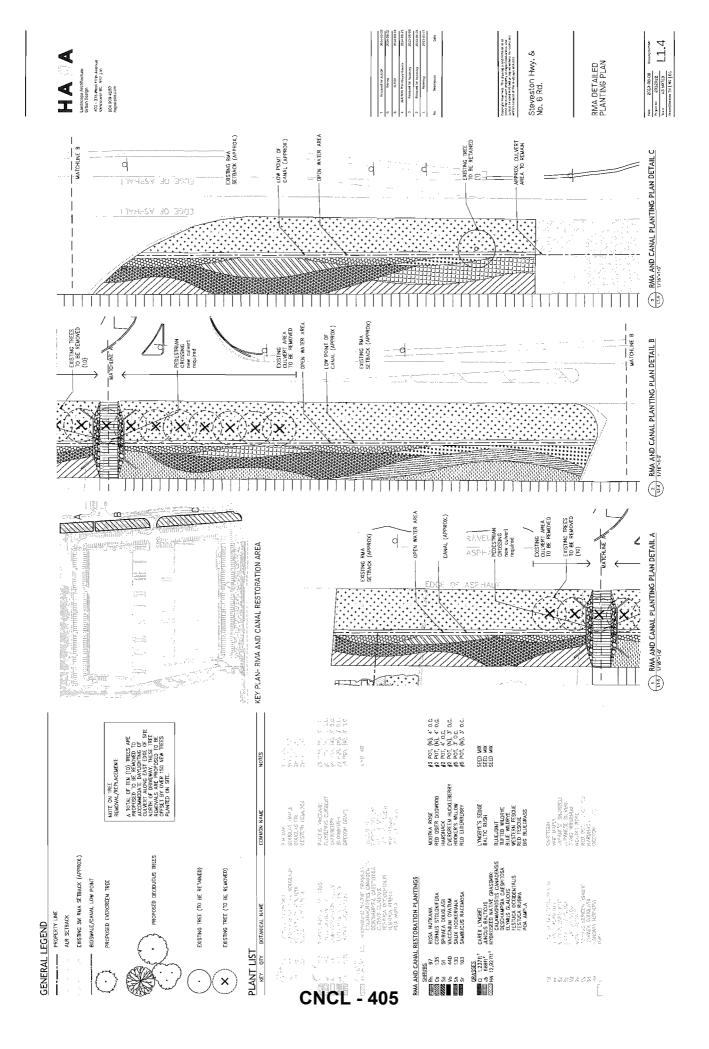
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MATTILL

ALR PLANTING PLAN DETAIL B

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April 15<sup>th</sup>, 2015

## **VIA MAIL & E-MAIL**

Mr. Kevin Eng Policy Planning City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1

Dear Mr. Eng:

## Re: Proposed OCP Amendment and Rezoning 13760 Steveston Highway

Thank you for the opportunity to comment on the proposed OCP Amendment and Rezoning at 13760 Steveston Highway in Richmond. We understand that the proposal by Ledcor was referred back to City staff by the Planning Committee for additional input on the subject of potential port-related uses for the site.

The proposal to re-designate the properties from Commercial and Industrial to Mixed Employment raises some concern to Port Metro Vancouver. As you are aware, the Metro Vancouver region is experiencing significant pressure on the existing industrial land base. Industrial lands continue to be lost to other uses, which has a negative effect on employment and the competitive trade economy of the region and the country. In addition, market take-up of the available stock of industrial land continues to reduce the supply to support future growth. Estimates suggest the region has an inventory of market-ready industrial land only adequate for about 8-15 years.

Port Metro Vancouver supports the preservation of industrial lands of all types wherever possible, throughout the region, and in particular strongly support trade-related industrial and logistics uses for lands that have good access to transportation routes and corridors, and are in close proximity to established industrial areas.

We would also recommend that the site development criteria, such as setbacks, building square footage and site coverage, allow for maximum utilization of the property for the primary use, and restrict or eliminate accessory retail/commercial-type activities that further erode the available supply of industrial building square footage. This would be consistent with the work of Port Metro Vancouver and Metro Vancouver to pursue ways to intensify the use of industrial sites to help address the land supply problem. The proposal to rezone the site to "Light Industrial and Limited Accessory Retail – Riverport", allows for a range of light/small unit industrial and other activities. We support the consideration of industrial uses on the site, however, given the excellent road access, its close proximity to the Fraser Wharves property immediately to the south and to the Fraser Richmond port lands in general, as well as the shortage of alternative sites with these attributes, we would suggest the zoning and use of the site be better focused on larger format trade-related industrial and logistics uses, such as the Option 3 proposal prepared by Ledcor. This would help to counteract the loss of good quality industrial sites elsewhere, and would take advantage of the natural synergies with the other industrial properties located nearby. Such use would also support the largest economic sector in Richmond, per the actions identified in the Richmond Resilient Economy Strategy of 2014.

In the future, Port Metro Vancouver intends to pursue development of a wateroriented marine terminal at the Fraser Wharves property immediately across Steveston Highway. Trade-related industrial uses on the 13760 Steveston Highway site would be compatible with the eventual use of the Fraser Wharves property.

We appreciate the opportunity to comment on this and other proposed developments in the vicinity of the port. Should you have any questions on the above, please contact me at (604) 665-9378.

Sincerely,

PORT METRO VANCOUVER

Timothy Blair Senior Planner

cc:

Tom Corsie, Port Metro Vancouver Lilian Chau, Port Metro Vancouver Naomi Horsford, Port Metro Vancouver





May 8, 2015

Mr. Kevin Eng Policy Planning City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1

Dear Mr. Eng:

#### Re: Port Metro Vancouver Letter regarding our proposed Rezoning for Steveston & No. 6

Thank you for forwarding a copy of Port Metro Vancouver's letter dated April 15<sup>th</sup>, 2015 regarding the proposed OCP Amendment and Rezoning of our site located at Steveston & No. 6 in Richmond. This letter was generated as a response to the City of Richmond's request for Port Metro Vancouver (PMV) to provide additional input on the proposed Rezoning.

PMV makes three main points in their letter:

- PMV supports the preservation of industrial land throughout the region wherever possible. Our proposal will amend the current Entertainment and Athletics (CEA) use on the site to Light Industrial, which goes beyond preservation of Industrial land to <u>actual creation of Industrial</u> <u>land</u>.
- 2. **PMV would like our site to be able to accommodate large format trade-related industrial and logistics uses.** Our proposed Rezoning accommodates this type of use. The "Option 3" referred to by PMV is an example of a preliminary site plan for a large format logistics facility that fits within the parameters of the proposed Rezoning and meets all the requirements of the proposed Rezoning Considerations. This may well be the ultimate from of development for the site, but market conditions that support the viability of development on the site should prevail.
- 3. PMV suggest that the site development criteria, such as setbacks, building square footage and site coverage allow for maximum utilization of the site for the primary use. To accomplish this, perhaps Council could provide Staff with discretion on these items at the time of the ALR DP application based on the ultimate form of development.

We would like to respond to some of the more specific comments in the PMV letter.

 We feel that the statement that properties are being re-designated from Commercial and Industrial to Mixed Employment could be somewhat misleading without providing further context. Our Property, approximately 13.6 acres, is entirely designated Commercial in the OCP. The only portion of the land in the proposed Rezoning that is designated Industrial in the OCP is land currently owned by the City (approximately 0.8 acres) that we will be acquiring as part of the Rezoning process. The City land is currently comprised of a portion of a road allowance, and a portion of Steveston Highway. This land would be undevelopable in its current state and would be lost industrial land without this Rezoning.

# **CNCL - 408**



- 2. We do not feel that the characterization of Mixed Employment being drastically different from Light Industrial to be accurate in the context of our particular Rezoning. In the OCP, Mixed Employment is defined as "those areas of the City where the principal uses are industrial and stand-alone office development, with a limited range of support services..." In the case of our Rezoning, stand-alone office is not a permitted use, and therefore, <u>the principal use is Industrial.</u>
- 3. The proposed new zoning for our site to Light Industrial and Limited Accessory Retail Riverport (ZI12) would provide the ability to include up to a maximum of 2,350 square meters of accessory retail for the entire site, with no individual accessory retail space being greater than 186 square meters. This inclusion of a limited amount of accessory retail in this Rezoning application was based on recommendations obtained through market research and consultation with the real estate community as being desirable for some potential users, particularly local businesses. While the accessory retail use may be attractive for some users, it is highly unlikely that all users will have accessory retail. We feel that Staff have already placed sufficient controls within the zoning language to limit the actual amount of accessory retail to be significantly less than 10%. We feel that this limitation should more than satisfy PMV's desire to "restrict or eliminate accessory retail/commercial-type activities..."

After reviewing the comments from PMV, our proposed Rezoning of this site meets all of their stated objectives, while at the same time accommodating potential needs of the broader Light Industrial market in Richmond.

In addition to the points above that are in specific response to the PMV letter, we feel that it is important to also mention the following.

- 1. In the fall of 2013, we had discussions with PMV to help us understand their plans for their property across Steveston Highway from our site and whether or not our site may be of interest to PMV. At that time we understood that PMV's focus was on expanding land holdings along the riverfront and because our site was discontinuous with their land, non-waterfront, and located across Steveston Highway from their lands it did not suit their needs. Should this have now changed, our proposed zoning will allow for the uses preferred by PMV and we are open to considering any market viable proposals for Port related and/or supporting uses on our site. That said, PMV has made no mention of any interest on their part to be a possible tenant, occupier or user of our site.
- 2. While our proposed re-zoning will allow for a variety of uses and built forms, the concept plan included in our re-zoning application was derived based on extensive market research through our advisors with regards to the highest and best use for this site. This research done almost 18 months ago is currently being proven out in the marketplace, as strata bay forms of light industrial development are currently in high demand. Ultimately, however, the market conditions that are present when the re-zoning of our property is completed will play a large

# CNCL - 409



role in determining the ultimate end user(s) of this site. The ability to react to these future market conditions within the context of the proposed light industrial zoning with limited accessory retail is vital for preserving the economic viability of our proposed development.

- 3. By maintaining the light industrial with limited accessory retail zone as proposed, the financial viability of the development is maintained and economic activity from the site will be generated more quickly than by limiting the site to only one form of light industrial activity as suggested by PMV. Since the fall of 2013 we have only had one inquiry with regards to a potential large format distribution use on our site (ultimately our site was not considered large enough for this user), whereas we have had multiple inquiries for other light industrial uses that would be permitted under our proposed re-zoning.
- 4. The proposed rezoning has the potential to increase employment because of the broad range of permitted uses and the variety of end users that may be attracted to the property. This is in contrast to a large format distribution center which could have limited staff, and has the potential for operational automation. In addition, the proposed rezoning also allows existing Richmond-based industrial businesses an opportunity to relocate/expand/downsize within Richmond vs relocating to other jurisdictions.

Thank you for the opportunity to respond to PMV's comments regarding our proposed development. While we appreciate that PMV may have a preference for one particular form of development for our site, our proposed re-zoning supports all of PMV's stated objectives without excluding the objectives of other equally important potential users of light industrial land in Richmond.

Yours Truly,

On behalf of Steveston No. 6 LP

Paul Woodward Senior Vice President, Development and Construction Ledcor Properties Inc. 1200, 1067 West Cordova Street, Vancouver, BC V6C 1C7 p 604-699-2851 www.ledcor.com

FORWARD, TOGETHER.

# ATTACHMENT G

#### TRANSPORTATION PLANNERS AND ENGINEERS



May 6, 2015 PN: 4805-03

Kevin Eng Planner, Policy Planning Division City of Richmond 6911 No.3 Road Richmond, BC V6Y 2C1

Dear Kevin:

#### Re: Steveston Highway & No.6 Road Proposed Development - Traffic Considerations

The purpose of this letter is to provide a response to the traffic issues identified at the City of Richmond Planning Committee meeting on February 17, 2015. These issues are as follows:

- What would be the comparative traffic impact of development on the subject site under the existing CEA (Entertainment & Athletics), IL (Light Industrial), and AG1 (Agricultural) Zoning at different traffic periods of the day?
- What is the anticipated traffic impact of the proposed development to traffic operations on the Steveston Highway overpass crossing of Highway 99?
- Is a new road connection to the existing Rice Mill Road south of Steveston Highway feasible and would this improve traffic conditions in the area?

## 1. TRAFFIC IMPACT ANALYSIS

A light industrial development is proposed for a presently vacant 14 acre parcel located in the northwest quadrant of the intersection of Steveston Highway and No.6 Road in Richmond. The development floor area would be approximately 255,000 square feet. The proposed zoning would also permit limited accessory retail use with no more than 10% of the overall floor area (25,000 square feet) for this commercial use and with no single commercial use component exceeding 2,000 square feet.

A comprehensive traffic impact analysis of the proposed development was undertaken by Bunt & Associates and summarized in a Traffic Impact Analysis (TIA) report document dated May 7, 2014 along with Addendum Reports in June 2014 and October 2014. This material has been reviewed and accepted by City of Richmond Transportation staff.

Bunt & Associates Engineering (BC) Ltd. Suite 1550 – 1050 West Pender Street, Vancouver, BC. V6E 3S7 Tel 604 685 6427 Fax 604 685 6579 Vancouver Victoria Calgary Edmonton www.bunteng.com

**CNCL - 411** 

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#### 1.1 Existing Conditions

The intersection of No.6 Road and Steveston Highway adjacent the proposed development site presently operates well within capacity (22% of capacity during the weekday morning peak traffic period and at 42% of capacity during the weekday afternoon peak period) and very satisfactory Level of Service (LOS) B traffic conditions both morning and afternoon. The nearby intersection of No.6 Road and Triangle Road also presently operates well within capacity (12-15% of capacity) during peak traffic periods and at a LOS B traffic condition both morning and afternoon.

On Steveston Highway, the intersection with Sidaway Road was determined to operate at 20% of capacity (LOS B) during the weekday morning period and at 42% of capacity (LOS C) during the weekday afternoon period. No traffic analysis was conducted for the intersection of No.6 Road with Palmberg Road as this route operates as a cul-de-sac street with minimal traffic loads.

Bunt & Associates also reviewed previous traffic analysis work for the Steveston Highway interchange on Highway 99 which identified LOS B to LOS E traffic operations at the ramp junction intersections for the weekday morning and afternoon peak traffic periods.

As part of Bunt & Associates' review of area traffic operations we identified in our report the presence of up to 250 vehicles per hour during the weekday afternoon peak period passing through the study area using either No. 6 Road or Sidaway Road to avoid the long southbound queues on Highway 99 leading to the Steveston Interchange and the Massey Tunnel. During the weekday morning peak period the volume of pass through traffic avoiding queues on southbound Highway 99 is estimated to be approximately 100 vehicles per hour. This same bypass traffic adds to the left-turn volume returning back onto southbound Highway 99 at the ramp junction intersection on the east side of the Steveston Highway interchange, which in turn occasionally backs up and interferes with westbound through traffic on the overpass.

The traffic operations issues identified above for the Steveston Highway interchange with Highway 99 will be addressed with the major interchange upgrades to occur with the planned new Massey Bridge improvement project referred to above.

#### 1.2 With Proposed Development at No.6 Road and Steveston Highway

Bunt & Associates' TIA for the proposed light industrial development of the subject site determined that the weekday afternoon peak hour was the critical traffic condition for the area. During this time period, the proposed light industrial development is anticipated to generate up to 285 vehicles per hour (on average between 4-5 vehicles per minute) of new traffic on the area road system, or approximately a 15% increase over the existing 1,750 vehicles per hour presently travelling on Steveston Highway, Sidaway Road and No.6 Road.

Approximately one-half of the new development traffic is anticipated to use Steveston Highway with the other half using No.6 Road, again amounting to approximately a 15% increase over existing weekday PM peak hour traffic volumes using these two routes.

Traffic operations at key intersections in the area of the proposed development were re-evaluated and the impact of the additional traffic determined to be of minimal impact with traffic conditions remaining at very satisfactory LOS B conditions at the No.6 Road intersections with Steveston Highway and Triangle Road, and LOS C conditions at the Steveston Highway intersection with Sidaway Road.

## 2. DEVELOPMENT TRAFFIC (EXISTING ZONING VS. PROPOSED)

#### 2.1 Existing Zoning - Entertainment/Recreational Land Use Scenario

The adjacent Riverport Sports and Entertainment Complex, which occupies a site approximately twice the size of the proposed development presently generates over 700 vehicles per hour of inbound and outbound traffic during the weekday afternoon peak hour. As such, the subject development site at half the size could potentially generate up to 350 vehicles per hour if developed with entertainment and recreational uses under the existing CEA zoning that applies to the majority of the property.

By comparison, the weekday afternoon peak hour traffic anticipated with the proposed light industrial development, including allowance for the limited accessory retail use, would be 285 vehicles per hour or almost 20% lower than with development under the existing zoning.

Moreover, during the evening period, and on weekend afternoons the traffic generated by this site if developed with entertainment and recreational uses rather than the proposed light industrial uses would be higher still and directly add to the busiest traffic periods for the adjacent Riverport Complex. Currently, the Riverport Complex has two evening movie showings starting around 7:00PM and ending around midnight. There are multiple showings throughout the day on Saturday and Sunday. With the proposed light industrial development of the site, the evening and weekend period site traffic would be almost nil and not add to the busy traffic periods at Riverport.

#### 2.2 Existing Zoning - Suburban Office Park Land Use Scenario

The existing CEA zoning of the subject site would also permit a suburban office/business park development on the subject site. Under the provisions of the City of Richmond Zoning Bylaw for the CEA zone, the 11.93 acre buildable area on this site could be developed with up to approximately 600,000 square feet of office floor area distributed in one or more four storey buildings surrounded by approximately 1,270 surface parking spaces.

Based on the reported vehicle trip generation rates provided in the Institute of Transportation Engineers (ITE) Trip Generation Handbook (9<sup>th</sup> Edition) for Office Park land use (Code 750), a development of this scale would be anticipated to generate approximately 830 vehicle trips during the weekday afternoon peak hour traffic period.

This volume of traffic associated with an office/business park development of the site is nearly three times the anticipated 285 vehicles per hour predicted for the proposed light industrial development and would even well exceed the 700 vehicle per hour weekday afternoon peak hour traffic presently generated by the neighbouring Riverport Sports & Entertainment Complex.

Table 1below summarizes this site traffic comparison between development on the site with either (i)entertainment and recreation uses or (ii) suburban office park land use both as permitted with the existingCEA zoning, and that anticipated with (iii) the proposed light industrial development.

Traffic	Existing	Subject Development Site		
Period	Riverport Sports & Entertainment Complex	(i) EXISTING ZONING Recreation/Entertainment Land Use	(ii) EXISTING ZONING Suburban Office Land Use	(iii) Proposed Development
Weekday Afternoon	700 veh/hour	350 veh/hour	830 veh/hour	285 veh/hour
Weekday Evening	1,140 veh/ hour*	570 veh/hour	85 veh/hour	15 veh/hour
Saturday Afternoon	950 veh/hour*	475 veh/hour	125 veh/hour	45 veh/hour

#### Table 1: Site Traffic Comparison (Existing Zoning Potential Uses versus Proposed Development)

Note: \* estimates only for weekday evening and Saturday afternoon site traffic at Riverport

As evident from Table 1, the proposed light industrial land use development of the subject site would result in the lowest vehicle trip generation condition during the weekday afternoon, weekday evening and Saturday midday peak traffic periods. In other words, development of the site with uses permitted under the existing zoning would have a greater traffic impact on the area road system than would the proposed development.

Particularly notable is the very low trip generation anticipated for the weekday evening and Saturday midday periods when the adjacent Riverport facility is generating its highest traffic loads.

**CNCL - 414** 

## 3. STEVESTON HIGHWAY INTERCHANGE WITH HIGHWAY 99

#### 3.1 Existing Traffic Operations

A summary of existing traffic operations at the Steveston Highway interchange with Highway 99 was provided earlier in Section 1.1 as part of the discussion of the overall existing traffic operating condition on the area road system.

#### 3.2 Added Traffic on Westbound Steveston Highway

The proposed development is anticipated to add approximately 80-85 vehicle trips per hour during the weekday afternoon peak traffic period on westbound Steveston Highway crossing the Highway 99 overpass, or on average between 1 to 2 additional vehicles per minute. This amounts to less than 10% increase to the existing 935 vehicles per hour of westbound traffic volume presently using the overpass during the weekday afternoon peak period. This modest increase in traffic on westbound Steveston Highway would similarly result with development on the subject site under the existing CEA zoning.

#### 3.3 Massey Bridge Project

The planned Massey Bridge project to replace the Massey Tunnel will result in a full upgrade to the Steveston Highway interchange with Highway 99 and added capacity to accommodate future traffic loads. Completion of this project is anticipated in 2022. Allowing for site preparation, preloading time and construction, the new traffic associated with the proposed development wouldn't likely be a factor 2018.

For the 4-5 year interim period before the new Massey Bridge is completed there will be considerable construction traffic control management (traffic control personnel) in place on this section of Steveston Highway to assist the movement of existing traffic as well the additional 1-2 vehicles per minute added by the proposed development.

Bunt has contacted the Ministry of Transportation and Infrastructure (MoTI) District Operations Engineer to enquire as to whether the Ministry would consider the implementation of vehicle queue detectors for the westbound Steveston Highway to southbound Highway 99 left-turn movement at the Steveston/Highway 99 interchange as a measure to reduce peak period congestion on the Steveston overpass. The Ministry indicated that this measure would not be supported as the impact to eastbound traffic flow on Steveston Highway west of the interchange would likely be negative and only serve to add to existing congestion at the intersection of Steveston Highway and No.5 Road. The Ministry further indicated that this section of Steveston Highway would be the focus of a comprehensive construction traffic management plan during the Massey Bridge construction project.

## 4. RICE MILL ROAD

As a potential route to divert area traffic away from Steveston Highway, the existing Rice Mill Road located to the south of Steveston Highway was questioned as to its effectiveness for this purpose.

In consultation with Richmond staff the Rice Mill Road route is not an option as it presently does not physically connect to the area road system east of Highway 99 and any such connection would affect existing privately owned lands within the Agricultural Land Reserve (ALR). Exhibit 1 illustrates the location of Rice Mill Road which terminates well to the west of lands south of Steveston Highway and the subject development site, and the extent of ALR and environmentally sensitive lands in the area. Moreover, this connection even if provided would only serve to send more traffic to the No.5 Road intersection with Steveston Highway that already experiences peak period traffic pressures.

## 5. TRANSPORTATION SYSTEM IMPROVEMENTS

As identified through consultation with City of Richmond staff, the proposed development will provide for a number of transportation improvements to this area including:

- Widening of Steveston Highway between No.6 Road and Palmberg Road to feature two lanes both eastbound and westbound with dedicated cycling lanes;
- Construction of a 3.0m wide pedestrian path along the north side of Steveston Highway between No.6 Road and Palmberg Road;
- Construction of a 3.0m wide pedestrian path along the west side of No.6 Road from Steveston Highway to the adjacent property (existing home) north of the proposed development;
- Introduction of a pedestrian crossing of No.6 Road connecting to the Riverport Sports and Entertainment Complex;
- Upgrades to existing bus stops along this section of Steveston Highway.

#### 6. SUMMARY

Based on the analysis and information provided in this letter report, our responses to the issues raised at the February 17, 2015 Planning Committee meeting are as follows:

(i) What would be the comparative traffic impact of development on the subject site under the existing CEA (Entertainment & Athletics), IL (Light Industrial), and AG1 (Agricultural) Zoning at different traffic periods of the day?

The proposed light industrial development is predicted to generate 285 vehicles per hour during the weekday afternoon period, 15 vehicles per hour during the weekday evening period, and 45 vehicles per hour during the Saturday midday period. Development of entertainment/recreation uses and/or suburban office uses under the existing zoning would result in significantly higher traffic increases

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Steveston Highway 7 No.6 Road Proposed Development | Traffic Considerations bunt & associates | Project No. 4805.03 | May 6, 2015

on the area road system, particularly during the evening and weekend afternoon periods when the adjacent Riverport facility is generating its highest traffic loads.

- (ii) What is the anticipated traffic impact of the proposed development to traffic operations on the Steveston Highway overpass crossing of Highway 99?
  - The proposed development is predicted to generate 285 vehicle trips during the weekday afternoon peak hour traffic condition, or between 4-5 new trips on the area road system. This represents approximately a 15% increase over existing afternoon peak hour traffic volumes on the area road system. This added traffic can be accommodated within the existing capacity available on the area road system;
  - Development of the subject lands with either entertainment/recreation or suburban office park land use as permitted under the existing Zoning would result in significantly higher additional traffic loads on the area road system than with the proposed development;
  - Traffic generated by the adjacent Riverport Sports and Entertainment Complex is highest in the evening and on weekends. Evening and weekend traffic associated with the proposed development will be minimal. If the site were to instead be developed with additional sports and entertainment uses as permitted under the existing zoning, the development would add to the busy evening and weekend traffic activity associated with Riverport;
  - The proposed development will bring forward a number of transportation infrastructure improvements to this area for pedestrian, cyclist and vehicle traffic.
- (iii) Is a new road connection to the existing Rice Mill Road south of Steveston Highway feasible and would this improve traffic conditions in the area?
  - Based on review of existing land ownership as well as existing Agricultural Land Reserve (ALR) and environmentally sensitive land designations, an extension of Rice Mill Road eastward to connect with the local road system in the vicinity of Steveston Highway and No.6 Road is not feasible. Moreover, even if such a connection could be achieved it would only serve to add more traffic to the already congested intersection of Steveston Highway and No.5 Road on the west side of the Highway 99/Steveston Highway interchange.

I trust that this information will be of assistance. Please do not hesitate to call should you have any questions.

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Yours truly, Bunt & Associates

Peter Joyce, P.Eng. Principal



**Exhibit** 1

# ATTACHMENT H



Ledcor Properties Inc 1200, 1067 West Cordova Street, Vancouver, British Columbia, Canada V6C 1C7

May 8, 2015

Mr. Kevin Eng Policy Planning City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1

Dear Mr. Eng:

Re: Proposed Rezoning for Steveston & No. 6 - Solar PV

At the February 17, 2015 Planning Committee meeting our rezoning application was referred back to staff to examine four issues, including *"the feasibility of adding a solar roof"*.

Further to our correspondence to you of March 17, 2015 and April 2, 2015 and our subsequent discussions we would like to confirm the following.

In the lower mainland of British Columbia the installation of solar power is not commercially viable for light industrial buildings due to the high capital costs, the long payback period, and the fact that the end user is not willing to pay a premium for a building that includes solar power. Light Industrial users are very price sensitive and as such, a solar power requirement specific to our site would put us at a competitive disadvantage to other light industrial properties in Richmond and neighboring jurisdictions.

We understand that while the City of Richmond does not yet have a formal requirement or by-law in place requiring the provision of solar power, nor does any other jurisdiction in the lower mainland, the City of Richmond is desirous of taking steps towards challenging the status quo and would like to encourage the use of alternative energy solutions such as solar PV where possible. With that in mind, we are happy to support the City in this new initiative.

We are willing to provide 16kW of solar power for the site, which is enough power to handle all the common exterior building, landscape, pathway and parking area lighting requirements for the entire site. This solar PV system could include a roof mounted PV panel/battery system, and/or fixture mounted PV panel/battery systems, with the exact selection of lighting types and choice of PV system to be developed during the building design phase.

In addition, we will ensure that the buildings are roughed in to allow for the future installation of roof top solar panels by individual users once the cost of solar power becomes financially viable (which by some industry estimates is expected to be by 2027 in the lower mainland of BC).

It is also important to point out that the provision of a solar power component to this project is in addition to other sustainable features already being provided, including:



- The development of an existing brown field site
- Increased daylighting and re-planting of the Riparian area along No. 6 road
- Significant planting of the ALR buffer along the north and west property boundaries
- The ALR buffer and the riparian area along No. 6 will remain as green space totaling 2.4 acres.
- The development will comply with the existing City of Richmond Green Roofs Bylaw No. 8385
- The buildings will comply with the 2010 ASHRAE 90.1 Energy Standard for Buildings

We appreciate the discussions we have had with staff subsequent to the February 17, 2015 planning committee meeting in regards to the above.

Yours Truly,

On behalf of Steveston No. 6 LP

. .....

Paul Woodward Senior Vice President, Development and Construction Ledcor Properties Inc. 1200, 1067 West Cordova Street, Vancouver, BC V6C 1C7 p 604-699-2851 www.ledcor.com

FORWARD, TOGETHER.





# **Rezoning Considerations**

Development Applications Department 6911 No. 3 Road, Richmond, BC V6Y 2C1

**Address:** 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway

File No.: RZ 13-630280

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9211, the developer is required to complete the following:

# Note: Rezoning Considerations for RZ 13-630280 include the following schedules:

# Schedule A – Subdivision, Consolidation and Road Dedication Plan

- 1. Final Adoption of OCP Amendment Bylaw 9210.
- 2. Registration of the necessary legal plan(s) to the satisfaction of the City to achieve a consolidated development site based on the following terms:
  - a) Acquisition of City lands, including:
    - (1) Final adoption of the road closure and removal of road dedication bylaw for a 2,081.1 sq. m portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway (Schedule A).
    - (2) Council approval of the sale of a 2,081.1 sq. m portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway (Schedule A)
    - (3) Council approval of the sale of a 1318.7 sq. m portion of 13760 Steveston Highway (Schedule A).
    - (4) The developer shall be required to enter into a purchase and sales agreement with the City for the purchase of the Land (portion of 13760 Steveston Highway and portion of an unopened road allowance adjacent to and north of 13760 Steveston Highway), which is to be based on the business terms approved by Council. The primary business terms of the purchase and sales agreement will be brought forward for consideration by Council in a separate report from the Manager, Real Estate Services. All costs associated with the purchase and sales agreement shall be borne by the developer.
  - b) Subdivision of a portion of 13760 Steveston Highway and a portion of the road allowance adjacent to and north of 13760 Steveston Highway.
  - c) Consolidation of the City lands with 13751 and 13851 Steveston Highway and 10651 No. 6 Road into one development parcel (Schedule A).
  - d) Road dedications, including 173.3 sq. m of land generally along the consolidated development site's Steveston Highway frontage (Schedule A).
- 3. Registration of a flood plain covenant on title of the consolidated site identifying a minimum habitable elevation of 3.0 m GSC.
- 4. Registration of a legal agreement on title of the consolidated development site indicating that the development is required to mitigate noise and demonstrate that the building envelope is designed to avoid noise generated by the internal use from penetrating into residential areas that exceed noise levels allowed in the City's Noise Regulation Bylaw 8856 and noise generated from rooftop heating, ventilation and air conditions units will comply with the City's Noise Regulation Bylaw 8856.
- 5. Registration of a legal agreement on title of the consolidated development site identifying that, for commercial vehicles over the weight/load limitations (5 tonnes) in place along No. 6 Road, southbound to westbound and eastbound to northbound turning movements at the No. 6 Road driveway access is not permitted (to prevent

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commercial vehicles over the weight/load limitations on No. 6 Road from travelling to the development site from No. 6 Road, north of the driveway access location).

- 6. Registration of a legal agreement on title of the consolidated development site identifying that the subject site is not serviced by a City sanitary sewer system and the City will not permit the development site to be serviced by a City sanitary sewer system. This legal agreement will also identify that the development site is required to be serviced by a private sanitary sewer utility system, located on properties east of No. 6 Road (as per legal documents BX558923, BX558924 and BX 558925), which is required to be maintained and operated by the private utility provider and/or developer.
- 7. The applicant/developer is required to enter into an appropriate legal agreement with the City of Richmond for the purpose of locating, constructing, operating and maintaining private sanitary sewer infrastructure within a dedicated City road allowance. This legal agreement will also identify that the applicant/developer is required to build any works associated with the private sanitary sewer infrastructure within a dedicated road allowance as part of the Servicing Agreement application (required as a rezoning consideration for this application) to be approved by the City. All works are at the applicant's/developer's sole cost.
- 8. Registration of a legal agreement on title of the consolidated development site in regards to the Agricultural Land Reserve (ALR) landscape buffer that includes the following information and provisions:
  - a) Submission of a reference plan (prepared by a BC Land Surveyor), to be approved by City staff, outlining the area of the ALR landscape buffer.
  - b) Applicant/developer and future owner of the site must maintain the ALR landscape buffer, which cannot be abandoned or modified without prior approval from the City.
  - c) The ALR landscape buffer is for the purposes of mitigating against typical farm nuisance activities related to noise, dust and odour generated from the agricultural operation.
- 9. The submission and processing of a Development Permit\* completed to a level deemed acceptable by the Director of Development.
- 10. Public art installation participation in the City's Public Art Program in the amount of \$90,994 OR City acceptance of the developer's offer to voluntarily contribute the same amount to the City's Public Art Reserve Fund.
- 11. Enter into a Servicing Agreement\* for the design and construction of the following works, at the applicants/developers sole cost, which include but may not be limited to:
  - a) Steveston Highway
    - (1) Road widening from Palmberg Road to approximately 90 m west of the west property line of 13751 Steveston Highway to provide for the following in both east-bound and west-bound directions:
      - (a) Two traffic lanes (each lane at min. 3.5 m width).
      - (b) A minimum 1.65 m wide on-street bike lane and a 1.5 m wide gravel shoulder.
    - (2) Widen the existing 1.5 m sidewalk to 3 m wide to provide a shared off-road pedestrian/cyclist pathway along the north side of Steveston Highway from No. 6 Road to Palmberg Road. The existing street trees and boulevard is to be maintained.
    - (3) Provide a minimum 3.3 m wide east-bound to north-bound left turn lane, with a minimum storage of 35 m at the development site access along Steveston Highway, which will require modifications to the existing raised median.
    - (4) On the north side of Steveston Highway, either provide an accessible bus landing pad and an accessible bus shelter or provide a voluntary contribution for the amount to implement the accessible bus landing pad and an accessible bus shelter in the future (construction costs and/or voluntary contribution shall not exceed \$25,000). The exact location of the accessible bus stop is subject to further consultation with Coast Mountain Bus Company.
  - b) No. 6 Road:
    - Provide a minimum 3.3 m wide north-bound to west-bound turn lane, with a minimum storage of 30 m at the development site access along No. 6 Road. All existing north-bound to south-bound traffic lanes are to be maintained. A 1 m wide shoulder on the east side is also to be provided. Due to the existing Riparian Management Area on the west side of No. 6 Road, all road widening should be accommodated on the east side of the road.
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- (2) Construct a 3 m wide off-road shared pedestrian/cyclist pathway along the entire No. 6 Road frontage (i.e., on-site and west of the existing RMA) that includes necessary lighting and appropriate protection (i.e. railing if deemed necessary) along the entire length of the pathway. Registration of a Public-Rightsof-Passage (PROP) Right-of-Way (ROW) will be required along the consolidated development site's No. 6 Road frontage, which will include and provide for the following:
  - (a) 3 m wide north-south running PROP ROW along the entire No. 6 Road frontage of the consolidated development site.
  - (b) 3 m wide east-west running PROP ROW to align with the proposed pedestrian crossing across No. 6 Road.
  - (c) Include any necessary PROP ROW to facilitate transitions and/or tie-ins to sidewalks and pathways in the area.
  - (d) Additional PROP ROW may be required and will be determined through the detailed Servicing Agreement design process for any supporting works and/or required pathway lighting.
  - (e) The location of the PROP ROW on the consolidated development site will be determined based on the detailed Servicing Agreement design process.
  - (f) Applicant/developer will be required to construct all works within the PROP ROW
  - (g) PROP ROW to allow for public access for pedestrians, cyclists, scooters, wheelchairs (motorized and non-motorized) and similar types of non-vehicle related means of transport).
  - (h) Maintenance of the surrounding landscaping outside of the PROP ROW along with general upkeep of the walkway within the PROP ROW (snow, ice and debris removal; walkway upkeep in a safe condition) is the responsibility of the owner and/or future industrial strata corporation.
  - (i) Within the PROP ROW, the City will be responsible to maintain and repair the hard surface walkway and pathway lighting, including access to undertake such works.
- (3) Provide for an at-grade crosswalk signal with overhead downward lighting and associated equipment on the north side of the proposed site access (design to be finalized through the Servicing Agreement).
- (4) Works related to modifying the existing Riparian Management Area and watercourse (including culvert removal and replacements) along the consolidated development site's No. 6 Road frontage and related compensation works as proposed in the applicant's environmental consultants proposed plan. New culverts will be owned and maintained by the property owner and require a permit as per the requirement of Bylaw 8441 (to be managed through the Servicing Agreement drawing review and approval process).
- (5) Any design for works associated with private sanitary sewer infrastructure to cross the City's dedicated road allowance (No. 6 Road) must be approved by the City and included in the Servicing Agreement design submission.
- c) General:
  - (1) Install a new water service connections (size to be determined) complete with meter and meter box along the Steveston Highway frontage.
  - (2) Install 2 new hydrants along the No. 6 Road frontage to accommodate hydrant spacing requirements.
  - (3) Install a sump and safety grill on the existing 600 mm storm culvert's inlet located approximately 40 m north of the south property line along the No. 6 Road frontage.
  - (4) Through the Servicing Agreement design process, provide a sediment and erosion control plan.
  - (5) Cut and cap the existing storm service connection and inspection chamber located approximately 28 m west of the east property line at the Steveston Highway frontage.
  - (6) Upgrade the existing storm sewer service connection and remove the existing inspection chamber located approximately 15 m west of the east property line at the Steveston Highway frontage.
  - (7) Provide additional statutory Right-of-Ways to accommodate new inspection chambers within the property to be determined through the Servicing Agreement design process.
  - (8) Provide additional statutory Right-of-Ways to accommodate City storm system infrastructure along the consolidated development site's No. 6 Road frontage, including but not limited to existing open portions of the RMA canal/watercourse, portions of the canal/watercourse to be daylighted and any related City CNCL 423

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works and infrastructure. The location and extent of the statutory Right-of-Ways will be determined through the Servicing Agreement design process.

- 12. Registration of a legal agreement on title of the consolidated development site requiring:
  - a) The installation of a solar photovoltaic (PV) power system capable of providing a minimum 16 kilowatts of solar PV power to the light industrial development (equivalent of the anticipated power load to provide power to all of the development site's exterior illumination needs).
  - b) The implementation of pre-ducting throughout the development to facilitate future additional solar PV installations.
  - c) The inclusion of clauses to require:
    - (1) The developer's professional energy consultant to submit a report at the time of building permit submission confirming the design details of the solar PV system, including the consultant's confirmation of adherence to the parameters of this legal agreement.
    - (2) The developer's professional energy consultant to submit a report prior to issuing final occupancy and/or final inspection of the building permit confirming construction and installation of the solar PV system in accordance with the previous submitted report and parameters of this legal agreement.

# Prior to a Development Permit<sup>\*</sup> being forwarded to the Development Permit Panel for consideration, the developer is required to:

- 1. Submit a landscape bond/security based on the cost estimate (to be prepared by a professional landscape architect) of the final approved landscape plan that will generally include, but may not be limited to the following:
  - a) ALR buffer, along the site's north and west edges.
  - b) On-site landscape treatment along the consolidated development site's Steveston Highway and No. 6 Road frontage, generally between the off-street parking and public roads.
  - c) Compensation/enhancement plantings associated with the RMA along No. 6 Road, based on plans to be approved by City staff.
- 2. Other items may be identified through review of the development permit application.

# Prior to Building Permit Issuance and/or final inspection or occupancy, the developer must complete the following requirements:

- Submission of a Construction Parking and Traffic Management Plan to the Transportation Division. Management
  Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and
  proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of
  Transportation) and MMCD Traffic Regulation Section 01570.
- 2. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
- 3. Registration of a legal agreement on title of the consolidated development site in favour of the City to indicate that the owner shall maintain any storm water management works, landscaping features and structural elements supporting such features, permeable pavers and asphalt, and bioswale in accordance with generally accepted building, landscaping and engineering maintenance practices so that the design volume of the storm water run-off from the site will, in perpetuity or until redevelopment, not be exceeded.
- 4. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Division at 604-276-4285.
- 5. Submission of a report from the applicant's professional energy consultant confirming the design details of the solar PV system, including the consultant's confirmation of adherence to the parameters of the legal agreement secured through the rezoning.
- 6. Submission of a report from the applicant's professional energy consultant prior to issuing final occupancy and/or final inspection of the building permit confirming construction and installation of the solar PV system in accordance with the previous submitted report and parameters is legal pareement.

#### Note:

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

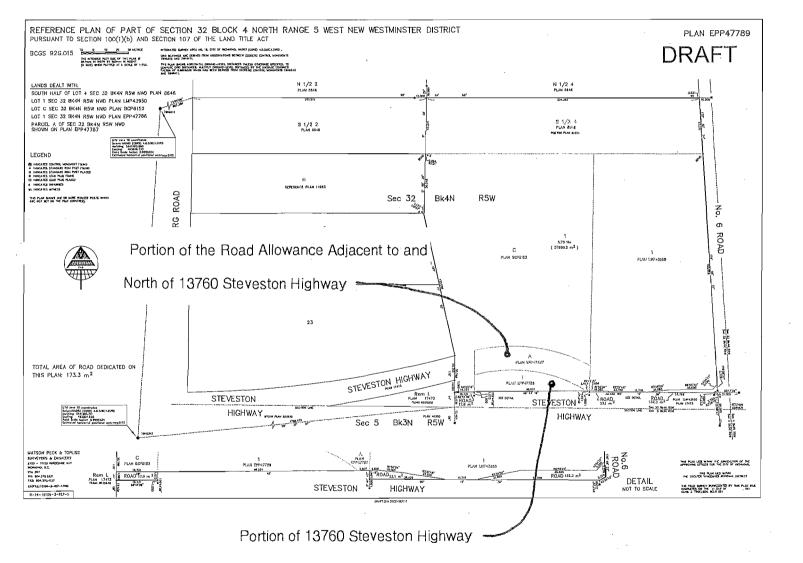
The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

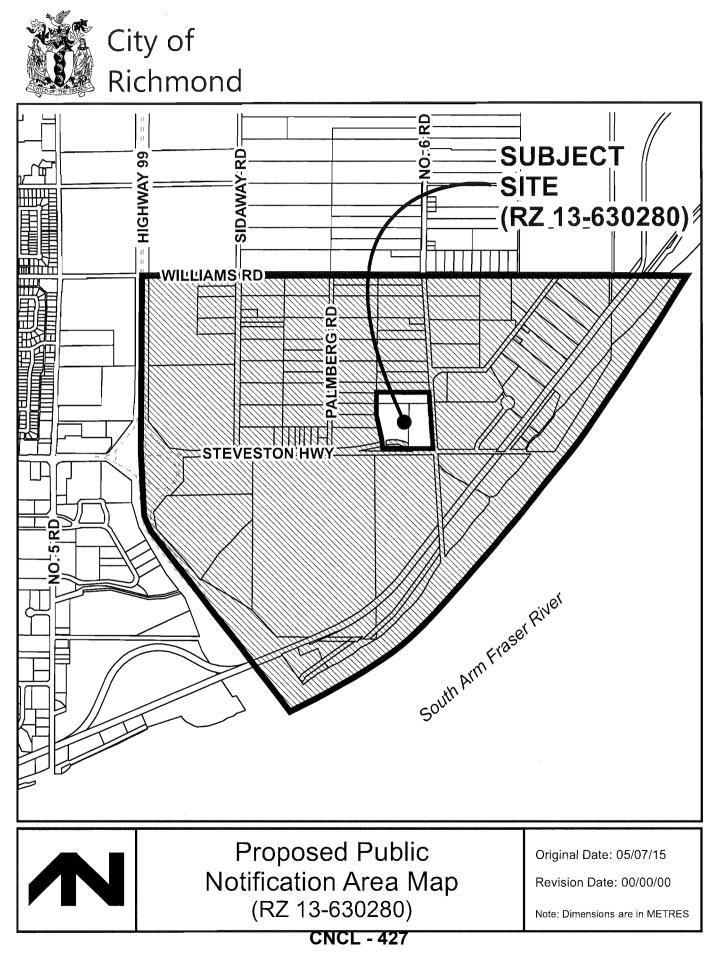
- Signed Copy on File -

Signed

Date



# ATTACHMENT J



J



# Richmond Official Community Plan Bylaw 9000 Amendment Bylaw 9210 (RZ 13-630280) 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Official Community Plan Bylaw 9000 is amended by repealing the existing land use designation in Attachment 1 to Schedule 1 thereof of the following area and by designating it "Mixed Employment".

That area shown cross-hatched on "Schedule A attached to and forming part of Bylaw 9210"

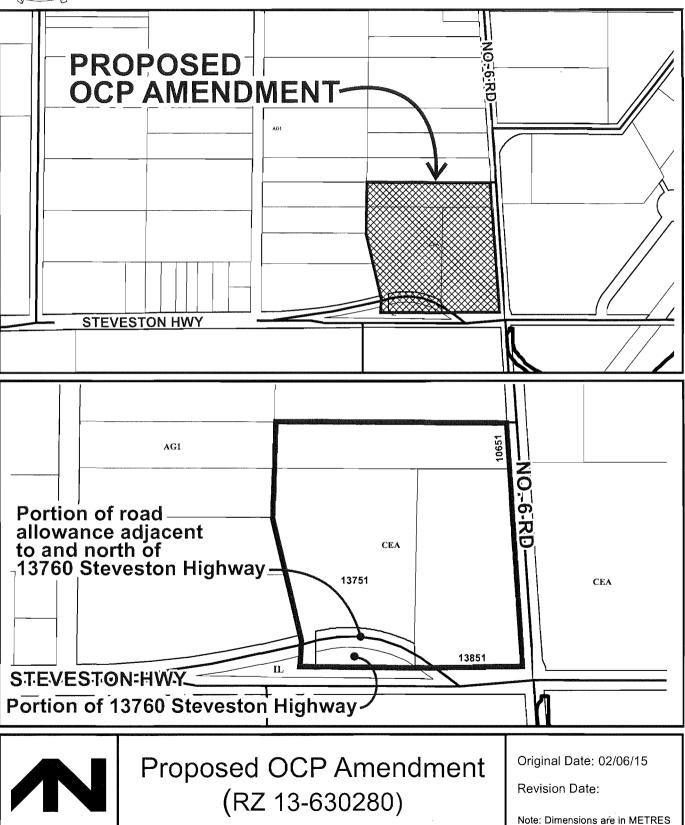
2. This Bylaw may be cited as "Richmond Official Community Plan Bylaw 9000, Amendment Bylaw 9210".

FIRST READING	CITY OF RICHMOND
PUBLIC HEARING	 APPROVED by
SECOND READING	 APPROVED by Manager
THIRD READING	 or Solicitor
OTHER CONDITIONS SATISFIED	 I
ADOPTED	

MAYOR

CORPORATE OFFICER





**CNCL - 429** 



# Richmond Zoning Bylaw 8500 Amendment Bylaw 9211 (RZ 13-630280) 13751 and 13851 Steveston Highway, 10651 No. 6 Road, a Portion of 13760 Steveston Highway and a Portion of the Road Allowance Adjacent to and North of 13760 Steveston Highway

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. Richmond Zoning Bylaw 8500 is amended by inserting the following zone into Section 23 – Site Specific Industrial Zones:

## "23.12 Light Industrial and Limited Accessory Retail – Riverport (ZI12)

## 23.12.1 **Purpose**

The **zone** provides for a range of **general industrial uses**, with a limited range of compatible **uses**. The **zone** also allows for limited accessory retail activities.

- 23.12.2 **Permitted Uses** 
  - animal daycare
  - animal grooming
  - auction, minor
  - child care
  - commercial storage
  - commercial vehicle parking and storage
  - contractor service
  - industrial, general
  - manufacturing, custom indoor
  - recreation, indoor
  - recycling depot
  - restaurant
  - utility, minor
  - vehicle body repair or paint shop
  - vehicle repair

## 23.12.3 Secondary Uses

• residential security/operator unit

1. The maximum **floor area ratio** is 0.75.

# 23.12.5 Limited Accessory Retail Provisions

- 1. Retailing of goods is permitted accessory to a primary permitted use as follows:
  - a) Retail activities must be accessory to the primary permitted use of the business and limited to goods that are manufactured, assembled, fabricated, processed, stored and/or distributed on-site within the business.
  - b) The maximum **gross leasable floor area** permitted for accessory retailing of goods is:
    - i)  $2,350 \text{ m}^2$  total gross leasable floor area over the entire site; and
    - Maximum gross leasable floor area permitted for accessory retailing of goods that can be allocated to an individual industrial unit shall be the lesser of either 10% of the total gross leasable floor area of the individual industrial unit or to a maximum of 186 m<sup>2</sup> gross leasable floor area.
  - c) A maximum of 25 industrial units and/or businesses on-site at any given time is permitted for accessory retailing of goods.
  - d) Accessory retailing of goods must be contained within same **building** as the primary **business** on a **site** and wholly operated and owned by the primary **business**.
  - e) Accessory retailing of goods must be wholly enclosed within a **building**.
  - f) Sub-leasing of the **gross leasable floor area** permitted for accessory retailing of goods is not permitted.
  - g) The **gross leasable floor area** permitted for accessory retailing of goods must be physically separated from the primary **business** by walls fixed to the floor.

		h)	The gross leasable floor area permitted for accessory retailing of goods must be located only on the first storey of the building and with direct access to the main public entrance for the business.	
		i)	Outdoor accessory retailing of goods and outdoor display of goods is not permitted.	
23.12.6	Perm	itted Lo	t Coverage	
	1.	The m	aximum <b>lot coverage</b> is 60% for <b>buildings</b> .	
23.12.7	Yards	ds & Setbacks		
	1.	that a	inimum <b>front yard</b> and <b>exterior side yard</b> is 3.0 m, provided n adequate transition is made if the <b>front yard</b> and <b>exterior</b> <b>ard</b> is greater on adjacent and/or abutting developments.	
	2.	There	is no minimum interior side yard or rear yard.	
23.12.8	Perm	mitted Heights		
	1.	The m	naximum height for buildings is 12.0 m.	
	2.	The m	naximum <b>height</b> for <b>accessory structures</b> is 20.0 m.	
23.12.9	Subd	livision Provisions and Minimum Lot Size		
	1.	There	is no minimum lot width or lot depth requirement.	
	2.	The m	inimum <b>lot area</b> is 5 ha.	
23.12.10	Land	lscaping & Screening		
	1.		scaping and screening shall be provided according to the sions of Section 6.0.	
23.12.11	On-S	Site Parking and Loading		
	1.		te vehicle and bicycle parking and loading shall be provided ding to the standards set out in Section 7.0, except that:	
		a)	For accessory retailing of goods, the on-site parking requirement shall be provided at a rate of 4 spaces per 100 $m^2$ of gross leasable floor area allocated to this accessory	

# **CNCL - 432**

use.

CITY OF RICHMOND

APPROVED

APPROVED by Director

#### 23.12.12 Other Regulations

- 1. In addition to the regulations listed above, the General Development Regulations in Section 4.0 and the Specific Use Regulations in Section 5.0 apply.
- 2. An **auction minor** activity and any related storage of goods and items to be auctioned must be wholly contained within a **building.**"
- 2. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it "LIGHT INDUSTRIAL AND LIMITED ACCESSORY RETAIL – RIVERPORT (ZI12)".

That area shown cross-hatched on "Schedule A attached to and forming part of Bylaw 9211"

3. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9211".

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

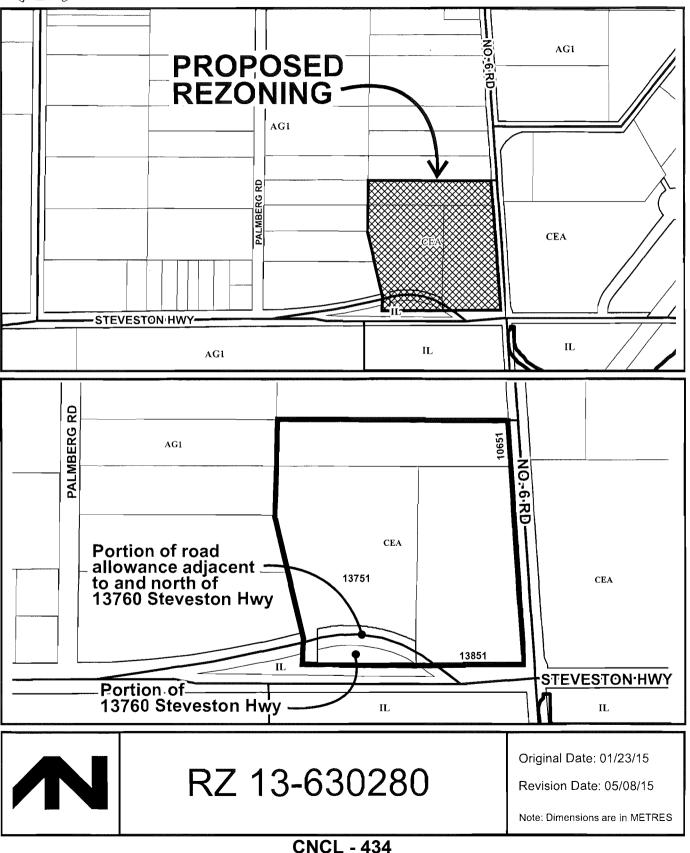
MAYOR

CORPORATE OFFICER

Schedule A attached to and forming part of Bylaw 9211



City of Richmond





**Report to Committee** 

Planning and Development Department

То:	Planning Committee
From:	Wayne Craig Director of Development

 Date:
 April 29, 2015

 File:
 ZT 15-691748

Re: Application by Parc Riviera Project Inc. for a Zoning Text Amendment to the "Residential Mixed Use Commercial (ZMU17) - River Drive/No. 4 Road (Bridgeport)" Zone for the Property at 10311 River Drive

#### Staff Recommendation

 That Richmond Zoning Bylaw 8500, Amendment Bylaw 9237, for a Zoning Text Amendment to the "Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)" zone to amend the maximum permitted density on the property at 10311 River Drive, be introduced and given first reading;

Wayne Craig Director of Development

SB:blg Att.

REPORT CONCURRENCE			
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER	
Engineering Transportation		pe Evere	

#### Staff Report

#### Origin

Parc Riviera Project Inc. has applied to the City of Richmond for a Zoning Text Amendment to amend the "Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)" zone to change the way the maximum permitted density is applied to the lot at 10311 River Drive in order to facilitate subdivision and future redevelopment of the property (Attachments 1 and 2).

#### Findings of Fact

A Development Application Data Sheet providing details about the Zoning Text Amendment proposal is attached (Attachment 3).

#### **Surrounding Development**

Surrounding development is as follows:

- To the north: City dike along the north arm of the Fraser River and Mitchell Island, zoned "Industrial (I)".
- To the east: Mechanic repair/maintenance shop and ambulance fleet parking on two (2) properties zoned "Industrial Storage (IS)".
- To the south: Across River Drive, single-family homes on lots zoned "Single Detached (RS1/B, RS1/D and RS2/C)".
- To the west: City-owned proposed park, which is being developed as part of the overall Parc Riviera development.

#### Background

In October, 2011, the City approved the original rezoning (RZ 07-380169) for the multi-phase Parc Riviera development (Attachment 4) on the properties at 10011, 10111, 10197, 10199 and 10311 River Drive including built on-site affordable housing units. The rezoning also included park land dedication and park development on the current city-owned properties at 9991 and 10211 River Drive. Subsequent to the rezoning, the City approved a Zoning Text Amendment (ZT 12-611282) to provide funding towards the City's capital Affordable Housing Reserve in lieu of building affordable housing units on-site. This Affordable Housing contribution was provided to advance the Storeys Affordable Housing project at 8111 Granville Avenue and 8080 Anderson Road, or another project at Council's discretion.

Community amenities secured through the original rezoning are being implemented in phases. Improvements to dikes, trails, roads, public transit and servicing infrastructure secured through the original rezoning are also being implemented through Servicing Agreements in phases (Attachment 5). Further details are provided in the "Analysis" section below. The Development Permits required for the overall project are being considered in phases. A Development Permit for the first phase of the project has been approved for 10011, 10111, 10197 River Drive and a portion of 10199 River Drive (DP 11-564405). This first phase includes an amenity building for the use of residents of all phases, a mixed-use building, apartment buildings and townhouse buildings. A Development Permit application has been submitted and is in the process of being reviewed for the next phase of the overall project, located at 10199 River Drive (DP 15-694616).

#### **Related Policies & Studies**

#### Official Community Plan (OCP)

The proposed Zoning Text Amendment is consistent with the City's Official Community Plan and the Bridgeport Area Plan.

#### **Public Consultation**

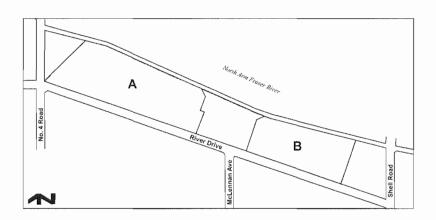
The applicant has confirmed that information signage describing the proposed Zoning Text Amendment has been installed on the subject site and the statutory Public Hearing will provide local property owners and other interested parties with an opportunity to comment.

#### Analysis

a) <u>Text Amendment to the "Residential Mixed Use Commercial (ZMU17) – River Drive/</u> <u>No. 4 Road (Bridgeport)" Zone</u>

The "Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)" zone includes the Diagram 1 below and applies to the Areas labelled A & B in the diagram. The ZMU17 zone allows a base maximum density floor area ratio (FAR) of 1.25 FAR and an Affordable Housing bonus density that increases the allowable density to 1.38 FAR. A contribution was received towards Affordable Housing (ZT 12-611282) for the overall project and accordingly, the ZMU17 zone permits 1.38 FAR for the total combined area of Area B, regardless of the subdivision. This allows the density to be applied throughout Area B and was intended to allow flexibility for building massing in the owner's original concept for a multi-phase development. The same applies to the area of Area A.

Diagram 1



## **CNCL - 437**

The ZMU17 zone is proposed to be amended to no longer refer to a total combined area of Area B or to permit density regardless of subdivision in Area B. This would permit each future subdivided lot to achieve a base density of 1.25 FAR and increased density of 1.38 FAR as a result of the Affordable Housing contribution received by the City (ZT 12-611282).

Staff support the proposed text amendment to the ZMU17 zone on the following basis:

- The ZMU17 zone was created for a multi-phase development over Area A & B; which was intended to be developed in four (4) phases from west to east. The applicant has advised that they would like to subdivide Area B in the near future into two (2) separate properties (Attachment 2), which could then be sold and developed individually.
- The proposed Zoning Text Amendment would provide owners of the two (2) proposed subdivided lots to each achieve a density of 1.38 FAR, giving them certainty regarding the permitted density on the individual properties and avoid potential issues related to unequal density distribution (i.e., first Development Permit may have more than proportionate share).
- The proposed Zoning Text Amendment would not impact intended phasing of community amenities secured under the original rezoning (RZ 07-380169) and as discussed in detail below.
- b) <u>Future Development</u>

The proposed Zoning Text Amendment allows for future subdivision of 10311 River Drive and has no associated development proposal at this time. However, we can advise Council that a Development Permit application is required to allow any future development on either of the proposed subdivided lots. The City has received information that the proposed west lot, adjacent to the central park, is intended to be developed with townhouses and a child care facility that is required to be constructed and ownership transferred to the City. Through any future Development Permit application, the following will be addressed:

- Built Form and Architectural Character.
- Tree retention and replacement.
- Open space and landscaping.
- Amenity space.
- Each property is to meet transportation requirements on-site, including but not limited to circulation, parking, bicycle storage, loading and servicing. Registration of a cross-access agreement may be required to ensure there are no more than two (2) driveways between McLennan Road and Shell Road.

#### c) <u>Community Amenities</u>

Community amenities secured through the original rezoning application (RZ 07-380169) and previous zoning text amendment application (ZT 12-611282) are being implemented in phases. The developer has provided, has entered into a legal agreement to provide, or has

agreed as a condition of the Zoning Text Amendment (Attachment 6) to provide the following amenities:

- Park land was provided to the City to a western park at 9991 River Drive, and a central park at 10211 River Drive.
- A contribution was provided to the City's Affordable Housing Reserve Fund in the amount of \$7,350,459.
- Water #10 sculpture by Chinese artist Jun Ren and previously exhibited as part of the Vancouver International Biennale was purchased by the developer to provide Public Art in the central park. As part of the required park construction, the artwork will be relocated from its temporary location at the west end of Cambie Road in the middle arm dike greenway to a permanent location in the central park.
- Community Use Space (\$1,000,000 cash contribution or 464.5 m<sup>2</sup>) was secured with a 'no development' covenant registered on Title of both 10199 River Drive and the subject property at 10311 River Drive (BB4018179). The agreement generally requires the contribution or construction agreement entered into prior to submitting a Building Permit application for either 10199 or the subject property. This would also apply to any future subdivided lots.
- A child care facility (for up to 65 children; approximately 511 m<sup>2</sup> to 600 m<sup>2</sup>) was secured with a 'no development' covenant registered on Title of the subject property at 10311 River Drive (BB4018181). The agreement generally requires a construction and ownership agreement entered into prior to submitting a Building Permit for the subject property and completion of construction, ownership transfer and any agreements prior to occupancy. Modification of the agreement is a requirement of the Zoning Text Amendment (Attachment 4) to ensure the requirement applies only to the subject property, or future subdivided west lot that is adjacent to the central park. Regardless of timing, the child care facility must be located adjacent to the central park.
- An amenity reserve contribution (\$500,000 cash contribution) was secured with a 'no development' covenant registered on Title of the subject property at 10311 River Drive (BB4018173). The agreement generally requires the contribution prior to submitting a Building Permit application for the subject property. Modification of the agreement is a requirement of the Zoning Text Amendment to ensure the requirement applies only to the subject property, or future subdivided east lot that is adjacent to the eastern neighbour. This allows the community amenities to be phased with development.

#### d) Infrastructure Improvements

Transportation and servicing improvements secured through the original rezoning application (RZ 07-380169) are being implemented in phases (Attachment 5). The developer has provided, has entered into a legal agreement to provide, or has agreed as a condition of the Zoning Text Amendment (Attachment 6) to provide the following improvements:

• A Servicing Agreement (SA 11-587071) for dike and waterfront trail works has been entered into for the western works, generally from No. 4 Road to the central park.

- A Servicing Agreement (SA 11-587136) for the western park has been entered into for park works at No. 4 Road and River Drive.
- A Servicing Agreement (SA 10-542184) for road and infrastructure works has been entered into for works generally in No. 4 Road, McLennan Avenue and between the two (2) roads in River Drive.
- A Servicing Agreement for dike and waterfront trail works to extend improvements to Shell Road was secured with a 'no development' covenant registered on Title of the subject property at 10311 River Drive (BB4018177). The agreement generally requires the Servicing Agreement be entered into prior to submitting a Development Permit application for the subject property. Modification of the agreement is a requirement of the Zoning Text Amendment (Attachment 4) to require the Servicing Agreement be entered into prior to Development Permit issuance for the subject property, or any future subdivided lots. This will allow the park, waterfront trail and private development works to be designed through the Servicing Agreement and Development Permit applications at the same time in a comprehensive and coordinated manner.
- A Servicing Agreement for the central park, dike and waterfront trail works was secured with a 'no development' covenant registered on Title of the subject property at 10311 River Drive (BB4018175). The agreement also includes the dike and waterfront works noted above. The agreement generally requires the Servicing Agreement be entered into and works completed prior to occupancy of the subject property. This would also apply to any future subdivided lots.
- Registration of a 'no development' covenant on Title of the subject property at 10311 River Drive is a requirement of the Zoning Text Amendment to secure road and infrastructure works Servicing Agreement for remaining works identified in the original rezoning application (RZ 07-380169). These works will tie into the first phase of road and infrastructure works and Shell Road, as well as providing intersection improvements and funding for bus shelters along Bridgeport Road. The developer would be required to enter into this Servicing Agreement prior to Development Permit issuance for the subject property, or any future subdivided lots.

#### Existing Legal Encumbrances Discharge Request

#### Density Large Unit Restriction

There a legal agreement registered on Title of the overall project development properties located at 10011, 10111, 10197, 10199 and 10311 River Drive (BB4018183). The legal agreement was registered on Title as part of the original rezoning application (RZ 07-380169) in recognition that the large multi-phase development may have an impact on student enrolment. The legal agreement generally restricts a maximum 32% of dwelling units to be two-bedroom or larger, unless the owner first consults with the School District as part of a Development Permit application. The applicant has requested permission to discharge this legal agreement from title.

The School District was consulted on April 1, 2015. Staff were advised that they are experiencing declining student enrolment and the School District has no concerns with removing the unit size restrictions.

Staff recommend that the owner(s) be permitted to discharge the legal agreement from Title of 10011, 10111, 10197, 10199 and 10311 River Drive (BB4018183). Owner(s) may submit a written request to have the obsolete covenant discharged from Title. Given the complexity of the titles, the owner(s) would be required to provide a legal opinion to the City outlining the process requirements for the discharge and proof that those process requirements have been satisfied.

The requested discharge is supported by staff, but is not a requirement of the Zoning Text Amendment. The discharge may be processed its own and would not impact the timing of the Zoning Text Amendment approval.

#### Cross-Access for Indoor Amenity

There is a cross-access legal agreement charge that is registered on Title of the properties located at 10011, 10111, 10197, 10199 and 10311 River Drive (CA2675712 to CA2675717). The legal agreement was registered on Title as part of the Development Permit for the first phase of the overall project (DP 11-564405) with the intent that indoor amenity was provided in the first phase at 10011 River Drive for the benefit of the overall project. The legal agreement generally provides 10111, 10197, 10199 and 10311 River Drive with access to communal residential amenity facilities provided on the property at 10011 River Drive (in the building addressed as 10013 River Drive). The applicant has requested permission to discharge this legal agreement from the title of 10311 River Drive and to modify the legal agreement registered on title to 10011 River Drive.

The legal agreement is still needed for the properties located at 10011, 10111 and 10199 River Drive, but is no longer needed or the property at 10311 River Drive. Through the Development Permit application process, multi-family development proposals are required to provide on-site indoor and outdoor amenity spaces. The indoor amenity building at 10011 River Drive is located at the far west edge of the overall project. The location of the amenity is appropriate for the adjacent properties at 10011, 10111 and 10199 River Drive, but is a long distance from the subject property at 10311 River Drive. Staff recommend that site-specific indoor and outdoor amenity space be provided on the subject property at 10311 River Drive to provide these amenities in close proximity to future residents on this property.

Staff recommend that the owner(s) be permitted to proceed with the discharge of the legal agreement registered on Title of 10311 River Drive (CA2675714) and modification of the legal agreement registered on Title of 10011 River Drive (CA2675712 and CA2675713) to not provide 10311 River Drive with access to the communal residential amenity facilities located on 10011 River Drive. Owner(s) may submit a written request. Given the complexity of the titles, the owner(s) would be required to provide a legal opinion to the City outlining the process requirements and proof that those process requirements have been satisfied.

The requested discharge is supported by staff, but is not a requirement of the Zoning Text Amendment. The discharge may be processed its own and would not impact the timing of the Zoning Text Amendment approval.

#### Financial Impact or Economic Impact

None.

#### Conclusion

The proposed Zoning Text Amendment to clarify that permitted density applies to each individual property in the "Residential Mixed Use Commercial (ZMU17) – River Drive/ No. 4 Road (Bridgeport)" zone is consistent with the purpose of the zone, and complies with the land use designations outlined within the Official Community Plan (OCP) and the Bridgeport Area Plan.

It is recommended that Zoning Bylaw 8500, Amendment Bylaw 9237, be introduced and given first reading.

Sava Badyal.

Sara Badyal, MCIP, RPP Planner 2 (604-276-4282)

SB:blg

Attachment 1: Location Map and Aerial Photo

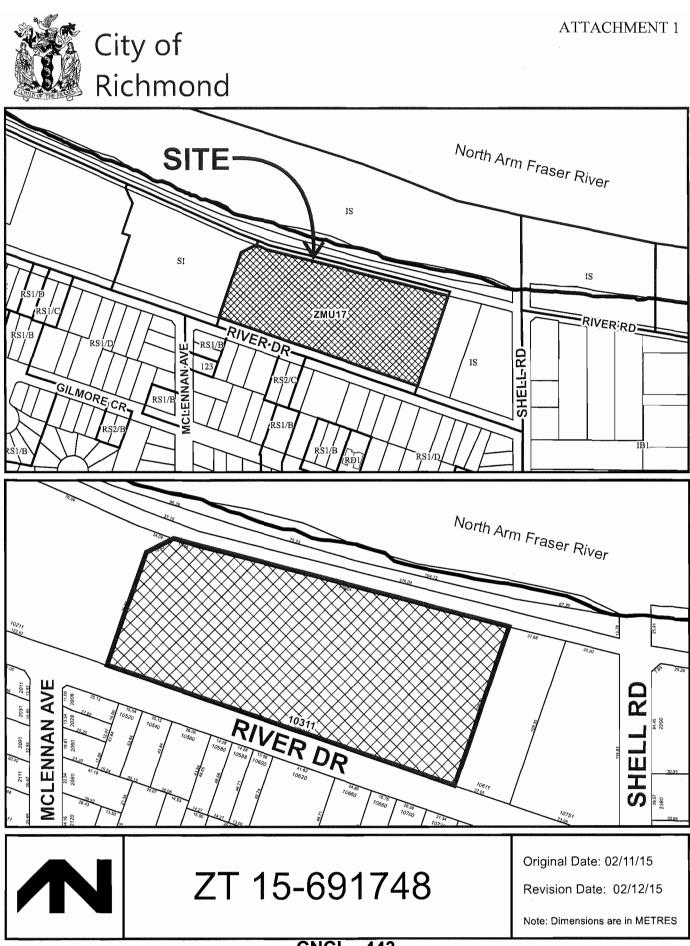
Attachment 2: Conceptual Subdivision Plan

Attachment 3: Development Application Data Sheet

Attachment 4: Parc Riviera Context Map Development Application History

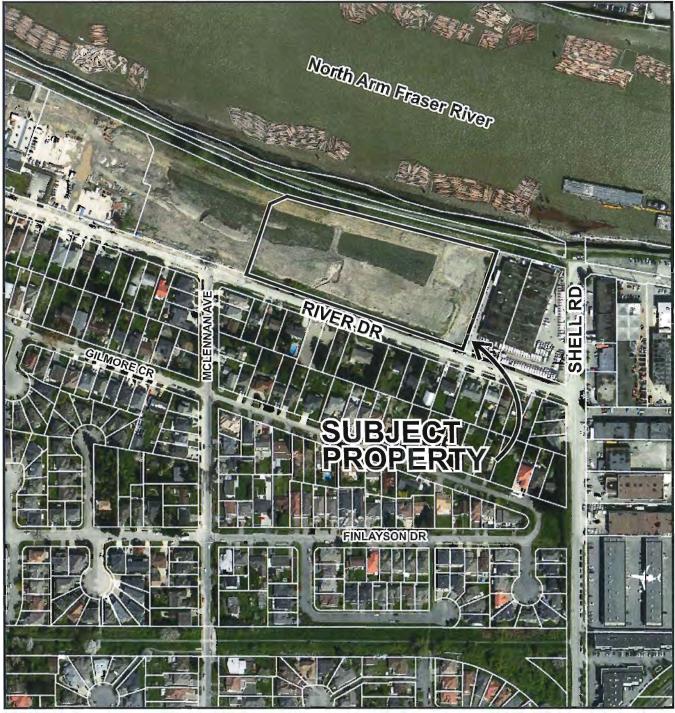
Attachment 5: Parc Riviera Context Map Servicing Agreement Phasing

Attachment 6: Zoning Text Amendment Considerations



**CNCL - 443** 







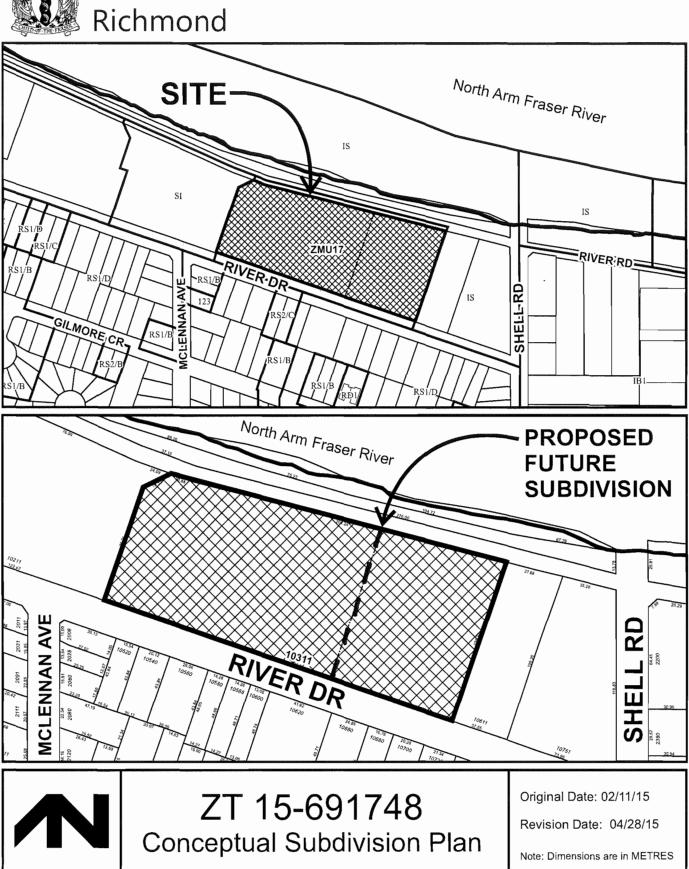
# ZT 15-691748

Original Date: 02/11/15

Revision Date

Note: Dimensions are in METRES







## **Development Application Data Sheet**

Development Applications Division

**Attachment 3** 

## ZT 15-691748

Address: 10311 River Drive

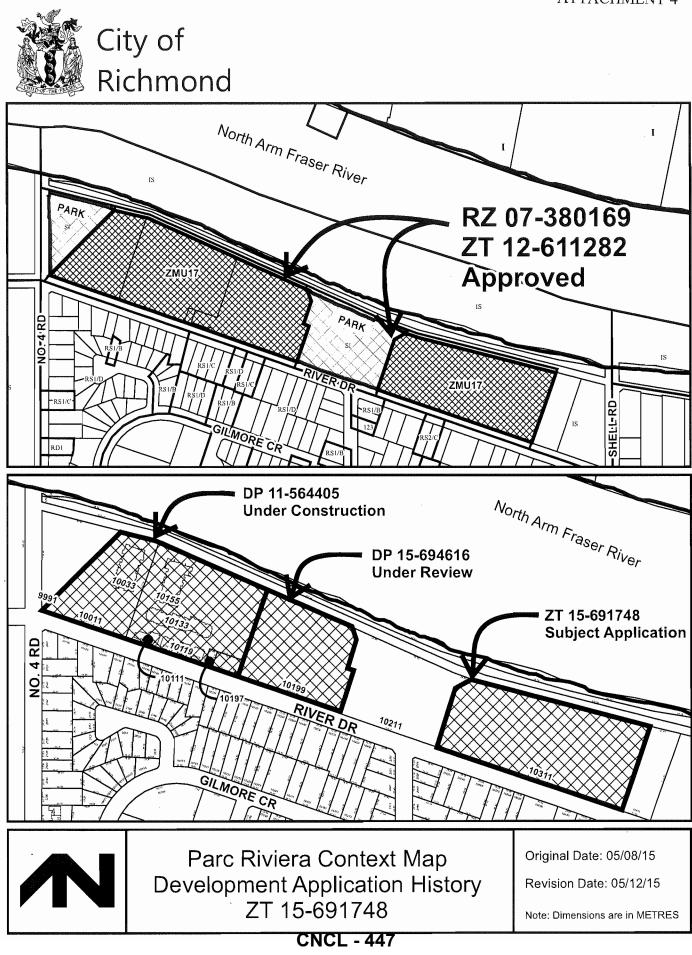
Applicant: Parc Riviera Project Inc.

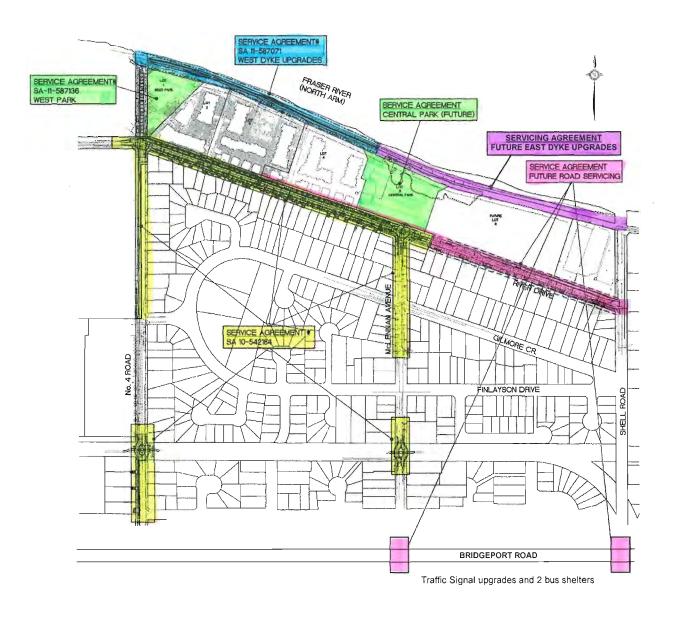
Planning Area(s): Bridgeport

	Existing	Proposed
Owner:	Parc Riviera Project Inc., Inc. No. BC0921462	Remains the same
Site Size:	2.243 ha	Remains the same
Land Uses:	Vacant	Remains the same
OCP Designation:	Mixed-Use	Remains the same
Area Plan Designation:	Residential Mixed-Use (Max. 6 Storey; 1.45)	Remains the same
Zoning:	Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)	Remains the same

	ZMU17 requirement	Proposed ZMU17 Requirement
Floor Area Ratio:	Max. 1.38 after Affordable Housing contribution, regardless of subdivision	Max. 1.38 after Affordable Housing contribution
Lot Coverage – Building	Max. 40%	Remains the same
Setbacks: River Drive Dike right-of-way Side Yard - Building	Min. 3 m Min. 7.5 m Min. 6 m	Remains the same
Height – Building: Within 20 m of River Drive Within 20-36 m of River Drive Beyond 36 m of River Drive	Max. 10 m Max. 15 m Max. 26 m	Remains the same

#### **ATTACHMENT 4**





Parc Riviera Context Map Servicing Agreement Phasing ZT 15-691748



## Zoning Text Amendment Considerations

Development Applications Division 6911 No. 3 Road, Richmond, BC V6Y 2C1

#### Address: 10311 River Drive

#### File No.: ZT 15-691748

#### The owner(s) may complete the following:

- Dwelling unit size legal agreement: The owner(s) of 10011, 10111, 10197, 10199 and/or 10311 River Drive may submit a written request to discharge the legal agreement registered on Title (BB4018183), together with a legal opinion to the City outlining the process requirements for the discharge and proof that those process requirements have been satisfied. This legal agreement generally restricts the proportion of two-bedroom or larger dwelling units to 32% unless the owner has first consulted with the Board of Education School District No. 38 (Richmond) as part of the Development Permit review process.
- 2. Communal residential amenity facilities access agreement: This legal agreement generally provides 10111, 10197, 10199 and 10311 River Drive with access to the communal residential amenity facilities at 10011 River Drive. The owner(s) 10311 River Drive may submit a written request to discharge the legal agreement registered on Title of 10311 River Drive (CA2675714) and the owner(s) of 10011 River Drive may submit a written request to modify the legal agreement registered on Title of 10011 River Drive with access to the communal residential amenity facilities provided on the property at 10311 River Drive. The owner(s) may submit a written request, together with a legal opinion to the City outlining the process requirements and proof that those process requirements have been satisfied.

# Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9237, the developer is required to complete the following:

- 1. The granting of 1.3 m wide public-rights-of-passage statutory right-of-way along the River Drive property line of 10311 River Drive. City sidewalk to be constructed by owner at their sole cost via required Servicing Agreement. City responsible for future maintenance of sidewalk.
- 2. The granting of 3.0 m wide utilities statutory right-of-way along the River Drive property line of 10197, 10199 and 10311 River Drive. City utilities to be constructed by owner at their sole cost via required Servicing Agreement. City responsible for future maintenance of City utilities.
- 3. Voluntary Contribution of \$500,000 towards a City Amenity Reserve:
  - a) Registration of a "No Development" legal agreement on 10311 River Drive, or any subdivided lands thereof adjacent to the west property line of neighbouring 10611 River Drive, with the same terms as the existing legal agreements (BB4018173), with the exception that this requirement is only to apply to the subject property or future subdivided east lot located adjacent to the west property line of neighbouring 10611 River Drive. This agreement generally ensures no Building Permit application submission until the owner has provided a \$500,000 voluntary contribution towards a City Amenity Reserve.
  - b) Discharge existing legal agreement (BB4018173)
- 4. Dike and Waterfront Trail works:
  - a) Registration of a "No Development" legal agreement on 10311 River Drive, or any subdivided lands thereof, with the same terms as the existing legal agreements (BB4018177), with the exception that Development Permit application submission is to be permitted prior to entering into the required Servicing Agreement. This agreement will generally ensure no Development Permit issuance until the owner has entered into a Servicing Agreement for the design and construction of remaining required offsite Dike and Waterfront Trail works (e.g., approximately from the west edge of the central park to the east edge of Shell Road).
  - b) Discharge existing legal agreement (BB4018177)

- 5. Child Care facility:
  - a) Registration of a "No Development" legal agreement on 10311 River Drive, or any subdivided lands thereof adjacent to the central park at 10211 River Drive, with the same terms as the existing legal agreements (BB4018181), with the exception that this requirement is to only apply to the subject property or future subdivided west lot located adjacent to the central park at 10211 River Drive. This agreement generally ensures:
    - i) The owner has entered into a legal agreement to construct and provide ownership of a child care facility prior to any Building Permit application submission; and
    - ii) The child care facility is constructed, ownership transferred and legal agreements completed prior to occupancy of any building.
  - b) Discharge existing legal agreement (BB4018181).
- 6. Transportation and Engineering works: Registration of a "No Development" legal agreement on10311 River Drive, or any subdivided lands thereof, ensuring no Development Permit issuance until the owner has entered into a Servicing Agreement for the design and construction of remaining required offsite Transportation and Engineering works identified in the original rezoning application (RZ 07-380169). Works include, but may not be limited to:
  - a) Transportation Works:
    - i) Contribution of \$60,000 for provision of two (2) bus shelters along Bridgeport Road.
    - ii) Provide functional roadway plan depicting traffic calming measures at River Drive and Shell Road intersection and the traffic calming measures shall be implemented to the satisfaction of the City. Options to be developed include, but are not limited to, a raised intersection, roundabout, curb extensions, etc.
    - Upgrade River Drive to full ultimate cross-section as set by SA 10-542184 and DP 11-564405, complete with coordination with neighbours to the south, parking pockets for on street parking and curb extensions along River Drive as traffic calming devices.
    - iv) Any road dedications and/or SRW PROP required to implement the cross sections will be secured along the south property line of 10311 River Drive. A 1.3m wide SRW PROP was secured west of the central park.
    - v) Traffic Signals at the Bridgeport Road and McLennan Road intersection upgrade of the existing pedestrian signal to a full traffic signal. Works shall include, but not limited to:
      - Type "P" controller cabinet
      - UPS (Uninterrupted Power Supply)
      - Video detection
      - Illuminated street name signs
      - Service base
      - Type "S" and/or type "L" poles/bases to suit site conditions
      - APS (Accessible Pedestrian Signals)
      - Fibre optic communications cable and associated equipment
      - In-ground vehicle detection
      - Removal of existing signal poles, bases, etc. to be returned to City Works Yard
      - All associated costs to upgrade this system to be borne by the developer
    - vi) Traffic Signals at the Bridgeport Road and Shell Road intersection upgrade of controller equipment for a new left turn phase and intersection improvement measures. Works shall include, but are not limited to:
      - Traffic pole/base relocations along the frontage of the development
      - Junction box/conduit relocations
      - Associated traffic signal cables/conductors and vehicle detector loops
      - Traffic signal modification design drawings (if required, modifications are to be identified during Servicing Agreement and are the sole responsibility of the developer).

