



City Council

**Council Chambers, City Hall
6911 No. 3 Road**

**Monday, April 23, 2018
7:00 p.m.**

Pg. # ITEM

MINUTES

1. *Motion to:*

- (1) *adopt the minutes of the Regular Council meeting held on April 9, 2018 (distributed previously); and*
- (2) *adopt the **minutes** of the Regular Council meeting for Public Hearings held on April 16, 2018.*

CNCL-12



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 OR ON DEVELOPMENT PERMITS/DEVELOPMENT VARIANCE PERMITS – ITEM NO. 20.

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
- Touchstone Family Association Restorative Justice Annual Performance Outcome Evaluation Report
- Phoenix Net Loft Preservation
- River Road – Proposed Implementation of Selected Road Safety Measures
- Annual Property Tax Rates (2018) Bylaw No. 9835
- Application By Kanaris Demetre Lazos for a Heritage Alteration Permit at 12111 3rd Avenue (Steveston Hotel)
- Land use applications for first reading (to be further considered at the Public Hearing on May 22, 2018):
 - 3991/3993 Lockhart Road – Rezone from RS1/E to RS2/B (Rav Bains – applicant)
 - 8280/8282 And 8300/8320 No. 3 Road – Rezone from RD1 to RTL4 (Matthew Cheng Architect Inc. – applicant)
- Proposed City Response to Strata Redevelopment
- Traffic Safety Advisory Committee – Proposed 2018 Initiatives
- Integrated Rainwater Resource Management Strategy
- Dike Master Plan - Phase 2 Report
- Annual Report 2017: Recycling and Solid Waste Management

5. *Motion to adopt Items No. 6 through No. 18 by general consent.*



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6. COMMITTEE MINUTES

That the minutes of:

- CNCL-21 (1) the **Community Safety Committee** meeting held on April 10, 2018;
- CNCL-26 (2) the **General Purposes Committee** meetings held on April 9, 2018 and April 16, 2018;
- CNCL-52 (3) the special **Finance Committee** meeting held on April 16, 2018;
- CNCL-54 (4) the **Planning Committee** meeting held on April 17, 2018;
- CNCL-60 (5) the **Public Works and Transportation Committee** meeting held on April 18, 2018; and
- CNCL-66 (6) the **Council/School Board Liaison Committee** meeting held on March 7, 2018;

be received for information.



Consent
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7. TOUCHSTONE FAMILY ASSOCIATION RESTORATIVE JUSTICE ANNUAL PERFORMANCE OUTCOME EVALUATION REPORT

(File Ref. No. 03-1000-05-069) (REDMS No. 5766682 v.2)

CNCL-72

See Page CNCL-72 for full report

COMMUNITY SAFETY COMMITTEE RECOMMENDATION

- (1) *That the staff report titled “Touchstone Family Association Restorative Justice Annual Performance Outcome Evaluation Report” dated March 12, 2018 from the Acting Senior Manager, Community Safety Policy & Programs and Licencing, be received for information; and*
- (2) *That a letter be written to the Minister of Public Safety and Solicitor General and the Attorney General highlighting successes of the Restorative Justice Program in Richmond; and*
- (3) *That staff examine the possibility of promoting the Restorative Justice Program at the annual Union of British Columbia Municipalities convention and report back.*



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8. **PHOENIX NET LOFT PRESERVATION**
(File Ref. No. 06-2052-25-BHSY1) (REDMS No. 5698772 v. 11)

CNCL-95

See Page CNCL-95 for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

That staff be authorized to proceed with Phoenix Net Loft Preservation construction as described in the staff report titled “Phoenix Net Loft Preservation,” dated March 29, 2018, from the Director, Engineering.



Consent
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9. **RIVER ROAD – PROPOSED IMPLEMENTATION OF SELECTED ROAD SAFETY MEASURES**
(File Ref. No. 10-6450-09-01) (REDMS No. 5783853 v. 6)

CNCL-107

See Page CNCL-107 for full report

GENERAL PURPOSES COMMITTEE RECOMMENDATION

- (1) *That the proposed road safety measures on River Road between No. 6 Road and Westminster Highway as outlined in the staff report titled “River Road – Proposed Implementation of Selected Road Safety Measures”, dated April 3, 2018 from the Director, Transportation, be endorsed for implementation prior to Fall 2018; and*
- (2) *That resident input be considered wherever possible and implemented when considering the proposed road safety measures, and that staff undertake a field meeting with the residents.*



Consent
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10. **ANNUAL PROPERTY TAX RATES (2018) BYLAW NO. 9835**
(File Ref. No. 03-0925-01; 12-8060-20-009835) (REDMS No. 5736584; 5736962)

CNCL-116

See Page CNCL-116 for full report

FINANCE COMMITTEE RECOMMENDATION

That the Annual Property Tax Rates (2018) Bylaw No. 9835 be introduced and given first, second and third readings.



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11. **APPLICATION BY KANARIS DEMETRE LAZOS FOR A HERITAGE ALTERATION PERMIT AT 12111 3RD AVENUE (STEVESTON HOTEL)**

(File Ref. No. HA 18 - 804880) (REDMS No. 5794211)

CNCL-131

See Page CNCL-131 for full report

PLANNING COMMITTEE RECOMMENDATION

That a Heritage Alteration Permit be issued which would permit the removal of decorative shutters and the replacement of all the upper-storey windows of the protected heritage property at 12111 3rd Avenue, be issued.

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Consent
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12. **APPLICATION BY RAV BAINS FOR REZONING AT 3991/3993 LOCKHART ROAD FROM “SINGLE DETACHED (RS1/E)” TO “SINGLE DETACHED (RS2/B)”**

(File Ref. No. 12-8060-20-009852, RZ 17-774722) (REDMS No. 5750684)

CNCL-156

See Page CNCL-156 for full report

PLANNING COMMITTEE RECOMMENDATION

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9852, for the rezoning of 3991/3993 Lockhart Road from “Single Detached (RS1/E)” to “Single Detached (RS2/B)”, be introduced and given first reading.

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13. **APPLICATION BY MATTHEW CHENG ARCHITECT INC. FOR REZONING AT 8280/8282 AND 8300/8320 NO. 3 ROAD FROM “TWO-UNIT DWELLINGS (RD1)” TO “LOW DENSITY TOWNHOUSES (RTL4)”**

(File Ref. No. 12-8060-20-009856, RZ 16-733565) (REDMS No. 5788183)

CNCL-175

See Page CNCL-175 for full report

PLANNING COMMITTEE RECOMMENDATION

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9856, for the rezoning of 8280/8282 and 8300/8320 No. 3 Road from “Two-Unit Dwellings (RD1)” to “Low Density Townhouses (RTL4)”, be introduced and given first reading.

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Consent
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14. **PROPOSED CITY RESPONSE TO STRATA REDEVELOPMENT**

(File Ref. No. 08-4057-00) (REDMS No. 5772450 v. 10)

CNCL-203

See Page CNCL-203 for full report

PLANNING COMMITTEE RECOMMENDATION

- (1) *That the staff report titled “Proposed City Response to Residential Strata Redevelopment” dated April 5, 2018, from the Manager, Policy Planning be received for information;*
- (2) *That staff be directed to only commence processing development applications for sites occupied by a pre-existing multiple-family residential strata building where there is a written record of the Supreme Court ruling confirming wind-up of the strata corporation, or where there is a written record of 100% support from all owners of a strata with fewer than 5 units, and, in either case, where information is provided related to the building’s condition and confirmation has been provided on the developer’s relocation assistance to any owner not in support of the strata wind-up; and*
- (3) *That a letter be sent to the Premier of British Columbia, and the Minister of Municipal Affairs and Housing, with copies to all Richmond Members of the Legislative Assembly, and the Leader of the Third Party, and the Leader of the Official Opposition, requesting that the Province review the provisions of Bill 40 which enables wind-up of a strata corporation with less than unanimous support from strata owners.*



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15. **TRAFFIC SAFETY ADVISORY COMMITTEE – PROPOSED 2018 INITIATIVES**

(File Ref. No. 01-0100-30-TSAD1-01) (REDMS No. 5702321)

CNCL-216

See Page CNCL-216 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION

- (1) *That the proposed 2018 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled “Traffic Safety Advisory Committee - Proposed 2018 Initiatives” dated March 21, 2018 from the Director, Transportation, be endorsed; and*
- (2) *That a copy of the above staff report be forwarded to the Richmond Council-School Board Liaison Committee for information.*



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16. **INTEGRATED RAINWATER RESOURCE MANAGEMENT STRATEGY**

(File Ref. No. 10-6060-03-01) (REDMS No. 5709139 v. 3)

CNCL-221

See Page CNCL-221 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

- (1) *That the “Integrated Rainwater Resource Management Strategy” as attached to the staff report titled “Integrated Rainwater Resource Management Strategy,” dated March 1, 2018 from the Director, Engineering be approved; and*
- (2) *That staff provide further information on the re-use of rainwater for toilet flushing and report back.*



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17. **DIKE MASTER PLAN - PHASE 2 REPORT**

(File Ref. No. 10-6045-09-01) (REDMS No. 5733629 v.2)

CNCL-242

See Page CNCL-242 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE
RECOMMENDATION

- (1) *That the existing dike alignment in the Dike Master Plan Phase 2 study area (West Dike from Williams Road to Terra Nova and North Dike from Terra Nova to No. 6 Road) continue to be the primary flood protection dike alignment; and*
- (2) *That the work plan identified in the staff report titled Dike Master Plan – Phase 2 Report from the Director of Engineering, dated March 21, 2018, be endorsed.*



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18. **ANNUAL REPORT 2017: RECYCLING AND SOLID WASTE MANAGEMENT**

(File Ref. No. 10-6370-01) (REDMS No. 5773340 v.3)

CNCL-306

See Page CNCL-306 for full report

PUBLIC WORKS AND TRANSPORTATION COMMITTEE RECOMMENDATION

That the annual report titled, “Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality” be endorsed and Attachment 1 be made available to the community through the City’s website and through various communication tools including social media channels and as part of community outreach initiatives.



**CONSIDERATION OF MATTERS REMOVED FROM THE
CONSENT AGENDA**

FINANCE AND CORPORATE SERVICES DIVISION

19. **ANNUAL DEVELOPMENT COST CHARGES BYLAW AMENDMENT**

(File Ref. No.: 12-8060-20-00984) (REDMS No. 5803874 v. 2)

CNCL-368

See Page CNCL-368 for staff memorandum

STAFF RECOMMENDATION

- (1) *That Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw No. 9844 be amended to remove the effective date of May 8, 2018;*
- (2) *That Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw No. 9844 be given second reading, as amended; and*
- (3) *That Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw No. 9844 be given third reading.*



PUBLIC ANNOUNCEMENTS AND EVENTS

NEW BUSINESS

BYLAWS FOR ADOPTION

CNCL-371	Public Health Protection Bylaw No. 6989, Amendment Bylaw No. 9830 Opposed at 1 st /2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-374	Housing Agreement (9211/9251/9271/9291 Odlin) Bylaw No. 9850 Opposed at 1 st /2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-395	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9611 (9771 Seavale Road, RZ 16-722173) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-397	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9687 (10475, 10491, 10511, 10531, 10551, 10571, 10591 and 10631 No. 5 Road, RZ 16-726337) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-400	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9773 (12431 McNeely Drive, RZ 17-781064) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – None.	<input type="checkbox"/>

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CNCL-402	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9818 (5400 Granville Avenue, RZ 13-644678) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-404	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9200 (9611, 9631 and 9651 Blundell Road, RZ 13-647246) Opposed at 1 st Reading – Cllr. Day Opposed at 2 nd /3 rd Readings – None.	<input type="checkbox"/>
CNCL-406	Richmond Zoning Bylaw No. 8500, Amendment Bylaw No. 9682 (7760 Garden City Road, RZ 15-701939) Opposed at 1 st Reading – None. Opposed at 2 nd /3 rd Readings – Cllr. Day.	<input type="checkbox"/>

DEVELOPMENT PERMIT PANEL

20. RECOMMENDATION

See DPP Plan Package (distributed separately) for full hardcopy plans		
CNCL-408	(1)	<i>That the minutes of the Development Permit Panel meetings held on March 28, 2018 and April 11, 2018 be received for information;</i>
CNCL-417	(2)	<i>That and the Chairs' reports for the following Development Permit Panel meetings: November 16, 2016, August 9, 2017, October 25, 2017, November 16, 2017, January 17, 2018, February 28, 2018, and March 14, 2018 be received for information; and</i>
	(3)	<i>That the recommendations of the Panel to authorize the issuance of:</i>
	(a)	<i>a Development Permit (DP 15-695475) for the property at 9611, 9631 and 9651 Blundell Road;</i>
	(b)	<i>a Development Permit (DP 16-735564) for the property at 3328 Carscallen Road and 3233 & 3299 Sexsmith Road;</i>
	(c)	<i>a Development Permit (DP 17-785221) for the property at 10019 Granville Avenue;</i>
	(d)	<i>a Development Permit (DP 17-774043) for the property at 10475, 10491, 10511, 10531, 10551, 10571, 10591 and 10631 No. 5 Road;</i>

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- (e) *a Development Permit (DP 17-778607) for the property at 7760 Garden City Road;*
 - (f) *a Development Permit (DP 16-721500) for the property at 10311 River Drive; and*
 - (g) *a Development Permit (DP 15-718109) for the property at 6020 Steveston Highway;*
- be endorsed, and the Permits so issued.*

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ADJOURNMENT

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Regular Council meeting for Public Hearings Monday, April 16, 2018

Place: Council Chambers
Richmond City Hall

Present: Acting Mayor Bill McNulty
Councillor Chak Au
Councillor Derek Dang
Councillor Carol Day
Councillor Ken Johnston
Councillor Linda McPhail
Councillor Harold Steves

Claudia Jesson, Acting Corporate Officer

Absent: Mayor Malcolm D. Brodie
Councillor Alexa Loo

Call to Order: Acting Mayor McNulty opened the proceedings at 7:00 p.m.

1. **RICHMOND ZONING BYLAW 8500, AMENDMENT BYLAW 9841**
(Location: 5191, 5195, 5211, 5231, 5251, 5271, 5273, 5291/5311, 5331 and 5351 Steveston Highway; Applicant: Anthem Properties Ltd.)

Applicant's Comments:

The applicant was available to respond to queries.

Written Submissions:

- (a) Gordon Bird, 11091 Swallow Drive (April 6, 2018) (Schedule 1)
- (b) Gordon Bird, 11091 Swallow Drive (April 10, 2018) (Schedule 2)
- (c) Les Kiss, 5251 Hummingbird Drive (Schedule 3)
- (d) Michael & Donna Chan, 11020 Swallow Drive (Schedule 4)
- (e) Bob Hardacre, 5391 Woodpecker Drive (Schedule 5)
- (f) Kostya Polyakov, 5780 Woodpecker Drive (Schedule 6)
- (g) Thomas King, Richmond resident (Schedule 7)
- (h) W. Easton, 5431 Warbler Avenue (Schedule 8)



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- (i) Arnold & Gina Singh, 11080 Chickadee Court (Schedule 9)
- (j) Sam Nakhleh, 11471 Lapwing Crescent (Schedule 10)
- (k) Doug Porter, 11071 Swallow Drive (Schedule 11)
- (l) Mark & Deanna Talbott, 11591 Kestrel Drive (Schedule 12)
- (m) Deborah Strub, 11771 Kingfisher Drive (Schedule 13)
- (n) D.L. Trueman, Richmond resident (April 11, 2018) (Schedule 14)
- (o) S.W. Trueman, Richmond resident (Schedule 15)
- (p) Victor Perry, 5488 Hummingbird Drive (Schedule 16)
- (q) D.L. Trueman, Richmond Resident (April 12, 2018) (Schedule 17)
- (r) Daken Ariel, 11080 Swallow Drive (Schedule 18)
- (s) James Strilesky, Richmond resident (Schedule 19)
- (t) Korianne Ariel, 11080 Swallow Drive (Schedule 20)
- (u) Lindsay Murray, Richmond resident (Schedule 21)
- (v) Violet & Ken Battersby, Richmond residents (Schedule 22)
- (w) Collins Family, 11107 Chickadee Court (Schedule 23)
- (x) Brian & Joan Jalmarson, 10761 Hollymount Court (Schedule 24)
- (y) Richard & Maureen Landahl, Richmond resident (Schedule 25)
- (z) Ramzi Jaafar, 22086 Wilson Avenue (Schedule 26)
- (aa) Maria Anastacia Lozada-Jaafar, 22086 Wilson Avenue (Schedule 27)
- (bb) Marilyn & Terence Peters, 5500 Woodpecker Drive (Schedule 28)
- (cc) Pamela Lin, Richmond resident (Schedule 29)
- (dd) Susanna Cheung, 3088 Airey Drive (Schedule 30)
- (ee) Samuel Yeung, Richmond resident (Schedule 31)
- (ff) Debbie Kim, 8040 Railway Avenue (Schedule 32)
- (gg) Michael Bishop, 7320 Woolridge Court (Schedule 33)
- (hh) Kenny Ho, 4791 Steveston Highway (Schedule 34)
- (ii) Jay Chambers, 5491 Hummingbird Drive (Schedule 35)



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- (jj) Allison Lee, 11311 Lapwing Crescent (Schedule 36)
- (kk) Chris & Denise Couzelis, 5931 Goldeneye Place (Schedule 37)
- (ll) Brian Snellings, Richmond resident (Schedule 38)
- (mm) Don Jury, 11940 Flamingo Court (Schedule 39)
- (nn) Les Kiss, 5251 Hummingbird Drive (Schedule 40)
- (oo) Joan Johnson, 11031 Swallow Drive (Schedule 41)
- (pp) Martin Woolford, 5951 Egret Court (Schedule 42)
- (qq) Marilyn Lew, Richmond resident (Schedule 43)
- (rr) Karen Wheeler, 11551 Kingfisher Drive (Schedule 44)
- (ss) Lynda Steblin, Richmond resident (Schedule 45)
- (tt) Martin Yeung, 7733 Heather Street (Schedule 46)
- (uu) Anuj Sharma, Richmond resident (Schedule 47)
- (vv) Mackenzie Biggar, 3900 Moncton Street (Schedule 48)
- (ww) Chris Pughe, 4791 Steveston Highway (Schedule 49)
- (xx) Sean O'Brien, 3151 Springfield Drive (Schedule 50)
- (yy) Suzy & Richard Lin, Richmond resident (Schedule 51)
- (zz) Michael & Laura Brawn, 5217 Hummingbird Drive (Schedule 52)
- (aaa) Tracy Wu, 8851 Lansdowne Road (Schedule 53)
- (bbb) Denise & Mel Dear, 11771 Kingfisher Drive (Schedule 54)
- (ccc) Niti Sharma, 11380 Kingfisher Drive (Schedule 55)



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Submissions from the floor:

Les Kiss, 5251 Hummingbird Drive, expressed concern with the (i) proposed single access point to the development, (ii) proposed traffic light directly opposite Swallow Drive, and (iii) proposed traffic light at Kingfisher Drive. He was of the opinion that residents were not provided sufficient rationale as to the decision to install a traffic light at Swallow Drive by the Transportation Department. Mr. Kiss then suggested that the access point be relocated, and be configured in such a manner to only permit right in/right out access. Mr. Kiss spoke of the existing pedestrian crosswalk at Lassam Road, and other transportation features adjacent to this crosswalk like the bus stops and was of the opinion that a signalized intersection at Swallow Drive and Steveston Highway may increase traffic into Swallow Drive.

Lynda ter Borg, 5860 Sandpiper Court, made references to past discussions on the City's arterial road policy and in particular with regard to town house developments. She was of the opinion that traffic lights cause accidents, noting that drivers may accelerate to cross an intersection when the traffic light is changing. Also, Ms. ter Borg cited concern with the potential noise of start/stop traffic for those whose properties back onto Steveston Highway. Ms. ter Borg queried whether the proposed transportation features meet Provincial highway standards, and was of the opinion that two-way left turn lanes around the city sufficiently maintain the flow of traffic. Ms. ter Borg noted that installing more traffic lights along Steveston Highway will lessen the safety of the pedestrian crosswalk at Lassam Road, and suggested that it be improved to include in-pavement flashers for increased safety. Ms. ter Borg spoke of other townhouse developments along Steveston Highway that provide effective access without a traffic signal.

Connie Fernie, 5760 Wagtail Avenue, expressed concern with the proposed traffic light at Swallow Drive, and was of the opinion that an additional traffic light will only encourage drivers to speed through the pedestrian crosswalk at Lassam Road.

Karen Wagner, 5411 Woodpecker Drive, was in favour of the proposed development but expressed concern with the proposed traffic light as she believes it will increase traffic on Swallow Drive. She noted that the area is residential and the installation of a traffic light will alter the neighbourhood's atmosphere and render the use of the road unsafe for kids to play on.



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Julia Nickerson, 10560 Yarmish Drive, spoke in favour of the proposed development and in particular to the benefits of a townhouse complex in the neighbourhood. Ms. Nickerson spoke in support of the (i) various housing options provided by the proposed development, (ii) proposed sidewalk upgrades, ie. boulevards, and (iii) proposed traffic light, at Swallow Drive, as she believed it would increase pedestrian safety.

Carmen McCracken, 5600 Wagtail Avenue, spoke in support of the proposed traffic light on Swallow Drive, noting that in her experience, turning onto Steveston Highway is challenging due to poor visibility. She expressed concern with the existing pedestrian crosswalk at Lassam Road, noting that a controlled traffic light would be beneficial.

Gary Kwong, 11651 4th Avenue, spoke in support of the proposed development, noting that townhomes provide an affordable housing option for young families.

Max Madrussan, 12506 Wescott Street, spoke of the calibre of the Applicant, and was of the opinion that Applicant has been professional and informative throughout the rezoning process. He spoke of the Applicants' willingness to ensure the development fits in the neighbourhood and in particular, the proposed development would provide a suitable option for younger generations.

Kostya Polyakov, 5780 Woodpecker Drive, expressed concern with the proposed traffic light at Swallow Drive.

Debbie Kim, 8040 Railway Avenue, spoke in support of the proposed townhouse development, and was of the opinion that its design is beautiful and townhomes are an excellent option for families.