#### **CNCL - 450**

- b) Engineering Works to the satisfaction of the Director of Engineering:
  - i) Dike and Waterfront Trail extension required from recent works secured via SA 11-587071 to the east edge of Shell Road with adequate interfaces and tie-ins.
  - ii) Watermain upgrade required (approximately 360 m) from the west edge of 10311 River Drive to Shell Road, complete with 300 mm diameter PVC and fire hydrants (spaced as per City standard). The required watermain shall tie-in to the watermain built via SA10-542184 at its west, tie-in to the existing watermain along Shell Road at its east end, and tie-in to all existing service connections south of River Drive.
  - iii) Storm sewer upgrade required (approximately 640 m) from west edge of 10197 River Drive to Shell Road:
    - Provide 600 mm diameter storm sewer, complete with manholes (spaced as per City standard) from west property line of 10197 River Drive to the east property line of 10311 River Drive (approximately 510 m). The required storm sewer shall tie-in to the storm sewer built via SA10-542184 along River Drive and it shall be built within a 3 m wide utility SRW along the entire River Drive frontage of 10197 River Drive, 10199 River Drive, the central park and 10311 River Drive. The required storm sewer and utility SRW shall meander behind the roundabout (built via SA10-542184) fronting the central park.
    - Storm sewer alignment change required (via manholes as per City standard) from the 3 m wide utility SRW at the east end of 10311 River Drive to the future boulevard area in the roadway. Change in alignment pipe size shall be 600 mm diameter and its approximate length is 6 m.
    - Provide a 1050 mm diameter storm sewer from the east property line of 10311 River Drive to Shell Road (approximately 130 m). The 1050 mm diameter storm sewer shall tie-in to the required manhole in the future boulevard and to the existing box culvert in Shell Road.
    - Remove all existing storm sewer service connections to 10311 River Drive.
  - iv) Sanitary sewer upgrade required (approximately 270 m) from approximately McLennan Avenue to east edge of 10311 River Drive:
    - Provide 300 mm diameter sanitary sewer from the sanitary main built via SA10-542184 at the intersection of River Drive and McLennan Road to the east property line of 10311 River Drive.
    - Sanitary forcemain upgrade required (by City forces at developer's cost) unless forcemain assessment completed by applicant indicates otherwise, or unless this work is already secured via SA 10-542184.
    - Tie-in all existing sanitary service connections to the single family properties at the south side of River Drive to the upgraded sanitary main.
  - v) Private utility works:
    - Pole relocations may be required at the south-west corner of River Drive and Shell Road junction due to the required road improvements and traffic calming works. The developer is responsible for coordination with private utility companies. Any required pole relocation shall be at the developer's cost.
    - The developer shall provide private utility companies with the required rights-of-ways for their equipment (e.g. Vista, PMT, LPT, telephone and cable kiosks, etc.) and/or to accommodate the future under-grounding of the overhead lines. Any equipment must be located on private property and not within City SRWs or Public Rights-of-Passage and not impact public amenities such as sidewalks, boulevards and bike paths. The developer is responsible for coordination with private utility companies.
  - vi) General:
    - Effective immediately, all retaining walls exceeding one (1) in height will require a Building Permit. For walls retaining preload material, this permit must be obtained prior to construction of the retaining wall or installation of the preload material. Please see the new bulletin at the following link: http://www.richmond.ca/\_\_shared/assets/permits5239047.pdf.
    - It is the developer's responsibility to address the impact of the required road raising to the existing single-family properties along the south side of River Drive from McLennan Avenue to Shell Road. The developer shall coordinate with the owner(s) of the affected properties the extent of works required in

CNCL - 451

Initial:

private properties. The developer shall get written consent or permission to work in private property from the owner(s) of the affected lots. Coordination works shall be at the developer's cost and may include but not be limited to the following:

- a. Arborist assessment of the existing trees (e.g., City and privately owned) along the south side of River Drive from McLennan Road to Shell Road that may be impacted by the required road raising.
- b. Community meetings and written notices to the individual owners of the affected lots.
- c. Design/drawings showing the required works inside each property affected by the road raising. The required works inside private property may include but not limited to the following: (i) removal and reinstatement of existing driveways that may require construction of a retaining wall on each side of the reinstated driveways on private property; and (ii) landscaping repairs and / or replacement as may be required.
- d. Individual sign-off sheet that shall indicate the extent of the required works in private properties. The owner(s) of the affected lots shall sign the sign off sheet to permit the required works to be completed in their properties.
- e. Community notices and individual sign off sheets shall be reviewed and approved by staff prior to sending to the affected properties.
- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

# Prior to a Development Permit<sup>\*</sup> being forwarded to the Development Permit Panel for consideration, the developer is required to:

1. Complete an acoustical and thermal report and recommendations prepared by an appropriate registered professional, which demonstrates that the interior noise levels and noise mitigation standards comply with the City's Official Community Plan, Noise Bylaw requirements and registered legal agreement (BB4018169 and BB4018171). The standard required for air conditioning systems and their alternatives (e.g. ground source heat pumps, heat exchangers and acoustic ducting) is the ASHRAE 55-2004 "Thermal Environmental Conditions for Human Occupancy" standard and subsequent updates as they may occur. Maximum interior noise levels (decibels) within the dwelling units must achieve CMHC standards:

Portions of Dwelling Units	Noise Levels (decibels)	
Bedrooms	35 decibels	
Living, dining, recreation rooms	40 decibels	
Kitchen, bathrooms, hallways, and utility rooms	45 decibels	

 Registration of a cross-access agreement between future subdivided lands of 10311 River Drive for shared access, loading and vehicle circulation, if needed, to ensure there are no more than two (2) driveways between McLennan Road and Shell Road. In accordance with RZ 07-380169, access driveways to parking structures are also to provide access to small surface parking areas for visitors and drop off areas between buildings.

#### Prior to Building Permit<sup>\*</sup> Issuance, the developer must complete the following requirements:

- 1. Submission required of fire flow calculations signed and sealed by a professional engineer based on the Fire Underwriter Survey or ISO to confirm that there is adequate available flow for fire fighting.
- Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. Management
  Plan shall include location for parking for services, deliveries, workers, loading, application for any lane closures, and
  proper construction traffic controls as per Traffic Control Manual for works on Roadways (by Ministry of
  Transportation) and MMCD Traffic Regulation Section 01570.
- 3. If applicable, payment of latecomer agreement charges associated with eligible latecomer works.

## CNCL - 452

4. Obtain a Building Permit (BP) for any construction hoarding. If construction hoarding is required to temporarily occupy a public street, the air space above a public street, or any part thereof, additional City approvals and associated fees may be required as part of the Building Permit. For additional information, contact the Building Approvals Department at 604-276-4285.

#### Note:

- \* This requires a separate application.
- Where the Director of Development deems appropriate, the preceding agreements are to be drawn not only as personal covenants of the property owner but also as covenants pursuant to Section 219 of the Land Title Act.

All agreements to be registered in the Land Title Office shall have priority over all such liens, charges and encumbrances as is considered advisable by the Director of Development. All agreements to be registered in the Land Title Office shall, unless the Director of Development determines otherwise, be fully registered in the Land Title Office prior to enactment of the appropriate bylaw.

The preceding agreements shall provide security to the City including indemnities, warranties, equitable/rent charges, letters of credit and withholding permits, as deemed necessary or advisable by the Director of Development. All agreements shall be in a form and content satisfactory to the Director of Development.

- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.
- Applicants for all City Permits are required to comply at all times with the conditions of the Provincial *Wildlife Act* and Federal *Migratory Birds Convention Act*, which contain prohibitions on the removal or disturbance of both birds and their nests. Issuance of Municipal permits does not give an individual authority to contravene these legislations. The City of Richmond recommends that where significant trees or vegetation exists on site, the services of a Qualified Environmental Professional (QEP) be secured to perform a survey and ensure that development activities are in compliance with all relevant legislation.

Signed

Date





## Richmond Zoning Bylaw 8500 Amendment Bylaw 9237 (ZT 15-691748) 10311 River Drive

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Zoning Bylaw 8500 is amended by:
  - a. Deleting subsection 20.17.4.1.b and substituting the following:
    - "b) for the area of "B": 1.25."
- 2. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9237".

FIRST READINGInstantInstantPUBLIC HEARINGInstantInstantSECOND READINGInstantInstantTHIRD READINGInstantInstantOTHER CONDITIONS SATISFIEDInstantInstantADOPTEDInstantInstant

MAYOR

CORPORATE OFFICER



# **Report to Committee**

Planning and Development Division

To:Planning CommitteeFrom:Wayne Craig<br/>Director of Development

Date:May 1, 2015File:ZT 15-694669

Re: Application by Ryan Cowell on behalf of 0737974 B.C. Ltd. for a Zoning Text Amendment to Increase the Permitted Floor Area Ratio to 0.78 for the Property Located at 5600 Parkwood Crescent

#### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9245, for a Zoning Text Amendment to the "Vehicle Sales (CV)" zone, to increase the overall allowable Floor Area Ration (FAR) to a maximum of 0.78 for the property, be introduced and given first reading.

IR.

Wayne Craig Director of Development

DN:blg Att.

**REPORT CONCURRENCE** 

CONCURRENCE OF GENERAL MANAGER

Nr En

#### Staff Report

#### Origin

Ryan Cowell, on behalf of 0737974 B.C. Ltd., has applied to the City of Richmond for a Zoning Text Amendment to the "Vehicle Sales (CV)" zone in order to increase the overall allowable Floor Area Ratio (FAR) to 0.78 for the property located at 5600 Parkwood Crescent, where development of two (2) auto dealerships is proposed. Location maps are included as Attachment 1. For reference, a site plan for the proposed auto dealership application is attached (Attachment 2).

#### Findings of Fact

The subject site was part of a rezoning and Official Community Plan (OCP) amendment that included the adjacent northern parcel, 5580 Parkwood Crescent (RZ 12-626430). The lots were rezoned from 'Industrial Business Park (IB1)" to "Vehicle Sales (CV)" and redesignated from "Mixed Employment" and "Industrial" in the OCP and East Cambie Area Plan respectively to "Commercial" on February 23, 2015 (Bylaw 9054). A Servicing Agreement (SA) was required as a condition of rezoning bylaw adoption and required utility upgrades as well as land dedication to improve the road network.

The project proponent has applied for a Development Permit (DP 14-676613) to permit development of two (2) auto dealership buildings on the subject site (Attachment 2). At the design stage, it was recognized that the proposed buildings exceed the density permitted by the site's "CV" zoning. The applicant proposes a text amendment to the "CV" zone to increase the allowable FAR on the subject site to 0.78 FAR based on consideration of the site specific context and the feasibility of accommodating the proposed density on the subject site. Under the current "CV" zone, the total FAR that can be achieved is 0.50. The "CV" zone includes reference to two properties, which are within proximity of the subject development proposal, where density is increased (to 0.58 and 0.75 FAR).

A Development Application Data Sheet providing details about the development proposal is attached (Attachment 3).

#### **Surrounding Development**

The subject property is located within the Richmond Auto Mall. The following land uses surround the site:

To the north, proposed redevelopment of an existing two-storey industrial business park building to a two-storey auto dealership (Acura) within the Richmond Auto Mall, zoned "Vehicle Sales (CV)" and designated "Commercial" in the East Cambie Area Plan.

To the east, across Knight Street, two-storey office buildings, zoned "Industrial Business Park (IB1)" and designated "Industrial" in the East Cambie Area Plan.

To the south, existing vehicle sales and service dealerships within the Richmond Auto Mall on sites zoned "Vehicle Sales (CV)" and designated "Commercial" in the East Cambie Area Plan.

To the west, vehicle sales and service dealerships within the Richmond Auto Mall on sites zoned "Vehicle Sales (CV)" and designated "Commercial" in the East Cambie Area Plan.

#### Related Policies & Studies

#### Official Community Plan (OCP)/East Cambie Area Plan

The subject site is designated "Commercial" in both the Official Community Plan (OCP) and the East Cambie Area Plan. Redevelopment of the site as an auto dealership is supported by both plans and is compatible with adjacent land uses.

#### Flood Protection

The site is located in the East Cambie Planning Area; where the Flood Construction Level (FCL) requirement is 2.9 m GSC for habitable spaces. A Flood Indemnity Restrictive covenant was secured as a condition of rezoning bylaw adoption (RZ 12-626430).

#### Ministry of Transportation and Infrastructure (MOTI)

The development proposal was referred to MOTI at the time the associated rezoning (RZ 12-626430) was reviewed. MOTI approval was granted conditional to all storm water being directed to a municipal storm drain system and prohibition of direct access to the site from Highway 91.

The site is permitted to drain into the highway system provided storm water first enters the Municipal City system. Through the associated rezoning process, storm water management was reviewed. The site will drain into the existing City storm water management system that will travel along Parkwood Crescent then along the edge of the northern adjacent property, 5580 Parkwood Crescent before discharging into the highway system, which complies with MOTI requirements. No additional provisions need to be secured through the subject text amendment application.

#### Richmond Auto Mall Association Review

As the site is located within the Richmond Auto Mall, the applicant has confirmed that the proposed text amendment, to permit increasing the density on the subject site from 0.5 FAR to 0.78 FAR, is supported by the Richmond Auto Mall Association (RAMA).

#### **Public Consultation**

The applicant has confirmed that information signage describing the proposed Zoning Text Amendment has been installed on the subject site. Notification signage of the associated proposed Development Permit to permit development of two (2) auto dealerships on the site is currently posted on the site. Staff have not received any comments from the public about the proposal.

#### Staff Comments

#### Site Servicing

No servicing concerns based on the proposed increase in floor are ratio have been identified. Frontage improvement works, including a new road, new sidewalk and boulevard have been secured as part of the concluded associated rezoning application (RZ 12-626430).

#### Analysis

The subject application is being brought forward for consideration based on the following site-specific considerations.

- The subject site is located within the Richmond Auto Mall, which co-exists with adjacent industrial office park uses where properties are zoned "Industrial Business Park (IB1)" and the associated permitted density is a maximum of 1.0 FAR, which is double the floor area permitted by the site's existing "CV" zoning and more than the 0.78 FAR proposed by the subject application.
- The "CV" zone has been amended twice in the past to increase allowable density on two (2) properties within the Auto Mall (5571 Parkwood Way and 13340 Smallwood Place). Notably, the existing Lexus dealership within the Auto Mall, located at 5571 Parkwood Way, amended the "CV" zone to increase the allowable density on-site to 0.75 FAR.
- The applicant has provided architectural plans, which are in the process of being reviewed through the Development Permit review process (DP 14-676613), that demonstrate the proposed density can be accommodated on-site. The Development Permit review process also includes consideration of the form and character of the proposed buildings and associated on-site landscaping.
- The applicant proposes two (2) auto dealership buildings that consist of two (2) full stories and a partial third storey. The building massing is compatible with existing two (2) storey auto mall and industrial business park buildings in the immediate proximity. The buildings are not expected to cast shadows, obstruct views, or introduce overlook concerns to adjacencies.
- The proposed redevelopment is one of a series of applications either recently reviewed or in the process of being reviewed by the City to expand the Richmond Auto Mall to meet increased demand. The applicant proposes multi-storey buildings; thereby maximizing density within the proposed building footprint. By maximizing the functionality of the existing Auto Mall, commercial land that is located elsewhere within the City remains available for other uses.

#### **Financial Impact or Economic Impact**

No financial or economic impact is anticipated as a result of the proposed development.

#### Conclusion

The Richmond Auto Mall was created to consolidate auto dealerships and establish a destination location for auto service and purchase. The proposed Zoning Bylaw Text Amendment to increase the permitted density on the subject site would maximize use on the subject property without significantly affecting nearby land uses. The "CV" zone has been previously amended to support greater density on two other sites within the Richmond Auto Mall. Based on consideration of the site specific context and feasibility of accommodating the proposed density without significantly affecting adjacencies, it is recommended that Zoning Bylaw 8500, Amendment Bylaw 9245 be introduced and given first reading.

Sound

/Diana Nikolic, MCIP Planner 2-Urban Design

DN:blg

The following is required prior to final adoption:

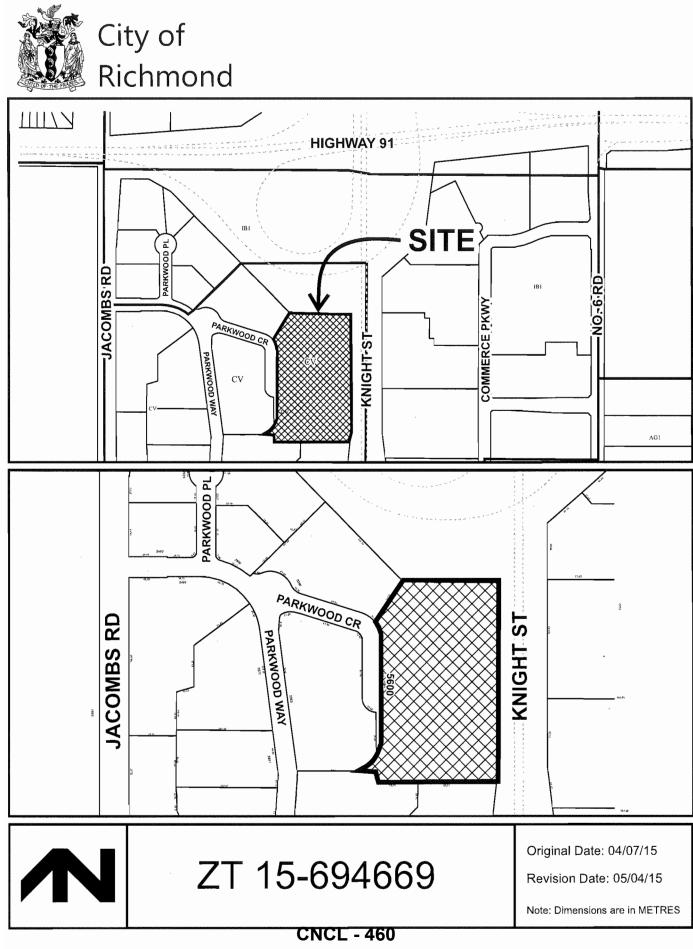
• Provincial Ministry of Transportation & Infrastructure Approval.

Attachment 1: Location Map

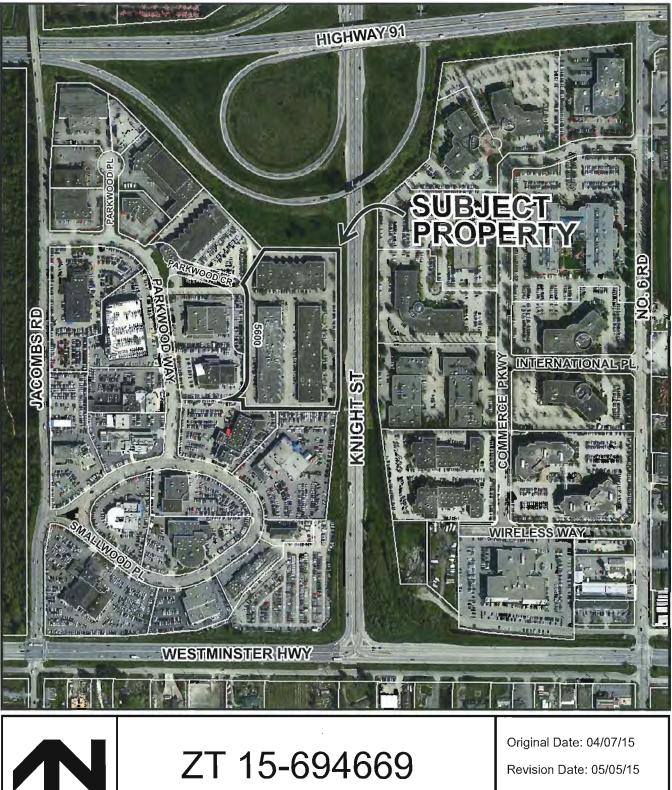
Attachment 2: Conceptual Development Plans

Attachment 3: Development Application Data Sheet

## ATTACHMENT 1

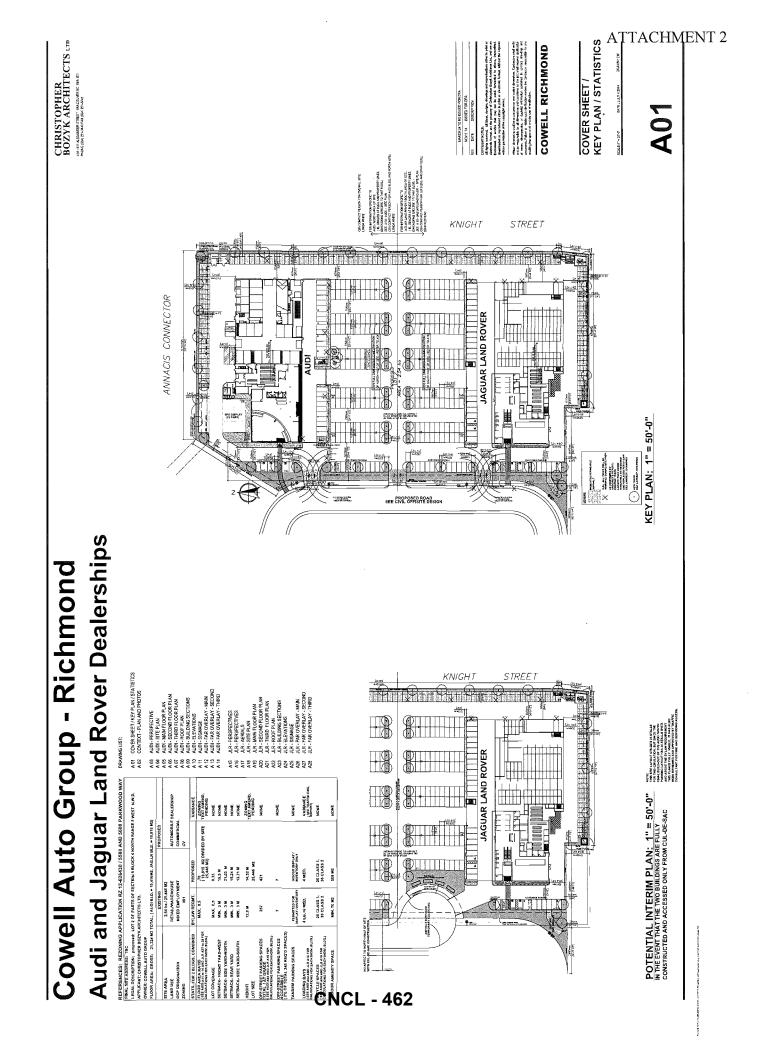


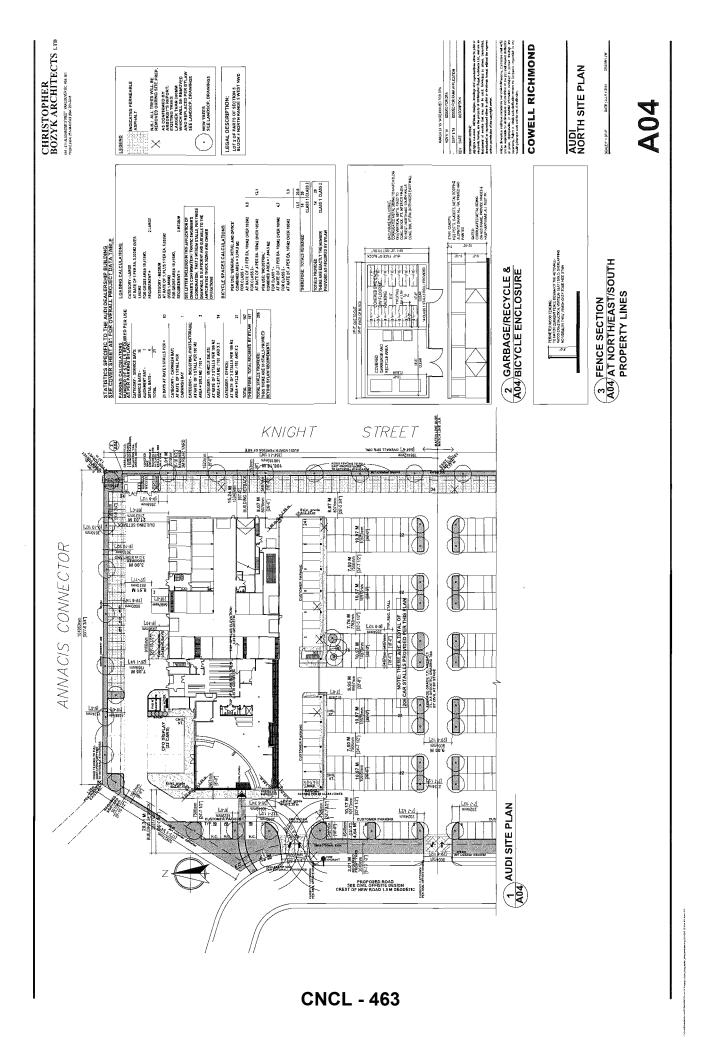


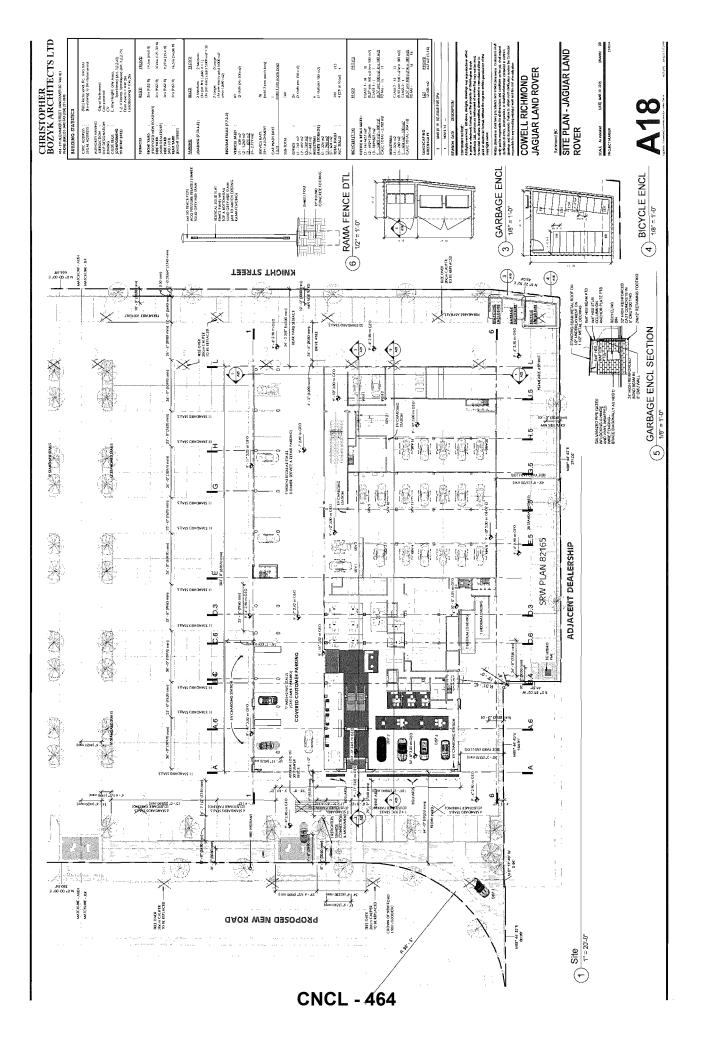


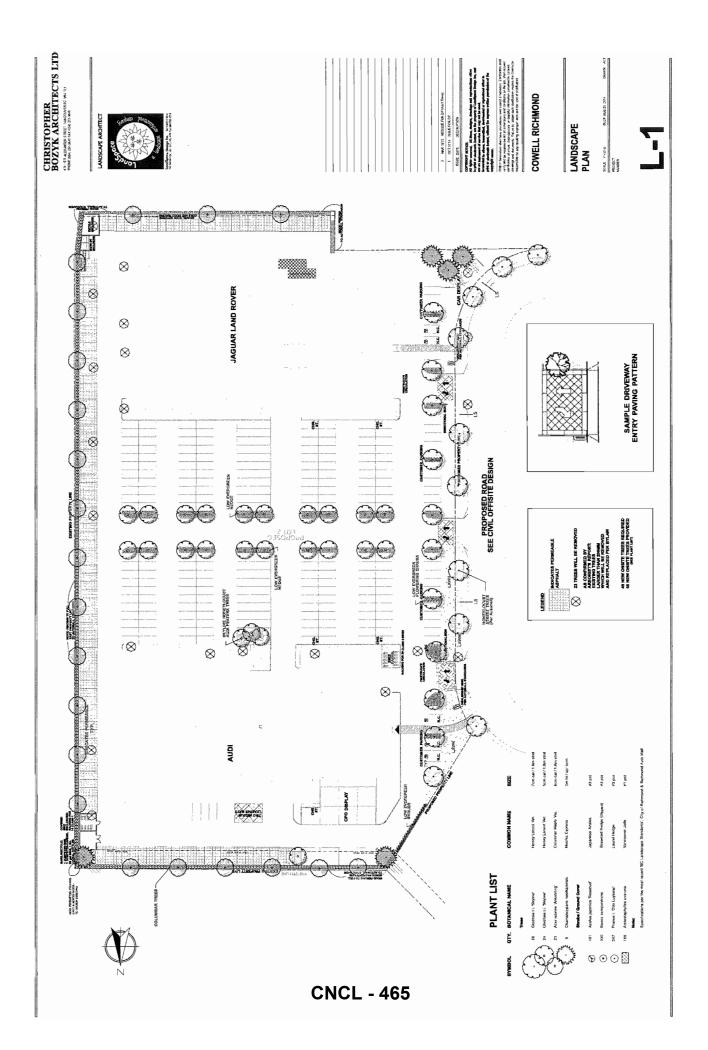
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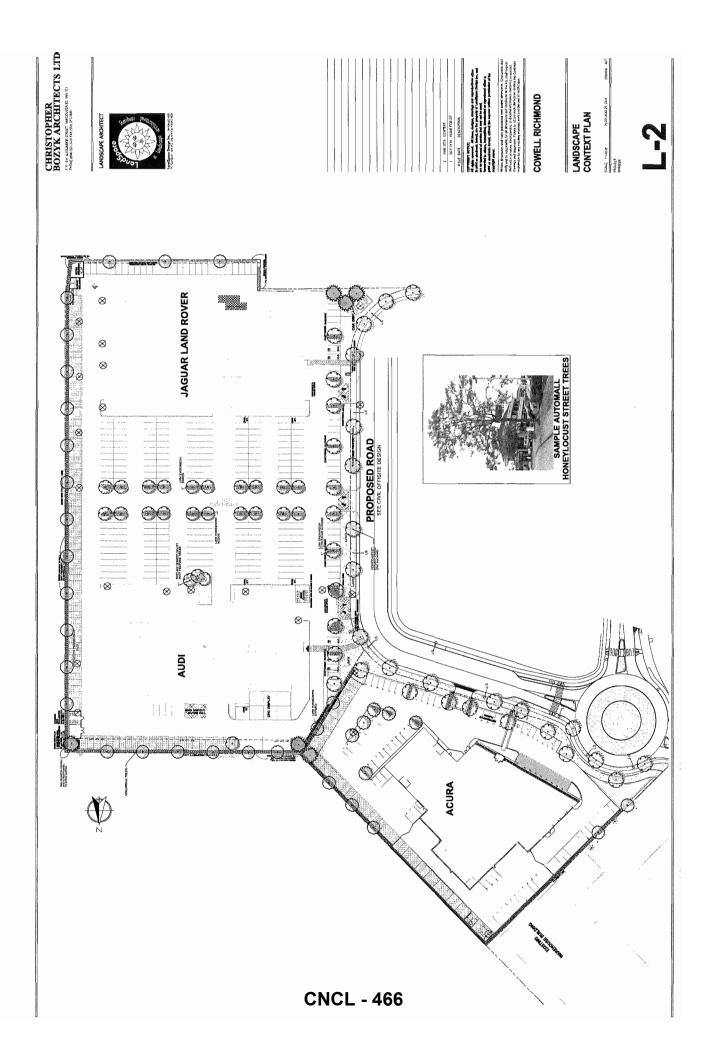
Note: Dimensions are in METRES













## **Development Application Data Sheet**

Development Applications Division

### ZT 15-694669

### **Attachment 3**

- Address: 5600 Parkwood Crescent
- Applicant: Ryan Cowell on behalf of 0737974 B.C. Ltd.

Planning Area(s): East Cambie Area Plan

	Existing	Proposed
Owner:	0737974 B.C. Ltd. Inc. No. BC0737974	0737974 B.C. Ltd. Inc. No. BC0737974
Site Size (m <sup>2</sup> ):	25,446 m2 (273,898 ft2)	25,446 m2 (273,898 ft2)
Land Uses:	Retail/warehouse	Auto service and dealership
OCP Designation:	Commercial	Commercial
East Cambie Area Plan Designation:	Commercial	Commercial
Zoning:	Vehicle Sales (CV)	Vehicle Sales (CV)
Number of Units:	3 existing buildings	2 auto dealership buildings with sales and service centres

On Future Subdivided Lots	Vehicle Sales (CV) Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.50	0.78	Text amendment proposed
Lot Coverage – Building:	Max. 50%	33%	none
Lot Size (min. dimensions):	n/a	n/a	none
Setback – Front Yard (m):	Min. 3.0 m	19.5 m Min.	none
Setback – Interior Side Yard & Rear Yard (m):	Min. 3.0 m	Interior side yard 21.03 m Rear yard 15.24 m	none
Height (m):	12 m	14.32 m	Variance to be considered as part of Development Permit review (DP 14-676613)
Off-street Parking Spaces – Regular (R) / Visitor (V):	Audi: Vehicle sales: 2,472 m2 : 75 stalls Industrial parts/storage: 209 m2: 3 stalls Office: 913 m2: 28 stalls Service bays: 21: 63 stalls Carwash:1: 1 Jaguar: Vehicle sales: 2,739 m2 : 83 stalls Industrial: 604 m2: 7 stalls Office: 842 m2: 26 Service bays: 26: 78 stalls Carwash: 1:1 Total: 365	Audi: 201 Jaguar: 215	none
Off-street Parking Spaces – Total:	365	421	none

Other: Tree replacement compensation required for loss of significant trees.



## Richmond Zoning Bylaw 8500 Amendment Bylaw 9245 (ZT 15-694669) 5600 Parkwood Crescent

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Zoning Bylaw 8500, section 10.7 entitled "Vehicle Sales (CV)", is amended by:
  - (a) Inserting the following subsection 10.7.4.1 c) after subsection 10.7.4.1 b):
    - c) 0.78
       5600 Parkwood Crescent
       P.I.D. 029-514-029
       Lot 2 Section 5 Block 4 North Range 5 West New Westminster District Plan EPP47268
- 2. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9245".

FIRST READING	 CITY OF RICHMOND
PUBLIC HEARING	 BK
SECOND READING	 APPROVED by Director or Solicitor
THIRD READING	 il
MINISTRY OF TRANSPORTATION APPROVAL	 
ADOPTED	

MAYOR

CORPORATE OFFICER



То:	Planning Committee	Date:	April 28, 2015
From:	Joe Erceg, General Manager Planning and Development	File:	08-4375-01/2014-Vol 01
Re:	Referral: West Cambie Alexandra Neighbourhoo Review	d Busine	ess Office Area

## **Staff Recommendation**

- 1. That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use Employment-Residential designation, be introduced and given first reading.
- 2. That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:
  - a. the City's Financial Plan and Capital Program;
  - b. the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act.

- 3. That, in accordance with section 879 (2)(b) of the *Local Government Act* and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:
  - a. Vancouver International Airport Authority (VIAA) (Federal Government Agency), and
  - b. The Board of Education of School District No. 38 (Richmond).
- 4. That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing.
- 5. That upon adoption of the above bylaws the West Cambie Alexandra Neighbourhood Mixed Use Employment – Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy be approved.

- 6. That staff not proceed with the implementation of an interim sidewalk / walkway along Odlin Road and Alexandra Road, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years.
- 7. That staff consider the inclusion of interim sidewalk / walkway along Garden City Road as part of the City's 2016 capital program, if there are no immediate/imminent development applications for these fronting properties in the foreseeable future.
- 8. That lands along No 3 Road not be redesignated from residential use to employment use.

zer

Joe Erceg, General Manager, Planning and Development

JE:pb

Att: 5

REPORT CONCURRENCE				
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER		
Engineering	Þ	pe Enig		
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO		

# Staff Report

# Origin

This report responds to the following referral from July 28, 2014 Council:

It was moved and seconded,

That the staff report titled, "Referral: West Cambie Alexandra Neighbourhood Business Office Area Review" dated May 27, 2014 from the General Manager, Planning and Development, be referred back to staff for further analysis, including:

- (a) the examination of sidewalks in the West Cambie Area; and
- *(b) the examination of potentially re-designating parts of the No. 3 Road corridor from residential to employment use.*

# Background

At the July 28, 2014, Planning Committee meeting, the report dated May 27, 2014 and titled, *Referral: West Cambie Alexandra Neighbourhood Business Office Area Review*' was presented and discussed (Attachment 1).

This report is to be read in conjunction with that report, as it provides the relevant background (e.g. various ratios for mixed use scenario options).

# Analysis

Sidewalks in West Cambie - Alexandra Neighbourhood

In response to item (a) of the referral, Transportation staff have examined the condition and status of sidewalks in the West Cambie -Alexandra Neighbourhood and identified those areas in need of upgrades and the timing of proposed work. The following provides a summary of staff findings regarding item (a) by addressing the following three specific items:

- Item 1: Show where new sidewalks are needed,
- Item 2: A funding source to improve sidewalks, and
- Item 3: How the funding source will be repaid.
- Item 1: Show where new sidewalks are needed

A pedestrian circulation map (Attachment 2) shows the existing bus stops, existing sidewalks/walkways, and committed / planned sidewalks/walkways within the Alexandra West Cambie Area. A brief summary of staff assessment is as follows:

- Existing bus stops are located on both sides along Garden City Road, Cambie Road, and No.4 Road. There are no bus stops located along Alderbridge Way.
- Currently, for the perimeter arterial roads, there are sidewalks along both sides of Cambie Road and No.4 Road. Along Garden City Road, a sidewalk is only provided along the west side. No sidewalk is provided along Alderbridge Way.

- Two internal roads (i.e., Odlin Road and Alexandra Road) that existed, prior to the redevelopment of the West Cambie Area, did not have sidewalks originally. The implementation of an interim sidewalk / walkway along Odlin Road and Alexandra Road is not required, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years.
- These two roads have been / will be upgraded shortly, as part of development frontage works, to include a continuous sidewalk / walkway on the south side of both roads in the interim.
- Other new and recently constructed internal roads already include a sidewalk / walkway along the development frontage (i.e., Stolberg St., McKim Dr., May Dr., Dubbert St. and Tomicki Ave.).
- All future internal roads will include a sidewalk on both sides of the road, which will be completed as part of development frontage works.
- Current gaps in the sidewalk network to access existing bus stops (blue lines on Attachment 2) are located:
  - Along the east side of Garden City Road, from Alexandra Road to Cambie Road. This gap may be eliminated if the West Cambie Business Office area is amended and results in earlier redevelopment of the fronting properties.
  - At various sections along the north side of Odlin Road and Alexandra Road, where there is no existing sidewalk, nor is a sidewalk is committed as part of development frontage works.
- Staff's current plan is to eliminate these gaps in the sidewalk network as part of future development frontage works.
- Item 2: A funding source to do it now

Below are order of magnitude cost estimates to provide an interim asphalt walkway to fill in the gaps in the sidewalk network as noted above:

- Along the east side of Garden City Road: approximately \$350,000 (interim asphalt walkway); a concrete sidewalk with curb and gutter costs in the range of \$1.5M \$2M.
- Along the north side of Odlin Road: approximately \$200,000 (interim asphalt walkway); a concrete sidewalk with curb and gutter costs in the range of \$1.0M \$1.5M.
- Along the north side of Alexandra Road: approximately \$170,000 (interim asphalt walkway); a concrete sidewalk with curb and gutter costs in the range of \$0.7M \$1.0M.

Note that the above cost estimates were prepared without the benefit of any design and, as such, the cost estimates will need to be reviewed/revised when the road functional design is prepared.

These interim asphalt walkway projects may be funded through Roads DCC funding, as part of the annual sidewalk / walkway improvement programs. However, in the current proposed 2015 Capital Program (budgeted at \$300,000) there is no allowance for walkways or sidewalks in this area. If it is decided to implement any of the above noted walkway projects this year, all other planned projects for 2015 would need to be deferred, such as the new sidewalk proposed on east side of Minoru Boulevard from Alderbridge Way to Elmbridge Way and a new walkway on north side of Bridgeport Road from Viking Way to No. 6 Road. Alternatively, these interim walkway improvements could be implemented starting in 2016.

If the decision is to pursue the ultimate concrete sidewalk along Garden City Road in the short term, it would be necessary to seek alternative funding, as the current Roads DCC funding level is not sufficient due to other planned transportation projects. If directed by Council, staff would confirm the project cost and identify specific funding options as part of City's Budget Process and report back to Council for consideration.

Based on above, staff recommend not proceeding with the implementation of an interim sidewalk / walkway along Odlin Road and Alexandra Road, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years. The City may, however, consider the inclusion of interim sidewalk / walkway along Garden City Road, as part of the City's 2016 capital program, if there are no immediate/imminent development applications for these fronting properties in the foreseeable future.

• Item 3: How the funding source will be repaid

The funding source (Roads DCC) will not be repaid for advancing these interim walkway improvements, as internal borrowing is not required. To advance the ultimate sidewalk improvements along Garden City Road, however, would necessitate the use of alternative funding (e.g. internal borrowing) that may require payback from Roads DCC.

## Employment Use

In response to item (b) of the referral, *the examination of potentially re-designating parts of the No. 3 Road corridor from residential to employment use*, Policy Planning staff conducted additional research and an evaluation of the employment space in consideration of identifying an acceptable mixed use employment-residential option that provides an overall benefit to the City. The following provides a summary of the findings.

## Current Inventory of Employment Lands

There are currently 391 ha (966 acres) of employment designated lands within 1 km of the Canada Line stations (Attachment 3). These lands equate to 42 Million (M) sq. ft. of employment space at only 1.0 FAR; the current designations anticipate much higher densities.

Employment lands fronting onto to No. 3 Rd. north of Granville Rd. (Attachment 4) are estimated at 12.2 M sq. ft. of space at 1.0 FAR and the current designations anticipate future development at much higher densities.

# Employment Space Projections/Trends - Good News

Current proposals being considered by the City involve nearly 5.2 M sq. ft. of commercial space, including nearly 1.4 M sq. ft. of office being completed and added to the City's inventory in the City Centre near current or proposed Canada Line Stations. Considering anticipated phasing and

potential market absorption, it is projected that current proposals could result in nearly 4 M sq. ft. of commercial space being completed by 2020.

The *2041 Employment Land Strategy* (ELS) project that the employment space in City Centre would rise from 2.0 M sq. ft. in 2009, up to just over 2.5 M sq. ft. by 2041. It is important to note that, current trends indicate that the City Centre area will exceed 3.2 M sq. ft. by 2025, far surpassing the ELS projections of 2.5 M sq. ft. - approximately 20 years sooner than anticipated.

Based on known proposals, City-wide employment space projections are expected to rise from their 2009 level of 6.4 M sq. ft., up to 7.7 M sq. ft. by 2025. This market trending is well above the ELS projections for 8.0 M sq. ft. of employment space City Wide by 2041. The only areas in the City trending below the ELS projections are in North Richmond, including the *West Cambie Area Plan (WCAP) Alexandra Neighbourhood,* where redevelopment and/or intensification of employment lands is occurring at a slower rate.

Therefore, the City is in a much better position than previously anticipated in terms of employment lands being developed for office space in the City Centre and City-wide, which significantly reduces the importance of retaining all the employment lands in the Alexandra Neighbourhood.

# Displacement of Employment Space

The employment space, based on the WCAP land use designation at 1.25 FAR, could achieve a maximum of 865,000 sq. ft. over the entire 15.9 acre site. Relaxing the employment space to a minimum of 30% of the floor area (.52 FAR), based on an increased FAR of 1.75, reduces the projected employment space by 58% to a minimum of 364,000 sq. ft.

The theoretical loss of employment space in the West Cambie Business Office Area would be an estimated maximum of 500,000 sq. ft., which could be acceptably made up in several nearby areas, such as:

- Lands immediately to the west across Garden City Road currently form part of the City's mixed employment lands. Under the current WCAP designation, this area could provide up to 4.5 M sq. ft. of employment space at 1.2 FAR. Increasing the FAR in this area by 0.15 FAR to 1.35 employment use could make up for the ½ M sq. ft. of 'lost' employment space in West Cambie.
- ii) Lansdowne Mall area is in a key location along the Canada Line. Comprehensive long term planning of this site could encourage additional employment space to be included in its redevelopment, and could better provide for Transit Oriented Development office space, which supports desired higher-paying jobs. The 'lost' employment space could also be redirected to this location.

Together, these two areas could more than make up for the 'lost' West Cambie Employment Space.

While the above specifically identifies where the theoretical 'lost' employment space from the Alexandra neighbourhood could be relocated, the recent employment space trends indicate that the City Centre is trending to surpass the ELS projected needs for employment space 20 years ahead of schedule. This would suggest that employment space being 'lost' from the WCAP does not require replacement through policy, but will be redirected through market forces to areas that are supported by the commercial/office industry and end users.

# City Centre Area Plan

The *City Centre Area Plan* (CCAP) addresses the future land uses in this area, and recognizes that some of the lands along the No. 3 Road corridor are located in the flight paths of the *Vancouver International Airport* runways and thus are not deemed suitable for residential uses.

The balance of the No. 3 Road corridor accommodates a mix of employment and residential uses that will help build this area into a vibrant complete community for people to live, work and play. This, along with the abundant supply of employment lands, lead staff to advise that redesignating lands along the No. 3 Rd. from residential use to employment use is not recommended or required to accommodate 'lost' West Cambie Employment Space.

# Implications of Mixed Use

The implications of creating a new designation in the WCAP of Mixed Use Employment-Residential uses to replace the Business Office area designation include the following:

- There is a potential for a quicker build out and completion of the WCAP- Alexandra Neighbourhood area, due to higher market interest.
- Through density bonus incentives, much needed additional <u>built</u> affordable housing, low end market rental and market rental units to serve the nearby retail shops and services workers would be provided.
- The OCP Airport Noise Sensitive Development designation will need to be removed to allow residential uses subject to stringent noise mitigation covenants.
- Changing to a mixed use designation could encourage speculative land owners nearby (e.g., west of Garden City Rd.) to hold off developing employment space in hopes of achieving higher residential prices for their lands. Such possible speculation could prevent further employment space development, in the short term in this area. Any such residential use increase requests can be managed on a case by case basis.

# Affordable Housing Needs

The Westmark proponents for the change in use in this area recently amended their proposal based on meetings with staff and now include a commitment for a minimum 5% of the residential floor area to be <u>built</u> Affordable Housing (AH), as per the City's standard agreement. The provision of built Affordable Housing at a rate of at least 5% of the total residential floor area would be one of the requirements for an additional 1.28 Residential FAR Bonus Density above the base density of 0.52 FAR for employment uses.

Also to qualify for the residential Bonus Density, the developer must also provide a minimum 7.5% of the residential floor area in the form of purpose <u>built</u>, modest rental housing, subject to a non-standard housing agreement to ensure that the units remain as long-term rental properties

(Table 1). As these modest rental units are not subject to the City's standard housing agreement, the customized housing agreement will also ensure that no additional fees (e.g. strata type fees) are passed onto tenants in addition to the controlled rental rates.

# Table 1

Unit Type	Maximum Monthly Rent*	Maximum Total Household Annual Income*
Bachelor	\$700	\$34,000 or less
One bedroom	\$750	\$38,000 or less
Two bedroom	\$1,100	\$46,500 or less
Three bedroom	\$1,400	\$57,500 or less

\*Note: Rents and household income may be reviewed periodically.

The modest rental unit rates will be established in the proposed West Cambie Alexandra Neighbourhood Mixed Use Employment – Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy (Attachment 5). These rental rates are set lower than the City's Affordable Housing Rates.

The developer is also required to provide at least 2.5% of the residential floor space as market rental units that are subject to a housing agreement ensuring they remain as rental units in perpetuity.

The above mix of residential uses are based on Westmark's proposal and have been used as a basis to craft the policy for this area. If the above recommendations and all Bonus Densities were applied to a 2.2 ha (5.6 ac) portion of the Business Office lands, it would result in the following (Table 2):

Use	Туре	Floor Area Ratio	Est. Gross Floor Area (sq. ft.)
Employment	Retail/Office	.52	128,000
Bonus Residential	Affordable Housing (standard agreement)	.06	15,600
Bonus Residential	Modest Rental Housing (non-standard agreement)	.10	23,400
Bonus Residential	Market Rental (agreement to secure as rentals in perpetuity)	.05	7,800
Bonus Residential	Market Strata Units	1.09	265,200
	Total (Base + Bonus Density)	1.80	440,000

Table 2

Included in the residential component, and based on maximum densities, could be an estimated 39,000 sq. ft. of built Affordable and Modest rental housing space which would equate to between 50-60 non-market rate residential units of various sizes. The final configuration of the space in terms of total units, sizes and number of bedrooms/unit would be guided by the City's needs identified by the Affordable Housing staff and confirmed prior to their application coming forward to Planning Committee at a later date.

The above approach would provide a significant benefit to the City in terms of meeting its housing needs.

The revised proposal and recent office/commercial development proposals and trends, lead staff to now support and recommend an amendment to the WCAP Business Office designated lands, to allow a base density of .52 FAR for employment uses, with an available 1.28 FAR of residential bonus space, for a total of 1.8 FAR for mixed-use employment residential space. All of the built AH and modest rental units would be required to be built within the first half of the residential floor area development of each project, and in conjunction with the completion of the employment floor area. Establishing a minimum of 0.52 FAR for employment space and setting that as the base density, while allowing bonus residential floor area with a minimum (based on floor area) of 5% for built affordable housing, 7.5% for secured modest rental housing, and 2.5% market rental units provides significant benefit to the City.

# Employment-Residential Mixed Use

Staff have provided their recommendations on two previous occasions, the first recommendation in 2013 was to retain the land for 100% employment at 1.25 FAR (Status Quo), which was subsequently referred back to staff for a recommendation for an employment-residential mixed use ratio. As an employment-residential mixed use option was preferred by Council, in 2014 staff recommended a 60% Employment: 40 % Residential option, with an opportunity for adding up to an additional 0.5 FAR Bonus to secure needed affordable housing. The increased FAR, to a maximum of 1.75 FAR, was intended to also minimize the impact on future employment lands being lost. This option proved to be unacceptable to Council.

Since the latest referral from July, 2014, staff researched updated reports and statistics, including proposals for commercial and office space with the City Centre Area Plan (CCAP). The most recent trends in office development support claims that office demand is focused along the Canada Line and within short walking distance to transit stations.

Given this new information and most recent trends, staff can now support the option of approximately 30 % Employment use at 1.75 FAR, which is equal to .52 FAR of employment space. The available residential Bonus Density, in terms of allowing for any residential floor area, enables the City to achieve the much needed built Affordable Housing, Modest rental housing and purpose built long-term market rental housing while providing adequate incentives to the developer.

# **Employment Lands Summary**

Given the new information in terms of actual proposals and recent office trends, staff support the scenario for a minimum of .52 FAR (approximately 30 % Employment use at 1.75 FAR) with an available 1.28 FAR residential bonus density for a total 1.8 FAR, providing that the residential floor space is comprised of a minimum of 5 % built Affordable Housing, 7.5% purpose built modest rental controlled units, and 2.5% market rental units, making up a minimum total of 15% of the residential floor area.

# Implementation

April 28, 2015

To implement the above, the following is proposed for the West Cambie Alexandra Neighbourhood Business / Office area:

- 1. The 2041 OCP will be amended by:
  - re-designating the area, from Mixed Employment, to Mixed Use,
  - removing from the area, the OCP Aircraft Noise Sensitive Development (ANSD ) overlay,
- 2. The West Cambie Area Plan (WCAP) will be amended by:
  - re-designating the area, from Business Office, to Mixed Use Employment Residential, and
  - making the appropriate text and map changes throughout the Area Plan, and
- 3. A new policy titled "West Cambie Alexandra Neighbourhood Mixed Use Employment Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy" is proposed to establish effective housing policies. The Policy is to be approved when the OCP and Area Plan amendments are adopted.

Once the above changes are approved, Council will have established a clear direction as to how the area is to re-develop and meaningful community benefits (e.g., built affordable housing, low end rental housing and market rental housing) are to be provided.

Based on these policies, developers may bring forth rezoning proposals for consideration.

# Financial Impact

None

# Conclusion

Staff has responded to Planning Committee's request to:

- 1. examine and report on the sidewalks in the West Cambie Alexandra neighbourhood,
- 2. examine the potential need to redesignate portions of the No 3 Road corridor from residential use to employment use, and
- 3. further examine mixed use employment-residential options.

# Staff recommend:

1. That staff not proceed with the implementation of an interim sidewalk / walkway along Odlin Road and Alexandra Road, as a sidewalk/walkway already exists (south side of Odlin Road) or will be provided on at least one side of Alexandra Road within the next 2-3 years.

- 2. That staff consider the inclusion of interim sidewalk / walkway along Garden City Road as part of the City's 2016 capital program, if there are no immediate/imminent development applications for these fronting properties in the foreseeable future.
- 3. That lands along No 3 Road not be redesignated from residential use to employment use.
- 4. Redesignating the *Business Office* area to *Mixed Use Employment-Residential* at a base density of 0.52 FAR for Employment space, with an available bonus residential density of 1.28 FAR, provided that built Affordable Housing is included at a minimum rate of 5% of the total residential floor area and an additional 7.5% of the residential floor area is provided as modest rental units and 2.5% as secured long-term market rental housing, combining for a total of at least 15% of the residential FAR.
- 5. Establishing the West Cambie Alexandra Neighbourhood Mixed Use Employment Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy.

Terry Crowe Manager, Policy Planning (4139)

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Victor Wei Director, Transportation (4131)

TC/VW:cas

- Att. 1: RTC: Referral: West Cambie-Alexandra Neighbourhood Business Office Area Review dated May 27, 2014
- Att. 2: Map: Pedestrian Circulation in West Cambie-Alexandra Neighbourhood
- Att. 3: Map: Employment lands within 1 km of Canada Line Stations
- Att. 4: Map: Employment lands fronting on No. 3 Rd.
- Att. 5: West Cambie Alexandra Neighbourhood Mixed Use Employment Residential Use Density Bonus, Community Amenity Contribution, Modest Rental Housing Rates Policy



# **Report to Committee**

То:	Planning Committee	Date:	May 27, 2014
From:	Joe Erceg, General Manager Planning and Development	File:	08-4375-01/2014-Vol 01
Re:	Referral: West Cambie Alexandra Neighbourhoo Review	od Busin	less Office Area

# Staff Recommendation

That the report titled: "Referral: West Cambie Alexandra Neighbourhood Business Office Area Review", which provides comments from the Economic Advisory Committee (EAC) and additional clarification regarding the Alexandra Neighbourhood Business Office Area development options which were presented in the report dated April 4, 2014 report, be received for information.

wur

Joe Erceg, General Manager, Planning and Development

Att: 2

REPORT CONCURRENCE				
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER		
Economic Development	P	pe torig		
REVIEWED BY STAFF REPORT / Agenda Review Subcommittee	INITIALS:	ABRROVED BY CAO		

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### Staff Report

## Origin

This report responds to the following referral from April 23, 2014 Planning Committee:

It was moved and seconded

That the staff report titled, West Cambie: Alexandra Neighbourhood Business/Office Area Review, dated April 4, 2014 be referred back to staff so that it may be:

- (1) deferred to a subsequent Planning Committee meeting to receive comment from the City's economic land consultant regarding the land use proposals; and
- (2) referred to the Economic Advisory Committee for feedback.

## Background

At the April 23, 2014, Planning Committee meeting, the report dated April 4, 2014 and titled, "West Cambie: Alexandra Neighbourhood Business / Office Area Review" was presented and discussed (Attachment 1).

This report is to be read in conjunction with the original April 4, 2014 report, as it provides the requested feedback from the Economic Advisory Committee (EAC) and clarification on assumptions made in the analysis of the four Development Scenarios from the City's real estate consultant, *Site Economics Ltd.* Additional office market information and detailed statistics have also been provided to address the viability of Business Office development in the West Cambie Study Area.

## Analysis

1.0 Referral Feedback - Economic Advisory Committee (EAC)

The Economic Advisory Committee (EAC) has reviewed this matter twice, first time in early 2013 and, as requested by the Planning Committee, again at its May 15, 2014 meeting.

In May 2013, the EAC reviewed the report titled, *West Cambie-Alexandra Neighbourhood Business Office Area Review* which supported retaining the existing Area Plan *Business Office* designation, as it was consistent with the Employment Land Strategy 2010 and the 2041 OCP. The EAC supported retaining the Business Office designation.

On May 26, 2014, as requested by Planning Committee, the EAC once again considered the report to Committee which provided an analysis of the following Development Scenarios:

- Development Scenario 1 100% Mixed Employment,
- Development Scenario 2 60% Employment: 40% Residential (Staff recommendation),
- Development Scenario 3 30% Employment: 70% Residential (Westmark Proposal #2),
- Development Scenario 4 20% Employment: 80% Residential (Westmark Proposal #1).

The EAC reviewed the report and provides the following comments for consideration:

After a broad discussion and given the Committee's mandate and perspective, the EAC upholds its initial position and supports Scenario 1 Retain 100% Employment Uses for the Study area. The reasons remain unchanged from the EAC's 2013 initial position to retain 100% employment in the Study Area, including:

- 3 -

- Keep employment lands as such, per the City's recently adopted 2041 Employment Lands Strategy and 2041 OCP;
- Don't give in to market pressure to convert employment land to residential use because the capacity of the existing residential zone is virtually limitless, while the capacity of office and industrial is limited;
- Avoid setting a precedent of converting employment land to residential, just because the immediate market opportunity is suggesting residential uses, when the underlying principle is need [sic] to be a long term overall City economic benefit to the community;
- Constraints (e.g., appropriate zoning) will encourage creativity for the development of the employment lands and current zoning and Area Plan requirements should not be ignored, due to current market conditions; and
- Respect the process and Council-approved outcomes of the 2041 OCP, the 2014 Resilient Economy Strategy and the 2041 Employment Lands Strategy and the effort of staff, volunteers and the larger community who participated in those processes to maintain the credibility and integrity of the work completed to date.

## 2.0 Clarification of Assumptions

At the April 23, 2014 Planning Committee meeting, there were questions with regards to the term "industry standard" for mixed use commercial-residential developments The information below provides further clarification with regards to this matter.

## "Industry Standard"

The reference to industry standard by *Site Economics Ltd.*, the City's real estate consultant, reflects development ratios where mixed use commercial-residential uses are permitted into an area designated as "employment lands". The consultant's position is that when the percentage of employment space is diminished to below 60% of the total floor area, then the area is seen by commercial office developers as being a "residential" area that has some mixed uses that may or may not include needed office space.

As these lands are identified in the 2041 OCP and Employment Lands Strategy as protected employment lands, then employment space should maintain a dominant role. The consultant indicates that commercial office developers would not likely view this location as a viable employment area in which to invest in building new commercial office space, if residential is the dominant use of the site.

## 3.0 Office Locations throughout the City

Since the April 23, 2014, Planning Committee meeting, staff have reviewed additional information and more detailed statistics regarding the City's office market to better address Committee's questions.

Since office tenants have different requirements, they locate in different areas to meet their individual needs and budgets. Office space is generally identified by the *Building Owners and Managers Association* (BOMA) *Building Classification* system and by proximity to rapid transit stations. These are usually major factors in a company's decision to locate in a particular area and building, and are explained in further detail below.

## BOMA Office Building Classification

The BOMA Office Building Classification system provides a general description of various types of office buildings which characterize the building's prestige based on the building's level of exterior and interior finishes including infrastructure, the types of clients and the relative market lease rates for the area. In Richmond, the main office building classifications are outlined below along with the recent reported vacancy rates and average asking gross rental rates for comparison purposes.

- "Class A" Buildings: Prestigious buildings competing for premier office users with rents above average. Characterized by buildings that have high-quality standard finishes, stateof-the-art systems, exceptional accessibility and a definite market presence.
  - Percentage of Richmond Office Inventory: 48%
  - Asking gross rental rates (Richmond, BC): \$ 29.39
  - "Class B" Buildings: Characterized by new buildings in non-prime locations and older buildings with good quality tenant improvements, competing for a wider range of users with average rents. Finishes are fair to good for the area and systems are adequate, but the building does not compete with Class A at the same price.
    - Percentage of Richmond Office Inventory: 44%
    - Asking gross rental rates (Richmond, BC): \$ 21.23
  - "Class C" Buildings: Characterized by older structures, poor-to-average quality of tenant improvements and may not have elevators and air conditioning. Competes for tenants requiring functional space at rents below average.
    - Percentage of Richmond Office Inventory: 8%
    - Asking gross rental rates (Richmond, BC): \$ 14.35

The office building classifications and net asking rents illustrate how there are different office spaces to meet different needs and budgets.

### Proximity to Rapid Transit

Not everyone wants or needs to be located within 500m of a Rapid Transit Station. An employment (e.g., office) building's proximity to rapid transit can contribute to its market attractiveness and thus can often demand higher rents than comparable buildings elsewhere.

However, this trend towards offices within 500m of rapid transit is not a guarantee for landlords, as seen in Burnaby and Surrey, where large blocks of office space were recently vacated, as the tenants moved to other transit serviced spaces in New Westminster (*Jones Lang LaSalle, Rapid Transit Index, Q3, 2013*).

## 4.0 Office Vacancy Rates

#### A Healthy Office Vacancy Rate

When reviewing office vacancy rates, it should also be noted that a "healthy office vacancy rate" is considered to be around 8% (*DTZ-Barnicke Real Estate Advisors, 2014*). The consultants advise that an 8% vacancy rate is healthy, as it enables office tenants to relocate from one area to another area to better meet their changing needs and circumstances. As well, an office vacancy rate above 8% generally indicates an oversupply of office space, while a vacancy rate under 8% suggests that there is an undersupply and additional office space is welcomed. For these reasons, it is suggested that office space in the West Cambie Study Area will be viable

#### Comparable West Cambie Office Vacancy Rates

Since the April 23, 2014, Planning Committee meeting, staff have further researched office vacancy rate statistics and confirmed that the office vacancy rate that would be most comparable to the West Cambie Study Area is 6.3%. In Richmond, a comparable office area is located within 800m of a Canada Line rapid transit station which has comparable Class A and B office vacancy rates. Class C office space which involves existing older structures, as described in Section 3.0 above, is not included in the comparison, as in the West Cambie Study Area, those types older buildings do not exist and are not proposed for the Study Area. For these reasons, the Class C Office vacancy rate is not relevant to the comparison.

Office	CI	ass A	Clas	is B	Clas	ss C	Total
Location and Class	Inventory	Vacancy Rate	Inventory	Vacancy Rate	Inventory	Vacancy Rate	Vacancy Rate
Transit Oriented (<500m)	163,000	< 1.0 % (undersupply)	Stats not available	Stats not available	Stats not available	Stats not available	5.3 %
Near Transit (<800 m)	755,028	5.8% (undersupply)	75,640	10.9%	269,332	22.5%	10.8%
West Cambie Comparable*) 800 m of rapid transit*	Va	Class A+B (ne Inventory: 830 acancy Rate: 6.39	),668 sq. ft	N.	-	_	6.3%
City Centre	711,385	7.5% (undersupply)	105,765	9.3%	367,633	19.2%	11.2%
		Note: A Health	hy (ideal) Va	icancy Rat	e is 8%	이 사람 환환	아랍니지 않는
Crestwood	964,165	34.3 %	87,304	73.7 %	60,000	4.3 %	35.8% (oversupply)
Richmond	2,507,839	26.3 %	916,508	26.4 %	724,037	17.1 %	24.7% (oversupply)

#### Table 1 - Detailed Office Statistics

Source: Coriolis Consulting Group, Richmond Resilient Economy Strategy

\* Jones Lang LaSalle Rapid Transit Index (RTI) Q3-2013

\*\* Based on Class and proximity to transit; Statistics derived from Coriolis report for this table

Table 1 above emphasises that there is a viable demand for Class A and B office space in the Study Area.

### Interpreting Office Vacancy Rate Statistics

One way that office vacancy rates are often misinterpreted is that they are generally reported as an average across all office classes throughout the City which is inappropriate for comparison to the Study Area. The recently approved 2014 Richmond Resilient Economy Strategy, Technical Report #3: Richmond's Role as a Regional Office Centre, prepared by Coriolis Consulting Ltd. for the Richmond Economic Development Division, provides more detailed and in-depth statistics that differentiate office vacancies by Building Class and proximity to Transit (Table 1).

As well, the study reveals that the city wide office vacancy rate for all building classes in Richmond is 18.8%, as reported by *Colliers International* in their *Q1, 2014 Office Statistics*; however, the most relevant office vacancy rate for comparison to the West Cambie Study Area is 6.3%, as it includes only Class A and B office buildings and is near rapid transit.

### 5.0 Quality of Jobs and Annual Salaries

#### Quality of Jobs

The April 4, 2014 Report to Committee (Attachment 1) indicated that the proposed Class A and B office jobs in the Study Area under the recommended Scenario (60% Employment: 40% Residential) would enable excellent, higher paying jobs. This evaluation was based on the amount of projected jobs, since in each of the scenarios, retail space would be limited to the ground floor only and oriented towards the arterial roads. Retail floor space and the associated jobs would remain the same in each scenario, therefore any change in the amount of commercial floor space has direct correlation to the amount of projected office jobs (more commercial space = better quality jobs).

Since the recommended Scenario (60% Employment: 40% Residential) retains 84% of the existing allowable commercial (employment) floor space found in Development Scenario 1 (100% Employment), it was ranked as excellent. Scenarios 3 and 4 would retain only 42% and 28% of the commercial space, respectively, therefore they were ranked lower quality jobs.

#### Annual Salary

*Site Economics Ltd.* estimated an average annual salary of \$60,000 for projected jobs in the West Cambie Study Area. Statistics Canada reports that the average hourly wage of a permanent job in BC is \$25 in 2014 and the average annual base salary for office type occupations was over \$57,000 with total compensation packages at approximately \$72,000 (Table 2 below).

As incomes are generally higher in the Greater Vancouver area and development completion in the Study Area is at least 4 years from the present, the figures are confidently estimated to be \$60,000 or approximately 10% higher than the current rate.

The consultant's assumption used in the analysis, that the average salary would be approximately \$60,000 per year, is consistent with the statistics outlined below in Table 2.

Occupation	Base Salary	Benefits (25%)	Total Compensation
Management	\$ 75,358	\$ 18,840	\$ 94,198
Business, finance and administrative	\$ 46,301	\$ 11,575	\$ 57,876
Natural and applied sciences and related	\$ 66,539	\$ 16,635	\$ 83,174
Health	\$ 60,320	\$ 15,080	\$ 75,400
Social science, education, government service and religion	\$ 60,507	\$ 15,127	\$ 75,634
Sales and service	\$ 35,173	\$ 8,793	\$ 43,966
Average	\$ 57,366	\$ 14,342	\$ 71,708

Table 2 Examples of 'Office Type' Occupations to be attracted to West Cambie

Source: Statistics Canada, CANSIM Tables 282-0069 and 282-0073 (Last Modified Jan 1, 2013)

### 6.0 Future Office Development - Is there a Glut?

Since April 23, 2014, staff have verified that there is currently 1.3M sq. ft. of office space proposed in developments that are underway in the City Centre, with an anticipated completion over the next 15 years (2029). More specifically, there is 290,000 sq. ft. of proposed office space in Capstan Village and 1,000,000 sq. ft. in Bridgeport Village (e.g., Duck Island).

The 2009 City Centre Area Plan reported an existing 80 acres of zoned land for office uses, with a projected demand of 119 acres required by 2041 to accommodate the estimated 17.0 M square feet of new office space. So while the 1.3M sq. ft. may initially seem to be a large amount of office space development, it is only 13% of the 2041 OCP forecasted average yearly growth required to meet the 2041 OCP Employment Land Strategy objectives. Thus, staff consider the proposed 1.3M sq. ft. of office space to be an undersupply of office space and not a "glut".

### 7.0 Summary

The West Cambie Study Area is a competitive and viable location for office space for the following reasons:

- Comparable Class A and B office space near transit has only a 6.3% vacancy rate (Coriolis, 2013) which means that there is an undersupply, since a healthy office vacancy rate is 8% (DTZ-Barnicke, 2014).
- As not all office space needs to be in the City Centre, the Study Area is very viable for Class A and B offices.
- 82% of Richmond's workforce are in positions that require office space.
- As approximately 92,000 Richmond workers travel to work by various methods: 76% by private vehicle, 18% take public transit, and 6% walk, bike or use other means, the Study Area is viable as:
  - The Aberdeen (Rapid Transit) Station is only 810m away and is easily walkable,
  - It is currently well served by six bus routes within 200m of the Study Area, and
  - It has excellent vehicle access, as it is located on a major arterial road network with highway access.

 Future planned/in process office development in the City Centre is still considered an undersupply as it is below the average growth rate to meet the City's Employment Land Strategy (i.e., no glut).

### **Financial Impact**

None

## Conclusion

Staff has responded to Planning Committee's request to provide Economic Advisory Committee comments and to clarify certain Study Area topics.

Térry Crowe Manager, Policy Planning (4139)

Patrick Burke

Senior Planning Coordinator (4164)

Att. 1: RTC: West Cambie-Alexandra Neighbourhood Business Office Area Review dated April 4, 2014

Att. 2: Map: Transit Proximity: Major Office Areas



# **Report to Committee**

To:	Planning Committee
From:	Joe Erceg, General Manager Planning and Development

Date: April 4, 2014

File:

## Re: West Cambie: Alexandra Neighbourhood Business/Office Area Review

### Staff Recommendation

- That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100, to change the existing Business Office designation to Mixed Use (60% Employment:40% Residential) designation, be introduced and given first reading.
- 2. That Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, having been considered in conjunction with:
  - a) the City's Financial Plan and Capital Program;
  - b) the Greater Vancouver Regional District Solid Waste and Liquid Waste Management Plans;

is hereby found to be consistent with said program and plans, in accordance with Section 882(3)(a) of the Local Government Act.

- 3. That, in accordance with section 879 (2)(b) of the *Local Government Act* and OCP Bylaw Preparation Consultation Policy 5043, Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121, be referred to the following bodies for comment for the Public Hearing:
  - a) Vancouver International Airport Authority (VIAA) (Federal Government Agency), and
  - b) The Board of Education of School District No. 38 (Richmond).
- 4. That City staff be directed to consult with VIAA staff regarding the proposed recommendation, prior to the Public Hearing.

Joe Erceg

General Manager, Planning and Development

JE:ttc Att. 13

4210602

April 4, 2014

REPORT CONCURRENCE				
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER		
Finance Division Community Social Development Parks Services Engineering Development Applications Transportation		petreq		
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	ADPROVED BY CAO		

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#### Staff Report

### Origin

On July 8, 2013, Council passed the following resolution:

That the report from the General Manager, Planning and Development, dated June 24, 2013, titled: West Cambie – Alexandra Neighbourhood Business/ Office Area Review be referred back to staff to further consider mixed use including commercial, residential and office use and the appropriate proportion and number of units for each use.

The purpose of this staff report is to address this referral.

2011 - 2014 Council Term Goals

The report addresses the following 2011 - 2014 Council Term Goal 7:

• *Managing Growth and Development.* 

## Background

1. West Cambie Area Plan - Alexandra Quarter

The West Cambie Area Plan was adopted in 2006. At the time of approval, the Alexandra quarter section of the Area Plan (approx. 160 acres) was estimated to enable 6,000 people and 2,000 jobs at build out in 2041. Since the Area Plan was approved, development in the Alexandra quarter has proceeded as intended (e.g., as multi-family residential projects, the Smart Centres project which includes a Walmart retail outlet, a child care facility, a district energy utility, parks and trails).

2. The Study Area - Alexandra Mixed Employment (Business/Office) Area

Of the 160 acre Alexandra quarter, approximately 16 acres (15.9 acres) is designated as a Business/Office Area which occupies the north west corner of the quarter and is bounded by Alexandra Road to the south, Garden City Road to the west, Cambie Road to the north and Dubbert Street to the east: this is the Study Area (Attachments 1 & 2). The Area Plan currently allows the following uses in the Business/Office Area:

Business and Office Uses over Retail up to 1.25 FAR including office commercial, restaurants, neighbourhood pubs, retail and retail services commercial - small floor plate only including service station, educational facilities, recreational facilities, enclosed commercial parking, preferably structured and neighbourhood commercial, at the southeast corner of Garden City Road and Cambie Road.

3. Summary of the January 2014 Westmark Proposal

Initially in 2013 and later revised in January 2014, the Westmark Development Group (Westmark) applied to rezone one third (5.1 acres) of the Alexandra Neighbourhood Business/ Office Area which they have assembled along the west portion of the Alexandra quarter and which fronts onto Garden City Road, north of Odlin Road and south of McKim Way, to enable a 20% Mixed Employment (e.g., office, commercial) and 80% Residential development (Attachment 2). The developer has been advised that their rezoning application will not be processed, until Council has decided upon an updated land use policy for the area. April 4, 2014

### **Relevant Policies and Considerations**

#### 1. Planning Policies

Policy Planning staff established a review team involving Transportation, Engineering, Community Services and Parks staff, to address the referral. Staff were guided by the 2041 Official Community Plan (e.g., 2041 OCP Population, 2041 Housing and Employment Projections Study, 2041 OCP Employment Lands Strategy, 2041 City OCP Aircraft Noise Sensitive Development [ANSD] Policies), the 2006 West Cambie Area Plan (WCAP), the 2007 Affordable Housing Strategy, the 2022 Parks and Open Space Strategy, the Metro Vancouver – 2040 Regional Growth Strategy and recent market trend considerations. As well, staff sought the advice from Site Economics Ltd. an economic land consultant to assist in evaluating the economic, employment and property tax impacts of the Development Scenarios. Site Economics Ltd. helped prepare the 2041 OCP Employment Lands Strategy.

#### 2. Study Area Characteristics

The Business Office Use Area, in the Alexandra Quarter is intended to assist the City in meeting its long term 2041 OCP employment land needs. The characteristics of the Study Area are summarized in Table 1 below:

Table 1: Study Area Characteristics           Business Office Use, Alexandra Quarter, West Cambie			
Topic	Summary		
Study Area - Size	<ul> <li>16 acres: (15.89 acres, or 6.43 ha - 692,601 ft2)</li> <li>Approximately 10% of the whole Alexandra Quarter Section</li> </ul>		
Total Buildable Area	- 865,755 ft² (at 1.25 FAR)		
2041 OCP Land Use Designation	Mixed Employment Those areas of the City where the principal uses are industrial and stand-alone office development, with a limited range of support services. In certain areas, a limited range of commercial uses are permitted such as the retail sale of building and garden supplies, household furnishings, and similar warehouse goods.		
2041 OCP Noise Sensitive Development Area (ANSD) Designation	<ul> <li>Designation - Area 1A (35 - 40 NEF)</li> <li>New Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) are prohibited</li> </ul>		
West Cambie Area Plan, Alexandra Quarter Land Use, Density, Height:	<ul> <li>Business Office Uses (non residential) <ul> <li>Office commercial</li> <li>Restaurants and neighbourhood pub</li> <li>Retail and retail services commercial — small floor plate only</li> <li>Educational facilities</li> <li>Recreational facilities</li> <li>Enclosed commercial parking, preferably structured.</li> <li>A service station and neighbourhood commercial uses, at the southeast corner of Garden City Road and Cambie Road.</li> <li>Maximum FAR 1.25</li> <li>Maximum Height: 2 to 4 storeys (8 metres – 15 metres); 5 storeys (20 metres) of non-combustible construction can be considered.</li> </ul> </li> </ul>		
Existing Zoning	Mainly Single Family - RS1/F (1x CG2 lot and 1x RD1 lot) Width = 18 m (60 ft) Minimum Area 828 m2 (8,913 ft²)		
Existing Uses	Single Family Residential		
Transit Services	<ul> <li>The Study Area is well serviced by public transit with two current bus routes fronting Garden City Road (407 and 430), bus service along Cambie Road and there are direct bus connections to the Richmond- Brighouse and Bridgeport Canada Line stations.</li> </ul>		

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Table 1: Study Area Characteristics Business Office Use, Alexandra Quarter, West Cambie			
Topic	Summary		
	<ul> <li>The Canada Line is about 1 km (about a 15 minute walk) from the area.</li> <li>The City is working with TransLink to monitor service levels and seek service improvements over time.</li> </ul>		
Water	System		
Sanitary	Septic Tank: Sanitary Sewer System connection required with development		
Drainage	Yes		
Alexandra District Energy Utility (ADEU)	New development will be required to connect to the ADEU		

#### 3. Criteria to Evaluate the Development Scenarios

The Study Area's Business/Office designation was established to meet the City's short and long term needs by having an ample supply of employment lands to enable job creation, a range of high paying jobs, a healthy tax base and a mini Complete Community. The 2041 OCP indicates that Mixed Employment (Business Office) areas are to be protected, retained and densified to ensure the City has sufficient mixed employment land to meet its long term needs.

As the West Cambie Area Plan also emphasizes office jobs in this location, the loss of the Study Area's Business Office lands to residential use would have negative implications for the City's economy and job creation. With this in mind the following criteria to assess and evaluate a range of development scenarios was used:

- a) Jobs
  - Maximize potential jobs through the protection and development of designated employment lands.
  - Maximize high paying jobs and total jobs.
  - Avoid creating employment land challenges which must be addressed later (e.g., replacing employment lands for needed jobs).
  - If introducing residential uses into the Study Area ensure that the long term viability of the employment uses and their jobs, are not jeopardized by the residential use.
- b) Conformity with City Policies
  - Comply with City policies including land use, density, urban design, building, parking, transportation, infrastructure, social (e.g. affordable housing) and parks.
- c) City-VIAA Relations
  - Avoid jeopardizing the City's relationships with the VIAA.
- d) Property Taxes
  - Maximize property tax revenues.
- e) Precedent
  - Avoid creating an undesirable precedent (e.g. converting employment lands to other uses).
  - Generate more positive benefits than the negative implications.
- 4. Considerations in Applying the Criteria
  - a) Jobs

Advice from *Site Economics Ltd.* indicates that high paying, long-term jobs are best achieved where the majority of the employment is in an office environment. These jobs are anticipated to be full-time, permanent and pay an average of \$60,000 annually, while

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retail and service jobs tend to be less secure and pay much less. Higher paying jobs could be achieved by managing office and retail uses as follows:

- Restrict retail uses to the ground floor as this will allow more office height & density above and thus the potential for more higher-paying office jobs.
- Retail uses can likely pay more than office for ground floor space due to the arterial road exposure.
- Retail uses on the ground floor make office space above more attractive for office workers.

By restricting retail uses, office space marketability is increased and more viable, as people can live and work in the same neighbourhood.

- b) Conformity with City Policies
  - Land Use, Density and Urban Design Planning staff have reviewed the Study Area in the context of the adjacent land use designations which limit the base density to 1.25 FAR. A maximum building height of 6 storeys (25 m) is proposed for Mixed Use Employment-Residential use, as the height is consistent with adjacent designations, and would maximize the employment floor area in each scenario.
  - *Transportation Services* Transportation staff advise they have no issues, as transportation improvements would be provided at the time of redevelopment based on required developer studies and City requirements (e.g., City Wide & Local Area DCCs, on and off site contributions).
  - Infrastructure Services (water, sanitary sewer, drainage)- Engineering staff advise that they have no issues, as infrastructure improvements would be provided at the time of redevelopment based on required developer studies, and City requirements (e.g., City Wide & Local Area DCCs, on and off site contributions).
  - Affordable Housing to encourage the provision of built affordable housing, staff recommend offering a total 0.5 FAR Bonus Density, to be split proportionately between the Employment and Residential uses. This would have an added benefit of providing additional employment space.
  - *Park Space* Park staff advise that they have no issues as additional parks are not required in the Alexandra Neighbourhood as there is already sufficient space in the area. The existing DCC charges will apply to contribute to park land acquisition and improvements.
- c) City-VIAA Relations

Establishing and maintaining good relations with other governments and organizations is an integral part of running a City. The introduction of residential uses in this location would require changing the 2041 OCP Aircraft Noise Sensitive Development Area (ANSD) designation from Category 1A (which prohibits residential uses) to Category 2 (which permits residential uses subject to aircraft noise mitigation measures). In response to the possibility of allowing residential uses in the Study Area, on March 27, 2013, Vancouver International Airport Authority (VIAA) staff provided the following comments:

With regards to the position of the Vancouver Airport Authority, the ANSD designation should stand and we do not support changes to the OCP to allow the proposed development. The property in question is located within the 35 Noise

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Exposure Forecast (NEF) planning contour, where Transport Canada does not recommend residential development per their land use guidelines. The property is also directly under the flight path of the 24-hour south runway and is one of the most severely noise affected areas of the City.

We also do not support the concept of 'swapping' land within other areas of the City's ANSD Policy to offset the proposed development. However, if the City wishes to undertake this option, the new offset lands to be protected should be located within the West Cambie area and have an equivalent exposure to noise and aircraft overflights.

In summary, the VIAA does not support allowing residential uses in the Study Area to avoid the possibility of aircraft noise complaints. While Council can make OCP ANSD decisions to allow residential uses in the study area unilaterally, it runs the risk of jeopardizing City-VIAA relations.

d) Property Taxes

Commercial/ employment properties are taxed at a higher mill rate than residential uses thus producing much more tax revenue for the City. Residential uses also tend to place more demands on City services and therefore they are more costly to tax payers. From a tax perspective, arrangements which have a higher proportion of employment uses are more desirable.

### e) Precedent

Any introduction of residential uses into the Study Area has the potential to set an undesirable precedent. Owners of employment lands across the street to the west of the Study Area have already indicated that they also want their lands to be redesignated for residential use to attract higher real estate prices.

If residential uses are permitted, strict parameters for land use development ratios, density and phasing are needed to limit the negative impact of residential speculation and use. Strict and clear requirements for managing residential and employment uses will ensure that employment uses are not jeopardized by residential uses and may deter the wide spread land speculation throughout other employment areas in the City.

### Analysis

#### 1. Review of Development Scenarios

- To address the referral, staff identified the following Development Scenarios for the Study Area:
- Development Scenario 1: An Enhanced 100% Mixed Employment Scenario: retain the existing Business / Office designation and clarify employment uses (Attachment 3),
- Development Scenario 2: A 60% Mixed Employment and 40% Residential Mixed Use Scenario: based on consultant advice and industry norms (Attachment 4),
- Development Scenario 3: A 30% % Mixed Employment and 70% Residential Option to provide an additional possibility (Attachment 5), and
- Development Scenario 4: A 20% Mixed Employment and 80% Residential Mixed Use Scenario based Westmark's January 2014 proposal: this Scenario was evaluated both for the 5 acre Westmark site and the 16 acre Study area (Attachment 6).

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Table 2           Summary of Land Use Implications for the Four Development Scenarios					
C	Scenario 1	Scenario 2	Scenario 3	Scenario 4 Westmark Proposal	
Land Use Ratio Employment Residential	Emp:100% Res: 0%	Emp: 60% Res: 40%	Emp: 30% Res: 70%	Emp: 20% Res: 80%	
Base and Bonus Density (FAR)	Base: 1.25 (Employ)	Base: 1.25 (0.75 Employ +0.50 Res)	Base: 1.25 (0.375 Employ +0.875 Res)	Developer proposes 1.77	
	<i>Bonus</i> : None	<i>Bonus*</i> : 0.5 (0.3 Employ + 0.2 Res)	<i>Bonus*</i> : 0.5 (0.15 Employ + 0.35 Res)	FAR, did not propose a density bonus	
	Max: 1.25 FAR	Max: 1.75 FAR	Max: 1.75 FAR		
Floor Area @ Max FAR (Base + Bonus)	865,238 ft <sup>2</sup>	1, <b>212</b> ,057 ft <sup>2</sup>	1,212,057 ft <sup>2</sup>	1,226,084 ft <sup>2</sup>	
Commercial floor	865,238 ft <sup>2</sup>	726,800 fl <sup>2</sup>	363,617 ft <sup>2</sup>	245,217 ft <sup>2</sup>	
Residential floor	n/a	485,257 ft <sup>2</sup>	848,440 ft <sup>2</sup>	980,867 fl <sup>2</sup>	
Ongoing Employment Completed Project (jobs)**	3,502	3,047	1,656	1,220	
Quality of Jobs	Excellent	Excellent (Higher paying office)	Good (Less office)	Good (Low paying retail)	
Total Estimated Annual Salaries	\$210 million	\$183 million	\$99 million	\$73 million	
Est. Residential Units	0	606	<b>1</b> ,061	1,226	
Est. Additional Residents	0	1,300	2,200	2,600	
Total Projected Alexandra Population	6,700	8,000	9,000	9,300	
Annual Property Taxes	\$4,297,595	\$4,516,000	\$3,397,17 <b>7</b>	\$3,057,435	

With the assistance of *Site Economics Ltd*, each of the Development Scenarios are described and evaluated below, illustrated in Attachment 7 and summarized in Table 2.

\* Bonus FAR requires that 5% of total residential area is built affordable housing and that Bonus Employment FAR also be built.

\*\*Jobs are calculated based on 1 job per 220ft<sup>2</sup> of commercial space plus 1 job per 4000ft<sup>2</sup> of residential space

a) Development Scenario 1 - 100% Mixed Employment

With this Scenario, employment uses are protected by continuing to exclude residential uses. The implications of this Scenario are summarized below.

- The Alexandra quarter's Mixed Employment (Business Office) uses are required to achieve the City's long term 2041 employment objectives.
- Employment uses for this area are suitable and should prove to be technically and economically feasible over the long-term.
- Not all offices should go in the City Centre, nor be on a rapid transit line.
- Community-wide office vacancies have been declining in Richmond over the last year, dropping by 20% in one year and ending at 16.3% at the end of 2013, compared to 20.3% at the end of 2012. Declining office vacancy rates, with no growth in inventory over the

last 3 years, signal a potential growing demand for office development in Richmond in the near-term.

- According to the Rapid Transit Index (RTI) Study published regularly by John Lang LaSalle, Richmond's transit oriented office vacancy rate is at 5.3% (for buildings within 500 metres of a rapid transit station). This is the lowest among all suburban markets and has created some interest in the development community towards adding product along the Canada Line. However, the uptake has been slow, given prohibitive land prices in the immediate proximity to rapid transit. This may signal a more immediate opportunity for office development in areas such as the Study Area – areas that are still within a walking distance of the Canada Line, yet far enough to allow more reasonable land prices.
- Employment uses cannot compete for land in this area without municipal protection, as residential demand drives up land prices making employment uses less financially viable.
- Sudden surges in the demand for employment land, such as a single major office tenant may occur and thus the lands should remain available for such employment uses as intended.
- Single-use office buildings are easiest and most efficient to build, however when located on an arterial road (e.g., Garden City Road), then mixed employment buildings with ground floor retail are warranted, as the retail uses can benefit from good exposure on an arterial road.
- The Study Area was also established to accommodate similar uses which may be displaced from other redeveloping areas of the City (e.g., the City Centre), an important long term City economic re-development objective. In this regard, the range of such displaced opportunities include: Retail and Related Uses: furniture, mattress, food catering, private security uses and Office Uses: property management, holding and investment, consulting, printing, assembly, education, import/ export, travel agency, book making and binding uses. The Richmond Economic Advisory Committee acknowledges this opportunity.
- The potential long term employment and tax revenue benefits of maintaining the existing Study Area's uses outweigh the benefits of adding residential uses and reducing the Study Area's employment potential.
- When the Area Plan was prepared in 2006, it was estimated that the Alexandra quarter would generate 2,000 jobs (1,000 in the Study Area: 1,000 in the Mixed Use where SmartCentres is located). The recent analysis reveals that the Study Area may generate an estimated 3,500 jobs, which is an increase of 2,500 jobs over the original estimate. The 2041 OCP employment policies encourage such increases here and throughout the City as a high priority is placed on using land effectively and generating as many jobs as possible to maintain the City's high job to labour force ratio.
- This Scenario avoids the possibility of generating more similar requests which would jeopardize the long term availability of needed employments lands.
- While service industries (e.g. business management, financing, accounting, insurance uses) are allowed in the area, to enhance the viability of the Development Scenario 1, staff suggest amending the Area Plan to clarify that the following employment uses are permitted in the Study Area: bio-tech, research, lab uses, information technology (IT), media/software, private and public institutions such as medical facilities.

In financial terms, office uses generate significant direct and indirect economic benefits, which exceed those of residential use. Employment development pays more in property taxes annually, creates more ongoing jobs and generates fewer costs to the City than

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residential uses. The estimated number of ongoing jobs would be almost three times as high in Development Scenario 4 put forth by the developer. Based on the economic analysis, it is clear that Development Scenario 1 - 100% Mixed Employment has the greatest overall positive economic, social, and planning benefits of all the Development Scenarios.

To enhance *Development Scenario 1 - 100% Mixed Employment*, staff suggest that an Amendment Bylaw be considered to clarify that the following uses are allowed in the Study Area: Bio-tech, research, lab uses, Information technology (IT), media/software, and Institutional (private and public) uses including medical facilities.

b) Development Scenario 2 - 60 % Employment: 40% Residential Use (Recommended)
If residential uses are to be introduced into the Study Area, the economic land consultant recommends Development Scenario 2 (60% Employment: 40% Residential Use), as it best reflects the industry's recommended level of two thirds employment and one third residential use (Attachment 4). This preferred ratio is intended to stimulate the development of needed employment uses including highly desired office space by enticing developers with multifamily residential development potential. The inclusion of multi-family residential uses provides an incentive to landowners to sell or develop their lands, as it would increase their market value from the existing employment only use. The developer/builder is also provided an incentive to develop the employment space as a condition of building residential uses which provide much higher returns due to the strong residential market. The higher percentage of employment use in a mixed use development (60% Employment: 40% Residential) is believed necessary by the commercial land industry to protect the long term viability of the employment lands.

Also *Development Scenario 2* is preferred as it includes the following benefits:

- Provides 87% of the potential jobs of Scenario 1 (100% Employment) and almost twice as many jobs and \$110 million more in annual salaries than if Scenario 3 (30% Employment) was selected.
- Is the most representative of industry standards for mixed use employment-residential development which better protects the long-term viability of employment uses and higher paying office jobs.
- Is estimated to accommodate approximately 600 new residential multi-family units (1,300 residents) which assist in offsetting the costs to the developer for providing needed employment space for new jobs.
- Provides the highest potential property tax revenues (\$4.5M) and over \$1 million more annually than the other mixed use employment-residential scenarios.

c. Development Scenario 3 – 30 % Mixed Employment: 70% Residential Use

This Scenario is proposed to provide an alternate land use arrangement to the recommended industry standard that is represented by Scenario 2. It would involve allowing the Study Area to develop up to 70% Residential and 30% Employment uses (Attachment 5). However, as the industry standard for Mixed Use areas involves a floor area ratio of 66% employment and 33% residential use, this Option may not be appropriate.

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 d. Development Scenario 4 – 20% Employment 80% Residential Use (Westmark Proposal) Staff reviewed the most recent Westmark proposal from January 2014, which proposes 20% Employment and 80% Residential uses (Attachment 8). While the Westmark proposal involves only 30% of the 16 acre Study Area, the following comments apply to the both the Westmark site and the whole Study Area.

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The proposal as submitted was forwarded onto *Site Economics Ltd.*, the City's economic land consultant, who provided the following comments:

- Based on market conditions, there is clearly room to allocate a larger share of the proposal to office space, which would better support the City's long term needs and the 2041 OCP Mixed Employment designation.
- The retail component is problematic, as it is at the grade level of the proposed office building making the proposed parking difficult and limited.
- The proposed supermarket and drug store could find it very difficult to attract tenants, as the site lacks easily accessible surface parking and is not on a corner.
- The ideal situation is for ground floor retail to be located on Garden City Road frontage with good access and exposure.
- The proposed office space layout is optimal in terms of floor plate, height, and overall configuration.
- The only real issue with proposed office area is the limited scale.
- The 80% residential use reduces the viability and amount of employment space.
- Developer could be required to make a significant contribution from the residential component to subsidize employment space in the area.

From a City perspective, the Westmark proposal is not considered to be a viable Development Scenario, as:

- 1) The proposed density of 1.77 FAR exceeds the existing maximum density of 1.25 FAR and consists of only 0.36 FAR for employment uses (1.41 FAR for residential use), greatly reducing the potential number and quality of jobs.
- 2) The proposed realignment of Dubbert Street further west would unacceptably reduce available employment lands from 5.1 acres to 4.59 acres, further reducing potential jobs while increasing residential use of lands to the east.
- 3) The realignment unacceptably changes the future land use of the site to a roadway and unacceptably proposes to relocate the intersection of Dubbert Street and Cambie Road closer to Garden City Road which does not conform to the Area Plan, negatively affects other property owners and enables Westmark to reduce their road costs and place them on other developers.
- 4) The 1.77 FAR is the base density and therefore does not have any bonus density and therefore does not provide for affordable housing.
- 5) The proposed density is not consistent with the form and character of adjacent lands that have maximum densities of 1.5 FAR along High Street and 1.5 FAR (with density bonus for affordable housing up to a maximum 1.7 FAR) to the east of the Study Area, and;
- 6) Four isolated "orphan" sites remain at the southwest corner and one orphan site at the northeast corner of the block, which are too small to develop and are not permitted under the Area Plan (Attachment 2).

Overall, for economic, planning and urban development reasons staff recommend that Westmark's proposal, *Development Scenario 4*, be eliminated from further consideration as it is not a viable mixed use Development Scenario.

### 2. Managing Mixed Use Employment-Residential Uses.

a) General

The introduction of residential uses into the Study Area has its benefits and challenges. Residential uses on these lands represent a significant change and require special consideration. The goal is to ensure that the proposed land use ratios help stimulate the development of desirable employment space by allowing some development of higher demand residential uses.

The ratio of employment to residential use must be carefully managed. The industry standard to protect the viability of employment uses indicates that employment uses should be the majority use and residential use the minority use (i.e. 66% Employment: 33% Residential).

Allowing residential (multi-family) uses into the Study Area may speed up the development of the employment uses, as the developer would be able to subsidize the development of employment space (e.g., lower construction and lease costs). As well, the developer would install necessary roads and services for the residential uses which would simultaneously benefit the development of employment and office space.

To prevent only residential uses being developed and no employment uses, staff recommend that all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario land use ratio (e.g. 60% E:40% R) that restricts the maximum percentage of residential floor (e.g. maximum 40% residential) area and ensures that the employment space is built.

#### b) 2041 OCP and Area Plan Policy Implications

Introducing residential use in the Study Area would require amendments to the 2041 OCP Mixed Employment designation and to the 2041 OCP Aircraft Noise Sensitive Development Area (ANSD) designation to remove the residential use prohibition. As well, the West Cambie Area Plan would require amendment to re-designate the "Business Office" area to "Mixed Use Employment-Residential" to allow multifamily uses. A mixed-use proposal would not affect the Metro Vancouver 2040 Regional Growth Strategy (RGS), as the RGS designates the Study Area "Urban" which accommodates employment and residential uses.

c) City-VIAA Relations

As indicated above, the introduction of residential uses in this location would require changing the 2041 OCP Aircraft Noise Sensitive Development Area (ANSD) designation from Category 1A (which prohibits residential uses) to Category 2 (which permits residential uses subject to aircraft noise mitigation measures).

The *Vancouver International Airport Authority* (VIAA) does not support allowing residential uses in the Study Area to avoid the possibility of aircraft noise complaints, as they regard the policy as very important and may oppose any new residential uses in the

Study Area. In this regard the VIAA would not likely support Development Scenario 2, 3 or 4 which allow residential uses.

While not typically done, Planning Policy staff intend to meet with VIAA staff regarding the proposed report and recommendation, prior to the Public Hearing, to ensure that VIAA staff understand the City's rationale for the proposed recommendation.

d) Density

As there may be a desire by the City to introduce residential uses in the Study Area to encourage the development of employment uses, the existing maximum 1.25 FAR was reviewed to ensure that employment uses occur along with the required subsidizing residential uses and to allow for building affordable housing.

An additional 0.5 FAR density enables market residential development to subsidize employment space and includes the provision for built affordable housing raising the maximum density to 1.75 FAR. This bonus FAR will be split according to the approved development scenario ratio (e.g. 60% Employment:40% Residential), which for this example, would equate to a 0.2 FAR bonus for residential space. For the developer to take advantage of this additional FAR, they would be required to also provide the additional employment floor space at 0.3 FAR. The combination of the available density and the applicable ratio (e.g. 60% Employment:40% Residential) would ensure that residential development does not deter the development of needed employment space.

e) Affordable Housing

Where residential uses are allowed, as Council has indicated that built affordable housing is needed, staff recommend that all residential developments are to provide at least 5% of the total residential building area (a minimum of 4 units) as built affordable housing units. Cash-in-lieu contributions are not acceptable. This approach is to be applied instead of the older, 2006 West Cambie Affordable Housing Density Bonusing policies.

The proposed OCP Amendment Bylaw includes a policy change to require that built affordable housing units are required.

f) Building Height

The introduction of residential uses in the Study Area also necessitates the reconsideration of the maximum height of buildings. As there remains a desire and need to attract and accommodate employment uses in this location, the Study Area height needs to be attractive to developers and builders. Along with increasing the maximum FAR, the maximum building height is proposed to be increased from 5 storeys (20m) to 6 storeys (25m). This allows the applicant greater flexibility in accommodating the employment uses along with the residential uses on their sites. The proposed height limit is consistent lands to the west of Garden City Road which are located in the City Centre Area Plan and lands to the east within the Alexandra Neighbourhood (Attachment 9).

g) General Development Requirements for Mixed Use Employment -Residential It is recommended that any mixed use employment-residential Development Scenario approved by Council, be required to comply with the following provisions:

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- The commercial and office components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road.
- Residential and ancillary uses should be inward oriented or towards the collector roads (e.g. Dubbert Street) in accordance with existing WCAP Development Permit Guidelines.
- Residential and associated accessory uses may comprise a maximum of 40% (or 70%) of the total floor area within Study Area Development Blocks 1, 2 and 3, as identified in the proposed amended Alexandra map (Attachment 10).
- To prevent only residential uses being developed and no employment uses, all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario (e.g. 60% E:40% R) that restricts the maximum percentage of residential floor space.
- Stand alone retail buildings should not be permitted.
- Notwithstanding the clause above, stand alone single-use buildings and/or mixed-use buildings may be considered, provided that they form part of the comprehensively planned Development Blocks, 1, 2 and 3, as identified in the proposed amended Alexandra map (Attachment 10).

A summary of the OCP amendment requirements for introducing Mixed Use Employment Residential uses to the Study Area (Development Scenarios 2, 3 and 4) are outlined in Attachment 11.

### 3. <u>Summary of Analysis</u>

In summary, staff recommend Development Scenario 2 - 60% Employment: 40% Residential for the following reasons: it:

- potentially provides almost as many jobs as the existing Area Plan and almost twice as many jobs and over \$110 million more in annual salaries than if Scenarios 3 or 4 were selected,
- is the most representative of industry standards for mixed use commercial-residential development that better protects the long-term viability of higher paying office jobs,
- potentially provides the highest property tax revenues (\$4.5M) and over \$1 million more annually than the other mixed use commercial-residential scenarios, and;
- is estimated to accommodate more than 600 new residential multi-family units (1,300 residents), offsetting the costs to the developer for providing needed employment space.

Whichever Development Scenario is selected, staff will continue to monitor the City's long term employment land needs and co-operate with Metro Vancouver staff as they undertake long term employment land studies. As these studies are brought forward, staff will update Council regarding any changes in the City's employment land needs.

If the recommended Development Scenario 2 is chosen, the necessary OCP and Area Plan amendments are in proposed Official Community Plan Bylaw 7100, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100. Alternatively, if Development Scenario 3: A 30% Mixed Employment and 70% Residential Option is preferred, Attachment 12 contains the necessary OCP amendment Bylaw, draft Bylaw 9122.

Should Council decide to protect and enhance the employment uses in the Study Area and not allow residential uses Staff suggest Development Scenario 1- 100% Enhanced Employment be implemented. Attachment 13 contains the necessary OCP amendment Bylaw, draft Bylaw 9120.

4. Next Steps

Staff recommend the purposed OCP Bylaw 7100, Amendment Bylaw 9121 be referred to the Vancouver International Airport Authority (VIAA) and the Board of Education of School District No. 38 (Richmond) for comment, prior to the Public Hearing (e.g., anticipated to be held on May 20, 2014). In addition, while not usually done, City staff recommend that they meet with VIAA staff prior to the Public Hearing to explain the report and recommendation.

#### **Financial Impact**

As noted in report.

#### Conclusion

Staff's evaluation shows that, based on criteria such as the potential for creating high quality fultime jobs, maintaining good government relations, maximizing property tax revenue and avoiding an undesirable precedent, *Development Scenario 1 – 100% Employment* (existing Area Plan) is the best option. As it is staff's understanding that Council may wish to introduce residential uses into the Study Area, the second best option would be *Development Scenario 2 – 60% Employment:40% Residential*, as it is considerably superior to Scenario 3 and Scenario 4.

The necessary OCP and Area Plan amendments are in proposed Official Community Plan Bylaw 7100, Amendment Bylaw 9121 to amend Schedule 2.11A in the 2041 Official Community Plan Bylaw 7100.

Patrick Burke, Senior Planning Coordinator (604) 276-4164

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Térry Crowe, Manager, Policy Planning (604) 276-4139

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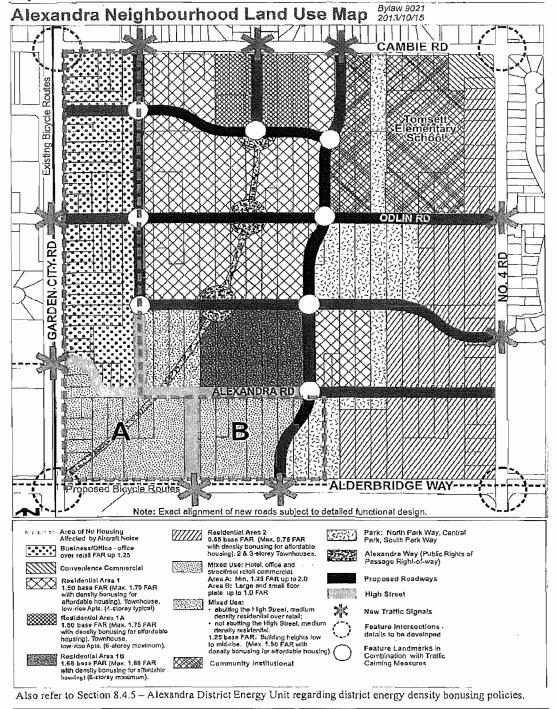
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Attachment 1	Alexandra Neighbourhood Land Use Map		
Attachment 2	Context Plan of Study Area and Westmark Lands		
Attachment 3	Development Scenario 1- Enhanced 100% Mixed Employment (Business Office Use)		
Attachment 4	Development Scenario 2 - 60% Mixed Employment:40% Residential		
Attachment 5	Development Scenario 3 - 30% Mixed Employment: 70% Residential		
Attachment 6	Development Scenario 4 - 20% Mixed Employment:80% Residential (Westmark)		
Attachment 7	Example Illustrations of Development Scenarios		
Attachment 8	Proposed Westmark Site Plan – (20% Mixed Employment:80% Residential)		
Attachment 9	Context Plan of Adjacent Density and Maximum Building Heights		
Attachment 10	Proposed Revised Alexandra Neighbourhood Land Use Map with Development Blocks		
Attachment 11	Summary of OCP Amendments for Introducing Mixed Use Employment-Residential Uses		
Attachment 12	Draft Bylaw Number 9122 - 30% Mixed Employment:70% Residential		
Attachment 13	Draft Bylaw 9120 – (100% Employment) Enhancement of Uses		

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**ATTACHMENT 1** 

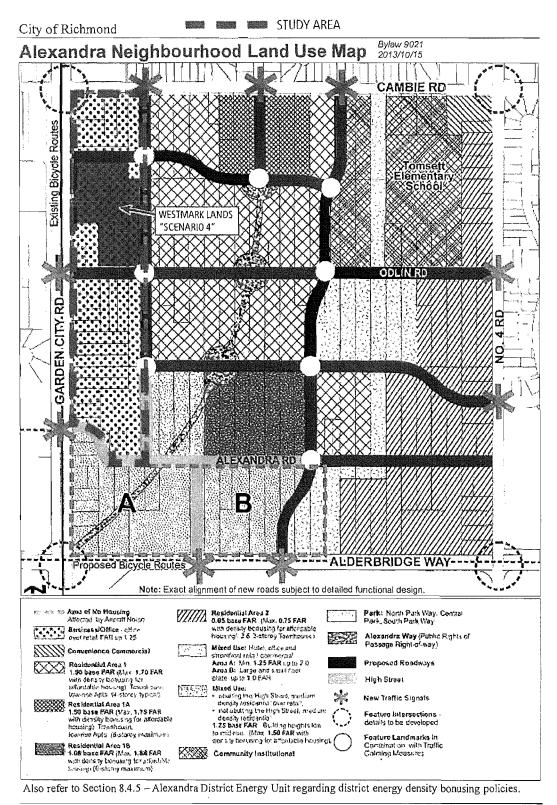




Original Adoption: September 12, 1988 / Plan Adoption: July 24, 2006 3186793

West Camble Area Plan 50

4210602



Original Adoption: September 12, 1988 / Plan Adoption: July 24, 2006 3186793

West Cambie Area Plan 50

**ČNČL - 505** 

Development Scenario 1 Enhanced 100% Mixed Employment (Business Office Use)

General Description

The following Table summarizes the characteristics of Development Scenario 1 – 100% Mixed Employment (Business Office Use, with land use enhancements):

Development Scenario 1 100% Business Office Use Scenario	
Торіс	Summary
Study Area - Size	16 acres: (15.89 acres, or 6.43 ha ) Approximately 10% of the whole Alexandra Quarter Section
Maximum Density	1.25 FAR
Total Gross Buildable Area	865,755 ft <sup>2</sup> (Net 770,522 ft <sup>2</sup> )
2041 OCP Land Use Designation	100% Mixed Employment: Those areas of the City where the principal uses are industrial and stand-alone office development, with a limited range of support services. In certain areas, a limited range of commercial uses are permitted such as the retail sale of building and garden supplies, household furnishings, and similar warehouse goods.
2041 OCP Noise Sensitive Development Area (ANSD) Designation	<ul> <li>Designation - Area 1A (35 - 40 NEF)</li> <li>New Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care) are prohibited</li> </ul>
West Cambie Area Plan, Alexandra Quarter Land Use	<ul> <li>Business Office Uses (non residential)</li> <li>Office commercial</li> <li>Restaurants and neighbourhood pub</li> <li>Retail and retail services commercial — small floor plate only</li> <li>Educational facilities</li> <li>Recreational facilities</li> <li>Enclosed commercial parking, preferably structured.</li> <li>A service station and neighbourhood commercial uses, at the southeast corner of Garden City Road and Cambie Road</li> </ul>
Retail Uses	<ul> <li>Retail uses can pay more for ground floor space due to arterial road exposure.</li> <li>Retail uses make office space more attractive for workers (not isolated in suburbs)</li> <li>Retail uses subsidize the development of office space</li> </ul>
Height	<ul> <li>Maximum Height:</li> <li>2 to 4 storeys (8 metres – 15 metres)</li> <li>5 storeys (20 metres) of non-combustible construction can be considered</li> <li>The more height &amp; density enables more office &amp; likely higher paying jobs.</li> </ul>
Existing Zoning	<ul> <li>Mainly Single Family - RS1/F</li> <li>Width = 18 m (60 ft)</li> <li>Minimum Area 828 m2 (8,913 ft<sup>2</sup>)</li> </ul>
Existing Uses	Single Family Residential
Transit Services	<ul> <li>Promote the Study Area as transit oriented, as the 800 m distance to station which is not long.</li> <li>The Study Area is well serviced by public transit with two current bus routes fronting Garden City Road (407 and 430), bus service along Cambie Road and there are direct bus connections to the Richmond-Brighouse and Bridgeport Canada Line stations.</li> <li>The Canada Line is about 1 km (about a 15 minute walk) from the</li> </ul>

Development Scenario 1 100% Business Office Use Scenario	
Торіс	Summary
	area. - The City is working with TransLink to monitor service levels and seek service improvements over time.
Water	System
Sanitary	Septic Tank: Sanitary Sewer System to be provided with development
Drainage	Yes
Alexandra District Energy Utility (ADEU)	New development will be required to connect to the ADEU
Enhanced Land Uses: Adding the Following Land Uses For Clarity	<ul> <li>Bio-tech, research, labs, information technology (IT), media/software, private and public institutions such as medical facilities.</li> </ul>
Built Out Features	<ul> <li>Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built</li> <li>May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area</li> <li>Workers may opt to live &amp; work in same neighbourhood</li> <li>Nearby amenities such as retail encourage more and better tenants</li> </ul>
Parking	<ul> <li>Excellent, surface parking, as uses cannot support the cost of structured parking at this time.</li> </ul>
Visual Examples	<ul> <li>The proposed urban design look will not be a suburban look and will ensure a high quality local design</li> <li>Retail most likely to form the ground floor of any employment use</li> </ul>
Managing Nuisances (Noise, Odour Vibration)	<ul> <li>Apply the same mitigation requirements, as in other parts of the city</li> <li>Focus commercial on and close to arterial roads minimizes the impact of commercial on residential</li> <li>Have separate accesses and apply existing industry design standards</li> </ul>
Number and Quality of Jobs* Ranking	<ul> <li>Excellent: Highest: the most &amp; highest paying jobs (e.g., \$60,000 per year)</li> <li>Number of Jobs (includes multiplier) – 3,502 jobs</li> <li>Annual Salaries = \$210 million</li> </ul>
Maximum Alexandra Jobs* at Build Out	3,502 + 1,000 = 4,235 jobs
Study Area Build Out Population	0
Total Alexandra build Out Population	6,700 people
Annual Taxes Generated	\$4,297,595

General Pros	General Cons	
<ul> <li>Clarify that bio-tech, research, labs,</li></ul>	<ul> <li>In the short term, may see slow Business /</li></ul>	
information technology (IT), media/software,	Office use redevelopment, as anticipated <li>May continue to receive requests from</li>	
private and public institutions such as medical	developers to convert Business / Office	
facilities and private schools are allowed <li>A range of non residential mixed employment</li>	uses to other uses (e.g., residential)	

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General Pros	General Cons
<ul> <li>uses is continued to support needed local employment opportunities</li> <li>The important Complete Community (Live, Work, Play) Concept is retained</li> <li>Avoids reducing the OCP ANSD Area 1A designation</li> <li>Avoids setting an undesirable land use change precedent</li> <li>Continues to achieve the 2041 OCP and Employment Lands Strategy</li> <li>It was always anticipated that the build out of Study Area employment uses would take time and that it is not strategic or practical to allow them to be replaced with residential uses for short term developer gain</li> <li>Enables City priorities and positive relationship with YVR to continue</li> <li>Supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant</li> </ul>	

space

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Development Scenario 2 60% Mixed Employment:40% Residential Scenario

General Description The following Table summarizes the characteristics of Development Scenario 2 - 60% Mixed Employment:40% Residential:

A Mixed Us	Development Scenario 2 se (60% Employment:40% Residential) Scenario
ltem	General Description
Study Area	<ul> <li>16 acres: (15.9 acres)</li> <li>Approximately 10% of the whole Alexandra Quarter Section</li> </ul>
Base and Density Bonus FAR	<ul> <li>Base Density= 0.75 FAR (Employ) + 0.50 FAR (Res) = 1.25 FAR</li> <li>Bonus Density= 0.30 FAR* (Employ) +0.20 FAR (Res) = 0.50 FAR</li> <li>* Bonus Residential FAR requires Bonus Employment FAR to also be built</li> </ul>
Maximum FAR	1.75 FAR maximum
Total Buildable Floor Area	At 1.75 FAR, total proposed gross floor area = 1,212,057 ft <sup>2</sup> - 60% Employment Uses = 727,234 ft <sup>2</sup> Gross - 40% Residential Uses = 484,823 ft <sup>2</sup> Gross
Maximum Height	6 storeys (25 metres) of non-combustible construction may be considered for non-combustible or concrete construction, increased open space, and no additional overshadowing of neighbouring properties.
Alexandra District Energy Utility (ADEU)	Will connect to ADEU
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul> <li>Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care)</li> <li>With Development Scenario 2, to allow multifamily residential uses, the existing ANSD Designation would need to be replaced with the Area 2 Designation</li> <li>The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found,</li> <li>YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.</li> </ul>
Number and Quality of Jobs*	<ul> <li>- 3,047 jobs, Excellent Quality (e.g., avg. \$60,000 per year)</li> <li>- Annual Salaries \$183 million</li> </ul>
Maximum Alexandra Jobs*	- 3,047 + 1,000 in the remainder of the Quarter = 4,047 jobs
Estimated Residential Units	<ul> <li>Built Affordable Residential Units = 40 units (@ 600 ft<sup>2</sup>)</li> <li>Market Residential Units = 566 units (@ 814 ft t<sup>2</sup>)</li> <li>Total units = 606 units</li> <li>Residential Uses = 484,823 ft<sup>2</sup> (Gross)</li> </ul>
Affordable Housing	<ul> <li>At least 5% of total maximum buildable sq. ft. of residential area to be provided as Built Affordable units (minimum of 4 units)</li> </ul>

Development Scenario 2 A Mixed Use (60% Employment:40% Residential) Scenario	
item	General Description
Additional Residents	- 1,300 people
Total Alexandra population	- 1,300 + 6,700 in the remainder of the Quarter = 8,000 people
Built Out Features	<ul> <li>Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built</li> <li>May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area</li> <li>Workers may opt to live &amp; work in same neighbourhood</li> <li>Nearby amenities such as retail encourage more and better tenants</li> </ul>
Parking	- Good, surface and underground parking
Visual Examples	<ul> <li>See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design</li> <li>Retail most likely to form the ground floor of any employment use</li> </ul>
Managing Nuisances (Noise, Odour Vibration)	<ul> <li>Apply the same mitigation requirements, as in other parts of the city</li> <li>Focus commercial on and close to arterial roads minimizes the impact of commercial on residential</li> <li>Have separate accesses and apply existing industry design standards</li> </ul>
Parking	- Good, mixed surface and structured
Annual Taxes Generated (Highest)	- \$4,516,000
Pros	Cons
<ul> <li>Could possibly accelerate redevelopment in the Study Area</li> <li>Majority of space is for employment, for a variety of employment uses.</li> <li>Affordable housing is provided</li> </ul>	<ul> <li>Removes large amount of commercial and office floor area compared to Option 1.</li> <li>Any redesignation of land from office or other employment uses may later require them to be replaced elsewhere in North Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets</li> <li>Reduces the OCP ANSD Area 1A designation.</li> <li>Sets an undesirable land use change precedent</li> <li>May generate similar undesirable requests</li> <li>May damage City relationships with YVR</li> <li>Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant</li> </ul>

\*Jobs are calculated based on 1 job per 220ft<sup>2</sup> of commercial space plus 1 job per 4000ft<sup>2</sup> of residential space

# Development Scenario 3 30% Mixed Employment:70% Residential Scenarios

General Description The following Table summarizes the characteristics of a Development Scenario 3 - 30% Mixed Employment: 70% Residential:

30% Employment:70% Residential Scenario		
Item	General Description	
Study Area	<ul> <li>16 acres: (15.9 acres) (1,212,057 ft2)</li> <li>Approximately 10% of the whole Alexandra Quarter Section</li> </ul>	
Base and Density FAR	<ul> <li>Base Density= 0.375 FAR (Employ) + 0.875 FAR (Res) = 1.25 FAR</li> <li>Bonus Density= 0.15 FAR* (Employ) +0.35 FAR (Res) = 0.50 FAR</li> <li>* Bonus Residential FAR requires Bonus Employment FAR to also be built</li> </ul>	
Maximum FAR	1.75 FAR maximum	
Total Buildable Floor Area	At 1.75 FAR, Gross Total (BFA) is: 1,212,057 ft <sup>2</sup> - Using 30% for Employment Use = 363,617 ft <sup>2</sup> (Gross) - Using 70% Residential Use = 848,440 ft <sup>2</sup> (Gross)	
Maximum Height	Up to 6 storeys	
Alexandra District Energy Utility (ADEU)	Will connect to ADEU	
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul> <li>Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care)</li> <li>With Development Scenario 2, to allow multifamily residential uses, the existing ANSD Designation would need to be replaced with the Area 2 Designation</li> <li>The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found,</li> <li>YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.</li> </ul>	
Number and Quality of Jobs*	<ul> <li>1,665 jobs, Good quality, less than \$60,000 per year salary</li> <li>Annual Salaries \$99 million</li> </ul>	
Maximum Alexandra Jobs*	- 1,665 jobs + 1,000 in the remainder of the Quarter = 2,665 jobs	
Estimated Residential Units	<ul> <li>Built Affordable Residential Units = 71 units (@ 600 ft<sup>2</sup>)</li> <li>Market Residential Units = 990 units (@ 814 ft t<sup>2</sup>)</li> <li>Total units = 1061 units</li> <li>Residential Uses = 848,440 ft<sup>2</sup> (Gross)</li> </ul>	
Affordable Housing	<ul> <li>At least 5% of total maximum buildable sq. ft. of residential area to be provided as Built Affordable units (minimum of 4 units)</li> </ul>	
Additional Residents	- 2,250 people	
Total Alexandra population	- 2,250 + 6,700 in the remainder of the Quarter = 8,950 people	
Built Out Features	- Buildings may be stand alone or mixed employment uses, as	

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	<ul> <li>the flexibility increases likelihood of getting office built</li> <li>May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area</li> <li>Workers may opt to live &amp; work in same neighbourhood</li> <li>Nearby amenities such as retail encourage more and better tenants</li> </ul>
Parking	- Moderate, mixed surface and structured parking
Visual Examples	<ul> <li>See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design</li> <li>Retail most likely to form the ground floor of any employment use</li> </ul>
Managing Nuisances (Noise, Odour Vibration)	<ul> <li>Apply the same mitigation requirements, as in other parts of the city</li> <li>Focus commercial on and close to arterial roads minimizes the impact of commercial on residential</li> <li>Have separate accesses and apply existing industry design standards</li> </ul>
Annual Taxes Generated	- \$3,397,177

Cons
<ul> <li>Removes 70% of the commercial/office floor area compared to Option 1</li> <li>Any redesignation of land from office or other employment uses may later require their replacement elsewhere in North</li> </ul>
Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets - Reduces the OCP ANSD Area 1A designation
<ul> <li>Sets an undesirable land use change precedent</li> <li>Will likely generate similar undesirable requests</li> </ul>
<ul> <li>May damage City relationships with YVR</li> <li>Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant</li> </ul>

\*Jobs are calculated based on 1 job per 220ft<sup>2</sup> of commercial space plus 1 job per 4000ft<sup>2</sup> of residential space

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Development Scenario 4 20% Mixed Employment:80% Residential Scenarios

#### General Description

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The following Table summarizes the characteristics of Development Scenario 4 - 20% Mixed Employment:80% Residential:

Development Scenario 4 20% Mixed Employment:80% Residential Scenario	
ltem	General Description
Study Area	<ul> <li>16 acres: (15.9 acres) (1,212,057 ft2)</li> <li>Approximately 10% of the whole Alexandra Quarter Section</li> </ul>
Base and Density FAR	<ul> <li>Base Density= 0.25 FAR (Employ) + 1.0 FAR (Res) = 1.25 FAR</li> <li>Bonus Density= 0.1 FAR (Employ) +0.40 FAR (Res) = 0.50 FAR</li> </ul>
Maximum FAR	<ul> <li>1.75 FAR maximum</li> <li>Note while Westmark proposes 1.77 FAR, the calculations in this table use 1.75 FAR</li> </ul>
Total Buildable Floor Area	At 1.75 FAR, Gross Total (BFA) is: 1,212,057 ft <sup>2</sup> - Using 20% for Employment Use = 242,410 ft <sup>2</sup> (Gross) - Using 80% Residential Use = 969,645 ft <sup>2</sup> (Gross)
Maximum Height	Up to 6 storeys
Alexandra District Energy Utility (ADEU)	Will connect to ADEU
OCP ANSD Designations In Study Area: Replace ANSD Area 1A with an Area 2 designation to allow ANSD uses	<ul> <li>Existing ANSD Designation is: Area 1A (35 - 40 NEF) which prohibits new Aircraft Noise Sensitive Land Uses (residential, school, hospital, day care)</li> <li>The existing ANSD Designation would need to be replaced with the Area 2 Designation</li> <li>The 2041 OCP does not require an equivalent Area 1 replacement area to achieve a No Net Loss arrangement and no such replacement area has been found,</li> <li>YVR does not wish to see the residential prohibiting policy to be removed, to ensure that there will not be any residential complaints regarding aircraft noise.</li> </ul>
Number and Quality of Jobs*	- 1,220 jobs, Good, low paying retail - Annual Salaries - \$73 million
Maximum Alexandra Jobs*	- 1,220 jobs + 1,000 in the remainder of the Quarter = 2,220 jobs
Estimated Residential Units	<ul> <li>Built Affordable Residential Units = 81 units (@ 600 ft<sup>2</sup>)</li> <li>Market Residential Units = 1132 units (@ 814 ft t<sup>2</sup>)</li> <li>Total units = 1213 units</li> <li>Residential Uses = 969,645 ft<sup>2</sup> (Gross)</li> </ul>
Additional Residents	- 2,600 people
Total Alexandra population	- 2,600 + 6,700 in the remainder of the Quarter = 9,300 people
Built Out Features	<ul> <li>Buildings may be stand alone or mixed employment uses, as the flexibility increases likelihood of getting office built</li> <li>May want to restrict retail from being in standalone buildings, as this would negatively the planned character of Study Area</li> <li>Workers may opt to live &amp; work in same neighbourhood</li> <li>Nearby amenities such as retail encourage more and better</li> </ul>

Development Scenario 4 20% Mixed Employment:80% Residential Scenario	
ltem	General Description
	tenants
Parking	- Moderate, underground
Visual Examples	<ul> <li>See Attachment 7, the proposed urban design look will not be a suburban look and will ensure a high quality local design</li> <li>Retail most likely to form the ground floor of any employment use</li> </ul>
Managing Nuisances (Noise, Odour Vibration)	<ul> <li>Apply the same mitigation requirements, as in other parts of the city</li> <li>Focus commercial on and close to arterial roads minimizes the impact of commercial on residential</li> <li>Have separate accesses and apply existing industry design standards</li> </ul>
Annual Taxes Generated	- \$3,057,435

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Pros	Cons
<ul> <li>Could possibly accelerate redevelopment in the Study Area</li> <li>Would retain some floor space for a variety of employment uses.</li> </ul>	<ul> <li>Removes 80% of employment /office floor area compared to Option 1</li> <li>Does not conform the Area Plan (e.g., excessive density, excessive building height, unacceptable road layout, unacceptably proposes orphaned lots, avoids applicant costs while shifting them to others</li> <li>Stand alone residential buildings would likely develop first and possibly still leave the office and other employment land undeveloped in the short term</li> <li>Any redesignation of land from office or other employment uses will likely require them to be replaced elsewhere in North Richmond not in the City Centre, in order to meet the City's long term 2041 employment land targets</li> <li>Reduces the OCP ANSD Area 1A designation</li> <li>Sets an undesirable land use change precedent</li> <li>Will likely generate similar undesirable requests</li> <li>May damage City relationships with YVR</li> <li>Not supported by YVR, the Richmond Economic Advisory Committee (REAC) and Mr. R. Wozny, the City's real estate consultant</li> </ul>

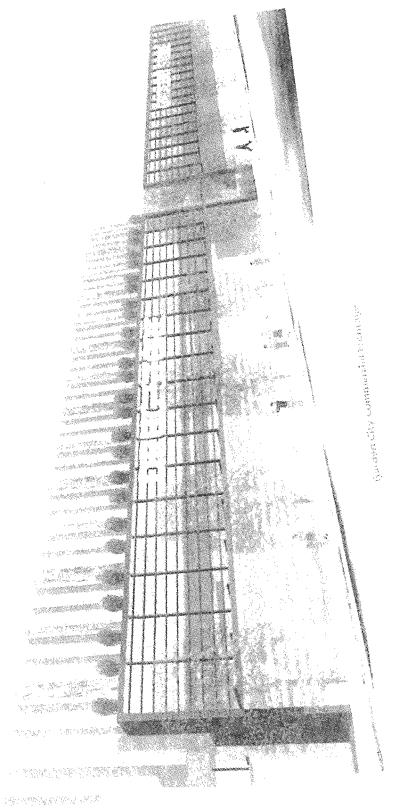
\*Jobs are calculated based on 1 job per 220ft<sup>2</sup> of commercial space plus 1 job per 4000ft<sup>2</sup> of residential space

# Example Illustrations of Development Scenarios Alexandra Study Area

**Illustration A** is a standalone Employment Building with ground floor retail and office space above, which would be appropriate in any of the proposed Development Scenarios 1-4

**Illustrations B to H** represents various examples of Mixed Use Employment Residential buildings that would be appropriate in Development Scenarios 2, 3 or 4 only. Some of these building forms could also be 100% Employment use.





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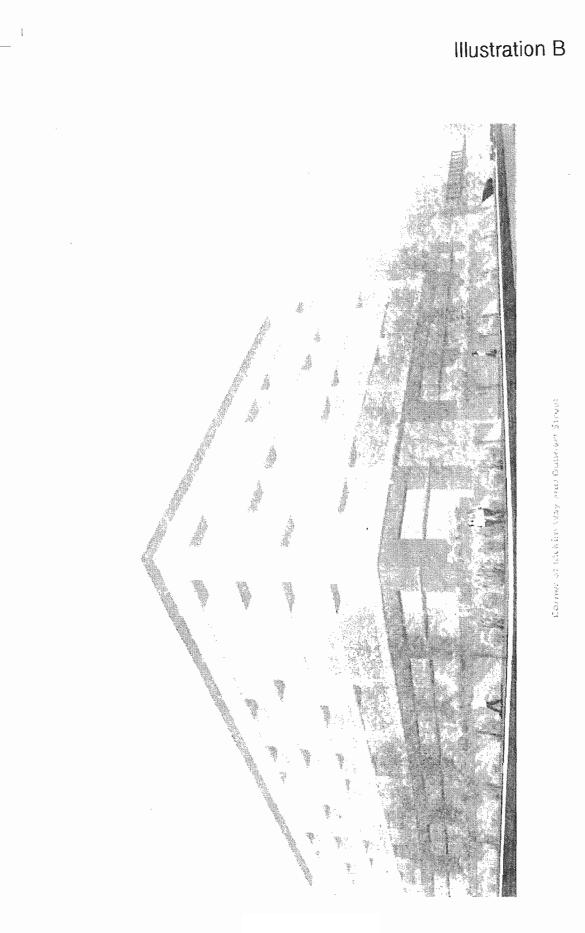
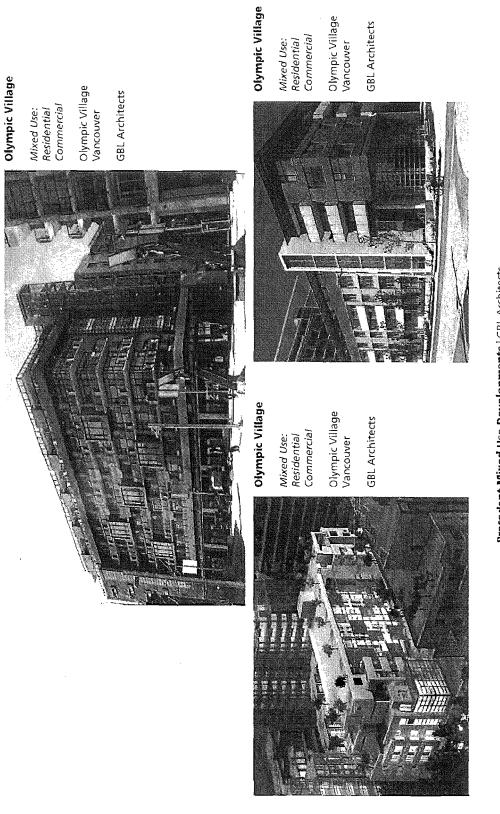


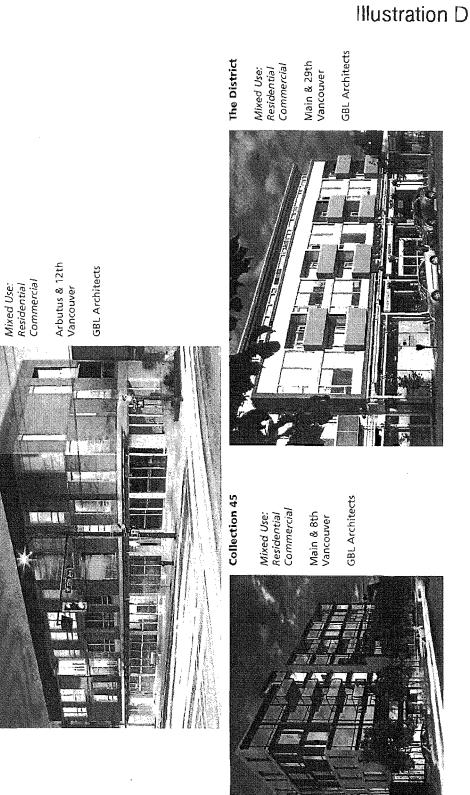
Illustration C



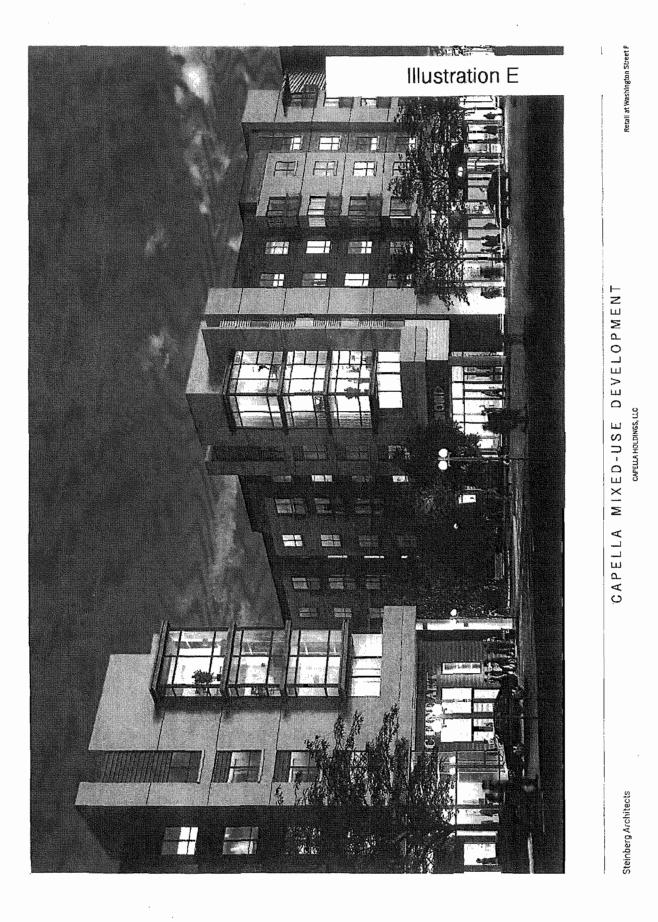
Precedent Mixed Use Developments | GBL Architects

Design Rationale | 9

The Luzon

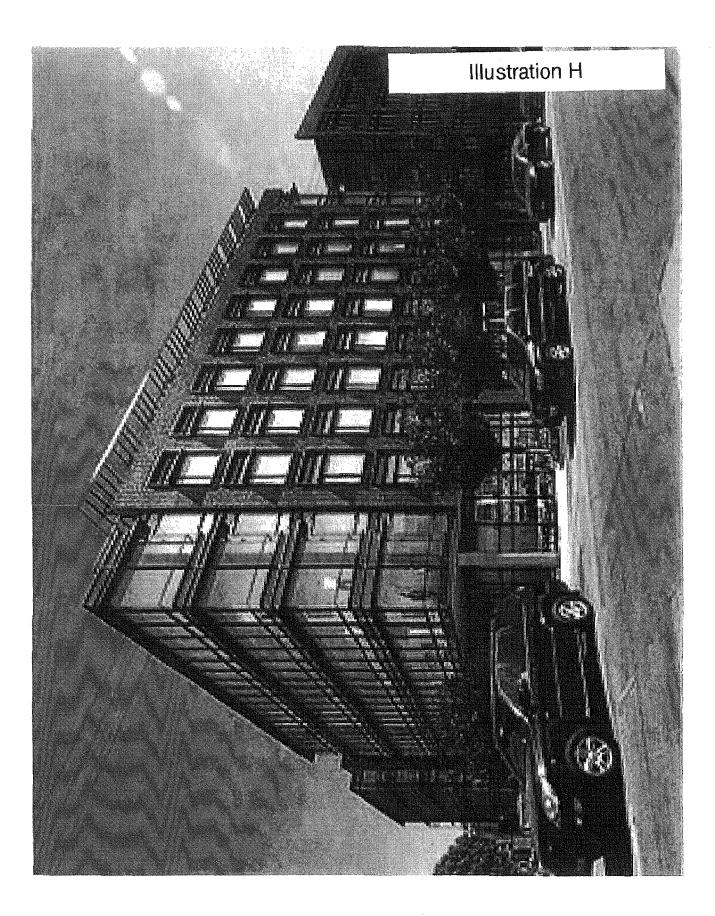


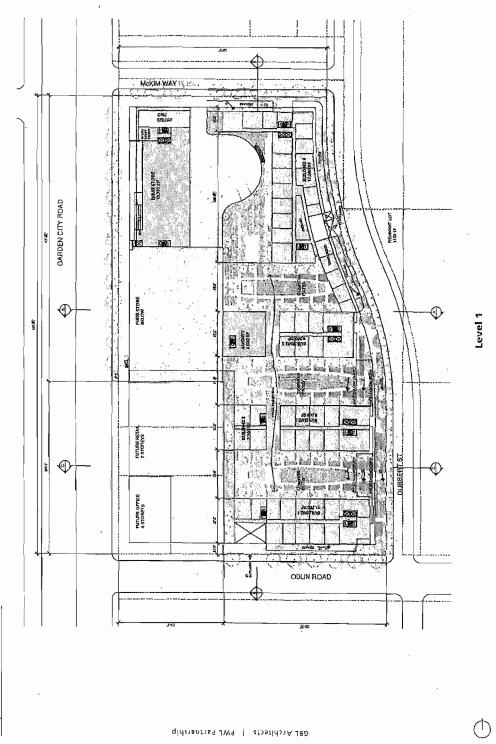
Precedent Mixed Use Developments | GBL Architects





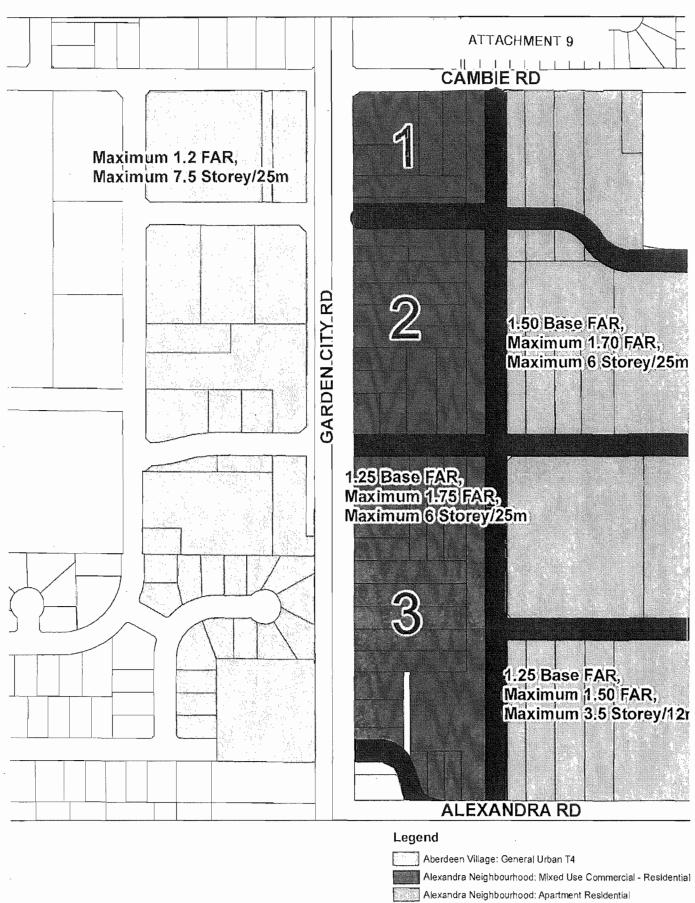






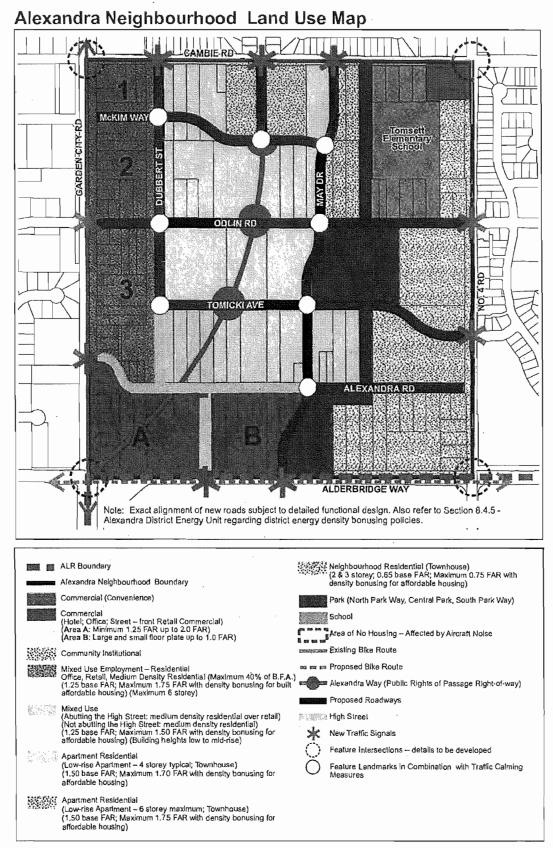
16 Architectural Drawings

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Alexandra Neighbourhood: Mixed Use

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### Summary of Proposed OCP Amendment Bylaw Development Requirements For Mixed Use Employment-Residential Development Scenarios

#### Purpose

To summarize the OCP and Area Plan amendments, if Council pursues Development Scenarios 2, 3 or 4:

- (1) Section 8.2.1 Character Area 1 should be renamed from Business Office to Mixed-Use Employment-Residential in the West Cambie Area Plan.
- (2) Mixed-Use Employment-Residential designations and ratios should be applied to the entire 6.4 ha (15.9 ac) employment lands, not just on Westmark's 2.1 ha (5.1 ac) parcel.
- (3) The Mixed-Use Employment-Residential area should be further segmented into Development Blocks 1, 2, and 3 (Attachment 10) as formed by the collector and arterial road network. Each block would form its own comprehensive planning development area required to meet the target mixed-use employment-residential ratios. Development proposals would have to demonstrate how the mixed-use targets (e.g. 60:40 or 30:70) would be met within their respective Development Blocks. Development lot assemblies forming a separate application for rezoning, should be no less than the size of Block 1, or 1.0 ha (2.47 ac), unless it constitutes the completion of that Block.
- (4) Mixed-Use Employment-Residential developments should limit the percentage of residential uses to a maximum of the total floor space built within each development and its respective residential FAR identified (e.g. 40% residential and max .70 FAR) in the bylaw; this would allow greater percentages of employment to be built if market improves.
- (5) A base density of 1.25 FAR shall continue, as per the current designation. A bonus density of up to an additional 0.5 FAR may be permitted if built affordable housing is provided. The bonus FAR must be split as per the ratios provided in the Amendment Bylaw (e.g. 40% Residential use may have a base residential FAR of 0.5 and bonus residential density of 0.2 FAR if built affordable housing is provided). The additional employment floor area must also be built, if the bonus residential area is developed, to ensure compliance with the approved ratio of employment; residential use.
- (6) To prevent only residential uses being developed and no employment uses, all Rezoning, Development Permit and Building Permit applications must meet the selected Development Scenario land use ratio that restricts the maximum percentage of residential floor space.
- (7) Development fronting along Garden City Road should be restricted to Employment and Institutional (not residential) uses only.
- (8) Development fronting along Odlin Road and Dubbert Street, south of Tomicki Avenue, should continue to conform to Section 8.2.3 Character Area 3 – The High Street, in the +Area Plan.
- (9) The maximum height of 6 storeys (25 m) should be limited to westerly portions of the Development Blocks. The height is made available to accommodate the base density of 1.25 FAR + 0.5 FAR bonus density (Max1.75 FAR) within each development block. This is to provide a transition to the City Centre to the west and to stimulate development of employment generating commercial space.
- (10)Minimum lot size and orphaned properties of 0.4 ha (1.0 ac) or less, should not be permitted, in order to facilitate development as anticipated in the WCAP and not to perpetuate non-conforming uses (e.g. single detached homes).
- (11)Development of Live-Work spaces should be prohibited to protect the viability of the office and commercial developments, as they are regarded as residential uses and detract from employment spaces.
- (12)Developers should be expected to provide at time of rezoning, a voluntary Community Amenity contribution in addition to the Local DCC's to help pay for local and city-wide amenities.

- (13)Notwithstanding the amendments to allow residential uses within the existing Mixed Employment area identified in the WCAP, development shall be required to conform to the above restrictions in addition to the Area Plan policies, including the ANSD policies.
- (14)Section 9.3, Implementation Strategy the initial 2006 affordable housing requirements will be replaced by requiring that at least 5% of total maximum buildable sq. ft. of residential floor area is provided as built affordable housing units (minimum of 4 units).

City of Richmond

30% E:70% R (NOT RECOMMENDED)

# **Bylaw 9122**

## Richmond Official Community Plan Bylaw 7100 and 9000 Amendment Bylaw 9122 (West Cambie Area Plan)

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A by the following:
  - a) Section 8.1.6 under sub-heading "Lessening the Impact of Aircraft Noise", delete the paragraph in the second bullet,

and insert:

- "There shall be no new lots for single detached housing within the Alexandra Neighbourhood (as identified on the 2041 OCP Aircraft Noise Sensitive Development Map)."
- b) Section 8.1.6 under the sub-heading "Building Relationship with Streets" insert a bulleted paragraph as follows:
  - "The employment components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road. Residential and ancillary uses should be inward oriented towards the collector roads (e.g. Dubbert Street)."
- c) Section 8.2 for the map titled "Alexandra Neighbourhood Character Areas Map" in the Legend delete: "Business Office" and insert:
   "Mixed Use Employment-Residential".
- d) Section 8.2.1 for the map titled "Neighbourhood Character Area 1- Business Office Map" - insert labelling as follows:
  - The development block formed by Cambie Road to the north, Garden City Road to the west, the McKim Way alignment to the south and the Dubbert Street alignment to the east shall be labelled as "Block 1".
  - The development block formed by the McKim Way alignment to the north, Garden City Road to the west, Odlin Road to the south and the Dubbert Street alignment to the east shall be labelled as "Block 2".
  - The development block formed by Odlin Road to the north, Garden City Road to the west, Alexandra Road to the south and the Dubbert Street alignment to the east shall be labelled as "Block 3".

- e) Section 8.2.1 Delete the title of this section,
   "CHARACTER AREA 1 BUSINESS OFFICE" and insert:
   "CHARACTER AREA 1 – MIXED USE EMPLOYMENT-RESIDENTIAL"
- f) Section 8.2.1 Delete the title of the map,
   "Character Area 1 Business Office Map" and insert:
   "Character Area 1 - Mixed Use Employment-Residential Map"
- g) Section 8.2.1- Delete last sentence of paragraph 1,
  - "No residential uses are permitted in this area, due to the City's OCP Aircraft Noise Sensitive Development Policy"

and insert:

"Multi-family residential uses may be permitted, subject to the applicable provisions of this Area Plan, Section 8.1.6 Architectural Elements - Lessening the Impact of Aircraft Noise, and the 2041 OCP Aircraft Noise Sensitive Development Policy."

- h) Section 8.2.1 under sub-heading "Land Uses", and after the bullet "Office commercial", insert the following,
  - "Bio-tech, research, and labs
  - Information technology (IT), media/software
  - Institutional (private and public) including medical facilities"
- i) Section 8.2.1 under sub-heading "Land Uses" insert bullet:
  - "Multi-family housing with accessory uses, amenities and community facilities. Residential and associated accessory uses shall be comprised of a maximum of 70% of the total floor area within Development Blocks 1, 2 and 3, as identified in the Character Area 1 – Mixed Use Employment-Residential Map".
- j) Section 8.2.1 under sub-heading "Floor Area Ratio" delete the bullet and insert:
  - The total building area within each Development Block 1, 2 and 3, excluding underground parking, shall be no greater than a total of 1.25 FAR (excluding bonus density of 0.5 FAR for built affordable housing).
  - The maximum FAR for residential use, based a minimum of 30% Employment space, shall be 0.875 Base FAR with up to 0.35 Bonus FAR if at least 5% of the residential building area (minimum of 4 units) is provided as built Affordable Housing units.
- k) Section 8.2.1 After sub-heading "Site Coverage" insert new sub-heading and text: "Phasing of Development
  - All Rezoning, Development Permit and Building Permit applications shall ensure that a minimum of 30% employment floor area and maximum 70% residential

#### Bylaw 9122

floor area (and associated residential accessory uses) is maintained throughout each phase within the applicable Development Block."

- 1) Section 8.2.1 In sub-heading "Height" insert after the first bullet:
  - Minimum of two storeys (8m) and up to six storeys (25m) adjacent to the west boundary of each Development Block along Garden City Road.
- m) Section 8.2.1 In sub-heading "Site Coverage", delete bullet and insert:
  - Depends on uses and configuration.
- n) Section 8.2.1 In sub-heading "Additional Building Design Considerations" insert bullet:
  - "Stand alone, single-use buildings and/or mixed-use buildings may be considered, provided that they form part of a comprehensive plan for each Development Block, 1, 2 and 3."
- o) Section 8.2.3 Character Area 3 The High Street Map in the "Legend" delete: "Business Office" and insert: "Mixed Use Employment-Residential"
- p) Section 9.3 Alexandra Neighbourhood Land Use Map in the "Legend" delete: "Business/Office - office over retail FAR up to 1.25" and insert:

"Mixed Use Employment-Residential (Maximum 70% Residential) – base FAR of 1.25 (Max. 1.75 FAR with density bonus for built affordable housing)".

 q) Section 9.3.2 – Alexandra Development Framework – in Objective 3, Policies, and after "Developer Contributions – Public Amenities",

insert new sub-heading and paragraph after paragraph g):,

"Affordable Housing in the Mixed Use Employment-Residential Area h) At least 5% of the total residential building area (a minimum of 4 units) is required in the form of built affordable housing units. Cash-in-lieu contributions are not acceptable and the 2006 West Cambie - Alexandra Interim Amenity Guidelines as they relate to affordable housing contributions will not apply".

- 2. Richmond Official Community Plan Schedule 1 of Bylaw 9000 is amended as follows:
  - a) Attachment 1 revise the "City of Richmond 2041 OCP Land Use Map" for the designated lands, changing the Land Use and the light blue shading from: "Mixed Employment" to: "Mixed Use" with the corresponding orange shading.
  - b) Section 3.6.3 Under sub-heading "Aircraft Noise Sensitive Development Management", revise the "Aircraft Noise Sensitive Development Map" (pg 3-71) as follows:

Revise the map to repeal the designation of the "Business Office" lands, as identified in OCP Schedule 2 of Bylaw 7100, 2.11A West Cambie Area Plan, Section 8.2.1 of the Alexandra Neighbourhood Character Areas Map from: "Area 1A" and insert: "Area 2" designation.

3. This Bylaw may be cited as "Richmond Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9122".

FIRST READING		
PUBLIC HEARING		APPROVED by
SECOND READING		APPROVED by Manager or Solicitor
THIRD READING		a solutor
ADOPTED	·····	

MAYOR

CORPORATE OFFICER



100% EMPLOY (NOT RECOMMENDED)

Bylaw 9120

# Richmond Official Community Plan Bylaw 7100

# Amendment Bylaw 9120 (West Cambie Area Plan)

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Official Community Plan Bylaw 7100 is amended by inserting the following text amendment to Schedule 2.11A, Section 8.2.1 under sub-heading "Land Uses", and after the bullet "Office commercial.",
  - Bio-tech, research, and labs
  - Information technology (IT), media/software
  - Institutional (private and public) including medical facilities"
- 2. This Bylaw may be cited as "Richmond Official Community Plan Bylaw 7100, Amendment Bylaw 9120".

FIRST READING		CITY OF RICHMOND APPROVED
PUBLIC HEARING	<u></u>	by
SECOND READING		APPROVED by Manager or Solicitor
THIRD READING		or concilion
ADOPTED		

MAYOR

### CORPORATE OFFICER



# Bylaw 9121

# Richmond Official Community Plan Bylaw 7100 and 9000 Amendment Bylaw 9121 (West Cambie Area Plan)

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A by the following:
  - a) Section 8.1.6 under sub-heading "Lessening the Impact of Aircraft Noise", delete the paragraph in the second bullet,

and insert:

- "There shall be no new lots for single detached housing within the Alexandra Neighbourhood (as identified on the 2041 OCP Aircraft Noise Sensitive Development Map)."
- b) Section 8.1.6 under the sub-heading "Building Relationship with Streets" insert a bulleted paragraph as follows:
  - "The employment components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road. Residential and ancillary uses should be inward oriented towards the collector roads (e.g. Dubbert Street)."
- c) Section 8.2 for the map titled "Alexandra Neighbourhood Character Areas Map" in the Legend delete "Business Office" and insert:
   "Wine due to match and insert?"

"Mixed Use Employment-Residential".

- d) Section 8.2.1 for the map titled "Neighbourhood Character Area 1- Business Office Map" - insert labelling as follows:
  - The development block formed by Cambie Road to the north, Garden City Road to the west, the McKim Way alignment to the south and the Dubbert Street alignment to the east shall be labelled as "Block 1".
  - The development block formed by the McKim Way alignment to the north, Garden City Road to the west, Odlin Road to the south and the Dubbert Street alignment to the east shall be labelled as "Block 2".

Bylaw 9121

- The development block formed by Odlin Road to the north, Garden City Road to the west, Alexandra Road to the south and the Dubbert Street alignment to the east shall be labelled as "Block 3".
- e) Section 8.2.1 Delete the title of this section,
   "CHARACTER AREA 1- BUSINESS OFFICE" and insert:
   "CHARACTER AREA 1 – MIXED USE EMPLOYMENT-RESIDENTIAL"
- f) Section 8.2.1 Delete the title of the map,
   "Character Area 1 Business Office Map" and insert:
   "Character Area 1 - Mixed Use Employment-Residential Map"
- g) Section 8.2.1- Delete last sentence of paragraph 1,
   "No residential uses are permitted in this area, due to the City's OCP Aircraft Noise Sensitive Development Policy."
   and insert:

ti family residential

"Multi-family residential uses may be permitted, subject to the applicable provisions of this Area Plan, Section 8.1.6 Architectural Elements - Lessening the Impact of Aircraft Noise, and the 2041 OCP Aircraft Noise Sensitive Development Policy."

- h) Section 8.2.1 under sub-heading "Land Uses", and after the bullet "Office commercial", insert the following,
  - "Bio-tech, research, and labs
  - Information technology (IT), media/software
  - Institutional (private and public) including medical facilities"
- i) Section 8.2.1 under sub-heading "Land Uses" insert bullet:
  - "Multi-family housing with accessory uses, amenities and community facilities. Residential and associated accessory uses shall be comprised of a maximum of 40% of the total floor area within Development Blocks 1, 2 and 3, as identified in the Character Area 1 – Mixed Use Employment-Residential Map".
- j) Section 8.2.1 under sub-heading "Floor Area Ratio" delete the bullet and insert:
  - The total building area within each Development Block 1, 2 and 3, excluding underground parking, shall be no greater than a total of 1.25 FAR (excluding bonus density of 0.5 FAR for affordable housing).
  - The maximum FAR for residential use, based a minimum of 60% Employment space, shall be 0.5 Base FAR with up to 0.2 Bonus FAR if Affordable Housing is provided as built Affordable Housing units.
  - A minimum of 0.75 FAR of Employment Space shall be completed prior to developing residential space above the first 0.25 FAR
- k) Section 8.2.1 After sub-heading "Site Coverage" insert new sub-heading and text:

#### "Phasing of Development

- All Rezoning, Development Permit and Building Permit applications shall ensure that a minimum of 60% employment floor area and maximum 40% residential floor area (and associated residential accessory uses) is maintained throughout each phase within the applicable Development Block."
- 1) Section 8.2.1 In sub-heading "Height" insert after the first bullet:
  - Minimum of two storeys (8m) and up to six storeys (25m) adjacent to the west boundary of each Development Block along Garden City Road.
- m) Section 8.2.1 In sub-heading "Site Coverage", delete bullet and insert:
  - Depends on uses and configuration.
- n) Section 8.2.1 In sub-heading "Additional Building Design Considerations" insert bullet:
  - "Stand alone, single-use buildings and/or mixed-use buildings may be considered, provided that they form part of a comprehensive plan for each Development Block, 1, 2 and 3."
- o) Section 8.2.3 Character Area 3 The High Street Map in the "Legend" delete: "Business Office" and insert:

"Mixed Use Employment-Residential"

 p) Section 9.3 - Alexandra Neighbourhood Land Use Map - in the "Legend" delete: "Business/Office - office over retail FAR up to 1.25" and insert;

"Mixed Use Employment-Residential (Maximum 40% Residential) – base FAR of 1.25 (Max. 1.75 FAR with density bonus for built affordable housing)".

 q) Section 9.3.2 - Alexandra Development Framework - in Objective 3, Policies and after "Developer Contributions - Public Amenities",

insert new sub-heading and paragraph after paragraph g):,

"Affordable Housing in the Mixed Use Employment-Residential Area h) At least 5% of the total residential building area (a minimum of 4 units) is required in the form of built affordable housing units. Cash-in-lieu contributions are not acceptable and the 2006 West Cambie - Alexandra Interim Amenity Guidelines as they relate to affordable housing contributions will not apply".

- 2. Richmond Official Community Plan Schedule 1 of Bylaw 9000 is amended as follows:
  - a) Attachment 1 revise the "City of Richmond 2041 OCP Land Use Map" for the designated lands, changing the Land Use and the light blue shading from: "Mixed Employment" to: "Mixed Use" with the corresponding orange shading.

Bylaw 9121

 b) Section 3.6.3 - Under sub-heading "Aircraft Noise Sensitive Development Management", revise the "Aircraft Noise Sensitive Development Map" (pg 3-71) as follows:

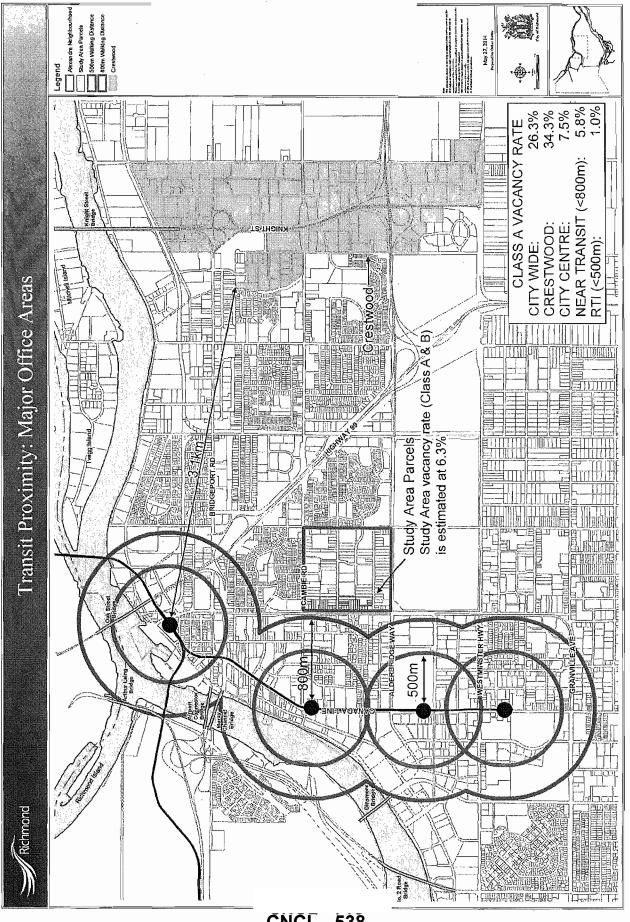
Revise the map to repeal the designation of the "Business Office" lands, as identified in OCP Schedule 2 of Bylaw 7100, 2.11A West Cambie Area Plan, Section 8.2.1 of the Alexandra Neighbourhood Character Areas Map from: "Area 1A" and insert: "Area 2" designation.

3. This Bylaw may be cited as "Richmond Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121".

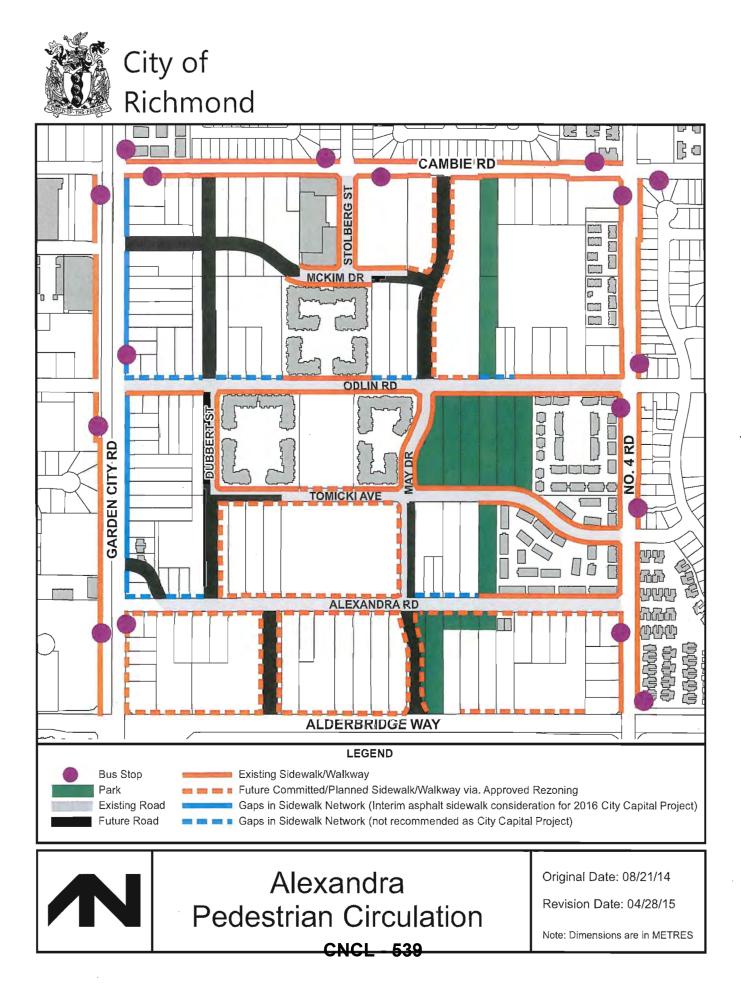
FIRST READING	 CITY OF RICHMOND
PUBLIC HEARING	 APPROXED
SECOND READING	 APPBOVED by Manager
THIRD READING	A concitor
ADOPTED	 

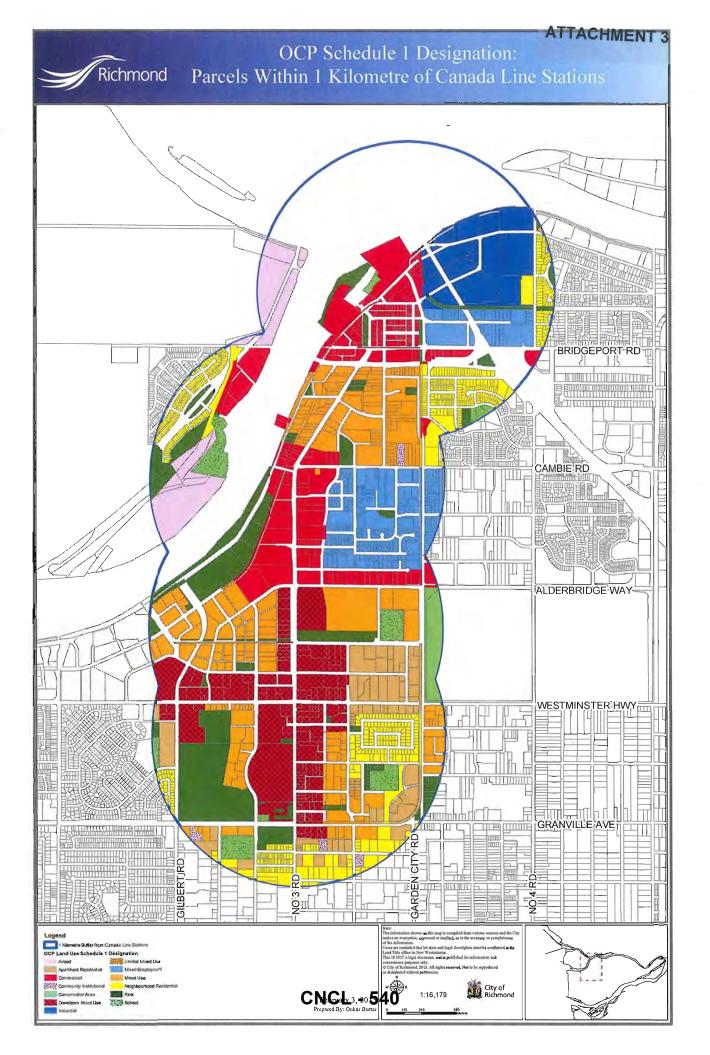
MAYOR

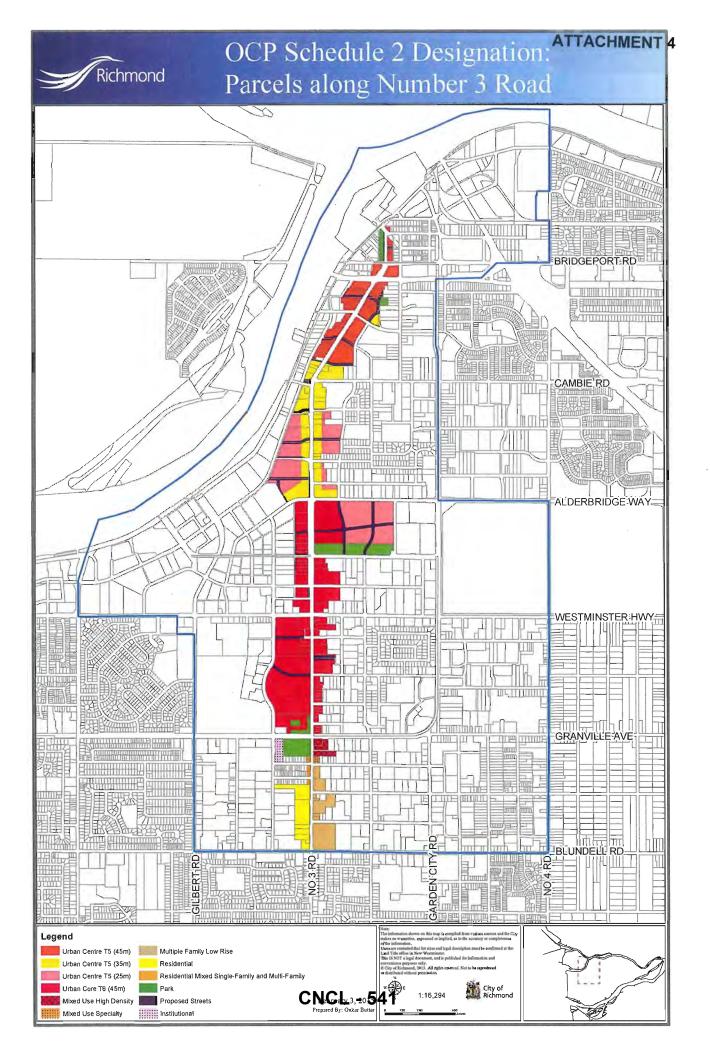
CORPORATE OFFICER



**CNCL - 538** 









# **Policy Manual**

Page 1 of 1	Adopted by Council: <date></date>	Policy XXXX
File Ref: <file no=""></file>	WEST CAMBIE ALEXANDRA NEIGHBOURHO RESIDENTIAL USE DENSITY BONUS, COMM MODEST RENTAL HOUSING RATES POLICY	UNITY AMENITY CONTRIBUTION,

# POLICY XXXX:

It is Council policy that the following maximum monthly rental rates be established for Modest rental housing on land designated as Mixed Use Employment Residential in the West Cambie Area Plan of the Official Community Plan:

Unit Type	Maximum Monthly Rent (May be reviewed periodically)	Total Household Annual Income (May be reviewed periodically)
Bachelor	\$700	\$34,000 or less
One bedroom	\$750	\$38,000 or less
Two bedroom	\$1,100	\$46,500 or less
Three bedroom	\$1,400	\$57,500 or less



# Richmond Official Community Plan Bylaw 7100 and 9000 Amendment Bylaw 9121 (West Cambie Area Plan)

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

- 1. Richmond Official Community Plan Schedule 1 of Bylaw 9000 is amended as follows:
  - a) Attachment 1 revise the City of Richmond 2041 OCP Land Use Map for the designated lands, changing the Land Use and the light blue shading from "Mixed Employment" to "Mixed Use" with the corresponding orange shading.
  - b) Section 3.6.3 (Noise Management) Under sub-heading "Aircraft Noise Sensitive Development Management", revise the "Aircraft Noise Sensitive Development Map" (pg 3-71) as per Schedule A.
- 2. Richmond Official Community Plan Bylaw 7100 is amended in Schedule 2.11A as follows:
  - a) Section 8.1.6 (Architectural Elements) under the sub-heading "Building Relationship with Streets" insert a bulleted paragraph as follows:
    - "• The employment components of mixed use buildings should be oriented towards the arterial road network (Garden City Road and Cambie Road) to provide a consistent and complementary streetscape with future development on the west side of Garden City Road. Residential and ancillary uses should be inward oriented towards the collector roads (e.g. Dubbert Street).".
  - b) Section 8.1.6 (Architectural Elements) under sub-heading "Lessening the Impact of Aircraft Noise", delete the paragraph in the second bullet, and insert:
    - "• There shall be no new lots for single detached housing within the Alexandra Neighbourhood (as identified on the 2041 OCP Aircraft Noise Sensitive Development Map).".
  - c) Section 8.2 (Alexandra's Character Areas) for the map titled "Alexandra Neighbourhood Character Areas Map" – in the Legend delete "Business Office" and insert:

"Mixed Use Employment-Residential"; and

replace "Business Office" in the legend with "Mixed Use Employment-Residential".

d) Section 8.2.1 (Character Area 1) – replace the title to this section with the following:

"Character Area 1 – Mixed Use Employment-Residential".

- e) Section 8.2.1 (Character Area 1) for the Character Area 1 map, replace the existing map entitled "Neighbourhood Character Area 1 –Mixed Use Employment-Residential" as per Schedule B.
- f) Section 8.2.1 (Character Area 1) insert a new sub-heading "Development Blocks" and insert the following bullets:
  - "• The development block formed by Cambie Road to the north, Garden City Road to the west, the McKim Way alignment to the south and the Dubbert Street alignment to the east shall be labelled as Block 1.
  - The development block formed by the McKim Way alignment to the north, Garden City Road to the west, Odlin Road to the south and the Dubbert Street alignment to the east shall be labelled as Block 2.
  - The development block formed by Odlin Road to the north, Garden City Road to the west, Alexandra Road to the south and the Dubbert Street alignment to the east shall be labelled as Block 3.".
- g) Section 8.2.1 (Character Area 1) Replace the first paragraph with the following:

"This character area is located along the east side of Garden City Road (see Character Area 1 – Mixed Use Employment-Residential Map). The preferred development in this area mirrors the land uses and building scale and building setbacks to the west side of Garden City Road, immediately south of Cambie Road. Multi-family residential uses may be permitted, subject to the applicable provisions of this Area Plan, Section 8.1.6 Architectural Elements – Lessening the Impact of Aircraft Noise, and the 2041 OCP Aircraft Noise Sensitive Development Policy.".

- h) Section 8.2.1 (Character Area 1) under sub-heading "Land Uses", and after the bullet "Office commercial", insert the following:
  - "• Bio-tech, research, and labs.
  - Information technology (IT), media/software.
  - Institutional (private and public) including medical facilities.
  - Employment uses shall comprise minimum of 0.52 FAR of the total floor area within Development Blocks 1, 2 and 3, as identified in the Character Area 1 Mixed Use Employment-Residential Map.".
- i) Section 8.2.1 (Character Area 1) under sub-heading "Floor Area Ratio" delete the bullet "The maximum FAR is established at 1.25" and insert:
  - "• The total building area within each Development Block 1, 2 and 3, excluding underground parking, shall be no greater than a total of 0.52 FAR for employment use (excluding bonus density).

- The maximum FAR for residential use, based on a minimum of 0.52 FAR of employment space, shall be 1.28 Bonus FAR if a minimum of 5% of the total residential floor space is provided as built Affordable Housing units, with a minimum of an additional 7.5% of residential space being provided in the form of purpose built modest market rental housing units, and a minimum of 2.5% residential floor space as built market rental housing and secured as rental in perpetuity, to meet the City's needs.
- A minimum of 0.52 FAR of Employment Space shall be completed prior to or concurrent with the completion of the residential space.".
- j) Section 8.2.1 (Character Area 1) In sub-heading "Height" insert after the first bullet:
  - "• Minimum of two storeys (8m) and up to six storeys (25m) adjacent to the west boundary of each Development Block along Garden City Road.".
- k) Section 8.2.1 (Character Area 1) In sub-heading "Site Coverage", delete the bullet "In the range of 40% to 50%" and insert:
  - "• Depends on uses and configuration.".
- 1) Section 8.2.1 (Character Area 1) After sub-heading "Site Coverage" insert a new sub-heading and text:

"Phasing of Development

- Developments proposing to be completed in one phase shall ensure that the applications include all of the following:
  - a minimum of 0.52 FAR is allocated for employment space,
  - a minimum of 5% of the total residential floor area is provided in the form of built Affordable Housing,
  - a minimum of 7.5 % of the total residential floor area is provided in the form of built modest rent controlled rental units, and
  - a minimum of 2.5% of the total residential floor area is provided in the form of built market rental units.
- To ensure that the Employment space is built early in any project, all Rezoning, Development Permit and Building Permit applications shall ensure that a minimum of 30% of the floor area (up to 0.52 FAR) for nonresidential and employment use is maintained throughout each phase within the applicable Development Block, and that a maximum of 70% of the total built form being provided is for residential floor area (and associated residential accessory uses) until the minimum 0.52 FAR of employment space is provided.
- Subsequent to, or in conjunction with, the employment space being completed, and to ensure that the Affordable Housing, modest rent controlled housing and market rental units are completed as part of the development for the first half of the total residential floor area, for all projects with two or more phases:

- 15% of the total residential floor area (allocated for Affordable Housing, purpose built modest rent controlled units and market rental units) shall be built and completed as part of the first 50% of the total residential floor area being built within the entire project or Development Block.
- Applications for residential development beyond the first 50% of the total residential floor area may not be processed or considered, unless all of the employment space and affordable housing, modest rental control units and market rental units are completed in their entirety and ready for occupancy."
- m) Section 8.2.1 (Character Area 1) In sub-heading "Additional Building Design Considerations" insert the following bullet:
  - "• Stand alone, single-use buildings and/or mixed-use buildings may be considered, provided that they form part of a comprehensive plan for each Development Block, 1, 2 and 3.".
- n) Section 8.2.3 (Character Area 3) In the legend of the Character Area 3 The High Street Map delete "Business Office" and insert:

"Mixed Use Employment-Residential".