Mackenzie Biggar, 3900 Moncton Street, spoke in support of the proposed townhouse development, noting that it provides an alternative housing option in the area, and allows residents to remain in Richmond.

Pamela Lin, 9800 Odlin Road, spoke in support of the proposed townhouse development, and was of the opinion that townhomes are under supplied in Richmond. Also, she was pleased to see that the proposal includes a widened sidewalk with a boulevard, and the provision of public art and green space.

Judy Bird, 11091 Swallow Drive, spoke in support of the proposed development, however expressed concern with the addition of a new traffic light along Steveston Highway.



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Anita Boyles, 11131 Swallow Drive, was of the opinion that a traffic light at Swallow Drive would confuse drivers. She commented on the existing pedestrian crosswalk at Lassam Road, noting that it should be upgraded to enhance pedestrian safety. She expressed concern with regard to the number of onsite visitor parking stalls, noting that it was insufficient and therefore, visitors would likely park on Swallow Drive.

Stacey Leduc, 5320 Hummingbird Drive, expressed concern regarding the potential increase in traffic in the neighbourhood as a result of the proposed development, and was of the opinion that the installation of a traffic light would worsen the situation. She was of the opinion that a single access point to the subject site would cause accidents, and remarked that the proposal has insufficient visitor parking to accommodate all units. Ms. Leduc wished to see the pedestrian crosswalk at Lassam Road be upgraded, and the access point to the development site shifted to the east, and increased to two.

Rocky Sethi, 12095 No. 2 Road, spoke in support of the proposed development, noting that the proposed secondary suites will benefit new owners. He was of the opinion that the proposed traffic light would be advantageous for pedestrians, as it would allow for shorter routes through the Westwind neighbourhood away from Steveston Highway. Mr. Sethi then stated that he believed the proposal was aesthetically pleasing. Also, he spoke to parking, noting that there was a good provision of it onsite.

Niti Sharma, 11380 Kingfisher Drive, spoke in opposition to the proposed traffic light, and was of the opinion that the traffic light would increase traffic and congestion along Steveston Highway. She spoke of vehicular traffic at peak hours of the day, noting that with a traffic light at Swallow Drive, traffic may navigate through, which would affect the safety of the residents in the area.

Ben Gwaltney, 5671 Wagtail Avenue, queried whether the proposed development is a multi-storey complex. He expressed concern with the proposed single access point to the proposed development noting that it may hinder emergency services access, and was of the opinion that the proposal does not provide adequate parking and therefore, visitors and residents may park in adjacent neighbourhoods; therefore Mr. Gwaltney suggested restricting parking along Swallow Drive to residents only. Also, he spoke of the pedestrian crosswalk at Lassam Road, noting that it is an unsafe crosswalk, and expressed concern with the sidewalk on the north side of Steveston Highway, noting that the Applicant's fencing has encroached on the sidewalks.



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Martin Dash, 12146 Osprey Drive, spoke of potential solutions to the proposed traffic light, the pedestrian crosswalk at Lassam Road and the potential for a right in/right out access point configuration. He suggested that the crosswalk at Lassam Road removed completely, and replaced with a pedestrian crosswalk at Swallow Drive.

In reply to queries from Council, Victor Wei, Director, Transportation, advised that the placement of a traffic light within 200 metres of one another falls within transportation engineering guidelines. He noted that staffs' assessment has indicated that the installation of a traffic light at Swallow Drive would not increase traffic through the internal roads. Wayne Craig, Director, Development, noted all provisions of parking are in compliance with City Bylaws and that first responders are part of the standard referral system and therefore actively involved in the rezoning process with regard to site access. Also, he noted that prior to the building permit application stage the developer is required to provide traffic, construction and parking management plans to be reviewed by staff.

Acting Mayor McNulty acknowledged the conclusion of the first round of public speakers. One speaker then addressed Council for a second time with new information.

Lynda ter Borg, 5860 Sandpiper Court, was of the opinion that residents are not opposed to the proposed townhouse development but are urging Council to provide alternative solutions to the proposed traffic light at Swallow Drive.

PH18/4-1

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9841 be given second and third readings.

The question on Resolution PH18/4-1 was not called as the following **amendment motion** was introduced:

It was moved and seconded

- (1) That the traffic control light at Swallow Drive be removed;***
- (2) That the driveway access be moved to the east and limited to right in/right out only; and***
- (3) That the pedestrian crosswalk at Lassam Road be upgraded.***



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The question on the amendment motion was not called as discussion took place on traffic along Steveston Highway and the potential to use the developer's contribution for a traffic signal at Swallow Drive to upgrade the Lassam Road pedestrian crosswalk. As a result of the discussion, the amendment motion was **WITHDRAWN**.

The question on Resolution PH18/4-1 was then called and it was **CARRIED** with Cllr. Day opposed.

Discussion further took place on the potential right in/right out configuration and the need to upgrade the pedestrian crosswalk at Lassam Road, and as result the following **motion** was introduced:

PH18/4-2

It was moved and seconded

- (1) *That the proposed driveway location remain, however be restricted to right in/right out only access; and*
- (2) *That the rezoning consideration #11 be amended to have the developer's voluntary contribution be directed towards upgrading the Lassam Road pedestrian crosswalk.*

The question on Resolution PH18/4-2 was not called as in reply to queries from Council, Nick Kasidoulis, representing the Applicant, advised that a right in/right out access configuration at Swallow Drive is agreeable. Also, Mr. Kasidoulis shared the same concerns as the delegations with regard to the safety of the Lassam Road pedestrian crosswalk and was pleased to see this crosswalk upgraded.

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

ADJOURNMENT

PH18/4-3

It was moved and seconded

That the meeting adjourn (8:41 p.m.).

CARRIED



**Regular Council meeting for Public Hearings
Monday, April 16, 2018**

Certified a true and correct copy of the
Minutes of the Regular meeting for Public
Hearings of the City of Richmond held on
Monday, April 16, 2018.

Acting Mayor (Bill McNulty)

Acting Corporate Officer (Claudia Jesson)



Community Safety Committee

Date: Tuesday, April 10, 2018

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

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 March 13, 2018, be adopted.

CARRIED

NEXT COMMITTEE MEETING DATE

May 15, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

DELEGATION

1. With the aid of a PowerPoint presentation (copy on file, City Clerk's Office) David Poppell, Station Leader, Royal Canadian Marine Search and Rescue (RCMSAR), provided an update on RCMSAR activities and spoke of the following:
 - maritime services provided to the community;

Community Safety Committee

Tuesday, April 10, 2018

- RCMSAR locations: Middle Arm of the Fraser River and Steveston;
- participation in community outreach and community interaction events;
- statistics on the past 12 months in and out of the water;
- various vessels owned by the RCMSAR and potential new vessels;
- potential collaboration with the Canadian Coast Guard; and
- RCMSAR future goals.

In reply to queries from Committee, Mr. Poppell advised that a portion of the funds for the new vessel would be provided by the federal and provincial governments and RCMSAR would seek additional funding from local sponsorship. He then noted that RCMSAR is examining the potential to liaise with the City's emergency services departments for collaboration.

Discussion took place and it was noted that information on the role of the Canadian Coast Guard in emergency situations would be valuable.

COMMUNITY SAFETY DIVISION

2. COMMUNITY BYLAWS MONTHLY ACTIVITY REPORT - FEBRUARY 2018 (File Ref. No. 12-8060-01) (REDMS No. 5763192 v.3)

In reply to queries from Committee, Fire Chief Tim Wilkinson, Richmond Fire-Rescue, advised that due to long processes for demolition permits, properties remain vacant for long periods of time; however RFR ensures that such properties are secure for safety reasons and to deter illegal activities.

Carli Edwards, Acting Senior Manager, Community Safety Policy and Program and Licencing, noted that Richmond has a successful program with regard to securing vacant lots and that RFR is very responsive if and when any issues arise. She advised that some properties remain vacant for long periods of time for various reasons; however staff are consistently inspecting said properties to ensure community safety.

In reply to queries, Ms. Edwards advised that short-term rental offences saw an increase in 2017 as a result of new regulations; however additional staff were retained to address the issue. Also, she noted that as the year progresses, grease related issues will likely also increase.

Cecilia Achiam, General Manager, Community Safety, advised that grease enforcement falls under the Engineering Department, and noted that staff have managed the residential grease issues and efforts are now focused on commercial buildings.

In reply to a further query from Committee, Ms. Edwards advised that a property may remain vacant indefinitely as long as it is safe and secure.

Community Safety Committee
Tuesday, April 10, 2018

It was moved and seconded

That the staff report titled "Community Bylaws Monthly Activity Report - February 2018", dated March 16, 2018, from the General Manager, Community Safety, be received for information.

CARRIED

3. **TOUCHSTONE FAMILY ASSOCIATION RESTORATIVE JUSTICE ANNUAL PERFORMANCE OUTCOME EVALUATION REPORT**

(File Ref. No. 03-1000-05-069) (REDMS No. 5766682 v.2)

In reply to queries from Committee, Ms. Achiam advised that the City currently funds the Restorative Justice Program as there is no provincial contribution; however various grants are being examined to help offset these costs.

In reply to queries from Committee, Superintendent Will Ng, OIC, Richmond RCMP, advised that the new standardized referral program has been positive, and noted that officers will be trained in the this new referral process.

Discussion took place on the Restorative Justice Program and in particular, on its social and economic benefits to the community. It was noted that it may be of value to other municipalities to learn of the Program and highlight successes the City and the community has experienced with it.

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

It was moved and seconded

- (1) *That the staff report titled "Touchstone Family Association Restorative Justice Annual Performance Outcome Evaluation Report" dated March 12, 2018 from the Acting Senior Manager, Community Safety Policy & Programs and Licencing, be received for information;*
- (2) *That a letter be written to the Minister of Public Safety and Solicitor General and the Attorney General highlighting successes of the Restorative Justice Program in Richmond; and*
- (3) *That staff examine the possibility of promoting the Restorative Justice Program at the annual Union of British Columbia Municipalities convention and report back.*

CARRIED

4. **RICHMOND FIRE-RESCUE MONTHLY ACTIVITY REPORT – FEBRUARY 2018**

(File Ref. No. 09-5000-01) (REDMS No. 5772255)

In reply to queries from Committee, Chief Wilkinson spoke of the Voluntary Building Access Program, highlighting that it has commenced, and considerable interest has been shown.

Community Safety Committee
Tuesday, April 10, 2018

It was moved and seconded

That the staff report titled "Richmond Fire-Rescue Monthly Activity Report – February 2018", dated March 12, 2018 from the Fire Chief, Richmond Fire-Rescue, be received for information.

CARRIED

5. FIRE CHIEF BRIEFING

(Verbal Report)

Item for discussion:

None.

6. RCMP MONTHLY ACTIVITY REPORT – FEBRUARY 2018

(File Ref. No. 09-5000-01) (REDMS No. 5750148 v.2)

Superintendent Ng advised that the increase in residential break and enters is related to theft from automobiles, whereby individuals are accessing homes by using garage door openers left in unsecured vehicles.

In reply to queries from Committee, Superintendent Ng advised that the Richmond RCMP have partnered with Canada Post with regard to mail thefts and that enhancing mailbox security features has proven successful. He then noted that the RCMP is working with Strata's and owners to educate them on mail theft and enhancing mailbox security in condominiums and apartment buildings. Superintendent Ng advised that staff can examine the potential to include condominiums and apartment buildings in the Voluntary Building Access Program. Also, Superintendent Ng spoke of an expert that was brought in to educate officers and provide resources on human sex trafficking.

Supt. Ng advised that (i) all individuals are encouraged and welcome to join the Block Watch Program, (ii) the Combined Special Forces Enforcement Unit is currently investigating two cases that occurred in Richmond and are regularly involved in activities within the city, and (iii) community partners will be consulted for future RCMP annual performance plans.

Committee requested that information regarding the involvement of integrated teams in Richmond be provided.

It was moved and seconded

That the report titled "RCMP Monthly Activity Report – February 2018", dated March 19, 2018, from the Officer in Charge, Richmond RCMP Detachment, be received for information.

CARRIED

Community Safety Committee
Tuesday, April 10, 2018

7. **RCMP/OIC BRIEFING**

(Verbal Report)

Item for discussion:

None.

8. **COMMITTEE STANDING ITEM**

E-Comm

The Chair spoke of upcoming strategic planning sessions for E-Comm.

9. **MANAGER'S REPORT**

None.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:50 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, April 10, 2018.

Councillor Bill McNulty
Chair

Sarah Kurian
Legislative Services Coordinator



Special General Purposes Committee

Date: Monday, April 9, 2018

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 4:00 p.m.

PLANNING AND DEVELOPMENT DIVISION

1. **APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE "STEVESTON MARITIME MIXED USE (ZMU12)" ZONE AND THE "STEVESTON MARITIME (ZC21)" ZONE**
(File Ref. No. RZ 13-633927) (REDMS No. 5795676 v. 4)

Correspondence received on the application was distributed (attached to and forming part of these minutes as Schedule 1).

A site map of Building 5 was distributed (attached to and forming part of these minutes as Schedule 2).

Special General Purposes Committee

Monday, April 9, 2018

Wayne Craig, Director, Development, reviewed application, noting that the applicant has agreed to an unregistered agreement which will (i) secure on-site staffing for the proposed hotel, (ii) secure “good neighbour” provisions in compliance with the City bylaws, and (iii) ensure that such agreement can be assigned to a future purchaser of the site. He added that the City will have the ability to suspend or revoke the operator’s business license should the operator be in breach of the agreement. Also, he noted that the applicant has proposed locating the proposed hotel’s reception desk in Building 5 or 6.

Discussion ensued with regard to (i) options to locate the residential entry lobby and hotel registration desks in Building 5 or 6, (ii) options to assign the agreement to a future purchaser of the site, and (iii) the permitted uses on the subject site.

In reply to queries from Committee, Mr. Craig noted that the proposed “good neighbour” provisions are unique to this proposal and that Council has the option to zone the site for hotel use only or permit other uses.

It was moved and seconded

Zoning Bylaw 8500, Amendment Bylaw 9063 be amended by adding the following to the end of proposed clause 20.12.11.9:

“and, in addition to the above, for the purpose of a hotel reception desk and/or an on-site hotel staff desk, ancillary to the hotel use on one or both of the above listed sites, limited to the first storey of a building at the following site:

c) the Common Property of Strata Plan EPS1188, Section 11 Block 3 North Range 7 West New Westminster District Strata Plan EPS1188”

The question on the motion was not called as discussion ensued with regard to the location of the proposed hotel reception desk and the notification to residents prior to the Public Hearing.

The question on the motion was then called and it was **CARRIED** with Cllrs. Au, Day and Steves opposed.

It was moved and seconded

That the Rezoning Considerations be revised in accordance with Attachment 2 to the staff memorandum dated April 6, 2018 from the Director, Development.

CARRIED

Opposed: Cllrs. Au
Day
Steves

Special General Purposes Committee
Monday, April 9, 2018

It was moved and seconded

The Rezoning Considerations be revised to include the following:

*“Registration of a restrictive covenant, setting out that Airspace
Parcels 5 and 6 may not be used for hotel use unless the owner
provides on-site staff at all times.”*

The question on the motion was not called as discussion ensued regarding the restriction of uses on the subject site.

The question on the motion was then called and it was **CARRIED** with Cllrs. Johnston and Loo opposed.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:23 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 Monday, April
9, 2018.

Mayor Malcolm D. Brodie
Chair

Evangel Biason
Legislative Services Coordinator

ON TABLE ITEM

Date: April 9 2018
Meeting: SPKUGP
Item: #1

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

MayorandCouncillors

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:29
To: Craig, Wayne; Badyal, Sara
Cc: Powell, Jo Anne
Subject: FW: Onni Hotel Proposal
Attachments: Onni Hotel Letter.docx

Schedule 1 to the Minutes of the
Special General Purposes
Committee meeting of Richmond
City Council held on Monday,
April 9, 2018.

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:28
To: 'pawluks@shaw.ca'
Subject: FW: Onni Hotel Proposal

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services
City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

From: RICK PAWLUK [<mailto:pawluks@shaw.ca>]
Sent: Sunday, 8 April 2018 15:04
To: MayorandCouncillors
Subject: Onni Hotel Proposal

Hello,

Please find attached a copy of a letter that I have forwarded to the Richmond News regarding Onni's proposed operational model for a hotel. I attended the December 18/17 public meeting and am extremely concerned that Onni is pushing forward with its proposed Airbnb model without consideration for any of the concerns that have been expressed by residents. To allow for a hotel that does not require 24 hour on-site personnel is neither consistent with the City's current practice nor community safety practices.

Thank you,

Debbie Pawluk
3257 Hunt Street
Richmond



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Dear Editor,

Re: "Onni hotel plan causes concern," *News*, April 5.

That Onni has finally agreed to pay a \$5.5 million community contribution amenity in exchange for rezoning the Steveston Boardwalk is (at first glance) encouraging. However, once again Onni is prioritizing its undaunted goal of maximizing profit over the safety, security and sundry objections of nearby residents and merchants. Despite having heard multiple concerns (December meeting) regarding its proposed operation model for a hotel, Onni has not only reiterated but expanded its plan for a "remote operational model"—one that necessarily deems null the need for a 24 hour desk and/or security provisions. Although Chris Evans (Executive VP, Onni Group) was present to hear the speakers' concerns, Onni has made no effort to address their worries. It also appears that Mr. Evan's clarification "...that the proposed hotel would only utilize Airbnb's room *booking* model" is only partially true, as the model has been expanded to include room *access* without the assistance of on-site hotel personnel. Nowhere in Onni's recent proposal is reference to a conventional hotel model as was discussed.

That Onni continues to make unprecedented demands without regard for Richmond residents is disappointing but not unexpected. Throughout the on-going Steveston boardwalk saga, Onni has clearly revealed itself as anything but a good corporate neighbor. I encourage City Council to not be further browbeaten by Onni, to not approve Onni's ostensible "hotel" operation model.

Debbie Pawluk
Richmond

ON TABLE ITEM

Date: April 9 2018
Meeting: Special GP
Item: #1

MayorandCouncillors

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:30
To: Badyal,Sara; Craig,Wayne
Cc: Powell,Jo Anne
Subject: FW: 4020, 4080, 4100, 4180, 4280 & 4300 Bayview St.

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

-----Original Message-----

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:29
To: 'elaine white'
Subject: RE: 4020, 4080, 4100, 4180, 4280 & 4300 Bayview St.

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

-----Original Message-----

From: elaine white [mailto:elaine_white@hotmail.com]
Sent: Sunday, 8 April 2018 21:08
To: MayorandCouncillors
Subject: 4020, 4080, 4100, 4180, 4280 & 4300 Bayview St.

I have recently been made aware of the possible rezoning of the above noted property to that of a hotel. Steveston is a very special place and especially that of the walkway that has been created. I believe that any creation of a hotel or what would appear to be actually an Air B & B since the proposed wording that Omni is asking be made to the bylaws would appear to be the case.

I hope that the proposal of a "gift" of \$5,500,000 for the Community Centre will not persuade the Council to make changes to this area of Steveston and take away its current ambience to what would seem to be a slippery slope to a very bad development to create Imperial Landing Hotel.

Sincerely,
Elaine White

Sent from my iPad



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ON TABLE ITEM

Date: April 9 2018
Meeting: SPECIAL GP
Item: #1

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

MayorandCouncillors

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:28
To: Craig, Wayne; Badyal, Sara
Cc: Powell, Jo Anne
Subject: FW: ONII Imerial Landing Please oh please approve this latest proposal by ONNI. This has been ten years altogether. I live accross the street From the development on English Ave Every body I've talked to wants the development to go ahead, except some Of yo

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

-----Original Message-----

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:27
To: 'jefflynn@shaw.ca'
Subject: RE: ONII Imerial Landing Please oh please approve this latest proposal by ONNI. This has been ten years altogether. I live accross the street From the development on English Ave Every body I've talked to wants the development to go ahead, except some Of yo

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

-----Original Message-----

From: jefflynn@shaw.ca [mailto:jefflynn@shaw.ca]
Sent: Sunday, 8 April 2018 14:19
To: MayorandCouncillors
Subject: ONII Imerial Landing Please oh please approve this latest proposal by ONNI. This has been ten years altogether. I live accross the street From the development on English Ave Every body I've talked to wants the development to go ahead, except some Of you...

Sent from my Huawei Mobile



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Handwritten initials 'HJ' in blue ink.

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ON TABLE ITEM

Date: April 9 2018
Meeting: Sp. GP
Item: #1

MayorandCouncillors

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:25
To: Craig, Wayne; Badyal, Sara
Cc: Powell, Jo Anne
Subject: FW: Onni hotel proposal

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



-----Original Message-----

From: MayorandCouncillors
Sent: Monday, 9 April 2018 09:25
To: 'Colleen Burke'
Subject: RE: Onni hotel proposal

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

-----Original Message-----

From: Colleen Burke [<mailto:mcburke@telus.net>]
Sent: Tuesday, 3 April 2018 19:01
To: MayorandCouncillors
Subject: Onni hotel proposal

Just say No to hotel proposal.

The neighbourhood is primarily residential and we don't want a hotel here! There are already too many near misses between vehicles and kids.

Colleen Burke
4311 Bayview

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TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

MayorandCouncillors

From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:34
To: Craig, Wayne; Badyal, Sara
Cc: Powell, Jo Anne
Subject: FW: Zoning change discussion for Onni's steveston waterfront buildings

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:34
To: 'niti sharma'
Subject: RE: Zoning change discussion for Onni's steveston waterfront buildings

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services
City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

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APR - 9 2018

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From: niti sharma [<mailto:niti.tana@gmail.com>]
Sent: Monday, 9 April 2018 09:59
To: MayorandCouncillors; CityClerk; Steves, Harold; McPhail, Linda; Day, Carol; McNulty, Bill; Dang, Derek; Au, Chak; Brodie, Malcolm; Loo, Alexa; Johnston, Ken; McPhail, Linda
Subject: Zoning change discussion for Onni's steveston waterfront buildings

Honorable Mayor and Council,

As a concerned citizen, I think that any change in zoning for Onni should only happen if the general public feels Onni has done their due share towards contributing to community amenities. A zoning change should not be given to Onni otherwise.

Last Monday (April 2nd), when Onni's representative was answering a question from Councillor McPhail, he mentioned data regarding a felt community need around having short term rental accommodation in Steveston. However, he said that he could not share the source of his data.

I believe the power of zoning change in a controversial matter such as zoning change for Onni's water front buildings should only be used if there is indeed a real community need for short term rentals and at least an 80% consensus in the village for it. Hence it is of utmost importance that if

there is indeed reliable data around a community need for short term rentals in Steveston village, it will be shared transparently with the Councillors and the general public.

Overall I am not in favor of a waterfront hotel at all: How many hotels and short term rental accommodations does Richmond need?

There are hotels in farmhouse mansions, hotels in single family homes and now the possibility of a hotel on the waterfront in Steveston.

I feel this change in land use does not make sense for a property that was zoned mixed maritime use before and during the time of construction and where the developer knew that they were building a property zoned for maritime use.

Short term rentals (less than 30 days) are the most lucrative kind of rental for an owner/developer. According to the city's own report, Richmond currently has a less than 1% vacancy rate for long term rentals and an unfolding affordability crisis for housing. It is not good use of your public powers to grant yet another project short term rental use on a prime location (Steveston's waterfront) .

Councillor Loo raised the question about why Onni was being asked to have a covenant legally restricting a part of its vacant buildings for hotel use only when other hotels do not have that restriction.

In answer, I would like to note that by Onni 's own admission these buildings being re-zoned were not purpose built to be a hotel and the developer will work backwards to accommodate this use. However other hotel buildings such as the hotel building near the airport or the one near the ice rink tend to be purpose built as hotel accommodation. So it is much harder for other hotels to convert their buildings into any other use.

Also, Onni has been known to illegally rent for less than 30 days in its Level one Building in Seymour street in Vancouver and had to be charged twice by the city of Vancouver before it made changes to its rental policy in that building. This defiance of municipal regulation and callousness towards community interest in favor of self interest is problematic.

In addition in Richmond, Onni has accepted a covenant artificially lowering the assessed value of these vacant buildings on Steveston waterfront but would like a covenant free hand in using the buildings under consideration for hotel use.

Why should publically elected councillors and mayor trust Onni with a covenant free use of its two eastern buildings, when the developer has shown in the past that they will put self interest above community interest.

I hope you will send Onni's new proposal back to public hearing so that your final decision about this issue reflects the voice and vision of the people of Steveston and of Richmond.

Thanks,

Niti Sharma
11380 Kingfisher drive
Dated: 8th April, 2018

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

MayorandCouncillors

From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:33
To: Craig, Wayne; Badyal, Sara
Cc: Powell, Jo Anne
Subject: FW: APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE "STEVESTON MARITIME ral Purpose Meeting April 9, 2018 ONNI Rezoning

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE



From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:33
To: 'Don Flintoff'
Subject: RE: APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE "STEVESTON MARITIME ral Purpose Meeting April 9, 2018 ONNI Rezoning

Good morning,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services
City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

From: Don Flintoff [mailto:don_flintoff@hotmail.com]
Sent: Monday, 9 April 2018 09:44
To: MayorandCouncillors
Cc: John Roston
Subject: APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE "STEVESTON MARITIME ral Purpose Meeting April 9, 2018 ONNI Rezoning

Monday, April 9, 2018

Mayor & Council

Richmond, BC

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RE: APPLICATION BY ONNI DEVELOPMENT (IMPERIAL LANDING) CORP. FOR A ZONING TEXT AMENDMENT AT 4020, 4080, 4100, 4180, 4280 AND 4300 BAYVIEW STREET (FORMERLY 4300 BAYVIEW STREET) TO AMEND THE "STEVESTON MARITIME MIXED USE (ZMU12)" ZONE AND THE "STEVESTON MARITIME (ZC21)" ZONE
Attn: Mayor Brodie and Councillors,

We – You have conceded to ONNI:

- a change from MMU zoning to hotel
- kitchens in the suites
- loss of a wharf
- a significantly reduced amenity contribution
- conventional hotel operation
- accepting of hotel status for a condo complex operating as an Air B&B
- After all this and more, this council is unable to secure a legal & binding agreement for a fully staffed front desk clerk. It remains questionable as to whether ONNI will abide by the non-binding agreement. It is very questionable as to whether the City is capable of enforcing its own by-laws.

I believe that we have only a few options left, these are:

- do nothing as ONNI's property tax still flows into City coffers
- give ONNI everything they have asked for but require:
 - a larger contribution
 - the wharf and
 - removal of the existing covenant on the properties.
- Any other option appears to be a weak-knee compromise on the part of the City as the issue of front desk staffing from another building is too minor to be an issue for Council deliberations

ONNI's, Chris Evans, should be given credit for successfully bending the MMU zoning to this extent but now I believe that Council must put forward their "best and final offer".

Hopes this focuses the issues and options in front of you.

Donald Flintoff

Richmond, BC.

TO: MAYOR & EACH
COUNCILLOR
FROM: CITY CLERK'S OFFICE

MayorandCouncillors

From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:37
To: Badyal,Sara; Craig,Wayne
Cc: Powell,Jo Anne
Subject: FW: Onni proposed STR hotel
Attachments: Onni letter to mayor and councillors.pdf

Categories: - DISTRIBUTED ON TABLE, - TO: MAYOR & EACH COUNCILLOR / FROM: CITY CLERK'S OFFICE

From: MayorandCouncillors
Sent: Monday, 9 April 2018 11:36
To: 'kellyagreene@outlook.com'
Subject: FW: Onni proposed STR hotel



Good morning Ms. Greene,

This is to acknowledge and thank you for your email. Please be advised that copies of your email have been forwarded to the Mayor and each Councillor. In addition, your email has been forwarded to Wayne Craig, Director, Development.

Thank you again for taking the time to contact Richmond City Council.

Hanieh Berg | Acting Manager, Legislative Services
City Clerk's Office | City of Richmond
6911 No. 3 Road, Richmond, BC V6Y 2C1

From: Kelly Greene [<mailto:kellyagreene@outlook.com>]
Sent: Monday, 9 April 2018 11:23
To: MayorandCouncillors
Subject: Onni proposed STR hotel

Good morning, Mayor and Councillors,

I hope this email finds you well. Please find my letter in opposition to Onni's proposed Short Term Rental hotel attached.

Regards,

Kelly Greene

2018-04-09 11:37

APR - 9 2018

pg
& DISTRIBUTED

To Mayor & Councillors:

I would like to indicate my opposition to the proposed hotel development in the contentious Onni development on Steveston's waterfront.

First, I would like to point out the long history the company has of ethically questionable actions, such as illegal hotel operation in Vancouver, marketing pre-sale condos overseas for a lower price than domestically available, non-payment and litigation to subcontractors, etc.

Further to that, Onni's refusal to provide a legal guarantee to complete and operate the proposed hotel, while in the meantime asking the City to favourably change the zoning, should be sufficient reason to not proceed with rezoning. To rezone this property on a "gentleman's agreement" would be reckless on the part of the City.

Secondly, Onni devalued the waterfront development by placing a covenant on the properties that they are part of a single group. Should Onni, at some future time, decide that it was divesting from the hotel business, there is the very real possibility that they will try to strata and sell the hotel units as condos, which is their primary business. If they were to sell the 32 waterfront units at a conservative \$1.5M each, that would be \$48M of revenue, mostly profit. Considering the City will potentially receive \$5.5M in community amenity contributions, a moment of pause should be taken to consider all eventualities, and even more strongly recommend to the City a legally binding agreement with Onni to operate a hotel.

Finally, the City recently passed Short Term Rental ("Airbnb-style") bylaws that prohibit operation of STRs in condo, apartment, and townhouse developments. Upon reading the intended method of operation for the proposed hotel development, it struck me that this is not a "traditional hotel" as the council requested on December 17, 2018. This is a STR "hotel" that will be operated exactly as the illegal hotel Onni operated in Vancouver. At that time Onni representatives claimed that it was due to a lack of clarity who the "sharing economy was intended to benefit." Now it is abundantly clear that there is not a lack of clarity on their part.

This naturally leads to the question: is City Council prepared to make a precedent by allowing an STR hotel in a condo development in Richmond? If Onni is permitted to legally operate an STR hotel, there will be no way to decline Onni, or other developers, from doing this in future construction. At a time when Richmond residents are facing near zero rental vacancy rates, and home prices are skyrocketing, is City Council prepared to take supply away from residents in perpetuity? I would strongly support the development of traditional hotels in Richmond, as there is a clear need and benefit to increasing traveller accommodation. This is not such a project and STR hotels have no place in Richmond.

Very simply, the waterfront buildings were built with MMU zoning in place. Onni was fully aware of what that entailed. I have personally heard from a maritime business that they would like to rent one of the buildings, but the rent is not set at what is considered a normal rental rate for MMU. Pursuant to my first point, there is the very real possibility that by setting the rental rates very high, Onni is deliberately

keeping the buildings empty to manipulate the honourable Council members and the general public into capitulation.

In closing, I would like to address the ongoing applications by Onni for rezoning. As staff have noted, Onni has had rezoning considered at: November 19, 2013; April 8, 2014; May 6, 2014; July 17, 2017; October 16, 2017; November 20, 2017; December 18, 2017; as well as numerous open houses and stakeholder consultations. The amount of staff hours used on this project has been monumental, and I would respectfully suggest that if Onni wishes to apply for rezoning, they will be required to pay for Richmond staff time upfront, and not ask Richmond's taxpayers to foot the bill for a company which disagrees with the zoning under which they made the decision to build.

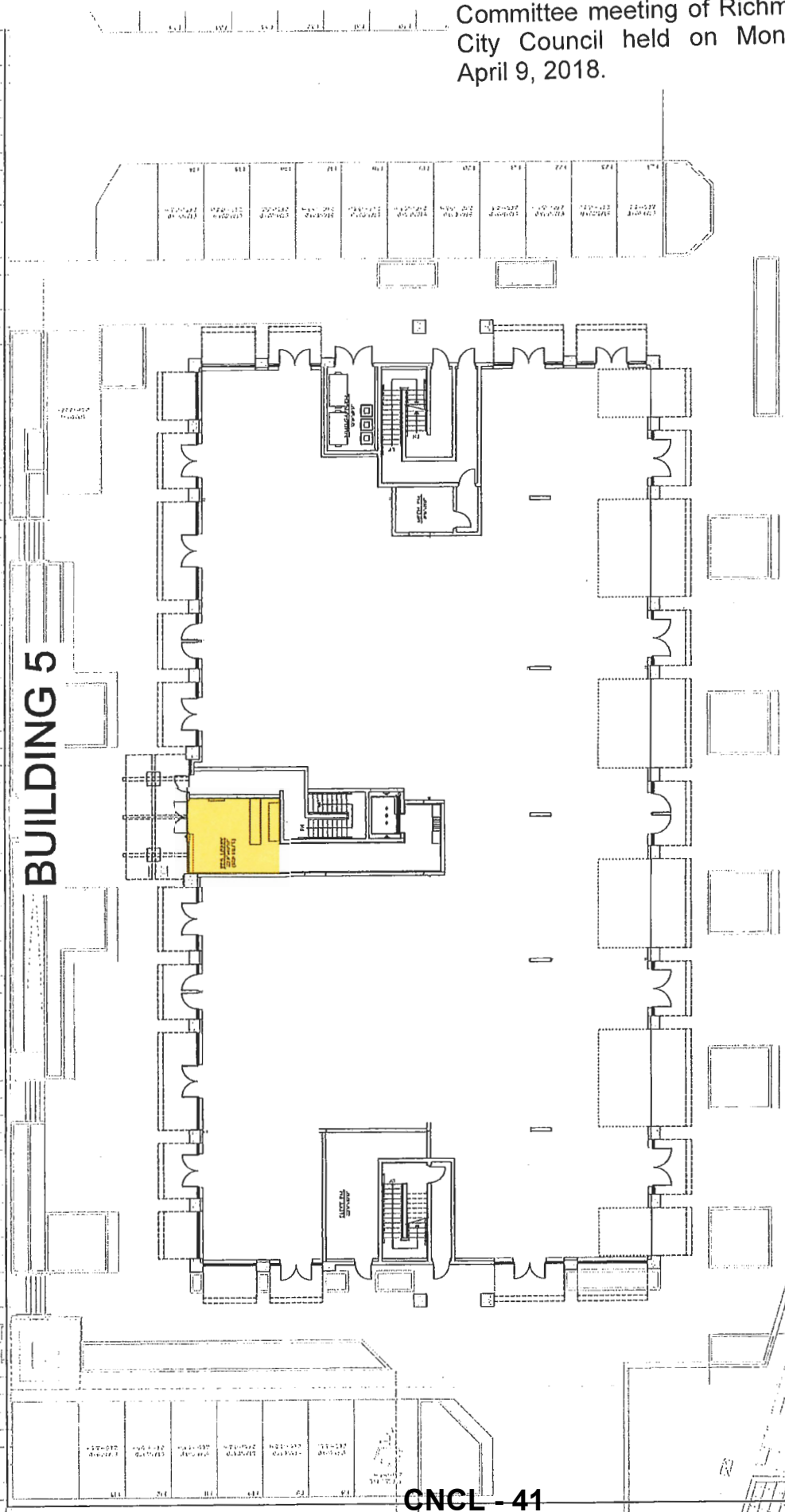
Thank you for your time and consideration of my letter.

Best regards,

Kelly Greene

Schedule 2 to the Minutes of the
Special General Purposes
Committee meeting of Richmond
City Council held on Monday,
April 9, 2018.

BUILDING 5



GROUND FL. PLAN

SCALE: 1/8" = 1'-0"
DATE: 11/15/17
FLOOR AREA: 14,865 SQ. FT. (INCLUDING MECHANICAL ROOM)
GROUND FLOOR SPREADSHEET: 11/15/17



PROJECT	IMPERIAL LANDING MODERATE DEVELOPMENT	BUILDING NOS. GROUND FL. PLAN	SHEET NO. A2.5.1
ARCHITECT	YAMAMOTO ARCHITECTURE INC.	DATE	11/15/17
OWNER	CITY OF RICHMOND, VA 1000 COMMONWEALTH BLVD. RICHMOND, VA 23219	DATE	11/15/17



General Purposes Committee

Date: Monday, April 16, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Bill McNulty, Acting Chair
Councillor Chak Au
Councillor Derek Dang
Councillor Carol Day
Councillor Ken Johnston
Councillor Linda McPhail
Councillor Harold Steves

Absent: Mayor Malcolm D. Brodie, Chair
Councillor Alexa Loo

Call to Order: The Acting Chair called the meeting to order at 3:58 p.m.

ANNOUNCEMENTS

The Acting Chair acknowledged the passing of long time Steveston resident Keith Whittle and Committee expressed condolences to the Whittle family.

MINUTES

It was noted that Schedule 2 of the minutes were from various sources and that the minutes should be amended to clarify the origin of the materials.

It was moved and seconded

That the minutes of the meeting of the General Purposes Committee held on April 3, 2018, be adopted as amended.

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

General Purposes Committee

Monday, April 16, 2018

1. **PHOENIX NET LOFT PRESERVATION**

(File Ref. No. 06-2052-25-BHSY1) (REDMS No. 5698772 v. 11)

In response to queries from Committee, Jim Young, Senior Manager, Capital Buildings Project Development, clarified that (i) the project will restore the building and retain its current appearance while replacing the deteriorated portions of the superstructure and piles, (ii) the proposed foundation will allow for consideration of future programs and uses, (iii) the preservation project would not include insulation for the building however, staff intend to come forward with a separate report for different program options for Council's consideration, which would determine the type of venting and heating required, (iv) the anticipated life expectancy of the building after preservation is approximately 50 years, (v) the building would allow for full public assembly, similar to the Seine Net Loft, and (vi) if the project is approved, consultation would be conducted with area residents over the loss of the 42 parking spaces.

In response to further questions from Committee regarding the forthcoming usage report for the Phoenix Net Loft, Jane Fernyhough, Director, Arts, Culture and Heritage Services, advised that it would most likely be brought forward prior to the 2020 budget consideration and following the completion of the preservation project.

It was moved and seconded

That staff be authorized to proceed with Phoenix Net Loft Preservation construction as described in the staff report titled "Phoenix Net Loft Preservation," dated March 29, 2018, from the Director, Engineering.

CARRIED

PLANNING AND DEVELOPMENT DIVISION

2. **RIVER ROAD – PROPOSED IMPLEMENTATION OF SELECTED ROAD SAFETY MEASURES**

(File Ref. No. 10-6450-09-01) (REDMS No. 5783853 v. 6)

In response to questions from Committee, Victor Wei, Director, Transportation, noted that the current lane markings on River Road are historical, as most sections are curved and there are limited straight areas of road to allow for safe passing.

Robert Gonzalez, Deputy CAO and General Manager, Engineering and Public Works, in response to a query from Committee, advised that a long term plan for the dike would be conducted in the future with partnership funding. Mr. Gonzalez further noted that generally a wider dike would be more stable if River Road were to be widened.

General Purposes Committee

Monday, April 16, 2018

Lynda Parsons, 2491 No. 8 Road, expressed concern over the proposed road safety measures recommended in the staff report and referenced her submission (attached to and forming part of these minutes as Schedule 1.) Ms. Parsons commented that she was of the opinion that (i) a site visit by staff should be conducted prior to the conversion of any portion of double solid lines, (ii) the placement of the delineator posts are potentially hazardous, (iii) inroad markers are required and must be left in place as they are critical for safety in fog or heavy rain and inroad markers that can detect and warn against black ice should be explored, (iv) staff should apply for the appropriate permits to allow sign post concrete bases to be buried, (v) RCMP should have input into the optimum placement of any speed reader boards along River Road, (vi) there should be more enforcement of overweight truck violations, and (vii) that the staff report should not be accepted in its current state.

Ms. Parsons also inquired about clarification on immediate implementation for any safety enhancements and what time frame could be expected.

Trudy Haywood, 22160 River Road, expressed support for most of the recommendations for safety enhancement listed in the staff report but noted concern about the installation of shoulder reflective delineators in place of pavement markers. Ms. Haywood further commented that delineator posts have been utilized in the past but were not well maintained. She was of the opinion that they would not be as effective as raised pavement markers (RPMs) and are intended only for cyclists. Ms. Haywood also noted that RPMs would be less intrusive to the view of the river and would not disturb the Riparian Management Area. Ms. Haywood also commented that she was of the opinion that River Road has an average accident rate and that enhanced safety measures implemented are not necessary.

Arline Trividic, 22600 River Road, expressed concern over the proposed road safety measures recommended in the staff report and read from her submission (attached to and forming part of these minutes as Schedule 2.)

Yves Trividic, 22600 River Road, expressed concern over the single-file signage and noted that he was of the opinion that the signage is not compliant with the *Motor Vehicle Act* as it depicts that cyclists are allowed to take the lane. Mr. Trividic also commented that he is in support of no implementation of any further safety enhancement measures on River Road until fall 2018 and is not in support of the staff report recommendations.

General Purposes Committee

Monday, April 16, 2018

In further response to questions from Committee, Mr. Wei commented that this matter was referred back at the last Public Works and Transportation Committee meeting and it was noted during the meeting that there could be some immediate traffic calming measures initiated prior to the RCMP report in the fall. Mr. Wei continued that staff met with residents to discuss various traffic calming measures outlined in the report and that there was strong resident support of the conversion of the double yellow centreline to a dashed single yellow centreline. Mr. Wei further noted that (i) there is the option to do no further enhancements until the fall, (ii) staff could meet with residents regarding the conversion of the double yellow centreline for further explanations on placement, and (iii) the installation of speed humps is still on hold.

Mr. Wei further noted, in response to Committee questions, that the permit for burying the concrete signage is a way to ensure there would be no impact to the Riparian Management Area or integrity of the existing shoulder. He also noted that the process could take 45 days to 2 months and that the public would have a chance to comment. Mr. Wei also advised that staff could look at alternate locations to avoid those areas, which may shorten the permit process period.

Staff added that because of the amount of signs on the pole, it must be buried to 1/3 of the height and the hole would be approximately 1 metre deep and 8 inches wide in the dike core, which would not be recommended. Staff further noted that the permit process for burying the signage could be initiated while awaiting the RCMP report and if approved, the City would not be required to implement burying the signs.

In response to additional queries from Committee, Mr. Wei advised that (i) no areas along River Road are wide enough to allow for the placement of the side-by-side signage, (ii) the raised pavement markers are currently mounted on the right edge of pavement, which may interfere with cyclists and staff recommend they be removed, (iii) staff can review painting a reflective white shoulder line after removing the markers, and (iv) the proposed locations of the speed reader boards were chosen strategically to efficiently target drivers and would be rotated to ensure they continue to be effective.

General Purposes Committee

Monday, April 16, 2018

Sergeant Nigel Pronger, Richmond RCMP's Road Safety Unit, in response to questions from Committee advised that (i) RCMP are currently in an engagement phase with the cycling community and are connecting with HUB Cycling and other private cycling clubs that use Richmond roads to engage them about concerning cyclist behaviour, (ii) engagement will continue through summer, (iii) RCMP were in attendance on River Road 15 out of the 30 days in March, and in that time, no infractions were witnessed and they are still engaging with cyclists to ensure that future enforcement is effective, and (iv) RCMP reports at the end of summer will break down month by month and by topic all the combined enforcement operations including tracking *Motor Vehicle Act* violations and municipal bylaw infractions, as well as any statistics on motor vehicle incidents.

In further response to questions from Committee regarding comments from the delegations on signage in contravention to the *Motor Vehicle Act*, Mr. Wei advised that staff ensure that all signage proposed is compliant with any Provincial regulations and guidelines. He further noted that the single-file signs proposed by staff are the national standard and are used in other jurisdictions and municipalities.

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

It was moved and seconded

- (1) *That the proposed road safety measures on River Road between No. 6 Road and Westminster Highway as outlined in the staff report titled "River Road – Proposed Implementation of Selected Road Safety Measures", dated April 3, 2018 from the Director, Transportation, be endorsed for implementation prior to Fall 2018; and*
- (2) *That resident input be considered wherever possible and implemented when considering the proposed road safety measures, and that staff undertake a field meeting with the residents.*

The question on the motion was not called as discussion took place on the measures to be implemented, and it was clarified that only measures agreed on by both staff and residents should be undertaken.