- o) Section 9.3 (Alexandra's Livability Guidelines) for the Alexandra Neighbourhood Land Use Map replace as per Schedule C.
- p) Section 9.3.2 (Alexandra Development Framework) Under Policies for Objective 3 after "Developer Contributions – Public Amenities", insert a new sub-heading and paragraph after paragraph g):

# "Affordable Housing in the Mixed Use Employment-Residential Area

h) A minimum of 5% of the total residential building area is required in the form of built Affordable Housing units, with an additional 7.5% of the residential floor area being provided in the form of built modest market rental units, and 2.5% of the residential floor area is provided as market rental units that are secured in perpetuity as rental units, as per the West Cambie Alexandra Neighbourhood Mixed Use Employment –Residential Use Density Bonus, Community Amenity Contribution Modest Rental Housing Rates Policy.

Cash-in-lieu contributions are not acceptable and the 2006 *West Cambie - Alexandra Interim Amenity Guidelines* as they relate to affordable housing contributions will not apply to the Mixed Use Employment-Residential designated lands.".

3. This Bylaw may be cited as "Richmond Official Community Plan Bylaw 7100 and 9000, Amendment Bylaw 9121".

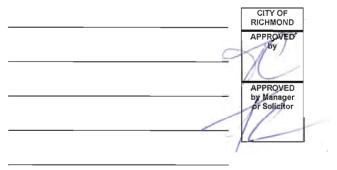
FIRST READING

PUBLIC HEARING

SECOND READING

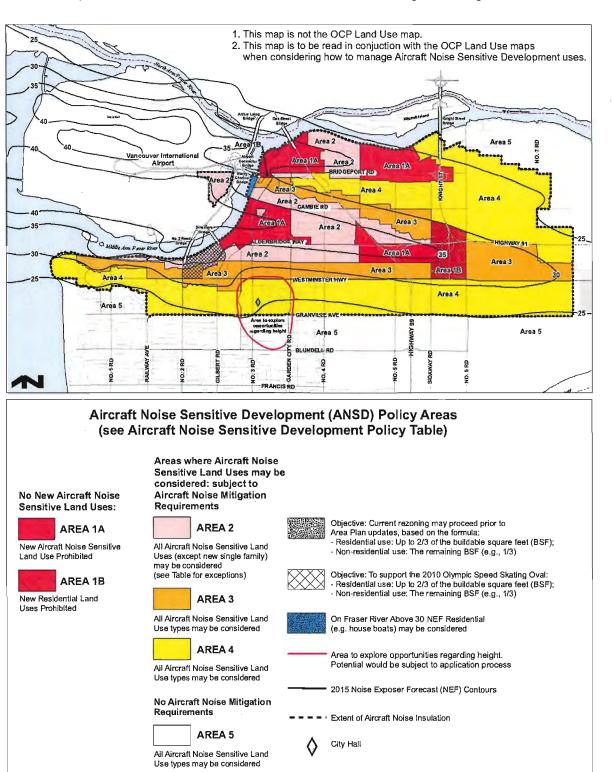
THIRD READING

ADOPTED



MAYOR

CORPORATE OFFICER

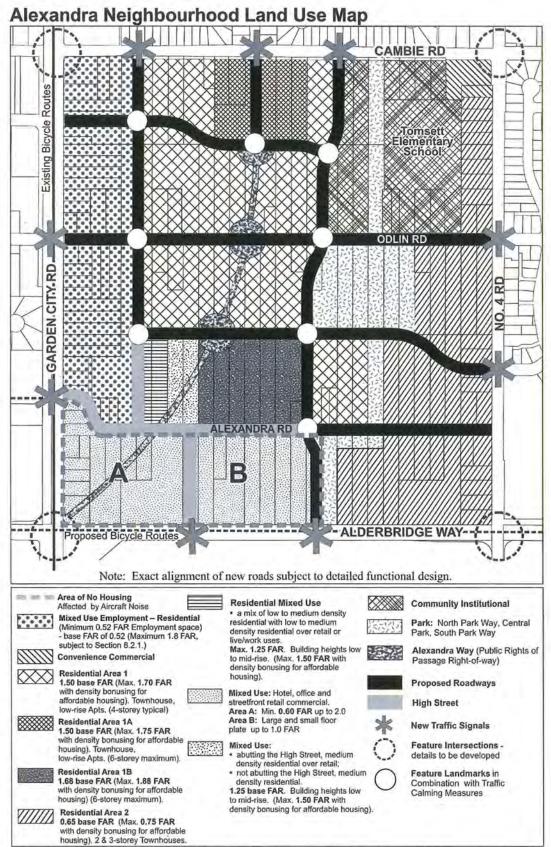


Schedule A to Bylaw 9121: Revised Aircraft Noise Sensitive Development Map

Schedule B to Bylaw 9121: Revised Neighbourhood Character Area 1 –Mixed Use Employment-Residential



Character Area 1 Mixed Use Employment - Residential Schedule C to Bylaw 9121: Alexandra Neighbourhood Land Use Map



Also refer to Section 8.4.5 - Alexandra District Energy Unit regarding district energy bonusing policies



То:	Public Works & Transportation Committee	Date:	May 4, 2015
From:	Victor Wei, P. Eng. Director, Transportation	File:	10-6360-03-03/2015- Vol 01
Re:	Street Furniture Program		

### Staff Recommendation

- 1. That staff be directed to issue a Request for Proposals for the supply, installation and maintenance of a city-wide street furniture program that includes advertising, as described in the staff report dated May 4, 2015, from the Director, Transportation; and
- 2. That staff report back on the responses to the above Request for Proposals with a recommendation prior to December 1, 2015.

P 2 -

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

Att. 4

REPORT CONCURRENCE					
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER			
Finance Engineering Roads & Construction Environmental Programs Purchasing	ष् स स स	Je Eoreg			
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO			

# Staff Report

# Origin

The City's existing five-year agreement with Pattison Outdoor Advertising (Pattison) for the provision of transit shelters with advertising will expire on December 1, 2015. This report outlines the proposed process to review and evaluate any new sponsorship opportunities for the provision of street furniture throughout the city prior to that date.

# **Findings of Fact**

# Current Provision of Transit Shelters

Transit shelters are an important passenger amenity to encourage transit use and, in turn, reduce reliance on private vehicles in support of the mobility-related goals and objectives of the *Official Community Plan* (OCP). Attachment 1 identifies the location and ownership of the existing 67 transit shelters in Richmond. The City currently provides transit shelters via three avenues as described below:

- <u>Pattison Contract</u>: Pattison funds the installation and maintenance of transit shelters with advertising, which are typically installed on streets with high traffic volumes in order to maximize advertising revenue. There are currently 48 Pattison-owned shelters in Richmond. Between 90 and 45 days prior to the termination date of the existing agreement, Pattison must submit a plan to the City establishing a schedule for the removal of the shelters during the post-term period, which is a minimum of six months. Within six months of the termination date, the City must determine if Pattison's exclusive advertising rights will apply during the post-term period.
- <u>*City Capital Program*</u>: the annual Transit-Related Amenity Improvement Program funds the installation of non-advertising transit shelters and other amenities (e.g., benches), which are also eligible for 50-50 costsharing with TransLink under its annual Transit-Related Road Improvement Program (TRRIP). Two non-advertising shelters were installed in early January 2015 in the 8500-block of No. 5 Road (i.e., midpoint between Blundell Road and Kingsbridge Drive). A further two non-advertising shelters are planned for installation in 2015 at the following locations:
  - Steveston Highway at Ransford Gate
  - o Blundell Road at Cheviot Place



• <u>Development Application Process</u>: staff have secured and will continue to seek developers' contributions

towards the provision of non-advertising transit shelters as a transportation demand management measure to encourage transit use and permit a reduction in the number of parking spaces required on site. Building facades may also incorporate canopies that can provide weather protection for waiting passengers. Five non-advertising shelters funded by developers' contributions are planned for installation in 2015 at the following locations:

- No. 5 Road at Steveston Highway
- No. 1 Road at Westminster Highway
- Williams Road at Dunoon Place
- Garden City Road at Bennett Road
- Entertainment Boulevard

In addition, the following external agencies provide transit shelters at bus stops in Richmond within their respective jurisdictions:

- <u>*TransLink*</u>: at 10 bus bays within the Bridgeport Station Exchange.
- <u>YVR</u>: at one bus stop served by the Night Bus outside the domestic terminal.
- <u>Ministry of Transportation & Infrastructure</u>: at two bus stops on the Highway 99 off- and onramps at Steveston Highway.

Table 1: Inventory of Transit Shelters					
Process	Existing	Planned			
City-Owned	6	6-10/yr			
Private Sector	48	To be			
Provider	40	determined			
External Agency	13	-			
Total	67	>6-10/yr			

Table 1 summarizes the existing and planned (over the next five years) inventory of transit shelters in Richmond.

# Current Agreement for Provision of Transit Shelters with Advertising

The City's current five-year (December 2010-December 2015) contract with Pattison for the supply, installation and maintenance of selected street furniture elements features the following major terms:

- Installation of nine new transit shelters, primarily along No. 3 Road.
- Of the existing 39 Pattison shelters, refurbishment of the 10 oldest shelters and repainting of the remaining 29 transit shelters.
- Provision of a litter receptacle that incorporates a cage for the placement of recyclable containers at all transit shelters.
- Provision of three multiple publication newsracks (MPNs), each with five individual boxes and one recycling box, with one each placed at the three Canada Line stations on No. 3 Road.
- Ten percent of all advertising panels per month available for use by the City at no advertising cost.
- Guaranteed annual payment to the City plus a percentage of net advertising revenue.

The provision of the new and upgraded shelters, litter receptacles and MPNs was completed within the first two years of the agreement. The current 48 shelters throughout the city generate a guaranteed annual payment to the City from Pattison of \$60,000 plus 14 per cent of net advertising revenue over the five-year term; this combined amount has averaged \$63,000 per year over the past four years. Staff within the Finance Department audit Pattison's financial statements to verify the City's revenue payments.



- 4 -

New Pattison Shelter

Refurbished Pattison Shelter

These 48 shelters are located in the City Centre and along major arterials with high traffic volumes, which may or may not have any correlation to bus stop locations with high levels of passenger boardings. The on-going challenge of requesting Pattison to install transit shelters on streets with lower traffic volumes within the existing five-year term was a primary impetus for the City to establish its own program with complete latitude as to potential locations.

# Additional Privately-Owned Street Furniture within City Right-of-Way

In addition to transit shelters, bus stop benches placed within City right-of-way also generate revenue. The City has two contracts with Goodwill Advertising (291 benches) and Key Bench Advertising Ltd. (74 benches) for the installation and maintenance of bus stop benches with advertising, both of which are renewed on an annual basis. The total of 365 benches throughout the city generates \$20.00 each in annual rental revenue. Both companies upgraded and replaced all of their benches in Richmond during 2011-2012; only 17 older style Goodwill benches remain, which staff will request be replaced.



Upgraded Goodwill Bench

Staff are satisfied with the service of the companies, both of which are proactive in approaching the City to request the placement of additional benches in Richmond. Over the past five years, the total number of benches with advertising at bus stops has increased by nearly 50 benches from 316 in March 2010 to 365 in January 2015.

# Analysis

# Review of Models for Provision of Street Furniture

The forthcoming expiry of the Pattison contract offers an opportunity to review alternative options for the provision of transit shelters and other street furniture, such as stand-alone benches and litter receptacles, with a view to enhancing the public realm and supporting OCP targets with respect to increasing transit mode share and reducing greenhouse gas emissions.

Generally, larger cities can attract private sector models that feature a broad suite of street furniture elements due to the correspondingly larger advertising market potential. Smaller cities that have public transit service typically can support only the provision of transit shelters or benches with advertising with all other street furniture elements (e.g., benches not at bus stops, litter receptacles, bike racks, etc) being funded and maintained by the local government.

As summarized in Attachment 2, Metro Vancouver municipalities typically have long-term contracts with a private sector provider who supplies, installs and maintains transit shelters with advertising panels. In larger cities, these contracts include other street furniture elements such as benches and litter receptacles.

Only the City of Burnaby owns and maintains all of its transit shelters, both with and without advertising. At the time of the expiry of its last transit shelter contract with Pattison in 2011, the City opted to separate the provision of shelters from the advertising contract. The 80 Pattison shelters with advertising in place at that time were removed and the City committed \$1.76 million towards the phased replacement of those shelters with City-owned shelters over a two-year term. A separate request for proposals (RFP) was issued to manage the advertising program, which was awarded to CBS Outdoor. The City has also contracted Pattison to maintain all of the shelters. Burnaby staff estimate that the anticipated advertising revenue will recover the initial capital investment in approximately 10 years.

Burnaby made the initial \$1.76 million capital investment solely for the replacement of the existing 80 Pattison shelters. Burnaby has now replaced these shelters and has indicated that the next phase of its transit shelter program will be to refurbish the 70 older City-owned shelters that do not have advertising. The priorities for replacement will be based on passenger boarding information and condition of the shelter. Funding for refurbishing is anticipated to be secured through the annual capital budget process. At this time, Burnaby does not anticipate increasing the total number of transit shelters in the city; thus, the key thrust of its program was to secure City ownership of all existing transit shelters rather than expansion of its transit shelter program via a long-term contract with a private sector provider as is typical in other municipalities.

The City of Burnaby did not increase staff resources to manage the transit shelter program and staff emphasize that its administration can be resource intensive in terms of staff time, especially during the first two years of the program when all of the Pattison shelters needed to be replaced in a timely manner to minimize loss in service to residents.

# Potential Models for Street Furniture Program for Richmond

The following three guiding principles guided staff in developing the possible operating models:

- <u>Guiding Principle 1 Passenger Safety and Comfort</u>: transit shelters are important passenger amenities that provide weather protection, a more comfortable and safer waiting area particularly at night due to shelter lighting, and improved visibility of a bus stop.
- <u>Guiding Principle 2 Urban Design & Aesthetics</u>: the shelters and associated amenities should complement and enhance the surrounding environment with consideration given to the impact of potentially increasing the amount of advertising in the public realm.
- <u>Guiding Principle 3 Potential Revenue and Cost</u>: capital and operating budget impacts as well as the potential to increase revenue to the City from additional advertising opportunities, some of which could be used to offset maintenance costs.

There are currently 716 active bus stops in Richmond and, of these, 294 have boarding activity equal to at least 25 passengers per day, which is a typical threshold to prompt consideration of the installation of a transit shelter.<sup>1</sup> Of these 294 bus stops, 59 currently have a transit shelter, although a number of these bus stops without shelters may have a form of weather protection (e.g., adjacent building canopies, Canada Line guideway). Notwithstanding that some locations may not be able to accommodate a shelter due to right-of-way constraints, there remains a considerable potential (i.e., around 250 additional bus stops based on current boardings) for increasing the number of transit shelters across the city. Attachment 3 identifies the 294 bus stops that have boarding activity equal to at least 25 passengers per day and whether or not the stop currently has a transit shelter.

Based on staff's review and research, the three models described below for the provision of transit shelters are feasible. Under all three models, the City would seek to:

- replace the existing 39 older style Pattison shelters with newer models that include an integrated bench and lighting (LED plus optional ability to provide solar power) plus a litter-recycling receptacle;
- increase the number of new transit shelters with benches, lighting and receptacles provided across the city, including a minimum number to be installed annually in areas that are deemed not commercially viable (i.e., transit ridership is high but drive-by traffic volumes are not sufficiently high to qualify for a shelter with advertising);
- include an option in the RFP for providing stand-alone benches (i.e., outside of a shelter) as part of any new contract with a private business for the supply of transit shelters, which would require the removal of all existing benches with advertising by the existing two contractors; and
- include an option in the RFP for the private sector supplier to also maintain City-owned shelters.

All three models also assume that the current policy whereby advertising in the public realm is permitted only on transit shelters and benches at bus stops is maintained. Although there was limited response to the City's RFP issued in April 2009 for a city-wide street furniture program at the time of the expiry of the previous Pattison contract, it remains unclear if Richmond's advertising market potential could attract a private sector operator that would supply a suite of

<sup>&</sup>lt;sup>1</sup> The boarding threshold is based on a review of the policies and guidelines of various North American cities and transit authorities regarding the trigger for the provision of a transit shelter. Agencies using this figure include Surrey (BC), Greater Sudbury (ON), St. Paul-Minneapolis (MN), Raleigh (NC), and Orange County Transportation Authority (CA). In addition, a report published by the Transportation Research Board (TCRP Report 19, *Guidelines for the Location and Design of Bus Stops*) recommends a minimum of 25 boardings per day for suburban locations.

street furniture beyond transit shelters and litter receptacles based on the amount of advertising currently permitted. The City would likely need to expand the forms of advertising allowed in the public realm, such as digital billboards, if the objective is to generate sufficient revenue for the operator to offset the costs of providing a broader suite of street furniture. However, at the time of the last RFP in 2009 and Council's consideration of the City's agreement with Pattison, Council expressed little interest in introducing advertising billboards in Richmond. Staff further note that *Sign Regulation Bylaw 5560* currently does not permit billboards to be erected in the city.

# Model 1: <u>Private Street Furniture Program plus City-Owned Shelters with No Advertising</u> (Existing Model)

This model reflects the existing agreement but with the potential to increase the number of new shelters with advertising and/or expand the scope of street furniture elements provided as part of the contract (e.g., benches) in return for a longer term (i.e., 20 years). As in the past, a preferred candidate would be selected via an RFP process. The City would continue to fund, install and maintain its own transit shelters with no advertising and thus be able to place shelters where transit ridership is high but traffic volumes are low.

# Model 2: <u>City-Owned Street Furniture Program with Contracted Advertising Program</u>

This model is similar to the Burnaby model and would allow the City to have full control over the location of transit shelters and potentially increase its share of advertising revenue. Initially, the City would incur both capital and operating budget impacts associated with the replacement of the Pattison shelters and receptacles with City-owned items plus their on-going maintenance. To avoid disruption to passengers, the existing Pattison contract would need to be extended to allow for funding approval through the Capital Program process and the subsequent procurement and installation of the City-owned shelters. An RFP would be issued to seek an external agency to manage an advertising program for the transit shelters, with the potential to expand the number of shelters with advertising beyond those that replace the existing Pattison shelters.

# Model 3: Private Street Furniture Program and/or City-Owned Shelters with Advertising

This model is a hybrid of Models 1 and 2 whereby there is a private sector provider of shelters plus the City installs its own shelters but the City also permits advertising on its shelters with the advertising program managed by the same private sector business selected via the RFP process. While City-owned shelters would typically be installed in locations where a privately supplied shelter would be deemed commercially unfeasible due to lower traffic volumes, nevertheless there may be a potential business case for advertising on these shelters as the private operator would not need to account for the recovery of capital and/or operating costs. Correspondingly, the City would expect a higher share of the advertising revenue from these shelters than from the shelters provided by the private sector.

# Estimated Impacts of Procurement Models

Table 2 identifies the differences among the three models in terms of shelter ownership and the extent of advertising on the shelters. Table 3 summarizes the estimated impacts and trade-offs amongst the three models based on the identified criteria. Essentially, the key differences are:

- the extent of advertising permitted on transit shelters (i.e., status quo of private sector shelters only versus expansion to City-owned shelters); and
- initial and long-term revenues and costs, with Model 2 incurring significant initial financial investments and staff resources, and considerable on-going higher

Table 2: Shelter Advertising & Ownership Models					
Model	Shelters with Advertising				
	Private	City	City	Private	
1	$\checkmark$	-		$\checkmark$	
2	-	$\checkmark$	$\checkmark$	-	
3	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	

maintenance costs off-set by the potential for increased advertising revenue that would recover these costs and generate new revenue over the long-term through a new advertising contract with terms more favourable to the City.

Criterion	Comments
Passenger	All three models are comparable with respect to expanding the number of transit
Comfort	shelters provided across the city, whether privately or City-owned.
Urban	<ul> <li>Model 1: advertising on transit shelters would be limited to those provided by the private sector.</li> </ul>
Design & Aesthetics	<ul> <li>Models 2 &amp; 3: advertising on transit shelters would be expanded to include City-owned shelters.</li> </ul>
	All three models would allow non-advertising transit shelters to be provided
	<ul> <li>Model 1: comparable to the current status quo.</li> </ul>
	Model 2: relative to Models 1 and 3, there is a significant initial capital cost to replace
Potential Revenue/ Cost	the existing Pattison shelters and receptacles. Over the long-term, there are higher maintenance costs but also a potential to realize increased advertising revenue via a separate contract. Management of the private sector contracts would have a considerable impact on staff resources on an on-going basis.
	<ul> <li>Model 3: relative to Model 1, there is a potential to realize increased advertising revenue that could be directed to offset the maintenance costs of City-owned shelters.</li> </ul>

# Preferred Procurement Model

Based on the above the analysis, staff recommend that Model 3 be pursued via an RFP process, as this approach provides the City with the most avenues for the provision of transit shelters as summarized in Table 2. Relative to Model 1, Model 3 offers the additional opportunity of City-owned shelters with advertising and, overall, offers the most flexibility to the City and does not preclude the potential selection of Model 2 following the RFP process. Staff do not recommend pursuing Model 2 alone at this time in order to allow potential private sector proponents to provide bids to the City on all options of shelter ownership and the extent of advertising on the shelters.

Staff further recommend that a 20-year term be sought for any new contract to maximize the potential benefits to the City as private sector operators require a sufficient length of time to amortise their costs and project sufficient sales into the future to recover all costs and generate a profit. Typical contract terms, as shown in the regional summary in Attachment 2, range between 15 and 20 years.

Table 4 identifies the desired target quantities of street furniture to be specified in the RFP that would be provided with the optional element of stand-alone benches with advertising that are separate from a transit shelter.

Street Furniture Element		Advertising?	Estimated Current #	Est # in Year 1	Target # by Year 10 of 20-Yr Term	Avg Growth Rate Over 20- Yr Term
Trensit	Privately Owned	Yes	48	56	200	7-8 per year
Transit	Privately Owned	No	0			
Shelter with Bench	City-Owned	Yes	0	2	50	2-3 per year
with bench	Total		48	58	250	10 per year
Litter Receptacle with Recycling at each Transit Shelter		No	48	58	250	10 per year
Option: Stand-alone Bench separate from Transit Shelter <sup>(1)</sup>		Yes	365	365	600	10-12 per year

# Table 4: Estimated Quantities of Street Furniture Elements

(1) Would require the removal of all existing benches with advertising by the existing two contractors.

The target numbers of privately owned transit shelters by Year 10 (under a 20-year contract term) are based on the City's goal to provide a shelter at each bus stop with at least 25 boardings per day (i.e., typical threshold to prompt consideration of the installation of a transit shelter as noted in Footnote 1) and staff's estimate of Richmond's advertising market potential. The latter is also informed by Pattison's proposal made to the City as part of the street furniture RFP process five years ago wherein Pattison proposed a total of 98 shelters over a 20-year term. The City's 20 year target of 200 privately-owned transit shelters with advertising translates to approximately one shelter for every 1,000 residents. This per capita figure is consistent with other local municipalities that have 20-year third party transit shelter contracts (i.e., both the City of Surrey and City of Vancouver have secured rates approximately equal to one transit shelter per 1,000 residents).

The RFP for this model will include the City's desire that the 150 additional privately owned shelters be installed by Year 10 of the proposed 20-year contract term, so that passengers may experience the benefit of a transit shelter for a substantial period of time as well as to increase the length of time to receive advertising revenue, which would help make the targets more easily achievable. While this approach may result in some reduction in revenue for the City as there is a higher upfront investment on the part of the provider, staff believe that the more important factor is achieving as soon as possible a higher amount of coverage available from transit shelters for passengers.

The target number for City-owned shelters is based on the anticipated rate of developers' contributions and funding level of the City's annual Transit-Related Amenity Improvement Program. The target number of litter receptacles matches that of the number of transit shelters and the target number of benches with advertising is based on the existing growth rate experienced over the past five years.

All transit shelters would have the following features: integrated bench, LED lighting (with the option of roof-top solar panels), advertising panel, City logo, and street name. Benches must

have a back and arms, and litter receptacles must provide for recycling with the container design to be approved by the City.

# Issuance of Request for Proposals

Staff propose that an RFP be issued that allows proponents to bid on Model 3 with the optional elements of: (a) stand-alone benches separate from transit shelters; and (b) the maintenance of City-owned shelters. Key information that will be sought from potential proponents in the RFP includes the following:

- Quantities and design of each type of street furniture element to be provided over the term of the contract including the timing of roll-out (i.e., within first 10 years of the contract).
- Guaranteed minimum or fixed percentage monthly revenue share for the City for each of the shelter types (i.e., privately owned and with or without advertising, and City-owned with advertising) and optional elements.
- Proportion of transit shelter advertising available for public service announcements.
- Adherence to City-specified standards for maintenance, placement and design of shelters and litter receptacles as well as refurbishment and replacement standards and schedules.

Staff anticipate that the RFP will be issued by late Spring 2015 with proposals received by early summer 2015. Following a staff evaluation process, it is anticipated that the successful proponent will be selected in Fall 2015, with a staff report recommending the award of any new contract being presented to Council prior to the expiry of the existing contract.

# Public Consultation

Following issuance of the RFP, staff propose to seek public feedback regarding transit usage, the relative importance of the three identified guiding principles and suggested bus stop locations in Richmond where a shelter is desired by transit users (see Attachment 4 for potential survey questions). This feedback would be collected via the City's online discussion platform at LetsTalkRichmond.ca after raising community awareness of this initiative through media releases, the City's website, social media messaging, and local newspaper notices. Staff will consider the feedback during evaluation of the proponents' responses as well as subsequent negotiations with proponents prior to developing a recommendation to Council. The public feedback received will aid staff in the development of the criteria for evaluating the RFP proponents, as well as identifying additional locations for bus transit shelters and any other comments received on the new transit shelter program. Should the City receive multiple responses to the RFP from different private sector operators, then a second round of consultation would occur to seek public feedback on the various design options in the proposals. Again, this feedback would be considered by staff prior to developing the final recommendation to Council.

# **Financial Impact**

None at this time. A new street furniture contract has the potential to increase revenues to the City vis-à-vis the current contract through the negotiation of more favourable terms to the City in return for a longer contract term as well as a limited expansion of opportunities for advertising. Staff will report back on the financial aspects of any new contract as part of the recommendation to Council regarding the award of the contract.

# Conclusion

The City's current contract for the provision of transit shelters with advertising will expire on December 31, 2015. Accordingly, a Request for Proposals will be prepared for the supply, installation and maintenance of a city-wide street furniture program that includes advertising. Staff anticipate reporting back in Fall 2015 with a recommendation for the award of any new contract with the primary objective of providing enhanced and expanded transit amenities in support of the City's mobility goals and targets in the most cost-effective manner.

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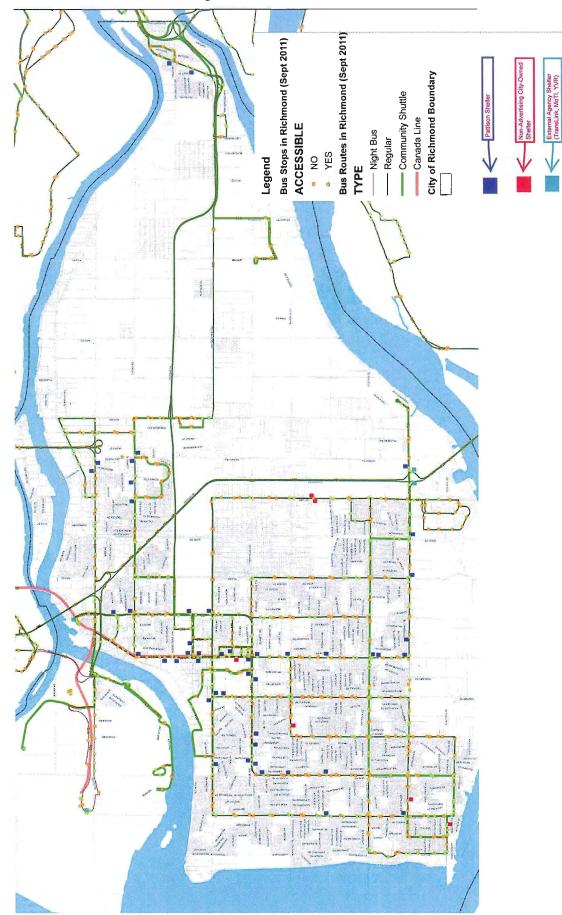
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Att. 1: Location of Existing Transit Shelters in Richmond

- Att. 2: Sample of Transit Shelter Programs in Metro Vancouver Municipalities
- Att. 3: Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day
- Att. 4: Potential Questions for Public Survey regarding Transit Shelters in Richmond

Attachment 1





**CNCL - 562** 

# Sample of Transit Shelter Programs in Metro Vancouver Municipalities

Municipality	Provider	Term	Comments
Vancouver	CBS Outdoor- JC Decaux	20 years (awarded in 2002)	<ul> <li>Elements to be provided over term include: transit shelters (900, of which 675 with advertising), benches, litter and recycling receptacles (1,400), multiple publication newsracks (104), modular information kiosks, bike lockers, bike racks (235), automated public toilets (up to 17), pedestrian-oriented map stands (210)</li> <li>Advertising permitted on transit shelters only</li> <li>Advertising revenue expected to be over \$47 million during the 20 year life of the content.</li> </ul>
			<ul> <li>the contract</li> <li>10% (90) of transit shelters reserved for free public service advertising by the City</li> </ul>
Surrey	Pattison Outdoor	20 years (awarded in 2009)	<ul> <li>Elements to be provided over term include: transit shelters with advertising (total to reach 480), stand-alone benches (700 with no advertising), litter and recycling receptacles (1,500), multiple publication newsracks, bike racks (1,500), pedestrian-oriented map stands (25)</li> <li>Approximately 10 new shelters installed annually</li> <li>Criteria for installation of new transit shelter: <ul> <li>Minimum of 25 passenger boardings/day</li> <li>Minimum of 10,000 vehicles/day passing location</li> </ul> </li> <li>100 advertising panels reserved for free use by City</li> <li>Key Bench has separate contract for transit stop benches with advertising</li> <li>Pattison has separate contract for digital sign program (i.e., free-standing electronic message boards with advertising): <ul> <li>Four signs currently in place and two additional signs approved for</li> </ul> </li> </ul>
New Westminster	Pattison Outdoor	15 years (awarded in 2008)	<ul> <li>installation</li> <li>Elements to be provided over term include: transit shelters with advertising (minimum of one new shelter per year)</li> <li>Allvision Canada/Titan have separate 20-year contract for digital sign program:         <ul> <li>approximately \$2 million/year in revenue expected to be generated</li> <li>10% of program content supplied free to City for events, emergency announcements, public awareness</li> </ul> </li> </ul>
Burnaby	City of Burnaby	n/a	<ul> <li>City took over from Pattison Outdoor in 2011 when existing contract expired</li> <li>Pattison removed 80 shelters and City has been phasing in new shelters via capital reserve funding</li> <li>Contracted back Pattison for maintenance</li> <li>Contracted CBS Outdoor for advertising sales</li> <li>Administration of program and contracts involves hundreds of hours of staff time</li> </ul>
Delta	Pattison Outdoor	15 years (awarded in 2004)	<ul> <li>Elements to be provided over term include: transit shelters with advertising (including 6 non-advertising shelters), benches, litter and recycling receptacles</li> <li>Allowance for an increase of two shelters, two benches and four waste receptacles annually</li> <li>Percentage based revenue share equal to 20% of net advertising revenues, which is expected to equate to approximately \$3.3 million over the 15-year term</li> </ul>
West Vancouver	Pattison Outdoor	20 years (awarded in 2011)	<ul> <li>Elements to be provided over term include: transit shelters with advertising (approximately 30 new shelters)</li> <li>City to receive share of advertising revenues estimated at \$2 million over the 20-year contract</li> </ul>
District of North Vancouver	Pattison Outdoor	20 years (awarded in 2014)	<ul> <li>Elements to be provided over term include: transit shelters with advertising</li> <li>District will not consider moving or electronic signs</li> </ul>
Port Coquitlam	Pattison Outdoor	5 years (awarded in 2010)	<ul> <li>Elements to be provided over term include: transit shelters with advertising (21)</li> <li>Contract has option for further 5-year renewal</li> <li>City receives 25% of advertising revenue with a guaranteed \$130 per month per shelter</li> <li>City also funds its own program for non-advertising transit shelters</li> </ul>

Bus Stop Location	Passengers Boarding/Day	Shelter?	
RICHMOND-BRIGHOUSE STN BAY 2: NB NO. 3 RD STN ENTRANCE	2,587	Y	
RICHMOND-BRIGHOUSE STN BAY 4A: SB NO. 3 RD FS SABA RD	2,137	N	
RICHMOND-BRIGHOUSE STN BAY 7: SB NO. 3 RD FS COOK RD	2,014	Y	
RICHMOND-BRIGHOUSE STN BAY 3: NB NO. 3 RD NS SABA RD	1,704	N	
BRIDGEPORT STN BAY 8	1,534	Y	
BRIDGEPORT STN BAY 3	1,498	Y	
BRIDGEPORT STN BAY 7	1,349	Y	
NB NO. 3 RD NS CAMBIE RD	898	Ý	
RICHMOND-BRIGHOUSE STN BAY 1: NB NO. 3 RD FS COOK RD	868	N	
BRIDGEPORT STN BAY 4	852	Y	
		Y	
BRIDGEPORT STN BAY 5	821		
RICHMOND-BRIGHOUSE STN BAY 5: WB COOK RD NS STAPLES D/W	753	Y	
NB NO. 3 RD NS PARK RD	577	N	
BRIDGEPORT STN BAY 9	530	Y	
BRIDGEPORT STN BAY 11	507	Y	
BRIDGEPORT STN BAY 6	501	Y	
SB NO. 3 RD FS WESTMINSTER HWY	419	N	
WB WESTMINSTER HWY FS NO. 3 RD	410	N	
RICHMOND-BRIGHOUSE STN BAY 6A: EB COOK RD @ MED OFFICE	387	N	
EB WESTMINSTER HWY FS GILBERT RD	386	Y	
EB CAMBIE RD NS HAZELBRIDGE WAY	380	N	
BRIDGEPORT STN BAY 10	378	Y	
WB CHATHAM ST NS 2 AV	374	N	
WB COOK RD FS GARDEN CITY RD	358	N	
RICHMOND-BRIGHOUSE STN BAY 6: EB COOK RD @ RBC	343	N	
SB NO. 3 RD FS LANSDOWNE RD	341	Y	
NB NO. 3 RD FS ACKROYD RD	334	Y	
EB GRANVILLE AV FS MOFFATT RD	332	Y	
WB CAMBIE RD FS NO. 5 RD	317	Y	
SB NO. 3 RD AT LESLIE RD	313	Y	
	298	Y	
SB NO. 3 RD NS GRANVILLE AV			
NB GARDEN CITY RD FS BLUNDELL RD	282	N	
NB NO. 3 RD FS LANSDOWNE RD	278	Y	
NB NO. 3 RD NS WILLIAMS RD	272	Y	
SB HWY 99 ONRAMP FS STEVESTON HWY	262	Y	
WB CAMBIE RD FS BARGEN DR	243	N	
WB CAMBIE RD FS JACOMBS RD	242	Y	
BRIDGEPORT STN BAY 5A	241	Y	
NB NO. 3 RD FS BLUNDELL RD	225	Ŷ	
RICHMOND-BRIGHOUSE STN BAY 5A: NB COOK RD FS BUSWELL ST	219	N	
NB NO. 3 RD FS RYAN RD	213	Y	
EB GRANVILLE AV FS MINORU BLVD	217	N	
EB CHATHAM ST FS 2 AV	216	Y	
WB CAMBIE RD AT 12300 BLOCK	216	Y	
WB WILLIAMS RD FS NO. 4 RD	214	N	
SB NO. 3 RD FS CAMBIE RD	214	N	
RIVERPORT RECREATION COMPLEX	212	N	
NB RAILWAY AV FS BLUNDELL RD	200	Y	
WB STEVESTON HWY FS SEAWARD GATE	195	N	
EB GRANVILLE AV FS GILBERT RD	195	N	
WB CAMBIE RD FS NO. 4 RD	195	N	
NB NO. 1 RD FS FRANCIS RD	195	Y	
NB HWY 99 OFFRAMP NS STEVESTON HWY	192	Y	
NB NO. 1 RD FS STEVESTON HWY	189	Y	
NB GARDEN CITY RD FS LANSDOWNE RD	189	Y	
NB NO. 3 RD FS JONES RD	188	N	
EB GRANVILLE AV FS RAILWAY AV	182	Y	
EB WESTMINSTER HWY NS FORSYTH CRES	182	N	
NB RAILWAY AV FS LINFIELD GATE	180	Y	
	100	and the second se	

# Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day

Bus Stop with Transit Shelter

# Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day

Bus Stop Location	Passengers Boarding/Day	Shelter?
EB BRIDGEPORT RD FS SWEDEN WAY	175	Y
NB NO. 3 RD FS LESLIE RD	172	N
NB INSTITUTIONAL ACCESS NS CESSNA	171	N
NB GARDEN CITY RD FS WILLIAMS RD	170	N
WB CAMBIE RD FS HAZELBRIDGE WAY	158	N
WB BRIDGEPORT RD FS NO. 5 RD	157	N
EB LANSDOWNE RD FS COONEY RD	156	N
WB CAMBIE RD FS STOLBERG ST	155	N
EB BLUNDELL RD AT CHEVIOT PL	154	Y
WB BRIDGEPORT RD FS MCLENNAN AV	154	N
NB GARDEN CITY RD AT JONES RD	153	N
EB CAMBIE RD FS JACOMBS RD	148	Y
NB RAILWAY AV FS COLBECK RD	146	N
NB NO. 5 RD FS STEVESTON HWY	143	N
NB NO. 3 RD FS FRANCIS RD	143	Y
WB WILLIAMS RD FS SHELL RD	142	N
EB WESTMINSTER HWY FS NO. 2 RD	141	N
NB NO. 3 RD FS GENERAL CURRIE RD	139	N
WB BRIDGEPORT RD FS SWEDEN WAY	138	Y
NB RAILWAY AV FS WILLIAMS RD	138	N
NB RAILWAY AV FS FRANCIS RD	138	Y
SB NO. 3 RD FS ALDERBRIDGE WAY	137	Ŷ
NB GARDEN CITY RD FS GENERAL CURRIE RD	137	N
EB WESTMINSTER HWY FS MCLEAN AV	136	N
EB CAMBIE RD FS NO. 5 RD	134	N
EB CAMBIE RD FS VIKING WAY	134	N
NB NO. 1 RD FS BLUNDELL RD	134	N
NB GARDEN CITY RD FS BENNETT RD	129	N
NB NO. 1 RD FS TUCKER AV	123	N
EB WESTMINSTER HWY FS HWY 91	122	N
EB CAMBIE RD FS SAINT EDWARDS DR	122	N
WB STEVESTON HWY FS MORTFIELD GATE	119	N
EB COOK RD FS PIMLICO WAY	116	N
EB GRANVILLE AV FS NO. 2 RD	115	Y
NB GARDEN CITY RD FS FRANCIS RD	114	N
WB WESTMINSTER HWY NS HWY 91	114	N
NB GARDEN CITY RD FS CAMBIE RD	114	Y
EB GRANVILLE AV FS LEDWAY RD	112	Y
WB BRIDGEPORT RD FS SHELL RD	110	N
WB WILLIAMS RD FS ARAGON RD	108	N
NB NO. 1 RD FS CHATHAM ST	108	N N
NB NO. 1 RD FS YOUNGMORE RD	108	N
EB GRANVILLE AV FS LYNAS LANE	107	Y
EB BRIDGEPORT RD FS NO. 5 RD	105	N
WB WILLIAMS RD FS SEACOTE RD	105	N N
EB COOK RD FS BUSWELL ST	103	N
EB MONCTON ST NS NO. 2 RD	102	N
EB WESTMINSTER HWY FS LYNAS LANE	101	N
NB NO. 1 RD AT OSMOND AV	99	N
NB BRIDGEPORT RD FS NO. 4 RD	99	N
NB STEVESTON HWY FS NO. 5 RD	98	N
NB NO. 3 RD FS ALDERBRIDGE WAY EB GRANVILLE AV FS AZURE GATE	98	N
	96	N
WB CAMBIE RD FS VIKING WAY	95	N
EB MONCTON ST FS NO. 1 RD	95	<u>N</u>
NB NO. 1 RD FS GRANVILLE AV	95	N
NB WILLIAMS RD FS ASH ST	94	N
NB GRANVILLE AV FS NO. 4 RD	94	N
NB GARDEN CITY RD FS DAYTON AV	94	N
EB MONCTON ST FS TRITES RD	93	N

Bus Stop with Transit Shelter

#### Passengers **Bus Stop Location** Shelter? Boarding/Day NB NO. 1 RD FS RICHMOND ST 88 Ν NB NO. 1 RD FS MORESBY DR 87 Ν WB HORSESHOE WAY FS NO. 5 RD 86 Ν NB NO. 2 RD FS DANUBE RD 86 N NB NO. 5 RD FS SEACLIFF RD 85 Ν NB NO. 3 RD FS BENNETT RD 85 Y EB WESTMINSTER HWY FS ELMBRIDGE WAY 83 N WB WESTMINSTER HWY FS MCLEAN AV Y 82 NB GILBERT RD FS BAMBERTON DR Ν 82 WB STEVESTON HWY NS COPPERSMITH PL 80 Ν SB SEACOTE RD NS SEAPORT AV 79 Ν WB CAMBIE RD NS GARDEN CITY RD 79 Ν EB WESTMINSTER HWY FS HWY 91 OFFRAMP 77 N EB WILLIAMS RD FS NO. 1 RD 76 Ν 75 WB WESTMINSTER HWY FS MINORU BLVD Ν 74 EB CAMBIE RD FS NO. 4 RD N WB LANSDOWNE RD NS KWANTLEN ST 74 N NB NO. 1 RD FS PACEMORE AV 74 Ν EB CAMBIE RD FS GARDEN CITY RD 74 Ν EB WESTMINSTER HWY FS ALDERBRIDGE WAY 73 Ν SB NO. 3 RD FS BROWNGATE RD 73 Ν NB NO. 2 RD FS WALLACE RD 72 N NB NO. 3 RD FS SAUNDERS RD 71 Ν EB WILLIAMS RD FS FRESHWATER DR 71 Ν NB NO. 2 RD NS BLUNDELL RD 71 Ν EB BRIDGEPORT RD FS SHELL RD 70 N EB WESTMINSTER HWY FS GILLEY RD 70 Ν EB WILLIAMS RD FS SPRINGMONT DR 69 Ν WB STEVESTON HWY NS HWY 99 69 Y WB GRANVILLE AV FS MINORU BLVD 69 Y WB COOK RD FS COONEY RD 69 Ν EB WESTMINSTER HWY FS MINORU BLVD 68 N EB PARK RD NS BUSWELL ST 68 Ν NB SPRINGMONT DR FS SPRINGMONT GATE 68 Ν NB NO. 2 RD FS WILLIAMS RD 68 Ν EB WILLIAMS RD FS 4 AV 67 Ν EB WESTMINSTER HWY FS RIVERDALE DR 65 Ν EB CAMBIE RD FS ODLIN CRES 64 Ν NB GARDEN CITY RD FS GLENALLAN GATE 64 Ν NB NO. 4 RD FS AMETHYST AV 64 Ν WB CAMBIE RD FS SEXSMITH RD 63 Ν NB RAILWAY AV FS MAPLE RD 63 Ν NB RAILWAY AV FS WOODWARDS RD Ν 63 NB GARDEN CITY RD FS SAUNDERS RD 63 Ν EB CAMBIE RD FS BARGEN DR 63 Ν EB MONCTON ST FS RAILWAY AV 61 Ν WB GRANVILLE AV AT MOFFATT RD N 61 NB GILBERT RD FS BLUNDELL RD 61 Ν WB WESTMINSTER HWY FS GILBERT RD 59 Ý WB STEVESTON HWY FS ROSELAND GATE 58 Y WB CAMBIE RD AT 10200 BLOCK 58 Ν NB NO. 3 RD FS ROSEWELL AV 58 Ν SB NO. 3 RD NS GENERAL CURRIE RD 57 Ν NB GILBERT RD FS WILLIAMS RD 57 Ν NB COONEY RD FS WESTMINSTER HWY 56 Ν SB GARDEN CITY RD FS BLUNDELL RD 54 N NB NO. 3 RD FS STEVESTON HWY 54 N EB STEVESTON HWY FS TRIMARAN GATE 54 Ν EB WESTMINSTER HWY FS TIFFANY BLVD 53 Y NB GARDEN CITY RD FS FERNDALE RD 53 N

### Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day

Bus Stop Location	Passengers Boarding/Day	Shelter?
EB CAMBIE RD AT 12400 BLOCK	53	N
NB GARDEN CITY RD FS WESTMINSTER HWY	52	Y
NB NO. 6 RD AT MAYCREST WAY	52	N
WB KING RD FS NO. 5 RD	52	N
NB 7 AV FS CHATHAM ST	51	N
NB NO. 3 RD AT BROADMOOR BLVD	51	N
EB GORDON WAY AT 21300 BLOCK	50	N
EB BLUNDELL RD FS MOFFATT RD	50	N
EB STEVESTON HWY NS SEAWARD GATE	50	N
SB NO. 6 RD FS MAYCREST WAY	50	N
SB GARDEN CITY RD FS WESTMINSTER	50	N
NB NO. 1 RD FS GEORGIA ST	50	N
SB NO. 6 RD FS INTERNATIONAL PL	49	N
EB GRANVILLE AV FS LIVINGSTONE GATE	49	N
EB WILLIAMS RD FS FORTUNE AV	49	N
NB NO. 5 RD FS WILLIAMS RD	48	N
NB NO. 2 RD FS WOODWARDS RD	47	N
NB NO. 2 RD FS FRANCIS RD	47	N
SB NO. 6 RD FS MAYFIELD PL	47	N
EB BLUNDELL RD FS NO. 2 RD	47	N
SB NO. 3 RD FS BLUNDELL RD	46	N
SB KNIGHT STREET BRIDGE AT MITCHELL ISLAND	46	N
EB HORSESHOE WAY NS NO. 5 RD	45	N
WB BRIDGEPORT RD FS VIKING WAY	44	N
SB NO. 4 RD FS ALEXANDRA RD	44	N
NB GILBERT RD FS LUCAS RD	44	N
EB WESTMINSTER HWY FS MCCALLAN RD	44	N
SB NO. 2 RD FS BLUNDELL RD	43	N
NB NO. 4 RD FS FRANCIS RD	43	N
NB GILBERT RD NS KIMBERLEY DR	43	N
NB NO. 1 RD FS FUNDY GATE	42	N
NB NO. 1 RD FS WILLIAMS RD	42	N
NB GARDEN CITY RD FS CAPSTAN WAY	42	Y
NB NO. 2 RD FS MAPLE RD	42	N
WB BRIDGEPORT RD FS MCLEOD RD	42	<u>N</u>
SB NO. 6 RD NS WIRELESS WAY	41	N
NB 7 AV FS RICHMOND ST	41	N
WB BRIDGEPORT RD FS SMITH ST	41	N
NB GILBERT RD FS FRANCIS RD	41	N
EB STEVESTON HWY NS NO. 1 RD	41	N
SB NO. 1 RD FS FRANCIS RD	40	N
EB MONCTON ST FS EASTHOPE AV	40	N
EB BRIDGEPORT RD AT MCLENNAN AV	40	N
EB STEVESTON HWY FS RAILWAY AV	40	N
SB GARDEN CITY RD FS CAMBIE RD	39	N
WB STEVESTON HWY FS SWINTON CRES	39	N
WB BLUNDELL RD AT 18300 BLOCK	39	N
SB NO. 6 RD FS CAMBIE RD	39	N
WB STEVESTON HWY FS SHELL RD	39	N
SB GRAYBAR RD FS WESTMINSTER HWY	39	N
SB GARDEN CITY RD FS ALDERBRIDGE WY	38	N
WB RIVER RD FS HOLLYBRIDGE WAY	38	N
EB BLUNDELL RD FS GILBERT RD	38	N
WB BLUNDELL RD FS NO. 3 RD	38	N
WB GRANVILLE AV FS GILBERT RD	37	N
SB GILBERT RD FS WESTMINSTER HWY	36	N
WB BLUNDELL RD FS NELSON RD	36	N
NB NO. 4 RD AT DAYTON AV	36	N
SB NO. 4 RD FS ODLIN RD	36	N
EB BRIDGEPORT RD FS SEXSMITH RD	36	N

# Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day

Bus Stop Location	Passengers Boarding/Day	Shelter?
NB NO. 2 RD FS STEVESTON HWY	35	N
SB NO. 3 RD FS JONES RD	35	Ν
WB CAMBIE RD FS NO. 6 RD	34	N
EB HWY 91 OFFRAMP AT WESTMINSTER HWY	34	Ν
EB BLUNDELL RD FS MINLER RD	34	N
EB WILLIAMS RD FS GARDEN CITY RD	34	N
NB NO. 4 RD FS BLUNDELL RD	34	N
SB NO. 1 RD FS WESTMINSTER HWY	33	N
EB CAMBIE RD AT STOLBERG ST	33	N
WB WESTMINSTER HWY NS GILLEY RD	33	Y
EB BRIDGEPORT RD FS NO. 4 RD	32	N
NB GILBERT RD FS MANG RD	32	<u> </u>
NB VIKING WAY FS CAMBIE RD	32	N
EB WILLIAMS RD FS 2 AV	32	N
EB GRANVILLE AV FS NO. 3 RD	31	N
EB WESTMINSTER HWY AT 6400 BLOCK	31	N
NB SPRINGMONT GATE FS STEVESTON HWY	31	N
NB 7 AV NS REGENT ST	3 <u>1</u>	N
NB NO. 3 RD FS LUCAS RD	31	N
NB KWANTLEN ST FS LANSDOWNE RD	30	N
EB STEVESTON HWY FS RANSFORD GATE	30	Y
NB VIKING WAY FS VIKING PL	30	<u>N</u>
WB LANSDOWNE RD FS COONEY RD	30	Y
WB HWY 91 ONRAMP FS WESTMINSTER HWY	30	N
NB NO. 6 RD AT MAYFIELD PL	29	N
SB NO. 3 RD FS WILLIAMS RD	29	N
SB NO. 6 RD FS COMMERCE PKY	29	N
SB NO. 1 RD FS BLUNDELL RD	29	N
NB GILBERT RD FS BROADMOOR BLVD	28	N
SB NO. 3 RD FS CAPSTAN WAY		N
SB NO. 3 RD AT RYAN RD	28	N
EB STEVESTON HWY FS CONSTABLE GATE	27	N
NB GILBERT RD NS AZURE RD	27	N
NB VIKING WAY FS BRIDGEPORT RD	27	N
NB NO. 5 RD AT KINGSBRIDGE DR	27	N
EB WILLIAMS RD FS NO. 4 RD	27	N
WB WESTMINSTER HWY FS ALDERBRIDGE WAY	27	N
WB KING RD NS SEACOTE RD	26	N
NB HAMMERSMITH WY FS SILVERSMITH PL	26	<u>N</u>
NB NO. 1 RD FS PETERSON GATE	26	<u>N</u>
EB WESTMINSTER HWY FS GIBBONS DR	26	N
WB CAMBIE RD FS VANGUARD RD	26	N
NB NO. 6 RD FS WESTMINSTER HWY	26	N
NB SPRINGMONT DR FS SPRINGHILL CRES	26	N
NB GARDEN CITY RD FS ODLIN RD	26	N
NB NO. 3 RD FS SUNNYMEDE GATE	25	N
SB NO. 1 RD FS OSMOND AV	25	<u>N</u>
SB RAILWAY AV FS BLUNDELL RD	25	N
NB SPRINGMONT DR FS SPRINGSIDE PL	25	N
SB GARDEN CITY RD FS LANSDOWNE RD	25	N
NB NO. 5 RD FS BLUNDELL RD	25	N
EB MILLER RD FS RUSS BAKER WAY	25	N
WB VULCAN WAY NS SWEDEN WAY	25	N
SB NO. 1 RD FS YOUNGMORE RD	25	N

# Existing Bus Stops with Boarding Activity Equal to or Greater than 25 Passengers/Day

	Proposed Questions for Public Survey re Transit Shelters in Richmond										
(1)	Are you a	Richmond:		Reside	nt?		Employ	/ee?		Neither	r
(2)	Which sta	tement best des	scribes y	our curre	nt status	<b>S</b> :					
		l work full-time l am a univers l am retired		nt		I am ar	part-time n elemer of the abo	ntary/se	condary	student	
(3)	Do you ho	old a valid driver	r's licenc	e?		Yes		No			
(4)	Do you ha	ave regular acce	ess to a r	notor veh	icle to n	nake a jo	ourney?		Yes		No
(5)	From Mon	nday to Friday, h	now ofter	n do you i	use the	bus, on a	average	? (tick c	one only)		
		Every weekda 1-2 weekdays less than one	;	/s a mont	□ □ th		ekdays t one we	ekday	a month		
(6)	On weeke	ends, how often	do you u	ise the bu	us, on av	verage?	(tick one	e only)			
		Every weeken 1 weekend a r					ekends a an one w		n d a mont	h	
(7)	What is th	e most importa	nt reasor	n that you	use the	e bus? (t	ick up to	three o	only)		
		A vehicle is no Cost of parkin To avoid drivin Public transpo Public transpo Public transpo Normally don'	ng at dest ng in traf ort is the ort is bett ort is prov	ination fic fastest op er for the vides time	environ e to rela:		Public Public	ty of pa transpo transpo	rking at o ort is the o ort is the i	cheapest	
(8)	(8) How important is it to you that a bus stop has a shelter? (tick one only)										
		Not important Somewhat un Indifferent		t			vhat imp nportant				

# Proposed Questions for Public Survey re Transit Shelters in Richmond

(9) Please rank the relative importance of the following guiding principles for the provision of transit shelters? (please rank 1 to 3)



Passenger comfort (weather protection, comfortable and safe waiting area, lighting, improved visibility of a bus stop)



Urban design and aesthetics (shelters and associated amenities should complement and enhance the surrounding environment)



Potential revenue and cost (capital and operating costs to the City, potential revenue to City from additional advertising opportunities)

(10) Where are your top three bus stop locations in Richmond where a transit shelter is needed?

1 <sup>st</sup> Location:	 
2 <sup>nd</sup> Location:	 
3 <sup>rd</sup> Location:	

(11) Do you have any other comments regarding factors that the City should consider in evaluating options for the provision of transit shelters?



То:	Public Works and Transportation Committee	Date:	May 7, 2015	
From:	John Irving, P.Eng. MPA Director, Engineering	File:	10-6600-10-02/2015- Vol 01	
Re:	Alexandra District Energy Utility Expansion Phase 4			

# **Staff Recommendation**

That funding of up to \$7.6 million through borrowing from the Utility General Surplus be approved for capital expenditure for design, construction and commissioning of the Phase 4 expansion of the Alexandra District Energy Utility and that the Five Year Financial Plan (2015-2019) be amended accordingly.

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

REPORT CONCURRENCE					
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER			
Finance Development Applications		CC			
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO			

# Staff Report

# Origin

In January 2011, Council endorsed the Alexandra District Energy Utility Bylaw No. 8641 Amendment Bylaw No. 8688. The adoption of Amendment Bylaw No. 8688 established the ADEU service area over the majority of the Alexandra Neighbourhood.

At the Regular Council Meeting of July 28, 2014, Council endorsed that the funding for the ADEU Phase 3 expansion be borrowed from the Water Utility General Surplus. All borrowed amounts will be repaid with interest, and are incorporated into the financial model.

At the Regular Council Meeting of February 10, 2015, Council approved, as a part of the 2015 Capital Budget, a \$12.1M capital expenditure for the ADEU Expansion Phase 3 (2015), of which \$10.5M is funded from the Water Utility General Surplus.

The purpose of this report is to seek Council approval for the funding of the ADEU Phase 4 expansion through borrowing from the Utility General Surplus, in order to allow servicing of new developments in the Alexandra District Energy Utility (ADEU) Service Area.

This initiative aligns with Council's Term Goal #8 Sustainability:

8.1 Continued implementation and significant progress towards achieving the City's Sustainability Framework, and associated targets.

# Background

Phases 1 and 2 of the ADEU were established in partnership with Oris Geo Energy Ltd. The partnering agreement was limited to providing heating and cooling services to Oris Developments' projects, Alexandra Gate and Remy.

Council subsequently adopted the Alexandra District Energy Utility Bylaw No. 8641 and Amendment Bylaw No. 8688 on January 24, 2011, which expanded the service area to include the western portion of the Alexandra neighbourhood. This gave the ADEU the potential to encompass 3100 units and 1.1 million sq. ft. of commercial space at build out, over an estimated 10 to 15 year period.

In 2010, Council approved \$6M of borrowing from the City's Water Utility Reserve to fund the design and construction of ADEU Phases 1 and 2. ADEU Phases 1 and 2 were commissioned in July 2012; the system currently provides energy to three developments (Mayfair Place, Remy and Omega) with over 860 residential units.

In 2014, Council approved \$12.3M of borrowing from the City's Water Utility General Surplus to fund design and construction of the ADEU Phase 3 expansion. The 2015 portion of the project is currently under construction and scheduled to connect next two customers Alexandra Court by Polygon and Jamatkhana Temple in May and June respectively. Connection of five more developments under Phase 3 expansion will follow. The 2015 portion of Phase 3 expansion construction is scheduled to be completed in November 2015.

# Analysis

# SmartCentres and New Developments

ADEU was established on the concept that all capital and operating costs would be recovered through revenues from user fees. Council adopted an objective to provide end users with annual energy costs that are competitive with conventional system energy costs based on the same level of service. The primary strategy for phasing construction of the ADEU is to match service capacity closely with demand at any given stage. In this way, capital expenditures that don't immediately generate revenue are minimized and payback periods are reduced.

The 2015 scope of the Phase 3 expansion includes:

- expansion of the energy centre to accommodate equipment requirements for the full build out;
- extension of the distribution piping to service new customers south of Odlin Rd up to the Alexandra Court;
- increasing the heating and cooling capacity to service new customers in the north and south loop via geo-exchange field along the eastern edge of the West Cambie Neighbourhood Park; and
- increasing the heating and cooling capacity to service new customers in the north and south loop via boilers and cooling towers.

Based on the most current construction schedule provided by SmartCentres, the construction of an on-site energy plant for servicing the SmartCentres, a concept adopted by Council last year, needs to start immediately in order to meet the accelerated schedule.

Furthermore, since the approval of the Phase 3 expansion in July 2014, timing for some of the developments has been revised by developers and two new developments will need to be connected as early as January 2016 - Oxford Lane Townhomes by Townline and Fire Hall No. 3. The current timelines and building sizes are summarized in Table 1 and mapped in Attachment 1. To service these developments, an extension of the distribution piping is required.

Table 1: Development Timing in the ADEU Service Area (read in conjunction with Att. 1)

	Floor Area (ft <sup>2</sup> )	Use	Occupancy Date*
Alexandra Court	503,000	Residential	May 2015
Jamatkhana Temple	26,500	Institutional	June 2015
Oxford Lane	64,000	Residential	January 2016
Fire Hall No. 3	23,000	Municipal	2016
9500 Cambie	108,000	Residential	2016
Alexandra Gate	194,000	Residential	2016
SmartCentres	286,000	Commercial	2016
Jingon	132,000	Residential	2017
Polygon East	262,000	Residential	2018

\* Note: Occupancy typically occurs over the course of several months after occupancy is issued.

# Funding

It is estimated that \$7.6 million (inclusive of design, project management and contingency) would be required for the ADEU Phase 4 expansion, which will include:

- installation of the satellite energy plant, including air source heat pumps, natural gas boilers and distribution piping to service SmartCentres;
- extension of distribution piping to service Oxford Lane Townhomes development;
- extension of distribution piping to service Fire Hall No. 3;
- replacement of water based fluid with glycol propylene fluid in the distribution piping;
- upgrade energy metering;
- SCADA system upgrade.

The full amount of funding will be required in 2015, since the construction is expected to be implemented over the next two years.

# Development Projections and Business Case

Staff have reviewed the development projections with the Phase 3 design consultant as part of the Phase 3 expansion detailed design. The projections are based on prospective results based on assumptions about future conditions and courses of action. The development schedule in the ADEU area is relatively well-defined to 2018. Developers have provided the City with preliminary drawings and modeling reports which include calculations of gross floor area and peak and annual energy demands. After 2018, the forecast is less certain: there are five parcels in the Northwest corner of the neighbourhood that are expected to be developed into residential buildings between 2019 and 2023, however, there is no other information available about these properties. Furthermore, the rate of development is subject to market conditions. After the connectable area for these parcels was calculated based on the lot area multiplied with the floor area ratio as per the 2041 OCP, the total floor area connected to the ADEU at the full build out is now estimated to be 4.65 million square feet.

The business case was updated with the new estimated connected floor areas and related capital costs estimates for the full build out. The comparison of the business cases is summarized in the Table 2 below. Financial calculations for the payback periods are detailed in Attachment 2.

# Table 2: Financial Summary

	Business Case as reported to Council Dec 10, 2012	Business Case as reported to Council July 28, 2014	Most current Business Case
Capital Cost (Phase 4)	N/A	N/A	\$7.6M
Full Build Out Area	3.18M sq.ft.	3.44M sq.ft.	4.65M sq.ft.
Capital Cost (full build-out)	\$24.3M	\$23.3M	\$31.1M
NPV (discounted at 6.0%)	\$1.35M	\$4.76M	\$15.5M
IRR	6.54%	8.01%	10.17%
Payback	21 years	19 years	17 years
Estimated GHG Savings	n an	9500 tonnes over 12 years	9500 tonnes over 12 years

Note: No land costs have been attributed to the costs of the project since it is located on City owned park land or as part of private developments.

This initiative also aligns with Council's sustainability goal of making progress towards achieving the City's Sustainability Framework and associated targets. On average, ADEU is expected to save more than 800 tonnes of  $CO_2$  every year, the equivalent of taking 170 passenger vehicles permanently off the road. Cumulative GHG emissions reductions are detailed in Attachment 3.

# Financing Strategy

The ADEU was approved on the basis that it would be financially self-sustaining. At the current size of the system, the incremental cost to connect a new customer is high due to the need for new energy generation and distribution facilities. Over time, capital costs on a per building basis will decrease as the same infrastructure can be used to connect new buildings. The City has the option to fund capital costs internally or externally. Over the course of the full build out of the ADEU, the City will have numerous decision points for optimizing financing strategies in order to achieve its objectives.

For the Phase 4 expansion capital costs, staff recommend that up to \$7.6M in funding be approved from the Utility General Surplus. Internal borrowing is recommended due to many variables including the timespan of construction, servicing requirements, and the availability of funding. All borrowed amounts will be repaid with interest and are incorporated into the financial model.

# **Financial Impact**

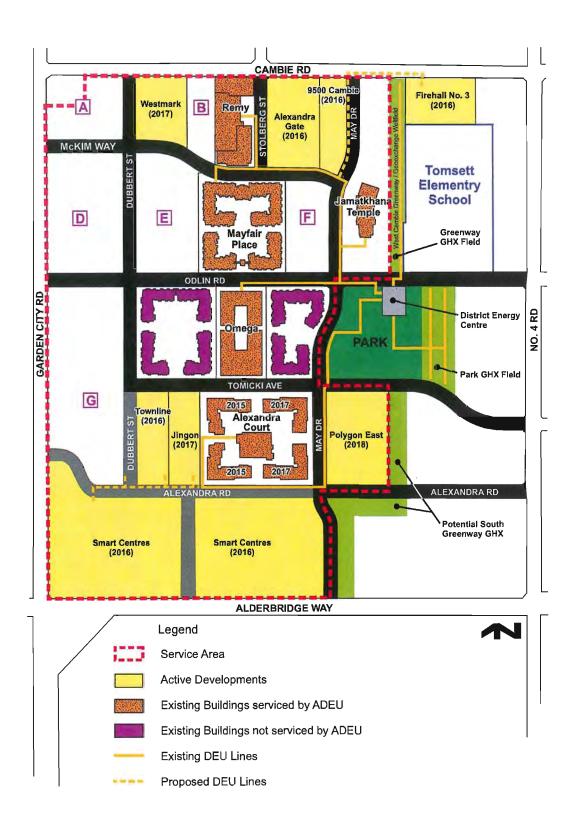
Staff recommend that \$7.6 million in funding be approved through borrowing from the Utility General Surplus for capital expenditure of design, construction and commissioning for the Phase 4 expansion of Alexandra District Energy Utility. The cash flows scheduled for this borrowing and payback are detailed in Attachment 2.

# Conclusion

Construction in the Alexandra District Energy Utility service area is continuing at a fast pace with a number of developments pursuing aggressive construction schedules. Based on the current information provided by the developers, the ADEU Phase 4 expansion is needed to provide service to new customers. Operational improvements are also needed, in order to provide the level of service expected.

Alen Postolka, P.Eng., CEM, CP Acting Senior Manager, Sustainability and District Energy (604 276 4283)

Doru Lazar, P.Eng., PMP Senior Project Manager (604-276-8695)



#### Attachment # 1- Alexandra Neighbourhood and ADEU Service Area Development

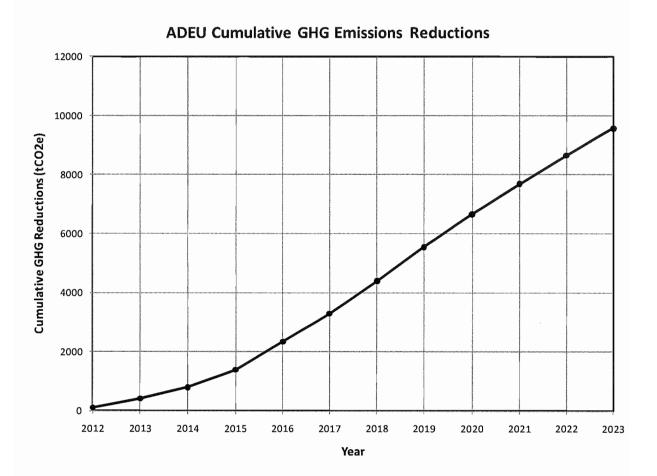
# Attachment # 2- ADEU Financial Analysis Model (to build-out)

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# (Preliminary draft based on current assumptions. Financial Model is subject to change as these facts and assumptions change.)

							(A	ll dollar f	figur	es are in	n tho	ousands (	of c	iollars)	47,747,778,				*****	9788379997999799
		Year 1		Year 2	,	Year 3	•	Year 4	١	ear 5	۲	ear 10	``	Year 15	Y	'ear 20	Y	ear 25	١	/ear 30
		2011		2012		2013		2014		2015		2020		2025		2030	1	2035		2040
TOTAL REVENUE		\$-		\$72	\$	479	\$	640	\$	974	\$	4,216	\$	7,482	\$	9,104	\$	11,076	\$	13,475
TOTAL EXPENSES		\$ -	anning	\$6	\$	181	\$	472	\$	899	\$	1,474	\$	2,269	\$	2,739	\$	3,307	\$	3,994
Debt interest expense		\$-		\$-	\$	-	\$	-	\$	-	\$	583	\$	1,510	\$	440	\$	109	\$	-
PROJECTED OPERATION INCOME (LOSS) BEFORE AMORTIZATION		\$-	1944/1-	\$ 65	\$	298	\$	169	\$	76	\$	2,159	\$	3,704	\$	5,925	\$	7,660	\$	9,481
Principal Payment		\$ -		\$-	\$	-	\$	•	\$	•	\$	721	\$	4,224	\$	1,353	\$	109	\$	•
PROJECTED CASHFLOW		\$-		\$ 65	\$	298	\$	169	\$	76	\$	1,438	(\$	521)	\$	4,571	\$	7,552	\$	9,481
Cumulative Project Cashflow		<b>\$</b> -		\$ 65	\$	363	\$	531	\$	607	\$	6,931	\$	5,341	\$	10,040	\$	42,718	\$	86,564
Internal Rate of Return (IRR) over 30	/ears:												·	······						
CAPITAL INVESTMENT*	ļ	(\$ 2,30	) (	(\$ 2,066)	\$	-	(\$	1,634)	(\$	18,100)	\$	+	\$	-	\$	-	\$	-	\$	-
Annual Cash Inflow from Operation		<del>\$</del> -		\$65	\$	298	\$	169	\$	76	\$	2,159	\$	3,704	\$	5,925	\$	7,660	\$	9,481
Net Annual Cashflow of Investment		(\$ 2,30	D) (	(\$ 2,001)	\$	298	(\$	1,465)	(\$	18,024)	\$	2,159	\$	3,704	\$	5,925	\$	7,660	\$	10,465
CUMULATIVE DEBT LOAD		\$ 2,51	8	\$ 4,813	\$	5,054	\$	7,023	\$	26,379	\$	37,224	\$	23,733	\$	2,686	(\$	0)	(\$	0)
CUMULATIVE PROJECTED NET INCOM	E	(\$ 5)	D) (	(\$ 91)	\$	101	\$	163	(\$	185)	\$	4,035	\$	15,382	\$	36,508	\$	67,619	\$	109,266
	IRR:	10.17	7%										Ö. 1		ý					
	NPV:	\$ 15,52	20		T															

The projections are based on prospective results based on assumptions about future conditions and courses of action. The current model assumes internal borrowing for Phase 4 at an interest rate of 5% over 15 years. \*Includes an estimation of the remaining value of capital equipment.



# Attachment # 3- ADEU Cumulative GHG Emissions Reductions

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# **Report to Committee**

То:	Public Works and Transportation Committee	Date:	April 27, 2015
From:	John Irving, P.Eng. MPA Director, Engineering	File:	10-6125-07-02/2015- Vol 01
Re:	Smart Thermostats Pilot Program		

### **Staff Recommendation**

That the development and implementation of a "Smart Thermostats Pilot Program" for homes be endorsed.

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

REPORT CONCURRENCE	
CONCURRENCE OF GENERAL MANAGER	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:
APPROVED BYCAO	

# Staff Report

# Origin

This report proposes a Smart Thermostats Pilot Program as part of City efforts to reduce energy and emissions in Richmond.

This program supports Council's Term Goal #8 Sustainability:

To demonstrate leadership in sustainability through continued implementation of the City's Sustainability Framework.

# Analysis

# **Background**

# Richmond's Climate Action Commitments

Richmond's 2041 OCP includes aggressive targets to reduce the community's energy use 10 per cent by 2020, and to reduce community GHG emissions 33 per cent by 2020 and 80 per cent by 2050. Additionally, the City has a target to reduce energy use 10 per cent by 2020. The 2014 Community Energy and Emissions Plan (CEEP) identifies that residential buildings account for over 22 percent of Richmond's GHG emissions, and that significant energy improvements to most existing buildings are necessary for Richmond to meet the City's emissions reduction targets. Accordingly, Strategy #3 in the CEEP is to "Improve the Performance of the Existing Building Stock," and includes the following actions:

- Action 7: Promote building efficiency through outreach and education
- Action 8: Provide incentives for building retrofit action
- Action 9: Develop a residential energy conservation program to support housing affordability

Additionally, as a signatory to the Climate Action Charter, the City has committed to being "carbon neutral" in its corporate operations. Carbon neutrality is achieved by reducing emissions, and balancing remaining emissions with carbon credits. The Joint Provincial-UBCM Green Communities Committee has established protocols for how local governments can generate carbon balancing credits by supporting energy projects in their communities.

# City Action to Promote Energy Improvements

Different home energy improvement programs are available to Richmond households, through BC Hydro's PowerSmart suite of programs, FortisBC's energy programs, and other organizations. These programs will typically offer households cash incentives and rebates for adopting energy efficiency measures, as well as provide guidance on appropriate energy measures for various households depending on the equipment and construction of their home.

As part of implementing the CEEP and pursuing community GHG reduction targets, the City has promoted energy conservation programs, complementing energy utilities' own outreach and

promotions. The City's efforts include operating the Richmond Building Energy Challenge, outreach at events, web and social media, and printed promotions. Moreover, the City has provided financial consumer incentives as part of some of its programs, such as the Clothes Washer Rebate Program.

### About Smart Thermostats

"Smart" or "learning" thermostats are a new technology that can help save energy while improving a home's comfort. Smart thermostats:

- Use motion sensors or other technologies to determine when users are away, and thereby "self-program" temperature setbacks to optimize energy savings
- Have internet connectivity
- Use web interfaces and user feedback to provide information and encourage better energy decision making

Smart thermostats thus differ from "programmable thermostats," which cannot self-program and typically have less interactive features. Firms currently offering smart thermostats include Nest, Ecobee, and Honeywell.

Studies from different jurisdictions across North America indicate that households that implement smart thermostats save an average of 11 per cent on their heating energy use; further analysis is needed to confirm savings levels that can be expected locally.

Smart thermostats currently cost approximately \$250 each. Assuming an 11 per cent savings on natural gas heating, City staff estimate that investing in a smart thermostat entails a 4.6 year simple payback period for the average single detached home, without any subsidy. Likewise, this average home would save approximately 3.7 tonnes of carbon dioxide (a greenhouse gas) from entering the atmosphere, assuming a 10 year lifespan of the thermostat.

#### Pilot Program Design

The proposed pilot program promotes the smart thermostat, in order to advance the City's climate action goals. The goals of the program are to:

- test and demonstrate the energy and GHG savings of smart thermostats
- compare the performance of different smart thermostat technologies
- identify barriers to adoption of the thermostats
- evaluate opportunities for an expanded smart thermostats program
- determine if "carbon balancing" credits can be generated via the program, to count towards the City's carbon neutral commitments
- evaluate the performance of different smart thermostat products

Through the pilot program, the City will provide participants with an incentive of half the price of the thermostat. The pilot will serve a maximum of 150 Richmond participants, targeting existing ground-oriented housing (e.g. detached, attached, and/or townhousing). Participants will be recruited and pre-screened to ensure eligible housing, and then assigned households

# CNCL - 582

thermostats. Disbursement of incentives will occur when Richmond participants provide proof of payment and installation of eligible thermostats, along with energy data and survey responses necessary to evaluate the pilot program.

The City of Vancouver is intending to move forward with a similar program, and City staff will coordinate with Vancouver staff on an administrative level to maximize efficiencies.

Action	Timeline
Initiate participant recruitment	May/June 2015
Screen applicants	June – October 2015
Customer purchase and install complete	October 2015
Surveying and data collection	October 2015 – December 2016
Final reporting and analysis	April 2017

The following table outlines key milestones for the pilot program:

#### Financial Impact

This program is funded in the 2015 operating budget as part of the broader Neighbourhood Retrofit Programs initiative.

# Conclusion

Increasing uptake of sustainable energy improvements in existing buildings is critical to the City of Richmond meeting its climate and energy goals. This report proposes a pilot Smart Thermostat incentive program for ground-oriented homes.

Brendan McEwen Manager, Sustainability (604-247-4676)

BM:bm



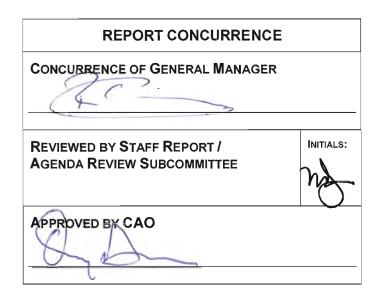
То:	Public Works and Transportation Committee	Date:	April 28, 2015
From:	Tom Stewart, AScT. Director, Public Works	File:	10-6375-01/2015-Vol 01
Re:	2014 Annual Water Quality Report		

#### **Staff Recommendation**

That the staff report titled "2014 Annual Water Quality Report", dated April 28, 2015, from the Director, Public Works be received for information.

Tom Stewart, AScT. Director, Public Works 604-233-3301

Att. 2



## Staff Report

# Origin

In 2001, the Province of British Columbia enacted the Drinking Water Protection Act, which provided the Minister of Health with the authority to implement and enforce standards for water supply systems in British Columbia. In May 2003, regulations to be implemented under the Drinking Water Protection Act were adopted by the legislature as the Drinking Water Protection Regulation. These acts were modernized on April 29, 2014 under Bill 18 – 2014: the Water Sustainability Act. This report enables the City to meet its obligations for public reporting.

# Analysis

The Drinking Water Protection Regulation requires water purveyors in BC to possess an operating permit, which in effect confirms that the Drinking Water Officer for the area has approved the water supply. The Drinking Water Officer is given the authority to monitor water purveyors to ensure they are providing safe drinking water through compliance with the British Columbia Drinking Water Protection Regulation (BCDWPR), and any other conditions of the operating permit.

Under the BCDWPR, the City of Richmond is required to:

- Develop and maintain a process to notify the Medical Health Officer and the Drinking Water Officer of situations or conditions that render or could render the water unfit to drink;
- Implement and maintain a plan for collecting, shipping and analyzing water samples in compliance with the direction set by the Drinking Water Officer; and
- Implement and maintain a plan for reporting monitoring results to the Drinking Water Officer and to water users.

Richmond thrives on its ability to provide water for not only Richmond Fire-Rescue in the event of a fire, but for residents and businesses seeking a glass of the world's finest tap water. To ensure a consistent supply, the capital watermain replacement program is a proactive approach to avoiding breaks and has proved to be a reliable and valuable tool in water distribution management. In 2014, Public Works staff attended to 20 watermain breaks. Repairs for a single watermain break can amount to \$100,000 plus damages to private properties and service disruptions to businesses and residents.

Highlights of the 2014 Annual Water Quality Report include:

- Richmond residents enjoyed high-quality, reliable drinking water.
- 1,993 water samples were collected to ensure water quality and passed with outstanding results.
- Test results confirm high quality water and demonstrate continuous improvement.
- 35.8 M cubic metres of water were purchased in 2014 compared to 36.9M cubic metres in 2013.
- Richmond's tap water stations are used in many community events providing potable water to the public and promoting tap water usage

• The educational programs Project WET and "H2Whoa!", where elementary students learn about the benefits of water conservation, represents the partnership between Richmond School Board and Public Works

These and many other initiatives are detailed in the attached "2014 Annual Water Quality Report".

#### **Financial Impact**

None.

### Conclusion

The 2014 Annual Water Quality Report has been reviewed and endorsed by the Medical Health Officer of Vancouver Coastal Health Authority for the City of Richmond and satisfies Provincial requirements under the Drinking Water Protection Act.

Bryan Shepherd Manager, Water Services 604-233-3334

BS:nk

Att. 1: 2014 Annual Water Quality Report Summary 2: 2014 Annual Water Quality Report

# city of Richmond 2014 Annual Water Quality Report Summary

In 2014, Richmond residents enjoyed high-quality and reliable drinking water. Water Services staff collected 1,993 water samples from 39 sampling sites to ensure water quality.

Richmond is dedicated to promoting the value of municipal tap water, maximizing opportunities for use of tap water in municipal facilities and developing strategies for making tap water the "water of choice" in our community.



Taking a water sample



Water quality sampling



Tap water station



Project WET

Leak detection



## How does Richmond provide high-quality tap water?

- By testing all 39 water quality sites on a regular basis.
- By continuous preventative maintenance and monitoring.
- By providing the water system with the highest degree of care to ensure that it's an inhospitable environment for any harmful bacteria or toxins.
- By proactive watermain replacement and maintenance projects.

# **Multi-Barrier Approach**

Richmond recognizes that in order to provide the highest quality water, several methods must be used to ensure its superiority – hence the "Multi-Barrier Approach".

The "Multi-Barrier Approach" includes:

- disinfection of the water at the source;
- water quality monitoring capabilities at six PRV sites;
- weekly microbiological testing;
- system operators that are certified by the Environmental Operators Certification Program of BC;
- employment of maintenance practices that are of the highest standard.

# Heterotrophic Plate Count (HPC)

- The HPC indicates the presence of nutrients that could facilitate the growth of harmful bacteria such as Ecoli.
- HPCs indicate the presence of nutrients in the water system.
- By reducing the HPC levels, the possibility of bacteriological re-growth is reduced.
- The minimal positive chlorine residual in our water also disinfects and eliminates harmful substances within our distribution system.

# 2014 Results

- Provided 35.8 million cubic metres of the highest quality drinking water to nearly 207,500 Richmond residents. Staff anticipate that this decrease from 2013 (36.9 million cubic metres) is because of the leak detection program, the water meter program, the water conservation programs and the water education offered to Richmond residents.
- Conducted 1,993 microbiological tests.
- Maintained 14 pressure reducing value (PRV) stations.
- Maintained 4,729 fire hydrants to ensure water is available during an emergency.
- Repaired 20 watermain breaks without compromising the integrity of the water distribution system.
- Discovered and repaired 44 non-visible underground leaks through Richmond's leak detection program.
- Hosted over 300 students from Richmond elementary schools as part of the annual educational program: Project WET.

#### Summary

Richmond residents will continue to enjoy drinking water that is fresh, reliable and of high-quality. It is without a doubt that the City of Richmond consistently excels at providing tap water of excellent quality, and Richmond does all this for a cost that is 1,000 times less than the price of one litre of bottled water.

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Richmond is dedicated to promoting the value of municipal tap water, maximizing opportunities for use of tap water in municipal facilities and developing strategies for making tap water the "water of choice" in our community.

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**CNCL - 591** 2014 City of Richmond Annual Water Quality Report

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# **Executive Summary**

The purpose of this report is to fulfill the requirements set out in the *British Columbia Drinking Water Protection Act (BCDWPA)* by giving an overview of the water distribution system, describing the maintenance conducted, detailing some of the unique features of the system and providing the results of Richmond's water quality testing program.

Test results confirm high-quality water and demonstrate continuous improvement. Richmond's water system is provided with the highest degree of care to ensure that it's an inhospitable environment for any harmful bacteria or toxins. Also, Water Utility funding contributes to proactive watermain replacement and maintenance projects that will ensure the overall health of the system well into the future.

# In 2014, the City of Richmond's Water Services staff undertook the following:

- provided 35.8 million cubic metres of the highest quality drinking water to nearly 207,500 Richmond residents. Staff anticipate that this decrease from 2013 (36.9 million cubic metres) is because of the leak detection program, the water meter program, the water conservation programs and the water education offered to Richmond residents;
- conducted 1,993 microbiological tests from 39 test locations;
- maintained 14 pressure reducing valve (PRV) stations;
- maintained 4,729 fire hydrants to ensure water is available during an emergency;
- repaired 20 watermain breaks without compromising the integrity of the water distribution system;
- discovered and repaired 44 non-visible underground leaks through Richmond's leak detection program using noise loggers measuring sound frequencies in the targeted pipe allowing any leaks to be heard and recorded;
- hosted over 300 students from Richmond elementary schools as part of the annual educational program: Project WET;
- organized the "H2Whoa!" theatrical presentations at 15 Richmond elementary schools, teaching students in grades K-7 all about water, the water cycle and water conservation;
- repaired 290 service connections;
- installed 5,400 metres of new watermain.

The City of Richmond's Water Services section takes its role as a water purveyor very seriously and is proud to be the guardian of such a precious resource.

**CNCL - 593** 2014 City of Richmond Annual Water Quality Report

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# Introduction

In 2002, the City of Richmond implemented a Drinking Water Quality Monitoring Program. This program was developed with input from the Vancouver Coastal Health Authority and is in accordance with the *British Columbia Drinking Water Protection Act (BCDWPA)*, the *Water Quality Monitoring and Reporting Plan* for Metro Vancouver and member municipalities and the *Guidelines for Canadian Drinking Water Quality (GCDWQ)*.

The Vancouver Coastal Health Authority requires the City of Richmond to provide the *Annual Drinking Water Quality Report* so that Richmond can maintain its operating permit. Richmond's Medical Health Officer reviews the report and upon request, the report is made public. It provides important information concerning Richmond's water distribution system and water quality.

The conditions set out in the *British Columbia Drinking Water Protection Act (BCDWPA)* require that all water systems in BC be classified as a Level I through IV facility. Richmond's system is classified as a Level III facility so all staff are responsible for possessing a valid Level I to Level III Equipment Operators Certification Program (EOCP) certificate. To obtain and maintain a level of certification, staff successfully complete the annual training. This is done to ensure that staff are able to respond appropriately and immediately to problems prior to becoming a risk to health or property.

As a water purveyor, Richmond complies with provincial legislation, including the *British Columbia Drinking Water Protection Act (BCDWPA)*, and the *British Columbia Drinking Water Protection Regulations (BCDWPR)*. Information is also compared to the federal *Guidelines for Canadian Drinking Water Quality (GCDWQ)*. Under these various pieces of legislation the City of Richmond is required to:

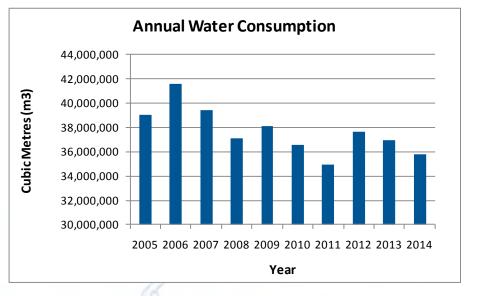
- develop a process to notify the Medical Health Officer of any condition that could render unsafe drinking water;
- implement a sampling program that adequately represents all areas within the City;
- meet the requirements of the British Columbia Drinking Water Protection Act (BCDWPA), and ensure test results are immediately available to the Medical Health Officer;
- receive an annual construction permit for the construction, installation and extension of the water distribution system;
- ensure that the City's water distribution system is classified under the criteria for the Environmental Operators Certification Program (EOCP) and that Water Services staff are certified to the same level as the distribution system;
- produce an annual public report detailing the results of the City's water quality monitoring program.

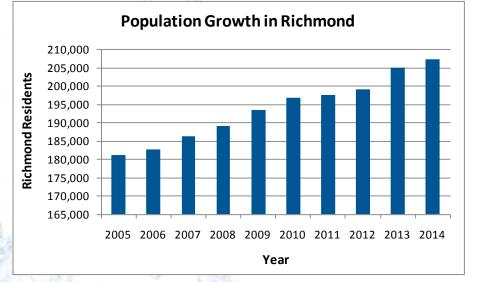
Water leads to overall greater health by flushing out wastes and bacteria that can cause health problems and is the primary mode of transportation for all nutrients in the body and is essential for proper circulation. ۲

Today, around 3,800 cubic kilometres of fresh water is withdrawn annually from the world's lakes, rivers and aquifers. This is twice the volume extracted 50 years ago.

# **Metro Vancouver Water District**

In 2014, the City of Richmond purchased 35.8 million cubic metres of drinking water from the Metro Vancouver Water District. Staff anticipate that this decrease from 2013 (36.9 million cubic metres) is because of the leak detection program, the water meter program, the water conservation programs and the water education offered to Richmond residents.





#### Three watersheds supply regional water: Capilano Reservoir, Seymour Reservoir, and Coquitlam Reservoir. The Capilano and Seymour reservoirs combined, supply approximately 70% of the water for the region. The Coquitlam Reservoir supplies the remaining approximate 30%. Richmond receives the majority of its water from the Capilano and Seymour reservoirs.

Water from these reservoirs can be directed through a series of valves and transmission watermains to any city or municipality within the Metro Vancouver region. Source water is provided directly from the watersheds by Metro Vancouver. Source water is tested for a number of microbiological, chemical, and physical parameters. During periods of turbidity (cloudy water), a reservoir may be taken out of service if turbidity levels become elevated. Water is then supplied by the remaining reservoirs. The plant has the capacity to filter up to 1.8 billion litres of water per day.



A leaking service line or pipe in your home can add up to serious water waste. A small hole in a pipe (1.5 mm) wastes 280,000 litres of water in a three-month period. That is enough water to do about 900 loads of laundry.

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Metro Vancouver Watersheds

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You should replace your old toilet with a high efficiency 4.8 lpf model (HET), or a dual 3/6 lpf model. Older models can use as much as 13 to 26 litres of water per flush. The City of Richmond's Toilet Rebate Program is a great incentive to promote water conservation.

# Water Distribution System Overview

The City of Richmond's water distribution system begins at 14 separate connection points along Metro Vancouver's transmission mains. At each connection point there is a City owned pressure reducing valve (PRV) chamber. The City's responsibility for water quality begins at this chamber and ends at the residential or commercial property line.

#### Table 1 – Overview of Richmond's Water Distribution Network

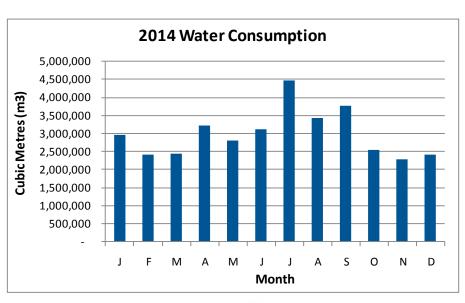
Water Assets	2014	
Hydrants	4,729	
Valves	10,739	
PRV chambers	14	
Pigging chambers	11	
End caps	504	
Watermains	629 km	
Service connections	30,397	



# **Pressure Reducing Valves (PRV)**

The Water Services section maintains 14 pressure reducing valve (PRV) stations throughout Richmond. PRV stations decrease the pressure of Metro Vancouver's water feed to one that is manageable for Richmond's water distribution system. The stations are connected to a supervisory control and data acquisition (SCADA) system that provides information to the Works Yard such as water pressure, quality and volume. This allows for certified Water Services staff to react to problems quickly and effectively 24 hours a day, seven days a week.

The addition of chlorine to our drinking water has greatly reduced the risk of waterborne diseases.





Maintaining the PRV station



Exterior of the Blundell PRV station

The graph above indicates the monthly water consumption in Richmond. It is estimated that most municipalities in North America lose anywhere from 12% to 15% of their potable water to undiscovered, underground leakage. The Water Loss Management Program allows City Engineering and Water Services staff to determine the total amount of water consumed through normal operational programs and practices such as single-family residential, multi-family residential and commercial metering programs. While combining these programs with watermain flushing, parks and median irrigation, and Richmond Fire Rescue water usage, it is reasonable to assume that the unidentified portion of the annual water consumption is attributed to water loss within the distribution system.



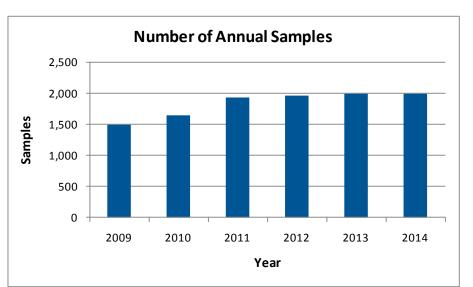
Documenting information from the chart recorder

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A single lawn sprinkler spraying 19 litres per minute uses more water in just one hour than a combination of 10 toilet flushes, two 5-minute showers, two dishwasher loads, and a full load of clothes.

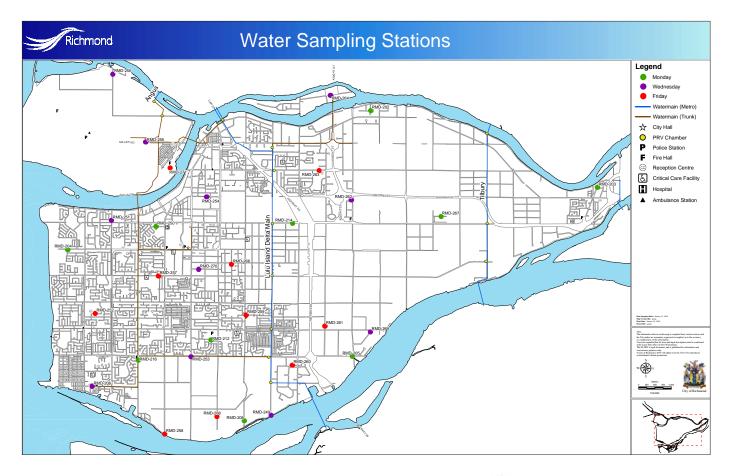
# **Water Quality Monitoring**

In 2014, the City of Richmond collected samples on a weekly basis at 39 dedicated sampling sites. These sites are strategically located throughout the City to give a good representation of the City's water quality across the distribution network. In 2014, 1,993 water samples were collected by Richmond Water Services staff and sent for analysis at Metro Vancouver laboratories. These sample results were reviewed by the Vancouver and Richmond Coastal Health Authority to ensure the drinking water met the standards outlined in the *British Columbia Drinking Water Protection Regulations (BCDWPR)*.





Testing water quality



#### **Bacteriological Tests**

The City of Richmond and Metro Vancouver conduct bacteriological tests for total coliform, fecal coliform and heterotrophic plate counts (HPC). The presence of these organisms in drinking water indicates that the water may be contaminated and may contain potentially harmful bacteria, viruses or parasites.

#### **Multi-Barrier Approach**

Richmond recognizes that in order to provide the highest quality water, several methods must be used to ensure its superiority.

The "Multi-Barrier Approach" includes:

- disinfection of the water at the source;
- water quality monitoring capabilities at six PRV sites;
- weekly microbiological testing;
- system operators that are certified by the Environmental Operators Certification Program (EOCP) of BC;
- employment of maintenance practices that are of the highest standard.

#### **Total Coliforms**

Total coliform bacteria reproduce in water, soil or digestive systems of animals. The presence of total coliforms indicates water may have been contaminated and that the disinfection process is inadequate. Tap water costs \$.0008 cents per litre or \$0.80 per 1,000 litres. Bottled water is \$2-4 per litre depending on the point of purchase. In fact, bottled water is more expensive per volume than gasoline.

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While 78% of British Columbians would fix an internet outage within a few hours or a day, only 50% would fix a leaky faucet within the same timeframe.



Testing setup



Samples from each testing site

In distribution systems where more than 10 samples are collected in a given sampling period, as is the case in Richmond, no consecutive samples from the same site or no more than 10% of samples should show the presence of total coliform bacteria.

Testing for total coliforms should be carried out in all drinking water systems. The number, frequency and location of samples for total coliform testing will vary according to the type and size of the system and jurisdictional requirements.

Provincial standards state that no sample can contain more than 10 total coliforms per 100 millilitres, and that 90 percent of samples in a 30-day period must have zero coliform organisms.

#### **Fecal Coliforms**

Fecal coliforms are present in large numbers in the feces and intestinal tracts of humans and other warm-blooded animals, and can enter water bodies from human and animal waste. They are key indicators of sewage contamination. Due to diseases and parasites, which are spread through sewage, provincial standards state there can be no detectable fecal coliforms per 100 ml sample.

#### 2014 Results

In 2014, 1,993 water samples were collected by City staff and analyzed by Metro Vancouver laboratory staff. All final results met drinking water requirements for fecal and total coliforms. The City of Richmond was in compliance with *British Columbia Drinking Water Protection Regulations* (*BCDWPR*) for bacteria in 2014.

#### **Heterotrophic Plate Count**

Heterotrophic Plate Counts (HPC) tests measure aerobic heterotrophic bacteria. This test indicates the presence of nutrients that could facilitate the growth of harmful bacteria such as Ecoli, and in determines changes in water quality during treatment and distribution. HPC tests indicate the onset of bacterial re-growth within the distribution system commonly due to stagnant water contained in dead end and low flow watermains. By reducing the HPC levels, the possibility of bacteriological re-growth is essentially reduced because the pipes are an inhospitable environment for bacteria to grow. The minimal amount of positive chlorine residual in our water also disinfects and eliminates harmful substances within our distribution system. In 2014, none of the 1,993 samples exceeded regulated levels for HPC's at >500 CFU/mls.

#### **Failed Samples**

The standard response to a failed water sample is:

- re-sample at the site;
- flush the watermain extensively;
- re-sample;
- the watermain is then isolated to one feed until test results confirm compliance with the *British Columbia Drinking Water Protection Regulations (BCDWPR)*.

# **Physical Parameters**

Water in Richmond's distribution system is tested for the physical parameters of turbidity and temperature at the same time as bacteriological testing. Information is also collected on the taste and odour of Richmond's water by actively tracking water quality complaints.

#### Turbidity

Metro Vancouver is responsible for the quality of Richmond's source water. Turbidity is a measure of water clarity and cloudiness. Turbidity is measured in Nephelometric Turbidity Units (NTU). The guideline allows for turbidity levels up to 5 NTUs providing that source water protection, monitoring, and water treatment requirements are met including increased levels of residual chlorine. Turbidity is a concern because increased turbidity compromises the drinking water disinfection process.

In general, sites with elevated turbidity are located in sections of the distribution network where there is low demand on the water system or where dead-end watermains exist. The increase may be attributed to sediment disturbance in the distribution system. During the year, when sampling indicates a turbidity level greater than >5 NTU's, affected watermains in the test area are flushed, and re-tested until a satisfactory result is obtained.

#### **Temperature**

High temperatures in the distribution system can affect the residual level of chlorine and can contribute to bacterial re-growth. Typically, the temperature of drinking water in the distribution system rises during summer months. Samples exceeded the aesthetic guideline of 15°C 85 times out of 1,993 some with temperatures as high as 20°C were recorded. The majority of these elevated temperatures were recorded during the summer months.

#### **Taste and Odour**

Taste and odour are only monitored in response to customer complaints. Records indicate that nine complaints were received regarding taste and two complaints were received regarding odour in 2014. These complaints generally relate to high levels of residual chlorine in that part of the system at that particular time. Residents who complained about taste or odour problems were advised to flush their internal system. If the problem was not resolved, Water Services staff were dispatched to the location until a satisfactory result was obtained and verified through laboratory analysis.

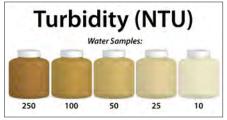
#### **Chemical Parameters**

The City of Richmond, in partnership with Metro Vancouver, tests for the following chemical parameters: chlorine residual, trihalomethanes (THM), haloacetic acids (HAA), and pH. Periodic testing is also performed to determine heavy metals levels in the water system.



Lawns need only

25 millimetres of water per week, including rain. Longer, infrequent watering will help to develop deeper, healthier roots. Keep your grass two to two and half inches high and you will help the soil retain moisture and reduce evaporation from sunlight and wind.



Turbidity chart

Worldwide, there are 1.1 billion people (18%) of the world's population who lack access to safe drinking water.



Testing the sample

#### Free Chlorine Residual

Chlorine residual is a measurement of the disinfecting agent remaining in the distribution system at the point of delivery to the customer. Ensuring proper levels of chlorine in the distribution system is essential in protecting Richmond's water supply from bacteriological contamination or re-growth. In recent years, the City has made great progress in improving chlorine residuals by implementing various flushing programs.

#### **Disinfection By-Products**

Disinfection by-products are potentially harmful compounds produced by the reaction of a water disinfectant (such as chlorine or ozone) with naturally occurring organic matter in water. Two common chlorination by-products are Trihalomethanes (THMs) and Haloacetic Acids (HAAs). In drinking water, THMs can enter the human body via multiple routes of exposure. These include ingestion by consuming water and inhalation and skin absorption from showering and bathing. Under the Guidelines for Canadian Drinking Water Quality (GCDWQ), the maximum acceptable concentration (MAC) for THMs is 100 parts per billion (ppb). The 100 ppb level for THMs is based on an annual average of samples. High levels on a particular day are not of concern unless they are consistently high over a period of time. Typically, THM levels will be highest in the summer and lowest in the winter months. Futhermore, under the GCDWD, the maximum acceptable concentration (MAC) for HAAs is 0.08 mg/L. In 2014, the City utilized the Metro Vancouver laboratory to perform quarterly tests for HAAs and THMs. These were carried out at representative sampling sites in accordance with a joint Metro Vancouver/Richmond monitoring plan. In 2014, all results were within acceptable levels as defined in the GCDWQ. (Appendix 5)

#### The pH Value

The measurement of acidity is known as pH. A pH below 7.0 is considered acidic, above 7.0 is considered basic, with 7.0 being neutral. It is recognized that acidic water will accelerate the corrosion of metal pipes, often causing blue-green staining in household fixtures.

The Seymour-Capilano filtration plant includes pH adjustment and corrosion control in its treatment processes.

#### **Metals**

The City's water quality program also includes testing for metals, such as copper, iron, lead, and zinc. All results were within GCDWQ limits for 2014. Complete test results are included in Appendix 6.

# **Mobile Emergency Response Unit**

Water Services staff are trained to operate the water treatment trailer for use during a major emergency where Richmond's water is contaminated. The treatment trailer is capable of producing 55,000 litres of potable water per day from non-potable sources. It is maintained and continuously tested by Water Services staff to ensure that the water is safe to serve Richmond residents in an emergency situation.



Mobile Emergency Response Unit

You should recycle unused water. While waiting for hot water to flow when preparing for a shower, catch the cool water in a bucket or water can. Later it could be used for your plants, pets or cleaning.

**CNCL - 604** 

2014 City of Richmond Annual Water Quality Report

# **Public Notification**

At the direction of the Medical Health Officer, water quality advisories will be issued to the general public if necessary. Similarly, the notification will be issued to the general public for any work being done that will affect the guality of their drinking water. An example is included in Appendix 7.

#### Table 2 – Agency Notification for Situations Drinking Water Safety

Situation	Notifying Agency	Agency Notified	Time Frame For Notification
Fecal positive sample	City of Richmond Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Chemical/biological contamination	City of Richmond Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Turbidity > 5 NTU	City of Richmond Metro Vancouver Control Centre Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate
Disinfection failure primary or secondary disinfection	City of Richmond Metro Vancouver Control Centre Metro Vancouver Lab	City of Richmond / Medical Health Officer	Immediate, where BC DWPR or GCDWQ guidelines may not be met
Loss of pressure due to high demand	City of Richmond Metro Vancouver Control Centre	Medical Health Officer City of Richmond Metro Vancouver Control Centre	Immediate
Watermain break where the pressure drops below 20 psi	City of Richmond Metro Vancouver Control Centre	Medical Health Officer City of Richmond	Immediate

Only three in 10 (27%) British Columbians say they don't use their toilet as a convenient garbage bin. Hair, food and dead pests are the most common items being flushed. Do not use the toilet as a garbage can. Tissues and other items are often flushed away instead of going into appropriate disposal containers. Unnecessary flushing of the toilet even once a day can waste up to 1,000 litres of water per year.

# **Water Conservation Programs**

The City of Richmond continues to succeed in reducing annual water consumption despite a growing population. Since 2010, population has grown by 5% and overall water consumption has decreased by 4%. This equates to a total annual savings of over \$900,000. This can be explained by corporate and community wide initiatives including water metering, pressure management, the toilet rebate program and the City's leak reduction program.

Reduction of water system pressure in lower demand periods such as the winter season extends water infrastructure service life and also reduces system water loss.

In 2014, a facility water audit was completed on 10 City owned buildings; this report identified potential water conservation initiatives such as replacement of constant flush urinals, high volume toilets and showerheads, reduction of toilet flush cycle times, and installation of faucet aerators. Staff have initiated installation of the recommended conservation measures in 2015. The leak reduction program also identifies multi-family properties with high water use and has a goal of significantly reducing the total amount of water lost at these properties.

#### **Universal Single-Family Water Meter Program**

The universal single-family water meter program is in progress and will be completed in four years. Advanced notification is provided to flat rate customers prior to meter installation. Water meters are a fair and equitable way of charging residents for water and will reduce the overall water consumption throughout the City.

#### **Multi-Family Water Meter Program**

The volunteer multi-family water meter program allows residents to pay for the actual amount of water they use, rather than being billed on the flat-rate system. To date, 130 multi-family complexes have been completed, comprising of 8,128 units.



**CNCL - 606** 

Leak detection



The City of Richmond rain barrel program continues to assist residents by reducing the amount of water used for irrigation during the summer months.



Measuring the psi



Single-family water meter

Freshwater lakes and rivers, ice and snow, and underground aquifers hold only 2.5% of the world's water. By comparison, saltwater oceans and seas contain 97.5% of the world's water supply.



Rain barrel



Rain barrel filter

#### **Toilet Rebate Program**

The City of Richmond's Toilet Rebate Program provides a utility account rebate of \$100 to homeowners who install a low-flush toilet. Single and multi-family homeowners are eligible to apply for a lifetime maximum of two rebates per household. Industrial, commercial and other non-residential properties are not eligible at this time.

The purpose of the toilet rebate program is to encourage homeowners to replace high volume toilets with low-flush toilets to conserve water and to reduce costs. Homeowners enjoy a reduction in their utility bill while contributing to a sustainable water conservation initiative. In 2014, there were 849 rebates submitted.

#### **Clothes Washer Rebate Program**

Through a partnership program with BC Hydro, residents could receive a rebate of up to \$200, equally cost shared between BC Hydro and the City of Richmond for the replacement of an inefficient clothes washer with a new high efficiency one. The clothes washer rebate program encourages homeowners to conserve water and energy.

#### **Rain Barrel**

Rain barrels are excellent outdoor water-saving devices that collect and store rainwater from rooftops for lawn and garden use. Rain water is an excellent water source for lawns, plants and gardens. For water metered households, using rainwater will reduce the amount of tap water used for your garden therefore decreasing the utility bill.

Rain barrels are available for purchase at the City's Recycling Depot by Richmond residents only. Installation instructions are included. In 2014, 89 rain barrels were sold.

SYSTERN rain barrel features:

- unique shape and neutral color suitable for any home and garden;
- 208 litre (55 gallon) capacity;
- mosquito mesh keeps out bugs and leaves;
- BPA free;
- made from recycled content;
- UV stabilizer is added to resist deterioration from sunlight;
- overflow hose can be linked to another SYSTERN or can be directed away from the house.

# Water Education Programs

#### **Project WET**

Project WET is an interactive elementary school water education program aimed at teaching students about the importance of water. Largely targeted for grades four through seven, this program is designed to educate students on the importance of water quality and supply.

Project WET is an exciting partnership program between the City of Richmond and the Richmond School District No. 38. The acronym "WET" stands for "Water Education Team". Touring from station to station, the objective is to promote higher-level thinking skills while learning about the fundamentals of water. In 2014, over 300 students participated in the program.

During the tour to the Works Yard, students can expect to learn many exciting areas of water and drainage systems such as:

- water sampling and quality testing;
- technological changes;
- the importance of fire hydrants and how they work;
- tap water stations and the value of Richmond's high-quality tap water;
- the uses of water mains, automatic flushing units, valves and meters;
- inspection camera technology;
- storm sewer pipes and systems;
- pump stations and how they work;
- how our dykes help to keep our island afloat;
- Richmond's emergency water treatment trailer.



Project WET



You can survive about a month without food, but only five to seven days without water.

#### **Project WET**







About 70% of the earth is covered in water.



Tap water station



Drinking high-quality tap water



Staff volunteering at the Public Works Open House



"H2Whoa!" performance by DreamRider Theatre

#### **Tap Water Initiative**

In 2010, Metro Vancouver initiated its tap water campaign. The intent of this initiative is to encourage tap water consumption by the public and highlight public drinking fountains so that the public can refill water bottles or simply get a drink of water. On April 14, 2009 Mayor Malcolm Brodie endorsed this campaign indicating that the City of Richmond is dedicated to promoting the value of municipal tap water, maximizing opportunities for use of tap water in municipal facilities and developing strategies for making tap water the "water of choice".

To support this initiative, Richmond's Water Services section is proud to maintain several tap water stations that are used at numerous community events to provide the public with potable tap water and to promote tap water usage as an alternative to bottled water consumption. Samples are tested upon installation ensuring good quality water for the public to enjoy.

#### **Public Works Open House**

The Water Services section plays a large role in the annual Public Works Open House that takes place in May. This is an opportunity for staff to show residents some of the critical services that are provided such as maintaining our infrastructure. Likewise, staff showcase the work that is done on a daily basis to ensure the safety and health of the community. This event draws attention to the importance of public works in community life.

#### "H2Whoa!" Theatrical Presentation by DreamRider Productions

The City of Richmond Water Services section organized "H2Whoa!" theatrical presentations at Richmond elementary schools. "H2Whoa!" teaches students in grades K-7 all about water, the water cycle and water conservation.

The focus of this presentation is on positive actions and educating family and friends on the use of water, the need to protect it and its importance to everyday living. In addition, at the request of the City of Richmond Water Services, information regarding Richmond's high quality and very drinkable tap water was included in the script. In 2014, 15 Richmond elementary schools viewed the educational production.



Booth preparation at the Public Works Open House

**CNCL - 609** 2014 City of Richmond Annual Water Quality Report

# Conclusion

In 2014, Richmond residents enjoyed high-quality drinking water. From the protected watersheds to the local taps, both Metro Vancouver and the City of Richmond focus immensely on safe and high-quality drinking water.

Test results confirm high-quality water and demonstrate continuous improvement. Richmond's water system is provided with the highest degree of care to ensure that it's an inhospitable environment for any harmful bacteria or toxins. The City of Richmond's Water Services section takes its role as a water purveyor very seriously and is proud to be the guardian of such a precious resource.

Water Services staff continue to employ best management practices in the operation and maintenance of the water system. Certified by the Equipment Operators Certification Program (EOCP), staff meet all requirements of the *British Columbia Drinking Water Protection Act* (*BCDWPA*) and are well equipped to operate and maintain all aspects of the water system from source to property line

The City appreciates the good working relationship with Vancouver Coastal Health Authority and acknowledges them as important partners in maintaining high quality drinking water throughout the City of Richmond.

Sincerely,

Bryan Shepherd Manager, Water Services City of Richmond 604-233-3334 bshepherd@richmond.ca

# **Appendices**

APPENDIX 1: REFERENCES APPENDIX 2: WATER SAMPLING SITES APPENDIX 3: 2014 WATER QUALITY RESULTS APPENDIX 4: SCADA AND PRESSURE TESTING SITES APPENDIX 5: 2014 THM AND HAA TEST RESULTS APPENDIX 6: 2014 HEAVY METAL TESTING RESULTS AND VINYL CHLORIDE RESULTS APPENDIX 7: SAMPLE DRINKING WATER QUALITY ADVISORY APPENDIX 8: SPECIFIC EMERGENCY RESPONSE PLANS

1.1

# **APPENDIX 1: REFERENCES**

- 1. Health Canada Drinking Water Guidelines www.hc-sc.gc.ca/ewh-semt/water-eau/drink-potab/index\_e.html
- Provincial Drinking Water Protection Act (2003) www.qp.gov.bc.ca/statreg/reg/D/200\_2003.htm#section8
- **3.** Greater Vancouver Regional District Source Water Quality and Supply www.gvrd.ca/water/index.htm
- 4. Richmond Health Services (Regional Health Authority) www.rhss.bc.ca/bins/index.asp
- 5. British Columbia Water Works Association www.bcwwa.org/
- 6. American Water Works Association www.awwa.org/
- 7. Metro Vancouver www.metrovancouver.org
- 8. City of Richmond www.richmond.ca/discover/about/demographics.htm

## **APPENDIX 2: WATER SAMPLING SITES**

	SAMPLING STATION NUMBER	WATER SAMPLING SITES
	RMD-202	1500 Valemont Way
	RMD-203	23260 Westminster Highway
	RMD-204	3180 Granville Avenue
	RMD-205	13851 Steveston Highway
	RMD-206	4251 Moncton Street
MONDAY	RMD-208	13200 No. 4 Road
NON	RMD-212	Opposite 8600 Ryan Road
2	RMD-214	11720 Westminster Highway
	RMD-216	11080 No. 2 Road
	RMD-267	17240 Fedoruk Road
	RMD-275	5180 Smith Crescent
	RMD-276	22271 Cochrane Drive
	RMD-257	6640 Blundell Road
	RMD-258	7000 Blk. Dyke Road
	RMD-259	10020 Amethyst Avenue
	RMD-260	11111 Horseshoe Way
	RMD-261	9911 Sidaway Road
AY	RMD-262	13799 Commerce Pkwy
TUESDAY	RMD-263	12560 Cambie Road
DT	RMD-264	13100 Mitchell Road
	RMD-266	9380 General Currie Road
	RMD-268	13800 No. 3 Road
	RMD-277	Opp. 11280 Twigg Place
	RMD-278	6651 Fraserwood Place
	RMD-279	Opp. 20371 Westminster Highway
	RMD-249	23000 Block Dyke Road
	RMD-250	6071 Azure Road
	RMD-251	5951McCallan Road
	RMD-252	9751 Pendleton Road
	RMD-253	11051 No 3 Road
AY	RMD-254	5300 No. 3 Road
ESD	RMD-255	6000 Blk. Miller Road
WEDNESDAY	RMD-256	1000 Blk. McDonald Road
3	RMD-269	14951 Triangle Road
	RMD-270	8200 Jones Road
	RMD-271	3800 Cessna Drive
	RMD-272	751 Catalina Crescent
	RMD-273	Opp. 8331 Fairfax Place
	RMD-274	10920 Springwood Court

## **APPENDIX 3: 2014 WATER QUALITY RESULTS**

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-266	GRAB	9380 General Currie Rd.	12-Feb-14	0.8	<1	<2	2	<1	0.18
RMD-205	GRAB	13851 Steveston Hwy.	21-Feb-14	0.77	<1	<2	2	<1	0.1
RMD-203	GRAB	23260 Westminster Hwy.	21-Feb-14	0.58	<1	<2	2	<1	0.18
RMD-272	GRAB	751 Catalina Cres.	24-Feb-14	0.71	<1	<2	2	<1	0.09
RMD-266	GRAB	9380 General Currie Rd.	26-Feb-14	0.77	<1	<2	2	<1	0.13
RMD-214	GRAB	11720 Westminster Hwy.	10-Jan-14	0.53	<1	<2	3	<1	0.17
RMD-203	GRAB	23260 Westminster Hwy.	10-Jan-14	0.54	<1	2	3	<1	0.39
RMD-277	GRAB	Opp. 11280 Twigg Place	15-Jan-14	0.71	<1	<2	3	<1	0.13
RMD-259	GRAB	10020 Amethyst Ave.	15-Jan-14	0.73	<1	<2	3	<1	0.13
RMD-214	GRAB	11720 Westminster Hwy.	17-Jan-14	0.67	<1	<2	3	<1	0.11
RMD-251	GRAB	5951McCallan Rd.	20-Jan-14	0.63	<1	<2	3	<1	0.18
RMD-255	GRAB	6000 Blk. Miller Rd.	20-Jan-14	0.6	<1	<2	3	<1	0.41
RMD-253	GRAB	11051 No 3 Rd.	20-Jan-14	0.61	<1	<2	3	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	22-Jan-14	0.68	<1	<2	3	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	24-Jan-14	0.73	<1	<2	3	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	24-Jan-14	0.73	<1	2	3	<1	0.11
RMD-203	GRAB	23260 Westminster Hwy.	24-Jan-14	0.64	<1	<2	3	<1	0.34
RMD-271	GRAB	3800 Cessna Drive	27-Jan-14	0.84	<1	<2	3	<1	0.12
RMD-253	GRAB	11051 No 3 Rd.	27-Jan-14	0.8	<1	<2	3	<1	0.13
RMD-253	GRAB	11051 No 3 Rd.	3-Feb-14	0.8	<1	<2	3	<1	0.19
RMD-264	GRAB	13100 Mitchell Rd.	5-Feb-14	0.82	<1	<2	3	<1	0.2
RMD-266	GRAB	9380 General Currie Rd.	5-Feb-14	0.87	<1	<2	3	<1	0.23
RMD-257	GRAB	6640 Blundell Rd.	5-Feb-14	0.79	<1	<2	3	<1	0.15
RMD-216	GRAB	11080 No. 2 Rd.	7-Feb-14	0.58	<1	<2	3	<1	0.2
RMD-208	GRAB	13200 No. 4 Rd.	7-Feb-14	0.47	<1	2	3	<1	0.19
RMD-203	GRAB	23260 Westminster Hwy.	7-Feb-14	0.72	<1	<2	3	<1	0.19
RMD-251	GRAB	5951McCallan Rd.	11-Feb-14	0.71	<1	<2	3	<1	0.21
RMD-271	GRAB	3800 Cessna Drive	11-Feb-14	0.77	<1	<2	3	<1	0.21
RMD-255	GRAB	6000 Blk. Miller Rd.	11-Feb-14	0.74	<1	<2	3	<1	0.27
RMD-253	GRAB	11051 No 3 Rd.	11-Feb-14	0.83	<1	<2	3	<1	0.18
RMD-263	GRAB	12560 Cambie Rd.	12-Feb-14	0.75	<1	<2	3	<1	0.18
RMD-264	GRAB	13100 Mitchell Rd.	12-Feb-14	0.76	<1	<2	3	<1	0.25
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	12-Feb-14	0.64	<1	<2	3	<1	0.41
RMD-259	GRAB	10020 Amethyst Ave.	12-Feb-14	0.79	<1	<2	3	<1	0.19
RMD-251	GRAB	5951McCallan Rd.	17-Feb-14	0.95	<1	<2	3	<1	0.13
RMD-254		5200 No. 2 Dd	17-Feb-14	1.2	<1	<2	3	<1	0.13
	GRAB	5300 No. 3 Rd.	17-160-14	1.2			5		0.10
RMD-269	GRAB	14951 Triangle Rd.	17-Feb-14	0.68	<1	<2	3	<1	0.16

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	19-Feb-14	0.67	<1	<2	3	<1	0.12
RMD-260	GRAB	11111 Horseshoe Way	19-Feb-14	1.1	<1	<2	3	<1	0.16
RMD-257	GRAB	6640 Blundell Rd.	19-Feb-14	0.8	<1	<2	3	<1	0.17
RMD-206	GRAB	4251 Moncton St.	21-Feb-14	0.88	<1	<2	3	<1	0.1
RMD-216	GRAB	11080 No. 2 Rd.	21-Feb-14	0.91	<1	<2	3	<1	0.1
RMD-208	GRAB	13200 No. 4 Rd.	21-Feb-14	0.85	<1	<2	3	<1	0.1
RMD-202	GRAB	1500 Valemont Way	21-Feb-14	0.45	<1	<2	3	<1	0.27
RMD-276	GRAB	22271 Cochrane Drive	21-Feb-14	0.62	<1	<2	3	<1	0.1
RMD-275	GRAB	5180 Smith Cres.	21-Feb-14	0.71	<1	<2	3	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	24-Feb-14	0.78	<1	<2	3	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	24-Feb-14	0.79	<1	<2	3	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	24-Feb-14	0.78	<1	<2	3	<1	0.19
RMD-256	GRAB	1000 Blk. McDonald Rd.	24-Feb-14	0.72	<1	<2	3	<1	0.1
RMD-253	GRAB	11051 No 3 Rd.	24-Feb-14	0.64	<1	<2	3	<1	0.11
RMD-257	GRAB	6640 Blundell Rd.	26-Feb-14	0.74	<1	<2	3	<1	0.11
RMD-259	GRAB	10020 Amethyst Ave.	26-Feb-14	0.71	<1	<2	3	<1	0.14
RMD-263	GRAB	12560 Cambie Rd.	26-Feb-14	0.77	<1	<2	3	<1	0.13
RMD-277	GRAB	Opp. 11280 Twigg Place	26-Feb-14	0.77	<1	<2	3	<1	0.12
RMD-212	GRAB	Opp. 8600 Ryan Rd.	28-Feb-14	0.75	<1	<2	3	<1	0.1
RMD-208	GRAB	13200 No. 4 Rd.	28-Feb-14	0.78	<1	<2	3	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	28-Feb-14	0.66	<1	<2	3	<1	0.1
RMD-202	GRAB	1500 Valemont Way	28-Feb-14	0.71	<1	<2	3	<1	0.09
RMD-214	GRAB	11720 Westminster Hwy.	28-Feb-14	0.74	<1	<2	3	<1	0.1
RMD-271	GRAB	3800 Cessna Drive	3-Mar-14	0.75	<1	<2	3	<1	0.13
RMD-272	GRAB	751 Catalina Cres.	3-Mar-14	0.77	<1	<2	3	<1	0.12
RMD-256	GRAB	1000 Blk. McDonald Rd.	3-Mar-14	0.76	<1	<2	3	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	3-Mar-14	0.7	<1	<2	3	<1	0.15
RMD-278	GRAB	6651 Fraserwood Place	5-Mar-14	0.56	<1	<2	3	<1	0.15
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	5-Mar-14	0.74	<1	<2	3	<1	0.1
RMD-266	GRAB	9380 General Currie Rd.	5-Mar-14	0.73	<1	<2	3	<1	0.1
RMD-257	GRAB	6640 Blundell Rd.	5-Mar-14	0.76	<1	<2	3	<1	0.13
RMD-216	GRAB	11080 No. 2 Rd.	7-Mar-14	0.68	<1	<2	3	<1	0.08
RMD-208	GRAB	13200 No. 4 Rd.	7-Mar-14	0.8	<1	<2	3	<1	0.1
RMD-205	GRAB	13851 Steveston Hwy.	7-Mar-14	0.58	<1	<2	3	<1	0.1
RMD-255	GRAB	6000 Blk. Miller Rd.	10-Mar-14	0.7	<1	<2	3	<1	0.2
RMD-212	GRAB	Opp. 8600 Ryan Rd.	3-Jan-14	0.64	<1	<2	4	<1	0.15
RMD-208	GRAB	13200 No. 4 Rd.	3-Jan-14	0.7	<1	<2	4	<1	0.24
RMD-214	GRAB	11720 Westminster Hwy.	3-Jan-14	0.61	<1	2	4	<1	0.35
RMD-272	GRAB	751 Catalina Cres. CNCL -	615 <sup>6-Jan-14</sup>	0.75	<1	<2	4	<1	0.24

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-270	GRAB	8200 Jones Rd.	6-Jan-14	0.53	<1	<2	4	<1	0.21
RMD-206	GRAB	4251 Moncton St.	10-Jan-14	0.58	<1	<2	4	<1	0.18
RMD-208	GRAB	13200 No. 4 Rd.	10-Jan-14	0.43	<1	<2	4	<1	0.17
RMD-249	GRAB	23000 Blk. Dyke Rd.	10-Jan-14	0.41	<1	6	4	<1	0.39
RMD-254	GRAB	5300 No. 3 Rd.	13-Jan-14	0.85	<1	<2	4	<1	0.16
RMD-269	GRAB	14951 Triangle Rd.	13-Jan-14	0.45	<1	<2	4	<1	0.22
RMD-263	GRAB	12560 Cambie Rd.	15-Jan-14	0.68	<1	<2	4	<1	0.13
RMD-278	GRAB	6651 Fraserwood Place	15-Jan-14	0.59	<1	<2	4	<1	0.71
RMD-266	GRAB	9380 General Currie Rd.	15-Jan-14	0.78	<1	<2	4	<1	0.11
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	15-Jan-14	0.61	<1	<2	4	<1	0.1
RMD-206	GRAB	4251 Moncton St.	17-Jan-14	0.69	<1	<2	4	<1	0.4
RMD-216	GRAB	11080 No. 2 Rd.	17-Jan-14	0.69	<1	<2	4	<1	0.12
RMD-208	GRAB	13200 No. 4 Rd.	17-Jan-14	0.72	<1	<2	4	<1	0.12
RMD-271	GRAB	3800 Cessna Drive	20-Jan-14	0.67	<1	<2	4	<1	0.13
RMD-272	GRAB	751 Catalina Cres.	20-Jan-14	0.88	<1	<2	4	<1	0.14
RMD-256	GRAB	1000 Blk. McDonald Rd.	20-Jan-14	0.54	<1	<2	4	<1	0.15
RMD-254	GRAB	5300 No. 3 Rd.	20-Jan-14	0.76	<1	<2	4	<1	0.21
RMD-277	GRAB	Opp. 11280 Twigg Place	22-Jan-14	0.7	<1	<2	4	<1	0.12
RMD-259	GRAB	10020 Amethyst Ave.	22-Jan-14	0.73	<1	<2	4	<1	0.12
RMD-266	GRAB	9380 General Currie Rd.	22-Jan-14	0.8	<1	<2	4	<1	0.11
RMD-257	GRAB	6640 Blundell Rd.	22-Jan-14	0.73	<1	<2	4	<1	0.16
RMD-204	GRAB	3180 Granville Ave.	24-Jan-14	0.9	<1	<2	4	<1	2.1
RMD-206	GRAB	4251 Moncton St.	24-Jan-14	0.6	<1	<2	4	<1	0.12
RMD-208	GRAB	13200 No. 4 Rd.	24-Jan-14	0.71	<1	<2	4	<1	0.16
RMD-249	GRAB	23000 Blk. Dyke Rd.	24-Jan-14	0.55	<1	<2	4	<1	0.3
RMD-275	GRAB	5180 Smith Cres.	24-Jan-14	0.59	<1	<2	4	<1	0.27
RMD-251	GRAB	5951McCallan Rd.	27-Jan-14	0.81	<1	<2	4	<1	0.13
RMD-272	GRAB	751 Catalina Cres.	27-Jan-14	0.84	<1	<2	4	<1	0.13
RMD-256	GRAB	1000 Blk. McDonald Rd.	27-Jan-14	0.72	<1	<2	4	<1	0.13
RMD-254	GRAB	5300 No. 3 Rd.	27-Jan-14	0.85	<1	<2	4	<1	0.16
RMD-206	GRAB	4251 Moncton St.	31-Jan-14	0.73	<1	<2	4	<1	0.17
RMD-216	GRAB	11080 No. 2 Rd.	31-Jan-14	0.76	<1	<2	4	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd.	31-Jan-14	0.78	<1	<2	4	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	31-Jan-14	0.83	<1	<2	4	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	31-Jan-14	0.54	<1	<2	4	<1	0.15
RMD-271	GRAB	3800 Cessna Drive	3-Feb-14	0.7	<1	<2	4	<1	0.15
RMD-272	GRAB	751 Catalina Cres.	3-Feb-14	0.83	<1	2	4	<1	0.17
RMD-255	GRAB	6000 Blk. Miller Rd.	3-Feb-14	0.83	<1	6	4	<1	0.3
RMD-256	GRAB	1000 Blk. McDonald RdCNCL -	616 <sup>3-Feb-14</sup>	0.78	<1	<2	4	<1	0.16

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-263	GRAB	12560 Cambie Rd.	5-Feb-14	0.78	<1	2	4	<1	0.2
RMD-277	GRAB	Opp. 11280 Twigg Place	5-Feb-14	0.86	<1	<2	4	<1	0.23
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	5-Feb-14	0.75	<1	<2	4	<1	0.39
RMD-261	GRAB	9911 Sidaway Rd.	5-Feb-14	0.57	<1	<2	4	<1	0.4
RMD-259	GRAB	10020 Amethyst Ave.	5-Feb-14	0.78	<1	44	4	<1	0.24
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	5-Feb-14	0.73	<1	<2	4	<1	0.18
RMD-258	GRAB	7000 Blk. Dyke Rd.	5-Feb-14	0.76	<1	2	4	<1	0.19
RMD-204	GRAB	3180 Granville Ave.	7-Feb-14	0.68	<1	<2	4	<1	0.19
RMD-206	GRAB	4251 Moncton St.	7-Feb-14	0.83	<1	<2	4	<1	0.2
RMD-205	GRAB	13851 Steveston Hwy.	7-Feb-14	0.52	<1	<2	4	<1	0.2
RMD-214	GRAB	11720 Westminster Hwy.	7-Feb-14	0.75	<1	<2	4	<1	0.22
RMD-276	GRAB	22271 Cochrane Drive	7-Feb-14	0.66	<1	2	4	<1	0.27
RMD-275	GRAB	5180 Smith Cres.	7-Feb-14	0.74	<1	<2	4	<1	0.17
RMD-273	GRAB	Opp. 8331 Fairfax Place	11-Feb-14	0.61	<1	<2	4	<1	0.2
RMD-252	GRAB	9751 Pendleton Rd.	11-Feb-14	0.59	<1	<2	4	<1	0.17
RMD-274	GRAB	10920 Springwood Court	11-Feb-14	0.67	<1	<2	4	<1	0.17
RMD-272	GRAB	751 Catalina Cres.	11-Feb-14	0.86	<1	2	4	<1	0.21
RMD-256	GRAB	1000 Blk. McDonald Rd.	11-Feb-14	0.76	<1	<2	4	<1	0.21
RMD-254	GRAB	5300 No. 3 Rd.	11-Feb-14	0.83	<1	<2	4	<1	0.18
RMD-270	GRAB	8200 Jones Rd.	11-Feb-14	0.72	<1	<2	4	<1	0.17
RMD-269	GRAB	14951 Triangle Rd.	11-Feb-14	0.62	<1	<2	4	<1	0.21
RMD-277	GRAB	Opp. 11280 Twigg Place	12-Feb-14	0.73	<1	<2	4	<1	0.26
RMD-278	GRAB	6651 Fraserwood Place	12-Feb-14	0.62	<1	<2	4	<1	0.4
RMD-261	GRAB	9911 Sidaway Rd.	12-Feb-14	0.53	<1	<2	4	<1	0.24
RMD-260	GRAB	11111 Horseshoe Way	12-Feb-14	0.67	<1	<2	4	<1	0.18
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	12-Feb-14	0.61	<1	<2	4	<1	0.17
RMD-258	GRAB	7000 Blk. Dyke Rd.	12-Feb-14	0.72	<1	<2	4	<1	0.16
RMD-257	GRAB	6640 Blundell Rd.	12-Feb-14	0.69	<1	<2	4	<1	0.15
RMD-204	GRAB	3180 Granville Ave.	14-Feb-14	0.95	<1	<2	4	<1	0.17
RMD-206	GRAB	4251 Moncton St.	14-Feb-14	0.72	<1	<2	4	<1	0.19
RMD-216	GRAB	11080 No. 2 Rd.	14-Feb-14	0.84	<1	<2	4	<1	0.2
RMD-212	GRAB	Opp. 8600 Ryan Rd.	14-Feb-14	1	<1	<2	4	<1	0.21
RMD-208	GRAB	13200 No. 4 Rd.	14-Feb-14	1	<1	<2	4	<1	0.18
RMD-205	GRAB	13851 Steveston Hwy.	14-Feb-14	0.55	<1	<2	4	<1	0.19
RMD-202	GRAB	1500 Valemont Way	14-Feb-14	0.6	<1	<2	4	<1	0.4
RMD-214	GRAB	11720 Westminster Hwy.	14-Feb-14	1	<1	<2	4	<1	0.18
RMD-249	GRAB	23000 Blk. Dyke Rd.	14-Feb-14	0.48	<1	<2	4	<1	0.36
RMD-276	GRAB	22271 Cochrane Drive	14-Feb-14	0.69	<1	<2	4	<1	0.56
RMD-272	GRAB	751 Catalina Cres. CNCL -	617 <sup>17-Feb-14</sup>	1	<1	<2	4	<1	0.11

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-256	GRAB	1000 Blk. McDonald Rd.	17-Feb-14	0.91	<1	<2	4	<1	0.16
RMD-270	GRAB	8200 Jones Rd.	17-Feb-14	0.95	<1	<2	4	<1	0.19
RMD-253	GRAB	11051 No 3 Rd.	17-Feb-14	1.1	<1	2	4	<1	0.17
RMD-263	GRAB	12560 Cambie Rd.	19-Feb-14	1.1	<1	<2	4	<1	0.18
RMD-264	GRAB	13100 Mitchell Rd.	19-Feb-14	1	<1	<2	4	<1	0.23
RMD-262	GRAB	13799 Commerce Pkwy.	19-Feb-14	0.74	<1	<2	4	<1	0.17
RMD-261	GRAB	9911 Sidaway Rd.	19-Feb-14	0.69	<1	<2	4	<1	0.13
RMD-259	GRAB	10020 Amethyst Ave.	19-Feb-14	0.91	<1	<2	4	<1	0.18
RMD-266	GRAB	9380 General Currie Rd.	19-Feb-14	0.91	<1	<2	4	<1	0.14
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	19-Feb-14	0.96	<1	<2	4	<1	0.16
RMD-258	GRAB	7000 Blk. Dyke Rd.	19-Feb-14	0.93	<1	<2	4	<1	0.17
RMD-204	GRAB	3180 Granville Ave.	21-Feb-14	1	<1	<2	4	<1	0.89
RMD-212	GRAB	Opp. 8600 Ryan Rd.	21-Feb-14	1	<1	<2	4	<1	0.11
RMD-214	GRAB	11720 Westminster Hwy.	21-Feb-14	0.97	<1	<2	4	<1	0.11
RMD-267	GRAB	17240 Fedoruk	21-Feb-14	0.76	<1	<2	4	<1	0.19
RMD-249	GRAB	23000 Blk. Dyke Rd.	21-Feb-14	0.62	<1	<2	4	<1	0.16
RMD-252	GRAB	9751 Pendleton Rd.	24-Feb-14	0.69	<1	<2	4	<1	0.13
RMD-250	GRAB	6071 Azure Rd.	24-Feb-14	0.23	<1	<2	4	<1	0.1
RMD-270	GRAB	8200 Jones Rd.	24-Feb-14	0.68	<1	<2	4	<1	0.15
RMD-269	GRAB	14951 Triangle Rd.	24-Feb-14	0.61	<1	2	4	<1	0.1
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	26-Feb-14	0.74	<1	<2	4	<1	0.14
RMD-260	GRAB	11111 Horseshoe Way	26-Feb-14	0.73	<1	<2	4	<1	0.11
RMD-261	GRAB	9911 Sidaway Rd.	26-Feb-14	0.63	<1	2	4	<1	0.12
RMD-262	GRAB	13799 Commerce Pkwy.	26-Feb-14	0.59	<1	<2	4	<1	0.14
RMD-264	GRAB	13100 Mitchell Rd.	26-Feb-14	0.78	<1	<2	4	<1	0.13
RMD-278	GRAB	6651 Fraserwood Place	26-Feb-14	0.67	<1	2	4	<1	0.21
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	26-Feb-14	0.7	<1	<2	4	<1	0.2
RMD-204	GRAB	3180 Granville Ave.	28-Feb-14	0.77	<1	<2	4	<1	1.2
RMD-206	GRAB	4251 Moncton St.	28-Feb-14	0.74	<1	<2	4	<1	0.11
RMD-216	GRAB	11080 No. 2 Rd.	28-Feb-14	0.53	<1	<2	4	<1	0.1
RMD-267	GRAB	17240 Fedoruk	28-Feb-14	0.66	<1	<2	4	<1	0.12
RMD-249	GRAB	23000 Blk. Dyke Rd.	28-Feb-14	0.6	<1	<2	4	<1	0.21
RMD-276	GRAB	22271 Cochrane Drive	28-Feb-14	0.62	<1	<2	4	<1	0.09
RMD-275	GRAB	5180 Smith Cres.	28-Feb-14	0.69	<1	<2	4	<1	0.38
RMD-203	GRAB	23260 Westminster Hwy.	28-Feb-14	0.76	<1	<2	4	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	3-Mar-14	0.78	<1	<2	4	<1	0.11
RMD-252	GRAB	9751 Pendleton Rd.	3-Mar-14	0.68	<1	<2	4	<1	0.11
RMD-274	GRAB	10920 Springwood Court	3-Mar-14	0.63	<1	<2	4	<1	0.1
RMD-255	GRAB	6000 Blk. Miller Rd. CNCL - 6	<b>518</b> <sup>3-Mar-14</sup>	0.86	<1	<2	4	<1	0.18

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-254	GRAB	5300 No. 3 Rd.	3-Mar-14	0.81	<1	<2	4	<1	0.11
RMD-270	GRAB	8200 Jones Rd.	3-Mar-14	0.75	<1	<2	4	<1	0.13
RMD-253	GRAB	11051 No 3 Rd.	3-Mar-14	0.74	<1	<2	4	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	5-Mar-14	0.74	<1	<2	4	<1	0.12
RMD-264	GRAB	13100 Mitchell Rd.	5-Mar-14	0.74	<1	2	4	<1	0.14
RMD-277	GRAB	Opp. 11280 Twigg Place	5-Mar-14	0.61	<1	<2	4	<1	0.14
RMD-262	GRAB	13799 Commerce Pkwy.	5-Mar-14	0.69	<1	<2	4	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	5-Mar-14	0.63	<1	<2	4	<1	0.12
RMD-260	GRAB	11111 Horseshoe Way	5-Mar-14	0.78	<1	<2	4	<1	0.16
RMD-259	GRAB	10020 Amethyst Ave.	5-Mar-14	0.71	<1	<2	4	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	5-Mar-14	0.72	<1	<2	4	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	5-Mar-14	0.67	<1	<2	4	<1	0.14
RMD-204	GRAB	3180 Granville Ave.	7-Mar-14	0.65	<1	<2	4	<1	1.4
RMD-206	GRAB	4251 Moncton St.	7-Mar-14	0.71	<1	<2	4	<1	0.1
RMD-212	GRAB	Opp. 8600 Ryan Rd.	7-Mar-14	0.69	<1	<2	4	<1	0.11
RMD-214	GRAB	11720 Westminster Hwy.	7-Mar-14	0.65	<1	<2	4	<1	0.16
RMD-267	GRAB	17240 Fedoruk	7-Mar-14	0.67	<1	<2	4	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	7-Mar-14	0.6	<1	4	4	<1	0.15
RMD-203	GRAB	23260 Westminster Hwy.	7-Mar-14	0.77	<1	<2	4	<1	0.11
RMD-251	GRAB	5951McCallan Rd.	10-Mar-14	0.72	<1	<2	4	<1	0.12
RMD-271	GRAB	3800 Cessna Drive	10-Mar-14	0.78	<1	<2	4	<1	0.11
RMD-272	GRAB	751 Catalina Cres.	10-Mar-14	0.71	<1	<2	4	<1	0.13
RMD-269	GRAB	14951 Triangle Rd.	10-Mar-14	0.64	<1	<2	4	<1	0.13
RMD-253	GRAB	11051 No 3 Rd.	10-Mar-14	0.64	<1	2	4	<1	0.16
RMD-263	GRAB	12560 Cambie Rd.	12-Mar-14	0.65	<1	<2	4	<1	0.16
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	12-Mar-14	0.72	<1	<2	4	<1	0.14
RMD-261	GRAB	9911 Sidaway Rd.	12-Mar-14	0.73	<1	<2	4	<1	0.1
RMD-260	GRAB	11111 Horseshoe Way	12-Mar-14	0.77	<1	4	4	<1	0.13
RMD-259	GRAB	10020 Amethyst Ave.	12-Mar-14	0.81	<1	<2	4	<1	0.15
RMD-266	GRAB	9380 General Currie Rd.	12-Mar-14	0.61	<1	<2	4	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	12-Mar-14	0.79	<1	<2	4	<1	0.13
RMD-258	GRAB	7000 Blk. Dyke Rd.	12-Mar-14	0.76	<1	<2	4	<1	0.09
RMD-257	GRAB	6640 Blundell Rd.	12-Mar-14	0.7	<1	<2	4	<1	0.14
RMD-202	GRAB	1500 Valemont Way	13-Mar-14	0.65	<1	<2	4	<1	0.18
RMD-203	GRAB	23260 Westminster Hwy.	13-Mar-14	0.66	<1	<2	4	<1	0.09
RMD-251	GRAB	5951McCallan Rd.	17-Mar-14	0.77	<1	<2	4	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	17-Mar-14	0.67	<1	<2	4	<1	0.14
RMD-272	GRAB	751 Catalina Cres.	17-Mar-14	0.71	<1	<2	4	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd. CNCI - 6	<b>519</b> 17-Mar-14	0.73	<1	4	4	<1	0.32

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-254	GRAB	5300 No. 3 Rd.	17-Mar-14	0.67	<1	<2	4	<1	0.12
RMD-269	GRAB	14951 Triangle Rd.	17-Mar-14	0.64	<1	2	4	<1	0.13
RMD-253	GRAB	11051 No 3 Rd.	17-Mar-14	0.71	<1	<2	4	<1	0.15
RMD-260	GRAB	11111 Horseshoe Way	19-Mar-14	0.72	<1	<2	4	<1	0.15
RMD-259	GRAB	10020 Amethyst Ave.	19-Mar-14	0.74	<1	<2	4	<1	0.15
RMD-216	GRAB	11080 No. 2 Rd.	21-Mar-14	0.68	<1	<2	4	<1	0.11
RMD-212	GRAB	Opp. 8600 Ryan Rd.	21-Mar-14	0.73	<1	<2	4	<1	0.09
RMD-205	GRAB	13851 Steveston Hwy.	21-Mar-14	0.63	<1	<2	4	<1	0.12
RMD-202	GRAB	1500 Valemont Way	21-Mar-14	0.72	<1	<2	4	<1	0.1
RMD-203	GRAB	23260 Westminster Hwy.	21-Mar-14	0.8	<1	<2	4	<1	0.1
RMD-266	GRAB	9380 General Currie Rd.	9-Apr-14	0.74	<1	<2	4	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	9-Apr-14	0.75	<1	<2	4	<1	0.1
RMD-205	GRAB	13851 Steveston Hwy.	10-Apr-14	0.72	<1	<2	4	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd.	10-Apr-14	0.67	<1	<2	4	<1	0.11
RMD-216	GRAB	11080 No. 2 Rd.	10-Apr-14	0.71	<1	<2	4	<1	0.11
RMD-255	GRAB	6000 Blk. Miller Rd.	14-Apr-14	0.71	<1	<2	4	<1	0.15
RMD-204	GRAB	3180 Granville Ave.	3-Jan-14	0.64	<1	2	5	<1	0.26
RMD-206	GRAB	4251 Moncton St.	3-Jan-14	0.46	<1	<2	5	<1	0.35
RMD-216	GRAB	11080 No. 2 Rd.	3-Jan-14	0.59	<1	<2	5	<1	0.15
RMD-205	GRAB	13851 Steveston Hwy.	3-Jan-14	0.41	<1	<2	5	<1	0.2
RMD-202	GRAB	1500 Valemont Way	3-Jan-14	0.48	<1	<2	5	<1	0.3
RMD-249	GRAB	23000 Blk. Dyke Rd.	3-Jan-14	0.49	<1	<2	5	<1	0.18
RMD-276	GRAB	22271 Cochrane Drive	3-Jan-14	0.4	<1	<2	5	<1	0.21
RMD-275	GRAB	5180 Smith Cres.	3-Jan-14	0.6	<1	<2	5	<1	0.21
RMD-203	GRAB	23260 Westminster Hwy.	3-Jan-14	0.7	<1	<2	5	<1	0.22
RMD-251	GRAB	5951McCallan Rd.	6-Jan-14	0.59	<1	<2	5	<1	0.22
RMD-274	GRAB	10920 Springwood Court	6-Jan-14	0.57	<1	<2	5	<1	0.18
RMD-250	GRAB	6071 Azure Rd.	6-Jan-14	0.53	<1	2	5	<1	0.22
RMD-271	GRAB	3800 Cessna Drive	6-Jan-14	0.76	<1	<2	5	<1	0.22
RMD-255	GRAB	6000 Blk. Miller Rd.	6-Jan-14	0.6	<1	2	5	<1	0.37
RMD-256	GRAB	1000 Blk. McDonald Rd.	6-Jan-14	0.44	<1	<2	5	<1	0.24
RMD-254	GRAB	5300 No. 3 Rd.	6-Jan-14	0.69	<1	2	5	<1	0.22
RMD-253	GRAB	11051 No 3 Rd.	6-Jan-14	0.63	<1	<2	5	<1	0.24
RMD-263	GRAB	12560 Cambie Rd.	8-Jan-14	0.63	<1	30	5	<1	0.22
RMD-264	GRAB	13100 Mitchell Rd.	8-Jan-14	0.67	<1	<2	5	<1	0.22
RMD-277	GRAB	Opp. 11280 Twigg Place	8-Jan-14	0.6	<1	2	5	<1	0.22
RMD-262	GRAB	13799 Commerce Pkwy.	8-Jan-14	0.17	<1	<2	5	<1	0.21
RMD-278	GRAB	6651 Fraserwood Place	8-Jan-14	0.41	<1	4	5	<1	0.48
RMD-261	GRAB	9911 Sidaway Rd. CNCL -	620 8-Jan-14	0.32	<1	<2	5	<1	0.22

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-260	GRAB	11111 Horseshoe Way	8-Jan-14	0.65	<1	6	5	<1	0.22
RMD-259	GRAB	10020 Amethyst Ave.	8-Jan-14	0.64	<1	12	5	<1	0.21
RMD-266	GRAB	9380 General Currie Rd.	8-Jan-14	0.69	<1	<2	5	<1	0.17
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	8-Jan-14	0.56	<1	<2	5	<1	0.2
RMD-258	GRAB	7000 Blk. Dyke Rd.	8-Jan-14	0.43	<1	<2	5	<1	0.17
RMD-257	GRAB	6640 Blundell Rd.	8-Jan-14	0.61	<1	<2	5	<1	0.19
RMD-216	GRAB	11080 No. 2 Rd.	10-Jan-14	0.54	<1	<2	5	<1	0.21
RMD-212	GRAB	Opp. 8600 Ryan Rd.	10-Jan-14	0.57	<1	<2	5	<1	0.16
RMD-205	GRAB	13851 Steveston Hwy.	10-Jan-14	0.23	<1	<2	5	<1	0.22
RMD-202	GRAB	1500 Valemont Way	10-Jan-14	0.42	<1	<2	5	<1	0.33
RMD-267	GRAB	17240 Fedoruk	10-Jan-14	0.31	<1	<2	5	<1	0.22
RMD-251	GRAB	5951McCallan Rd.	13-Jan-14	0.83	<1	4	5	<1	0.17
RMD-250	GRAB	6071 Azure Rd.	13-Jan-14	0.66	<1	<2	5	<1	0.18
RMD-271	GRAB	3800 Cessna Drive	13-Jan-14	0.8	<1	<2	5	<1	0.17
RMD-255	GRAB	6000 Blk. Miller Rd.	13-Jan-14	0.91	<1	<2	5	<1	0.24
RMD-256	GRAB	1000 Blk. McDonald Rd.	13-Jan-14	0.61	<1	<2	5	<1	0.15
RMD-253	GRAB	11051 No 3 Rd.	13-Jan-14	0.72	<1	<2	5	<1	0.21
RMD-264	GRAB	13100 Mitchell Rd.	15-Jan-14	0.65	<1	<2	5	<1	0.14
RMD-262	GRAB	13799 Commerce Pkwy.	15-Jan-14	0.35	<1	<2	5	<1	0.2
RMD-261	GRAB	9911 Sidaway Rd.	15-Jan-14	0.41	<1	<2	5	<1	0.26
RMD-260	GRAB	11111 Horseshoe Way	15-Jan-14	0.68	<1	<2	5	<1	0.12
RMD-258	GRAB	7000 Blk. Dyke Rd.	15-Jan-14	0.67	<1	<2	5	<1	0.09
RMD-257	GRAB	6640 Blundell Rd.	15-Jan-14	0.63	<1	<2	5	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	17-Jan-14	0.77	<1	<2	5	<1	0.21
RMD-212	GRAB	Opp. 8600 Ryan Rd.	17-Jan-14	0.71	<1	2	5	<1	0.11
RMD-205	GRAB	13851 Steveston Hwy.	17-Jan-14	0.58	<1	<2	5	<1	0.16
RMD-202	GRAB	1500 Valemont Way	17-Jan-14	0.47	<1	<2	5	<1	0.29
RMD-267	GRAB	17240 Fedoruk	17-Jan-14	0.5	<1	<2	5	<1	0.17
RMD-249	GRAB	23000 Blk. Dyke Rd.	17-Jan-14	0.65	<1	<2	5	<1	0.33
RMD-276	GRAB	22271 Cochrane Drive	17-Jan-14	0.53	<1	<2	5	<1	0.29
RMD-275	GRAB	5180 Smith Cres.	17-Jan-14	0.65	<1	<2	5	<1	0.28
RMD-203	GRAB	23260 Westminster Hwy.	17-Jan-14	0.63	<1	<2	5	<1	0.3
RMD-252	GRAB	9751 Pendleton Rd.	20-Jan-14	0.69	<1	<2	5	<1	0.12
RMD-274	GRAB	10920 Springwood Court	20-Jan-14	0.77	<1	<2	5	<1	0.13
RMD-250	GRAB	6071 Azure Rd.	20-Jan-14	0.7	<1	<2	5	<1	0.26
RMD-270	GRAB	8200 Jones Rd.	20-Jan-14	0.7	<1	<2	5	<1	0.23
RMD-269	GRAB	14951 Triangle Rd.	20-Jan-14	0.52	<1	<2	5	<1	0.17
RMD-263	GRAB	12560 Cambie Rd.	22-Jan-14	0.71	<1	<2	5	<1	0.14
RMD-279	GRAB	Opp. 20371 Westminst CINCL - 6		0.49	<1	<2	5	<1	0.45

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-260	GRAB	11111 Horseshoe Way	22-Jan-14	0.65	<1	<2	5	<1	0.15
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	22-Jan-14	0.69	<1	<2	5	<1	0.12
RMD-212	GRAB	Opp. 8600 Ryan Rd.	24-Jan-14	0.7	<1	<2	5	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	24-Jan-14	0.43	<1	<2	5	<1	0.16
RMD-202	GRAB	1500 Valemont Way	24-Jan-14	0.48	<1	<2	5	<1	0.31
RMD-267	GRAB	17240 Fedoruk	24-Jan-14	0.58	<1	<2	5	<1	0.14
RMD-276	GRAB	22271 Cochrane Drive	24-Jan-14	0.41	<1	<2	5	<1	0.28
RMD-252	GRAB	9751 Pendleton Rd.	27-Jan-14	0.75	<1	<2	5	<1	0.15
RMD-250	GRAB	6071 Azure Rd.	27-Jan-14	0.75	<1	2	5	<1	0.19
RMD-255	GRAB	6000 Blk. Miller Rd.	27-Jan-14	0.89	<1	<2	5	<1	0.37
RMD-270	GRAB	8200 Jones Rd.	27-Jan-14	0.75	<1	<2	5	<1	0.13
RMD-269	GRAB	14951 Triangle Rd.	27-Jan-14	0.56	<1	<2	5	<1	0.21
RMD-204	GRAB	3180 Granville Ave.	31-Jan-14	0.73	<1	<2	5	<1	0.31
RMD-202	GRAB	1500 Valemont Way	31-Jan-14	0.66	<1	<2	5	<1	0.28
RMD-214	GRAB	11720 Westminster Hwy.	31-Jan-14	0.82	<1	<2	5	<1	0.13
RMD-267	GRAB	17240 Fedoruk	31-Jan-14	0.65	<1	<2	5	<1	0.18
RMD-249	GRAB	23000 Blk. Dyke Rd.	31-Jan-14	0.61	<1	<2	5	<1	0.23
RMD-276	GRAB	22271 Cochrane Drive	31-Jan-14	0.58	<1	<2	5	<1	0.23
RMD-275	GRAB	5180 Smith Cres.	31-Jan-14	0.69	<1	<2	5	<1	0.28
RMD-203	GRAB	23260 Westminster Hwy.	31-Jan-14	0.64	<1	<2	5	<1	0.27
RMD-251	GRAB	5951McCallan Rd.	3-Feb-14	0.8	<1	6	5	<1	0.14
RMD-254	GRAB	5300 No. 3 Rd.	3-Feb-14	0.75	<1	2	5	<1	0.2
RMD-270	GRAB	8200 Jones Rd.	3-Feb-14	0.78	<1	<2	5	<1	0.15
RMD-269	GRAB	14951 Triangle Rd.	3-Feb-14	0.57	<1	<2	5	<1	0.19
RMD-262	GRAB	13799 Commerce Pkwy.	5-Feb-14	0.74	<1	<2	5	<1	0.22
RMD-278	GRAB	6651 Fraserwood Place	5-Feb-14	0.57	<1	<2	5	<1	0.32
RMD-260	GRAB	11111 Horseshoe Way	5-Feb-14	0.85	<1	<2	5	<1	0.18
RMD-212	GRAB	Opp. 8600 Ryan Rd.	7-Feb-14	0.67	<1	4	5	<1	0.22
RMD-202	GRAB	1500 Valemont Way	7-Feb-14	0.58	<1	<2	5	<1	0.21
RMD-267	GRAB	17240 Fedoruk	7-Feb-14	0.53	<1	<2	5	<1	0.21
RMD-250	GRAB	6071 Azure Rd.	11-Feb-14	0.72	<1	<2	5	<1	0.2
RMD-262	GRAB	13799 Commerce Pkwy.	12-Feb-14	0.51	<1	<2	5	<1	0.21
RMD-267	GRAB	17240 Fedoruk	14-Feb-14	0.34	<1	<2	5	<1	0.22
RMD-275	GRAB	5180 Smith Cres.	14-Feb-14	0.75	<1	<2	5	<1	0.57
RMD-203	GRAB	23260 Westminster Hwy.	14-Feb-14	0.94	<1	<2	5	<1	0.65
RMD-252	GRAB	9751 Pendleton Rd.	17-Feb-14	0.95	<1	2	5	<1	0.17
RMD-274	GRAB	10920 Springwood Court	17-Feb-14	0.97	<1	<2	5	<1	0.19
RMD-250	GRAB	6071 Azure Rd.	17-Feb-14	0.9	<1	<2	5	<1	0.17
RMD-271	GRAB		622 <sup>17-Feb-14</sup>	0.99	<1	<2	5	<1	0.1

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-255	GRAB	6000 Blk. Miller Rd.	17-Feb-14	1	<1	2	5	<1	0.19
RMD-278	GRAB	6651 Fraserwood Place	19-Feb-14	0.63	<1	<2	5	<1	0.52
RMD-273	GRAB	Opp. 8331 Fairfax Place	24-Feb-14	0.71	<1	<2	5	<1	0.5
RMD-274	GRAB	10920 Springwood Court	24-Feb-14	0.73	<1	<2	5	<1	0.12
RMD-254	GRAB	5300 No. 3 Rd.	24-Feb-14	0.76	<1	LA	5	<1	0.11
RMD-273	GRAB	Opp. 8331 Fairfax Place	3-Mar-14	0.45	<1	<2	5	<1	0.15
RMD-250	GRAB	6071 Azure Rd.	3-Mar-14	0.69	<1	<2	5	<1	0.11
RMD-202	GRAB	1500 Valemont Way	7-Mar-14	0.69	<1	<2	5	<1	0.11
RMD-249	GRAB	23000 Blk. Dyke Rd.	7-Mar-14	0.61	<1	<2	5	<1	0.12
RMD-275	GRAB	5180 Smith Cres.	7-Mar-14	0.66	<1	<2	5	<1	0.09
RMD-252	GRAB	9751 Pendleton Rd.	10-Mar-14	0.6	<1	<2	5	<1	0.1
RMD-274	GRAB	10920 Springwood Court	10-Mar-14	0.73	<1	<2	5	<1	0.13
RMD-256	GRAB	1000 Blk. McDonald Rd.	10-Mar-14	0.72	<1	<2	5	<1	0.16
RMD-254	GRAB	5300 No. 3 Rd.	10-Mar-14	0.7	<1	<2	5	<1	0.13
RMD-270	GRAB	8200 Jones Rd.	10-Mar-14	0.81	<1	<2	5	<1	0.19
RMD-264	GRAB	13100 Mitchell Rd.	12-Mar-14	0.77	<1	<2	5	<1	0.11
RMD-277	GRAB	Opp. 11280 Twigg Place	12-Mar-14	0.7	<1	<2	5	<1	0.11
RMD-262	GRAB	13799 Commerce Pkwy.	12-Mar-14	0.71	<1	<2	5	<1	0.12
RMD-278	GRAB	6651 Fraserwood Place	12-Mar-14	0.58	<1	<2	5	<1	0.12
RMD-204	GRAB	3180 Granville Ave.	13-Mar-14	0.79	<1	<2	5	<1	0.34
RMD-206	GRAB	4251 Moncton St.	13-Mar-14	0.77	<1	<2	5	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	13-Mar-14	0.85	<1	<2	5	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd.	13-Mar-14	0.83	<1	<2	5	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	13-Mar-14	0.8	<1	<2	5	<1	0.1
RMD-205	GRAB	13851 Steveston Hwy.	13-Mar-14	0.7	<1	<2	5	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	13-Mar-14	0.65	<1	<2	5	<1	0.09
RMD-267	GRAB	17240 Fedoruk	13-Mar-14	0.65	<1	<2	5	<1	0.11
RMD-249	GRAB	23000 Blk. Dyke Rd.	13-Mar-14	0.64	<1	<2	5	<1	0.13
RMD-276	GRAB	22271 Cochrane Drive	13-Mar-14	0.64	<1	2	5	<1	0.1
RMD-275	GRAB	5180 Smith Cres.	13-Mar-14	0.6	<1	2	5	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	17-Mar-14	0.63	<1	<2	5	<1	0.11
RMD-250	GRAB	6071 Azure Rd.	17-Mar-14	0.68	<1	<2	5	<1	0.22
RMD-256	GRAB	1000 Blk. McDonald Rd.	17-Mar-14	0.65	<1	<2	5	<1	0.14
RMD-270	GRAB	8200 Jones Rd.	17-Mar-14	0.69	<1	8	5	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	19-Mar-14	0.52	<1	<2	5	<1	0.11
RMD-264	GRAB	13100 Mitchell Rd.	19-Mar-14	0.6	<1	<2	5	<1	0.13
RMD-262	GRAB	13799 Commerce Pkwy.	19-Mar-14	0.76	<1	2	5	<1	0.18
RMD-278	GRAB	6651 Fraserwood Place	19-Mar-14	0.59	<1	<2	5	<1	0.15
RMD-261	GRAB	9911 Sidaway Rd. CNCL -	623 19-Mar-14	0.66	<1	<2	5	<1	0.1

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-258	GRAB	7000 Blk. Dyke Rd.	19-Mar-14	0.64	<1	<2	5	<1	0.1
RMD-257	GRAB	6640 Blundell Rd.	19-Mar-14	0.73	<1	<2	5	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	21-Mar-14	0.75	<1	<2	5	<1	1.3
RMD-206	GRAB	4251 Moncton St.	21-Mar-14	0.71	<1	<2	5	<1	0.09
RMD-208	GRAB	13200 No. 4 Rd.	21-Mar-14	0.65	<1	2	5	<1	0.23
RMD-214	GRAB	11720 Westminster Hwy.	21-Mar-14	0.76	<1	2	5	<1	0.11
RMD-267	GRAB	17240 Fedoruk	21-Mar-14	0.64	<1	<2	5	<1	0.1
RMD-249	GRAB	23000 Blk. Dyke Rd.	21-Mar-14	0.66	<1	<2	5	<1	0.11
RMD-275	GRAB	5180 Smith Cres.	21-Mar-14	0.77	<1	<2	5	<1	0.09
RMD-272	GRAB	751 Catalina Cres.	24-Mar-14	0.72	<1	<2	5	<1	0.11
RMD-255	GRAB	6000 Blk. Miller Rd.	24-Mar-14	0.7	<1	<2	5	<1	0.21
RMD-254	GRAB	5300 No. 3 Rd.	24-Mar-14	0.58	<1	<2	5	<1	0.09
RMD-269	GRAB	14951 Triangle Rd.	24-Mar-14	0.65	<1	<2	5	<1	0.11
RMD-253	GRAB	11051 No 3 Rd.	24-Mar-14	0.61	<1	<2	5	<1	0.11
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	27-Mar-14	0.72	<1	<2	5	<1	0.09
RMD-259	GRAB	10020 Amethyst Ave.	27-Mar-14	0.69	<1	<2	5	<1	0.09
RMD-266	GRAB	9380 General Currie Rd.	27-Mar-14	0.77	<1	<2	5	<1	0.1
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	27-Mar-14	0.67	<1	<2	5	<1	0.1
RMD-257	GRAB	6640 Blundell Rd.	27-Mar-14	0.71	<1	<2	5	<1	0.09
RMD-205	GRAB	13851 Steveston Hwy.	28-Mar-14	0.66	<1	2	5	<1	0.11
RMD-202	GRAB	1500 Valemont Way	28-Mar-14	0.7	<1	<2	5	<1	0.09
RMD-214	GRAB	11720 Westminster Hwy.	28-Mar-14	0.74	<1	<2	5	<1	0.09
RMD-203	GRAB	23260 Westminster Hwy.	28-Mar-14	0.83	<1	<2	5	<1	0.09
RMD-251	GRAB	5951McCallan Rd.	31-Mar-14	0.66	<1	<2	5	<1	0.12
RMD-272	GRAB	751 Catalina Cres.	31-Mar-14	0.77	<1	<2	5	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	31-Mar-14	0.65	<1	<2	5	<1	0.48
RMD-254	GRAB	5300 No. 3 Rd.	31-Mar-14	0.73	<1	<2	5	<1	0.13
RMD-262	GRAB	13799 Commerce Pkwy.	2-Apr-14	0.69	<1	<2	5	<1	0.16
RMD-261	GRAB	9911 Sidaway Rd.	2-Apr-14	0.67	<1	<2	5	<1	0.11
RMD-260	GRAB	11111 Horseshoe Way	2-Apr-14	0.79	<1	2	5	<1	0.12
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	2-Apr-14	0.74	<1	2	5	<1	0.1
RMD-206	GRAB	4251 Moncton St.	4-Apr-14	0.68	<1	<2	5	<1	0.14
RMD-216	GRAB	11080 No. 2 Rd.	4-Apr-14	0.72	<1	<2	5	<1	0.08
RMD-212	GRAB	Opp. 8600 Ryan Rd.	4-Apr-14	0.73	<1	<2	5	<1	0.09
RMD-205	GRAB	13851 Steveston Hwy.	4-Apr-14	0.65	<1	<2	5	<1	0.08
RMD-203	GRAB	23260 Westminster Hwy.	4-Apr-14	0.52	<1	<2	5	<1	0.09
RMD-251	GRAB	5951McCallan Rd.	7-Apr-14	0.6	<1	<2	5	<1	0.19
RMD-254	GRAB	5300 No. 3 Rd.	7-Apr-14	0.7	<1	<2	5	<1	0.1
RMD-269	GRAB	14951 Triangle Rd. CNCL - 6	<b>24</b> 7-Apr-14	0.75	<1	<2	5	<1	0.11

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-253	GRAB	11051 No 3 Rd.	7-Apr-14	0.66	<1	2	5	<1	0.1
RMD-263	GRAB	12560 Cambie Rd.	9-Apr-14	0.72	<1	<2	5	<1	0.11
RMD-262	GRAB	13799 Commerce Pkwy.	9-Apr-14	0.7	<1	<2	5	<1	0.13
RMD-260	GRAB	11111 Horseshoe Way	9-Apr-14	0.65	<1	<2	5	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	9-Apr-14	0.67	<1	2	5	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	10-Apr-14	0.79	<1	<2	5	<1	0.1
RMD-203	GRAB	23260 Westminster Hwy.	10-Apr-14	0.77	<1	<2	5	<1	0.35
RMD-208	GRAB	13200 No. 4 Rd.	10-Apr-14	0.7	<1	6	5	<1	0.11
RMD-206	GRAB	4251 Moncton St.	10-Apr-14	0.68	<1	<2	5	<1	0.09
RMD-251	GRAB	5951McCallan Rd.	14-Apr-14	0.77	<1	2	5	<1	0.09
RMD-250	GRAB	6071 Azure Rd.	14-Apr-14	0.73	<1	<2	5	<1	0.12
RMD-271	GRAB	3800 Cessna Drive	14-Apr-14	0.68	<1	<2	5	<1	0.08
RMD-272	GRAB	751 Catalina Cres.	14-Apr-14	0.7	<1	<2	5	<1	0.08
RMD-256	GRAB	1000 Blk. McDonald Rd.	14-Apr-14	0.63	<1	<2	5	<1	0.09
RMD-254	GRAB	5300 No. 3 Rd.	14-Apr-14	0.63	<1	<2	5	<1	0.08
RMD-269	GRAB	14951 Triangle Rd.	14-Apr-14	0.68	<1	<2	5	<1	0.09
RMD-253	GRAB	11051 No 3 Rd.	14-Apr-14	0.71	<1	<2	5	<1	0.09
RMD-214	GRAB	11720 Westminster Hwy.	16-Apr-14	0.68	<1	2	5	<1	0.18
RMD-203	GRAB	23260 Westminster Hwy.	16-Apr-14	0.57	<1	<2	5	<1	0.2
RMD-206	GRAB	4251 Moncton St.	16-Apr-14	0.69	<1	<2	5	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	29-Dec-14	0.99	<1	NA	5	<1	0.14
RMD-267	GRAB	17240 Fedoruk	3-Jan-14	0.32	<1	<2	6	<1	0.18
RMD-273	GRAB	Opp. 8331 Fairfax Place	6-Jan-14	0.48	<1	<2	6	<1	0.25
RMD-252	GRAB	9751 Pendleton Rd.	6-Jan-14	0.49	<1	2	6	<1	0.19
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	8-Jan-14	0.44	<1	<2	6	<1	0.32
RMD-204	GRAB	3180 Granville Ave.	10-Jan-14	0.72	<1	<2	6	<1	1.3
RMD-276	GRAB	22271 Cochrane Drive	10-Jan-14	0.34	<1	<2	6	<1	0.33
RMD-275	GRAB	5180 Smith Cres.	10-Jan-14	0.52	<1	<2	6	<1	0.32
RMD-273	GRAB	Opp. 8331 Fairfax Place	13-Jan-14	0.52	<1	<2	6	<1	0.28
RMD-252	GRAB	9751 Pendleton Rd.	13-Jan-14	0.71	<1	<2	6	<1	0.16
RMD-274	GRAB	10920 Springwood Court	13-Jan-14	0.61	<1	NA	6	<1	0.2
RMD-272	GRAB	751 Catalina Cres.	13-Jan-14	0.78	<1	<2	6	<1	0.19
RMD-270	GRAB	8200 Jones Rd.	13-Jan-14	0.68	<1	<2	6	<1	0.22
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	15-Jan-14	0.61	<1	14	6	<1	0.72
RMD-273	GRAB	Opp. 8331 Fairfax Place	20-Jan-14	0.61	<1	<2	6	<1	0.19
RMD-262	GRAB	13799 Commerce Pkwy.	22-Jan-14	0.33	<1	<2	6	<1	0.14
RMD-278	GRAB	6651 Fraserwood Place	22-Jan-14	0.32	<1	<2	6	<1	0.4
RMD-261	GRAB	9911 Sidaway Rd.	22-Jan-14	0.1	<1	<2	6	<1	0.19
RMD-273	GRAB	Opp. 8331 Fairfax Place CNCL - 6	<b>25</b> <sup>27-Jan-14</sup>	0.66	<1	<2	6	<1	0.15

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-274	GRAB	10920 Springwood Court	27-Jan-14	0.75	<1	<2	6	<1	0.14
RMD-252	GRAB	9751 Pendleton Rd.	3-Feb-14	0.75	<1	4	6	<1	0.16
RMD-274	GRAB	10920 Springwood Court	3-Feb-14	0.66	<1	<2	6	<1	0.15
RMD-250	GRAB	6071 Azure Rd.	3-Feb-14	0.72	<1	<2	6	<1	0.2
RMD-273	GRAB	Opp. 8331 Fairfax Place	17-Feb-14	0.94	<1	<2	6	<1	0.6
RMD-250	GRAB	6071 Azure Rd.	10-Mar-14	0.73	<1	<2	6	<1	0.11
RMD-277	GRAB	Opp. 11280 Twigg Place	19-Mar-14	0.68	<1	<2	6	<1	0.11
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	19-Mar-14	0.5	<1	<2	6	<1	0.13
RMD-266	GRAB	9380 General Currie Rd.	19-Mar-14	0.7	<1	<2	6	<1	0.1
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	19-Mar-14	0.69	<1	<2	6	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	21-Mar-14	0.59	<1	<2	6	<1	0.1
RMD-251	GRAB	5951McCallan Rd.	24-Mar-14	0.7	<1	<2	6	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	24-Mar-14	0.69	<1	<2	6	<1	0.11
RMD-250	GRAB	6071 Azure Rd.	24-Mar-14	0.8	<1	<2	6	<1	0.1
RMD-256	GRAB	1000 Blk. McDonald Rd.	24-Mar-14	0.76	<1	<2	6	<1	0.12
RMD-270	GRAB	8200 Jones Rd.	24-Mar-14	0.65	<1	<2	6	<1	0.13
RMD-263	GRAB	12560 Cambie Rd.	27-Mar-14	0.78	<1	2	6	<1	0.09
RMD-264	GRAB	13100 Mitchell Rd.	27-Mar-14	0.71	<1	<2	6	<1	0.09
RMD-262	GRAB	13799 Commerce Pkwy.	27-Mar-14	0.73	<1	2	6	<1	0.11
RMD-278	GRAB	6651 Fraserwood Place	27-Mar-14	0.58	<1	<2	6	<1	0.1
RMD-261	GRAB	9911 Sidaway Rd.	27-Mar-14	0.63	<1	<2	6	<1	0.2
RMD-260	GRAB	11111 Horseshoe Way	27-Mar-14	0.71	<1	<2	6	<1	0.08
RMD-258	GRAB	7000 Blk. Dyke Rd.	27-Mar-14	0.76	<1	<2	6	<1	0.09
RMD-206	GRAB	4251 Moncton St.	28-Mar-14	0.68	<1	<2	6	<1	0.43
RMD-216	GRAB	11080 No. 2 Rd.	28-Mar-14	0.7	<1	<2	6	<1	0.1
RMD-212	GRAB	Opp. 8600 Ryan Rd.	28-Mar-14	0.64	<1	<2	6	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	28-Mar-14	0.72	<1	<2	6	<1	0.1
RMD-249	GRAB	23000 Blk. Dyke Rd.	28-Mar-14	0.61	<1	<2	6	<1	0.15
RMD-276	GRAB	22271 Cochrane Drive	28-Mar-14	0.6	<1	<2	6	<1	0.1
RMD-252	GRAB	9751 Pendleton Rd.	31-Mar-14	0.59	<1	<2	6	<1	0.13
RMD-271	GRAB	3800 Cessna Drive	31-Mar-14	0.78	<1	<2	6	<1	0.14
RMD-256	GRAB	1000 Blk. McDonald Rd.	31-Mar-14	0.66	<1	<2	6	<1	0.14
RMD-270	GRAB	8200 Jones Rd.	31-Mar-14	0.65	<1	<2	6	<1	0.15
RMD-269	GRAB	14951 Triangle Rd.	31-Mar-14	0.69	<1	<2	6	<1	0.12
RMD-253	GRAB	11051 No 3 Rd.	31-Mar-14	0.72	<1	<2	6	<1	0.1
RMD-264	GRAB	13100 Mitchell Rd.	2-Apr-14	0.68	<1	<2	6	<1	0.12
RMD-277	GRAB	Opp. 11280 Twigg Place	2-Apr-14	0.73	<1	<2	6	<1	0.14
RMD-278	GRAB	6651 Fraserwood Place	2-Apr-14	0.66	<1	<2	6	<1	0.11
RMD-279	GRAB	Opp. 20371 Westminst CINCL -	<b>526</b> <sup>2-Apr-14</sup>	0.75	<1	<2	6	<1	0.08