In response to further questions from Committee, Mr. Wei advised that the staff proposed safety enhancement measures are independent from the RCMP report and can be initiated prior to the fall. He further noted that staff would report back on the outcome of any discussions with residents, including which measures are implemented.

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

General Purposes Committee
Monday, April 16, 2018

ADJOURNMENT

It was moved and seconded

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

CARRIED

Certified a true and correct copy of the
Minutes of the meeting of the General
Purposes Committee of the Council of the
City of Richmond held on Monday, April
16, 2018.

Councillor Bill McNulty
Acting Chair

Amanda Welby
Legislative Services Coordinator

I realize that there is a lot going on in Richmond right now and that the River Road Safety Enhancements have become a real thorn in your paw, but to those of us who live and work here this issue surpasses anything that is happening elsewhere in the City of Richmond – this is our safety at risk.

On March 26, 2018, eight area residents and business owners took time away from our schedules to meet with Staff. We discussed various recommended safety enhancements to implement on River Road prior to the report due at the end of the summer.

The area residents and business owners attended this meeting because River Road is the only access to our property, we drive this road on a daily basis, and our opinions should matter. We asked Staff to acknowledge that, because River Road **is** the only access that we and emergency vehicles have to our properties this be the primary focus when reviewing safety enhancements. As Staff clearly point out in the report that the safety measures are not exclusively for residents or cyclists I am not sure that they understand our position.

I have reviewed the Staff report dated April 3, 2018, and offer the following observations:

Conversion of Double Solid Lines (map on page GP-38)

1. 400m just past the corner of No. 6 Road
2. 340m is in front of Tom Mac Shipyard.
3. **350m is the 30k speed zone that has 6 speed bumps installed.**
4. 300m tree area
5. 450m near Rail Bridge
6. 330m near Pump Station



As River Road is unique in location and design, I hope that a site visit was used to confirm the safety of the locations indicated as safe to pass, and not just a screenshot of this portion of the City of Richmond maps used to determine that these locations are safe to pass.

I would like to know if a site visit did occur.

Delineator Posts

Placing the delineator posts along the curves at each entrance/exit may seem to make sense, however, the trucks that are turning at these locations will undoubtedly hit these and replacement would be constant. Eliminating the trucks will solve this problem, however, the delineator posts should not take the place of in road markers in any area.

We would like to see the money spent on cleaning and maintenance of the road rather than on delineator posts – as indicated on page GP 47, the cost of extra maintenance is \$15,000.00 – as the “sharrow markers” proposed on June 26, 2017 for \$12,000.00 were never installed and are not required as River Road is not a cycling lane, and the delineator posts should not be placed, the funding for additional cleaning and maintenance should be achievable within the approved budget.

We stand firm that the in road markers are required and must be left in place. Where they have already been removed they need to be replaced immediately – these are for our safety and 100% required. We are NOT in agreement to remove any in road markers, and insist that those already removed are replaced.

At the March 26, 2018 meeting, in road markers that can detect and warn against black ice were discussed - I would also like to know if any inquiries have been made into these.

Single File Signage & Caution Signage

We agree with the number of signs being reduced, however, we continue to believe that the concrete bases are dangerous and should be removed. After reading the report it has become apparent that in order to put the posts into the ground Staff must apply to the Province for a permit due to the Riparian Management Area status. We feel that the inconvenience to Staff of applying for the permit is minor compared to the potential harm that the concrete bases pose.

We would like to see the number of signs reduced and temporarily placed while waiting for the required permits in order to place the posts into the soil and eliminate the dangerous concrete bases.

Speed Reader Boards

Placing the speed reader boards at Valmont Way may not be as effective as placing them further east, perhaps between the CN Rail Bridge and Nelson Road. There are areas along this stretch of road where signs can be installed without affecting any Riparian Management Areas as there is a gravel road between the River and River Road on the north side and on the south side a little further west the ditch has been filled in on the south side of River Road.

We would like to see RCMP input on the optimum locations for these signs, as they are most aware of where speed is more of an issue.

I would also like to know why the recommendation is to purchase 4 and install 2?

We also want the traffic radar data collection units installed and the information gathered and analysed to aid in the enforcement of traffic violations. These are NOT the moveable speed reader boards - these were bought and paid for with our tax dollars in 2015 and even though Staff reported that they would be installed in the 22000 block of River Road from any information provided, these were never put into use as noted – our money has been spent and we want to see the traffic radar data collection units installed and the results known.

Why have these not been installed?

Relocate Bike Route Sign

This can be done immediately, however, the cost of \$200.00 to remove this sign appears to be quite excessive.

Why does it cost \$200.00 to remove a couple of bolts, and where do I sign up for that job?

As the overweight trucks have long been an issue, we hope to see more enforcement of these. The report states:

Richmond RCMP advise that joint enforcement operations are regularly conducted with Community Bylaws staff, who have primary responsibility for enforcement of trucks on weight-limited roads.

I am unclear on what is determined to be “regularly conducted”, as the March 16, 2018 enforcement was the first in a very long time. The fact that within a few hours a total of 18 violations were issued to truck drivers shows the magnitude of this issue. Enforcement of the overweight trucks should be a lot more frequent going forward.

We would like to see more frequent and continued enforcement of these trucks confirmed.

During discussions at a City Council Meeting, regarding flood protection, it was stated that the dike has been raised substantially over the years, and so, at the March 26, 2018 meeting I asked Staff if the ditches are still required, and whether the ditch could be filled to create a temporary cycling/pedestrian lane, as the widening and re-building of River Road will be years from now. This would ONLY be for cyclists/pedestrians and NOT as a widening of vehicle lanes as this would require extensive engineering.

I would like to know the status of any discussions on filling the ditch now to accommodate cyclists and pedestrians by filling the ditch completely or installing oversized culverts.

I urge you NOT to accept this report in its current state, as there are some important details, as noted that need amending or clarification prior to implementation.

- 1. Ensure that the double solid lines are changed to broken centerlines only where safe to pass following an actual site visit.**
- 2. Replace all in road markers. DO NOT REMOVE ANY in road markers**
- 3. Apply for permits so that the sign posts can be permanently mounted into the ground thus eliminating the dangerous concrete bases**
- 4. Place Speed Reader Boards as recommended by the RCMP – apply for any required permits.**

When these issues have been reviewed and resolved, I would like to have “**immediate implementation**” clarified, as for example, conversion of the double solid lines was approved by Council on June 26, 2017 for **immediate implementation**, yet remain unchanged to date.

The report presented today indicates that the measures are to be “for immediate implementation” page GP 34 - what is the actual time frame once all issues are resolved?

Notes for General Purposes Committee Meeting April 16 2018

My name is Arline Trividic and I live at 22600 River Road

According to the staff report GP-30 from MR. Wei on page GP-33 he states that on March 16 2018 Richmond RCMP conducted a joint operation with the city bylaws staff

18 bylaw infraction tickets were issued to truckers and 24 speeding tickets were issued by the RCMP to other vehicles

Although I applaud these efforts and hope that they will continue, there are however a few concerns that I have regarding enforcement

1st CONCERN: I don't see similar types of enforcement being applied to the other users of the road , namely cyclist. Enforcement needs to be applied to ALL users EQUALLY not any one group should be given preferential treatment. All users who break the law need to be punished in an equal and just manner. When I say the law I am referring to the motor vehicle act. Also could the RCMP please provide data as to how many cyclist infractions have been noted since the increased enforcement began. From my observation every weekend I have witnessed little or no enforcement when it comes to the cyclist who continually disobey the rules of the road (side note- hard to ticket 2 or more side by side what about uturns at the pumping station over a double line in groups to head back west)

2nd CONCERN: As it seems that a lot more data is being collected mostly on trucks and cars as well as the enforcement being targeted mainly at these two groups this could possibly end up skewing the results

3rd CONCERN: The single file signage presently in place will considerably impede the RCMP's ability to properly enforce the law ... namely section 183 paragraph 2(C) of the motor vehicle act. Again this could have an adverse effect on the data collected for the RCMP report at the end of the summer

Since that are still many contentious issues to be reviewed or settled I would strongly suggest this report not be accepted or endorsed by this committee for implementation and that we should return to the original plan of no implementation of the points mentioned in this report along with the speed humps until we can review the RCMP report at the end of the summer



Special Finance Committee

Date: Monday, April 16, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Bill McNulty, Acting Chair
Councillor Chak Au
Councillor Derek Dang
Councillor Carol Day
Councillor Ken Johnston
Councillor Linda McPhail
Councillor Harold Steves

Absent: Mayor Malcolm D. Brodie, Chair
Councillor Alexa Loo

Call to Order: The Acting Chair called the meeting to order at 4:48 p.m.

FINANCE AND CORPORATE SERVICES DIVISION

1. **ANNUAL PROPERTY TAX RATES (2018) BYLAW NO. 9835**
(File Ref. No. 03-0925-01; 12-8060-20-009835) (REDMS No. 5736584; 5736962)

In response to a question from Committee, Ivy Wong, Manager, Revenue, advised that comparison of assessment values, as represented in table 1 of the staff report, would be provided to Council with the previous years' information.

It was moved and seconded

That the Annual Property Tax Rates (2018) Bylaw No. 9835 be introduced and given first, second and third readings.

CARRIED

Special Finance Committee
Monday, April 16, 2018

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:49 p.m.).

CARRIED

Certified a true and correct copy of the
Minutes of the meeting of the Finance
Committee of the Council of the City of
Richmond held on Monday, April 16,
2018.

Councillor Bill McNulty
Acting Chair

Amanda Welby
Legislative Services Coordinator



Planning Committee

Date: Tuesday, April 17, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Linda McPhail, Chair
Councillor Bill McNulty
Councillor Chak Au
Councillor Harold Steves

Absent: Councillor Alexa Loo

Also Present: Councillor Carol Day

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 April 4, 2018, be adopted as circulated.

CARRIED

AGENDA ADDITIONS

The Chair advised that Signs for Rezoning and Development projects will be considered as Item No. 4A and Airport Restrictions to Height be considered as Item No. 4B.

PLANNING AND DEVELOPMENT DIVISION

1. APPLICATION BY KANARIS DEMETRE LAZOS FOR A HERITAGE ALTERATION PERMIT AT 12111 3RD AVENUE (STEVESTON HOTEL)

(File Ref. No. HA 18 - 804880) (REDMS No. 5794211)

Minhee Park, Planner 2, reviewed the application, noting that replacement of the second storey windows to vinyl framed double pane windows is proposed. Also, it was noted that there is no restoration plan for the building.

It was moved and seconded

That a Heritage Alteration Permit be issued which would permit the removal of decorative shutters and the replacement of all the upper-storey windows of the protected heritage property at 12111 3rd Avenue, be issued.

CARRIED

2. APPLICATION BY RAV BAINS FOR REZONING AT 3991/3993 LOCKHART ROAD FROM "SINGLE DETACHED (RS1/E)" TO "SINGLE DETACHED (RS2/B)"

(File Ref. No. 12-8060-20-009852, RZ 17-774722) (REDMS No. 5750684)

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9852, for the rezoning of 3991/3993 Lockhart Road from "Single Detached (RS1/E)" to "Single Detached (RS2/B)", be introduced and given first reading.

CARRIED

3. APPLICATION BY MATTHEW CHENG ARCHITECT INC. FOR REZONING AT 8280/8282 AND 8300/8320 NO. 3 ROAD FROM "TWO-UNIT DWELLINGS (RD1)" TO "LOW DENSITY TOWNHOUSES (RTL4)"

(File Ref. No. 12-8060-20-009856, RZ 16-733565) (REDMS No. 5788183)

Wayne Craig, Director, Development and Edwin Lee, Planner 1, spoke on the proposed development, noting that (i) the proposed development will include one secondary suite, (ii) a new driveway is proposed along the south property line on No. 3 Road, (iii) a Statutory Right-of-Way (SRW) on the driveway and internal drive aisle will be secured to allow for access to future potential redevelopment in adjacent sites to the north and south, and (iv) each unit will have two parking spaces and the application complies with the City's parking requirements.

Planning Committee
Tuesday, April 17, 2018

It was moved and seconded

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9856, for the rezoning of 8280/8282 and 8300/8320 No. 3 Road from "Two-Unit Dwellings (RD1)" to "Low Density Townhouses (RTL4)", be introduced and given first reading.

CARRIED

4. PROPOSED CITY RESPONSE TO STRATA REDEVELOPMENT

(File Ref. No. 08-4057-00) (REDMS No. 5772450 v. 10)

In reply to queries from Committee, staff noted that (i) the 80% threshold vote by registered owners to wind-up a strata plan is regulation put in place by the Province, (ii) British Columbia Supreme Court review is required to wind-up a strata plan for strata corporations with five or more units, and (iii) staff are recommending that the City commence the processing of development applications for sites previously occupied by a stratified multiple family residential building only when the Supreme Court review and any potential appeals have concluded and confirmed, or for strata corporations with less than five units, unanimous support from owners are expressed.

Discussion ensued with regard to the potential loss of affordable housing and options to reduce the displacement of residents.

It was moved and seconded

- (1) *That the staff report titled "Proposed City Response to Residential Strata Redevelopment" dated April 5, 2018, from the Manager, Policy Planning be received for information;*
- (2) *That staff be directed to only commence processing development applications for sites occupied by a pre-existing multiple-family residential strata building where there is a written record of the Supreme Court ruling confirming wind-up of the strata corporation, or where there is a written record of 100% support from all owners of a strata with fewer than 5 units, and, in either case, where information is provided related to the building's condition and confirmation has been provided on the developer's relocation assistance to any owner not in support of the strata wind-up; and*
- (3) *That a letter be sent to the Premier of British Columbia, and the Minister of Municipal Affairs and Housing, with copies to all Richmond Members of the Legislative Assembly, and the Leader of the Third Party, and the Leader of the Official Opposition, requesting that the Province review the provisions of Bill 40 which enables wind-up of a strata corporation with less than unanimous support from strata owners.*

CARRIED

Planning Committee
Tuesday, April 17, 2018

4A. **SIGNS FOR REZONING AND DEVELOPMENT PROJECTS**
(File Ref. No.)

Information on signage for rezoning and development projects was distributed (attached to and forming part of these minutes as Schedule 1).

Discussion ensued with regard to improving the signs for rezoning and development projects, and as a result, the following **referral** was introduced:

It was moved and seconded

That staff look at improving signs for rezoning and development projects that will communicate the projects better, hopefully increase neighbourhood engagement and enhance upon the ways the City connects with citizens.

CARRIED

4B. **AIRPORT RESTRICTIONS TO HEIGHT**
(File Ref. No.)

Discussion ensued with regard to building height regulations for the city centre area.

5. **MANAGER'S REPORT**

None.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:26 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 Tuesday, April 17, 2018.

Councillor Linda McPhail
Chair

Evangel Biason
Legislative Services Coordinator

Apr. 17, 2018

Refer to staff - to look at improving signs for rezoning and development projects that will communicate the projects better, hopefully increase neighbourhood engagement and enhance upon the ways the City connects with citizens.

From the City of Vancouver

<http://vancouver.ca/news-calendar/new-improved-development-signage.aspx>

The Engaged City Task Force told us that signs for rezoning and development projects need an overhaul. Our current signs use small fonts and overly technical language. This makes it hard to inform you about potential changes in your neighbourhood and to encourage your feedback.

The new development project signs communicate projects better. They feature:

- Easy-to-understand language and details
- Improved visuals (a sketch and site map)
- Information on how residents you can give input online or in person

Examples of the old – similar to our current signs

REZONING AND DEVELOPMENT PERMIT APPLICATION

720-730 East Hastings Street (DE416884)

CitySpaces Consulting Ltd., on behalf of Vancouver Public Library and YWCA Metro Vancouver, has applied to the City of Vancouver to rezone 720-730 East Hastings Street from M-1 (Industrial) District to CD-1 (Comprehensive Development) District. The proposal is for a 6 storey mixed use building including:

- a 1,096 m² (11,800 sq. ft.) space for a new Vancouver Public Library (VPL) Downtown Eastside / Strathcona Branch, on level 1 and part of level 2;
- a 316 m² (3,400 sq. ft.) YWCA community programming space on level 2;
- 21 YWCA supported housing units on levels 3-6;
- a proposed total floor space of 3,939 m² (42,400 sq. ft.);
- a proposed floor space ratio (FSR) of 3.3; and
- underground parking, including 36 bicycle parking stalls and 12 parking stalls.

FURTHER INFORMATION MAY BE OBTAINED AT:
City of Vancouver Planning Department
Rezoning Centre - City Hall East Wing (3rd Floor)
Phone: 604.873.7038 | E-mail: rezoning@vancouver.ca
Website: vancouver.ca/rezapps
Or by contacting the applicant: CitySpaces Consulting, 604.687.2281

**PUBLIC HEARING
NOT YET SCHEDULED**

This sign has been posted by the applicant in accordance with the advice of the Director of Planning.

Site, Surrounding Zoning
720 E Hastings Street



Example of new signage

DEVELOPMENT PROPOSAL

720-730 E Hastings Street

PROPOSAL: To rezone and develop a 6-storey building with:

- Downtown Eastside/Strathcona Library Branch on the main floor
- YWCA programming space on second floor
- 21 YWCA housing units on levels 3 to 6

APPLICANT: CitySpaces Consulting Ltd. on behalf of Vancouver Public Library and YWCA Metro Vancouver

For more info visit us at:
vancouver.ca/rezapps
or Call 3-1-1

City of Vancouver
Rezoning Centre –
City Hall, East Wing (3rd Floor)
ph: 604.873.7038

Proposed sketch of building

Site location

Open House:
Strathcona Community Centre
601 Keefer Street, Activity Room
Thursday, June 20
4:30pm - 7:30pm

REZONING APPLICATION

1837-1857 East 11th Avenue and 2631-2685 Victoria Drive

REVISED APPLICATION JUNE 2017

To rezone this site to permit the development of a 10-storey residential building with a 6-storey residential podium.

The proposal includes:

- 144 units (76 secured market rental residential units and 68 strata units);
- Relocation and designation of a Vancouver Heritage Register category "B" heritage house;
- A proposed floor space ratio (FSR) of 3.59;
- A building height of 31.5 m (103.4 ft.); and
- 117 underground parking spaces.

This application is being considered under the Grandview-Woodland Community Plan

APPLICANT: Perkins+Will Canada
1220 Homer St
Vancouver, BC

PROPOSED DEVELOPMENT

LOCATION

What's happening:

Revised rezoning application submitted on June 20, 2017

Application review by City staff

Open House:
Wednesday, July 5, 2017, 5-7:30 pm
Croatian Cultural Centre
3250 Commercial Dr, Vancouver

Further application review

Public Hearing:
Information to come

Decision by Council

For more information:
vancouver.ca/rezapps
or phone 3-1-1



Public Works and Transportation Committee

Date: Wednesday, April 18, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Chak Au, Chair
Councillor Harold Steves
Councillor Derek Dang
Councillor Carol Day

Absent: Councillor Alexa Loo

Also Present: Councillor Linda McPhail

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 March 21, 2018, be adopted as circulated.

CARRIED

NEXT COMMITTEE MEETING DATE

Thursday, May 24, 2018, (tentative date) at 4:00 p.m. in the Anderson Room

DELEGATION

1. Henrik Laursen, 10340 Hogarth Place, spoke on hop on/hop off busses, a tram system in Steveston, and speeding along Steveston Highway and provided the following information:

Public Works & Transportation Committee

Wednesday, April 18, 2018

- hop on/hop off busses would be an environmentally friendly way to transport people through Steveston Village and therefore the City should promote its use;
- hop on/hop off busses may encourage travellers with extended layovers to leave the airport and explore the City;
- if a hop on/hop off bus system were to be implemented it should connect to Brighthouse Canada Line station to allow for easier commutes;
- Steveston Village would benefit from a tram or trolley system to run along major routes to transport people during peak seasons and events;
- a tram would aid in reducing parking issues in Steveston Village and reduce emissions from cars;
- a tram or hop on/hop off bus would benefit local businesses in the community; and
- the RCMP needs to regularly enforce speeding on Steveston Highway.

In reply to queries from Committee, Jane Fernyhough, Director, Arts, Culture and Heritage Services, advised that a referral is currently underway regarding a feasibility study for a tram in Steveston Village.

Victor Wei, Director, Transportation, advised that staff have facilitated two hop on/hop off bus operators in Richmond, however due to low ridership, it was not sustainable. He then noted that the majority of traffic fines collected by the Richmond RCMP would come back to the City. Mr. Wei then noted that staff do not recommend increasing the posted speed limit on Steveston Highway as it may encourage drivers to go faster; however, the RCMP are consistently enforcing speed along that road. Also, he remarked that speed enforcement by camera is not legal in BC.

Discussion took place and it was suggested that speeding along Steveston Highway be addressed at the next Community Safety Committee meeting.

PLANNING AND DEVELOPMENT DIVISION

2. **TRAFFIC SAFETY ADVISORY COMMITTEE – PROPOSED 2018 INITIATIVES**

(File Ref. No. 01-0100-30-TSAD1-01) (REDMS No. 5702321)

It was moved and seconded

- (1) *That the proposed 2018 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled “Traffic Safety Advisory Committee - Proposed 2018 Initiatives” dated March 21, 2018 from the Director, Transportation, be endorsed; and*

Public Works & Transportation Committee
Wednesday, April 18, 2018

- (2) *That a copy of the above staff report be forwarded to the Richmond Council-School Board Liaison Committee for information.*

CARRIED

ENGINEERING AND PUBLIC WORKS DIVISION

3. INTEGRATED RAINWATER RESOURCE MANAGEMENT STRATEGY

(File Ref. No. 10-6060-03-01) (REDMS No. 5709139 v. 3)

In reply to queries from Committee, Lloyd Bie, Manager, Engineering Planning, provided the following information:

- the Urban Forestry Management Strategy addresses methods to prevent loss of tree canopies;
- green space is managed by the City for public properties;
- the use of rain barrels is not complicated and has proven successful;
- the Rain Barrel Program is advertised on the City's website as well on utility bills; and
- rain barrels cost approximately \$30 to purchase.

In reply to further queries from Committee, Mr. Bie advised that a major obstacle with launching the re-use of rainwater for toilet flushing is the BC Plumbing Code, and noted that other municipalities are facing the same challenges. Also, Mr. Bie advised that the amount of green space on private property is managed through the Planning and Development Division.

Discussion took place on the potential to present on the re-use of rainwater for toilet flushing at the next Union of British Columbia Municipalities convention to garner support, and in response, Robert Gonzalez, General Manager, Engineering and Public Works, advised that detailed information on the re-use of rainwater for toilet flushing may be of value to Council, and that staff can report back.

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

It was moved and seconded

- (1) *That the "Integrated Rainwater Resource Management Strategy" as attached to the staff report titled "Integrated Rainwater Resource Management Strategy," dated March 1, 2018 from the Director, Engineering be approved; and*
- (2) *That staff provide further information on the re-use of rainwater for toilet flushing and report back.*

CARRIED

3.

Public Works & Transportation Committee
Wednesday, April 18, 2018

4. **DIKE MASTER PLAN - PHASE 2 REPORT**

(File Ref. No. 10-6045-09-01) (REDMS No. 5733629 v.2)

In reply to queries from Committee, Mr. Bie advised that funding for dike improvements will be collected through utility rates. He noted that, there is adequate funding in place to complete the project; however should the sea level rise earlier than anticipated, additional improvements will need to be implemented and therefore may affect costs. Mr. Bie then noted that staff are part of several working groups and actively examining the potential for barrier islands at Sturgeon Banks. Also, he advised that staff can examine the potential to shut off the pump at the west dike to clean the water, and spoke of the citing of the dike, noting that the goal is to replace the dike without impacting farmland.

Discussion took place on the City's notification procedures in relation to works along the City's diking system, and Mr. Gonzalez advised that despite the City's best efforts to provide notice of such works, notice is not always given; however staff are actively improving their approach for notification by engaging and educating the public on activities taking place around the city.

It was moved and seconded

- (1) *That the existing dike alignment in the Dike Master Plan Phase 2 study area (West Dike from Williams Road to Terra Nova and North Dike from Terra Nova to No. 6 Road) continue to be the primary flood protection dike alignment; and*
- (2) *That the work plan identified in the staff report titled Dike Master Plan – Phase 2 Report from the Director of Engineering, dated March 21, 2018, be endorsed.*

CARRIED

5. **BRAZILIAN ELODEA MANAGEMENT UPDATE: MARINER'S VILLAGE (11291 - 11491 7TH AVE)**

(File Ref. No. 10-6160-07-07) (REDMS No. 5777004 v.2)

Chad Paulin, Manager, Environment, advised that, should the program require additional funding after the three-year period, staff will apply to the Province for further funds.

It was moved and seconded

That the staff report titled "Brazilian Elodea Management Update: Mariners Village (11291 – 11491 7th Ave)" from Director, Engineering dated March 21, 2018 be received for information.

CARRIED

Public Works & Transportation Committee
Wednesday, April 18, 2018

6. ANNUAL REPORT 2017: RECYCLING AND SOLID WASTE MANAGEMENT

(File Ref. No. 10-6370-01) (REDMS No. 5773340 v.3)

In reply to queries from Committee, Suzanne Bycraft, Manager, Fleet and Environmental Programs, advised that participation in the recycling and solid waste management program is low in multi-family residences; however staff are continually providing different programs to promote recycling

It was moved and seconded

That the annual report titled, "Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality" be endorsed and Attachment 1 be made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

CARRIED

7. 2018 NATIONAL PUBLIC WORKS WEEK

(File Ref. No. 10-6000-01) (REDMS No. 5782043)

It was moved and seconded

That the staff report titled "2018 National Public Works Week", dated April 18, 2018 from the Director, Public Works Operations, be received for information.

CARRIED

8. MANAGER'S REPORT

2018 Capital Projects Open House

Tom Stewart, Director, Public Works Operations, highlighted that the 2018 Capital Projects Open House is currently underway in the Atrium at City Hall.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (4:36 p.m.).

CARRIED

Public Works & Transportation Committee
Wednesday, April 18, 2018

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 Wednesday, April 18, 2018.

Councillor Chak Au
Chair

Sarah Kurian
Legislative Services Coordinator



Council/School Board Liaison Committee

Date: March 7, 2018

Place: Anderson Room
Richmond City Hall

Present: Councillor Alexa Loo, Chair
Councillor Linda McPhail
Trustee Donna Sargent
Trustee Alice Wong

Absent: Trustee Ken Hamaguchi
Trustee Debbie Tablotney

Call to Order: The Chair called the meeting to order at 9:00 a.m.

AGENDA ADDITIONS AND DELETIONS

It was moved and seconded

That the Local Government Election be considered as Item No. 9A and that the Richmond Addiction Services Society (RASS) Forum be considered as 9B.

CARRIED

AGENDA

It was moved and seconded

That the Council/School Board Liaison Committee agenda for the meeting of March 7, 2018, be adopted as circulated.

CARRIED

MINUTES

It was moved and seconded

That the minutes of the meeting of the Council/School Board Liaison Committee held on January 17, 2018, be adopted as circulated.

CARRIED

STANDING ITEMS

1. **TRAFFIC SAFETY ADVISORY COMMITTEE**

(File Ref. No.) (REDMS No. 5738923)

Donna Chan, Manager, Transportation Planning, COR, reviewed the Traffic Safety Advisory Committee's minutes from the February 1, 2018 meeting, noting that the City will be installing a zebra crosswalk and sidewalk improvements for Talmey Elementary School, and that City staff will be reviewing the need for a crosswalk along McNeely Drive and Cameron Drive.

Discussion ensued with regard to traffic safety concerns along Westwind Elementary School and the protocols to report such concerns.

It was moved and seconded

That the update on the Traffic Safety Advisory Committee be received for information.

CARRIED

BUSINESS ARISING & NEW BUSINESS

2. **RICHMOND ACTIVE TRANSPORTATION COMMITTEE- PROPOSED 2018 INITIATIVES**

(File Ref. No. 01-0100-20-RCYC1) (REDMS No. 5673705 v. 2)

Ms. Chan reviewed the staff report, highlighting activities such as (i) the completion of the first and second phases of the Crosstown Neighbourhood Link active transportation route, (ii) the partnership with HUB Cycling to promote cycling awareness for students, adults and recent immigrants, (iii) the City Centre Cycling Network Update, planned for this year, and (iv) the Bike Tour scheduled on June 10, 2018 at Thompson Community Centre to celebrate Bike Month.

It was moved and seconded

That the City of Richmond staff report titled "Richmond Active Transportation Committee- Proposed 2018 Initiatives," dated January 24, 2018, be received for information.

CARRIED

3. UPDATE ON CANNABIS REGULATION WITHIN THE CITY OF RICHMOND AND HEALTH CANADA PROPOSED APPROACH TO REGULATION OF NON-MEDICAL CANNABIS

(File Ref. No. 12-8000-01) (REDMS No. 5658471 v. 5)

Carli Edwards, Senior Manager, Community Safety Policy and Program and Licensing, COR, briefed Committee on Cannabis Regulation within the City and Health Canada's proposed approach to regulation of non-medicinal cannabis, noting that (i) the Province will prohibit use of cannabis for individuals younger than 19 years old, (ii) the City currently prohibits retail sale of cannabis, (iii) the City's Smoking Bylaw will apply to cannabis use and restriction of smoking in public parks and spaces is proposed, (iv) cultivation of cannabis on Agricultural Land Reserve (ALR) sites is prohibited in Richmond, and (v) staff can provide information on the policing costs.

4. RICHMOND RESILIENT COMMUNITIES PROGRAM

(File Ref. No.)

Norman Kotze, Manager, Emergency Programs, COR, reviewed the Richmond Resilient Communities Program, noting that (i) the program encourages residents to plan for major and minor emergencies, (ii) the City partners with the School District on the program and encourages emergency planning for individual schools, students and parents, and (iii) upcoming emergency planning workshops are scheduled in community centres and schools.

Discussion ensued with regard to protocols for utilizing community spaces such as schools during emergencies.

5. COMMUNITY WELLNESS STRATEGY

(File Ref. No.)

With the aid of a PowerPoint presentation (Copy on-file, City Clerk's Office), Elizabeth Ayers, Manager, Community Services Planning and Projects, COR, and Marie Ratcliffe, District Administrator, Learning Services, RSD, updated the Committee on the Community Wellness Strategy (2018 – 2023), noting that (i) there will be broad consultation with community stakeholders, utilizing internal and external stakeholder workshops, (ii) the engagement process will involve students, (iii) the Strategy will focus on areas involving active lifestyles, social connectedness, access to services and programs, healthy environments, and wellness literacy, and (iv) staff anticipate that a final report on the matter will be presented to Council at the end of May 2018.

6. CANADA'S FIRST YOUTH POLICY

(File Ref. No. 07-3425-01)

Kim Somerville, Manager, Community Social Development, COR, spoke on the proposed Youth Policy, noting that the Federal Government is encouraging individuals to participate by completing an online survey or by engaging in an in-person session. She added that the Federal Government will be focusing on areas such as identifying issues important to youth, reviewing the support programs for youth and identifying new actions to improve conditions for youth. Also, she noted that the City Youth team and will be promoting the consultation opportunity and that the City will be working with the School District through the consultation process.

The Chair advised that the order of the agenda would be varied to consider Item No. 8 next.

8. 2018 ECOLOGICAL NETWORK MANAGEMENT STRATEGY UPDATE

Peter Russell, Senior Manager, Sustainability and District Energy, COR, reviewed the Strategy, highlighting four focus areas: (i) managing ecological assets, (ii) strengthening the City's infrastructure, (iii) creating, connecting and protecting diverse spaces, and (iv) engaging in stewardship and collaboration.

Mr. Russell further highlighted key achievements including (i) engaging in invasive species management and mapping, (ii) converting underutilized land for a pollinator pasture, (iii) organizing 49 community environmental workshops, and (iv) working with the School District to engage youth and organize events such as the Richmond Earth Day Youth Summit.

Discussion ensued with regard to additional opportunities to engage youth and utilizing the Strategy as a teaching tool.

7. PUBLIC ART COMMUNITY MURAL PROGRAM

(File Ref. No. 11-7000-09-20-255)

Eric Fiss, Public Art Planner, COR, reviewed the Public Art Community Mural Program, noting that (i) the program provides opportunity to collaborate with local artists and private development to install murals throughout the city, (ii) there is opportunity to work with the School District on potential sites and with young artists, (iii) murals can be located in publically accessible indoor areas, and (iv) there are opportunities to utilize digital media.

Council/School Board Liaison Committee

Wednesday, March 7, 2018

9. GUIDE FOR SCHOOL TRUSTEE CANDIDATES

(File Ref. No.)

Discussion ensued with regard to the role of School Trustees in the community and distributing the Guide for School Trustee candidates prior to the upcoming general local election.

In reply to queries from Committee, David Weber, Director, City Clerk's Office, COR, noted that the Guide can be made available to candidates through the City's website and election information for candidates will be included in the nomination package.

9A. LOCAL GOVERNMENT ELECTION

(File Ref. No.)

A Union of BC Municipalities (UBCM) video on the role of local government was presented (copy on-file, City Clerk's Office). Discussion then ensued with regard the upcoming general local election and creating an information video on the matter.

9B. RICHMOND ADDICTION SERVICES SOCIETY (RASS) FORUM

(File Ref. No.)

Committee was briefed on the RASS Forum held on February 3, 2018 to discuss drug use in the city. Ms. Somerville noted that staff have been gathering information on the current opiate crisis and will coordinate with service providers on options to address the issue. She added that the Province, through Vancouver Coastal Health, is developing an action strategy and staff will update Committee on the matter.

NEXT COMMITTEE MEETING DATE

April 25, 2018 (tentative date) at 9:00 a.m. in the Anderson Room.

ADJOURNMENT

It was moved and seconded

That the meeting adjourn (10:22 p.m.).

CARRIED

Council/School Board Liaison Committee

Wednesday, March 7, 2018

Certified a true and correct copy of the Minutes of the meeting of the City of Richmond Council/School Board Liaison Committee held on March 7, 2018.

Councillor Linda McPhail
Chair

Evangel Biason
Legislative Services Coordinator
City Clerk's Office



City of Richmond

Report to Committee

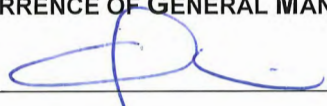

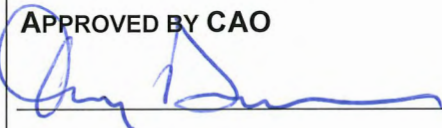
To: Community Safety Committee **Date:** March 12, 2018
From: Carli Edwards, P.Eng.
Acting Senior Manager, Community Safety
Policy & Programs and Licencing **File:** 03-1000-05-069/Vol 01
Re: **Touchstone Family Association Restorative Justice Annual Performance
Outcome Evaluation Report**

Staff Recommendation

That the staff report titled "Touchstone Family Association Restorative Justice Annual Performance Outcome Evaluation Report" dated March 12, 2018 from the Acting Senior Manager, Community Safety Policy & Programs and Licencing, be received for information.

Carli Edwards, P.Eng.
Acting Senior Manager, Community Safety Policy & Programs and Licencing
Chief Licence Inspector
(604-276-4136)

Att. 1

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

Staff Report

Origin

On January 1, 2014 the City of Richmond renewed its contract with the Touchstone Family Association (Touchstone) to provide Restorative Justice Services. This contract expired December 2016 and was renewed for an additional three year term ending in December 2019. As part of this contract, Touchstone is responsible for reporting to Council on an annual basis. This report provides Council with Touchstone's Restorative Justice Performance Outcome and Evaluation Report for the 2017 year.

This report supports Council's 2014-2018 Term Goal #1 A Safe Community:

Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

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.

1.4. Effective interagency relationships and partnerships.

Analysis

While there is no single definition of restorative justice, the Province defined it in its White Paper on Justice Reform as:

“an option for addressing criminal prosecutions by repairing the harm caused to victims of crime. It is typically achieved through a process that addresses victims' needs and holds offenders accountable for their actions. Restorative Justice can provide opportunities for victim participation, community involvement and can hold offenders accountable in a meaningful way.”

According to the same White Paper, restorative justice primarily focuses on “low-risk cases which have been referred by local police departments, schools and Crown counsel.”

Although the Province has endorsed restorative justice, it was acknowledged in an independent review of BC's justice system that community based restorative justice programs are dependent on other program grants, volunteers, municipal funding and donations. Despite a lack of a consistent funding source, the White Paper found that restorative justice was more effective in reducing recidivism and in lowering cost to the justice system. A similar conclusion can be found in the Province's recent Blue Ribbon Panel Report on Crime Reduction which again recommended that the “government develop, in collaboration with the UBCM, province-wide standards to govern the implementation and management of diversion and restorative justice programs.”

Within Richmond, there are two restorative justice programs:

1. The Youth Intervention Program, which is a counselling program offered by City Staff at the City Centre Community Police Office under the direction of the RCMP Detachment; and
2. The Touchstone Restorative Justice Program, which places an emphasis on accountability and problem solving as a way of addressing harm that takes place when a crime or incident occurs.

Touchstone is required to report to Council annually on the:

- Restorative justice annual budget for the upcoming year;
- Restorative justice revenues and expenditure from the previous year;
- Performance indicators including the number of referrals, forums and completed resolution agreements;
- Milestones and achievements; and
- Participants' satisfaction survey.

As noted in the attached report by Touchstone, funding continues to be a challenge as the Provincial Government provides only a small amount of funding to restorative justice. The City has long advocated for increased funding for restorative justice services, but the Province maintains it will not advance additional funding. The Province's position has resulted in the City funding the Restorative Justice Program.

The City first entered into a three-year agreement with Touchstone Family Association in 2008, and has renewed the contract in 2011, 2014 and again in 2017. The current three-year contract will expire on December 31, 2019.

Restorative Justice Performance Outcome Evaluation Report

The Richmond Restorative Justice Program is a volunteer driven program staffed by Touchstone with a permanent full time coordinator. There are many highlights of this program which are expressed in the Performance Outcome Evaluation Report, January 1, 2017 – December 31, 2017, from Touchstone Family Services (Attachment 1).

Over the past seven years there were a total of 392 offenders that entered the program. In 2017, there were a total of 44 offenders and 36 referrals that went through the program. According to Touchstone staff, the program has the capacity to double the current number of annual referrals/offenders and has outlined raising community awareness of the program as a strategic priority. The decrease in referrals from previous years is due to a new policy issued by "E" Division of the RCMP. Touchstone and the RCMP will continue to examine the privacy and efficiency of the referral process.

According to RCMP Detachment statistics, 14 percent of youth who went through the process re-offended within a three year period after completing the Restorative Justice Program. RCMP data further showed that 10 percent of adults who completed the same program re-offended.

While these low recidivism rates appear to be impressive, the Blue Ribbon Panel noted that “there is no standardized method of measuring recidivism in the province and it would be important to develop and impose consistent standards.”

Summary Statistics

	2013	2014	2015	2016	2017
Total # of Offenders	46	56	57	74	44
Total # of Referrals	35	41	49	49	36
Total # of RJ Process	35	43	47	52	34
Total # of Resolution Agreements	42	47	50	67	41
Total # of Completed Resolution Agreements	45	46	45	67	37

* A referral can have more than one offender


** Restorative Justice Processes can include conferencing between victims and offenders, community justice forums (less serious cases), and healing circles (often used in schools).

Financial Impact

None.

Conclusion

The City’s Restorative Justice Program is a cost effective way of providing a much needed service to address some social issues within the community. The contract with Touchstone Family Association to administer Richmond’s Restorative Justice Program is a service delivery model that strengthens the social health and independence of families and children in our community through effective intervention and support services. This alternative service delivery model to the court system addresses the harm that takes place when a crime or incident occurs, and ensures accountability.



Carli Edwards, P.Eng.
Acting Senior Manager, Community Safety Policy & Programs and Licencing
Chief Licence Inspector
(604-276-4136)

CE:dl

Att. 1: Restorative Justice: Performance Evaluation Report January 1, 2017 – December 31, 2017 by Touchstone Family Association.



RESTORATIVE JUSTICE

PERFORMANCE OUTCOME EVALUATION REPORT

January 1, 2017 - December 31, 2017



EXECUTIVE SUMMARY

Touchstone Family Association is a non-profit society that has been providing services to children and their families in Richmond since 1983. Our services have primarily focused on preserving and enhancing family relationships and we offer a variety of services designed to meet the needs of children, youth and families to ensure their optimum development. Over 1900 children, youth and families benefit from our services on an annual basis.

In 2004 the Restorative Justice Program was launched in partnership with the Richmond RCMP. In 2008 the City of Richmond provided funding for a full time Restorative Justice Coordinator. This annual report will focus on the successes and challenges of the past year.

It is important to note that the core funding for Restorative Justice comes from the City of Richmond through the Law and Community operating budget. Touchstone Family Association continues to engage other levels of government regarding not only the need but the responsibility in cost sharing this program across the three levels of government. Restorative Justice receives \$2500.00 from the Community Actualization Program funded by the province which provides some funds for volunteer training and recruitment. Touchstone continues to raise the profile of this extremely cost effective alternative to court and is continuously seeking out funding partners and grant opportunities. Funding continues to be an ongoing challenge, however we are very appreciative to the City of Richmond for not only its financial support but for believing in the Restorative Philosophy of understanding how it creates a safer and healthier community for everyone.

Restorative Justice

What is restorative justice? Restorative justice is an alternative approach to our court system. Restorative Justice is a philosophy built on the cornerstone of community healing. Like community policing, it's a way of doing business differently. While our court system is adversarial and focused on punishment restorative justice encourages dialogue and responsibility for past behaviour, while focusing on problem-solving and offender accountability. Through this approach, victims and offenders are not marginalized as they are in the court system. Rather, both are invited to come together, so that the offender can be held accountable and the victim can receive reparation.

Through restorative justice, volunteer facilitators help offenders take responsibility for their crimes. Offenders are given the opportunity to recognize the people that they harmed and are able to learn how others have been affected by their behaviour. Furthermore, the offender can work with the victim to find ways to repair the damage that has been done.

Victims benefit greatly from a process, unlike court, where they can sit together with the offender and speak directly to him/her about the pain that they have endured. Through restorative justice, victims can get answers to their questions about the incident, and they can learn why it happened. Furthermore, they can share with the offender what needs to be addressed for healing to begin to take place.

While restorative justice affords everyone affected by crime the opportunity to gain closure from

the incident, it also gives the community the chance to become closer and grow together through understanding, compassion and healing. Communities become healthier and safer as a result.

Resolution Agreements can include:

- Financial Restitution
- Apology to Victim(s)
- Community Service Work
- Essay
- Counselling
- Donation
- Resume Preparation
- Job Search



Restorative Justice is a volunteer driven program that has a permanent full time coordinator. Recruitment, retention and training of volunteers are crucial to the success of the Restorative Justice Program. The RJ coordinator engages all volunteer applicants in a formal interview process which includes a criminal record check and two reference checks and also takes into account several key criteria that may include but is not limited to:

- Life experience
- Professional employment history
- Education
- Commitment to the program
- Amount of time available
- Experience/Confidence in leading a group discussion
- Flexibility
- Knowledge of Restorative Justice
- Reasons behind wanting to become involved
- Experience/comfort level with conflict
- Oral and written skills

Restorative Justice Embodies Different Processes

Given the intensity of the training and the role of the facilitator it is important to recruit solid, committed individuals. Once the intensive interview process and reference check are complete, volunteer applicants are eligible for, and must successfully complete over time, training in various restorative justice processes or applications, including community justice forums, where the volunteer applicants attend an intense 3 day training program. Once the volunteer applicant has achieved a certificate of training, he or she must earn accreditation by co-facilitating a minimum of five forums alongside and under the supervision of a certified mentor/facilitator; this is an approach that increases the volunteer's level of confidence and competency, and enhances quality assurance. Of course, community justice forums are only one example of the kind of processes inspired by a restorative justice philosophy. There are other processes that are also utilized by the Restorative Justice Program.