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-259	GRAB	10020 Amethyst Ave.	2-Apr-14	0.64	<1	<2	6	<1	0.09
RMD-266	GRAB	9380 General Currie Rd.	2-Apr-14	0.67	<1	<2	6	<1	0.09
RMD-257	GRAB	6640 Blundell Rd.	2-Apr-14	0.59	<1	<2	6	<1	0.12
RMD-204	GRAB	3180 Granville Ave.	4-Apr-14	0.75	<1	<2	6	<1	0.77
RMD-208	GRAB	13200 No. 4 Rd.	4-Apr-14	0.71	<1	<2	6	<1	0.1
RMD-214	GRAB	11720 Westminster Hwy.	4-Apr-14	0.8	<1	<2	6	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	7-Apr-14	0.66	<1	<2	6	<1	0.09
RMD-272	GRAB	751 Catalina Cres.	7-Apr-14	0.8	<1	<2	6	<1	0.18
RMD-255	GRAB	6000 Blk. Miller Rd.	7-Apr-14	0.71	<1	<2	6	<1	0.18
RMD-256	GRAB	1000 Blk. McDonald Rd.	7-Apr-14	0.69	<1	<2	6	<1	0.12
RMD-264	GRAB	13100 Mitchell Rd.	9-Apr-14	0.66	<1	<2	6	<1	0.12
RMD-277	GRAB	Opp. 11280 Twigg Place	9-Apr-14	0.69	<1	<2	6	<1	0.12
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	9-Apr-14	0.75	<1	<2	6	<1	0.1
RMD-261	GRAB	9911 Sidaway Rd.	9-Apr-14	0.63	<1	<2	6	<1	0.11
RMD-259	GRAB	10020 Amethyst Ave.	9-Apr-14	0.69	<1	<2	6	<1	0.09
RMD-258	GRAB	7000 Blk. Dyke Rd.	9-Apr-14	0.77	<1	<2	6	<1	0.1
RMD-202	GRAB	1500 Valemont Way	10-Apr-14	0.62	<1	<2	6	<1	0.13
RMD-275	GRAB	5180 Smith Cres.	10-Apr-14	0.75	<1	<2	6	<1	0.33
RMD-276	GRAB	22271 Cochrane Drive	10-Apr-14	0.61	<1	<2	6	<1	0.09
RMD-267	GRAB	17240 Fedoruk	10-Apr-14	0.71	<1	<2	6	<1	0.09
RMD-204	GRAB	3180 Granville Ave.	10-Apr-14	0.66	<1	<2	6	<1	0.24
RMD-252	GRAB	9751 Pendleton Rd.	14-Apr-14	0.76	<1	<2	6	<1	0.1
RMD-270	GRAB	8200 Jones Rd.	14-Apr-14	0.71	<1	6	6	<1	0.17
RMD-202	GRAB	1500 Valemont Way	16-Apr-14	0.6	<1	<2	6	<1	0.13
RMD-275	GRAB	5180 Smith Cres.	16-Apr-14	0.59	<1	<2	6	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	16-Apr-14	0.55	<1	<2	6	<1	0.16
RMD-205	GRAB	13851 Steveston Hwy.	16-Apr-14	0.59	<1	<2	6	<1	0.15
RMD-260	GRAB	11111 Horseshoe Way	16-Apr-14	0.73	<1	<2	6	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	16-Apr-14	0.71	<1	<2	6	<1	0.11
RMD-266	GRAB	9380 General Currie Rd.	16-Apr-14	0.73	<1	<2	6	<1	0.09
RMD-212	GRAB	Opp. 8600 Ryan Rd.	16-Apr-14	0.61	<1	2	6	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	16-Apr-14	0.63	<1	<2	6	<1	0.09
RMD-204	GRAB	3180 Granville Ave.	16-Apr-14	0.68	<1	<2	6	<1	0.11
RMD-251	GRAB	5951McCallan Rd.	28-Apr-14	0.51	<1	<2	6	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	28-Apr-14	0.45	<1	<2	6	<1	0.19
RMD-269	GRAB	14951 Triangle Rd.	28-Apr-14	0.54	<1	<2	6	<1	0.14
RMD-260	GRAB	11111 Horseshoe Way	30-Apr-14	0.78	<1	<2	6	<1	0.14
RMD-266	GRAB	9380 General Currie Rd.	14-May-14	0.61	<1	<2	6	<1	0.13
RMD-251	GRAB	5951McCallan Rd. CNCL -	627 8-Dec-14	0.79	<1	<2	6	<1	0.11

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-277	GRAB	Opp. 11280 Twigg Place	10-Dec-14	0.77	<1	<2	6	<1	0.41
RMD-260	GRAB	11111 Horseshoe Way	10-Dec-14	0.7	<1	<2	6	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	10-Dec-14	0.73	<1	<2	6	<1	0.1
RMD-216	GRAB	11080 No. 2 Rd.	11-Dec-14	0.71	<1	<2	6	<1	0.09
RMD-208	GRAB	13200 No. 4 Rd.	11-Dec-14	0.78	<1	4	6	<1	0.1
RMD-251	GRAB	5951McCallan Rd.	15-Dec-14	0.87	<1	<2	6	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	15-Dec-14	0.83	<1	<2	6	<1	0.1
RMD-272	GRAB	751 Catalina Cres.	15-Dec-14	0.75	<1	<2	6	<1	0.09
RMD-253	GRAB	11051 No 3 Rd.	15-Dec-14	0.73	<1	2	6	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	23-Dec-14	1.1	<1	NA	6	<1	0.16
RMD-208	GRAB	13200 No. 4 Rd.	23-Dec-14	1.2	<1	NA	6	<1	0.13
RMD-202	GRAB	1500 Valemont Way	23-Dec-14	0.39	<1	NA	6	<1	0.13
RMD-214	GRAB	11720 Westminster Hwy.	23-Dec-14	0.87	<1	NA	6	<1	0.17
RMD-260	GRAB	11111 Horseshoe Way	23-Dec-14	0.96	<1	NA	6	<1	0.2
RMD-266	GRAB	9380 General Currie Rd.	23-Dec-14	1	<1	NA	6	<1	0.18
RMD-276	GRAB	22271 Cochrane Drive	23-Dec-14	0.66	<1	NA	6	<1	0.11
RMD-257	GRAB	6640 Blundell Rd.	23-Dec-14	1.1	<1	NA	6	<1	0.11
RMD-273	GRAB	Opp. 8331 Fairfax Place	29-Dec-14	0.2	<1	NA	6	<1	0.16
RMD-250	GRAB	6071 Azure Rd.	29-Dec-14	0.98	<1	NA	6	<1	0.27
RMD-271	GRAB	3800 Cessna Drive	29-Dec-14	0.98	<1	NA	6	<1	0.1
RMD-255	GRAB	6000 Blk. Miller Rd.	29-Dec-14	0.94	<1	NA	6	<1	0.31
RMD-269	GRAB	14951 Triangle Rd.	29-Dec-14	0.82	<1	NA	6	<1	0.19
RMD-253	GRAB	11051 No 3 Rd.	29-Dec-14	0.9	<1	NA	6	<1	0.14
RMD-264	GRAB	13100 Mitchell Rd.	30-Dec-14	0.91	<1	NA	6	<1	0.19
RMD-277	GRAB	Opp. 11280 Twigg Place	30-Dec-14	0.94	<1	NA	6	<1	0.15
RMD-259	GRAB	10020 Amethyst Ave.	30-Dec-14	0.98	<1	NA	6	<1	0.13
RMD-266	GRAB	9380 General Currie Rd.	30-Dec-14	1	<1	NA	6	<1	0.1
RMD-257	GRAB	6640 Blundell Rd.	30-Dec-14	0.83	<1	NA	6	<1	0.13
RMD-273	GRAB	Opp. 8331 Fairfax Place	3-Feb-14	0.61	<1	<2	7	<1	0.47
RMD-273	GRAB	Opp. 8331 Fairfax Place	10-Mar-14	0.67	<1	<2	7	<1	0.86
RMD-274	GRAB	10920 Springwood Court	17-Mar-14	0.65	<1	<2	7	<1	0.12
RMD-274	GRAB	10920 Springwood Court	24-Mar-14	0.73	<1	<2	7	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	24-Mar-14	0.51	<1	<2	7	<1	0.12
RMD-277	GRAB	Opp. 11280 Twigg Place	27-Mar-14	0.68	<1	2	7	<1	0.09
RMD-204	GRAB	3180 Granville Ave.	28-Mar-14	0.64	<1	2	7	<1	0.45
RMD-267	GRAB	17240 Fedoruk	28-Mar-14	0.59	<1	2	7	<1	NA
RMD-275	GRAB	5180 Smith Cres.	28-Mar-14	0.72	<1	<2	7	<1	0.08
RMD-273	GRAB	Opp. 8331 Fairfax Place	31-Mar-14	0.68	<1	<2	7	<1	1.3
RMD-274	GRAB	10920 Springwood CouCNCL -		0.7	<1	<2	7	<1	0.1

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-250	GRAB	6071 Azure Rd.	31-Mar-14	0.71	<1	<2	7	<1	0.08
RMD-263	GRAB	12560 Cambie Rd.	2-Apr-14	0.74	<1	<2	7	<1	0.09
RMD-258	GRAB	7000 Blk. Dyke Rd.	2-Apr-14	0.69	<1	<2	7	<1	0.1
RMD-202	GRAB	1500 Valemont Way	4-Apr-14	0.65	<1	<2	7	<1	0.1
RMD-267	GRAB	17240 Fedoruk	4-Apr-14	0.65	<1	<2	7	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	4-Apr-14	0.68	<1	<2	7	<1	0.11
RMD-275	GRAB	5180 Smith Cres.	4-Apr-14	0.64	<1	<2	7	<1	0.09
RMD-273	GRAB	Opp. 8331 Fairfax Place	7-Apr-14	0.59	<1	<2	7	<1	0.77
RMD-252	GRAB	9751 Pendleton Rd.	7-Apr-14	0.64	<1	<2	7	<1	0.15
RMD-250	GRAB	6071 Azure Rd.	7-Apr-14	0.71	<1	<2	7	<1	0.18
RMD-270	GRAB	8200 Jones Rd.	7-Apr-14	0.69	<1	<2	7	<1	0.15
RMD-278	GRAB	6651 Fraserwood Place	9-Apr-14	0.61	<1	<2	7	<1	0.15
RMD-249	GRAB	23000 Blk. Dyke Rd.	10-Apr-14	0.51	<1	<2	7	<1	0.14
RMD-274	GRAB	10920 Springwood Court	14-Apr-14	0.71	<1	<2	7	<1	0.1
RMD-263	GRAB	12560 Cambie Rd.	16-Apr-14	0.64	<1	<2	7	<1	0.12
RMD-264	GRAB	13100 Mitchell Rd.	16-Apr-14	0.67	<1	<2	7	<1	0.16
RMD-262	GRAB	13799 Commerce Pkwy.	16-Apr-14	0.51	<1	2	7	<1	0.13
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	16-Apr-14	0.6	<1	2	7	<1	0.18
RMD-249	GRAB	23000 Blk. Dyke Rd.	16-Apr-14	0.67	<1	<2	7	<1	0.14
RMD-267	GRAB	17240 Fedoruk	16-Apr-14	0.54	<1	2	7	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	16-Apr-14	0.49	<1	<2	7	<1	0.1
RMD-259	GRAB	10020 Amethyst Ave.	16-Apr-14	0.7	<1	<2	7	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	16-Apr-14	0.54	<1	2	7	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	16-Apr-14	0.72	<1	<2	7	<1	0.12
RMD-258	GRAB	7000 Blk. Dyke Rd.	16-Apr-14	0.56	<1	<2	7	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	22-Apr-14	0.69	<1	2	7	<1	0.1
RMD-256	GRAB	1000 Blk. McDonald Rd.	22-Apr-14	0.7	<1	<2	7	<1	0.13
RMD-208	GRAB	13200 No. 4 Rd.	25-Apr-14	0.75	<1	<2	7	<1	0.1
RMD-273	GRAB	Opp. 8331 Fairfax Place	28-Apr-14	0.55	<1	<2	7	<1	0.19
RMD-252	GRAB	9751 Pendleton Rd.	28-Apr-14	0.55	<1	<2	7	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	28-Apr-14	0.67	<1	<2	7	<1	0.12
RMD-256	GRAB	1000 Blk. McDonald Rd.	28-Apr-14	0.62	<1	<2	7	<1	0.13
RMD-254	GRAB	5300 No. 3 Rd.	28-Apr-14	0.68	<1	<2	7	<1	0.1
RMD-253	GRAB	11051 No 3 Rd.	28-Apr-14	0.64	<1	<2	7	<1	0.1
RMD-263	GRAB	12560 Cambie Rd.	30-Apr-14	0.71	<1	<2	7	<1	0.13
RMD-262	GRAB	13799 Commerce Pkwy.	30-Apr-14	0.54	<1	<2	7	<1	0.11
RMD-278	GRAB	6651 Fraserwood Place	30-Apr-14	0.56	<1	<2	7	<1	0.1
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	30-Apr-14	0.59	<1	<2	7	<1	0.09
RMD-259	GRAB	10020 Amethyst Ave. CNCL - 6	<b>529</b> 30-Apr-14	0.65	<1	<2	7	<1	0.11

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-266	GRAB	9380 General Currie Rd.	30-Apr-14	0.66	<1	<2	7	<1	0.14
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	30-Apr-14	0.71	<1	<2	7	<1	0.1
RMD-257	GRAB	6640 Blundell Rd.	30-Apr-14	0.67	<1	<2	7	<1	0.1
RMD-206	GRAB	4251 Moncton St.	2-May-14	0.63	<1	<2	7	<1	0.15
RMD-208	GRAB	13200 No. 4 Rd.	2-May-14	0.71	<1	<2	7	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	2-May-14	0.59	<1	<2	7	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	2-May-14	0.69	<1	<2	7	<1	0.14
RMD-264	GRAB	13100 Mitchell Rd.	14-May-14	0.69	<1	<2	7	<1	0.17
RMD-277	GRAB	Opp. 11280 Twigg Place	14-May-14	0.76	<1	<2	7	<1	0.15
RMD-262	GRAB	13799 Commerce Pkwy.	14-May-14	0.75	<1	<2	7	<1	0.19
RMD-259	GRAB	10020 Amethyst Ave.	14-May-14	0.63	<1	<2	7	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	17-Nov-14	0.81	<1	4	7	<1	0.14
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	19-Nov-14	0.67	<1	2	7	<1	0.17
RMD-261	GRAB	9911 Sidaway Rd.	19-Nov-14	0.63	<1	<2	7	<1	0.26
RMD-259	GRAB	10020 Amethyst Ave.	19-Nov-14	0.73	<1	<2	7	<1	0.12
RMD-266	GRAB	9380 General Currie Rd.	19-Nov-14	0.72	<1	<2	7	<1	0.11
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	19-Nov-14	0.73	<1	2	7	<1	0.14
RMD-208	GRAB	13200 No. 4 Rd.	21-Nov-14	0.83	<1	<2	7	<1	0.08
RMD-271	GRAB	3800 Cessna Drive	24-Nov-14	0.7	<1	<2	7	<1	0.15
RMD-272	GRAB	751 Catalina Cres.	24-Nov-14	0.86	<1	<2	7	<1	0.16
RMD-260	GRAB	11111 Horseshoe Way	26-Nov-14	0.89	<1	2	7	<1	0.14
RMD-259	GRAB	10020 Amethyst Ave.	26-Nov-14	0.89	<1	<2	7	<1	0.1
RMD-266	GRAB	9380 General Currie Rd.	26-Nov-14	0.95	<1	<2	7	<1	0.11
RMD-257	GRAB	6640 Blundell Rd.	26-Nov-14	0.75	<1	8	7	<1	0.09
RMD-216	GRAB	11080 No. 2 Rd.	27-Nov-14	0.73	<1	<2	7	<1	0.09
RMD-255	GRAB	6000 Blk. Miller Rd.	1-Dec-14	0.83	<1	<2	7	<1	0.33
RMD-270	GRAB	8200 Jones Rd.	1-Dec-14	0.8	<1	<2	7	<1	0.1
RMD-263	GRAB	12560 Cambie Rd.	3-Dec-14	0.82	<1	<2	7	<1	0.15
RMD-264	GRAB	13100 Mitchell Rd.	3-Dec-14	0.73	<1	<2	7	<1	0.13
RMD-277	GRAB	Opp. 11280 Twigg Place	3-Dec-14	0.78	<1	<2	7	<1	0.19
RMD-260	GRAB	11111 Horseshoe Way	3-Dec-14	0.79	<1	<2	7	<1	0.15
RMD-266	GRAB	9380 General Currie Rd.	3-Dec-14	0.77	<1	<2	7	<1	0.12
RMD-258	GRAB	7000 Blk. Dyke Rd.	3-Dec-14	0.73	<1	<2	7	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	3-Dec-14	0.75	<1	<2	7	<1	0.1
RMD-206	GRAB	4251 Moncton St.	5-Dec-14	0.79	<1	<2	7	<1	0.11
RMD-216	GRAB	11080 No. 2 Rd.	5-Dec-14	0.78	<1	<2	7	<1	0.09
RMD-212	GRAB	Opp. 8600 Ryan Rd.	5-Dec-14	0.91	<1	<2	7	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	5-Dec-14	0.8	<1	<2	7	<1	0.1
RMD-267	GRAB	17240 Fedoruk CNCL -	630 <sup>5-Dec-14</sup>	0.47	<1	<2	7	<1	0.3

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-275	GRAB	5180 Smith Cres.	5-Dec-14	0.8	<1	<2	7	<1	0.18
RMD-203	GRAB	23260 Westminster Hwy.	5-Dec-14	0.79	<1	<2	7	<1	0.1
RMD-250	GRAB	6071 Azure Rd.	8-Dec-14	0.8	<1	<2	7	<1	0.46
RMD-272	GRAB	751 Catalina Cres.	8-Dec-14	0.73	<1	<2	7	<1	0.14
RMD-255	GRAB	6000 Blk. Miller Rd.	8-Dec-14	0.68	<1	<2	7	<1	0.48
RMD-256	GRAB	1000 Blk. McDonald Rd.	8-Dec-14	0.84	<1	<2	7	<1	0.1
RMD-254	GRAB	5300 No. 3 Rd.	8-Dec-14	0.8	<1	<2	7	<1	0.14
RMD-264	GRAB	13100 Mitchell Rd.	10-Dec-14	0.76	<1	<2	7	<1	0.11
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	10-Dec-14	0.61	<1	<2	7	<1	0.16
RMD-261	GRAB	9911 Sidaway Rd.	10-Dec-14	0.69	<1	4	7	<1	0.31
RMD-259	GRAB	10020 Amethyst Ave.	10-Dec-14	0.74	<1	<2	7	<1	0.11
RMD-266	GRAB	9380 General Currie Rd.	10-Dec-14	0.79	<1	<2	7	<1	0.11
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	10-Dec-14	0.8	<1	<2	7	<1	0.13
RMD-258	GRAB	7000 Blk. Dyke Rd.	10-Dec-14	0.65	<1	<2	7	<1	0.1
RMD-212	GRAB	Opp. 8600 Ryan Rd.	11-Dec-14	0.75	<1	2	7	<1	0.11
RMD-205	GRAB	13851 Steveston Hwy.	11-Dec-14	0.6	<1	<2	7	<1	0.16
RMD-202	GRAB	1500 Valemont Way	11-Dec-14	0.69	<1	2	7	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	11-Dec-14	0.65	<1	<2	7	<1	0.13
RMD-275	GRAB	5180 Smith Cres.	11-Dec-14	0.66	<1	<2	7	<1	0.15
RMD-203	GRAB	23260 Westminster Hwy.	11-Dec-14	0.64	<1	<2	7	<1	0.15
RMD-252	GRAB	9751 Pendleton Rd.	15-Dec-14	0.77	<1	<2	7	<1	0.11
RMD-250	GRAB	6071 Azure Rd.	15-Dec-14	0.76	<1	2	7	<1	0.11
RMD-255	GRAB	6000 Blk. Miller Rd.	15-Dec-14	0.73	<1	<2	7	<1	0.3
RMD-256	GRAB	1000 Blk. McDonald Rd.	15-Dec-14	0.7	<1	<2	7	<1	0.11
RMD-254	GRAB	5300 No. 3 Rd.	15-Dec-14	0.68	<1	<2	7	<1	0.1
RMD-270	GRAB	8200 Jones Rd.	15-Dec-14	0.71	<1	<2	7	<1	0.12
RMD-264	GRAB	13100 Mitchell Rd.	17-Dec-14	0.91	<1	<2	7	<1	0.09
RMD-262	GRAB	13799 Commerce Pkwy.	17-Dec-14	0.47	<1	<2	7	<1	0.14
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	17-Dec-14	0.57	<1	<2	7	<1	0.26
RMD-261	GRAB	9911 Sidaway Rd.	17-Dec-14	0.5	<1	<2	7	<1	0.18
RMD-260	GRAB	11111 Horseshoe Way	17-Dec-14	1	<1	<2	7	<1	0.11
RMD-259	GRAB	10020 Amethyst Ave.	17-Dec-14	0.97	<1	<2	7	<1	0.08
RMD-266	GRAB	9380 General Currie Rd.	17-Dec-14	1.1	<1	<2	7	<1	0.09
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	17-Dec-14	0.99	<1	<2	7	<1	0.09
RMD-258	GRAB	7000 Blk. Dyke Rd.	17-Dec-14	1	<1	<2	7	<1	0.09
RMD-257	GRAB	6640 Blundell Rd.	17-Dec-14	1.1	<1	<2	7	<1	0.08
RMD-206	GRAB	4251 Moncton St.	19-Dec-14	0.92	<1	<2	7	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	19-Dec-14	0.97	<1	<2	7	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd. CNCL - 6	<b>31</b> 19-Dec-14	0.98	<1	<2	7	<1	0.12

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-208	GRAB	13200 No. 4 Rd.	19-Dec-14	1	<1	<2	7	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	19-Dec-14	0.49	<1	2	7	<1	0.15
RMD-214	GRAB	11720 Westminster Hwy.	19-Dec-14	0.83	<1	<2	7	<1	0.11
RMD-267	GRAB	17240 Fedoruk	19-Dec-14	0.55	<1	<2	7	<1	0.16
RMD-203	GRAB	23260 Westminster Hwy.	19-Dec-14	0.69	<1	<2	7	<1	0.14
RMD-251	GRAB	5951McCallan Rd.	22-Dec-14	0.92	<1	NA	7	<1	0.12
RMD-250	GRAB	6071 Azure Rd.	22-Dec-14	0.94	<1	NA	7	<1	0.12
RMD-271	GRAB	3800 Cessna Drive	22-Dec-14	1.2	<1	NA	7	<1	0.11
RMD-272	GRAB	751 Catalina Cres.	22-Dec-14	1.2	<1	NA	7	<1	0.09
RMD-255	GRAB	6000 Blk. Miller Rd.	22-Dec-14	1.2	<1	NA	7	<1	0.2
RMD-256	GRAB	1000 Blk. McDonald Rd.	22-Dec-14	1.2	<1	NA	7	<1	0.13
RMD-270	GRAB	8200 Jones Rd.	22-Dec-14	0.93	<1	NA	7	<1	0.1
RMD-269	GRAB	14951 Triangle Rd.	22-Dec-14	0.54	<1	NA	7	<1	0.16
RMD-253	GRAB	11051 No 3 Rd.	22-Dec-14	0.99	<1	NA	7	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	23-Dec-14	0.87	<1	NA	7	<1	0.15
RMD-204	GRAB	3180 Granville Ave.	23-Dec-14	1.1	<1	NA	7	<1	0.15
RMD-264	GRAB	13100 Mitchell Rd.	23-Dec-14	0.93	<1	NA	7	<1	0.17
RMD-206	GRAB	4251 Moncton St.	23-Dec-14	1.1	<1	NA	7	<1	0.12
RMD-212	GRAB	Opp. 8600 Ryan Rd.	23-Dec-14	1.1	<1	NA	7	<1	0.11
RMD-205	GRAB	13851 Steveston Hwy.	23-Dec-14	0.89	<1	NA	7	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	23-Dec-14	0.55	<1	NA	7	<1	0.13
RMD-267	GRAB	17240 Fedoruk	23-Dec-14	0.68	<1	NA	7	<1	0.16
RMD-259	GRAB	10020 Amethyst Ave.	23-Dec-14	0.85	<1	NA	7	<1	0.19
RMD-249	GRAB	23000 Blk. Dyke Rd.	23-Dec-14	0.58	<1	NA	7	<1	0.59
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	23-Dec-14	1.1	<1	NA	7	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	23-Dec-14	1	<1	NA	7	<1	0.12
RMD-275	GRAB	5180 Smith Cres.	23-Dec-14	0.6	<1	NA	7	<1	0.17
RMD-203	GRAB	23260 Westminster Hwy.	23-Dec-14	0.91	<1	NA	7	<1	0.13
RMD-252	GRAB	9751 Pendleton Rd.	29-Dec-14	0.87	<1	NA	7	<1	0.19
RMD-274	GRAB	10920 Springwood Court	29-Dec-14	0.9	<1	NA	7	<1	0.17
RMD-272	GRAB	751 Catalina Cres.	29-Dec-14	0.97	<1	NA	7	<1	0.11
RMD-270	GRAB	8200 Jones Rd.	29-Dec-14	0.88	<1	NA	7	<1	0.14
RMD-263	GRAB	12560 Cambie Rd.	30-Dec-14	0.83	<1	NA	7	<1	0.11
RMD-262	GRAB	13799 Commerce Pkwy.	30-Dec-14	0.88	<1	NA	7	<1	0.17
RMD-278	GRAB	6651 Fraserwood Place	30-Dec-14	0.63	<1	NA	7	<1	0.15
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	30-Dec-14	0.59	<1	NA	7	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	30-Dec-14	0.63	<1	NA	7	<1	0.13
RMD-260	GRAB	11111 Horseshoe Way	30-Dec-14	0.96	<1	NA	7	<1	0.14
RMD-268	GRAB	13800 No. 3 Rd. (off Ga	<b>32</b> 30-Dec-14	0.95	<1	NA	7	<1	0.2

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-258	GRAB	7000 Blk. Dyke Rd.	30-Dec-14	0.94	<1	NA	7	<1	0.13
RMD-273	GRAB	Opp. 8331 Fairfax Place	17-Mar-14	0.7	<1	<2	8	<1	0.76
RMD-273	GRAB	Opp. 8331 Fairfax Place	24-Mar-14	0.65		<2	8		4
RMD-249	GRAB	23000 Blk. Dyke Rd.	4-Apr-14	0.59	<1	<2	8	<1	0.11
RMD-274	GRAB	10920 Springwood Court	7-Apr-14	0.68	<1	<2	8	<1	0.11
RMD-277	GRAB	Opp. 11280 Twigg Place	16-Apr-14	0.62	<1	<2	8	<1	0.17
RMD-278	GRAB	6651 Fraserwood Place	16-Apr-14	0.47	<1	<2	8	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	22-Apr-14	0.73	<1	2	8	<1	0.09
RMD-272	GRAB	751 Catalina Cres.	22-Apr-14	0.74	<1	<2	8	<1	0.09
RMD-255	GRAB	6000 Blk. Miller Rd.	22-Apr-14	0.59	<1	<2	8	<1	0.14
RMD-254	GRAB	5300 No. 3 Rd.	22-Apr-14	0.64	<1	<2	8	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	22-Apr-14	0.54	<1	<2	8	<1	0.1
RMD-253	GRAB	11051 No 3 Rd.	22-Apr-14	0.68	<1	<2	8	<1	0.12
RMD-264	GRAB	13100 Mitchell Rd.	23-Apr-14	0.62	<1	<2	8	<1	0.14
RMD-277	GRAB	Opp. 11280 Twigg Place	23-Apr-14	0.66	<1	<2	8	<1	0.15
RMD-262	GRAB	13799 Commerce Pkwy.	23-Apr-14	0.64	<1	8	8	<1	0.14
RMD-278	GRAB	6651 Fraserwood Place	23-Apr-14	0.64	<1	<2	8	<1	0.11
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	23-Apr-14	0.65	<1	<2	8	<1	0.14
RMD-261	GRAB	9911 Sidaway Rd.	23-Apr-14	0.49	<1	<2	8	<1	0.1
RMD-260	GRAB	11111 Horseshoe Way	23-Apr-14	0.71	<1	<2	8	<1	0.18
RMD-259	GRAB	10020 Amethyst Ave.	23-Apr-14	0.45	<1	<2	8	<1	0.16
RMD-257	GRAB	6640 Blundell Rd.	23-Apr-14	0.67	<1	<2	8	<1	0.09
RMD-206	GRAB	4251 Moncton St.	25-Apr-14	0.66	<1	<2	8	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	25-Apr-14	0.7	<1	<2	8	<1	0.17
RMD-205	GRAB	13851 Steveston Hwy.	25-Apr-14	0.57	<1	<2	8	<1	0.11
RMD-267	GRAB	17240 Fedoruk	25-Apr-14	0.54	<1	<2	8	<1	0.25
RMD-249	GRAB	23000 Blk. Dyke Rd.	25-Apr-14	0.53	<1	<2	8	<1	0.18
RMD-276	GRAB	22271 Cochrane Drive	25-Apr-14	0.49	<1	<2	8	<1	0.1
RMD-275	GRAB	5180 Smith Cres.	25-Apr-14	0.52	<1	<2	8	<1	0.11
RMD-203	GRAB	23260 Westminster Hwy.	25-Apr-14	0.57	<1	<2	8	<1	0.1
RMD-250	GRAB	6071 Azure Rd.	28-Apr-14	0.61	<1	<2	8	<1	0.16
RMD-272	GRAB	751 Catalina Cres.	28-Apr-14	0.51	<1	<2	8	<1	0.1
RMD-270	GRAB	8200 Jones Rd.	28-Apr-14	0.44	<1	2	8	<1	0.13
RMD-264	GRAB	13100 Mitchell Rd.	30-Apr-14	0.66	<1	<2	8	<1	0.13
RMD-277	GRAB	Opp. 11280 Twigg Place	30-Apr-14	0.77	<1	<2	8	<1	0.16
RMD-261	GRAB	9911 Sidaway Rd.	30-Apr-14	0.58	<1	<2	8	<1	0.14
RMD-258	GRAB	7000 Blk. Dyke Rd.	30-Apr-14	0.67	<1	<2	8	<1	0.11
RMD-216	GRAB	11080 No. 2 Rd.	2-May-14	0.64	<1	<2	8	<1	0.1
RMD-212	GRAB	Opp. 8600 Ryan Rd. CNCL -	633 <sup>2-May-14</sup>	0.69	<1	<2	8	<1	0.15

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-202	GRAB	1500 Valemont Way	2-May-14	0.67	<1	<2	8	<1	0.16
RMD-275	GRAB	5180 Smith Cres.	2-May-14	0.46	<1	<2	8	<1	0.15
RMD-203	GRAB	23260 Westminster Hwy.	2-May-14	0.58	<1	<2	8	<1	0.1
RMD-251	GRAB	5951McCallan Rd.	5-May-14	0.72	<1	<2	8	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	5-May-14	0.74	<1	<2	8	<1	0.1
RMD-272	GRAB	751 Catalina Cres.	5-May-14	0.7	<1	2	8	<1	0.11
RMD-255	GRAB	6000 Blk. Miller Rd.	5-May-14	0.68	<1	<2	8	<1	0.24
RMD-254	GRAB	5300 No. 3 Rd.	5-May-14	0.66	<1	<2	8	<1	0.12
RMD-269	GRAB	14951 Triangle Rd.	5-May-14	0.55	<1	<2	8	<1	0.1
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	7-May-14	0.7	<1	<2	8	<1	0.11
RMD-216	GRAB	11080 No. 2 Rd.	9-May-14	0.73	<1	2	8	<1	0.15
RMD-212	GRAB	Opp. 8600 Ryan Rd.	9-May-14	0.62	<1	<2	8	<1	0.21
RMD-208	GRAB	13200 No. 4 Rd.	9-May-14	0.72	<1	<2	8	<1	0.23
RMD-205	GRAB	13851 Steveston Hwy.	9-May-14	0.63	<1	<2	8	<1	0.12
RMD-202	GRAB	1500 Valemont Way	9-May-14	0.64	<1	<2	8	<1	0.13
RMD-214	GRAB	11720 Westminster Hwy.	9-May-14	0.67	<1	<2	8	<1	0.19
RMD-251	GRAB	5951McCallan Rd.	12-May-14	0.67	<1	<2	8	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	12-May-14	0.61	<1	<2	8	<1	0.15
RMD-253	GRAB	11051 No 3 Rd.	12-May-14	0.58	<1	<2	8	<1	0.12
RMD-263	GRAB	12560 Cambie Rd.	14-May-14	0.73	<1	<2	8	<1	0.19
RMD-278	GRAB	6651 Fraserwood Place	14-May-14	0.55	<1	<2	8	<1	0.39
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	14-May-14	0.68	<1	<2	8	<1	0.25
RMD-261	GRAB	9911 Sidaway Rd.	14-May-14	0.55	<1	<2	8	<1	0.25
RMD-260	GRAB	11111 Horseshoe Way	14-May-14	0.63	<1	<2	8	<1	0.14
RMD-257	GRAB	6640 Blundell Rd.	14-May-14	0.75	<1	<2	8	<1	0.15
RMD-208	GRAB	13200 No. 4 Rd.	16-May-14	0.63	<1	2	8	<1	0.15
RMD-205	GRAB	13851 Steveston Hwy.	16-May-14	0.7	<1	<2	8	<1	0.13
RMD-203	GRAB	23260 Westminster Hwy.	16-May-14	0.71	<1	<2	8	<1	0.14
RMD-255	GRAB	6000 Blk. Miller Rd.	20-May-14	0.83	<1	<2	8	<1	0.54
RMD-251	GRAB	5951McCallan Rd.	2-Jun-14	1	<1	<2	8	<1	0.42
RMD-255	GRAB	6000 Blk. Miller Rd.	2-Jun-14	0.94	<1	<2	8	<1	0.6
RMD-262	GRAB	13799 Commerce Pkwy.	4-Jun-14	0.57	<1	<2	8	<1	0.11
RMD-251	GRAB	5951McCallan Rd.	9-Jun-14	1	<1	<2	8	<1	0.55
RMD-272	GRAB	751 Catalina Cres.	9-Jun-14	0.94	<1	<2	8	<1	0.55
RMD-255	GRAB	6000 Blk. Miller Rd.	9-Jun-14	0.9	<1	<2	8	<1	0.95
RMD-253	GRAB	11051 No 3 Rd.	9-Jun-14	0.87	<1	<2	8	<1	0.53
RMD-208	GRAB	13200 No. 4 Rd.	13-Jun-14	0.88	<1	<2	8	<1	0.51
RMD-214	GRAB	11720 Westminster Hwy.	13-Jun-14	0.9	<1	<2	8	<1	0.41
RMD-251	GRAB	5951McCallan Rd. CNCL -	634 16-Jun-14	1.1	<1	<2	8	<1	0.45

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-255	GRAB	6000 Blk. Miller Rd.	16-Jun-14	0.65	<1	<2	8	<1	0.56
RMD-277	GRAB	Opp. 11280 Twigg Place	18-Jun-14	0.95	<1	<2	8	<1	0.47
RMD-266	GRAB	9380 General Currie Rd.	18-Jun-14	0.96	<1	<2	8	<1	0.4
RMD-257	GRAB	6640 Blundell Rd.	18-Jun-14	0.86	<1	<2	8	<1	0.5
RMD-253	GRAB	11051 No 3 Rd.	23-Jun-14	0.88	<1	<2	8	<1	0.36
RMD-263	GRAB	12560 Cambie Rd.	25-Jun-14	1	<1	<2	8	<1	0.68
RMD-214	GRAB	11720 Westminster Hwy.	27-Jun-14	0.87	<1	<2	8	<1	0.3
RMD-272	GRAB	751 Catalina Cres.	30-Jun-14	0.91	<1	<2	8	<1	0.43
RMD-254	GRAB	5300 No. 3 Rd.	30-Jun-14	0.98	<1	<2	8	<1	0.3
RMD-263	GRAB	12560 Cambie Rd.	2-Jul-14	1	<1	<2	8	<1	0.71
RMD-277	GRAB	Opp. 11280 Twigg Place	2-Jul-14	0.9	<1	<2	8	<1	0.55
RMD-262	GRAB	13799 Commerce Pkwy.	2-Jul-14	0.96	<1	<2	8	<1	0.5
RMD-214	GRAB	11720 Westminster Hwy.	4-Jul-14	1	<1	<2	8	<1	0.3
RMD-251	GRAB	5951McCallan Rd.	17-Nov-14	0.62	<1	<2	8	<1	0.12
RMD-272	GRAB	751 Catalina Cres.	17-Nov-14	0.8	<1	<2	8	<1	0.11
RMD-253	GRAB	11051 No 3 Rd.	17-Nov-14	0.81	<1	<2	8	<1	0.09
RMD-263	GRAB	12560 Cambie Rd.	19-Nov-14	0.78	<1	<2	8	<1	0.11
RMD-278	GRAB	6651 Fraserwood Place	19-Nov-14	0.5	<1	<2	8	<1	0.32
RMD-260	GRAB	11111 Horseshoe Way	19-Nov-14	0.69	<1	<2	8	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	19-Nov-14	0.71	<1	<2	8	<1	0.11
RMD-257	GRAB	6640 Blundell Rd.	19-Nov-14	0.75	<1	<2	8	<1	0.11
RMD-206	GRAB	4251 Moncton St.	21-Nov-14	0.69	<1	<2	8	<1	0.1
RMD-216	GRAB	11080 No. 2 Rd.	21-Nov-14	0.69	<1	<2	8	<1	0.1
RMD-202	GRAB	1500 Valemont Way	21-Nov-14	0.66	<1	<2	8	<1	0.11
RMD-276	GRAB	22271 Cochrane Drive	21-Nov-14	0.74	<1	<2	8	<1	0.13
RMD-255	GRAB	6000 Blk. Miller Rd.	24-Nov-14	0.75	<1	<2	8	<1	0.25
RMD-256	GRAB	1000 Blk. McDonald Rd.	24-Nov-14	0.81	<1	<2	8	<1	0.2
RMD-270	GRAB	8200 Jones Rd.	24-Nov-14	0.78	<1	<2	8	<1	0.13
RMD-253	GRAB	11051 No 3 Rd.	24-Nov-14	0.75	<1	<2	8	<1	0.13
RMD-263	GRAB	12560 Cambie Rd.	26-Nov-14	0.63	<1	<2	8	<1	0.11
RMD-264	GRAB	13100 Mitchell Rd.	26-Nov-14	0.89	<1	<2	8	<1	0.23
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	26-Nov-14	0.75	<1	<2	8	<1	0.18
RMD-261	GRAB	9911 Sidaway Rd.	26-Nov-14	0.52	<1	<2	8	<1	0.25
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	26-Nov-14	0.69	<1	<2	8	<1	0.58
RMD-258	GRAB	7000 Blk. Dyke Rd.	26-Nov-14	0.52	<1	<2	8	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd.	27-Nov-14	0.76	<1	8	8	<1	0.12
RMD-208	GRAB	13200 No. 4 Rd.	27-Nov-14	0.83	<1	<2	8	<1	0.11
RMD-205	GRAB	13851 Steveston Hwy.	27-Nov-14	0.61	<1	<2	8	<1	0.21
RMD-202	GRAB	1500 Valemont Way CNCL - 6	<b>35</b> <sup>27-Nov-14</sup>	0.67	<1	<2	8	<1	0.13

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-214	GRAB	11720 Westminster Hwy.	27-Nov-14	0.71	<1	<2	8	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	1-Dec-14	0.84	<1	<2	8	<1	0.1
RMD-250	GRAB	6071 Azure Rd.	1-Dec-14	0.8	<1	<2	8	<1	0.09
RMD-271	GRAB	3800 Cessna Drive	1-Dec-14	0.74	<1	<2	8	<1	0.15
RMD-272	GRAB	751 Catalina Cres.	1-Dec-14	0.85	<1	<2	8	<1	0.12
RMD-256	GRAB	1000 Blk. McDonald Rd.	1-Dec-14	0.8	<1	<2	8	<1	0.11
RMD-254	GRAB	5300 No. 3 Rd.	1-Dec-14	0.8	<1	<2	8	<1	0.1
RMD-269	GRAB	14951 Triangle Rd.	1-Dec-14	0.72	<1	<2	8	<1	0.37
RMD-253	GRAB	11051 No 3 Rd.	1-Dec-14	0.76	<1	<2	8	<1	0.09
RMD-262	GRAB	13799 Commerce Pkwy.	3-Dec-14	0.52	<1	<2	8	<1	0.37
RMD-278	GRAB	6651 Fraserwood Place	3-Dec-14	0.45	<1	<2	8	<1	0.34
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	3-Dec-14	0.68	<1	<2	8	<1	0.24
RMD-261	GRAB	9911 Sidaway Rd.	3-Dec-14	0.58	<1	<2	8	<1	0.35
RMD-259	GRAB	10020 Amethyst Ave.	3-Dec-14	0.73	<1	<2	8	<1	0.14
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	3-Dec-14	0.71	<1	<2	8	<1	0.22
RMD-205	GRAB	13851 Steveston Hwy.	5-Dec-14	0.49	<1	<2	8	<1	0.27
RMD-202	GRAB	1500 Valemont Way	5-Dec-14	0.77	<1	4	8	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	5-Dec-14	0.8	<1	2	8	<1	0.12
RMD-249	GRAB	23000 Blk. Dyke Rd.	5-Dec-14	0.54	<1	<2	8	<1	0.24
RMD-276	GRAB	22271 Cochrane Drive	5-Dec-14	0.55	<1	<2	8	<1	0.16
RMD-273	GRAB	Opp. 8331 Fairfax Place	8-Dec-14	0.72	<1	2	8	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	8-Dec-14	0.75	<1	<2	8	<1	0.14
RMD-274	GRAB	10920 Springwood Court	8-Dec-14	0.7	<1	<2	8	<1	0.1
RMD-271	GRAB	3800 Cessna Drive	8-Dec-14	0.72	<1	<2	8	<1	0.13
RMD-270	GRAB	8200 Jones Rd.	8-Dec-14	0.75	<1	<2	8	<1	0.17
RMD-269	GRAB	14951 Triangle Rd.	8-Dec-14	0.55	<1	2	8	<1	0.14
RMD-263	GRAB	12560 Cambie Rd.	10-Dec-14	0.76	<1	<2	8	<1	0.11
RMD-262	GRAB	13799 Commerce Pkwy.	10-Dec-14	0.63	<1	<2	8	<1	0.18
RMD-278	GRAB	6651 Fraserwood Place	10-Dec-14	0.48	<1	<2	8	<1	0.29
RMD-204	GRAB	3180 Granville Ave.	11-Dec-14	0.57	<1	<2	8	<1	0.95
RMD-206	GRAB	4251 Moncton St.	11-Dec-14	0.75	<1	<2	8	<1	0.12
RMD-267	GRAB	17240 Fedoruk	11-Dec-14	0.5	<1	<2	8	<1	0.28
RMD-249	GRAB	23000 Blk. Dyke Rd.	11-Dec-14	0.51	<1	<2	8	<1	0.29
RMD-276	GRAB	22271 Cochrane Drive	11-Dec-14	0.61	<1	<2	8	<1	0.23
RMD-273	GRAB	Opp. 8331 Fairfax Place	15-Dec-14	0.68	<1	<2	8	<1	0.19
RMD-274	GRAB	10920 Springwood Court	15-Dec-14	0.75	<1	<2	8	<1	0.15
RMD-269	GRAB	14951 Triangle Rd.	15-Dec-14	0.52	<1	<2	8	<1	0.1
RMD-263	GRAB	12560 Cambie Rd.	17-Dec-14	0.94	<1	<2	8	<1	0.09
RMD-277	GRAB	Opp. 11280 Twigg Place CNCL -	636 17-Dec-14	0.96	<1	<2	8	<1	0.15

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-278	GRAB	6651 Fraserwood Place	17-Dec-14	0.52	<1	<2	8	<1	0.29
RMD-204	GRAB	3180 Granville Ave.	19-Dec-14	1.1	<1	<2	8	<1	0.82
RMD-202	GRAB	1500 Valemont Way	19-Dec-14	0.71	<1	<2	8	<1	0.1
RMD-249	GRAB	23000 Blk. Dyke Rd.	19-Dec-14	0.54	<1	<2	8	<1	0.63
RMD-276	GRAB	22271 Cochrane Drive	19-Dec-14	0.57	<1	2	8	<1	0.13
RMD-275	GRAB	5180 Smith Cres.	19-Dec-14	0.58	<1	<2	8	<1	0.17
RMD-273	GRAB	Opp. 8331 Fairfax Place	22-Dec-14	0.93	<1	NA	8	<1	0.21
RMD-252	GRAB	9751 Pendleton Rd.	22-Dec-14	0.87	<1	NA	8	<1	0.18
RMD-274	GRAB	10920 Springwood Court	22-Dec-14	0.99	<1	NA	8	<1	0.13
RMD-254	GRAB	5300 No. 3 Rd.	22-Dec-14	0.97	<1	NA	8	<1	0.1
RMD-277	GRAB	Opp. 11280 Twigg Place	23-Dec-14	0.84	<1	NA	8	<1	0.15
RMD-262	GRAB	13799 Commerce Pkwy.	23-Dec-14	0.61	<1	NA	8	<1	0.16
RMD-278	GRAB	6651 Fraserwood Place	23-Dec-14	0.54	<1	NA	8	<1	0.42
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	23-Dec-14	0.73	<1	NA	8	<1	0.21
RMD-256	GRAB	1000 Blk. McDonald Rd.	29-Dec-14	0.36	<1	NA	8	<1	0.4
RMD-250	GRAB	6071 Azure Rd.	22-Apr-14	0.63	<1	<2	9	<1	0.17
RMD-271	GRAB	3800 Cessna Drive	22-Apr-14	0.5	<1	<2	9	<1	0.11
RMD-266	GRAB	9380 General Currie Rd.	23-Apr-14	0.69	<1	<2	9	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	23-Apr-14	0.64	<1	<2	9	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	23-Apr-14	0.7	<1	<2	9	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	25-Apr-14	0.54	<1	2	9	<1	0.18
RMD-212	GRAB	Opp. 8600 Ryan Rd.	25-Apr-14	0.7	<1	<2	9	<1	0.12
RMD-202	GRAB	1500 Valemont Way	25-Apr-14	0.59	<1	<2	9	<1	0.13
RMD-214	GRAB	11720 Westminster Hwy.	25-Apr-14	0.64	<1	2	9	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	2-May-14	0.63	<1	<2	9	<1	0.23
RMD-267	GRAB	17240 Fedoruk	2-May-14	0.59	<1	<2	9	<1	0.15
RMD-276	GRAB	22271 Cochrane Drive	2-May-14	0.61	<1	<2	9	<1	0.16
RMD-252	GRAB	9751 Pendleton Rd.	5-May-14	0.61	<1	<2	9	<1	0.18
RMD-274	GRAB	10920 Springwood Court	5-May-14	0.63	<1	<2	9	<1	0.11
RMD-250	GRAB	6071 Azure Rd.	5-May-14	0.65	<1	<2	9	<1	0.13
RMD-256	GRAB	1000 Blk. McDonald Rd.	5-May-14	0.67	<1	<2	9	<1	0.11
RMD-270	GRAB	8200 Jones Rd.	5-May-14	0.72	<1	<2	9	<1	0.1
RMD-253	GRAB	11051 No 3 Rd.	5-May-14	0.67	<1	<2	9	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	7-May-14	0.77	<1	<2	9	<1	0.13
RMD-262	GRAB	13799 Commerce Pkwy.	7-May-14	0.78	<1	12	9	<1	0.11
RMD-260	GRAB	11111 Horseshoe Way	7-May-14	0.73	<1	<2	9	<1	0.12
RMD-259	GRAB	10020 Amethyst Ave.	7-May-14	0.6	<1	<2	9	<1	0.13
RMD-266	GRAB	9380 General Currie Rd.	7-May-14	0.89	<1	<2	9	<1	0.13
RMD-268	GRAB	13800 No. 3 Rd. (off Ga	<b>37</b> 7-May-14	0.6	<1	<2	9	<1	0.12

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-258	GRAB	7000 Blk. Dyke Rd.	7-May-14	0.59	<1	<2	9	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	7-May-14	0.77	<1	<2	9	<1	0.13
RMD-206	GRAB	4251 Moncton St.	9-May-14	0.7	<1	<2	9	<1	0.23
RMD-249	GRAB	23000 Blk. Dyke Rd.	9-May-14	0.45	<1	<2	9	<1	0.22
RMD-252	GRAB	9751 Pendleton Rd.	12-May-14	0.59	<1	<2	9	<1	0.13
RMD-250	GRAB	6071 Azure Rd.	12-May-14	0.66	<1	<2	9	<1	0.14
RMD-271	GRAB	3800 Cessna Drive	12-May-14	0.67	<1	<2	9	<1	0.11
RMD-254	GRAB	5300 No. 3 Rd.	12-May-14	0.67	<1	<2	9	<1	0.1
RMD-270	GRAB	8200 Jones Rd.	12-May-14	0.54	<1	2	9	<1	0.16
RMD-269	GRAB	14951 Triangle Rd.	12-May-14	0.53	<1	<2	9	<1	0.1
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	14-May-14	0.63	<1	<2	9	<1	0.16
RMD-206	GRAB	4251 Moncton St.	16-May-14	0.57	<1	<2	9	<1	0.16
RMD-216	GRAB	11080 No. 2 Rd.	16-May-14	0.66	<1	4	9	<1	0.13
RMD-202	GRAB	1500 Valemont Way	16-May-14	0.53	<1	<2	9	<1	0.14
RMD-214	GRAB	11720 Westminster Hwy.	16-May-14	0.71	<1	<2	9	<1	0.14
RMD-267	GRAB	17240 Fedoruk	16-May-14	0.64	<1	<2	9	<1	0.14
RMD-249	GRAB	23000 Blk. Dyke Rd.	16-May-14	0.37	<1	<2	9	<1	0.29
RMD-251	GRAB	5951McCallan Rd.	20-May-14	0.77	<1	14	9	<1	0.15
RMD-269	GRAB	14951 Triangle Rd.	20-May-14	0.71	<1	2	9	<1	0.16
RMD-250	GRAB	6071 Azure Rd.	20-May-14	0.75	<1	2	9	<1	0.18
RMD-251	GRAB	5951McCallan Rd.	26-May-14	0.71	<1	<2	9	<1	0.13
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	28-May-14	0.64	<1	<2	9	<1	0.1
RMD-216	GRAB	11080 No. 2 Rd.	30-May-14	0.82	<1	<2	9	<1	0.34
RMD-208	GRAB	13200 No. 4 Rd.	30-May-14	0.79	<1	<2	9	<1	0.3
RMD-214	GRAB	11720 Westminster Hwy.	30-May-14	0.87	<1	<2	9	<1	0.38
RMD-203	GRAB	23260 Westminster Hwy.	30-May-14	0.57	<1	<2	9	<1	0.1
RMD-250	GRAB	6071 Azure Rd.	2-Jun-14	0.82	<1	<2	9	<1	0.51
RMD-271	GRAB	3800 Cessna Drive	2-Jun-14	1	<1	LA	9	<1	0.43
RMD-272	GRAB	751 Catalina Cres.	2-Jun-14	0.91	<1	<2	9	<1	0.51
RMD-256	GRAB	1000 Blk. McDonald Rd.	2-Jun-14	1	<1	<2	9	<1	0.53
RMD-270	GRAB	8200 Jones Rd.	2-Jun-14	0.89	<1	<2	9	<1	0.6
RMD-269	GRAB	14951 Triangle Rd.	2-Jun-14	1	<1	<2	9	<1	0.53
RMD-263	GRAB	12560 Cambie Rd.	4-Jun-14	0.93	<1	<2	9	<1	0.52
RMD-277	GRAB	Opp. 11280 Twigg Place	4-Jun-14	0.98	<1	<2	9	<1	0.61
RMD-260	GRAB	11111 Horseshoe Way	4-Jun-14	1	<1	<2	9	<1	0.45
RMD-259	GRAB	10020 Amethyst Ave.	4-Jun-14	0.83	<1	<2	9	<1	0.43
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	4-Jun-14	1	<1	<2	9	<1	0.52
RMD-257	GRAB	6640 Blundell Rd.	4-Jun-14	0.92	<1	<2	9	<1	0.45
RMD-208	GRAB	13200 No. 4 Rd. CNCL -	638 6-Jun-14	0.94	<1	<2	9	<1	0.74

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-214	GRAB	11720 Westminster Hwy.	6-Jun-14	1.1	<1	<2	9	<1	0.5
RMD-271	GRAB	3800 Cessna Drive	9-Jun-14	0.88	<1	<2	9	<1	0.59
RMD-277	GRAB	Opp. 11280 Twigg Place	11-Jun-14	0.97	<1	<2	9	<1	0.45
RMD-260	GRAB	11111 Horseshoe Way	11-Jun-14	0.92	<1	<2	9	<1	0.41
RMD-266	GRAB	9380 General Currie Rd.	11-Jun-14	1.1	<1	<2	9	<1	0.44
RMD-257	GRAB	6640 Blundell Rd.	11-Jun-14	0.94	<1	<2	9	<1	0.39
RMD-206	GRAB	4251 Moncton St.	13-Jun-14	0.73	<1	<2	9	<1	0.7
RMD-212	GRAB	Opp. 8600 Ryan Rd.	13-Jun-14	0.71	<1	<2	9	<1	0.57
RMD-250	GRAB	6071 Azure Rd.	16-Jun-14	0.72	<1	<2	9	<1	0.4
RMD-271	GRAB	3800 Cessna Drive	16-Jun-14	1.1	<1	<2	9	<1	0.48
RMD-272	GRAB	751 Catalina Cres.	16-Jun-14	0.85	<1	<2	9	<1	0.41
RMD-253	GRAB	11051 No 3 Rd.	16-Jun-14	0.74	<1	<2	9	<1	0.47
RMD-264	GRAB	13100 Mitchell Rd.	18-Jun-14	1	<1	<2	9	<1	0.52
RMD-260	GRAB	11111 Horseshoe Way	18-Jun-14	0.9	<1	<2	9	<1	0.5
RMD-259	GRAB	10020 Amethyst Ave.	18-Jun-14	0.71	<1	<2	9	<1	0.36
RMD-216	GRAB	11080 No. 2 Rd.	20-Jun-14	0.71	<1	<2	9	<1	0.47
RMD-214	GRAB	11720 Westminster Hwy.	20-Jun-14	1.1	<1	<2	9	<1	0.42
RMD-251	GRAB	5951McCallan Rd.	23-Jun-14	0.96	<1	<2	9	<1	0.43
RMD-250	GRAB	6071 Azure Rd.	23-Jun-14	1	<1	<2	9	<1	0.48
RMD-255	GRAB	6000 Blk. Miller Rd.	23-Jun-14	1	<1	<2	9	<1	0.68
RMD-254	GRAB	5300 No. 3 Rd.	23-Jun-14	0.92	<1	<2	9	<1	0.43
RMD-264	GRAB	13100 Mitchell Rd.	25-Jun-14	0.98	<1	<2	9	<1	0.66
RMD-277	GRAB	Opp. 11280 Twigg Place	25-Jun-14	0.99	<1	<2	9	<1	0.65
RMD-260	GRAB	11111 Horseshoe Way	25-Jun-14	0.89	<1	2	9	<1	0.38
RMD-259	GRAB	10020 Amethyst Ave.	25-Jun-14	1	<1	<2	9	<1	0.38
RMD-257	GRAB	6640 Blundell Rd.	25-Jun-14	0.84	<1	<2	9	<1	0.42
RMD-212	GRAB	Opp. 8600 Ryan Rd.	27-Jun-14	0.83	<1	<2	9	<1	0.28
RMD-208	GRAB	13200 No. 4 Rd.	27-Jun-14	0.94	<1	<2	9	<1	0.3
RMD-251	GRAB	5951McCallan Rd.	30-Jun-14	1.1	<1	<2	9	<1	0.34
RMD-253	GRAB	11051 No 3 Rd.	30-Jun-14	0.98	<1	<2	9	<1	0.29
RMD-250	GRAB	6071 Azure Rd.	30-Jun-14	1.1	<1	<2	9	<1	0.32
RMD-255	GRAB	6000 Blk. Miller Rd.	30-Jun-14	0.94	<1	<2	9	<1	0.54
RMD-260	GRAB	11111 Horseshoe Way	2-Jul-14	0.99	<1	<2	9	<1	0.35
RMD-266	GRAB	9380 General Currie Rd.	2-Jul-14	0.85	<1	<2	9	<1	0.35
RMD-257	GRAB	6640 Blundell Rd.	2-Jul-14	1.1	<1	<2	9	<1	0.39
RMD-216	GRAB	11080 No. 2 Rd.	4-Jul-14	0.8	<1	<2	9	<1	0.29
RMD-208	GRAB	13200 No. 4 Rd.	4-Jul-14	0.85	<1	<2	9	<1	0.3
RMD-251	GRAB	5951McCallan Rd.	7-Jul-14	0.98	<1	<2	9	<1	0.31
RMD-266	GRAB	9380 General Currie RdCNCL -	639 <sup>9-Jul-14</sup>	0.96	<1	<2	9	<1	0.32

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-257	GRAB	6640 Blundell Rd.	9-Jul-14	1	<1	<2	9	<1	0.34
RMD-216	GRAB	11080 No. 2 Rd.	11-Jul-14	0.95	<1	<2	9	<1	0.3
RMD-214	GRAB	11720 Westminster Hwy.	11-Jul-14	0.88	<1	<2	9	<1	0.3
RMD-251	GRAB	5951McCallan Rd.	14-Jul-14	0.96	<1	<2	9	<1	0.42
RMD-272	GRAB	751 Catalina Cres.	14-Jul-14	1	<1	<2	9	<1	0.32
RMD-255	GRAB	6000 Blk. Miller Rd.	14-Jul-14	0.89	<1	<2	9	<1	0.63
RMD-277	GRAB	Opp. 11280 Twigg Place	16-Jul-14	0.92	<1	<2	9	<1	0.32
RMD-266	GRAB	9380 General Currie Rd.	16-Jul-14	0.93	<1	<2	9	<1	0.28
RMD-257	GRAB	6640 Blundell Rd.	16-Jul-14	0.88	<1	<2	9	<1	0.3
RMD-253	REPEAT	11051 No 3 Rd.	16-Jul-14	0.89	<1	<2	9	<1	0.26
RMD-214	GRAB	11720 Westminster Hwy.	18-Jul-14	0.83	<1	<2	9	<1	0.3
RMD-251	GRAB	5951McCallan Rd.	21-Jul-14	0.99	<1	<2	9	<1	0.36
RMD-255	GRAB	6000 Blk. Miller Rd.	21-Jul-14	0.78	<1	<2	9	<1	0.32
RMD-260	GRAB	11111 Horseshoe Way	23-Jul-14	0.91	<1	<2	9	<1	0.28
RMD-257	GRAB	6640 Blundell Rd.	23-Jul-14	0.98	<1	<2	9	<1	0.31
RMD-214	GRAB	11720 Westminster Hwy.	24-Jul-14	1.2	<1	<2	9	<1	0.26
RMD-251	GRAB	5951McCallan Rd.	28-Jul-14	0.81	<1	<2	9	<1	0.33
RMD-255	GRAB	6000 Blk. Miller Rd.	28-Jul-14	1.2	<1	<2	9	<1	0.43
RMD-266	GRAB	9380 General Currie Rd.	30-Jul-14	0.61	<1	<2	9	<1	0.31
RMD-251	GRAB	5951McCallan Rd.	11-Aug-14	0.78	<1	<2	9	<1	0.37
RMD-203	GRAB	23260 Westminster Hwy.	7-Nov-14	0.8	<1	<2	9	<1	0.1
RMD-255	GRAB	6000 Blk. Miller Rd.	10-Nov-14	0.94	<1	<2	9	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	12-Nov-14	0.79	<1	<2	9	<1	0.34
RMD-264	GRAB	13100 Mitchell Rd.	12-Nov-14	0.81	<1	<2	9	<1	0.19
RMD-277	GRAB	Opp. 11280 Twigg Place	12-Nov-14	0.81	<1	2	9	<1	0.18
RMD-262	GRAB	13799 Commerce Pkwy.	12-Nov-14	0.68	<1	<2	9	<1	0.19
RMD-278	GRAB	6651 Fraserwood Place	12-Nov-14	0.91	<1	<2	9	<1	0.16
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	12-Nov-14	0.73	<1	<2	9	<1	0.23
RMD-260	GRAB	11111 Horseshoe Way	12-Nov-14	0.82	<1	<2	9	<1	0.27
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	12-Nov-14	0.76	<1	<2	9	<1	0.15
RMD-257	GRAB	6640 Blundell Rd.	12-Nov-14	0.85	<1	<2	9	<1	0.13
RMD-271	GRAB	3800 Cessna Drive	17-Nov-14	0.8	<1	<2	9	<1	0.1
RMD-256	GRAB	1000 Blk. McDonald Rd.	17-Nov-14	0.67	<1	<2	9	<1	0.13
RMD-254	GRAB	5300 No. 3 Rd.	17-Nov-14	0.52	<1	<2	9	<1	0.13
RMD-264	GRAB	13100 Mitchell Rd.	19-Nov-14	0.74	<1	<2	9	<1	0.11
RMD-262	GRAB	13799 Commerce Pkwy.	19-Nov-14	0.49	<1	<2	9	<1	0.15
RMD-204	GRAB	3180 Granville Ave.	21-Nov-14	0.72	<1	<2	9	<1	0.45
RMD-205	GRAB	13851 Steveston Hwy.	21-Nov-14	0.61	<1	2	9	<1	0.32
RMD-214	GRAB	11720 Westminster HwCNCL -	640 21-Nov-14	0.92	<1	<2	9	<1	0.11

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-249	GRAB	23000 Blk. Dyke Rd.	21-Nov-14	0.5	<1	10	9	<1	0.27
RMD-203	GRAB	23260 Westminster Hwy.	21-Nov-14	0.79	<1	<2	9	<1	0.09
RMD-252	GRAB	9751 Pendleton Rd.	24-Nov-14	0.75	<1	<2	9	<1	0.12
RMD-274	GRAB	10920 Springwood Court	24-Nov-14	0.78	<1	<2	9	<1	0.17
RMD-250	GRAB	6071 Azure Rd.	24-Nov-14	0.75	<1	<2	9	<1	0.15
RMD-254	GRAB	5300 No. 3 Rd.	24-Nov-14	0.77	<1	<2	9	<1	0.21
RMD-269	GRAB	14951 Triangle Rd.	24-Nov-14	0.52	<1	<2	9	<1	0.24
RMD-277	GRAB	Opp. 11280 Twigg Place	26-Nov-14	0.72	<1	6	9	<1	0.16
RMD-262	GRAB	13799 Commerce Pkwy.	26-Nov-14	0.68	<1	<2	9	<1	0.13
RMD-278	GRAB	6651 Fraserwood Place	26-Nov-14	0.58	<1	<2	9	<1	0.13
RMD-204	GRAB	3180 Granville Ave.	27-Nov-14	0.66	<1	<2	9	<1	0.35
RMD-267	GRAB	17240 Fedoruk	27-Nov-14	0.44	<1	<2	9	<1	0.27
RMD-249	GRAB	23000 Blk. Dyke Rd.	27-Nov-14	0.58	<1	<2	9	<1	0.16
RMD-276	GRAB	22271 Cochrane Drive	27-Nov-14	0.6	<1	<2	9	<1	0.16
RMD-275	GRAB	5180 Smith Cres.	27-Nov-14	0.63	<1	4	9	<1	0.3
RMD-203	GRAB	23260 Westminster Hwy.	27-Nov-14	0.65	<1	<2	9	<1	0.11
RMD-252	GRAB	9751 Pendleton Rd.	1-Dec-14	0.7	<1	<2	9	<1	0.13
RMD-274	GRAB	10920 Springwood Court	1-Dec-14	0.76	<1	<2	9	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	5-Dec-14	1.1	<1	<2	9	<1	0.23
RMD-273	GRAB	Opp. 8331 Fairfax Place	14-Apr-14	0.65	<1	<2	10	<1	0.21
RMD-274	GRAB	10920 Springwood Court	22-Apr-14	0.59	<1	<2	10	<1	0.14
RMD-263	GRAB	12560 Cambie Rd.	23-Apr-14	0.67	<1	<2	10	<1	0.12
RMD-274	GRAB	10920 Springwood Court	28-Apr-14	0.65	<1	<2	10	<1	0.1
RMD-249	GRAB	23000 Blk. Dyke Rd.	2-May-14	0.56	<1	<2	10	<1	0.13
RMD-264	GRAB	13100 Mitchell Rd.	7-May-14	0.77	<1	<2	10	<1	0.15
RMD-277	GRAB	Opp. 11280 Twigg Place	7-May-14	0.85	<1	<2	10	<1	0.17
RMD-278	GRAB	6651 Fraserwood Place	7-May-14	0.61	<1	<2	10	<1	0.14
RMD-261	GRAB	9911 Sidaway Rd.	7-May-14	0.9	<1	<2	10	<1	0.09
RMD-204	GRAB	3180 Granville Ave.	9-May-14	0.66	<1	<2	10	<1	0.24
RMD-267	GRAB	17240 Fedoruk	9-May-14	0.65	<1	<2	10	<1	0.16
RMD-276	GRAB	22271 Cochrane Drive	9-May-14	0.55	<1	<2	10	<1	0.11
RMD-275	GRAB	5180 Smith Cres.	9-May-14	0.63	<1	<2	10	<1	0.14
RMD-203	GRAB	23260 Westminster Hwy.	9-May-14	0.51	<1	<2	10	<1	0.16
RMD-272	GRAB	751 Catalina Cres.	12-May-14	0.67	<1	<2	10	<1	0.1
RMD-256	GRAB	1000 Blk. McDonald Rd.	12-May-14	0.63	<1	<2	10	<1	0.11
RMD-258	GRAB	7000 Blk. Dyke Rd.	14-May-14	0.59	<1	<2	10	<1	0.11
RMD-204	GRAB	3180 Granville Ave.	16-May-14	0.67	<1	<2	10	<1	0.5
RMD-212	GRAB	Opp. 8600 Ryan Rd.	16-May-14	0.72	<1	<2	10	<1	0.12
RMD-275	GRAB	5180 Smith Cres. CNCL -	641 16-May-14	0.68	<1	<2	10	<1	0.12

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-252	GRAB	9751 Pendleton Rd.	20-May-14	0.69	<1	<2	10	<1	0.14
RMD-253	GRAB	11051 No 3 Rd.	20-May-14	0.77	<1	<2	10	<1	0.14
RMD-270	GRAB	8200 Jones Rd.	20-May-14	0.7	<1	<2	10	<1	0.17
RMD-254	GRAB	5300 No. 3 Rd.	20-May-14	0.66	<1	<2	10	<1	0.15
RMD-271	GRAB	3800 Cessna Drive	20-May-14	0.73	<1	<2	10	<1	0.14
RMD-256	GRAB	1000 Blk. McDonald Rd.	20-May-14	0.61	<1	14	10	<1	0.14
RMD-216	GRAB	11080 No. 2 Rd.	23-May-14	0.75	<1	<2	10	<1	0.14
RMD-203	GRAB	23260 Westminster Hwy.	23-May-14	0.73	<1	<2	10	<1	0.19
RMD-271	GRAB	3800 Cessna Drive	26-May-14	0.73	<1	<2	10	<1	0.14
RMD-272	GRAB	751 Catalina Cres.	26-May-14	0.61	<1	<2	10	<1	0.12
RMD-255	GRAB	6000 Blk. Miller Rd.	26-May-14	0.75	<1	<2	10	<1	0.2
RMD-256	GRAB	1000 Blk. McDonald Rd.	26-May-14	0.71	<1	<2	10	<1	0.15
RMD-254	GRAB	5300 No. 3 Rd.	26-May-14	0.68	<1	<2	10	<1	0.13
RMD-269	GRAB	14951 Triangle Rd.	26-May-14	0.64	<1	<2	10	<1	0.16
RMD-253	GRAB	11051 No 3 Rd.	26-May-14	0.7	<1	<2	10	<1	0.12
RMD-262	GRAB	13799 Commerce Pkwy.	28-May-14	0.79	<1	2	10	<1	0.25
RMD-260	GRAB	11111 Horseshoe Way	28-May-14	0.74	<1	<2	10	<1	0.11
RMD-259	GRAB	10020 Amethyst Ave.	28-May-14	0.71	<1	2	10	<1	0.13
RMD-266	GRAB	9380 General Currie Rd.	28-May-14	0.78	<1	<2	10	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	28-May-14	0.78	<1	<2	10	<1	0.11
RMD-206	GRAB	4251 Moncton St.	30-May-14	0.76	<1	<2	10	<1	0.54
RMD-212	GRAB	Opp. 8600 Ryan Rd.	30-May-14	0.83	<1	2	10	<1	0.52
RMD-205	GRAB	13851 Steveston Hwy.	30-May-14	0.59	<1	<2	10	<1	0.11
RMD-202	GRAB	1500 Valemont Way	30-May-14	0.58	<1	<2	10	<1	0.15
RMD-252	GRAB	9751 Pendleton Rd.	2-Jun-14	0.77	<1	<2	10	<1	0.49
RMD-254	GRAB	5300 No. 3 Rd.	2-Jun-14	0.85	<1	<2	10	<1	0.46
RMD-253	GRAB	11051 No 3 Rd.	2-Jun-14	0.97	<1	<2	10	<1	0.58
RMD-264	GRAB	13100 Mitchell Rd.	4-Jun-14	0.97	<1	<2	10	<1	0.5
RMD-278	GRAB	6651 Fraserwood Place	4-Jun-14	0.55	<1	<2	10	<1	0.15
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	4-Jun-14	0.62	<1	<2	10	<1	0.1
RMD-261	GRAB	9911 Sidaway Rd.	4-Jun-14	0.57	<1	<2	10	<1	0.13
RMD-266	GRAB	9380 General Currie Rd.	4-Jun-14	0.79	<1	<2	10	<1	0.52
RMD-258	GRAB	7000 Blk. Dyke Rd.	4-Jun-14	0.61	<1	<2	10	<1	0.4
RMD-206	GRAB	4251 Moncton St.	6-Jun-14	0.85	<1	<2	10	<1	0.69
RMD-216	GRAB	11080 No. 2 Rd.	6-Jun-14	0.84	<1	<2	10	<1	0.45
RMD-212	GRAB	Opp. 8600 Ryan Rd.	6-Jun-14	0.87	<1	<2	10	<1	0.48
RMD-252	GRAB	9751 Pendleton Rd.	9-Jun-14	0.73	<1	<2	10	<1	0.7
RMD-250	GRAB	6071 Azure Rd.	9-Jun-14	0.71	<1	2	10	<1	0.25
RMD-256	GRAB	1000 Blk. McDonald RdCNCL -	<b>642</b> 9-Jun-14	0.77	<1	<2	10	<1	0.65

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-254	GRAB	5300 No. 3 Rd.	9-Jun-14	0.6	<1	<2	10	<1	0.5
RMD-270	GRAB	8200 Jones Rd.	9-Jun-14	0.8	<1	26	10	<1	0.53
RMD-269	GRAB	14951 Triangle Rd.	9-Jun-14	0.65	<1	<2	10	<1	0.2
RMD-263	GRAB	12560 Cambie Rd.	11-Jun-14	0.99	<1	<2	10	<1	0.47
RMD-264	GRAB	13100 Mitchell Rd.	11-Jun-14	0.95	<1	<2	10	<1	0.66
RMD-204	GRAB	3180 Granville Ave.	13-Jun-14	0.67	<1	<2	10	<1	0.45
RMD-205	GRAB	13851 Steveston Hwy.	13-Jun-14	0.71	<1	<2	10	<1	0.12
RMD-275	GRAB	5180 Smith Cres.	13-Jun-14	0.72	<1	<2	10	<1	0.1
RMD-203	GRAB	23260 Westminster Hwy.	13-Jun-14	0.69	<1	<2	10	<1	0.1
RMD-252	GRAB	9751 Pendleton Rd.	16-Jun-14	0.67	<1	<2	10	<1	0.4
RMD-263	GRAB	12560 Cambie Rd.	18-Jun-14	0.94	<1	2	10	<1	0.39
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	18-Jun-14	0.83	<1	<2	10	<1	0.47
RMD-258	GRAB	7000 Blk. Dyke Rd.	18-Jun-14	0.76	<1	<2	10	<1	0.39
RMD-206	GRAB	4251 Moncton St.	20-Jun-14	0.87	<1	<2	10	<1	0.36
RMD-212	GRAB	Opp. 8600 Ryan Rd.	20-Jun-14	0.77	<1	<2	10	<1	0.36
RMD-208	GRAB	13200 No. 4 Rd.	20-Jun-14	0.92	<1	<2	10	<1	0.37
RMD-252	GRAB	9751 Pendleton Rd.	23-Jun-14	0.72	<1	<2	10	<1	0.42
RMD-271	GRAB	3800 Cessna Drive	23-Jun-14	0.95	<1	2	10	<1	0.46
RMD-256	GRAB	1000 Blk. McDonald Rd.	23-Jun-14	0.84	<1	<2	10	<1	0.37
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	25-Jun-14	0.85	<1	4	10	<1	0.38
RMD-258	GRAB	7000 Blk. Dyke Rd.	25-Jun-14	0.88	<1	<2	10	<1	0.33
RMD-206	GRAB	4251 Moncton St.	27-Jun-14	0.82	<1	2	10	<1	0.32
RMD-216	GRAB	11080 No. 2 Rd.	27-Jun-14	0.78	<1	<2	10	<1	0.32
RMD-270	GRAB	8200 Jones Rd.	30-Jun-14	0.64	<1	<2	10	<1	0.29
RMD-264	GRAB	13100 Mitchell Rd.	2-Jul-14	0.95	<1	<2	10	<1	0.56
RMD-259	GRAB	10020 Amethyst Ave.	2-Jul-14	0.87	<1	<2	10	<1	0.36
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	2-Jul-14	0.65	<1	<2	10	<1	0.61
RMD-258	GRAB	7000 Blk. Dyke Rd.	2-Jul-14	0.87	<1	<2	10	<1	0.33
RMD-206	GRAB	4251 Moncton St.	4-Jul-14	0.63	<1	<2	10	<1	0.33
RMD-212	GRAB	Opp. 8600 Ryan Rd.	4-Jul-14	0.79	<1	<2	10	<1	0.29
RMD-271	GRAB	3800 Cessna Drive	7-Jul-14	0.92	<1	<2	10	<1	0.58
RMD-272	GRAB	751 Catalina Cres.	7-Jul-14	0.88	<1	<2	10	<1	0.33
RMD-255	GRAB	6000 Blk. Miller Rd.	7-Jul-14	0.97	<1	<2	10	<1	0.61
RMD-254	GRAB	5300 No. 3 Rd.	7-Jul-14	0.87	<1	<2	10	<1	0.43
RMD-253	GRAB	11051 No 3 Rd.	7-Jul-14	0.85	<1	2	10	<1	0.4
RMD-263	GRAB	12560 Cambie Rd.	9-Jul-14	0.69	<1	<2	10	<1	0.38
RMD-277	GRAB	Opp. 11280 Twigg Place	9-Jul-14	0.81	<1	<2	10	<1	0.34
RMD-262	GRAB	13799 Commerce Pkwy.	9-Jul-14	1	<1	<2	10	<1	0.33
RMD-260	GRAB	11111 Horseshoe Way CNCL - 6	<b>543</b> 9-Jul-14	0.96	<1	<2	10	<1	0.33

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-206	GRAB	4251 Moncton St.	11-Jul-14	0.91	<1	2	10	<1	0.33
RMD-208	GRAB	13200 No. 4 Rd.	11-Jul-14	0.88	<1	<2	10	<1	0.32
RMD-271	GRAB	3800 Cessna Drive	14-Jul-14	0.87	<1	<2	10	<1	0.38
RMD-254	GRAB	5300 No. 3 Rd.	14-Jul-14	0.59	<1	<2	10	<1	0.48
RMD-253	GRAB	11051 No 3 Rd.	14-Jul-14	0.77	<1	4	10	1	0.38
RMD-263	GRAB	12560 Cambie Rd.	16-Jul-14	1.2	<1	<2	10	<1	0.32
RMD-262	GRAB	13799 Commerce Pkwy.	16-Jul-14	0.85	<1	<2	10	<1	0.32
RMD-260	GRAB	11111 Horseshoe Way	16-Jul-14	0.75	<1	<2	10	<1	0.29
RMD-206	GRAB	4251 Moncton St.	18-Jul-14	0.69	<1	<2	10	<1	0.61
RMD-216	GRAB	11080 No. 2 Rd.	18-Jul-14	0.85	<1	<2	10	<1	0.27
RMD-208	GRAB	13200 No. 4 Rd.	18-Jul-14	0.88	<1	2	10	<1	0.36
RMD-271	GRAB	3800 Cessna Drive	21-Jul-14	0.81	<1	<2	10	<1	0.27
RMD-272	GRAB	751 Catalina Cres.	21-Jul-14	0.91	<1	<2	10	<1	0.34
RMD-256	GRAB	1000 Blk. McDonald Rd.	21-Jul-14	0.96	<1	<2	10	<1	0.34
RMD-254	GRAB	5300 No. 3 Rd.	21-Jul-14	0.91	<1	<2	10	<1	0.39
RMD-253	GRAB	11051 No 3 Rd.	21-Jul-14	0.83	<1	<2	10	<1	0.46
RMD-263	GRAB	12560 Cambie Rd.	23-Jul-14	0.96	<1	<2	10	<1	0.3
RMD-277	GRAB	Opp. 11280 Twigg Place	23-Jul-14	1	<1	2	10	<1	0.31
RMD-266	GRAB	9380 General Currie Rd.	23-Jul-14	1.1	<1	<2	10	<1	0.29
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	23-Jul-14	0.81	<1	<2	10	<1	0.26
RMD-216	GRAB	11080 No. 2 Rd.	24-Jul-14	0.92	<1	<2	10	<1	0.28
RMD-271	GRAB	3800 Cessna Drive	28-Jul-14	1.1	<1	<2	10	<1	0.32
RMD-256	GRAB	1000 Blk. McDonald Rd.	28-Jul-14	0.52	<1	<2	10	<1	0.38
RMD-254	GRAB	5300 No. 3 Rd.	28-Jul-14	0.76	<1	<2	10	<1	0.32
RMD-253	GRAB	11051 No 3 Rd.	28-Jul-14	0.7	<1	<2	10	<1	0.35
RMD-263	GRAB	12560 Cambie Rd.	30-Jul-14	0.88	<1	<2	10	<1	0.39
RMD-264	GRAB	13100 Mitchell Rd.	30-Jul-14	0.86	<1	<2	10	<1	0.51
RMD-277	GRAB	Opp. 11280 Twigg Place	30-Jul-14	1.1	<1	<2	10	<1	0.44
RMD-260	GRAB	11111 Horseshoe Way	30-Jul-14	1.2	<1	<2	10	<1	0.29
RMD-206	GRAB	4251 Moncton St.	1-Aug-14	1.1	<1	<2	10	<1	0.25
RMD-216	GRAB	11080 No. 2 Rd.	1-Aug-14	0.91	<1	<2	10	<1	0.25
RMD-208	GRAB	13200 No. 4 Rd.	1-Aug-14	0.98	<1	<2	10	<1	0.25
RMD-214	GRAB	11720 Westminster Hwy.	1-Aug-14	1.2	<1	<2	10	<1	0.27
RMD-251	GRAB	5951McCallan Rd.	5-Aug-14	0.69	<1	<2	10	<1	0.29
RMD-214	GRAB	11720 Westminster Hwy.	7-Aug-14	0.89	<1	<2	10	<1	0.32
RMD-255	GRAB	6000 Blk. Miller Rd.	11-Aug-14	0.67	<1	<2	10	<1	0.38
RMD-275	GRAB	5180 Smith Cres.	2-Oct-14	0.49	<1	<2	10	<1	0.11
RMD-251	GRAB	5951McCallan Rd.	27-Oct-14	0.85	<1	2	10	<1	0.11
RMD-272	GRAB	751 Catalina Cres. CNCL -	644 27-Oct-14	0.87	<1	<2	10	<1	0.24

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-253	GRAB	11051 No 3 Rd.	27-Oct-14	0.94	<1	<2	10	<1	0.22
RMD-203	GRAB	23260 Westminster Hwy.	30-Oct-14	0.88	<1	<2	10	<1	0.3
RMD-255	GRAB	6000 Blk. Miller Rd.	3-Nov-14	1	<1	2	10	<1	0.14
RMD-253	GRAB	11051 No 3 Rd.	3-Nov-14	0.86	<1	<2	10	<1	0.16
RMD-260	GRAB	11111 Horseshoe Way	5-Nov-14	0.73	<1	<2	10	<1	0.14
RMD-266	GRAB	9380 General Currie Rd.	5-Nov-14	0.87	<1	<2	10	<1	0.16
RMD-204	GRAB	3180 Granville Ave.	7-Nov-14	0.63	<1	<2	10	<1	0.84
RMD-206	GRAB	4251 Moncton St.	7-Nov-14	0.99	<1	<2	10	<1	0.12
RMD-216	GRAB	11080 No. 2 Rd.	7-Nov-14	0.88	<1	<2	10	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	7-Nov-14	0.91	<1	<2	10	<1	0.13
RMD-205	GRAB	13851 Steveston Hwy.	7-Nov-14	0.46	<1	<2	10	<1	0.68
RMD-202	GRAB	1500 Valemont Way	7-Nov-14	0.89	<1	<2	10	<1	0.11
RMD-214	GRAB	11720 Westminster Hwy.	7-Nov-14	0.8	<1	<2	10	<1	0.11
RMD-267	GRAB	17240 Fedoruk	7-Nov-14	0.71	<1	<2	10	<1	0.15
RMD-276	GRAB	22271 Cochrane Drive	7-Nov-14	0.6	<1	<2	10	<1	0.19
RMD-275	GRAB	5180 Smith Cres.	7-Nov-14	0.76	<1	<2	10	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	10-Nov-14	1.2	<1	<2	10	<1	0.12
RMD-250	GRAB	6071 Azure Rd.	10-Nov-14	0.75	<1	<2	10	<1	0.16
RMD-271	GRAB	3800 Cessna Drive	10-Nov-14	0.86	<1	<2	10	<1	0.48
RMD-272	GRAB	751 Catalina Cres.	10-Nov-14	0.88	<1	<2	10	<1	0.2
RMD-254	GRAB	5300 No. 3 Rd.	10-Nov-14	0.69	<1	<2	10	<1	0.12
RMD-270	GRAB	8200 Jones Rd.	10-Nov-14	0.78	<1	<2	10	<1	0.1
RMD-253	GRAB	11051 No 3 Rd.	10-Nov-14	0.85	<1	<2	10	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	10-Nov-14	0.62	<1	<2	10	<1	0.19
RMD-261	GRAB	9911 Sidaway Rd.	12-Nov-14	0.69	<1	<2	10	<1	0.23
RMD-259	GRAB	10020 Amethyst Ave.	12-Nov-14	0.76	<1	<2	10	<1	0.11
RMD-266	GRAB	9380 General Currie Rd.	12-Nov-14	0.9	<1	<2	10	<1	0.1
RMD-258	GRAB	7000 Blk. Dyke Rd.	12-Nov-14	0.84	<1	<2	10	<1	0.11
RMD-206	GRAB	4251 Moncton St.	13-Nov-14	0.82	<1	<2	10	<1	0.13
RMD-216	GRAB	11080 No. 2 Rd.	13-Nov-14	0.91	<1	<2	10	<1	0.1
RMD-212	GRAB	Opp. 8600 Ryan Rd.	13-Nov-14	0.85	<1	<2	10	<1	0.11
RMD-249	GRAB	23000 Blk. Dyke Rd.	13-Nov-14	0.63	<1	4	10	<1	0.23
RMD-273	GRAB	Opp. 8331 Fairfax Place	17-Nov-14	0.6	<1	<2	10	<1	0.2
RMD-252	GRAB	9751 Pendleton Rd.	17-Nov-14	0.6	<1	<2	10	<1	0.13
RMD-274	GRAB	10920 Springwood Court	17-Nov-14	0.68	<1	<2	10	<1	0.13
RMD-250	GRAB	6071 Azure Rd.	17-Nov-14	0.75	<1	2	10	<1	0.17
RMD-270	GRAB	8200 Jones Rd.	17-Nov-14	0.75	<1	<2	10	<1	0.14
RMD-269	GRAB	14951 Triangle Rd.	17-Nov-14	0.56	<1	<2	10	<1	0.15
RMD-212	GRAB	Opp. 8600 Ryan Rd. CNCL -	645 <sup>21-Nov-14</sup>	0.78	<1	2	10	<1	0.1

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-267	GRAB	17240 Fedoruk	21-Nov-14	0.45	<1	<2	10	<1	0.17
RMD-275	GRAB	5180 Smith Cres.	21-Nov-14	0.55	<1	<2	10	<1	0.28
RMD-251	GRAB	5951McCallan Rd.	24-Nov-14	0.86	<1	2	10	<1	0.1
RMD-273	GRAB	Opp. 8331 Fairfax Place	24-Nov-14	0.54	<1	2	10	<1	0.17
RMD-206	GRAB	4251 Moncton St.	27-Nov-14	0.7	<1	2	10	<1	0.12
RMD-273	GRAB	Opp. 8331 Fairfax Place	1-Dec-14	0.69	<1	<2	10	<1	0.11
RMD-273	GRAB	Opp. 8331 Fairfax Place	22-Apr-14	0.69	<1	<2	11	<1	0.12
RMD-276	GRAB	22271 Cochrane Drive	16-May-14	0.59	<1	<2	11	<1	0.13
RMD-272	GRAB	751 Catalina Cres.	20-May-14	0.74	<1	<2	11	<1	0.11
RMD-206	GRAB	4251 Moncton St.	23-May-14	0.61	<1	<2	11	<1	0.22
RMD-212	GRAB	Opp. 8600 Ryan Rd.	23-May-14	0.64	<1	<2	11	<1	0.34
RMD-208	GRAB	13200 No. 4 Rd.	23-May-14	0.71	<1	<2	11	<1	0.13
RMD-205	GRAB	13851 Steveston Hwy.	23-May-14	0.76	<1	2	11	<1	0.18
RMD-214	GRAB	11720 Westminster Hwy.	23-May-14	0.66	<1	<2	11	<1	0.13
RMD-252	GRAB	9751 Pendleton Rd.	26-May-14	0.66	<1	<2	11	<1	0.13
RMD-250	GRAB	6071 Azure Rd.	26-May-14	0.66	<1	<2	11	<1	0.14
RMD-270	GRAB	8200 Jones Rd.	26-May-14	0.37	<1	<2	11	<1	0.13
RMD-263	GRAB	12560 Cambie Rd.	28-May-14	0.72	<1	<2	11	<1	0.17
RMD-264	GRAB	13100 Mitchell Rd.	28-May-14	0.67	<1	2	11	<1	0.13
RMD-278	GRAB	6651 Fraserwood Place	28-May-14	0.68	<1	<2	11	<1	0.24
RMD-261	GRAB	9911 Sidaway Rd.	28-May-14	0.78	<1	<2	11	<1	0.25
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	28-May-14	0.67	<1	<2	11	<1	0.17
RMD-275	GRAB	5180 Smith Cres.	30-May-14	0.54	<1	<2	11	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	6-Jun-14	0.71	<1	<2	11	<1	0.57
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	11-Jun-14	0.76	<1	<2	11	<1	0.12
RMD-261	GRAB	9911 Sidaway Rd.	11-Jun-14	0.79	<1	<2	11	<1	0.22
RMD-259	GRAB	10020 Amethyst Ave.	11-Jun-14	0.86	<1	<2	11	<1	0.38
RMD-258	GRAB	7000 Blk. Dyke Rd.	11-Jun-14	0.88	<1	<2	11	<1	0.44
RMD-216	GRAB	11080 No. 2 Rd.	13-Jun-14	0.65	<1	<2	11	<1	0.52
RMD-202	GRAB	1500 Valemont Way	13-Jun-14	0.61	<1	<2	11	<1	0.15
RMD-256	GRAB	1000 Blk. McDonald Rd.	16-Jun-14	0.81	<1	<2	11	<1	0.47
RMD-254	GRAB	5300 No. 3 Rd.	16-Jun-14	0.85	<1	<2	11	<1	0.48
RMD-262	GRAB	13799 Commerce Pkwy.	18-Jun-14	0.64	<1	<2	11	<1	0.14
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	18-Jun-14	0.67	<1	<2	11	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	18-Jun-14	0.63	<1	<2	11	<1	0.12
RMD-272	GRAB	751 Catalina Cres.	23-Jun-14	0.94	<1	<2	11	<1	0.45
RMD-270	GRAB	8200 Jones Rd.	23-Jun-14	0.85	<1	<2	11	<1	0.33
RMD-262	GRAB	13799 Commerce Pkwy.	25-Jun-14	0.74	<1	<2	11	<1	0.42
RMD-279	GRAB	Opp. 20371 Westminst		0.85	<1	2	11	<1	0.37

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-261	GRAB	9911 Sidaway Rd.	25-Jun-14	1	<1	<2	11	<1	0.22
RMD-266	GRAB	9380 General Currie Rd.	25-Jun-14	0.92	<1	<2	11	<1	0.32
RMD-205	GRAB	13851 Steveston Hwy.	27-Jun-14	0.75	<1	<2	11	<1	0.14
RMD-203	GRAB	23260 Westminster Hwy.	27-Jun-14	0.77	<1	<2	11	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	30-Jun-14	0.76	<1	<2	11	<1	0.13
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	2-Jul-14	0.71	<1	<2	11	<1	0.16
RMD-261	GRAB	9911 Sidaway Rd.	2-Jul-14	0.9	<1	<2	11	<1	0.22
RMD-203	GRAB	23260 Westminster Hwy.	4-Jul-14	0.79	<1	4	11	<1	0.2
RMD-256	GRAB	1000 Blk. McDonald Rd.	7-Jul-14	0.73	<1	<2	11	<1	0.55
RMD-259	GRAB	10020 Amethyst Ave.	9-Jul-14	0.83	<1	<2	11	<1	0.31
RMD-258	GRAB	7000 Blk. Dyke Rd.	9-Jul-14	0.87	<1	<2	11	<1	0.31
RMD-204	GRAB	3180 Granville Ave.	11-Jul-14	0.76	<1	<2	11	<1	0.3
RMD-212	GRAB	Opp. 8600 Ryan Rd.	11-Jul-14	0.89	<1	<2	11	<1	0.35
RMD-275	GRAB	5180 Smith Cres.	11-Jul-14	0.87	<1	<2	11	<1	0.25
RMD-264	GRAB	13100 Mitchell Rd.	16-Jul-14	0.9	<1	<2	11	<1	0.45
RMD-259	GRAB	10020 Amethyst Ave.	16-Jul-14	0.86	<1	<2	11	<1	0.28
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	16-Jul-14	0.65	<1	<2	11	<1	0.28
RMD-212	GRAB	Opp. 8600 Ryan Rd.	18-Jul-14	0.81	<1	<2	11	<1	0.31
RMD-264	GRAB	13100 Mitchell Rd.	23-Jul-14	0.84	<1	<2	11	<1	0.43
RMD-259	GRAB	10020 Amethyst Ave.	23-Jul-14	0.73	<1	<2	11	<1	0.24
RMD-206	GRAB	4251 Moncton St.	24-Jul-14	0.99	<1	<2	11	<1	0.23
RMD-208	GRAB	13200 No. 4 Rd.	24-Jul-14	1.1	<1	<2	11	<1	0.25
RMD-272	GRAB	751 Catalina Cres.	28-Jul-14	0.84	<1	<2	11	<1	0.33
RMD-262	GRAB	13799 Commerce Pkwy.	30-Jul-14	0.85	<1	<2	11	<1	0.39
RMD-259	GRAB	10020 Amethyst Ave.	30-Jul-14	0.73	<1	<2	11	<1	0.3
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	30-Jul-14	1.1	<1	<2	11	<1	0.71
RMD-257	GRAB	6640 Blundell Rd.	30-Jul-14	0.85	<1	<2	11	<1	0.3
RMD-250	GRAB	6071 Azure Rd.	5-Aug-14	0.94	<1	<2	11	<1	0.36
RMD-255	GRAB	6000 Blk. Miller Rd.	5-Aug-14	0.79	<1	<2	11	<1	0.36
RMD-253	GRAB	11051 No 3 Rd.	5-Aug-14	0.73	<1	<2	11	<1	0.3
RMD-263	GRAB	12560 Cambie Rd.	6-Aug-14	0.71	<1	<2	11	<1	0.35
RMD-266	GRAB	9380 General Currie Rd.	6-Aug-14	0.83	<1	<2	11	<1	0.38
RMD-257	GRAB	6640 Blundell Rd.	6-Aug-14	1	<1	<2	11	<1	0.3
RMD-206	GRAB	4251 Moncton St.	7-Aug-14	0.78	<1	<2	11	<1	0.34
RMD-216	GRAB	11080 No. 2 Rd.	7-Aug-14	0.73	<1	<2	11	<1	0.38
RMD-205	GRAB	13851 Steveston Hwy.	7-Aug-14	0.79	<1	<2	11	<1	0.23
RMD-267	GRAB	17240 Fedoruk	7-Aug-14	0.75	<1	2	11	<1	0.21
RMD-276	GRAB	22271 Cochrane Drive	7-Aug-14	0.69	<1	<2	11	<1	0.2
RMD-203	GRAB	23260 Westminster HwCNCL -	647 <sup>7-Aug-14</sup>	0.61	<1	<2	11	<1	0.21

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-253	GRAB	11051 No 3 Rd.	11-Aug-14	0.8	<1	<2	11	<1	0.33
RMD-257	GRAB	6640 Blundell Rd.	13-Aug-14	0.8	<1	<2	11	<1	0.39
RMD-214	GRAB	11720 Westminster Hwy.	21-Aug-14	0.85	<1	<2	11	<1	0.29
RMD-255	GRAB	6000 Blk. Miller Rd.	27-Oct-14	0.86	<1	<2	11	<1	0.24
RMD-256	GRAB	1000 Blk. McDonald Rd.	27-Oct-14	0.65	<1	<2	11	<1	0.46
RMD-266	GRAB	9380 General Currie Rd.	29-Oct-14	0.89	<1	<2	11	<1	0.16
RMD-206	GRAB	4251 Moncton St.	30-Oct-14	0.72	<1	<2	11	<1	0.15
RMD-216	GRAB	11080 No. 2 Rd.	30-Oct-14	0.84	<1	<2	11	<1	0.11
RMD-212	GRAB	Opp. 8600 Ryan Rd.	30-Oct-14	0.77	<1	<2	11	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	30-Oct-14	0.81	<1	<2	11	<1	0.17
RMD-202	GRAB	1500 Valemont Way	30-Oct-14	0.83	<1	<2	11	<1	0.28
RMD-214	GRAB	11720 Westminster Hwy.	30-Oct-14	0.78	<1	<2	11	<1	0.21
RMD-267	GRAB	17240 Fedoruk	30-Oct-14	0.67	<1	6	11	<1	0.14
RMD-251	GRAB	5951McCallan Rd.	3-Nov-14	0.77	<1	<2	11	<1	0.11
RMD-271	GRAB	3800 Cessna Drive	3-Nov-14	0.86	<1	<2	11	<1	0.23
RMD-263	GRAB	12560 Cambie Rd.	5-Nov-14	0.05	<1	<2	11	<1	0.18
RMD-264	GRAB	13100 Mitchell Rd.	5-Nov-14	1.1	<1	<2	11	<1	0.12
RMD-277	GRAB	Opp. 11280 Twigg Place	5-Nov-14	0.64	<1	<2	11	<1	0.16
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	5-Nov-14	0.51	<1	<2	11	<1	0.27
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	5-Nov-14	0.88	<1	<2	11	<1	0.12
RMD-257	GRAB	6640 Blundell Rd.	5-Nov-14	0.95	<1	<2	11	<1	0.13
RMD-252	GRAB	9751 Pendleton Rd.	10-Nov-14	0.62	<1	<2	11	<1	0.14
RMD-274	GRAB	10920 Springwood Court	10-Nov-14	0.6	<1	<2	11	<1	0.11
RMD-256	GRAB	1000 Blk. McDonald Rd.	10-Nov-14	0.35	<1	<2	11	<1	0.18
RMD-208	GRAB	13200 No. 4 Rd.	13-Nov-14	0.95	<1	2	11	<1	0.1
RMD-205	GRAB	13851 Steveston Hwy.	13-Nov-14	0.62	<1	<2	11	<1	0.47
RMD-202	GRAB	1500 Valemont Way	13-Nov-14	0.95	<1	<2	11	<1	0.12
RMD-214	GRAB	11720 Westminster Hwy.	13-Nov-14	0.79	<1	2	11	<1	0.13
RMD-267	GRAB	17240 Fedoruk	13-Nov-14	0.82	<1	<2	11	<1	0.15
RMD-276	GRAB	22271 Cochrane Drive	13-Nov-14	0.88	<1	<2	11	<1	0.11
RMD-275	GRAB	5180 Smith Cres.	13-Nov-14	0.81	<1	<2	11	<1	0.25
RMD-203	GRAB	23260 Westminster Hwy.	13-Nov-14	0.97	<1	<2	11	<1	0.11
RMD-277	GRAB	Opp. 11280 Twigg Place	19-Nov-14	0.62	<1	<2	11	<1	0.11
RMD-274	GRAB	10920 Springwood Court	12-May-14	0.61	<1	<2	12	<1	0.1
RMD-274	GRAB	10920 Springwood Court	20-May-14	0.69	<1	<2	12	<1	0.13
RMD-204	GRAB	3180 Granville Ave.	23-May-14	0.64	<1	<2	12	<1	0.4
RMD-202	GRAB	1500 Valemont Way	23-May-14	0.62	<1	<2	12	<1	0.21
RMD-267	GRAB	17240 Fedoruk	23-May-14	0.68	<1	<2	12	<1	0.17
RMD-249	GRAB	23000 Blk. Dyke Rd. CNCL -	<b>648</b> <sup>23-May-14</sup>	0.7	<1	<2	12	<1	0.26

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-276	GRAB	22271 Cochrane Drive	23-May-14	0.49	<1	<2	12	<1	0.22
RMD-275	GRAB	5180 Smith Cres.	23-May-14	0.75	<1	<2	12	<1	0.25
RMD-277	GRAB	Opp. 11280 Twigg Place	28-May-14	0.64	<1	<2	12	<1	0.17
RMD-258	GRAB	7000 Blk. Dyke Rd.	28-May-14	0.68	<1	<2	12	<1	0.14
RMD-204	GRAB	3180 Granville Ave.	30-May-14	0.7	<1	<2	12	<1	0.37
RMD-267	GRAB	17240 Fedoruk	30-May-14	0.55	<1	<2	12	<1	0.11
RMD-274	GRAB	10920 Springwood Court	2-Jun-14	0.74	<1	<2	12	<1	0.42
RMD-204	GRAB	3180 Granville Ave.	6-Jun-14	0.77	<1	<2	12	<1	0.63
RMD-202	GRAB	1500 Valemont Way	6-Jun-14	0.67	<1	<2	12	<1	0.16
RMD-203	GRAB	23260 Westminster Hwy.	6-Jun-14	0.69	<1	<2	12	<1	0.15
RMD-274	GRAB	10920 Springwood Court	9-Jun-14	0.56	<1	<2	12	<1	0.4
RMD-262	GRAB	13799 Commerce Pkwy.	11-Jun-14	0.49	<1	<2	12	<1	0.14
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	11-Jun-14	0.71	<1	<2	12	<1	0.15
RMD-249	GRAB	23000 Blk. Dyke Rd.	13-Jun-14	0.55	<1	<2	12	<1	0.12
RMD-276	GRAB	22271 Cochrane Drive	13-Jun-14	0.69	<1	<2	12	<1	0.13
RMD-270	GRAB	8200 Jones Rd.	16-Jun-14	0.69	<1	<2	12	<1	0.52
RMD-269	GRAB	14951 Triangle Rd.	16-Jun-14	0.66	<1	<2	12	<1	0.18
RMD-278	GRAB	6651 Fraserwood Place	18-Jun-14	0.62	<1	<2	12	<1	0.12
RMD-205	GRAB	13851 Steveston Hwy.	20-Jun-14	0.64	<1	<2	12	<1	0.14
RMD-202	GRAB	1500 Valemont Way	20-Jun-14	0.68	<1	<2	12	<1	0.17
RMD-203	GRAB	23260 Westminster Hwy.	20-Jun-14	0.77	<1	<2	12	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	23-Jun-14	0.76	<1	<2	12	<1	0.11
RMD-202	GRAB	1500 Valemont Way	27-Jun-14	0.94	<1	<2	12	<1	0.12
RMD-249	GRAB	23000 Blk. Dyke Rd.	27-Jun-14	0.63	<1	<2	12	<1	0.12
RMD-275	GRAB	5180 Smith Cres.	27-Jun-14	0.88	<1	<2	12	<1	0.16
RMD-252	GRAB	9751 Pendleton Rd.	30-Jun-14	0.68	<1	<2	12	<1	0.3
RMD-274	GRAB	10920 Springwood Court	30-Jun-14	0.7	<1	<2	12	<1	0.35
RMD-271	GRAB	3800 Cessna Drive	30-Jun-14	0.67	<1	2	12	<1	0.41
RMD-205	GRAB	13851 Steveston Hwy.	4-Jul-14	0.84	<1	<2	12	<1	0.2
RMD-202	GRAB	1500 Valemont Way	4-Jul-14	0.91	<1	<2	12	<1	0.16
RMD-274	GRAB	10920 Springwood Court	7-Jul-14	0.68	<1	<2	12	<1	0.33
RMD-250	GRAB	6071 Azure Rd.	7-Jul-14	0.76	<1	<2	12	<1	0.55
RMD-264	GRAB	13100 Mitchell Rd.	9-Jul-14	1	<1	<2	12	<1	0.48
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	9-Jul-14	0.83	<1	<2	12	<1	0.32
RMD-205	GRAB	13851 Steveston Hwy.	11-Jul-14	0.96	<1	<2	12	<1	0.22
RMD-203	GRAB	23260 Westminster Hwy.	11-Jul-14	0.85	<1	<2	12	<1	0.23
RMD-252	GRAB	9751 Pendleton Rd.	14-Jul-14	0.73	<1	<2	12	<1	0.29
RMD-250	GRAB	6071 Azure Rd.	14-Jul-14	0.89	<1	<2	12	<1	0.38
RMD-270	GRAB	8200 Jones Rd. CNCL - 6	<b>49</b> 14-Jul-14	0.85	<1	<2	12	<1	0.35

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-269	GRAB	14951 Triangle Rd.	14-Jul-14	0.82	<1	<2	12	<1	0.21
RMD-258	GRAB	7000 Blk. Dyke Rd.	16-Jul-14	0.6	<1	<2	12	<1	0.29
RMD-205	GRAB	13851 Steveston Hwy.	18-Jul-14	0.57	<1	<2	12	<1	0.21
RMD-252	GRAB	9751 Pendleton Rd.	21-Jul-14	0.73	<1	<2	12	<1	0.27
RMD-250	GRAB	6071 Azure Rd.	21-Jul-14	0.75	<1	<2	12	<1	0.31
RMD-270	GRAB	8200 Jones Rd.	21-Jul-14	0.66	<1	<2	12	<1	0.25
RMD-258	GRAB	7000 Blk. Dyke Rd.	23-Jul-14	0.71	<1	<2	12	<1	0.25
RMD-212	GRAB	Opp. 8600 Ryan Rd.	24-Jul-14	0.91	<1	<2	12	<1	0.26
RMD-252	GRAB	9751 Pendleton Rd.	28-Jul-14	0.89	<1	<2	12	<1	0.42
RMD-250	GRAB	6071 Azure Rd.	28-Jul-14	0.87	<1	2	12	<1	0.34
RMD-270	GRAB	8200 Jones Rd.	28-Jul-14	0.69	<1	<2	12	<1	0.31
RMD-212	GRAB	Opp. 8600 Ryan Rd.	1-Aug-14	0.86	<1	<2	12	<1	0.27
RMD-254	GRAB	5300 No. 3 Rd.	5-Aug-14	0.63	<1	<2	12	<1	0.3
RMD-260	GRAB	11111 Horseshoe Way	6-Aug-14	0.88	<1	<2	12	<1	0.34
RMD-259	GRAB	10020 Amethyst Ave.	6-Aug-14	0.77	<1	<2	12	<1	0.26
RMD-204	GRAB	3180 Granville Ave.	7-Aug-14	0.72	<1	4	12	<1	0.3
RMD-212	GRAB	Opp. 8600 Ryan Rd.	7-Aug-14	0.7	<1	<2	12	<1	0.42
RMD-249	GRAB	23000 Blk. Dyke Rd.	7-Aug-14	0.57	<1	2	12	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	7-Aug-14	0.52	<1	<2	12	<1	0.15
RMD-250	GRAB	6071 Azure Rd.	11-Aug-14	0.87	<1	<2	12	<1	0.54
RMD-271	GRAB	3800 Cessna Drive	11-Aug-14	0.88	<1	<2	12	<1	0.36
RMD-272	GRAB	751 Catalina Cres.	11-Aug-14	0.75	<1	<2	12	<1	0.3
RMD-256	GRAB	1000 Blk. McDonald Rd.	11-Aug-14	0.73	<1	<2	12	<1	0.37
RMD-254	GRAB	5300 No. 3 Rd.	11-Aug-14	0.72	<1	<2	12	<1	0.33
RMD-263	GRAB	12560 Cambie Rd.	13-Aug-14	0.76	<1	<2	12	<1	0.32
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	13-Aug-14	0.62	<1	<2	12	<1	0.3
RMD-206	GRAB	4251 Moncton St.	15-Aug-14	0.71	<1	<2	12	<1	0.3
RMD-216	GRAB	11080 No. 2 Rd.	15-Aug-14	0.97	<1	<2	12	<1	0.31
RMD-205	GRAB	13851 Steveston Hwy.	15-Aug-14	0.55	<1	<2	12	<1	0.16
RMD-214	GRAB	11720 Westminster Hwy.	15-Aug-14	1	<1	2	12	<1	0.32
RMD-251	GRAB	5951McCallan Rd.	18-Aug-14	0.67	<1	<2	12	<1	0.29
RMD-250	GRAB	6071 Azure Rd.	18-Aug-14	0.64	<1	4	12	<1	0.67
RMD-272	GRAB	751 Catalina Cres.	18-Aug-14	0.69	<1	<2	12	<1	0.3
RMD-255	GRAB	6000 Blk. Miller Rd.	18-Aug-14	0.68	<1	8	12	<1	0.29
RMD-253	GRAB	11051 No 3 Rd.	18-Aug-14	0.68	<1	<2	12	<1	0.27
RMD-263	GRAB	12560 Cambie Rd.	20-Aug-14	0.66	<1	<2	12	<1	0.34
RMD-216	GRAB	11080 No. 2 Rd.	21-Aug-14	0.83	<1	<2	12	<1	0.3
RMD-212	GRAB	Opp. 8600 Ryan Rd.	21-Aug-14	0.77	<1	<2	12	<1	0.29
RMD-208	GRAB		650 <sup>21-Aug-14</sup>	0.82	<1	<2	12	<1	0.38

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-202	GRAB	1500 Valemont Way	21-Aug-14	0.66	<1	<2	12	<1	0.3
RMD-249	GRAB	23000 Blk. Dyke Rd.	21-Aug-14	0.6	<1	<2	12	<1	0.28
RMD-275	GRAB	5180 Smith Cres.	21-Aug-14	0.69	<1	<2	12	<1	0.18
RMD-251	GRAB	5951McCallan Rd.	25-Aug-14	0.82	<1	<2	12	<1	0.33
RMD-255	GRAB	6000 Blk. Miller Rd.	25-Aug-14	0.9	<1	2	12	<1	0.36
RMD-256	GRAB	1000 Blk. McDonald Rd.	25-Aug-14	0.65	<1	<2	12	<1	0.38
RMD-254	GRAB	5300 No. 3 Rd.	25-Aug-14	0.85	<1	<2	12	<1	0.46
RMD-264	GRAB	13100 Mitchell Rd.	27-Aug-14	0.72	<1	2	12	<1	0.68
RMD-212	GRAB	Opp. 8600 Ryan Rd.	29-Aug-14	0.65	<1	<2	12	<1	0.33
RMD-208	GRAB	13200 No. 4 Rd.	29-Aug-14	0.78	<1	<2	12	<1	0.39
RMD-205	GRAB	13851 Steveston Hwy.	29-Aug-14	0.64	<1	<2	12	<1	0.27
RMD-272	GRAB	751 Catalina Cres.	20-Oct-14	0.86	<1	<2	12	<1	0.12
RMD-255	GRAB	6000 Blk. Miller Rd.	20-Oct-14	0.84	<1	<2	12	<1	0.24
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	22-Oct-14	0.75	<1	<2	12	<1	0.28
RMD-260	GRAB	11111 Horseshoe Way	22-Oct-14	0.85	<1	<2	12	<1	0.2
RMD-266	GRAB	9380 General Currie Rd.	22-Oct-14	0.84	<1	<2	12	<1	0.17
RMD-214	GRAB	11720 Westminster Hwy.	24-Oct-14	0.75	<1	<2	12	<1	0.14
RMD-252	GRAB	9751 Pendleton Rd.	27-Oct-14	0.55	<1	<2	12	<1	0.14
RMD-274	GRAB	10920 Springwood Court	27-Oct-14	0.71	<1	<2	12	<1	0.17
RMD-250	GRAB	6071 Azure Rd.	27-Oct-14	0.69	<1	<2	12	<1	0.12
RMD-271	GRAB	3800 Cessna Drive	27-Oct-14	0.75	<1	<2	12	<1	0.19
RMD-254	GRAB	5300 No. 3 Rd.	27-Oct-14	0.72	<1	<2	12	<1	0.13
RMD-270	GRAB	8200 Jones Rd.	27-Oct-14	0.65	<1	<2	12	<1	0.44
RMD-269	GRAB	14951 Triangle Rd.	27-Oct-14	0.57	<1	<2	12	<1	0.33
RMD-264	GRAB	13100 Mitchell Rd.	29-Oct-14	0.79	<1	<2	12	<1	0.15
RMD-277	GRAB	Opp. 11280 Twigg Place	29-Oct-14	0.76	<1	<2	12	<1	0.2
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	29-Oct-14	0.49	<1	<2	12	<1	0.33
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	29-Oct-14	0.69	<1	<2	12	<1	0.18
RMD-257	GRAB	6640 Blundell Rd.	29-Oct-14	0.78	<1	<2	12	<1	0.11
RMD-204	GRAB	3180 Granville Ave.	30-Oct-14	0.73	<1	<2	12	<1	1.4
RMD-205	GRAB	13851 Steveston Hwy.	30-Oct-14	0.53	<1	<2	12	<1	0.4
RMD-249	GRAB	23000 Blk. Dyke Rd.	30-Oct-14	0.51	<1	<2	12	<1	0.31
RMD-275	GRAB	5180 Smith Cres.	30-Oct-14	0.73	<1	<2	12	<1	0.33
RMD-276	GRAB	22271 Cochrane Drive	30-Oct-14	0.59	<1	<2	12	<1	0.22
RMD-272	GRAB	751 Catalina Cres.	3-Nov-14	0.9	<1	<2	12	<1	0.12
RMD-270	GRAB	8200 Jones Rd.	3-Nov-14	0.87	<1	<2	12	<1	0.22
RMD-269	GRAB	14951 Triangle Rd.	3-Nov-14	0.52	<1	2	12	<1	0.29
RMD-262	GRAB	13799 Commerce Pkwy.	5-Nov-14	0.61	<1	2	12	<1	0.28
RMD-278	GRAB	6651 Fraserwood Place CNCL -	651 5-Nov-14	0.52	<1	<2	12	<1	0.4

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-261	GRAB	9911 Sidaway Rd.	5-Nov-14	0.47	<1	<2	12	<1	0.3
RMD-259	GRAB	10020 Amethyst Ave.	5-Nov-14	0.3	<1	<2	12	<1	0.16
RMD-258	GRAB	7000 Blk. Dyke Rd.	5-Nov-14	0.54	<1	<2	12	<1	0.13
RMD-273	GRAB	Opp. 8331 Fairfax Place	10-Nov-14	0.65	<1	<2	12	<1	0.15
RMD-204	GRAB	3180 Granville Ave.	13-Nov-14	0.6	<1	2	12	<1	0.17
RMD-249	GRAB	23000 Blk. Dyke Rd.	30-May-14	0.46	<1	<2	13	<1	0.14
RMD-276	GRAB	22271 Cochrane Drive	30-May-14	0.49	<1	2	13	<1	0.12
RMD-267	GRAB	17240 Fedoruk	6-Jun-14	0.73	<1	<2	13	<1	0.15
RMD-249	GRAB	23000 Blk. Dyke Rd.	6-Jun-14	0.66	<1	<2	13	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	6-Jun-14	0.64	<1	<2	13	<1	0.19
RMD-275	GRAB	5180 Smith Cres.	6-Jun-14	0.73	<1	<2	13	<1	0.21
RMD-278	GRAB	6651 Fraserwood Place	11-Jun-14	0.65	<1	<2	13	<1	0.2
RMD-267	GRAB	17240 Fedoruk	13-Jun-14	0.71	<1	<2	13	<1	0.1
RMD-204	GRAB	3180 Granville Ave.	20-Jun-14	0.68	<1	<2	13	<1	0.37
RMD-267	GRAB	17240 Fedoruk	20-Jun-14	0.65	<1	<2	13	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	20-Jun-14	0.64	<1	<2	13	<1	0.18
RMD-278	GRAB	6651 Fraserwood Place	25-Jun-14	0.68	<1	<2	13	<1	0.14
RMD-204	GRAB	3180 Granville Ave.	27-Jun-14	0.74	<1	<2	13	<1	0.36
RMD-267	GRAB	17240 Fedoruk	27-Jun-14	0.87	<1	<2	13	<1	0.13
RMD-276	GRAB	22271 Cochrane Drive	27-Jun-14	0.91	<1	2	13	<1	0.12
RMD-256	GRAB	1000 Blk. McDonald Rd.	30-Jun-14	0.23	<1	<2	13	<1	0.3
RMD-278	GRAB	6651 Fraserwood Place	2-Jul-14	0.83	<1	<2	13	<1	0.16
RMD-267	GRAB	17240 Fedoruk	4-Jul-14	0.88	<1	<2	13	<1	0.17
RMD-249	GRAB	23000 Blk. Dyke Rd.	4-Jul-14	0.67	<1	2	13	<1	0.17
RMD-252	GRAB	9751 Pendleton Rd.	7-Jul-14	0.8	<1	<2	13	<1	0.4
RMD-270	GRAB	8200 Jones Rd.	7-Jul-14	0.84	<1	<2	13	<1	0.3
RMD-269	GRAB	14951 Triangle Rd.	7-Jul-14	0.7	<1	<2	13	<1	0.17
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	9-Jul-14	0.99	<1	<2	13	<1	0.41
RMD-261	GRAB	9911 Sidaway Rd.	9-Jul-14	0.74	<1	<2	13	<1	0.25
RMD-202	GRAB	1500 Valemont Way	11-Jul-14	0.83	<1	<2	13	<1	0.23
RMD-249	GRAB	23000 Blk. Dyke Rd.	11-Jul-14	0.29	<1	<2	13	<1	0.19
RMD-276	GRAB	22271 Cochrane Drive	11-Jul-14	0.95	<1	6	13	<1	0.21
RMD-274	GRAB	10920 Springwood Court	14-Jul-14	0.87	<1	2	13	<1	0.42
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	16-Jul-14	0.7	<1	<2	13	<1	0.29
RMD-261	GRAB	9911 Sidaway Rd.	16-Jul-14	0.68	<1	<2	13	<1	0.23
RMD-204	GRAB	3180 Granville Ave.	18-Jul-14	0.74	<1	<2	13	<1	0.29
RMD-203	GRAB	23260 Westminster Hwy.	18-Jul-14	0.62	<1	<2	13	<1	0.21
RMD-269	GRAB	14951 Triangle Rd.	21-Jul-14	0.76	<1	<2	13	<1	0.16
RMD-279	GRAB	Opp. 20371 Westminst CINCL -	652 23-Jul-14	0.71	<1	<2	13	<1	0.14

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-203	GRAB	23260 Westminster Hwy.	24-Jul-14	0.53	<1	<2	13	<1	0.12
RMD-269	GRAB	14951 Triangle Rd.	28-Jul-14	0.77	<1	<2	13	<1	0.16
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	30-Jul-14	0.68	<1	<2	13	<1	0.29
RMD-261	GRAB	9911 Sidaway Rd.	30-Jul-14	0.71	<1	<2	13	<1	0.23
RMD-258	GRAB	7000 Blk. Dyke Rd.	30-Jul-14	1.2	<1	<2	13	<1	1.2
RMD-205	GRAB	13851 Steveston Hwy.	1-Aug-14	0.59	<1	<2	13	<1	0.15
RMD-252	GRAB	9751 Pendleton Rd.	5-Aug-14	0.71	<1	<2	13	<1	0.28
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	6-Aug-14	0.85	<1	<2	13	<1	0.28
RMD-258	GRAB	7000 Blk. Dyke Rd.	6-Aug-14	0.7	<1	<2	13	<1	0.33
RMD-208	GRAB	13200 No. 4 Rd.	7-Aug-14	0.68	<1	<2	13	<1	0.26
RMD-252	GRAB	9751 Pendleton Rd.	11-Aug-14	0.69	<1	<2	13	<1	0.34
RMD-264	GRAB	13100 Mitchell Rd.	13-Aug-14	0.75	<1	<2	13	<1	0.34
RMD-260	GRAB	11111 Horseshoe Way	13-Aug-14	0.71	<1	2	13	<1	0.32
RMD-266	GRAB	9380 General Currie Rd.	13-Aug-14	0.73	<1	<2	13	<1	0.31
RMD-212	GRAB	Opp. 8600 Ryan Rd.	15-Aug-14	0.67	<1	<2	13	<1	0.28
RMD-208	GRAB	13200 No. 4 Rd.	15-Aug-14	0.81	<1	<2	13	<1	0.29
RMD-271	GRAB	3800 Cessna Drive	18-Aug-14	0.77	<1	<2	13	<1	0.29
RMD-256	GRAB	1000 Blk. McDonald Rd.	18-Aug-14	0.7	<1	<2	13	<1	0.34
RMD-254	GRAB	5300 No. 3 Rd.	18-Aug-14	0.71	<1	<2	13	<1	0.31
RMD-264	GRAB	13100 Mitchell Rd.	20-Aug-14	0.73	<1	<2	13	<1	0.4
RMD-277	GRAB	Opp. 11280 Twigg Place	20-Aug-14	0.76	<1	<2	13	<1	0.34
RMD-259	GRAB	10020 Amethyst Ave.	20-Aug-14	0.68	<1	<2	13	<1	0.27
RMD-206	GRAB	4251 Moncton St.	21-Aug-14	0.78	<1	<2	13	<1	0.34
RMD-205	GRAB	13851 Steveston Hwy.	21-Aug-14	0.66	<1	<2	13	<1	0.17
RMD-252	GRAB	9751 Pendleton Rd.	25-Aug-14	0.86	<1	<2	13	<1	0.41
RMD-272	GRAB	751 Catalina Cres.	25-Aug-14	0.97	<1	<2	13	<1	0.39
RMD-253	GRAB	11051 No 3 Rd.	25-Aug-14	0.83	<1	<2	13	<1	0.34
RMD-263	GRAB	12560 Cambie Rd.	27-Aug-14	0.84	<1	<2	13	<1	0.39
RMD-277	GRAB	Opp. 11280 Twigg Place	27-Aug-14	0.63	<1	<2	13	<1	0.52
RMD-266	GRAB	9380 General Currie Rd.	27-Aug-14	0.81	<1	<2	13	<1	0.33
RMD-257	GRAB	6640 Blundell Rd.	27-Aug-14	0.8	<1	<2	13	<1	0.32
RMD-206	GRAB	4251 Moncton St.	29-Aug-14	0.61	<1	<2	13	<1	0.37
RMD-216	GRAB	11080 No. 2 Rd.	29-Aug-14	0.74	<1	<2	13	<1	0.36
RMD-214	GRAB	11720 Westminster Hwy.	29-Aug-14	0.86	<1	<2	13	<1	0.41
RMD-203	GRAB	23260 Westminster Hwy.	29-Aug-14	0.88	<1	<2	13	<1	0.19
RMD-251	GRAB	5951McCallan Rd.	2-Sep-14	0.84	<1	<2	13	<1	0.36
RMD-272	GRAB	751 Catalina Cres.	2-Sep-14	0.83	<1	<2	13	<1	0.39
RMD-255	GRAB	6000 Blk. Miller Rd.	2-Sep-14	0.96	<1	34	13	<1	0.38
RMD-254	GRAB	5300 No. 3 Rd. CNCL -	653 <sup>2-Sep-14</sup>	0.92	<1	2	13	<1	0.31

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-270	GRAB	8200 Jones Rd.	2-Sep-14	0.71	<1	2	13	<1	0.35
RMD-263	GRAB	12560 Cambie Rd.	3-Sep-14	0.88	<1	<2	13	<1	0.37
RMD-260	GRAB	11111 Horseshoe Way	3-Sep-14	0.85	<1	<2	13	<1	0.37
RMD-257	GRAB	6640 Blundell Rd.	3-Sep-14	0.86	<1	<2	13	<1	0.36
RMD-206	GRAB	4251 Moncton St.	4-Sep-14	0.6	<1	<2	13	<1	0.34
RMD-216	GRAB	11080 No. 2 Rd.	4-Sep-14	0.81	<1	<2	13	<1	0.32
RMD-205	GRAB	13851 Steveston Hwy.	4-Sep-14	0.69	<1	<2	13	<1	0.21
RMD-202	GRAB	1500 Valemont Way	4-Sep-14	0.58	<1	<2	13	<1	0.24
RMD-214	GRAB	11720 Westminster Hwy.	4-Sep-14	0.91	<1	<2	13	<1	0.32
RMD-272	GRAB	751 Catalina Cres.	8-Sep-14	0.82	<1	88	13	<1	0.57
RMD-255	GRAB	6000 Blk. Miller Rd.	8-Sep-14	0.8	<1	38	13	<1	0.53
RMD-270	GRAB	8200 Jones Rd.	8-Sep-14	0.81	<1	2	13	<1	0.43
RMD-253	GRAB	11051 No 3 Rd.	8-Sep-14	0.8	<1	<2	13	<1	0.45
RMD-263	GRAB	12560 Cambie Rd.	10-Sep-14	0.94	<1	<2	13	<1	0.46
RMD-216	GRAB	11080 No. 2 Rd.	12-Sep-14	0.86	<1	<2	13	<1	0.4
RMD-255	GRAB	6000 Blk. Miller Rd.	15-Sep-14	0.98	<1	12	13	<1	0.57
RMD-216	GRAB	11080 No. 2 Rd.	2-Oct-14	0.79	<1	<2	13	<1	0.26
RMD-272	GRAB	751 Catalina Cres.	14-Oct-14	0.74	<1	2	13	<1	0.12
RMD-255	GRAB	6000 Blk. Miller Rd.	14-Oct-14	0.83	<1	<2	13	<1	0.25
RMD-254	GRAB	5300 No. 3 Rd.	14-Oct-14	0.62	<1	<2	13	<1	0.11
RMD-269	GRAB	14951 Triangle Rd.	14-Oct-14	0.7	<1	<2	13	<1	0.25
RMD-253	GRAB	11051 No 3 Rd.	14-Oct-14	0.79	<1	<2	13	<1	0.11
RMD-263	GRAB	12560 Cambie Rd.	15-Oct-14	0.87	<1	2	13	<1	0.15
RMD-264	GRAB	13100 Mitchell Rd.	15-Oct-14	0.63	<1	16	13	19	0.14
RMD-277	GRAB	Opp. 11280 Twigg Place	15-Oct-14	0.75	<1	<2	13	<1	0.15
RMD-206	GRAB	4251 Moncton St.	16-Oct-14	1	<1	<2	13	<1	0.1
RMD-216	GRAB	11080 No. 2 Rd.	16-Oct-14	0.71	<1	<2	13	<1	0.11
RMD-212	GRAB	Opp. 8600 Ryan Rd.	16-Oct-14	0.91	<1	<2	13	<1	0.11
RMD-208	GRAB	13200 No. 4 Rd.	16-Oct-14	0.95	<1	4	13	<1	0.1
RMD-205	GRAB	13851 Steveston Hwy.	16-Oct-14	0.43	<1	2	13	<1	0.27
RMD-251	GRAB	5951McCallan Rd.	20-Oct-14	0.64	<1	<2	13	<1	0.17
RMD-271	GRAB	3800 Cessna Drive	20-Oct-14	0.83	<1	<2	13	<1	0.14
RMD-253	GRAB	11051 No 3 Rd.	20-Oct-14	0.9	<1	<2	13	<1	0.13
RMD-263	GRAB	12560 Cambie Rd.	22-Oct-14	0.75	<1	<2	13	<1	0.2
RMD-277	GRAB	Opp. 11280 Twigg Place	22-Oct-14	0.84	<1	<2	13	<1	0.22
RMD-262	GRAB	13799 Commerce Pkwy.	22-Oct-14	0.62	<1	<2	13	<1	0.4
RMD-278	GRAB	6651 Fraserwood Place	22-Oct-14	0.53	<1	<2	13	<1	0.37
RMD-261	GRAB	9911 Sidaway Rd.	22-Oct-14	0.57	<1	<2	13	<1	0.31
RMD-259	GRAB	10020 Amethyst Ave. CNCL -	654 22-Oct-14	0.48	<1	<2	13	<1	0.34

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-258	GRAB	7000 Blk. Dyke Rd.	22-Oct-14	0.73	<1	<2	13	<1	0.14
RMD-257	GRAB	6640 Blundell Rd.	22-Oct-14	0.97	<1	<2	13	<1	0.13
RMD-212	GRAB	Opp. 8600 Ryan Rd.	24-Oct-14	0.75	<1	<2	13	<1	0.12
RMD-208	GRAB	13200 No. 4 Rd.	24-Oct-14	0.81	<1	<2	13	<1	0.1
RMD-276	GRAB	22271 Cochrane Drive	24-Oct-14	0.59	<1	14	13	<1	1.4
RMD-203	GRAB	23260 Westminster Hwy.	24-Oct-14	0.74	<1	<2	13	<1	0.36
RMD-263	GRAB	12560 Cambie Rd.	29-Oct-14	0.59	<1	<2	13	<1	0.2
RMD-262	GRAB	13799 Commerce Pkwy.	29-Oct-14	0.5	<1	<2	13	<1	0.38
RMD-278	GRAB	6651 Fraserwood Place	29-Oct-14	0.51	<1	<2	13	<1	0.49
RMD-261	GRAB	9911 Sidaway Rd.	29-Oct-14	0.33	<1	<2	13	<1	0.4
RMD-260	GRAB	11111 Horseshoe Way	29-Oct-14	0.73	<1	2	13	<1	0.15
RMD-258	GRAB	7000 Blk. Dyke Rd.	29-Oct-14	0.73	<1	<2	13	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	3-Nov-14	0.78	<1	<2	13	<1	0.15
RMD-274	GRAB	10920 Springwood Court	3-Nov-14	0.83	<1	<2	13	<1	0.12
RMD-250	GRAB	6071 Azure Rd.	3-Nov-14	0.73	<1	<2	13	<1	0.14
RMD-254	GRAB	5300 No. 3 Rd.	3-Nov-14	0.65	<1	2	13	<1	0.14
RMD-249	GRAB	23000 Blk. Dyke Rd.	7-Nov-14	0.43	<1	<2	13	<1	0.21
RMD-273	GRAB	Opp. 8331 Fairfax Place	12-May-14	0.43	<1	<2	14	<1	0.37
RMD-274	GRAB	10920 Springwood Court	16-Jun-14	0.67	<1	<2	14	<1	0.42
RMD-249	GRAB	23000 Blk. Dyke Rd.	20-Jun-14	0.56	<1	<2	14	<1	0.18
RMD-275	GRAB	5180 Smith Cres.	20-Jun-14	0.65	<1	<2	14	<1	0.12
RMD-204	GRAB	3180 Granville Ave.	4-Jul-14	0.54	<1	<2	14	<1	0.31
RMD-276	GRAB	22271 Cochrane Drive	4-Jul-14	0.8	<1	<2	14	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	4-Jul-14	0.94	<1	<2	14	<1	0.15
RMD-278	GRAB	6651 Fraserwood Place	9-Jul-14	0.77	<1	<2	14	<1	0.21
RMD-267	GRAB	17240 Fedoruk	11-Jul-14	0.96	<1	6	14	<1	0.25
RMD-278	GRAB	6651 Fraserwood Place	16-Jul-14	0.63	<1	<2	14	<1	0.2
RMD-202	GRAB	1500 Valemont Way	18-Jul-14	0.59	<1	<2	14	<1	0.37
RMD-249	GRAB	23000 Blk. Dyke Rd.	18-Jul-14	0.52	<1	<2	14	<1	0.21
RMD-276	GRAB	22271 Cochrane Drive	18-Jul-14	0.6	<1	<2	14	<1	0.16
RMD-275	GRAB	5180 Smith Cres.	18-Jul-14	0.59	<1	<2	14	<1	0.16
RMD-274	GRAB	10920 Springwood Court	21-Jul-14	0.74	<1	<2	14	<1	0.37
RMD-262	GRAB	13799 Commerce Pkwy.	23-Jul-14	0.6	<1	<2	14	<1	0.13
RMD-261	GRAB	9911 Sidaway Rd.	23-Jul-14	0.64	<1	<2	14	<1	0.14
RMD-204	GRAB	3180 Granville Ave.	24-Jul-14	0.6	<1	<2	14	<1	0.27
RMD-275	GRAB	5180 Smith Cres.	24-Jul-14	0.56	<1	<2	14	<1	0.12
RMD-274	GRAB	10920 Springwood Court	28-Jul-14	0.8	<1	<2	14	<1	0.41
RMD-278	GRAB	6651 Fraserwood Place	30-Jul-14	0.58	<1	<2	14	<1	0.36
RMD-204	GRAB	3180 Granville Ave. CNCL -	655 <sup>1-Aug-14</sup>	0.64	<1	<2	14	<1	0.29

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-202	GRAB	1500 Valemont Way	1-Aug-14	0.52	<1	2	14	<1	0.17
RMD-275	GRAB	5180 Smith Cres.	1-Aug-14	0.53	<1	<2	14	<1	0.2
RMD-203	GRAB	23260 Westminster Hwy.	1-Aug-14	0.68	<1	<2	14	<1	0.12
RMD-274	GRAB	10920 Springwood Court	5-Aug-14	0.67	<1	<2	14	<1	0.6
RMD-272	GRAB	751 Catalina Cres.	5-Aug-14	0.76	<1	<2	14	<1	0.33
RMD-270	GRAB	8200 Jones Rd.	5-Aug-14	0.61	<1	<2	14	<1	0.31
RMD-269	GRAB	14951 Triangle Rd.	5-Aug-14	0.65	<1	<2	14	<1	0.17
RMD-202	GRAB	1500 Valemont Way	7-Aug-14	0.59	<1	<2	14	<1	0.26
RMD-277	GRAB	Opp. 11280 Twigg Place	13-Aug-14	0.68	<1	<2	14	<1	0.37
RMD-259	GRAB	10020 Amethyst Ave.	13-Aug-14	0.73	<1	<2	14	<1	0.32
RMD-258	GRAB	7000 Blk. Dyke Rd.	13-Aug-14	0.5	<1	<2	14	<1	0.32
RMD-252	GRAB	9751 Pendleton Rd.	18-Aug-14	0.77	<1	<2	14	<1	0.36
RMD-270	GRAB	8200 Jones Rd.	18-Aug-14	0.81	<1	2	14	<1	0.3
RMD-260	GRAB	11111 Horseshoe Way	20-Aug-14	0.79	<1	<2	14	<1	0.35
RMD-258	GRAB	7000 Blk. Dyke Rd.	20-Aug-14	0.72	<1	<2	14	<1	0.27
RMD-257	GRAB	6640 Blundell Rd.	20-Aug-14	0.84	<1	<2	14	<1	0.35
RMD-250	GRAB	6071 Azure Rd.	25-Aug-14	0.79	<1	2	14	<1	0.58
RMD-271	GRAB	3800 Cessna Drive	25-Aug-14	0.92	<1	2	14	<1	0.37
RMD-270	GRAB	8200 Jones Rd.	25-Aug-14	0.92	<1	<2	14	<1	0.41
RMD-252	GRAB	9751 Pendleton Rd.	2-Sep-14	0.69	<1	<2	14	<1	0.33
RMD-274	GRAB	10920 Springwood Court	2-Sep-14	0.64	<1	<2	14	<1	0.29
RMD-271	GRAB	3800 Cessna Drive	2-Sep-14	0.92	<1	<2	14	<1	0.34
RMD-253	GRAB	11051 No 3 Rd.	2-Sep-14	0.92	<1	<2	14	<1	0.39
RMD-264	GRAB	13100 Mitchell Rd.	3-Sep-14	0.91	<1	<2	14	<1	0.48
RMD-277	GRAB	Opp. 11280 Twigg Place	3-Sep-14	0.92	<1	2	14	<1	0.46
RMD-266	GRAB	9380 General Currie Rd.	3-Sep-14	0.92	<1	<2	14	<1	0.33
RMD-212	GRAB	Opp. 8600 Ryan Rd.	4-Sep-14	0.82	<1	<2	14	<1	0.37
RMD-208	GRAB	13200 No. 4 Rd.	4-Sep-14	0.62	<1	<2	14	<1	0.31
RMD-251	GRAB	5951McCallan Rd.	8-Sep-14	1	<1	<2	14	<1	0.45
RMD-252	GRAB	9751 Pendleton Rd.	8-Sep-14	0.57	<1	<2	14	<1	0.52
RMD-254	GRAB	5300 No. 3 Rd.	8-Sep-14	0.84	<1	<2	14	<1	0.39
RMD-264	GRAB	13100 Mitchell Rd.	10-Sep-14	0.9	<1	<2	14	<1	0.49
RMD-277	GRAB	Opp. 11280 Twigg Place	10-Sep-14	0.83	<1	<2	14	<1	0.55
RMD-266	GRAB	9380 General Currie Rd.	10-Sep-14	0.94	<1	2	14	<1	0.45
RMD-258	GRAB	7000 Blk. Dyke Rd.	10-Sep-14	0.68	<1	<2	14	<1	0.44
RMD-206	GRAB	4251 Moncton St.	12-Sep-14	0.8	<1	<2	14	<1	0.44
RMD-212	GRAB	Opp. 8600 Ryan Rd.	12-Sep-14	0.78	<1	<2	14	<1	0.39
RMD-214	GRAB	11720 Westminster Hwy.	12-Sep-14	0.7	<1	<2	14	<1	0.22
RMD-251	GRAB	5951McCallan Rd. CNCL -	656 15-Sep-14	0.89	<1	<2	14	<1	0.43

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-253	GRAB	11051 No 3 Rd.	15-Sep-14	0.96	<1	<2	14	<1	0.43
RMD-277	GRAB	Opp. 11280 Twigg Place	17-Sep-14	0.9	<1	<2	14	<1	0.52
RMD-266	GRAB	9380 General Currie Rd.	17-Sep-14	0.95	<1	<2	14	<1	0.41
RMD-276	GRAB	22271 Cochrane Drive	18-Sep-14	0.62	<1	4	14	<1	0.2
RMD-251	GRAB	5951McCallan Rd.	22-Sep-14	1	<1	NA	14	<1	0.55
RMD-271	GRAB	3800 Cessna Drive	22-Sep-14	0.94	<1	<2	14	<1	0.54
RMD-272	GRAB	751 Catalina Cres.	22-Sep-14	0.88	<1	<2	14	<1	0.48
RMD-255	GRAB	6000 Blk. Miller Rd.	22-Sep-14	0.99	<1	8	14	<1	0.59
RMD-262	GRAB	13799 Commerce Pkwy.	24-Sep-14	0.82	<1	<2	14	<1	0.48
RMD-212	GRAB	Opp. 8600 Ryan Rd.	26-Sep-14	0.68	<1	<2	14	<1	0.23
RMD-272	GRAB	751 Catalina Cres.	29-Sep-14	0.86	<1	<2	14	<1	0.29
RMD-255	GRAB	6000 Blk. Miller Rd.	29-Sep-14	0.85	<1	4	14	<1	0.44
RMD-254	GRAB	5300 No. 3 Rd.	29-Sep-14	0.5	<1	<2	14	<1	0.26
RMD-269	GRAB	14951 Triangle Rd.	29-Sep-14	0.66	<1	<2	14	<1	0.64
RMD-264	GRAB	13100 Mitchell Rd.	1-Oct-14	0.79	<1	2	14	<1	0.35
RMD-277	GRAB	Opp. 11280 Twigg Place	1-Oct-14	0.73	<1	<2	14	<1	0.38
RMD-262	GRAB	13799 Commerce Pkwy.	1-Oct-14	0.61	<1	<2	14	<1	0.17
RMD-278	GRAB	6651 Fraserwood Place	1-Oct-14	0.61	<1	<2	14	<1	0.26
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	1-Oct-14	0.66	<1	<2	14	<1	0.16
RMD-261	GRAB	9911 Sidaway Rd.	1-Oct-14	0.55	<1	<2	14	<1	0.27
RMD-260	GRAB	11111 Horseshoe Way	1-Oct-14	0.44	<1	<2	14	<1	0.31
RMD-259	GRAB	10020 Amethyst Ave.	1-Oct-14	0.52	<1	4	14	<1	0.19
RMD-266	GRAB	9380 General Currie Rd.	1-Oct-14	0.73	<1	<2	14	<1	0.26
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	1-Oct-14	0.53	<1	<2	14	<1	0.25
RMD-206	GRAB	4251 Moncton St.	2-Oct-14	0.87	<1	2	14	<1	0.28
RMD-212	GRAB	Opp. 8600 Ryan Rd.	2-Oct-14	0.62	<1	<2	14	<1	0.33
RMD-205	GRAB	13851 Steveston Hwy.	2-Oct-14	0.67	<1	<2	14	<1	0.16
RMD-202	GRAB	1500 Valemont Way	2-Oct-14	0.58	<1	<2	14	<1	0.13
RMD-251	GRAB	5951McCallan Rd.	6-Oct-14	0.8	<1	<2	14	<1	0.31
RMD-271	GRAB	3800 Cessna Drive	6-Oct-14	0.56	<1	<2	14	<1	0.2
RMD-272	GRAB	751 Catalina Cres.	6-Oct-14	0.78	<1	<2	14	<1	0.21
RMD-255	GRAB	6000 Blk. Miller Rd.	6-Oct-14	0.77	<1	16	14	<1	0.27
RMD-256	GRAB	1000 Blk. McDonald Rd.	6-Oct-14	0.51	<1	<2	14	<1	0.22
RMD-253	GRAB	11051 No 3 Rd.	6-Oct-14	0.64	<1	<2	14	<1	0.23
RMD-264	GRAB	13100 Mitchell Rd.	8-Oct-14	0.66	<1	4	14	<1	0.4
RMD-206	GRAB	4251 Moncton St.	10-Oct-14	0.7	<1	<2	14	<1	0.36
RMD-216	GRAB	11080 No. 2 Rd.	10-Oct-14	0.68	<1	<2	14	<1	0.14
RMD-212	GRAB	Opp. 8600 Ryan Rd.	10-Oct-14	0.61	<1	<2	14	<1	0.21
RMD-208	GRAB	13200 No. 4 Rd. CNCL -	657 10-Oct-14	0.72	<1	<2	14	<1	0.12

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-205	GRAB	13851 Steveston Hwy.	10-Oct-14	0.81	<1	2	14	<1	0.25
RMD-202	GRAB	1500 Valemont Way	10-Oct-14	0.83	<1	<2	14	<1	0.31
RMD-214	GRAB	11720 Westminster Hwy.	10-Oct-14	0.69	<1	<2	14	<1	0.18
RMD-267	GRAB	17240 Fedoruk	10-Oct-14	0.7	<1	<2	14	<1	0.26
RMD-203	GRAB	23260 Westminster Hwy.	10-Oct-14	0.85	<1	<2	14	<1	0.36
RMD-250	GRAB	6071 Azure Rd.	14-Oct-14	0.65	<1	<2	14	<1	0.1
RMD-271	GRAB	3800 Cessna Drive	14-Oct-14	0.77	<1	<2	14	<1	0.11
RMD-256	GRAB	1000 Blk. McDonald Rd.	14-Oct-14	0.61	<1	<2	14	<1	0.2
RMD-270	GRAB	8200 Jones Rd.	14-Oct-14	0.66	<1	<2	14	<1	0.14
RMD-262	GRAB	13799 Commerce Pkwy.	15-Oct-14	0.7	<1	2	14	<1	0.35
RMD-278	GRAB	6651 Fraserwood Place	15-Oct-14	0.65	<1	<2	14	<1	0.33
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	15-Oct-14	0.65	<1	<2	14	<1	0.27
RMD-260	GRAB	11111 Horseshoe Way	15-Oct-14	0.68	<1	<2	14	<1	0.15
RMD-259	GRAB	10020 Amethyst Ave.	15-Oct-14	0.57	<1	<2	14	<1	0.17
RMD-266	GRAB	9380 General Currie Rd.	15-Oct-14	0.73	<1	<2	14	<1	0.17
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	15-Oct-14	0.56	<1	<2	14	<1	0.14
RMD-257	GRAB	6640 Blundell Rd.	15-Oct-14	0.72	<1	<2	14	<1	0.12
RMD-202	GRAB	1500 Valemont Way	16-Oct-14	0.76	<1	<2	14	<1	0.22
RMD-214	GRAB	11720 Westminster Hwy.	16-Oct-14	0.79	<1	<2	14	<1	0.15
RMD-267	GRAB	17240 Fedoruk	16-Oct-14	0.53	<1	<2	14	<1	0.18
RMD-203	GRAB	23260 Westminster Hwy.	16-Oct-14	0.7	<1	<2	14	<1	0.4
RMD-264	REPEAT	13100 Mitchell Rd. before flushing	17-Oct-14	0.48	<1	<2	14	<1	0.14
RMD-264	REPEAT	13100 Mitchell Rd. after flushing	17-Oct-14	0.69	<1	<2	14	<1	0.15
RMD-252	GRAB	9751 Pendleton Rd.	20-Oct-14	0.56	<1	<2	14	<1	0.16
RMD-250	GRAB	6071 Azure Rd.	20-Oct-14	0.6	<1	2	14	<1	0.14
RMD-256	GRAB	1000 Blk. McDonald Rd.	20-Oct-14	0.73	<1	4	14	<1	0.42
RMD-254	GRAB	5300 No. 3 Rd.	20-Oct-14	0.71	<1	68	14	<1	0.11
RMD-270	GRAB	8200 Jones Rd.	20-Oct-14	0.65	<1	<2	14	<1	0.14
RMD-269	GRAB	14951 Triangle Rd.	20-Oct-14	0.55	<1	<2	14	<1	0.28
RMD-264	GRAB	13100 Mitchell Rd.	22-Oct-14	0.79	<1	2	14	<1	0.16
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	22-Oct-14	0.66	<1	<2	14	<1	0.18
RMD-204	GRAB	3180 Granville Ave.	24-Oct-14	0.92	<1	4	14	<1	0.19
RMD-206	GRAB	4251 Moncton St.	24-Oct-14	0.68	<1	<2	14	<1	0.17
RMD-216	GRAB	11080 No. 2 Rd.	24-Oct-14	0.72	<1	2	14	<1	0.14
RMD-205	GRAB	13851 Steveston Hwy.	24-Oct-14	0.6	<1	2	14	<1	0.23
RMD-202	GRAB	1500 Valemont Way	24-Oct-14	0.73	<1	<2	14	<1	0.24
RMD-267	GRAB	17240 Fedoruk	24-Oct-14	0.67	<1	<2	14	<1	0.19
RMD-249	GRAB	23000 Blk. Dyke Rd.	24-Oct-14	0.59	<1	<2	14	<1	0.9
RMD-275	GRAB	5180 Smith Cres. CNCL - 6	58 24-Oct-14	0.35	<1	<2	14	<1	0.23

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-273	GRAB	Opp. 8331 Fairfax Place	27-Oct-14	0.51	<1	<2	14	<1	0.15
RMD-259	GRAB	10020 Amethyst Ave.	29-Oct-14	0.6	<1	<2	14	<1	0.17
RMD-273	GRAB	Opp. 8331 Fairfax Place	3-Nov-14	0.64	<1	2	14	<1	0.13
RMD-273	GRAB	Opp. 8331 Fairfax Place	5-May-14	0.59	<1	<2	15	<1	1.8
RMD-273	GRAB	Opp. 8331 Fairfax Place	20-May-14	0.68	<1	<2	15	<1	0.23
RMD-274	GRAB	10920 Springwood Court	26-May-14	0.68	<1	<2	15	<1	0.16
RMD-274	GRAB	10920 Springwood Court	23-Jun-14	0.63	<1	2	15	<1	0.34
RMD-267	GRAB	17240 Fedoruk	18-Jul-14	0.56	<1	<2	15	<1	0.17
RMD-278	GRAB	6651 Fraserwood Place	23-Jul-14	0.6	<1	<2	15	<1	0.3
RMD-205	GRAB	13851 Steveston Hwy.	24-Jul-14	0.64	<1	2	15	<1	0.08
RMD-202	GRAB	1500 Valemont Way	24-Jul-14	0.51	<1	<2	15	<1	0.09
RMD-267	GRAB	17240 Fedoruk	24-Jul-14	0.67	<1	<2	15	<1	0.08
RMD-276	GRAB	22271 Cochrane Drive	24-Jul-14	0.41	<1	<2	15	<1	0.09
RMD-267	GRAB	17240 Fedoruk	1-Aug-14	0.65	<1	<2	15	<1	0.16
RMD-276	GRAB	22271 Cochrane Drive	1-Aug-14	0.56	<1	<2	15	<1	0.13
RMD-256	GRAB	1000 Blk. McDonald Rd.	5-Aug-14	0.68	<1	<2	15	<1	0.38
RMD-264	GRAB	13100 Mitchell Rd.	6-Aug-14	0.43	<1	<2	15	<1	0.39
RMD-262	GRAB	13799 Commerce Pkwy.	6-Aug-14	0.72	<1	2	15	<1	0.34
RMD-278	GRAB	6651 Fraserwood Place	6-Aug-14	0.74	<1	<2	15	<1	0.19
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	6-Aug-14	0.61	<1	<2	15	<1	0.17
RMD-261	GRAB	9911 Sidaway Rd.	6-Aug-14	0.72	<1	<2	15	<1	0.24
RMD-270	GRAB	8200 Jones Rd.	11-Aug-14	0.59	<1	<2	15	<1	0.32
RMD-269	GRAB	14951 Triangle Rd.	11-Aug-14	0.63	<1	<2	15	<1	0.21
RMD-262	GRAB	13799 Commerce Pkwy.	13-Aug-14	0.48	<1	<2	15	<1	0.26
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	13-Aug-14	0.67	<1	<2	15	<1	0.24
RMD-261	GRAB	9911 Sidaway Rd.	13-Aug-14	0.63	<1	<2	15	<1	0.22
RMD-204	GRAB	3180 Granville Ave.	15-Aug-14	0.66	<1	<2	15	<1	0.38
RMD-274	GRAB	10920 Springwood Court	18-Aug-14	0.63	<1	<2	15	<1	1.2
RMD-269	GRAB	14951 Triangle Rd.	18-Aug-14	0.64	<1	<2	15	<1	0.19
RMD-262	GRAB	13799 Commerce Pkwy.	20-Aug-14	0.38	<1	<2	15	<1	0.22
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	20-Aug-14	0.68	<1	<2	15	<1	0.23
RMD-261	GRAB	9911 Sidaway Rd.	20-Aug-14	0.67	<1	<2	15	<1	0.28
RMD-266	GRAB	9380 General Currie Rd.	20 Aug 11	0.8	<1	<2	15	<1	0.33
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	20 Aug 14	0.66	<1	<2	15	<1	0.37
RMD-200	GRAB	3180 Granville Ave.	20 Aug 14	0.57	<1	<2	15	<1	0.37
RMD-276	GRAB	22271 Cochrane Drive	21 Aug 14 21-Aug-14	0.62	<1	<2	15	<1	0.17
RMD-270	GRAB	23260 Westminster Hwy.	21-Aug-14 21-Aug-14	0.59	<1	<2	15	<1	0.17
RMD-269	GRAB	14951 Triangle Rd.	21-Aug-14 25-Aug-14	0.55	<1	<2	15	<1	0.14
1100-203	UNAD		<b>59</b> 27-Aug-14	0.7	~1	~~	10	~1	0.27

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	27-Aug-14	0.72	<1	<2	15	<1	0.24
RMD-261	GRAB	9911 Sidaway Rd.	27-Aug-14	0.54	<1	<2	15	<1	0.25
RMD-260	GRAB	11111 Horseshoe Way	27-Aug-14	0.74	<1	<2	15	<1	0.36
RMD-259	GRAB	10020 Amethyst Ave.	27-Aug-14	0.7	<1	<2	15	<1	0.35
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	27-Aug-14	0.7	<1	<2	15	<1	0.31
RMD-258	GRAB	7000 Blk. Dyke Rd.	27-Aug-14	0.65	<1	<2	15	<1	0.36
RMD-204	GRAB	3180 Granville Ave.	29-Aug-14	0.59	<1	2	15	<1	0.35
RMD-250	GRAB	6071 Azure Rd.	2-Sep-14	0.68	<1	<2	15	<1	0.35
RMD-256	GRAB	1000 Blk. McDonald Rd.	2-Sep-14	0.85	<1	<2	15	<1	0.41
RMD-269	GRAB	14951 Triangle Rd.	2-Sep-14	0.61	<1	<2	15	<1	0.21
RMD-262	GRAB	13799 Commerce Pkwy.	3-Sep-14	0.62	<1	<2	15	<1	0.21
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	3-Sep-14	0.67	<1	<2	15	<1	0.2
RMD-261	GRAB	9911 Sidaway Rd.	3-Sep-14	0.45	<1	<2	15	<1	0.19
RMD-259	GRAB	10020 Amethyst Ave.	3-Sep-14	0.71	<1	<2	15	<1	0.36
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	3-Sep-14	0.68	<1	<2	15	<1	0.35
RMD-258	GRAB	7000 Blk. Dyke Rd.	3-Sep-14	0.69	<1	<2	15	<1	0.38
RMD-204	GRAB	3180 Granville Ave.	4-Sep-14	0.54	<1	2	15	<1	0.36
RMD-267	GRAB	17240 Fedoruk	4-Sep-14	0.63	<1	<2	15	<1	0.21
RMD-249	GRAB	23000 Blk. Dyke Rd.	4-Sep-14	0.6	<1	<2	15	<1	0.23
RMD-276	GRAB	22271 Cochrane Drive	4-Sep-14	0.59	<1	<2	15	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	4-Sep-14	0.53	<1	<2	15	<1	0.18
RMD-203	GRAB	23260 Westminster Hwy.	4-Sep-14	0.64	<1	<2	15	<1	0.2
RMD-274	GRAB	10920 Springwood Court	8-Sep-14	0.67	<1	NA	15	<1	1.2
RMD-250	GRAB	6071 Azure Rd.	8-Sep-14	0.8	<1	<2	15	<1	0.49
RMD-271	GRAB	3800 Cessna Drive	8-Sep-14	0.82	<1	<2	15	<1	0.36
RMD-269	GRAB	14951 Triangle Rd.	8-Sep-14	0.56	<1	<2	15	<1	0.21
RMD-278	GRAB	6651 Fraserwood Place	10-Sep-14	0.61	<1	<2	15	<1	0.26
RMD-260	GRAB	11111 Horseshoe Way	10-Sep-14	0.87	<1	<2	15	<1	0.49
RMD-204	GRAB	3180 Granville Ave.	12-Sep-14	0.58	<1	<2	15	<1	0.43
RMD-208	GRAB	13200 No. 4 Rd.	12-Sep-14	0.73	<1	<2	15	<1	0.48
RMD-205	GRAB	13851 Steveston Hwy.	12-Sep-14	0.62	<1	<2	15	<1	0.23
RMD-202	GRAB	1500 Valemont Way	12-Sep-14	0.62	<1	<2	15	<1	0.21
RMD-203	GRAB	23260 Westminster Hwy.	12-Sep-14	0.52	<1	<2	15	<1	0.25
RMD-252	GRAB	9751 Pendleton Rd.	15-Sep-14	0.72	<1	<2	15	<1	0.49
RMD-250	GRAB	6071 Azure Rd.	15-Sep-14	0.71	<1	4	15	<1	0.45
RMD-272	GRAB	751 Catalina Cres.	15-Sep-14	0.99	<1	<2	15	<1	0.48
RMD-256	GRAB	1000 Blk. McDonald Rd.	15-Sep-14	0.92	<1	<2	15	<1	0.53
RMD-254	GRAB	5300 No. 3 Rd.	15-Sep-14	0.66	<1	<2	15	<1	0.46
RMD-269	GRAB	14951 Triangle Rd. CNCL -	660 15-Sep-14	0.55	<1	<2	15	<1	0.21

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-263	GRAB	12560 Cambie Rd.	17-Sep-14	0.86	<1	<2	15	<1	0.55
RMD-264	GRAB	13100 Mitchell Rd.	17-Sep-14	1	<1	<2	15	<1	0.87
RMD-262	GRAB	13799 Commerce Pkwy.	17-Sep-14	0.57	<1	<2	15	<1	0.3
RMD-260	GRAB	11111 Horseshoe Way	17-Sep-14	0.91	<1	<2	15	<1	0.53
RMD-259	GRAB	10020 Amethyst Ave.	17-Sep-14	0.81	<1	<2	15	<1	0.42
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	17-Sep-14	0.77	<1	2	15	<1	0.46
RMD-258	GRAB	7000 Blk. Dyke Rd.	17-Sep-14	0.86	<1	<2	15	<1	0.43
RMD-257	GRAB	6640 Blundell Rd.	17-Sep-14	0.88	<1	<2	15	<1	0.49
RMD-204	GRAB	3180 Granville Ave.	18-Sep-14	0.75	<1	<2	15	<1	0.45
RMD-206	GRAB	4251 Moncton St.	18-Sep-14	0.57	<1	<2	15	<1	0.52
RMD-216	GRAB	11080 No. 2 Rd.	18-Sep-14	0.64	<1	<2	15	<1	0.42
RMD-212	GRAB	Opp. 8600 Ryan Rd.	18-Sep-14	0.77	<1	<2	15	<1	0.44
RMD-214	GRAB	11720 Westminster Hwy.	18-Sep-14	0.91	<1	4	15	<1	0.54
RMD-203	GRAB	23260 Westminster Hwy.	18-Sep-14	0.67	<1	<2	15	<1	0.24
RMD-252	GRAB	9751 Pendleton Rd.	22-Sep-14	0.67	<1	<2	15	<1	0.48
RMD-250	GRAB	6071 Azure Rd.	22-Sep-14	0.68	<1	2	15	<1	0.55
RMD-254	GRAB	5300 No. 3 Rd.	22-Sep-14	0.98	<1	<2	15	<1	0.52
RMD-270	GRAB	8200 Jones Rd.	22-Sep-14	0.68	<1	2	15	<1	0.46
RMD-269	GRAB	14951 Triangle Rd.	22-Sep-14	1.4	<1	<2	15	<1	0.26
RMD-253	GRAB	11051 No 3 Rd.	22-Sep-14	0.74	<1	<2	15	<1	0.52
RMD-263	GRAB	12560 Cambie Rd.	24-Sep-14	0.75	<1	<2	15	<1	0.45
RMD-264	GRAB	13100 Mitchell Rd.	24-Sep-14	0.72	<1	<2	15	<1	0.57
RMD-277	GRAB	Opp. 11280 Twigg Place	24-Sep-14	0.7	<1	<2	15	<1	0.55
RMD-278	GRAB	6651 Fraserwood Place	24-Sep-14	0.72	<1	4	15	<1	0.4
RMD-260	GRAB	11111 Horseshoe Way	24-Sep-14	0.78	<1	2	15	<1	0.47
RMD-259	GRAB	10020 Amethyst Ave.	24-Sep-14	0.59	<1	<2	15	<1	0.3
RMD-266	GRAB	9380 General Currie Rd.	24-Sep-14	0.7	<1	<2	15	<1	0.48
RMD-204	GRAB	3180 Granville Ave.	26-Sep-14	0.7	<1	2	15	<1	0.4
RMD-206	GRAB	4251 Moncton St.	26-Sep-14	0.71	<1	<2	15	<1	0.35
RMD-216	GRAB	11080 No. 2 Rd.	26-Sep-14	0.64	<1	<2	15	<1	0.24
RMD-208	GRAB	13200 No. 4 Rd.	26-Sep-14	0.68	<1	<2	15	<1	0.25
RMD-214	GRAB	11720 Westminster Hwy.	26-Sep-14	0.74	<1	<2	15	<1	0.55
RMD-251	GRAB	5951McCallan Rd.	29-Sep-14	0.74	<1	<2	15	<1	0.31
RMD-252	GRAB	9751 Pendleton Rd.	29-Sep-14	0.56	<1	<2	15	<1	0.25
RMD-250	GRAB	6071 Azure Rd.	29-Sep-14	0.56	<1	<2	15	<1	0.27
RMD-271	GRAB	3800 Cessna Drive	29-Sep-14	0.84	<1	<2	15	<1	0.33
RMD-270	GRAB	8200 Jones Rd.	29-Sep-14	0.37	<1	<2	15	<1	0.26
RMD-253	GRAB	11051 No 3 Rd.	29-Sep-14	0.76	<1	<2	15	<1	0.29
RMD-263	GRAB	12560 Cambie Rd. CNCL -	61 <sup>1-Oct-14</sup>	0.79	<1	<2	15	<1	0.3

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-258	GRAB	7000 Blk. Dyke Rd.	1-Oct-14	0.64	<1	4	15	<1	0.24
RMD-257	GRAB	6640 Blundell Rd.	1-Oct-14	0.68	<1	<2	15	<1	0.24
RMD-214	GRAB	11720 Westminster Hwy.	2-Oct-14	0.58	<1	<2	15	<1	0.44
RMD-267	GRAB	17240 Fedoruk	2-Oct-14	0.63	<1	<2	15	<1	0.12
RMD-249	GRAB	23000 Blk. Dyke Rd.	2-Oct-14	0.6	<1	<2	15	<1	0.16
RMD-276	GRAB	22271 Cochrane Drive	2-Oct-14	0.68	<1	<2	15	<1	0.17
RMD-203	GRAB	23260 Westminster Hwy.	2-Oct-14	0.64	<1	<2	15	<1	0.12
RMD-252	GRAB	9751 Pendleton Rd.	6-Oct-14	0.41	<1	<2	15	<1	0.21
RMD-274	GRAB	10920 Springwood Court	6-Oct-14	0.65	<1	<2	15	<1	0.17
RMD-250	GRAB	6071 Azure Rd.	6-Oct-14	0.64	<1	<2	15	<1	0.29
RMD-254	GRAB	5300 No. 3 Rd.	6-Oct-14	0.66	<1	<2	15	<1	0.2
RMD-270	GRAB	8200 Jones Rd.	6-Oct-14	0.55	<1	<2	15	<1	0.25
RMD-269	GRAB	14951 Triangle Rd.	6-Oct-14	0.64	<1	8	15	<1	0.13
RMD-263	GRAB	12560 Cambie Rd.	8-Oct-14	0.71	<1	<2	15	<1	0.28
RMD-277	GRAB	Opp. 11280 Twigg Place	8-Oct-14	0.71	<1	<2	15	<1	0.37
RMD-262	GRAB	13799 Commerce Pkwy.	8-Oct-14	0.86	<1	<2	15	<1	0.46
RMD-278	GRAB	6651 Fraserwood Place	8-Oct-14	0.62	<1	12	15	<1	0.49
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	8-Oct-14	0.72	<1	<2	15	<1	0.4
RMD-260	GRAB	11111 Horseshoe Way	8-Oct-14	0.7	<1	<2	15	<1	0.27
RMD-259	GRAB	10020 Amethyst Ave.	8-Oct-14	0.61	<1	2	15	<1	0.25
RMD-266	GRAB	9380 General Currie Rd.	8-Oct-14	0.71	<1	<2	15	<1	0.22
RMD-258	GRAB	7000 Blk. Dyke Rd.	8-Oct-14	0.56	<1	2	15	<1	0.14
RMD-257	GRAB	6640 Blundell Rd.	8-Oct-14	0.72	<1	2	15	<1	0.37
RMD-204	GRAB	3180 Granville Ave.	10-Oct-14	0.47	<1	<2	15	<1	1.7
RMD-249	GRAB	23000 Blk. Dyke Rd.	10-Oct-14	0.62	<1	<2	15	<1	0.33
RMD-276	GRAB	22271 Cochrane Drive	10-Oct-14	0.67	<1	2	15	<1	0.29
RMD-251	GRAB	5951McCallan Rd.	14-Oct-14	0.71	<1	<2	15	<1	0.11
RMD-252	GRAB	9751 Pendleton Rd.	14-Oct-14	0.59	<1	<2	15	<1	0.09
RMD-261	GRAB	9911 Sidaway Rd.	15-Oct-14	0.71	<1	<2	15	<1	0.29
RMD-258	GRAB	7000 Blk. Dyke Rd.	15-Oct-14	0.7	<1	10	15	<1	0.14
RMD-204	GRAB	3180 Granville Ave.	16-Oct-14	1.1	<1	4	15	<1	0.23
RMD-249	GRAB	23000 Blk. Dyke Rd.	16-Oct-14	0.51	<1	<2	15	<1	0.19
RMD-276	GRAB	22271 Cochrane Drive	16-Oct-14	0.56	<1	<2	15	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	16-Oct-14	0.4	<1	<2	15	<1	0.27
RMD-273	GRAB	Opp. 8331 Fairfax Place	20-Oct-14	0.55	<1	<2	15	<1	0.22
RMD-274	GRAB	10920 Springwood Court	20-Oct-14	0.81	<1	2	15	<1	0.11
RMD-273	GRAB	Opp. 8331 Fairfax Place	2-Jun-14	0.73	<1	<2	16	<1	1.9
RMD-273	GRAB	Opp. 8331 Fairfax Place	9-Jun-14	0.49	<1	<2	16	<1	1.3
RMD-273	GRAB	Opp. 8331 Fairfax Place CNCL -	662 <sup>23-Jun-14</sup>	0.5	<1	<2	16	<1	0.61

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-273	GRAB	Opp. 8331 Fairfax Place	14-Jul-14	0.74	<1	<2	16	<1	1.2
RMD-271	GRAB	3800 Cessna Drive	5-Aug-14	0.59	<1	<2	16	<1	0.31
RMD-277	GRAB	Opp. 11280 Twigg Place	6-Aug-14	0.96	<1	<2	16	<1	0.38
RMD-274	GRAB	10920 Springwood Court	11-Aug-14	0.56	<1	<2	16	<1	0.46
RMD-278	GRAB	6651 Fraserwood Place	13-Aug-14	0.55	<1	<2	16	<1	0.24
RMD-202	GRAB	1500 Valemont Way	15-Aug-14	0.61	<1	<2	16	<1	0.13
RMD-267	GRAB	17240 Fedoruk	15-Aug-14	0.58	<1	<2	16	<1	0.2
RMD-249	GRAB	23000 Blk. Dyke Rd.	15-Aug-14	0.4	<1	<2	16	<1	0.33
RMD-276	GRAB	22271 Cochrane Drive	15-Aug-14	0.57	<1	<2	16	<1	0.17
RMD-203	GRAB	23260 Westminster Hwy.	15-Aug-14	0.6	<1	<2	16	<1	0.13
RMD-278	GRAB	6651 Fraserwood Place	20-Aug-14	0.61	<1	2	16	<1	0.24
RMD-267	GRAB	17240 Fedoruk	21-Aug-14	0.28	<1	<2	16	<1	0.16
RMD-278	GRAB	6651 Fraserwood Place	27-Aug-14	0.56	<1	4	16	<1	0.22
RMD-202	GRAB	1500 Valemont Way	29-Aug-14	0.52	<1	<2	16	<1	0.25
RMD-267	GRAB	17240 Fedoruk	29-Aug-14	0.62	<1	<2	16	<1	0.2
RMD-278	GRAB	6651 Fraserwood Place	3-Sep-14	0.55	<1	<2	16	<1	0.23
RMD-262	GRAB	13799 Commerce Pkwy.	10-Sep-14	0.53	<1	<2	16	<1	0.22
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	10-Sep-14	0.66	<1	<2	16	<1	0.18
RMD-261	GRAB	9911 Sidaway Rd.	10-Sep-14	0.56	<1	<2	16	<1	0.21
RMD-259	GRAB	10020 Amethyst Ave.	10-Sep-14	0.69	<1	<2	16	<1	0.38
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	10-Sep-14	0.68	<1	<2	16	<1	0.41
RMD-257	GRAB	6640 Blundell Rd.	10-Sep-14	0.95	<1	<2	16	<1	0.45
RMD-267	GRAB	17240 Fedoruk	12-Sep-14	0.59	<1	<2	16	<1	0.24
RMD-276	GRAB	22271 Cochrane Drive	12-Sep-14	0.62	<1	<2	16	<1	0.21
RMD-275	GRAB	5180 Smith Cres.	12-Sep-14	0.45	<1	<2	16	<1	0.23
RMD-274	GRAB	10920 Springwood Court	15-Sep-14	0.78	<1	2	16	<1	0.99
RMD-271	GRAB	3800 Cessna Drive	15-Sep-14	0.69	<1	<2	16	<1	0.39
RMD-270	GRAB	8200 Jones Rd.	15-Sep-14	0.7	<1	2	16	<1	0.43
RMD-278	GRAB	6651 Fraserwood Place	17-Sep-14	0.54	<1	<2	16	<1	0.27
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	17-Sep-14	0.61	<1	<2	16	<1	0.21
RMD-261	GRAB	9911 Sidaway Rd.	17-Sep-14	0.62	<1	<2	16	<1	0.38
RMD-208	GRAB	13200 No. 4 Rd.	18-Sep-14	0.9	<1	<2	16	<1	0.53
RMD-205	GRAB	13851 Steveston Hwy.	18-Sep-14	0.55	<1	<2	16	<1	0.27
RMD-202	GRAB	1500 Valemont Way	18-Sep-14	0.42	<1	<2	16	<1	0.26
RMD-249	GRAB	23000 Blk. Dyke Rd.	18-Sep-14	0.6	<1	<2	16	<1	0.25
RMD-275	GRAB	5180 Smith Cres.	18-Sep-14	0.53	<1	<2	16	<1	0.23
RMD-279	GRAB	Opp. 20371 Westminster Hwy.	24-Sep-14	0.6	<1	2	16	<1	0.34
RMD-261	GRAB	9911 Sidaway Rd.	24-Sep-14	0.7	<1	<2	16	<1	0.27
RMD-268	GRAB	13800 No. 3 Rd. (off Ga	63 24-Sep-14	0.69	<1	<2	16	<1	0.44

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-257	GRAB	6640 Blundell Rd.	24-Sep-14	0.71	<1	<2	16	<1	0.44
RMD-202	GRAB	1500 Valemont Way	26-Sep-14	0.59	<1	<2	16	<1	0.12
RMD-249	GRAB	23000 Blk. Dyke Rd.	26-Sep-14	0.45	<1	<2	16	<1	0.29
RMD-276	GRAB	22271 Cochrane Drive	26-Sep-14	0.74	<1	<2	16	<1	0.18
RMD-275	GRAB	5180 Smith Cres.	26-Sep-14	0.62	<1	<2	16	<1	0.2
RMD-203	GRAB	23260 Westminster Hwy.	26-Sep-14	0.8	<1	<2	16	<1	0.21
RMD-274	GRAB	10920 Springwood Court	29-Sep-14	0.56	<1	<2	16	<1	0.21
RMD-204	GRAB	3180 Granville Ave.	2-Oct-14	0.32	<1	<2	16	<1	0.43
RMD-208	GRAB	13200 No. 4 Rd.	2-Oct-14	0.98	<1	2	16	<1	0.25
RMD-261	GRAB	9911 Sidaway Rd.	8-Oct-14	0.58	<1	<2	16	<1	0.42
RMD-268	GRAB	13800 No. 3 Rd. (off Garden City)	8-Oct-14	0.56	<1	18	16	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	10-Oct-14	0.57	<1	<2	16	<1	0.28
RMD-273	GRAB	Opp. 8331 Fairfax Place	14-Oct-14	0.45	<1	<2	16	<1	0.21
RMD-274	GRAB	10920 Springwood Court	14-Oct-14	0.64	<1	<2	16	<1	0.12
RMD-273	GRAB	Opp. 8331 Fairfax Place	26-May-14	0.56	<1	<2	17	<1	0.15
RMD-273	GRAB	Opp. 8331 Fairfax Place	30-Jun-14	0.44	<1	<2	17	<1	1.1
RMD-249	GRAB	23000 Blk. Dyke Rd.	24-Jul-14	0.6	<1	<2	17	<1	0.11
RMD-273	GRAB	Opp. 8331 Fairfax Place	28-Jul-14	0.63	<1	<2	17	<1	1
RMD-249	GRAB	23000 Blk. Dyke Rd.	1-Aug-14	0.37	<1	<2	17	<1	0.13
RMD-273	GRAB	Opp. 8331 Fairfax Place	11-Aug-14	0.48	<1	48	17	<1	1.1
RMD-275	GRAB	5180 Smith Cres.	15-Aug-14	0.34	<1	<2	17	<1	0.17
RMD-274	GRAB	10920 Springwood Court	25-Aug-14	0.54	<1	<2	17	<1	0.31
RMD-249	GRAB	23000 Blk. Dyke Rd.	29-Aug-14	0.47	<1	<2	17	<1	0.29
RMD-276	GRAB	22271 Cochrane Drive	29-Aug-14	0.55	<1	<2	17	<1	0.2
RMD-275	GRAB	5180 Smith Cres.	29-Aug-14	0.45	<1	<2	17	<1	0.19
RMD-249	GRAB	23000 Blk. Dyke Rd.	12-Sep-14	0.52	<1	<2	17	<1	0.2
RMD-267	GRAB	17240 Fedoruk	18-Sep-14	0.65	<1	<2	17	<1	0.29
RMD-274	GRAB	10920 Springwood Court	22-Sep-14	0.72	<1	<2	17	<1	0.44
RMD-256	GRAB	1000 Blk. McDonald Rd.	22-Sep-14	0.23	<1	<2	17	<1	0.76
RMD-258	GRAB	7000 Blk. Dyke Rd.	24-Sep-14	0.69	<1	<2	17	<1	0.39
RMD-267	GRAB	17240 Fedoruk	26-Sep-14	0.52	<1	<2	17	<1	0.12
RMD-273	GRAB	Opp. 8331 Fairfax Place	6-Oct-14	0.39	<1	<2	17	<1	0.39
RMD-273	GRAB	Opp. 8331 Fairfax Place	16-Jun-14	0.45	<1	<2	18	<1	0.91
RMD-273	GRAB	Opp. 8331 Fairfax Place	7-Jul-14	0.5	<1	<2	18	<1	1
RMD-273	GRAB	Opp. 8331 Fairfax Place	21-Jul-14	0.55	<1	14	18	<1	0.7
RMD-273	GRAB	Opp. 8331 Fairfax Place	18-Aug-14	0.59	<1	<2	18	<1	0.46
RMD-273	GRAB	Opp. 8331 Fairfax Place	5-Aug-14	0.37	<1	<2	19	<1	0.55
RMD-273	GRAB	Opp. 8331 Fairfax Place	25-Aug-14	0.49	<1	<2	19	<1	0.73
RMD-273	GRAB	Opp. 8331 Fairfax Place CNCL -	664 8-Sep-14	0.47	<1	<2	19	<1	0.77