At the heart of restorative justice are its underlying values and principles, which give birth to a variety of processes designed to meet the unique needs and circumstances of victims, first and foremost, followed by the rest of the community and, of course, the offender. This recognition requires that we carefully consider the process that will have the most benefit and greatest chance of success. Volunteers will continue to expand their knowledge and skills by applying different applications of restorative justice dictated by the specified needs of the affected parties and/or community. A few examples include a non-scripted, comprehensive victim-offender conferencing (VOC) process in complicated cases; a scripted community justice forum (CJF) process in less serious cases; a separate conference (Conference) process in cases where a direct victim and offender encounter proves less beneficial; as well as numerous types of Circles in community and school settings.

In each case assigned to restorative justice facilitators, the most suitable type of process can only be determined after exploring the needs of the participants and investigating the circumstances surrounding each case. It is important to understand that restorative justice *is a process*, where each case evolves from the first point of examination, takes shape through exploratory discussions with the affected parties, and involves everyone's consideration of an appropriate process to address what happened.

The Richmond Restorative Justice Program dealt with a variety of types of offences in 2017: Assault, Break and Enter, Fraud, Mischief, Robbery and Theft Under \$5000

Two stories involving cases from the Richmond Restorative Justice Program are highlighted in this year's report to illustrate the benefits of a restorative approach. These stories illuminate the power of dialogue when facilitated with care inside a safe and respectful process suited to the participants.

Looking for Trouble

Two sixteen year olds were arrested for breaking and entering into people's garages in the summer of 2017. They were accused of stealing a bicycle from one home and hammers from another. They were eventually identified and consequently admitted to their crimes upon investigation by the police. Both of the boys and their families, along with their respective victims agreed to resolve the matter inside the community through their participation in restorative justice. Some of the victims initially expressed their trepidation at meeting with the youth; they wondered whether any good could come from a face-to-face dialogue, since the youth had been brazen enough to enter their private property. The preliminary meetings leading up to the community dialogue helped alleviate their concerns and identified the issues they needed to see addressed to help meet their needs and hold the kids accountable for their actions.

Inside the community justice forum, a visibly nervous teenager – let's name him "Tom" - described how he had made a deliberate decision to find trouble that day. He explained that he was hanging out at the co-accused's home – let's name him "Jerry" - when, after a while, they left in search of a neighborhood nearby. For Tom, the idea was to do mischief for mischief's sake. On the way, they stopped at a park, where they smoked marijuana and Tom stole a bicycle lying in

the park with no owner in sight.

Soon after, they continued towards the neighborhood they had in mind because of its seeming affluence. Jerry described how they came upon a property with numerous bicycles inside an open garage. He waited outside, while Tom, the physically larger and stronger teen, went in and stole one of the bicycles. They then biked around the neighborhood and spotted another open garage. Once again, Jerry waited outside the garage while Tom went inside. The teen grabbed two hammers. Perplexed by the items stolen, Jerry, nevertheless, accepted one of the hammers his friend handed over to him and placed it in his backpack. Suddenly, the homeowner came out and began yelling at them; both boys sped off on the bicycles. The couple from the home chased them in their car, but they eventually managed to evade them by splitting up. After a while, Tom and Jerry met up at the house of a mutual friend and then departed for their own respective homes. Jerry rode the bike Tom had stolen to his own place and threw the hammer into some bushes on the way there.

The husband and wife belonging to the home from which the bicycle was stolen described the emotional impact, as well as the terrible stress and inconvenience the teens had caused their family. They were having a social gathering with a group of friends when the crime took place. The group was preparing to ride on bicycle to a concert later that day. Thus, the bikes were stored inside the garage. The homeowners explained how they had always felt safe leaving the garage door open. Even their house door was often left unlocked while they were home. They simply didn't expect something like this to happen in their neighborhood. When the husband discovered his new and very expensive bicycle had been stolen, he was in disbelief; he initially thought perhaps he was the victim of a friendly prank. The theft meant that he could not accompany everyone to the concert, which had been planned for a long time. Instead, he would end up spending his time speaking with the police and filing a police report. The bicycle was later found in Jerry's possession.

He and his wife then described how the theft led them to re-examine their own safety, something they had always taken for granted. What troubled them most was the fact that their daughter and her young babysitter were vulnerable as they were in a room that could be accessed from the garage. The thought that someone made the decision to enter the garage while there were people in the home was disturbing enough. But, what scared them the most was what could have happened if the perpetrator had decided to access the room with their daughter. It was too terrifying for them to contemplate. They were forced to make changes with security in mind, knowing they and their neighbors were never going to be able to go back to the kind of openness and trust they once enjoyed as a community.

The second couple belonging to the home where the hammers were stolen concurred with the first couple on the lost feeling of community, noting how neighbours no longer feel as secure as they once did. After the incident, they reviewed video from the camera they had installed inside the garage. It was shown to Police and both Tom and Jerry were subsequently identified. The homeowners were angry with the teens for not stopping when being chased. Only after the chase did they discover the hammers were missing. One of the hammers had sentimental value as it belonged to the wife's grandfather – this was the hammer Jerry threw away. It was never found. The other hammer was turned in by Tom. (He had only stolen the hammers because he didn't

want to leave the garage empty-handed.)

Tom apologized. He was deeply remorseful for what he had done and described how the entire experience was a wake-up call for him to change his habits and his behavior. Tom was ashamed of his actions. He explained how he was in a different state of mind during that time, mostly angry, possibly depressed. He had been having troubles according to his parents, who tried to steer him away from the negative influences in his life. They remarked on his potential if he could focus. Tom acknowledged the pain and anger he had caused the homeowners, knowing he had changed them and their neighborhood. He was ashamed for causing his own parents embarrassment and anguish. He pledged to do better.

Jerry also apologized to the victims for his actions. He understood that he would have to prove his sincerity if he wanted to make things right with everyone who was affected by what he had done. He vowed to everyone that he was prepared to improve himself.

As their resolution, both Tom and Jerry agreed to write a report asking them to reflect on what they heard from their victims; what lessons they drew from the entire experience; and what changes they will make to prevent a similar incident from happening again in the future. They also agreed to write a progress letter before the Christmas Break, describing the improvements and changes they had made in their own lives.

Both Tom and Jerry fulfilled their obligations. Tom completely transformed his life. Jerry made improvement in his.

What's a Jacket Worth?

A fifteen year old youth was arrested after a major police response to a reported robbery on one summer day in 2017. "Jonah" (Not his real name) had orchestrated a scheme to steal a jacket from another teen. He was caught after a lengthy chase through Richmond. Jonah, his family and the victims all agreed to resolve the criminal matter through restorative justice.

Separate preliminary meetings were held with the offender and victims, accompanied by their respective family members. These meetings were critical in helping everyone prepare for the community justice forum, a face-to-face dialogue between all of the affected participants seated in a circle format facing one another, coordinated by a restorative justice facilitator.

Inside the Circle, Jonah appeared very much like a young man who was relieved to finally be able to release the burden he had been carrying since the incident. Seated between his parents, and across from "Ivan" and his father "Carl" (Not their real names), he began by apologizing for the harm that he had caused to them. He then told his story.

Jonah had been fixated on name brand clothing, like those worn by the athletes he admired on television and social media. Being an athlete himself he wished to emulate these sports stars. When he came upon a rare and expensive jacket being advertised in a private sale by Ivan on a particular website he became excited and set a plan in motion to gain possession of the jacket that

he could not afford. He convinced his own sister and a friend to help in a plot to steal the jacket from Ivan. Jonah had his friend make contact with Ivan online and express interest in buying the jacket at a specified location, date and time.

On the day of the robbery, Jonah, his sister and the friend put the plan into motion. Jonah's sister and friend would await Ivan at the agreed upon location, while Jonah waited around the corner of the building. Jonah's sister and friend would act as bait, luring Ivan through the belief that a legitimate transaction was about to take place. Once Jonah's friend had requested a closer examination of the jacket by taking it into his possession, it would be easier for Jonah to take the jacket without it being in Ivan's hands, removing the potential for his resistance. The plan was to make it appear that Jonah's sister and friend were also unaware of what was happening and disassociating them from their role in the robbery.

Jonah carried out his plan as intended, but he did not anticipate Ivan bringing his father along for the transaction and was caught by surprise. He ran, but Carl caught up to him at one point. In an effort to escape, Jonah assaulted Carl with bear mace. He then fled on foot, while Carl struggled to keep up with him. Eventually, Jonah was able to lose Carl and made it to a park bench with the jacket. He was scared, exhausted and regretting what he had done. Jonah sat down and contemplated what to do when he was approached by a stranger on a bicycle, who explained to him that a man was trying to locate someone who had stolen his son's jacket. Jonah admitted to having the jacket and asked the bicyclist to return the jacket to the owner as he no longer wanted it. Jonah then made his way to a sky train station, where he was taken down by an overwhelming number of police. At some point, he recalls being kicked in the head by the victim, who was also on the scene during the arrest and was quickly removed and spoken to by Police.

Ivan expressed his gratitude to Jonah for being completely forthcoming and demonstrating remorse for his actions, which he judged to be sincere and genuine. He saw, first-hand, Jonah's tearful and heartfelt account of the harm that he caused. He shared with Jonah, how he became "frozen" when Jonah appeared from out of nowhere in a hoodie, wearing a mask and holding a stick-like weapon in his hand. He informed Jonah that his father had come along because he was concerned about him being safe when making a private transaction with strangers. Ivan was expecting a straight forward sale of his jacket. His hope was to give the proceeds to his parents, who had generously bought him an expensive electronic item that he had on his wish list. He wanted to reimburse them for some of the cost as a way of expressing his gratitude. Thus, he was willing to sacrifice the jacket.

Ivan shared how deeply the incident impacted him: he had nightmares, sleepless nights and lost focus at school. He felt unsafe. His family, especially his grandmother, was fearful for him whenever he left the house. His father felt horrible burning from the bear spray that was used on him. He was concerned for what might happen to his father, who lost control of himself and kicked Jonah.

Carl, when given the chance to speak, took the first opportunity to apologize to Jonah for kicking him. He wanted Jonah to know that this was not his true nature and how on that day his protective instincts and overwhelming concern for his son had led to anger. He explained to Jonah's family that he continued with the pursuit of their son, even after the jacket had been returned, because he did not want Jonah to get away with his crime, and he thought he was dealing with an adult, not a

teenager at the time. Carl's apology and explanation greatly reduced the tension felt by Jonah's family, who found the assault on their son to be unwarranted given the police already had him in custody. It led to an outpouring of tears and relief.

Ivan and Carl accepted Jonah's apology inside the meeting and asked if he could write a letter of apology to their family members who were not present for the meeting. Jonah agreed to this resolution. He later produced a letter apologizing to the entire family and expressing his gratitude to them, especially Ivan, for giving him a chance to redeem himself. In his own words: "Now, I like to earn my things and I am starting to open up to people."

Referrals to the Richmond Restorative Justice Program

The predominant referral base for the Richmond Restorative Justice Program remains to be the Royal Canadian Mounted Police (RCMP). The Program continues to advocate and reach out to the broader community, including Schools and Crown.

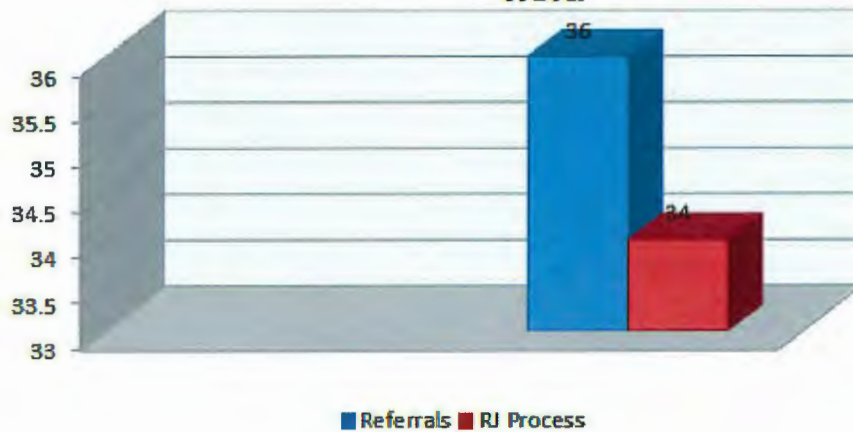
School referrals remain a priority for the program. While school-based incidents are sometimes referred by the RCMP to the Program, there is potential for greater involvement and more comprehensive coordination amongst RCMP, Schools and the Richmond Restorative Justice Program in utilizing a restorative justice approach in many more cases involving a criminal investigation. In other cases, where criminal investigations are not necessarily warranted, schools can make direct use of the Richmond Restorative Justice Program.

Richmond Crown also makes use of the Richmond Restorative Justice Program and sees the real benefit the Program offers. Both the Program and Crown continue to partner in cases deemed suitable for restorative justice. In this case, too, there is potential for a more collaborative and coordinated approach to criminal cases amongst Crown, RCMP and the Richmond Restorative Justice Program.

STATISTICS

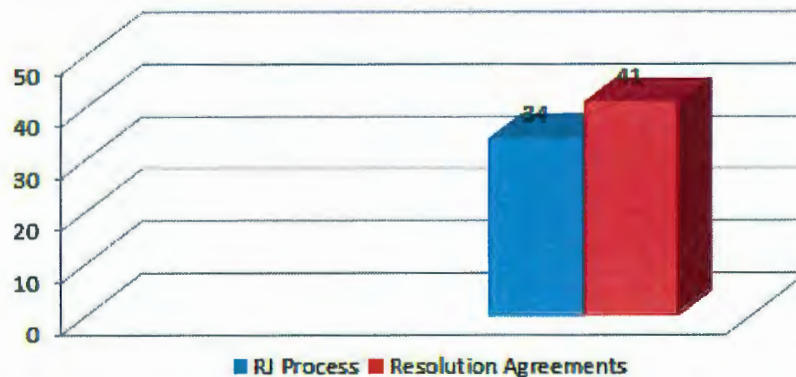
In 2017 there were 36 referrals to the Restorative Justice Program which is considerably lower than in 2016. There were 34 restorative processes held. Each year brings a slight fluctuation based often on youth crime and new members to the RCMP. In addition to the annual ebb and flow of crime rates and changing personnel within the police force, a new policy issued by E Division of the RCMP negatively affected police referrals. Richmond RCMP members were upset with the new protocols for making restorative justice referrals and obtaining consent, which they perceived as burdensome. Corporal Darren Munroe, Restorative Justice Program Director, British Columbia, E Division (RCMP) responded to Touchstone Family Association's concerns about the drop in referrals by acknowledging that officers would probably need time to adjust to the changes, but eventually their jobs would be made easier. He believes the newly created and standardized referral form is simpler and will save officers time. The new policy also requires officers to collect formal, written consent from the parties involved in the incident, including the victim and offender. A necessary step, he is certain, in protecting police officers from mistakenly violating people's privacy rights when their information is transferred to a third party. He asked for patience and has also promised to visit the Richmond RCMP Detachment in the near future to address concerns and promote referrals to restorative justice.

Referrals Received and RJ Processes held



There were 41 resolution agreements resulting from the 36 community justice proceedings.

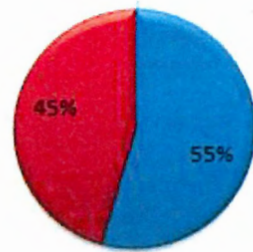
Resolution Agreements



Of the 41 Resolution Agreements, all were successfully completed. This data illustrates that the Restorative Justice process allows for a healthy healing process to occur for all parties involved. The Agreements are mutually agreed upon by all parties (victim, offender and supporters) at the end of each process. Each participant has input into what they need to see happen to make things right. The offenders in all cases have successfully completed these Resolution Agreements demonstrating a commitment to the healing process and an investment in their community.

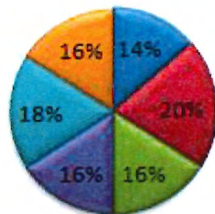
There were 24 females and 20 males referred to the program.

Gender of Offenders Referred



■ Female
■ Male

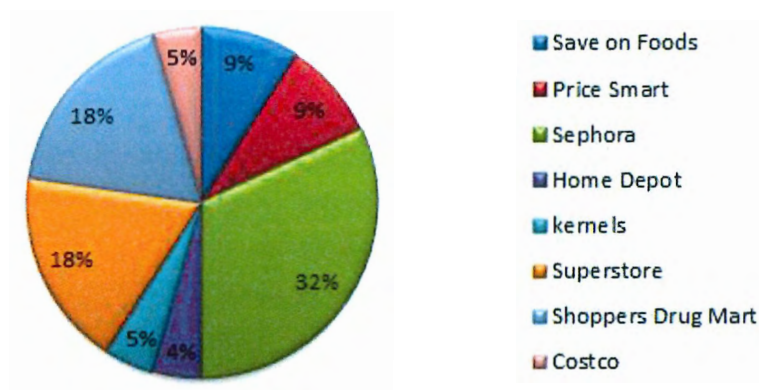
Age of Offenders Referred



■ 14 yrs old
■ 15 yrs old
■ 16 yrs old
■ 17 yrs old
■ 18-29 yrs old
■ 30 and over

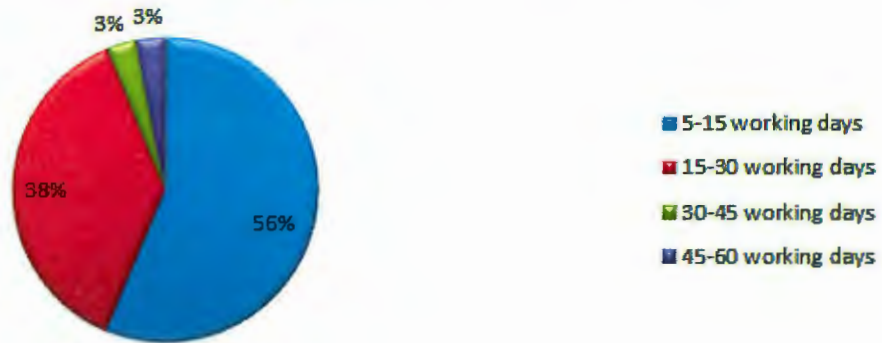
The majority of offenses remained to be for theft under \$5000. There were many different stores that reported these thefts.

Big Box Stores



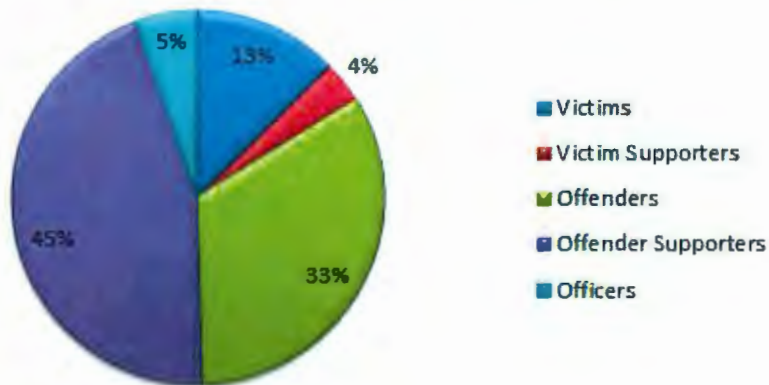
In regards to how long it took to have a matter brought forward for a community process, the time was similar to last year. The majority of referrals (56%) were processed between 5-15 working days as compared to 54% last year. 38% of the referrals were processed between 15-30 working days. It is very important that resolution happens as quickly as possible for the greatest amount of learning and for the participants to remain invested in the process. This graph illustrates that the majority (94%) of the referrals were processed within our targeted time period (within 30 working days).

How long after the file was referred did the forum take place



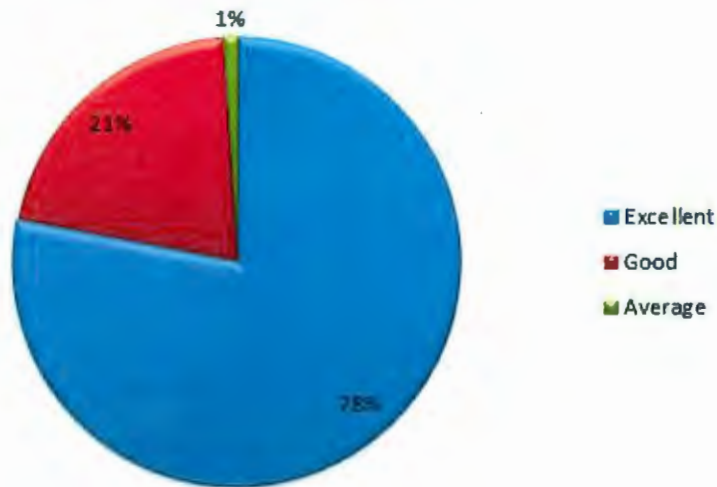
Touchstone Family Association invites all participants involved in the Restorative Justice Process to evaluate their experience. In 2017, 111 people participated in a Restorative Justice process compared to 170 participants in 2016. Of the 111 participants, 101 people completed a survey. Below are the results of the surveys, beginning with the role they played in the process.

Roles of Participants in Forums



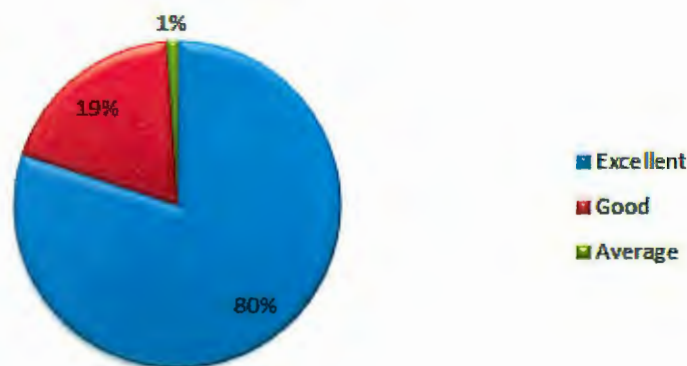
The next question we ask the participants is how fair they felt the Community Justice Agreement to be, ranging from a score of “very unsatisfactory” to “excellent”. As you can see from the graph below, the majority of participants were very satisfied with the mutually agreed upon Agreement.

How Fair was the Community Justice Agreement



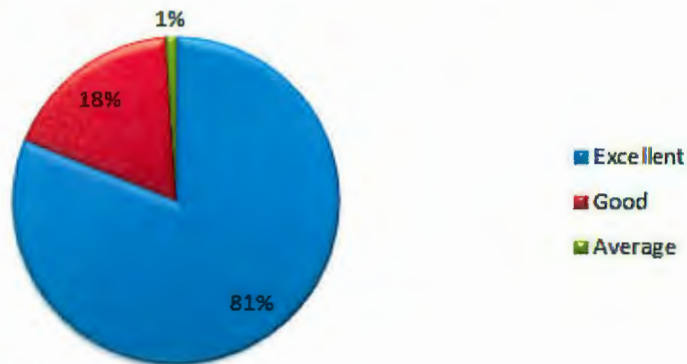
The next question on the survey asked how fair the participants felt the process was. This would indicate if their individual needs were met and that overall, the process was beneficial to the community. The graph below indicates that the majority of participants were satisfied with the Community Justice Process.

How Fair was the Community Justice Process



Next, we ask for feedback around the participants' overall satisfaction with their experience in the Richmond Restorative Justice Program. As demonstrated by the results below, the majority of the participants were very happy with the process.

How was your overall experience with the Community Justice Forum



The survey asks two open ended questions and below are the answers to those questions and in parenthesis is the role of the person who said the comment.

Question 6: Did you encounter any barriers to service, which affected or interfered with your participation in the program?	
Respondents	
1.	No, I am glad for everyone's service and participation to make this process possible. (victim)
2.	No the service was really open to what I was saying and asked me how I was feeling. (offender)
3.	No. This program is one of the best processing was to fix it. (offender supporter)
4.	None it's all good. (victim)
5.	No I think it was well handled. (offender)
6.	No, when I told them text was the best way to communicate with me, they did just that – thanks for being accommodating. (offender supporter)
7.	Just nervousness, nothing else. (offender)
8.	Nope. I felt the process to be very fair, respectful, honest, trustworthy and community minded. (offender supporter)
9.	No, although there a long time lag between the incident and the RJ forum. (victim)
10.	None at all. (victim)
11.	None. (officer)

12.	No, I believe the conference was very open to suggestion for all participants. (offender)
13.	No there was a fair amount of how much a person may speak. (offender supporter)
14.	No better than we expected. (offender supporter)
15.	No I did not. Everything was so satisfactory and beyond that. (offender supporter)
16.	No it was better than what we expected. (offender supporter)
17.	None very supportive and professional. (offender supporter)
18.	Absolutely not – we're very thankful for this opportunity. (offender supporter)
19.	No I did not. Very professional and so thankful for the opportunity. (offender supporter)
20.	No I did not, I am very thankful for everything. (offender)
21.	No everything went smoothly. No further conflict was started and it was a very helpful process in general, it really helped me. (victim)
22.	No, setting the time and attending participation in the program went very smooth and everything went well. (offender)
23.	No everything was well organized and pleasant. (offender supporter)
24.	I did not. It was quite an eye opening experience. (offender)
25.	No barriers to service. Moderator was cognizant of our schedules. (offender supporter)
26.	No barriers, nor interference. (offender supporter)
27.	No, I found this program was a good opportunity for me to change. (offender)
28.	I was satisfied and feel better about the process. (offender supporter)
29.	I did not encounter any barriers to this service. Everything was thorough the questions were engaging. (offender supporter)

Question 7: Is there anything else you would like to comment on?

Respondents	
1.	Thank you for doing it. (offender supporter)
2.	I like the way things are processed the way they are explained. (offender)
3.	It was an overall interesting experience. Thank you. (offender)
4.	It's good I get to pick where I want to volunteer. (offender)
5.	Just continue doing the process, it's all good. (victim)
6.	Thank you! (offender)
7.	Thank you. (offender supporter)
8.	Would like to see more of these for young people. (victim)
9.	Very respectful process. (victim)
10.	Thank you for doing what you do. (victim)
11.	Very well done. (offender)
12.	Very helpful and informative (offender supporter)
13.	The facilitators were very easy to speak openly with. (offender)
14.	This process is a great alternative to the criminal process and offers offenders a chance to learn from their mistakes without gaining a criminal record. (offender supporter)
15.	Thank you for taking the time to allow us to have a second chance. It means a

	lot to my family and I. (offender)
16.	I appreciate this session. It helped me realize the consequences of my actions and how to make things better. (offender)
17.	Very good program. This is needed. (offender supporter)
18.	Facilitators make things easy for us to participate. (offender supporter)
19.	Thank you for the good work. (victim supporter)
20.	This is a good program for people to communicate. (offender supporter)
21.	I appreciate all the support and aid that Touchstone provided for my family. It proved to be a helpful tool in resolving important issues. (offender supporter)
22.	Nice program. (offender supporter)
23.	I would like to thank the girls for being understanding and non-judging and overall caring. The job that they do is a blessing. Thank you, (offender)
24.	Very well run and very professional totally. (offender supporter)
25.	Very good service thanks a lot. (offender)
26.	Thank you! (victim)
27.	All around positive experience thank you. (victim)
28.	No. The program is very well organized and run. I am very thankful for the opportunity. (offender supporter)
29.	I have a new respect for my community. My faith in humanity has been restored. (offender supporter)
30.	This program is excellent. The communication between the facilitators and my family was excellent. (offender supporter)
31.	Thank you for my second chance. (offender)
32.	Very easy to talk to, non-judgmental and friendly staff which made a pleasant experience and a good resolution. (offender)
33.	I find the system has great potential to help a lot of people. (offender)
34.	Although the situation was not ideal, it's good to know this process is available to help all involved parties resolve situations in a system that runs parallel to the justice system. Helps free time for the peace keepers involved to focus on more challenging scenarios. (offender supporter)
35.	Very successful session. (officer)
36.	I would like to thank all the work and process that went into conducting a better resolution to our wrongdoings and to everyone that was involved. (offender)
37.	I understand that it is a volunteer program and I am thankful for their kindness. (offender)
38.	I appreciate the process to help young people. (offender supporter)
39.	Grateful for giving the boys this chance. (offender supporter)
40.	Great program. (offender supporter)
41.	I would like to thank all for the second chance given to my grandson. (offender supporter)
42.	Very well organized, felt heard. (victim)
43.	Thank you for your time and effort. (offender)
44.	Very attentive and cooperative facilitators. (offender)

Follow-up Evaluation Summary

Restorative Justice is about giving all parties involved in a conflict the opportunity to take an active role in a safe and respectful process that allows open dialogue between the victim, offender and the community. For the offenders, it is about taking responsibility and being held accountable for the harm caused. For the victims, it provides an opportunity to talk about the harm caused and ask questions that may be necessary as a part of the healing process. For communities surrounding the victim and offender, it provides an understanding of the root causes of conflict. Community involvement in restorative justice is one of the core components of the approach thus the feedback is an integral part of understanding the effectiveness of the overall restorative experience.

In regards to our follow up information eliciting feedback for general satisfaction with the RJ Program, the participant feedback as in past years indicated a high satisfaction rating. The Restorative Justice Program responds to the needs of young people and the community by repairing harm, restoring the moral bond of community and teaching responsibility and accountability to the young person.

A comparison of data from 2011 until 2017 is summarized in the chart below.

	2011	2012	2013	2014	2015	2016	2017
total # of offenders	74	41	46	56	57	74	44
Total # of referrals	44	35	35	41	49	49	36
Total # of RJ Process	56	31	35	43	47	52	34
Total # of Resolution agreements	68	34	42	47	50	67	41
Total # of completed Resolution agreements	56	34	45	46	45	67	37

As evident by the chart above, the Restorative Justice Program has had **392** young people go through the program over the past 7 years which on average is **56** young people a year have been served by the program. It is important to note that the above statistics is only talking about offenders; it is not capturing the number of people participating in the program. In 2017, **111** people participated in a restorative justice process either as a victim, an offender, an officer, a victim supporter, or offender supporter. The more participants involved the more ground work that needs to be done by the volunteer before undergoing the RJ process with all involved parties. This translates to more time for interviewing all participants involved. It is important that everyone participating understands the process and what the expected outcomes may be.

2017-2019
Strategic Plan
Restorative Justice

Strategic Priority 1:

To promote and actively seek funding partners in order to sustain and grow the Richmond Restorative Justice Program.

1. To meet with representatives of every level of government regarding the innovative approach of restorative justice in relationship to justice.
2. To continue to apply for any relevant Civil Forfeiture or National Crime Prevention funding that may become available.

Strategic Priority 2:

To build and foster a relationship with Crown that promotes the utilization of the Richmond Restorative Justice Program in appropriate cases.

1. To meet or communicate with Crown annually to provide information, orientation and/or discuss potential referrals, as well as other relevant topics or issues.

Strategic Priority 3:

To maintain and strengthen a partnership between RCMP and the Richmond Restorative Justice Program.

1. To meet or communicate with RCMP representatives and/or liaisons to enhance collaboration on issues related to police referrals and service delivery of the restorative justice program.
2. To deliver an orientation on the restorative justice program to new RCMP members whenever an opportunity is made possible.
3. To meet or communicate with RCMP School Liaison Officers in Youth Section to foster a good working relationship and work collaboratively on potential school-based referrals.

Strategic Priority 4:

To promote and/or implement restorative practices inside schools.

1. To foster relationships with schools through outreach and/or presentations on restorative practices.

Strategic Priority 5:

To participate with other restorative justice programs, advocates, academics and community partners in opportunities to lobby senior levels of government for recognition and funding of Restorative Justice.

1. To collaborate and partner with the restorative justice community in assessing and working towards the establishment of an association or other entity that can collectively represent RJ in British Columbia.

**Restorative Justice 2017
Statement of Income**

	Jan to Mar 2017	Apr to Jun 2017	Jul to Sep 2017	Oct to Dec 2017	Total 2017	YTD Budget 2017	Variance	Annual Budget
Revenue								
Grant from City of Richmond	23,750	23,750	23,750	23,750	95,000	95,000	0	95,000
Expenses								
Wages and benefits	16,258	16,795	14,726	19,613	67,392	65,000	-2,392	65,000
Rent	4,980	4,155	4,155	4,155	17,445	23,800	6,355	23,800
Mileage	28	50	15	17	110	300	190	300
Telephone	249	249	249	249	996	780	-216	780
Office supplies	396	375	375	375	1,521	1,520	-1	1,520
Supervision	1,650	1,650	1,650	1,650	6,600	3,600	-3,000	3,600
	23,561	23,274	21,170	26,059	94,064	95,000		95,000
Net surplus (deficit)	189	476	2,580	-2,309	936	0		

**Restorative Justice budget for \$95,000 contract to cover
January 1 - December 31, 2018**

	Annual	Monthly	Quarterly
Wages and benefits	\$ 68,000.00	\$ 5,666.67	\$17,000.00
Rent	\$ 20,000.00	\$ 1,666.67	\$ 5,000.00
Mileage	\$ 300.00	\$ 25.00	\$ 75.00
Cell phones	\$ 1,000.00	\$ 83.33	\$ 250.00
Office expense	\$ 1,500.00	\$ 125.00	\$ 375.00
Supervision	\$ 4,200.00	\$ 350.00	\$ 1,050.00
	<u>\$ 95,000.00</u>	<u>\$ 7,916.67</u>	<u>\$23,750.00</u>



City of Richmond

Report to Committee

To: General Purposes Committee
From: John Irving, P. Eng., MPA
Director, Engineering
Re: Phoenix Net Loft Preservation

Date: March 29, 2018
File: 06-2052-25-
BHSY1/Vol 01

Staff Recommendation

That staff be authorized to proceed with Phoenix Net Loft Preservation construction as described in the report titled "Phoenix Net Loft Preservation," dated March 29, 2018, from the Director, Engineering.

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

Att: 5

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Arts, Culture & Heritage	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Council approved \$11.5M to complete Phoenix Net Loft Preservation as part of the 2018 Capital Program. Staff advised Council during the capital approval process that the details of the preservation work would be reported prior to proceeding with the work.

The purpose of this report is to provide Council the details associated with preservation of the Phoenix Net Loft and to seek authorization to proceed with construction to mitigate the ongoing risk of structure loss due to the advanced state of deterioration. Programming and building use options will be the subject of subsequent reports and capital requests.

This report supports Council's 2014-2018 Term Goal #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.

2.4. *Vibrant arts, culture and heritage opportunities.*

This report supports Council's 2014-2018 Term Goal #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.

6.1. *Safe and sustainable infrastructure.*

Background

The heritage value of the Phoenix Net Loft is found in its historical association to the canning and fishing industries in Steveston. The Phoenix Cannery was built by Marshall English in 1882, and the Net Loft was constructed circa 1943, later than the original cannery buildings.

The Net Loft is one of the last surviving structures associated with the Phoenix Cannery. The use, repair and storage of fishing nets was an integral part of the fishing industry, and the Net Loft has aesthetic value as a good example of a structure constructed solely as a net mending and storage facility. Its massive size, large internal space, and wood piling foundation as a response to its location on the riverfront represent its use as a net loft. It operated as a net storage and repair facility until the early 2000's when the City acquired the building from BC Packers as part of the rezoning considerations.

The Phoenix Net Loft is located on a water lot leased from the province for a 30-year period, effective as of 2017.

Analysis

Phoenix Net Loft Current Condition

The Phoenix Net Loft is comprised of two floors with areas of approximately 10,300 ft² (lower floor) and 6,900 ft² (upper floor). This facility is currently used for artifact storage and is not open to the general public.

The decks attached and adjacent to the Phoenix Net Loft have deteriorated to a point where they have collapsed.

In 2017 staff completed a comprehensive Phoenix Net Loft building condition assessment and cost estimate with the assistance of specialist heritage architects, structural engineers and heritage contractors. This assessment confirmed the building condition to be in an advanced state of deterioration.

- Approximately 90% of the 110 piles supporting the structure are rotten and require replacement.
- Significant structural members including beams, floor joists and other structural elements have rotted and require replacement.
- The roof has completely deteriorated and requires replacement.

Phoenix Net Loft Preservation

Staff worked with heritage restoration contractors to identify and explore several construction strategies to preserve the Phoenix Net Loft. Given the advanced state of deterioration, all reasonably available options are risky from a constructability perspective and present varying levels of worker and public safety risk. These options are:

- Option 1 - Leave the building in place, temporarily brace the structure and replace the rotten piles and associated rotted structural members by opening sections (holes) in the roof and floor systems.
- Option 2 - Remove the entire building system off the piles and temporarily locate on a barge (or land) while pile replacement is completed.
- Option 3 - Remove sections of the building structure in their entirety (i.e. removal of halves or thirds or at gridlines) and replace piles.
- Option 4 (recommended) - Completely deconstruct the building and store the salvaged materials on-site. The rotted piles would then be replaced followed by building reconstruction of the building in place, using as many of the original building materials as possible.

Option 4 (Recommended) is considered to be the best way to complete preservation of the Phoenix Net Loft for the following reasons:

- Moving the building in its entirety or in sections is extremely risky, expensive and complicated given the building is situated over water. Building moving specialists (Nickel Bros) were contacted and it was confirmed that the option to move the building is not a prudent course of action as it puts undue risk of causing structural failure during the moving process, it is very expensive and its location over water makes it complicated and risky to worker safety.
- Option 4 is the safest way to complete the work while Options 1, 2 and 3 represent the highest risk of structural collapse over water, and the associated worker safety exposure.
- Restoration of existing materials and prefabrication work can all be completed at ground level, at a safe location such as in the adjacent parking lot (Attachment 5).
- This option represents the least amount of risk of causing permanent damage during construction, the least amount of environmental impact and the least amount of temporary works that would have to be put in place.

Option 4 (Deconstruction/Reconstruction) Implementation Logistics

It is anticipated that the deconstruction/reconstruction process will take up to two years to complete following the contractor procurement process.

If approved, staff will request an Option 4 (Deconstruction/Reconstruction) construction implementation plan from the successful contractor following the construction tendering and award process.

Contractors bidding on the project will be required to deconstruct the Phoenix Net Loft and store salvaged materials on site for use during reconstruction. The successful bidder will be directed to store salvaged materials in the parking lot adjacent to the First Nations Bunkhouse (Attachment 5). This will impact special event layout and public parking availability. Alternate parking sites may have to be considered for Britannia's ongoing operations and during public events.

The deconstruction process will require water access with heavy construction equipment, extensive scaffolding and temporary platforms flanking the building.

As with other projects completed in the past at the Britannia site, staff will coordinate construction activities with public access throughout the entirety of the construction period. In particular, for major events such as the Maritime Festival for example, the contractor will be required to shutdown construction activities for the duration of the event and secure/clean the areas impacted prior to the opening.

Workspace Area (Attachment 5) – The parking lot adjacent to the First Nations Bunkhouse has been identified as the proposed workspace area. The contractor will use this space for storage of equipment as well as a laydown area to assess and refurbish (if necessary) building components (such as siding) removed during the deconstruction process. The laydown area will be secured with temporary fencing and there will project information and interpretive signage posted in key areas surrounding the site.

Materials Salvage - Throughout the process of deconstruction, each building component will be carefully removed and evaluated for reuse. While there is a substantial portion of the superstructure that shows a significant state of deterioration, it is anticipated that 40% to 70% of the existing building can be salvaged. Sections of the structure that are not deemed suitable for reuse, will be replaced with like materials that can be easily sourced from domestic providers and endorsed by the Steveston Historic Sites Building Committee prior to installation.

Parking – The parking lot adjacent to the First Nations Bunkhouse (Attachment 5) will be required for the contractor's work space area and for storage/refurbishment of salvaged materials. This will result in a loss of approximately 42 parking spaces for the approximate 2 year construction program.

Staff will review possibilities for alternate parking sites during the construction period including:

- Replace parallel parking with angle parking on Westwater Drive;
- Removal of street parking restrictions on Westwater Drive and Railway Avenue;
- Temporary expansion of the gravel parking lot on Westwater Drive adjacent to the Richmond Boat Builders building;
- Parking on the Homma School field during non-school days and/or non-wet weather times;
- Other possibilities for temporary parking that may be identified at a later date.

Permits – A provincial Forest, Lands Natural Resource Operations and Rural Development permit (FLNRO) and Heritage Alteration Permit (HAP) will be required.

- FLNRO Permit – FLNRO is a provincially issued permit that will be required for the Phoenix Net Loft preservation project given its proximity to the Fraser River. The intent of this permit is to provide broad environmental oversight with particular attention to the interaction of the proposed construction with the wetted environment. The FLNRO permit typically takes 6 months to acquire.
- HAP Permit – The City's Heritage Bylaw 8400 requires a permit to be issued for proposed exterior alterations to heritage buildings. In the case of the Phoenix Net Loft, that exterior alterations to heritage buildings will require a permit as directed by Council and may also require a prior recommendation from the Advisory Design Panel.

Phoenix Net Loft Preservation Opportunities

Implementation of Option 4 (Deconstruction) presents building configuration opportunities through the reconstruction process. The following items are recommended and are described in more detail below.

Building Elevation – Pile replacement presents the opportunity to raise the building to protect against flooding and sea level rise. Currently, the first floor elevation is at 2.6 metres and is prone to experience flooding during high tide/storm surge events. Staff reviewed the options of raising the building by 0.4 metre and 0.9 metre as depicted on Attachment 1.

It is recommended that the building be raised by approximately 0.9 metre which will result in a new first floor building elevation of 3.5 metres and a significantly improved level of flood protection.

2nd Floor Area – Reconstruction of the building presents an opportunity to reconstruct the 2nd floor at a lower elevation, thereby increasing the usable 2nd floor area from approximately 6,900ft² to approximately 10,300ft². A rendering showing the current and proposed 2nd floor orientation is included as Attachment 2. The option to build the 2nd floor at a lower elevation to increase the floor area is recommended.

Roof Replacement – The Phoenix Net Loft roof is not original and has deteriorated to a point where it cannot be salvaged and must be replaced during the reconstruction process. Three roof replacement material options were reviewed (standing seam zinc, corrugated tin and transite panels). A corrugated tin roof, which is the same as the Shipyards Building, is recommended. A rendering showing the roof material options is included as Attachment 3.

Future Use – There is an opportunity to select different material to replace the existing rotted wood piles. Replacement with wood piles will facilitate preservation of the Phoenix Net Loft to a condition similar to the Seine Net Loft, but lacks robustness compared to other pile systems if future uses such as a restaurant are contemplated. Use of other piles types such as concrete or steel will preserve the flexibility to convert the Phoenix Net Loft to other uses and facilitate the ability to meet current building code seismic standards. Concrete or steel piles are recommended.

Renderings of different pile types for use at the Phoenix Net Loft are included as Attachment 4.

Next Steps

Should Council support the staff recommendation, staff will proceed with a pre-qualification process to shortlist highly qualified heritage contractors (three preferred) and then proceed with formal construction tendering. Only contractors who have specific experience with restoration of heritage buildings will be considered and approval from Council will be sought prior to contractor selection. Staff will provide regular reporting to Council throughout the deconstruction/reconstruction process.

Preservation work is proposed to bring the Phoenix Net Loft to a similar condition to that of the recently preserved Seine Net Loft and in particular, it will have full public occupancy.

The construction process, as proposed, enables staff to present the program to Council for consideration.

With Council's direction, staff will explore and evaluate a variety of program options for the Phoenix Net Loft for Council's consideration that will be consistent with the forthcoming Britannia Shipyards National Historic Site Strategic Development Plan. Given the Phoenix Net Loft's heritage value and location along the South Dyke immediately adjacent to the Britannia Shipyards, possible options include additional exhibit and/or program space for Britannia Shipyards, arts and/or creative programming space, "maker lab" spaces, or other concepts to be explored. Program options are anticipated to be the subject of future reports and funding requests to Council, once building preservation work is underway.

Britannia Shipyards is launching a visitor survey that will be delivered throughout 2018. This survey will help gather valuable data about what residents and other visitors enjoy about their visit, and what they would like to see more of that can inform the planning process.

Financial Impact

Council approved \$11.5M funding to complete preservation of the Phoenix Net Loft as part of the 2018 Capital Program. The recommended construction plan can be completed within this budget.