Sample Name	Sample Type	Sample Reported Name	Sampled Date	Chlorine Free mg/L	Ecoli MF/100mLs	HPC CFU/mls	Temperature °C	Total Coliform MF/100mLs	Turbidity NTU
RMD-273	GRAB	Opp. 8331 Fairfax Place	15-Sep-14	0.56	<1	<2	19	<1	0.94
RMD-273	GRAB	Opp. 8331 Fairfax Place	22-Sep-14	0.65	<1	<2	19	<1	1
RMD-273	GRAB	Opp. 8331 Fairfax Place	2-Sep-14	0.37	<1	8	20	<1	0.74
RMD-273	GRAB	Opp. 8331 Fairfax Place	29-Sep-14	0.72	<1	<2	20	<1	0.73
RMD-253	GRAB	11051 No 3 Rd.	8-Dec-14	0.57	<1	<2	NA	<1	0.11

### **APPENDIX 4: SCADA AND PRESSURE TESTING SITES**

	STATION NAME	STATION TYPE	INSTALLATION
216	SHELL & STEVESTON PRV	WATER PRV	PERMANENT
217	NELSON & BLUNDELL PRV	WATER PRV	PERMANENT
218	SHELL & BLUNDELL PRV	WATER PRV	PERMANENT
219	SHELL & WILLIAMS PRV	WATER PRV	PERMANENT
220	SHELL & BIRD PRV	WATER PRV	PERMANENT
251	NELSON & WESTMINSTER PRV	WATER PRV	WIP
252	FERGUSON PRV	WATER PRV	PERMANENT
253	GRAUER PRV	WATER PRV	PERMANENT
254	OAKSTREET PRV	WATER PRV	PERMANENT
	NELSON NORTH PRV	WATER PRV	PERMANENT
	CAMBIE PRV	WATER PRV	NO SCADA
	OAK & RIVER	WATER PRV	NO SCADA
	SHELL & MONTEITH	WATER PRV	NO SCADA
	SHELL & WESTMINSTER	WATER PRV	NO SCADA
1	PRESSURE SITES		
5	QUEENSBOROUGH	DRAINAGE	PERMANENT
40	NO 6 ROAD SOUTH	DRAINAGE	PERMANENT
48	STEVESTON	SANI PUMPS	PERMANENT
80	BARNARD	SANI PUMPS	PERMANENT
106	LYNAS	SANI PUMPS	PERMANENT
167	BRIGHOUSE	SANI PUMPS	PERMANENT
206	EDGEMERE	SANI PUMPS	PERMANENT
42	GRAYBAR	SANI PUMPS	PERMANENT
110	RICHMOND PARK	SANI PUMPS	PERMANENT
174	LESLIE	SANI PUMPS	PERMANENT
189	SIMPSON	SANI PUMPS	PERMANENT
193	BURROWS	SANI PUMPS	PERMANENT
190	BURKEVILLE	SANI PUMPS	PERMANENT
119	TWIGG	SANI PUMPS	PERMANENT
180	RICHMOND CENTRE	SANI PUMPS	PERMANENT
89	WOODHEADEAST	SANI PUMPS	PERMANENT
122	MAPLE	SANI PUMPS	PERMANENT
	ROBINSON	SANI PUMPS	PERMANENT

### **APPENDIX 5: 2014 THM AND HAA TEST RESULTS**

				THI	VI (ppb)	1			I	ī	HAA (p	pb)	1	I
Sample	Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average (Guileline Limit 100ppb/mL)	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average (Guileline Limit 80ppb/mL)
RMD-250	2013-05-13	<1	<1	<1	52	52.3		<0.5	31	<1	<2	43	74	
RMD-250	2013-09-16	1	<1	<1	36	37.3		<0.5	11	<1	8	21	40.5	
RMD-250	2013-11-27	<1	<1	<1	30	30.8		<0.5	10	<1	7	14.5	32.3	
RMD-250	2014-03-04	<1	<1	<1	22	22.4	36	<0.5	9	<1	5	11.1	26.7	43
RMD-250	2014-06-04	<1	<1	<1	58	58.6	37	<0.5	31	<1	8	37.3	76.9	44
RMD-250	2014-09-03	<1	<1	<1	50	50.5	41	<0.5	29	<1	8	49.8	87.5	56
RMD-250	2014-11-20	<1	<1	<1	29	29.5	40	<0.5	13	<1	4	14.9	32.8	56
RMD-251	2013-05-13	<1	<1	<1	53	53		<0.5	31	<1	4	41	76.1	
RMD-251	2013-09-16	<1	<1	<1	31	31.5		<0.5	8	<1	8	9.3	26.9	
RMD-251	2013-11-27	<1	<1	<1	23	23.7		<0.5	8	<1	8	7.8	25.2	
RMD-251	2014-03-04	<1	<1	<1	19	19.5	32	<0.5	8	<1	5	9.2	23.6	38
RMD-251	2014-06-04	<1	<1	<1	49	49.3	31	<0.5	28	<1	5	32.4	65.7	35
RMD-251	2014-09-03	<1	<1	<1	46	46.4	35	0.5	31	<1	10	52.3	94.5	52
RMD-251	2014-11-20	<1	<1	<1	26	26.9	36	<0.5	10	1	5	10.7	27.1	53
RMD-258	2013-05-13	<1	<1	<1	52	52.8		<0.5	32	<1	3	43	78.5	
RMD-258	2013-09-16	1	<1	<1	31	32.3		<0.5	12	<1	9	13.5	35.2	
RMD-258	2013-11-27	<1	<1	<1	26	26.5		<0.5	7	<1	8	7.7	22.5	
RMD-258	2014-03-04	<1	<1	<1	20	20.9	33	<0.5	10	<1	6	10.5	26.9	41
RMD-258	2014-06-04	<1	<1	<1	54	54.9	34	<0.5	28	<1	6	36.5	72	39
RMD-258	2014-09-03	<1	<1	<1	49	49.5	38	0.5	31	<1	8	59.1	99.5	55
RMD-258	2014-11-20	<1	<1	<1	30	30	39	<0.5	12	<1	4	14.8	31.6	58
RMD-259	2013-05-13	<1	<1	<1	52	52.6		<0.5	31	<1	3	42	76.4	
RMD-259	2013-09-16	<1	<1	<1	32	32.4		<0.5	14	<1	8	21	45.1	
RMD-259	2013-11-27	<1	<1	<1	26	27.2		<0.5	9	<1	8	15.6	34.3	
RMD-259	2014-03-04	<1	<1	<1	21	21.6	33	<0.5	9	<1	5	8.8	24.3	45
RMD-259	2014-06-04	<1	<1	<1	58	58.9	35	<0.5	31	<1	7	36.4	74.2	44
RMD-259	2014-09-03	<1	<1	<1	48	48.6	39	<0.5	27	<1	7	50.2	85.2	55
RMD-259	2014-11-20	<1	<1	<1	29	29.8	40	<0.5	11	<1	4	15.2	31	54

			THM (ppb)					HAA (ppb)							
Sample	Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Total THM Quarterly Average (Guileline Limit 100ppb/mL)	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	Total HAA Quarterly Average (Guileline Limit 80ppb/mL)	
RMD-250	2012-11-26	<1	<1	<1	23	23		<0.5	10	<1	3	11	24.7		pH units pH
RMD-250	2013-02-18	<1	<1	<1	30	30.8		<0.5	13	<1	3	18	34.1		
RMD-250	2013-05-13	<1	<1	<1	52	52.3		<0.5	31	<1	<2	43	74		
RMD-250	2013-09-16	1	<1	<1	36	37.3	36	<0.5	11	<1	8	21	40.5	43	
RMD-250	2013-11-27	<1	<1	<1	30	30.8	38	<0.5	10	<1	7	14.5	32.3	45	6.8
RMD-250	2014-03-04	<1	<1	<1	22	22.4	36	<0.5	9	<1	5	11.1	26.7	43	
RMD-250	2014-06-04	<1	<1	<1	58	58.6	37	<0.5	31	<1	8	37.3	76.9	44	Extra
															pH units pH
RMD-251	2012-11-26	<1	<1	<1	25	24.7		<0.5	11	<1	2	13	25.6		
RMD-251	2013-02-18	<1	<1	<1	29	29.5		<0.5	14	<1	4	20	37.9		
RMD-251	2013-05-13	<1	<1	<1	53	53		<0.5	31	<1	4	41	76.1		
RMD-251	2013-09-16	<1	<1	<1	31	31.5	35	<0.5	8	<1	8	9.3	26.9	42	7.2
RMD-251	2013-11-27	<1	<1	<1	23	23.7	34	<0.5	8	<1	8	7.8	25.2	42	
RMD-251	2014-03-04	<1	<1	<1	19	19.5	32	<0.5	8	<1	5	9.2	23.6	38	
RMD-251	2014-06-04	<1	<1	<1	49	49.3	31	<0.5	28	<1	5	32.4	65.7	35	
RMD-258	2012-11-28	<1	<1	<1	24	23.7		<0.5	10	<1	3	10	23.4		
RMD-258	2013-02-18	<1	<1	<1	27	27.4		<0.5	13	<1	3	19	34.9		
RMD-258	2013-05-13	<1	<1	<1	52	52.8		<0.5	32	<1	3	43	78.5		
RMD-258	2013-09-16	1	<1	<1	31	32.3	34	<0.5	12	<1	9	13.5	35.2	43	
RMD-258	2013-11-27	<1	<1	<1	26	26.5	35	<0.5	7	<1	8	7.7	22.5	43	
RMD-258	2014-03-04	<1	<1	<1	20	20.9	33	<0.5	10	<1	6	10.5	26.9	41	
RMD-258	2014-06-04	<1	<1	<1	54	54.9	34	<0.5	28	<1	6	36.5	72	39	
RMD-259	2012-11-28	<1	<1	<1	25	25.1		<0.5	11	<1	2	12	25.2		
RMD-259	2013-02-18	<1	<1	<1	25	26.1		<0.5	11	<1	3	16	30.7		
RMD-259	2013-05-13	<1	<1	<1	52	52.6		<0.5	31	<1	3	42	76.4		
RMD-259	2013-09-16	<1	<1	<1	32	32.4	34	<0.5	14	<1	8	21	45.1	44	
RMD-259	2013-11-27	<1	<1	<1	26	27.2	35	<0.5	9	<1	8	15.6	34.3	47	
RMD-259	2014-03-04	<1	<1	<1	21	21.6	33	<0.5	9	<1	5	8.8	24.3	45	
RMD-259	2014-06-04	<1	<1	<1	58	58.9	35	<0.5	31	<1	7	36.4	74.2	44	

**CNCL - 668** 

				1	HM (ppb	<b>)</b> )		HAA (ppb)						
Sample		Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	
RMD-250	6071 Azure Rd.	2014-06-04	<1	<1	<1	58	58.6	<0.5	31	<1	8	37.3	76.9	
RMD-251	5951McCallan Rd.	2014-06-04	<1	<1	<1	49	49.3	<0.5	28	<1	5	32.4	65.7	1
RMD-258	7000 Blk. Dyke Rd.	2014-06-04	<1	<1	<1	54	54.9	<0.5	28	<1	6	36.5	72	
RMD-259	10020 Amethyst Ave.	2014-06-04	<1	<1	<1	58	58.9	<0.5	31	<1	7	36.4	74.2	

		THM (ppb)					HAA (ppb)							
Sample		Date Sampled	Bromodichloromethane	Bromoform	Chlorodibromomethane	Chloroform	Total Trihalomethanes	Dibromoacetic Acid	Dichloroacetic Acid	Monobromoacetic Acid	Monochloroacetic Acid	Trichloroacetic Acid	Total Haloacetic Acid	
RMD-250	6071 Azure Rd.	2014-11-20	<1	<1	<1	29	29.5	<0.5	13	<1	4	14.9	32.8	
RMD-251	5951McCallan Rd.	2014-11-20	<1	<1	<1	26	26.9	<0.5	10	1	5	10.7	27.1	
RMD-258	7000 Blk. Dyke Rd.	2014-11-20	<1	<1	<1	30	30	<0.5	12	<1	4	14.8	31.6	
RMD-259	10020 Amethyst Ave.	2014-11-20	<1	<1	<1	29	29.8	<0.5	11	<1	4	15.2	31	

## APPENDIX 6: 2014 HEAVY METAL TESTING RESULTS AND VINYL CHLORIDE RESULTS

		RMD-250	RMD-257	RMD-263
	Sample Description	6071 Azure Rd.	6640 Blundell Rd.	12560 Cambie Rd.
	Sample Date	2014-05-14 15:45	2014-05-14 15:30	2014-05-14 14:15
	Sample Type	GRAB	GRAB	GRAB
Aluminum Total	μg/L	38	35	35
Antimony Total	μg/L	<0.5	<0.5	<0.5
Arsenic Total	μg/L	<0.5	<0.5	<0.5
Barium Total	μg/L	3.1	3.2	3.1
Boron Total	μg/L	<10	<10	<10
Cadmium Total	μg/L	<0.2	<0.2	<0.2
Calcium Total	μg/L	3780	3560	3440
Chromium Total	μg/L	<0.05	<0.05	<0.05
Cobalt Total	μg/L	<0.5	<0.5	<0.5
Copper Total	μg/L	109	2.4	2.2
Iron Total	μg/L	16	9	12
Lead Total	μg/L	1.2	<0.5	<0.5
Magnesium Total	μg/L	135	155	151
Manganese Total	μg/L	4.6	3.8	2.9
Mercury Total	μg/L	<0.05	<0.05	<0.05
Molybdenum Total	μg/L	<0.5	<0.5	<0.5
Nickel Total	μg/L	<0.5	<0.5	<0.5
Potassium Total	μg/L	158	152	151
Selenium Total	μg/L	<0.5	<0.5	<0.5
Silver Total	μg/L	<0.5	<0.5	<0.5
Sodium Total	μg/L	1680	1730	1800
Zinc Total	μg/L	<3	<3	<3

		RMD-250	RMD-257	RMD-263
Metal	Sample Description	6071 Azure Rd.	6640 Blundell Rd.	12560 Cambie Rd.
	Sample Date	2014-11-12 12:30	2014-11-12 15:45	2014-11-12 15:55
	Sample Type	GRAB	GRAB	GRAB
Aluminum Total	μg/L	40	44	65
Antimony Total	μg/L	<0.5	<0.5	<0.5
Arsenic Total	μg/L	<0.5	<0.5	<0.5
Barium Total	μg/L	3.1	3.2	3.4
Boron Total	μg/L	<10	<10	<10
Cadmium Total	μg/L	<0.2	<0.2	<0.2
Calcium Total	μg/L	3420	3380	3390
Chromium Total	μg/L	<0.05	<0.05	<0.05
Cobalt Total	μg/L	<0.5	<0.5	<0.5
Copper Total	μg/L	2.3	2.1	2.4
Iron Total	μg/L	CNCL -8670	<5	29

		RMD-250	RMD-257	RMD-263
Metal	Sample Description	6071 Azure Rd.	6640 Blundell Rd.	12560 Cambie Rd.
	Sample Date	2014-11-12 12:30	2014-11-12 15:45	2014-11-12 15:55
	Sample Type	GRAB	GRAB	GRAB
Lead Total	μg/L	<0.5	<0.5	<0.5
Magnesium Total	μg/L	118	137	139
Manganese Total	μg/L	1.5	1.3	14.0
Mercury Total	μg/L	<0.05	<0.05	<0.05
Molybdenum Total	μg/L	<0.5	<0.5	<0.5
Nickel Total	μg/L	<0.5	<0.5	<0.5
Potassium Total	μg/L	162	163	164
Selenium Total	μg/L	<0.5	<0.5	<0.5
Silver Total	μg/L	<0.5	<0.5	<0.5
Sodium Total	μg/L	1700	1720	1730
Zinc Total	μg/L	<3	<3	<3

## Vinyl Chloride in Drinking Water June and November 2014

Sample Site Number	Sample Reported Name	Sampled Date	Vinyl Chloride (mg/L)
RMD-205	13851 Steveston Hwy.	13-Jun-14	<0.0010
RMD-206	4251 Moncton St.	13-Jun-14	<0.0010
RMD-253	11051 No 3 Rd.	13-Jun-14	<0.0010
RMD-256	1000 Blk. McDonald Rd.	13-Jun-14	<0.0010
RMD-263	12560 Cambie Rd.	13-Jun-14	<0.0010

Sample Site Number	Sample Reported Name	Sampled Date	Vinyl Chloride (mg/L)
RMD-205	13851 Steveston Hwy.	3-Nov-14	<0.0010
RMD-206	4251 Moncton St.	3-Nov-14	<0.0010
RMD-253	11051 No 3 Rd.	3-Nov-14	<0.0010
RMD-256	1000 Blk. McDonald Rd.	3-Nov-14	<0.0010
RMD-263	12560 Cambie Rd.	3-Nov-14	<0.0010

### APPENDIX 7: SAMPLE DRINKING WATER QUALITY ADVISORY

## CITY OF RICHMOND ANNUAL WATERMAIN FLUSHING NOTIFICATION

Beginning on Sunday, April 6, the Water Services division will execute the annual watermain flushing program. To minimize disruptions, this work will be conducted from Sunday to Friday, 9:00 p.m. to 6:30 a.m. The program will continue for six weeks, ending on Friday, May 16.

Flushing watermains is required to maintain water quality. Your water will not be turned off, however during this time, you may experience water pressure fluctuation or discoloration. This is not a health concern and should only last for a short time. It is recommended that you run the cold water until it clears.

If you have any questions, please contact the Public Works Service Centre at 604-244-1262. For more information on Richmond's high-quality tap water and other water education programs, visit www.richmond.ca/water.

### **APPENDIX 8: SPECIFIC EMERGENCY RESPONSE PLANS**

## Positive Response for Fecal or E. coli

If a water sample tests positive for fecal coliform, the following response plan will occur;

- The municipality's water quality personnel and the Medical Health Officer will be notified by the Metro Vancouver laboratory.
- Interim samples from the site will be examined. Interim samples are samples in the period between when the fecal positive sample was taken, and when it was determined to be fecal positive.
- Arrangements will be made for the immediate collection of a repeat sample including, where possible, samples from upstream and downstream of the fecal positive sample.
- The chlorine residual for the sample noted on the sampler's Water Sample Data Sheet will be reviewed to determine if a localized loss of disinfectant occurred.
- All water utility personnel will be contacted to determine if there was any loss of pressure, or other unusual events, that may have led to contaminants entering the system.
- The need for a boil-water advisory will be evaluated by the City and the Medical Health Officer. If a boil-water advisory is deemed necessary, the municipality will carry out various means to inform the public. Metro Vancouver will be informed of this public advisory.
- The City, in consultation with the Medical Health Officer, will determine the need and extent for a boilwater advisory.
- The Metro Vancouver laboratory will initiate procedures to identify species of the fecal positive organism with standard biochemical tests.
- The Medical Health Officer will be contacted with the repeat sample results and the results of the species identification on the fecal positive sample when these tests are complete.

In the event of possible E. coli or fecal coliform contamination, all steps to ensure public health and safety will be taken including banning water usage if necessary.

## **Chemical or Biological Contamination Response**

In the event of chemical or biological contamination, in source waters or the City's distribution system, the following actions will be taken by both, the City of Richmond and Metro Vancouver:

- Immediately notify Vancouver Coastal Health.
- Identify the chemical and any public health risk factors associated with its presence in potable water.
- Isolate the contaminated zone area and determine the level of contamination.
- Issue a public advisory in consultation with the Medical Health Officer.

In the event of possible biological or chemical contamination, all steps to safety will be taken to ensure public health including banning water usage if necessary.

## **Turbidity Response**

Turbidity (cloudy water) occurs during periods of heavy rain at and surrounding Metro Vancouver water sources. The City of Richmond, in conjunction with Vancouver Coastal Health, has developed a turbidity response plan, which considers the City's responsibility for due diligence without unreasonably constraining the water utility's ability to operate the system.

During turbidity events of >1 NTU the staff will:

- Begin a rigorous sampling program for microbiological activity and residual chlorine.
- Monitor the City's supervisory control and data acquisition (SCADA) system with updates sent to Vancouver Coastal Health on a predetermined schedule.
- Issue a public communication in consultation with the regional Health Authority.
- If necessary, issue a boil-water advisory to residents receiving turbid water.

## Response to Interruption of Primary and/or Secondary Disinfection

Upon notification by Metro Vancouver Operations that an interruption in disinfection has occurred:

- Staff will monitor residual levels of chlorine at strategic locations in the Metro Vancouver supply area.
- The City's SCADA system will be monitored with updates sent to Vancouver Coastal Health on a predetermined schedule, as set by the health authority,
- In cases where chlorine residual is less than 0.2 ppm, City crews will flush the affected area until an acceptable level is achieved.
- These actions will continue until disinfection is resumed and adequate levels of residual chlorine have been reached in the distribution system.

## **Response to Loss of Pressure Due to High Demand**

In the event of a pressure loss due to high demand:

- City staff will attempt to rectify the problem as soon as possible using various demands management techniques and by supplementing supply to problem areas.
- Metro Vancouver and the Medical Health Officer will be notified of any water quality issues.
- City staff will perform chlorine residual tests at various locations to determine if adequate disinfectant is present in the distribution.
- All water quality complaints from the public will be thoroughly investigated due to the potential for water contamination during low water pressure.

## **Response to Watermain Breaks with Suspected Contamination**

All watermain breaks where chemical or microbiological contamination of the system is suspected will be immediately reported to the Medical Health Officer. The municipality will isolate the contaminated section from the rest of the distribution system. Once the watermain has been repaired, chlorine residual testing will be conducted at various locations affected by the main break. If low chlorine residuals are found, necessary actions to increase the levels of free chlorine will be carried out. If bacterial contamination is suspected, water samples will be analyzed and appropriate action taken.



**City of Richmond** 6911 No. 3 Road, Richmond, BC V6Y 2C1 Telephone: 604-276-4000 www.richmond.ca

CNCL - 675



# **Report to Committee**

To:	Public Works and Transportation Committee	Date:	May 7, 2015
From:	Tom Stewart, AScT. Director, Public Works	File:	10-6405-03-01/2015- Vol 01
Re:	Bi-Weekly Garbage Collection		

#### Staff Recommendation

- 1. That City garbage collection service for single-family dwellings be changed from weekly to every other week (bi-weekly) commencing the first quarter of 2016, with recycling services (i.e. Blue Box and Green Cart) continuing to be provided on a weekly basis;
- That, as part of implementation of bi-weekly collection service, the City provide one garbage cart per household to residents in single-family dwellings, where residents have the opportunity to select the cart size of their choice;
- 3. That the Chief Administrative Officer and General Manager, Engineering and 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 garbage carts, and related operational service changes associated with this program;
- That an amendment to the City's Five Year Financial Plan (2015 2019) to include capital costs of \$2.6 million with \$2.3 million funding from the City's General Solid Waste and Recycling Provision and \$300,000 from the City's General Utility Surplus, be approved; and
- 5. That appropriate bylaw amendments be brought forward as part of the 2016 solid waste and recycling utility budget process and amending rates, to enact this service.

Tom Stewart, AScT. Director, Public Works (604-233-3301)

Att. 2

May 7, 2015

RI	EPORT CONCURRE	ENCE
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Finance Division		
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS:	APPROVED BY CAO

### Staff Report

### Origin

At the January 27, 2014 Council meeting, a pilot project to evaluate weekly and bi-weekly service levels for garbage collection was approved and commenced in March, 2014. This project was designed to evaluate the differences in weekly vs. bi-weekly collection of garbage in City-provided carts, and any differences in recycling and waste diversion levels under the two models. In addition, resident feedback regarding whether City-provided carts for garbage collection was preferred by residents was also sought. An initial status update was provided early in the program to Mayor and Councillors in July (Attachment 1).

This report presents final outcomes from the pilot based on a full year of evaluation and, based on those outcomes, recommends that bi-weekly garbage collection, using City-provided carts, be implemented in 2016.

This report supports Council's Term Goal #8 Sustainability:

To demonstrate leadership in sustainability through continued implementation of the City's Sustainability Framework.

8.1. Continued implementation and significant progress towards achieving the City's Sustainability Framework, and associated targets.

### Analysis

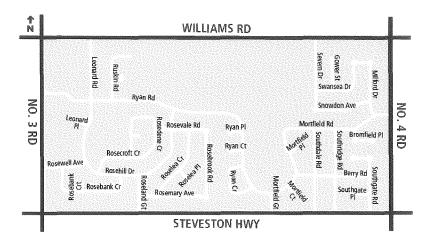
#### **Background**

Many communities in the Lower Mainland, including Vancouver and Surrey, have changed their services levels for garbage collection to bi-weekly (Attachment 2). Bi-weekly garbage collection is being implemented to help accelerate waste reduction goals. It also recognizes that there is considerably less garbage to collect from residents due to the success of ever-expanding recycling programs. As a region, Lower Mainland communities, including Richmond, are striving to reach 70% waste diversion by 2015, aspiring to 80% by 2020.

Richmond residents in single-family homes have embraced recycling and initially met the 70% waste diversion target in 2013. This increased to 71% in 2014. To consider options for further advancing waste reduction, Council directed staff to undertake a pilot program to evaluate weekly versus bi-weekly collection service for single-family households.

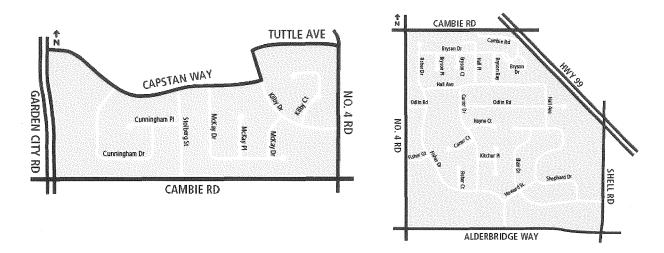
The pilot project commenced on March 3, 2014 and is continuing at this time pending a decision from Council on future action. A brief snapshot of the pilot areas is provided below:

*Weekly:* There are 1,040 residences in the weekly pilot zone. The pilot area is shown in the inset map and includes the area bounded by No. 3 and No. 4 Roads and Williams Road and Steveston Highway.



A 120-litre cart size was provided as the standard-issue size, and residents had the opportunity to change to a size of their choice. Approximately 10% of participants opted for a different cart size. Of these, 75% opted for the 240-litre cart, 15% opted for the 360-litre cart, and 6% opted for the 80-litre size. Another 4% switched to a different size and then switched back to the standard-issue size.

**Bi-Weekly:** There are 838 residences in the bi-weekly pilot zone. The pilot area is shown in the map below and includes the area between Cambie Road and Alderbridge Way and No. 4 and Shell Roads; plus the area bounded by Garden City Road and No. 4 Road and Capstan Way and Cambie Road.



A 240-litre cart size was provided as the standard size, and residents had the opportunity to change to a size of their choice. Approximately 7% of participants opted for a different cart size. Of these, 36% opted for the 360-litre sized cart, 47% for the 120-litre cart, and 12% for the 80-litre cart.

Given the relatively low percentage of residents who opted for a different cart size (i.e. 7%) we can conclude from this that the 240-litre cart is the appropriate

standard-issue size for bi-weekly collection service. However, residents should continue to have the choice to switch to a size suitable to their needs.

### <u>Outcomes</u>

The pilot project outcomes demonstrate that recycling and waste diversion improves significantly where bi-weekly garbage collection service is provided. Compared to pre-pilot amounts in the bi-weekly zone, the weight of Blue Box recycling materials increased by 55%, whereas the weight of garbage was reduced by 20%. In addition, when compared with average amounts recycled through the Green Cart program, there was a 44% increase in the weight of organics recycled in the bi-weekly zone (in the weekly zone, organics recycling also increased, but by a lesser amount, i.e. 37%).

The following table highlights the performance of the weekly and bi-weekly collection zones.

Materials	Weekly Garbage Cart Collection	Bi-Weekly Garbage Cart Collection		
Participation (% change)				
Garbage (GARBAGE Cart)	$\downarrow$ 9.6% reduction	↑ 9.56% increase		
Recycling (Blue Box)	↑ 4% Increase	↑ 3.7% increase		
Weights (% change)				
Garbage (GARBAGE Cart)	↑ 9.8% increase per HH	$\downarrow$ 20% reduction per HH		
Recycling (Blue Box)	$\downarrow$ 14.12% decrease per HH	↑ 55% increase per HH		
Organics (GREEN Cart)	↑ 37% increase per HH	↑ 44% increase per HH		

Based on the increased recycling performance and waste diversion results from the pilot project, it is estimated that if bi-weekly garbage collection were implemented on a City-wide basis, overall recycling performance would increase by a range of 5%-8% (increasing potential total diversion for single-family households to a range of 76% - 79%).

#### Resident Feedback

In the survey undertaken with residents (detailed in Attachment 1), the following key points of feedback were received:

- The majority of residents in both the weekly and bi-weekly zones favoured having carts for garbage provided by the City (88% and 80%, respectively).
- The majority of residents prefer weekly garbage collection service. However, once on biweekly service, the level of support for weekly vs. bi-weekly is roughly split. For example, 84% of residents in the weekly zone preferred weekly service; whereas 52% in the bi-weekly zone favoured weekly service.
- Support for a fee-based structure for garbage collection (fee charged based on size of cart) was generally accepted, with roughly 60% of residents surveyed either somewhat or extremely supportive and one-third of residents not in support.

### **Pilot Conclusion**

The outcomes from the pilot project indicate that a transition to bi-weekly garbage collection service can be expected to significantly improve recycling and waste diversion performance, and is therefore recommended. Even though most residents prefer weekly garbage collection service, the level of support lessens as residents become accustomed to every other week collection service (i.e. support for weekly vs. bi-weekly collection service was roughly split in the biweekly collection zone).

It is evident that the majority of residents favour City-provided carts for their garbage. Support for a fee based structure, where residents pay based on the size of Garbage Cart they subscribe to, is also supported. Staff recommend implementation of these aspects of a bi-weekly collection service as well. It is noted that residents would continue to have the option to purchase garbage tags (current cost is \$2 each) for any additional garbage that may not fit into their subscribed cart size. In addition, garbage vouchers (available for purchase at City facilities for \$5 each) will remain available for residents to dispose of up to \$20 worth of waste at the Vancouver Landfill.

#### **Other Considerations**

Other considerations in moving to a cart-based, bi-weekly garbage collection program include:

- From a benefits perspective, cart-based systems help to improve the overall appearance of the streetscape. This is due to reduced instances of litter and spilled materials, generally caused by animal intrusion into garbage cans and from weather conditions. The design and durability of City-provided carts helps to mitigate these issues as well as instances of missing lids and broken garbage cans. Wheels also make manoeuvring the carts easier for residents. Cart service also tends to result in a more attractive streetscape after servicing -- avoiding tossed garbage cans, etc.
- Other benefits include the fact that residents no longer have to purchase their own garbage cans since the City-provided carts are maintained and replaced by the City, as required.
- From a challenges perspective, there are increased risks of contamination in the Green Cart and Blue Box programs. Since recycling services for both of these programs will remain weekly, residents wishing to get rid of garbage on their off-garbage week may be motivated to hide waste materials in their Green Cart or Blue Box. This could potentially add to the City's costs. To address this, collectors can attempt to identify and tag any contaminated Green Carts or Blue Boxes curbside, where possible. Focused educational efforts will also be required to help reduce potential contamination issues.
- Other challenges could include increased service demand in City parks/litter containers caused by individuals using these containers to dispose of their household garbage, i.e. to avoid holding onto their garbage until their garbage collection day under a bi-weekly scenario. There could also be increases in the number of instances of illegal dumping. Both of these issues are expected to occur at the outset of programs, but typically reduce over time, as residents become accustomed to the new program.

### **Implementation**

A number of measures are required to implement this program, including targeted outreach to residents, policy and contractual amendments, as well as operational planning considerations (cart acquisition, delivery, etc.). Resident communications will be a key aspect of this program in light of the service changes. A four-stage campaign would be undertaken as part of implementation of the program, including:

- 1. *Program announcement and general awareness* emphasizing the benefits of Cityprovided carts, the importance of reducing waste to achieve regional targets, the proven success from the Garbage Cart Pilot Project, and the opportunity to reduce garbage fees by using smaller carts through waste reduction and increased recycling.
- 2. *Cart size selection* alternate size selection and related fees, noting that the standard size was found to be sufficient for residents in the Garbage Cart Pilot Project, that residents who select smaller than the standard size will have lower costs for their service, and that those who are generating more garbage than average residential use will be pay for the larger cart size required.
- 3. *Cart delivery and program details* which will provide residents with cart delivery schedules and information materials that include tips on how to use the new carts, reminders about the City's recycling programs and how to use them to reduce garbage, what to expect when the new service rolls out, and other information to support increased recycling.
- 4. *Program launch* which will include customer service through the Environmental Programs Information Line, website support and responsive outreach in the community to facilitate an efficient and smooth transition to the new program.

Various tactics will be used including media releases/newspaper ads, the City website, social media, direct mail to residents, outreach displays, etc. The communications/outreach initiatives would be staged over the course of implementation, with the program announcement/general awareness phase starting in approximately June.

Due to the timeframes associated with these items, staff anticipate the earliest potential launch date for the program would be first quarter of 2016.

Operationally, residents would continue to have their garbage collected on the same day it has been previously, except on alternate weeks.

#### **Financial Impact**

The capital cost associated with acquiring and delivering carts to residents is estimated at \$2.6 million. There is approximately \$2.3 million funding available in the Sanitation and Recycling Provision. The remaining \$300,000 will initially be funded by General Utility Surplus and will be repaid by the Sanitation and Recycling Provision which is expected to generate a surplus in 2015 due to the implementation of the Multi-Material BC program. The 5 Year Financial Plan (2015-2019) would need to be amended to allow for order placement and other necessary capital

implementation measures to be undertaken to meet the implementation date in the first quarter of 2016.

Overall collection cost savings under a bi-weekly scenario are expected to be minimized in the initial transition year due to the fact the City is also providing carts to residents (at no added cost) and the carts take longer to service when compared to manual collection processes. In addition, garbage waste volumes end up being diverted into other waste streams (Green Cart, Blue Box recycling, etc.) so collection vehicles end up being shifted to where they are required to adjust to the volume requirements and in order to maintain service levels.

Further, administration and operational costs are expected to increase to meet resource and communication needs associated with addressing increased enquiries (i.e. residents confused about when their collection day is, mailing/distribution costs for zone-specific collection calendars, operational matters impacting costs (increased composting site fees for added volumes, material contamination)). On the flip side, garbage disposal costs are expected to decrease. These cost variations will be evaluated as part of establishing rates in 2016. Generally, cost savings are expected to range from 2% - 15%, depending on the cart size selected by residents. Costs to increase to a larger cart are expected to be 15%-20% higher. More information on rates will be provided in presentation of the 2016 rates. The key point for residents is that they can reduce their costs by switching to smaller sized carts, or pay more if they choose to use a larger cart. Costs will continue to be evaluated and adjusted based on outcomes (actual volumes/resource requirements, etc.) and any savings reflected back to residents in the rates charged as this program matures.

#### Conclusion

A pilot program to test recycling and waste diversion performance for single-family homes in a weekly versus bi-weekly garbage collection scenario was implemented in March, 2014. The outcome of the pilot demonstrated that bi-weekly garbage collection service could be expected to improve overall single-family recycling rates by a range of 5%-8% (increasing to 76%-79%). Given the City's objective to meet the regional waste reduction goal of 80% by 2020, this initiative is considered important as part of advancing recycling performance in the single-family residential sector.

To make the transition to bi-weekly service as convenient as possible for residents, garbage carts of variable sizes are recommended to be provided to residents by the City. Residents will have the ability to select a cart size of their choice, based on a variable rate structure designed to create incentives to minimize waste disposal and maximize recycling efforts.

The City's existing service provider, Sierra Waste Services, is best positioned to support the City through acquisition and delivery of carts to residents. Therefore, it is recommended Sierra Waste Services be engaged to support the City with the implementation of cart-based collection service for bi-weekly garbage collection. At this time, funding approval for the capital cost items is required to plan for implementation of this program in the first quarter of 2016.

Suzanne Bycraft/ Manager, Fleet & Environmental Programs (604-233-3338)

- Att. 1: Weekly/Bi-Weekly Garbage Collection Pilot Program Update memorandum dated July 16, 2014
- Att. 2: Garbage/Recycling Service Levels Comparison to Other Cities

# Attachment 1



Memorandum Engineering and Public Works Fleet and Environmental Programs

To:	Mayor and Councillors	Date:	July 16, 2014
From:	Suzanne Bycraft Manager, Fleet & Environmental Programs	File:	10-6405-01/2014-Vol 01
Re:	Weekly/Bi-Weekly Garbage Collection Pilot Prog	gram Upd	ate

At the January 27, 2014 meeting, Council approved a pilot program to test weekly vs. bi-weekly garbage collection using carts. The purpose of this pilot program is to evaluate opportunities to further waste diversion and recycling objectives through dis-incentives to waste disposal, as well as to evaluate resident feedback concerning the use of City-provided carts for garbage collection service. Council requested that a progress update on the pilot program be provided in July, which this memo provides. This memo also advises of next steps.

#### Background

The pilot program commenced on March 3. 2014 and is continuing at this time. The following provides a brief summary of the program scope:

	Number of Participating Households	Standard Cart Size Provided Note: Residents have the ability to change to the cart size of choice, i.e. 80 litre, 120 litre, 240 litre, 360 litre	Collection Zone Reference attachment 1
Weekly Collection:	1,040 units	120 litre	Zone 1: Area between No. 3 & No 4 Roads and Steveston Highway and Williams Road
Bi-Weekly Collection:	838 units	240 litre	Zone 2: Area between Cambie Road and Alderbridge Way and No. 4 Road & Shell Road: phys area bounded by Garden City Road and No. 4 Road and Capstan Way and Cambie Road

Collection for residents in both the weekly and bi-weekly collection areas started on their first collection day in the first week of March. 2014. Residents on bi-weekly collection received collection service every other week after that. Residents on the weekly collection pilot continued to receive weekly collection service.



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#### Start Up Communications

Resident education about the program start up was undertaken in two phases:

Phase 1: Pre-Pilot Notification. Direct mail notification was sent to residents coupled with neighbourhood meetings prior to the program start. This included:

- Letter from the Mayor to notify residents they've been selected to participate in the garbage pilot program
- Information brochure with key program elements, needs/benefits highlights, FAQs and invitation to a neighbourhood meeting
- Neighbourhood meetings were held on February 12 and 13 to provide opportunities for residents to speak to City staff and ask questions, as well for viewing different cart sizes available

*Phase 2: Program Launch Materials.* Information packages were delivered with carts at the end of February, 2014, which included:

- Overview of what participants are receiving and how to provide input
- Collection calendar (for biweekly group only)
- Information brochure with program details, cart exchange information, what goes in the garbage, and FAQS
- Recycling Guide to encourage residents to increase their recycling using the Blue Box. Green Cart and Large Item Pick Up programs, as well as drop off options at the City's Recycling Depot

#### Program Evaluation

The evaluation of the program has encompassed two key aspects:

1. <u>Operational</u>: Comparing key factors such as participation, weight of waste garbage generated, and weight of blue box recycling materials generated.

A benchmark was established by collecting pre-pilot comparative data for a baseline assessment from January 15 to February 26.

This update represents an evaluation of the pilot program from March 3 to May 22, 2014, approximately 2.5 months.

2. <u>Resident Feedback</u>: A door-to-door participant survey as well as an on-line survey was undertaken to obtain resident feedback about the program.

#### Operational

As shown in the following table, there has been relatively little change in the participation and average amounts of garbage and recycling activities of residents in the weekly pilot program. Changes are much more noticeable in the bi-weekly garbage collection pilot, where the volume of garbage generated has reduced 33% and blue box recycling volumes increased 43%.

July 16, 2014

Waste Recycled: Collection Waste Disposed: Participation: Garbage Garbage Weight/Unit (kgs) Recycling Weight/Unit (kgs) Frequency % Change Pre Pilot Pre Pilot % Change Pre Pilot % Change -7.98% Weekly 67.45% 63.48% -5.89% 12.11 12.67 +4.58% 3.76 3.46 Bi-Weekly 64.21% 78.72% +22.59% 21.90 14.05 -33.11% 2.40 3.54 +43.32%

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The results of the pilot to date indicate that bi-weekly garbage collection has significant impact on reducing the overall amount of waste generated as well as increasing the amounts of materials recycled. While these are expected trends, staff do note that the information presented is based on a very short 2.5 month window of analysis. A period of 6 months is generally considered the minimum necessary to establish consistent patterns (12 months is preferable). Therefore, further evaluation of the pilot will continue over the next several months.

#### Resident Feedback

A door-to-door resident survey, coupled with an on-line resident survey, was undertaken in June. Information displays at malls and other community events (e.g. Open House, etc.) were also set up as part of gathering feedback. The survey findings are presented in Attachment 2. Key findings are outlined below:

		Weekly	Biweekk
1.	Support for City-provided Carts (support or extremely supportive)	88%	80%
2.	Requested a different cart size (different than standard issued by City)	16%	15%
3.	Did residents consider that they increased their Blue Box recycling efforts		
	a) Yes	45%	40%
	b) No	54%	50%
4.	Preference for frequency of collection		
	a) Weekh	84%	52%
	b) Bi-Weekly	14%	45%
5.	Support for garbage fee structure:		
	a) Do not support	34%	39%
	b) Support/Extremely supportive	49%	42%
6.	Recycle Using Blue Box		
	a) Yes	96%	94%
	b) No	2%	4%

In summary, the survey findings indicate the following summary points:

- The majority of residents favour having City-provided carts for garbage: ٠
- The pre-determined cart size established by the City is generally adequate, however ٠ residents like the ability to choose a different cart size (up to 16% chose a different cart size):

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- The majority of residents prefer weekly garbage collection service, although once residents are receiving bi-weekly collection service, their support for weekly vs. bi-weekly service is roughly split (i.e. 52% weekly preference vs. 45% bi-weekly preference):
- 'Support' or 'extreme supportive' for a fee structure, where residents pay based on the size container they use is less than one-half (up to 49%). Where those who are 'somewhat supportive' is considered, it is over one-half (i.e. 62%). Approximately one-third of residents do not support a fee structure for garbage; and
- Residents' participation rates in Blue Box recycling remains very high.

#### Next Steps

As noted, the operational survey data presented in this memo was gathered over a short timeframe of 2.5 months. As a longer timeframe for collecting operational program performance is best practise, staff will continue to evaluate the pilot program over the next several months.

Additional findings and recommendations will be presented as part of the 2015 annual utility budget process for Council's consideration. In the interim, the program will continue for all residents currently in the pilot pending a decision by Council. These residents will be notified accordingly, i.e. via direct mail information provided by the City.

If you have any questions or require additional information, please contact me at 604-233-3338.

Suzanne Byeraft Manager, Fleet & Environmental Programs

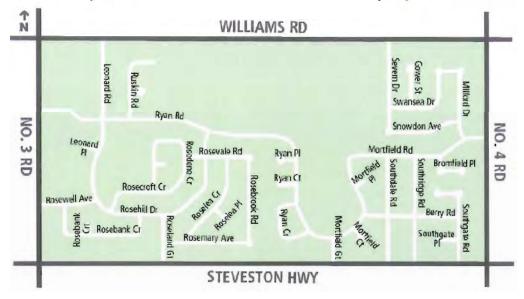
Att: 2

pc: SMT Tom Stewart, AScT., Director, Public Works

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# Attachment 1 – Piloting Sites



Zone 1 - Weekly: Area between No. 3 & No 4 Roads and Steveston Highway and Williams Road.

Zone 2 – Bi-Weekly: Area between Cambie Road and Alderbridge Way and No. 4 Road & Shell Roads: plus area bounded by Garden City Road and No. 4 Road and Capstan Way and Cambie Road.



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	Weekly		Biweekly		Overall	
	(423 resp	onses)	(267 responses)		(690 responses)	
	# of Responses	%	# of Responses	%	# of Responses	%
<ol> <li>Please indicate your level of support for City-provided carts for garbage collection.</li> </ol>						
Do not support	17	4%	21	8%	38	6%
Somewhat supportive	33	8%	25	9%	58	8%
Support	279	66%	145	54%	424	61%
Extremely supportive	93	22%	69	26%	162	23%
No response	1	0%	7	3%	8	1%
2. Are you actively participating in the garbage pilot program?						
Yes, I'm using the garbage cart provided by the City	411	97%	231	87%	642	93%
No, I'm continuing to use my own garbage can(s)	11	3%	1	0%	12	2%
No response	4	1%	35	13%	36	5%
3. Did you request a different cart size?						
Yes	68	16%	39	15%	107	16%
No	351	83%	225	84%	576	83%
No response	4	1%	3	1%	7	1%

### Attachment 2 – Garbage Pilot Participant Surveys (door to door survey undertaken June 10 – 13, 2014)

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#### Attachment 2 Cont'd

	Weekly (423 responses)		Biweekly (267 responses)		Overall (690 responses)	
4. If yes, what size did you exchange to?	(423103		(207103		(050105	
Small (80L)	9	13%	7	18%	16	15%
Medium (120L)	3	4%	15	38%	18	17%
Large (240L)	28	41%	6	15%	34	32%
Extra Large (360L)	19	28%	9	23%	28	26%
No response	9	13%	2	5%	11	10%
5. With the shift to one garbage cart, did you increase your recycling using your Blue Box?						
Yes, we did increased our recycling	191	45%	106	40%	297	43%
No, we did not increase our recycling	231	55%	159	60%	390	57%
No response	1	0%	2	1%	3	0%
6. With the shift to one garbage cart, did you Increase your recycling using the Green Cart?						
Yes, we did increase our recycling	191	45%	128	48%	319	46%
No, we did not increase our recycling	228	54%	134	50%	362	52%
No response	4	1%	5	2%	9	1%

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#### Attachment 2 Cont'd

	Wee	ekly	Biweekly		Overall	
	(423 responses)		(267 responses)		(690 res	ponses)
7. Please indicate whether you are receiving Biweekly or Weekly Collection during this pilot project:						
Biweekly collection (garbage collected every other week)	N/A	N/A	N/A	N/A	266	39%
Weekly collection (garbage collected every other week)	N/A	N/A	N/A	N/A	423	61%
No sure					11	2%
8. How much garbage do you usually put out for collection?						
One cart	298	70%	205	77%	503	73%
One cart plus one garbage can/bag	37	9%	17	6%	54	8%
No response	88	21%	45	17%	133	19%
9. How often do you put garbage at the curbside for collection?			/			
Weekly	291	69%	26	10%	317	46%
Every other week	34	8%	227	85%	261	38%
Once a month	3	1%	3	1%	6	1%
No Response	95	22%	11	4%	106	15%

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#### Attachment 2 Cont'd

	Wee	ekly	Biweekly (267 responses)		Overall (690 responses)	
	(423 res	ponses)				
10. What is your preference for garbage collection frequency?						
Weekly	356	84%	138	52%	494	72%
Biweekly (every other week)	61	14%	121	45%	182	26%
No response	6	1%	8	3%	14	2%
11. Please indicate your level of support for a fee structure based on container size as a measure of the amount of garbage being collected.				1952		
Do not support	144	34%	103	39%	250	36%
Somewhat supportive	64	15%	48	18%	113	16%
Support	<b>17</b> 5	41%	88	33%	264	38%
Extremely supportive	33	8%	23	9%	56	8%
No response	7	2%	5	2%	7	1%
12. Are you aware of the City's Large Item Pick Up Program?						
Yes	302	71%	185	69%	490	71%
No	119	28%	76	28%	197	29%
No response	2	0%	6	2%	3	0%

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#### Attachment 2 Cont'd

	Weekly (423 responses)		Biweekly (267 responses)		Overall (690 responses)	
13. Have you used the City's Recycling Depot (5555 Lynas Lane)?						
Yes	301	71%	169	63%	475	69%
No	114	27%	94	35%	208	30%
No response	8	2%	4	1%	7	1%
14. Are you regularly using the Blue Box program to recycle paper, glass and mixed containers?				0%		
Yes	406	96%	252	94%	663	96%
No	8	2%	11	496	19	3%
No response	9	2%		0%		0%
15. Are you familiar with the expanded Blue Box recycling program where glass needs to be separated in the grey bin?						
Yes	351	83%	231	87%	586	85%
No	68	16%	29	11%	98	14%
No response	4	1%	7	3%	6	1%
16. Are you familiar with the expanded Blue Box program that was rolled out in mid-May?						
Yes	229	54%	140	52%	369	53%
No	191	45%	112	42%	306	44%
No response	3	1%	15	6%	15	2%

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#### Attachment 2 Cont'd

	Weekly (423 responses)		Biweekly (267 responses)		Overall (690 responses)	
17. Please indicate how you use your Green Cart to recycle:						
Yard trimmings only	82	19%	29	11%	112	16%
Food scraps only	14	3%	9	3%	23	3%
Both yard trimmings and food scraps	302	71%	219	82%	525	76%
I don't use my Green Cart	22	5%	7	3%	29	4%
No response	3	1%	3	1%	11	2%

# **Garbage/Recycling Collection Frequency**

# Attachment 2

	Garbage	Recycling	Green Waste	Large Item P/U
City of Vancouver	Biweekly (June 2013) (Wkly from limited MF & Comm bldgs) Cart	Weekly (Max of 2 each) Box/bags	Weekly (June 2013) Cart	No
City of Burnaby	Weekly	Weekly	Weekly	Yes
	Cart	Box/bags	Cart	
City of Surrey	Biweekly (October 2012)	Biweekly (October 2012)	Weekly	Yes (4 items per year)
	Cart	Cart	Cart	
City of New Westminster	Biweekly Cart	Biweekly Cart Single-stream (blue lid w/	Weekly Cart MF – cart lined with	Provided for a fee
		grey cart)	compostable bag	
West Vancouver	Biweekly (April 22, 2013)	Weekly	Weekly	No
	2 cans (154L/home)	Box/bags	Cans (Green Can)	
District of North Vancouver	Weekly	Weekly	Weekly	No
	2 cans (154L/home)	Box/bags	Cans (Green Can)	
Port Moody	Biweekly	Biweekly	Weekly	Yes, fee payable to
	Cart	Cart Single-stream (blue lid w/ grey cart) Glass Monthly	Cart	Smithrite
City of Coquitlam	BiWeekly	Weekly	Weekly	Yes (4 items per year)
	Cart	Box/bags	Carts	1

# Comparison to Other Cities





# Housing Agreement (10440 and 10460 No. 2 Road) Bylaw No. 9246

The Council of the City of Richmond enacts as follows:

- 1. The Mayor and Corporate Officer for the City of Richmond are authorized to execute and deliver a housing agreement, substantially in the form set out in Schedule A to this Bylaw, with the owner of the lands legally described as:
  - 013-096-788 Parcel "G" (Reference Plan 15820), Except Part in Plan LMP6582, Section 31 Block 4 North Range 6 West New Westminster District
  - 002-231-000 Parcel "E" (Reference Plan 6921) Except: the East 540 Feet; of the South Half of Section 31 Block 4 North Range 6 West New Westminster District
- 2. This Bylaw is cited as "Housing Agreement (10440 And 10460 No. 2 Road) Bylaw No. 9246".

FIRST READING	MAY 1 1 2015	CITY OF RICHMOND
SECOND READING	MAY 1 1 2015	APPROVED for content by originating
THIRD READING	MAY 1 1 2015	APPROVED
ADOPTED		for legality by Solicitor
		nz

MAYOR

# CORPORATE OFFICER

### Page 2

# Schedule A

To Housing Agreement (10440 and 10460 No. 2 Road) Bylaw No. 9246

HOUSING AGREEMENT BETWEEN the City of Richmond and Polygon Kingsley Estates Ltd.

#### HOUSING AGREEMENT (Section 905 Local Government Act)

THIS AGREEMENT is dated for reference April , 2015.

#### **BETWEEN:**

#### Polygon Kingsley Estates Ltd. (Inc. No. BC0877472),

a company duly incorporated under the laws of the Province of British Columbia and having its registered office at 900-1333 West Broadway, Vancouver, BC, V6H 4C2

(the "Owner" as more fully defined in section 1.1 of this Agreement)

#### AND:

#### CITY OF RICHMOND

a municipal corporation pursuant to the *Local Government Act* and having its offices at 6911 No. 3 Road, Richmond, British Columbia, V6Y 2C1

(the "City" as more fully defined in section 1.1 of this Agreement)

#### WHEREAS:

- A. Section 905 of the *Local Government Act* permits the City to enter into and, by legal notation on title, note on title to lands, housing agreements which may include, without limitation, conditions in respect to the form of tenure of housing units, availability of housing units to classes of persons, administration of housing units and rent which may be charged for housing units;
- B. The Owner is the owner of the Lands (as hereinafter defined); and
- C. The Owner and the City wish to enter into this Agreement (as herein defined) to provide for affordable housing on the terms and conditions set out in this Agreement,

4563996

**CNCL - 699** 

In consideration of \$10.00 and other good and valuable consideration (the receipt and sufficiency of which is acknowledged by both parties), and in consideration of the promises exchanged below, the Owner and the City covenant and agree as follows:

#### ARTICLE 1 DEFINITIONS AND INTERPRETATION

1.1 In this Agreement the following words have the following meanings:

- (a) "Affordable Housing Unit" means a Dwelling Unit or Dwelling Units designated as such in accordance with a building permit and/or development permit issued by the City and/or, if applicable, in accordance with any rezoning consideration applicable to the development on the Lands and includes, without limiting the generality of the foregoing, the Dwelling Unit charged by this Agreement;
- (b) "Agreement" means this agreement together with all schedules, attachments and priority agreements attached hereto;
- (c) **"Building Permit"** means the building permit authorizing construction on the Lands, or any portion(s) thereof;
- (d) "Caretaker Unit" means the Dwelling Unit to be constructed by the Owner on the Lands for use by a caretaker;
- (e) "City" means the City of Richmond;
- (f) "CPI" means the All-Items Consumer Price Index for Vancouver, B.C. published from time to time by Statistics Canada, or its successor in function;
- (g) "Daily Amount" means \$100.00 per day as of January 1, 2009 adjusted annually thereafter by adding thereto an amount calculated by multiplying \$100.00 by the percentage change in the CPI since January 1, 2009, to January 1 of the year that a written notice is delivered to the Owner by the City pursuant to section 6.1 of this Agreement. In the absence of obvious error or mistake, any calculation by the City of the Daily Amount in any particular year shall be final and conclusive;
- (h) "Development" means the development of and construction on the Lands by the Owner of 120 Dwelling Units, 1 Caretaker Unit and 12 Affordable Housing Units in accordance with the Building Permit, the Housing Covenant and as approved by the City;
- (i) "Dwelling Unit" means a residential dwelling unit or units located or to be located on the Lands whether those dwelling units are lots, strata lots or parcels, or parts or portions thereof, and includes single family detached dwellings, duplexes, townhouses, auxiliary residential dwelling units, rental apartments and strata lots in a building strata plan and includes, where the context permits, an Affordable Housing Unit;

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- (j) "Eligible Tenant" means a Family having a cumulative annual income of \$57,500 or less, provided that, commencing July 1, 2015, the annual income setout above shall, in each year thereafter, be adjusted, plus or minus, by adding or subtracting therefrom, as the case may be, an amount calculated that is equal to the Core Need Income Threshold data and/or other applicable data produced by Canada Mortgage Housing Corporation in the years when such data is released. In the event that, in applying the values set-out above, the rental increase is at any time greater than the rental increase permitted by the *Residential Tenancy Act*, then the increase will be reduced to the maximum amount permitted by the *Residential Tenancy Act*. In the absence of obvious error or mistake, any calculation by the City of an Eligible Tenant's permitted income in any particular year shall be final and conclusive;
- (k) **"Family"** means three or more individuals related by blood, marriage or adoption, including at least one individual who is:
  - (i) under the age of 19;

v.3

- (ii) under the age of 26 and attending an educational institution on a full-time basis; or
- (iii) an eligible dependent for the purposes of personal tax credits under the federal *Income Tax Act*;
- (l) "Housing Covenant" means the agreements, covenants and charges granted by the Owner to the City (which includes covenants pursuant to section 219 of the Land Title Act) charging the Lands registered on \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_\_, under number \_\_\_\_\_\_, as it may be amended or replaced from time to time;
- (m) "*Interpretation Act*" means the *Interpretation Act*, R.S.B.C. 1996, Chapter 238, together with all amendments thereto and replacements thereof;
- (n) *"Land Title Act"* means the *Land Title Act*, R.S.B.C. 1996, Chapter 250, together with all amendments thereto and replacements thereof;
- (o) "Lands" means the following lands and premises situate in the City of Richmond and, including a building or a portion of a building, into which said land is Subdivided:

PID: 9 Lot 1 Section 31 Block 4 North Range 6 West New Westminster District Plan EPP49229;

(p) **"Local Government Act"** means the *Local Government Act*, R.S.B.C. 1996, Chapter 323, together with all amendments thereto and replacements thereof;

(q) "**LTO**" means the New Westminster Land Title Office or its successor;

- (r) "Owner" means the party described on page 1 of this Agreement as the Owner and any subsequent owner of the Lands or of any part into which the Lands are Subdivided, and includes any person who is a registered owner in fee simple of an Affordable Housing Unit from time to time;
- (s) "Permitted Rent" means no greater than \$1,437.00 a month for a unit, provided that, commencing July 1, 2015, the rents set-out above shall, in each year thereafter, be adjusted, plus or minus, by adding or subtracting therefrom, as the case may be, an amount calculated that is equal to the Core Need Income Threshold data and/or other applicable data produced by Canada Mortgage Housing Corporation in the years when such data is released. In the event that, in applying the values set-out above, the rental increase is at any time greater than the rental increase permitted by the *Residential Tenancy Act*, then the increase will be reduced to the maximum amount permitted by the *Residential Tenancy Act*. In the absence of obvious error or mistake, any calculation by the City of the Permitted Rent in any particular year shall be final and conclusive;
- (t) **"Phase 1**" means the first phase of the Development, which first phase will include the construction of:
  - (i) the first 33 of 120 Dwelling Units on the Lands; and
  - (ii) the Caretaker Unit,

but excluding the Phase 1 Affordable Housing Units;

- (u) "**Phase 2**" means the second phase of the Development, which second phase will include the construction of 41 of 120 Dwelling Units on the Lands, excluding the Phase 2 Affordable Housing Units;
- (v) **"Phase 3"** means the last phase of the Development, which last phase will include the construction of the final 46 of 120 Dwelling Units on the Lands;
- (w) **"Phase 1 Affordable Housing Units"** means 8 Affordable Housing Units to be constructed by the Owner on the Lands concurrently with Phase 1;
- (x) **"Phase 2 Affordable Housing Units"** means 4 Affordable Housing Units to be constructed by the Owner on the Lands concurrently with Phase 2;
- (y) "*Real Estate Development Marketing Act*" means the *Real Estate Development Marketing Act*, S.B.C. 2004, Chapter 41, together with all amendments thereto and replacements thereof;
- (z) *"Residential Tenancy Act"* means the *Residential Tenancy Act*, S.B.C. 2002, Chapter 78, together with all amendments thereto and replacements thereof;
- (aa) "**Rezoning Bylaw**" means Richmond Zoning Bylaw 8500, Amendment Bylaw 9155;

- (bb) "Security Covenant" means the agreements, covenants and charges granted by the Owner to the City (which includes covenants pursuant to section 219 of the Land Title Act) charging the Lands registered on \_\_\_\_\_ day of \_\_\_\_\_\_, 20\_, under number \_\_\_\_\_\_, as it may be amended or replaced from time to time;
- (cc) "*Strata Property Act*" means the *Strata Property Act* S.B.C. 1998, Chapter 43, together with all amendments thereto and replacements thereof;
- (dd) "Subdivide" means to divide, apportion, consolidate or subdivide the Lands, or the ownership or right to possession or occupation of the Lands into two or more lots, strata lots, parcels, parts, portions or shares, whether by plan, descriptive words or otherwise, under the *Land Title Act*, the *Strata Property Act*, or otherwise, and includes the creation, conversion, organization or development of "cooperative interests" or "shared interest in land" as defined in the *Real Estate Development Marketing Act*;
- (ee) "Tenancy Agreement" means a tenancy agreement, lease, license or other agreement granting rights to occupy an Affordable Housing Unit; and
- (ff) "Tenant" means an occupant of an Affordable Housing Unit by way of a Tenancy Agreement.
- 1.2 In this Agreement:
  - (a) reference to the singular includes a reference to the plural, and *vice versa*, unless the context requires otherwise;
  - (b) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
  - (c) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
  - (d) reference to any enactment includes any regulations, orders or directives made under the authority of that enactment;
  - (e) any reference to any enactment is to the enactment in force on the date the Owner signs this Agreement, and to subsequent amendments to or replacements of the enactment;
  - (f) the provisions of section 25 of the *Interpretation Act* with respect to the calculation of time apply;

**CNCL - 703** 

- (g) time is of the essence;
- (h) all provisions are to be interpreted as always speaking;

- (i) reference to a "party" is a reference to a party to this Agreement and to that party's respective successors, assigns, trustees, administrators and receivers. Wherever the context so requires, reference to a "party" also includes an Eligible Tenant, agent, officer and invitee of the party;
- (j) reference to a "day", "month", "quarter" or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided; and
- (k) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including".

#### ARTICLE 2 USE AND OCCUPANCY OF AFFORDABLE HOUSING UNITS

- 2.1 The Owner agrees that each Affordable Housing Unit may only be used as a permanent residence occupied by one Eligible Tenant. An Affordable Housing Unit must not be occupied by the Owner, the Owner's family members (unless the Owner's family members qualify as Eligible Tenants), or any tenant or guest of the Owner, other than an Eligible Tenant.
- 2.2 Within 30 days after receiving notice from the City, the Owner must, in respect of each Affordable Housing Unit, provide to the City a statutory declaration, substantially in the form (with, in the City Solicitor's discretion, such further amendments or additions as deemed necessary) attached as Appendix A, sworn by the Owner, containing all of the information required to complete the statutory declaration. The City may request such statutory declaration in respect to each Affordable Housing Unit no more than once in any calendar year; provided, however, notwithstanding that the Owner may have already provided such statutory declaration in the particular calendar year, the City may request and the Owner shall provide to the City such further statutory declarations as requested by the City in respect to an Affordable Housing Unit if, in the City's absolute determination, the City believes that the Owner is in breach of any of its obligations under this Agreement.
- 2.3 The Owner hereby irrevocably authorizes the City to make such inquiries as it considers necessary in order to confirm that the Owner is complying with this Agreement.
- 2.4 The Owner agrees that notwithstanding that the Owner may otherwise be entitled, the Owner will not:
  - (a) be issued with the Building Permit unless the Building Permit includes the Phase 1 Affordable Housing Units and the Phase 2 Affordable Housing Units;
  - (b) occupy, nor permit any person to occupy any Dwelling Unit or any portion of any building, in part or in whole, constructed during Phase 2, and the City will not be obligated to permit occupancy of any Dwelling Unit or building constructed during Phase 2 until all of the following conditions are satisfied:

CNCL - 704

Housing Agreement (Section 905 Local Government Act) 10440 and 10460 No. 2 Road Application No. RZ-649524 Bylaw 9155 Rezoning Consideration No. 19

- (i) the Phase 1 Affordable Housing Units and related uses and areas have been constructed concurrently with Phase 1 and to the satisfaction of the City;
- (ii) the Phase 1 Affordable Housing Units have received final building permit inspection granting occupancy; and
- (iii) the Owner is not otherwise in breach of any of its obligations under this Agreement or any other agreement between the City and the Owner in connection with the development of the Lands;
- (c) occupy, nor permit any person to occupy any Dwelling Unit or any portion of any building, in part or in whole, constructed during Phase 3, and the City will not be obligated to permit occupancy of any Dwelling Unit or building constructed during Phase 3 until all of the following conditions are satisfied;
  - (i) the Phase 1 Affordable Housing Units and related uses and areas have been constructed concurrently with Phase 1 and to the satisfaction of the City;
  - (ii) the Phase 2 Affordable Housing Units and related uses and areas have been constructed concurrently with Phase 2 to the satisfaction of the City;
  - (iii) the Phase 1 Affordable Housing Units and Phase 2 Affordable Housing Units have received final building permit inspection granting occupancy; and
  - (iv) the Owner is not otherwise in breach of any of its obligations under this Agreement or any other agreement between the City and the Owner in connection with the development of the Lands.

#### ARTICLE 3

### DISPOSITION AND ACQUISITION OF AFFORDABLE HOUSING UNITS

- 3.1 The Owner will not permit an Affordable Housing Unit Tenancy Agreement to be subleased or assigned.
- 3.2 If this Housing Agreement encumbers more than one Affordable Housing Unit, then the Owner may not, without the prior written consent of the City Solicitor, sell or transfer less than five (5) Affordable Housing Units in a single or related series of transactions with the result that when the purchaser or transferee of the Affordable Housing Units becomes the owner, the purchaser or transferee will be the legal and beneficial owner of not less than five (5) Affordable Housing Units.

- 3.3 The Owner must not rent, lease, license or otherwise permit occupancy of any Affordable Housing Unit except to an Eligible Tenant and except in accordance with the following additional conditions:
  - (a) the Affordable Housing Unit will be used or occupied only pursuant to a Tenancy Agreement;
  - (b) the monthly rent payable for the Affordable Housing Unit will not exceed the Permitted Rent applicable to that class of Affordable Housing Unit;
  - (c) Owner will allow the Tenant and any permitted occupant and visitor to have full access to and use and enjoy all on-site common indoor and outdoor amenity spaces;
  - (d) the Owner will not require the Tenant or any permitted occupant to pay any strata fees, strata property contingency reserve fees or any extra charges or fees for use of any common property, limited common property, or other common areas, facilities or amenities, including without limitation parking facilities, or for sanitary sewer, storm sewer, water, other utilities, property or similar tax; provided, however, if the Affordable Housing Unit is a strata unit and the following costs are not part of strata or similar fees, an Owner may charge the Tenant the Owner's cost, if any, of providing cablevision, telephone, other telecommunications, gas, or electricity fees, charges or rates;
  - (e) the Owner will attach a copy of this Agreement to every Tenancy Agreement;
  - (f) the Owner will include in the Tenancy Agreement a clause requiring the Tenant and each permitted occupant of the Affordable Housing Unit to comply with this Agreement;
  - (g) the Owner will include in the Tenancy Agreement a clause entitling the Owner to terminate the Tenancy Agreement if:
    - (i) an Affordable Housing Unit is occupied by a person or persons other than an Eligible Tenant;
    - (ii) the annual income of an Eligible Tenant rises above the applicable maximum amount specified in section 1.1(j) of this Agreement;
    - (iii) the Affordable Housing Unit is occupied by more than the number of people the City's building inspector determines can reside in the Affordable Housing Unit given the number and size of bedrooms in the Affordable Housing Unit and in light of any relevant standards set by the City in any bylaws of the City;
    - (iv) the Affordable Housing Unit remains vacant for three consecutive months or longer, notwithstanding the timely payment of rent; and/or

**CNCL - 706** 

(v) the Tenant subleases the Affordable Housing Unit or assigns the Tenancy Agreement in whole or in part,

and in the case of each breach, the Owner hereby agrees with the City to forthwith provide to the Tenant a notice of termination. Except for section 3.3(g)(ii) of this Agreement [Termination of Tenancy Agreement if Annual Income of Tenant rises above amount prescribed in section 1.1(j) of this Agreement], the notice of termination shall provide that the termination of the tenancy shall be effective 30 days following the date of the notice of termination. In respect to section 3.3(g)(ii) of this Agreement, termination shall be effective on the day that is six (6) months following the date that the Owner provided the notice of termination to the Tenant;

- (h) the Tenancy Agreement will identify all occupants of the Affordable Housing Unit and will stipulate that anyone not identified in the Tenancy Agreement will be prohibited from residing at the Affordable Housing Unit for more than 30 consecutive days or more than 45 days total in any calendar year; and
- (i) the Owner will forthwith deliver a certified true copy of the Tenancy Agreement to the City upon demand.
- 3.4 If the Owner has terminated the Tenancy Agreement, then the Owner shall use best efforts to cause the Tenant and all other persons that may be in occupation of the Affordable Housing Unit to vacate the Affordable Housing Unit on or before the effective date of termination.

#### ARTICLE 4

#### **DEMOLITION OF AFFORDABLE HOUSING UNIT**

- 4.1 The Owner will not demolish an Affordable Housing Unit unless:
  - (a) the Owner has obtained the written opinion of a professional engineer or architect who is at arm's length to the Owner that it is no longer reasonable or practical to repair or replace any structural component of the Affordable Housing Unit, and the Owner has delivered to the City a copy of the engineer's or architect's report; or
  - (b) the Affordable Housing Unit is damaged or destroyed, to the extent of 40% or more of its value above its foundations, as determined by the City in its sole discretion,

and, in each case, a demolition permit for the Affordable Housing Unit has been issued by the City and the Affordable Housing Unit has been demolished under that permit.

Following demolition, the Owner will use and occupy any replacement Dwelling Unit in compliance with this Agreement and the Housing Covenant both of which will apply to any replacement Dwelling Unit to the same extent and in the same manner as those agreements

apply to the original Dwelling Unit, and the Dwelling Unit must be approved by the City as an Affordable Housing Unit in accordance with this Agreement.

#### ARTICLE 5 STRATA CORPORATION BYLAWS

- 5.1 This Agreement will be binding upon all strata corporations created upon the strata title Subdivision of the Lands or any Subdivided parcel of the Lands.
- 5.2 Any strata corporation bylaw which prevents, restricts or abridges the right to use the Affordable Housing Units as rental accommodation will have no force and effect.
- 5.3 No strata corporation shall pass any bylaws preventing, restricting or abridging the use of the Affordable Housing Units as rental accommodation.
- 5.4 No strata corporation shall pass any bylaw or approve any levies which would result in only the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit (and not include all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable strata plan which are not Affordable Housing Units) paying any extra charges or fees for the use of any common property, limited common property or other common areas, facilities, or amenities of the strata corporation.
- 5.5 No strata corporation shall pass any bylaws or approve any levies, charges or fees which would result in the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit paying for the use of parking facilities, notwithstanding that the Strata Corporation may levy such parking charges or fees on all the other owners, tenants, any other permitted occupants or visitors of all the strata lots in the applicable strata plan which are not Affordable Housing Units.
- 5.6 The strata corporation shall not pass any bylaw or make any rule which would restrict the Owner or the Tenant or any other permitted occupant of an Affordable Housing Unit from using and enjoying any common property, limited common property or other common areas, facilities, parking facilities or amenities of the strata corporation, except, subject to section 5.5 of this Agreement, on the same basis that governs the use and enjoyment of any common property, limited common property or other common areas, facilities or amenities of the strata corporation of any common property, limited common property or other common areas, facilities or amenities of the strata corporation by all the owners, tenants, or any other permitted occupants of all the strata lots in the applicable strata plan which are not Affordable Housing Units.

#### ARTICLE 6 DEFAULT AND REMEDIES

6.1 The Owner agrees that, in addition to any other remedies available to the City under this Agreement or the Housing Covenant or the Security Covenant or at law or in equity, if an Affordable Housing Unit is used or occupied in breach of this Agreement or rented at a rate in excess of the Permitted Rent or the Owner is otherwise in breach of any of its obligations under this Agreement or the Housing Covenant or the Security Covenant, the

Owner will pay the Daily Amount to the City for every day that the breach continues after forty-five (45) days written notice from the City to the Owner stating the particulars of the breach. For greater certainty, the City is not entitled to give written notice with respect to any breach of the Agreement until any applicable cure period, if any, has expired. The Daily Amount is due and payable five (5) business days following receipt by the Owner of an invoice from the City for the same.

6.2 The Owner acknowledges and agrees that a default by the Owner of any of its promises, covenants, representations or warranties set-out in the Housing Covenant or the Security Covenant shall also constitute a default under this Agreement.

### ARTICLE 7 MISCELLANEOUS

#### 7.1 Housing Agreement

The Owner acknowledges and agrees that:

- (a) this Agreement includes a housing agreement entered into under section 905 of the *Local Government Act*;
- (b) where an Affordable Housing Unit is a separate legal parcel the City may file notice of this Agreement in the LTO against the title to the Affordable Housing Unit and, in the case of a strata corporation, may note this Agreement on the common property sheet; and
- where the Lands have not yet been Subdivided to create the separate parcels to be (c) charged by this Agreement, the City may file a notice of this Agreement in the LTO against the title to the Lands. If this Agreement is filed in the LTO as a notice under section 905 of the Local Government Act prior to the Lands having been Subdivided, and it is the intention that this Agreement is, once separate legal parcels are created and/or the Lands are subdivided, to charge and secure only the legal parcels or Subdivided Lands which contain the Affordable Housing Units, then the City Solicitor shall be entitled, without further City Council approval, authorization or bylaw, to partially discharge this Agreement accordingly. The Owner acknowledges and agrees that notwithstanding a partial discharge of this Agreement, this Agreement shall be and remain in full force and effect and, but for the partial discharge, otherwise unamended. Further, the Owner acknowledges and agrees that in the event that the Affordable Housing Unit is in a strata corporation, this Agreement shall remain noted on the strata corporation's common property sheet in perpetuity.

#### 7.2 No Compensation

The Owner acknowledges and agrees that no compensation is payable, and the Owner is not entitled to and will not claim any compensation from the City, for any decrease in the market value of the Lands or for any obligations on the part of the Owner and its

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Housing Agreement (Section 905 Local Government Act)

successors in title which at any time may result directly or indirectly from the operation of this Agreement.

### 7.3 Modification

Subject to section 7.1 of this Agreement, this Agreement may be modified or amended from time to time, by consent of the Owner and a bylaw duly passed by the Council of the City and thereafter if it is signed by the City and the Owner.

#### 7.4 Management

The Owner covenants and agrees that it will furnish good and efficient management of the Affordable Housing Units and will permit representatives of the City to inspect the Affordable Housing Units at any reasonable time, subject to the notice provisions in the *Residential Tenancy Act*. The Owner further covenants and agrees that it will maintain the Affordable Housing Units in a good state of repair and fit for habitation and will comply with all laws, including health and safety standards applicable to the Lands. Notwithstanding the foregoing, the Owner acknowledges and agrees that the City, in its absolute discretion, may require the Owner, at the Owner's expense, to hire a person or company with the skill and expertise to manage the Affordable Housing Units.

#### 7.5 Indemnity

The Owner will indemnify and save harmless the City and each of its elected officials, officers, directors, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of:

- (a) any negligent act or omission of the Owner, or its officers, directors, agents, contractors or other persons for whom at law the Owner is responsible relating to this Agreement;
- (b) the City refusing to issue a building permit or refusing to permit occupancy of any building, or any portion thereof, constructed on the Lands;
- (c) the construction, maintenance, repair, ownership, lease, license, operation, management or financing of the Lands or any Affordable Housing Unit or the enforcement of any Tenancy Agreement; and/or
- (d) without limitation, any legal or equitable wrong on the part of the Owner or any breach of this Agreement by the Owner.

#### 7.6 Release

The Owner hereby releases and forever discharges the City and each of its elected officials, officers, directors, and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands,

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damages, actions, or causes of action by reason of or arising out of or which would or could not occur but for the:

- (a) construction, maintenance, repair, ownership, lease, license, operation or management of the Lands or any Affordable Housing Unit under this Agreement;
- (b) the City refusing to issue a building permit or refusing to permit occupancy of any building, or any portion thereof, constructed on the Lands; and/or
- (c) the exercise by the City of any of its rights under this Agreement or an enactment.

#### 7.7 Survival

The obligations of the Owner set out in this Agreement will survive termination or discharge of this Agreement.

#### 7.8 **Priority**

The Owner will do everything necessary, at the Owner's expense, to ensure that this Agreement, if required by the City Solicitor, will be noted against title to the Lands in priority to all financial charges and encumbrances which may have been registered or are pending registration against title to the Lands save and except those specifically approved in advance in writing by the City Solicitor or in favour of the City, and that a notice under section 905(5) of the *Local Government Act* will be filed on the title to the Lands.

#### 7.9 City's Powers Unaffected

This Agreement does not:

- (a) affect or limit the discretion, rights, duties or powers of the City under any enactment or at common law, including in relation to the use or subdivision of the Lands;
- (b) impose on the City any legal duty or obligation, including any duty of care or contractual or other legal duty or obligation, to enforce this Agreement;
- (c) affect or limit any enactment relating to the use or subdivision of the Lands; or
- (d) relieve the Owner from complying with any enactment, including in relation to the use or subdivision of the Lands.

**CNCL - 711** 

#### 7.10 Agreement for Benefit of City Only

The Owner and the City agree that:

(a) this Agreement is entered into only for the benefit of the City;

- (b) this Agreement is not intended to protect the interests of the Owner, any Tenant, or any future owner, lessee, occupier or user of the Lands or the building or any portion thereof, including any Affordable Housing Unit; and
- (c) the City may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.

#### 7.11 No Public Law Duty

Where the City is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the City is under no public law duty of fairness or natural justice in that regard and agrees that the City may do any of those things in the same manner as if it were a private party and not a public body.

#### 7.12 Notice

Any notice required to be served or given to a party herein pursuant to this Agreement will be sufficiently served or given if delivered, to the postal address of the Owner set out in the records at the LTO, and in the case of the City addressed:

- To: Clerk, City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1
- And to: City Solicitor City of Richmond 6911 No. 3 Road Richmond, BC V6Y 2C1

or to the most recent postal address provided in a written notice given by each of the parties to the other. Any notice which is delivered is to be considered to have been given on the first day after it is dispatched for delivery.

#### 7.13 Enuring Effect

This Agreement will extend to and be binding upon and enure to the benefit of the parties hereto and their respective successors and permitted assigns.

#### 7.14 Severability

If any provision of this Agreement is found to be invalid or unenforceable, such provision or any part thereof will be severed from this Agreement and the resultant remainder of this Agreement will remain in full force and effect.

#### 7.15 Waiver

All remedies of the City will be cumulative and may be exercised by the City in any order or concurrently in case of any breach and each remedy may be exercised any number of times with respect to each breach. Waiver of or delay in the City exercising any or all remedies will not prevent the later exercise of any remedy for the same breach or any similar or different breach.

#### 7.16 Sole Agreement

This Agreement, and any documents signed by the Owners contemplated by this Agreement (including, without limitation, the Housing Covenant), represent the whole agreement between the City and the Owner respecting the use and occupation of the Affordable Housing Units, and there are no warranties, representations, conditions or collateral agreements made by the City except as set forth in this Agreement. In the event of any conflict between this Agreement and the Housing Covenant, this Agreement shall, to the extent necessary to resolve such conflict, prevail.

#### 7.17 Further Assurance

Upon request by the City the Owner will forthwith do such acts and execute such documents as may be reasonably necessary in the opinion of the City to give effect to this Agreement.

#### 7.18 Covenant Runs with the Lands

This Agreement burdens and runs with the Lands and every parcel into which it is Subdivided in perpetuity. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its personal administrators, successors and assigns, and all persons who after the date of this Agreement, acquire an interest in the Lands.

#### 7.19 Equitable Remedies

The Owner acknowledges and agrees that damages would be an inadequate remedy for the City for any breach of this Agreement and that the public interest strongly favours specific performance, injunctive relief (mandatory or otherwise), or other equitable relief, as the only adequate remedy for a default under this Agreement.

#### 7.20 No Joint Venture

Nothing in this Agreement will constitute the Owner as the agent, joint venturer, or partner of the City or give the Owner any authority to bind the City in any way.

#### 7.21 Applicable Law

Unless the context otherwise requires, the laws of British Columbia (including, without limitation, the *Residential Tenancy Act*) will apply to this Agreement and all statutes referred to herein are enactments of the Province of British Columbia.

#### 7.22 Deed and Contract

By executing and delivering this Agreement the Owner intends to create both a contract and a deed executed and delivered under seal.

#### 7.23 Joint and Several

If the Owner is comprised of more than one person, firm or body corporate, then the covenants, agreements and obligations of the Owner shall be joint and several.

#### 7.23 Limitation on Owner's Obligations

The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands provided however that notwithstanding that the Owner is no longer the registered owner of the Lands, the Owner will remain liable for breaches of this Agreement that occurred while the Owner was the registered owner of the Lands.

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement as of the day and year first above written.

#### POLYGON KINGSLEY ESTATES LTD. (INC. NO. BC0877472),

by its authorized signatory(ies):

Per: G. SCOTT BALDWIN Name: Per: Name BERT-BRUNO



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### CITY OF RICHMOND

by its authorized signatory(ies):

Per:

Malcolm D. Brodie, Mayor

Per:

v.3

David Weber, Corporate Officer

Housing Agreement (Section 905 Local Government Act) 10440 and 10460 No. 2 Road Application No. RZ-649524 Bylaw 9155 Rezoning Consideration No. 19

#### Appendix A to Housing Agreement

#### STATUTORY DECLARATION

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#### CANADA

#### PROVINCE OF BRITISH COLUMBIA

### IN THE MATTER OF A HOUSING AGREEMENT WITH THE CITY OF RICHMOND ("Housing Agreement")

### TO WIT:

I, \_\_\_\_\_\_ of \_\_\_\_\_\_, British Columbia, do solemnly declare that:

- 1. I am the owner or authorized signatory of the owner of \_\_\_\_\_\_ (the "Affordable Housing Unit"), and make this declaration to the best of my personal knowledge.
- 2. This declaration is made pursuant to the Housing Agreement in respect of the Affordable Housing Unit.
- 3. For the period from \_\_\_\_\_\_\_ to \_\_\_\_\_, the Affordable Housing Unit was occupied only by the Eligible Tenants (as defined in the Housing Agreement) whose names and current addresses and whose employer's names and current addresses appear below:

[Names, addresses and phone numbers of Eligible Tenants and their employer(s)]

4. The rent charged each month for the Affordable Housing Unit is as follows:

- (a) the monthly rent on the date 365 days before this date of this statutory declaration:
   \$ per month;
- (b) the rent on the date of this statutory declaration: \$; and
- (c) the proposed or actual rent that will be payable on the date that is 90 days after the date of this statutory declaration: \$
- 5. I acknowledge and agree to comply with the Owner's obligations under the Housing Agreement, and other charges in favour of the City noted or registered in the Land Title Office against the land on which the Affordable Housing Unit is situated and confirm that the Owner has complied with the Owner's obligations under the Housing Agreement.

6. I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the *Canada Evidence Act*.

)

)

)

DECLARED BEFORE ME at the City of \_\_\_\_\_\_, in the Province of British Columbia, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_.

DECLARANT

A Commissioner for Taking Affidavits in the Province of British Columbia

#### PRIORITY AGREEMENT

In respect to a Housing Agreement (the "Housing Agreement") made pursuant to section 905 of the *Local Government Act* between the City of Richmond and Polygon Kingsley States Ltd. (the "Owner") in respect to the lands and premises legally known and described as:

### PID: O

Lot 1 Section 31 Block 4 North Range 6 West New Westminster District Plan EPP49229

(the "Lands")

Bank of Montreal (the "Chargeholder") is the holder of a Mortgage and Assignment of Rents encumbering the Lands which Mortgage and Assignment of Rents were registered in the Lower Mainland LTO under numbers CA4142766 and CA4142767, respectively ("the Bank Charges").

The Chargeholder, being the holder of the Bank Charges, by signing below, in consideration of the payment of Ten Dollars (\$10.00) and other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged and agreed to by the Chargeholder), hereby consents to the granting of the covenants in the Housing Agreement by the Owner and hereby covenants that the Housing Agreement shall bind the Bank Charges in the Lands and shall rank in priority upon the Lands over the Bank Charges as if the Housing Agreement had been signed, sealed and delivered and noted on title to the Lands prior to the Bank Charges and prior to the advance of any monies pursuant to the Bank Charges. The grant of priority is irrevocable, unqualified and without reservation or limitation.

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by it	s authori:	zęd signatory(ies):
Per:		VALTER
	Name:	ACCOUNT MANAGER
Per:	Van	Mann
	Name:	Arini Norgaard
		Senio Deal Specialist

BANK OF MONTREAL





# Richmond Zoning Bylaw 8500 Amendment Bylaw 9097 (RZ 13-647579) 11900/11902 Kingfisher Drive

The Council of the City of Richmond, in open meeting assembled, enacts as follows:

1. The Zoning Map of the City of Richmond, which accompanies and forms part of Richmond Zoning Bylaw 8500, is amended by repealing the existing zoning designation of the following area and by designating it **"SINGLE DETACHED (RS2/B)"**.

P.I.D. 003-606-996

Lot 334 Section 1 Block 3 North Range 7 West New Westminster District Plan 44470

2. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9097".

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER REQUIREMENTS SATISFIED

ADOPTED

FEB 2 4 2014	CITY OF RICHMONE
MAR 1 7 2014	
MAR 1 7 2014	APPROVED by Director
MAR 1 7 2014	or Solicitor
MAY 1 3 2015	

# CORPORATE OFFICER

MAYOR

**CNCL - 719** 