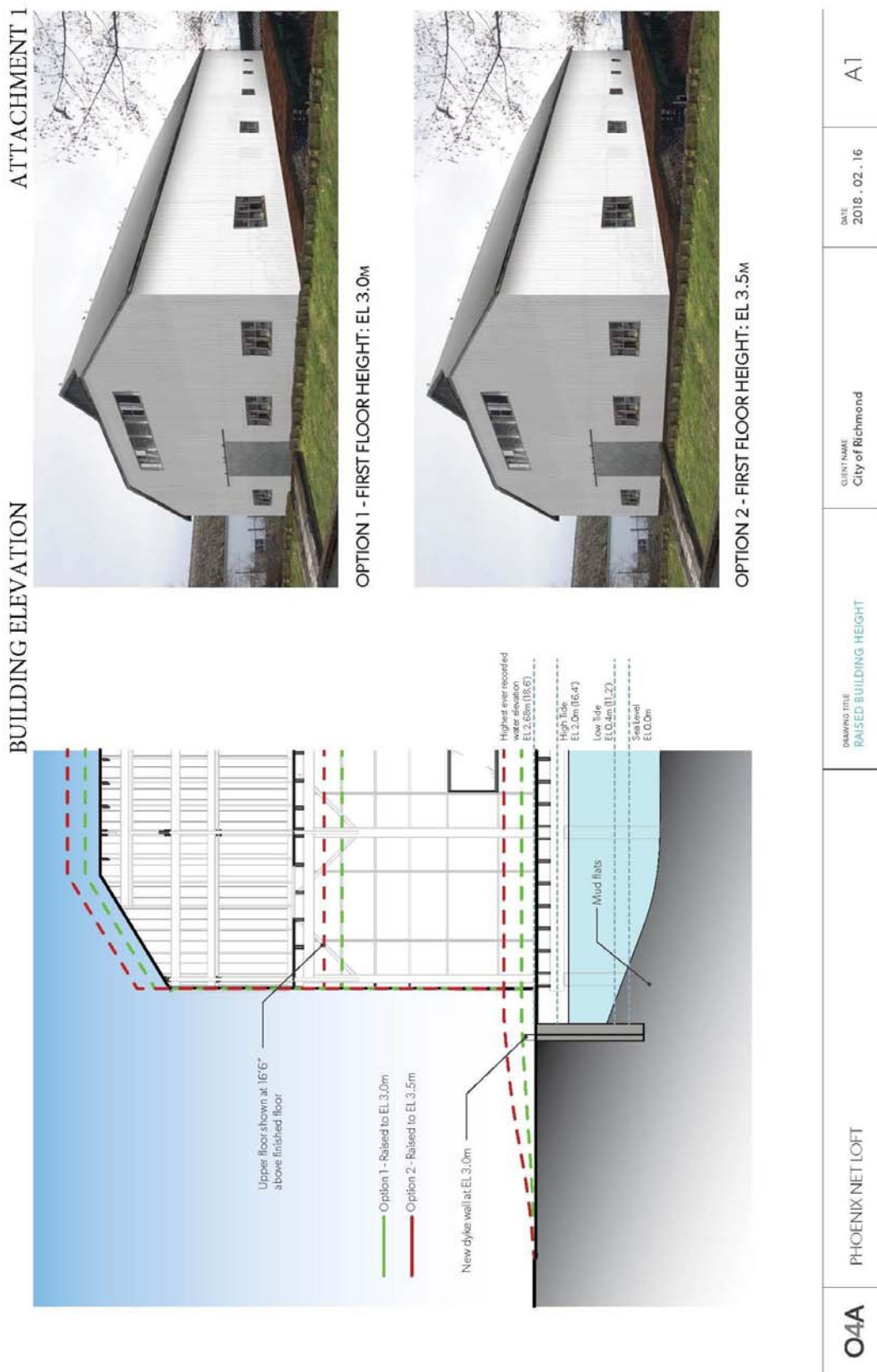
Conclusion

The Phoenix Net Loft is in an advanced state of disrepair and it is necessary to complete significant works to ensure its preservation. Preservation works will require deconstruction of the existing building and onsite storage of salvaged materials for use during reconstruction. There are several opportunities during the reconstruction process that can be implemented to ensure other future uses of this facility.



Jim V. Young, P. Eng.
Senior Manager, Capital Buildings Project Development
(604-247-4610)

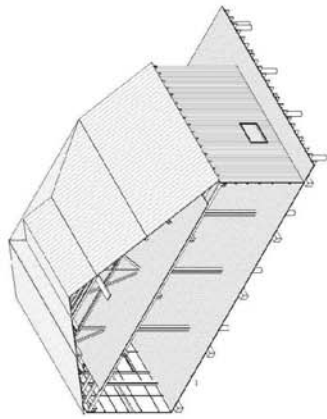
- Att. 1: Building Elevation
2: Second Floor Area
3: Roof Replacement
4: Future Use (Piles)
5: Materials Storage Area



SECOND FLOOR AREA

ATTACHMENT 2

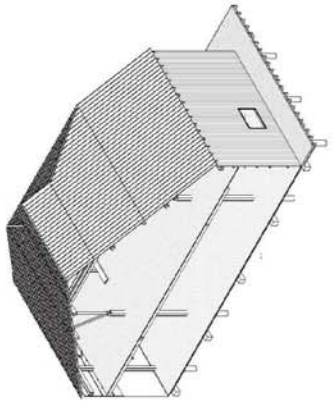
EXISTING



Available floor area

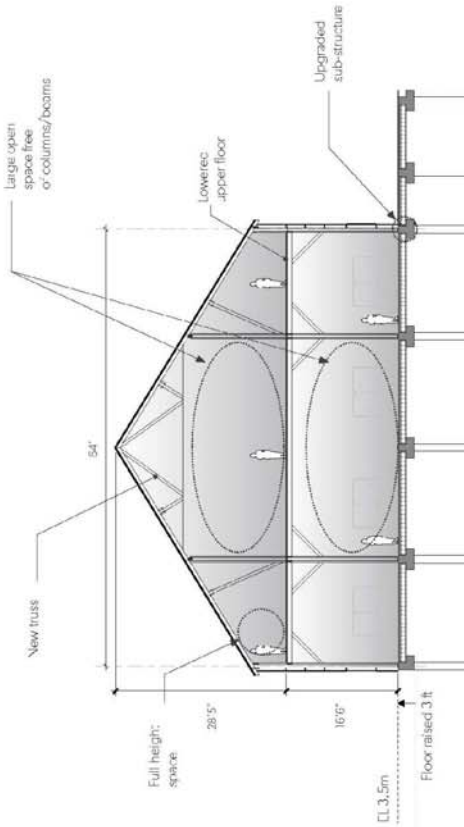
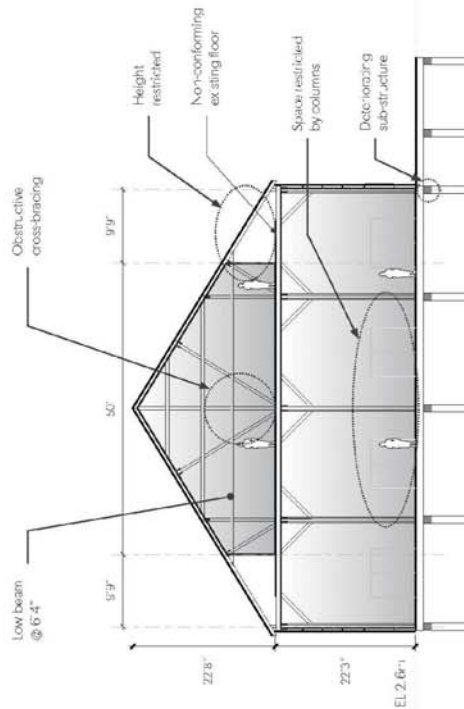
Lower	10,300 sf
Upper	6,900 sf
Total	17,200 sf

PROPOSED



Available floor area

Lower	10,300 sf
Upper	10,300 sf
Total	20,600 sf



O4A

PHOENIX NET LOFT

DRAWING TITLE
LOWERED SECOND FLOOR

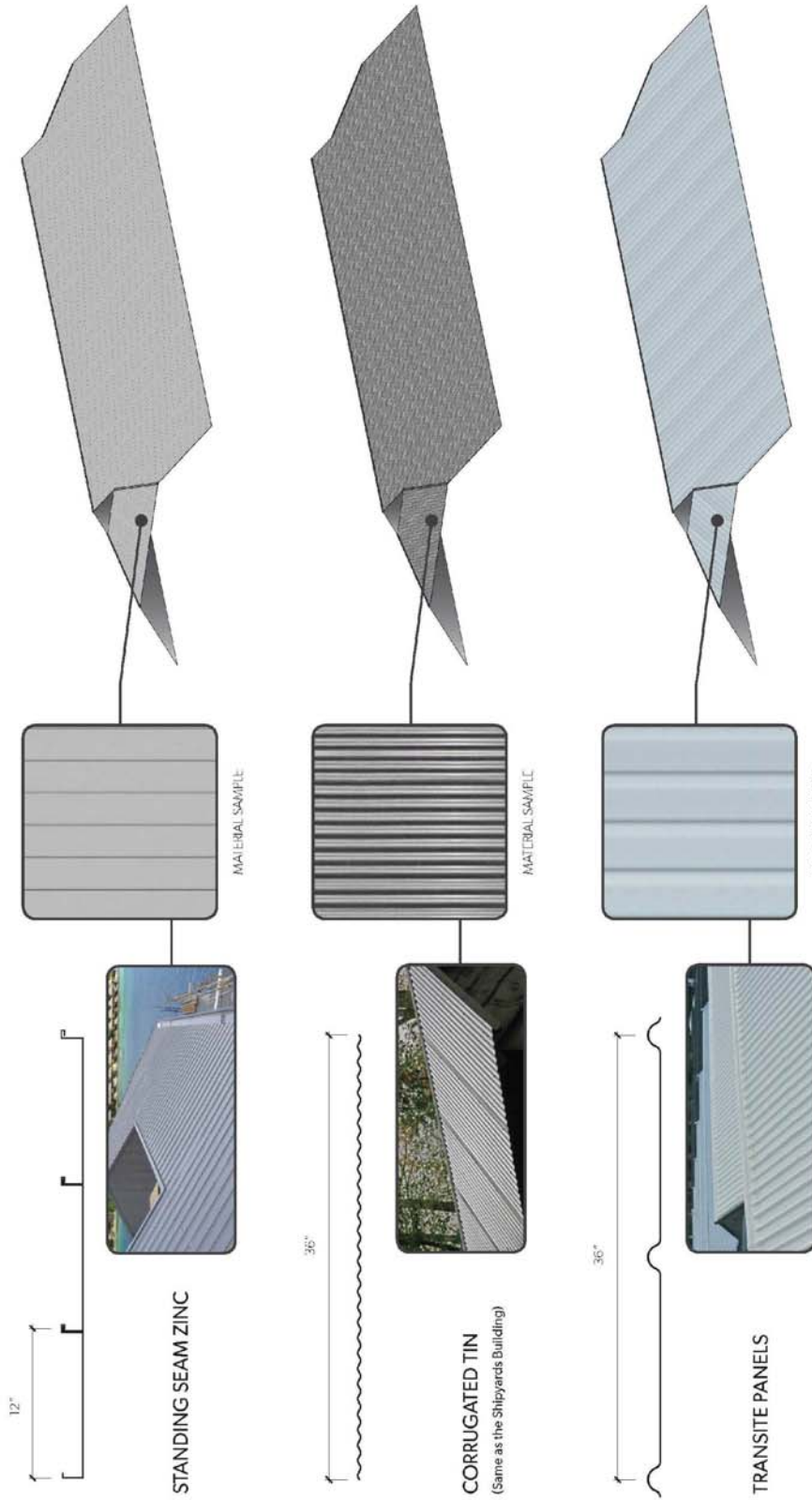
CLIENT NAME
City of Richmond

DATE
2018 . 02 . 16

A2

ATTACHMENT 3

ROOF REPLACEMENT



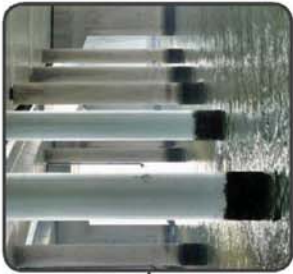
FUTURE USE (PILES)



WOOD PIERS

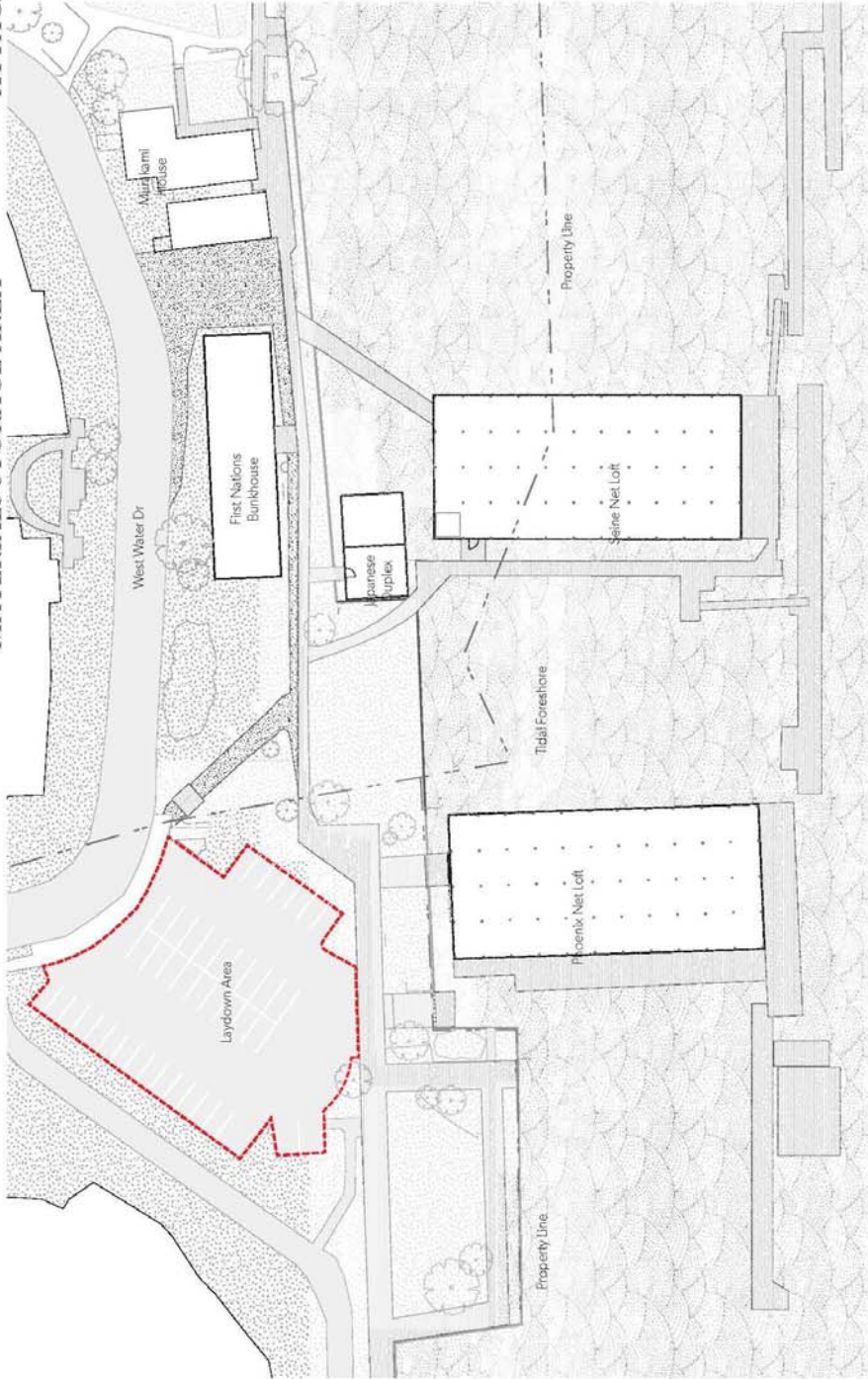


CONCRETE PIERS



O4A	PHOENIX NET LOFT	DRAWING TITLE PIER MATERIAL OPTIONS	CLIENT NAME City of Richmond	DATE 2018 . 02 . 16	A4
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MATERIALS STORAGE AREA ATTACHMENT 5



O4A	PHOENIX NET LOFT	DRAWING TITLE SITE PLAN & LAYDOWN AREA	CLIENT NAME City of Richmond	DATE 2018 - 02 - 16	A5
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City of Richmond

Report to Committee

To: General Purposes Committee

Date: April 3, 2018

From: Victor Wei, P. Eng.
Director, Transportation

File: 10-6450-09-01/2018-
Vol 01

Re: River Road – Proposed Implementation of Selected Road Safety Measures

Staff Recommendation

That the proposed road safety measures on River Road between No. 6 Road and Westminster Highway as outlined in the staff report titled “River Road – Proposed Implementation of Selected Road Safety Measures”, dated April 3, 2018 from the Director, Transportation be endorsed for implementation prior to Fall 2018.

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

Att. 2

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering Roads Finance Fire Rescue RCMP	<input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

At the March 21, 2018 Public Works and Transportation Committee meeting, discussion occurred regarding the implementation in the near term of potential road safety measures along River Road between No. 6 Road and Westminster Highway. As a result, the following referral was carried:

That staff provide a report back on the feasibility of implementing the various traffic safety enhancements on River Road, with the exception of speed humps, prior to RCMP reporting back on its enforcement efforts in Fall of this year.

This report responds to the referral.

This report supports Council's 2014-2018 Term Goal #1 A Safe Community:

Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

Analysis

Proposed Implementation of Selected Road Safety Measures

In response to the March 21, 2018 referral, staff first compiled a full list of potential road safety measures on River Road east of No. 6 Road that could be implemented in the short-term comprised of:

- (1) measures identified by staff and approved by Council at its June 26, 2017 meeting;
- (2) proposed short-term measures identified by the independent consultant as listed in the staff report presented at the February 21, 2018 Public Works and Transportation Committee meeting; and
- (3) measures suggested by delegations to the March 14, 2018 Community Safety Community meeting and the March 21, 2018 Public Works and Transportation Committee meeting.



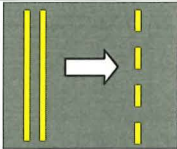


Staff then met with eight area residents and property owners on March 26, 2018 to obtain their feedback on each of the potential measures. Attachment 1 identifies each measure and summarizes the comments from the residents and staff's resulting recommendation and rationale. Proposed measures that have mutual support include:


- reduce the number and increase the size of some of the cycling-related signs including relocation of some of the signs;
- install speed reader boards;
- retrofit the centreline at appropriate locations;
- install shoulder-mounted reflective delineators at selected locations; and
- increase roadway maintenance.

Based on the area residents' feedback and staff's analysis, Table 1 summarizes staff's recommendations regarding a sub-set of the road safety measures proposed to be implemented

prior to staff reporting back in Fall 2018 on the outcome of increased RCMP enforcement, which include proposed revisions to road safety measures already installed (i.e., “single file” and “caution” cycling-related signage). These recommendations are generally consistent with the suggestions made by the eight area residents at the meeting which are intended to improve the safety of all road users and not exclusively residents or cyclists.

Table 1: Recommended Road Safety Measures to be Implemented

Proposed Road Safety Measure	Status	Staff Recommendation and Rationale	Example
Reduce the number of “Single File” signage	Installed (24 signs in each direction)	<ul style="list-style-type: none"> Reduce to 8 signs in each direction (1 at each end, 1 at No. 7 Road, 1 at No. 8 Road, and remaining 4 spaced accordingly), as warning signs can be placed at longer spacing intervals Increase sign size and font size of text (top portion of sign) at gateway locations at each end (No. 6 Road and Westminster Hwy) to enhance visibility and legibility Where feasible, co-locate near hydro poles to minimize new stand-alone installations 	
Revise and reduce the number of “Caution” signage	Installed (8 signs in each direction)	<ul style="list-style-type: none"> Revise shape from square to diamond (warning sign) Reduce to 4 signs in each direction (1 at each end, 1 at No. 7 Road, 1 near CN Rail bridge), as warning signs can be placed at longer spacing intervals Revise text from “High Cycling Activity on Weekends” to “Watch for Cyclists” to enhance legibility and be inclusive of all cycling activity (not just on weekends) Where feasible, co-locate near hydro poles to minimize new stand-alone installations 	
Convert solid double yellow centreline to dashed single yellow centreline	Not yet implemented	<ul style="list-style-type: none"> Implement at 6 locations where it is safe for motorists to change lanes safely to pass Will allow motorists to legally change lanes to pass vehicles or cyclists 	
Remove raised pavement markers (RPMs) and install shoulder-mounted reflective delineator posts at selected locations	Not yet implemented	<ul style="list-style-type: none"> Install delineator posts at transitions to No. 6 Road and Westminster Hwy to help highlight the curves and edge of the roadway particularly during periods with poor visibility (e.g., foggy conditions) at selected locations such as curved sections Remove RPMs where delineator posts are installed Retain all other remaining RPMs only if they do not pose a safety concern for road users including cyclists 	
Install 4 movable speed reader boards	Not yet implemented	<ul style="list-style-type: none"> At this time, install 2 movable speed reader boards (one in each direction) near No. 6 Road (at Valmont Way) where the installations would not impact the Riparian Management Area (RMA) on the south side nor the dike core on the north side Should Council approve the staff recommendation, initiate provincial permit process to conduct works in the RMA and dike in order to establish additional 4 locations (2 in each direction with one near Westminster Hwy and one in the middle) When all locations are established, rotate the 4 movable speed reader boards amongst the 6 sites 	

Proposed Road Safety Measure	Status	Staff Recommendation and Rationale	Example
Relocate "Bike Route" sign on westbound Westminster Hwy	Installed	<ul style="list-style-type: none"> Relocate sign further westbound on Westminster Hwy (past River Road) to clarify that Westminster Hwy is a designated bike route (i.e., has cycling-specific facilities such as bike lanes or off-street multi-use pathway) 	

Attachment 2 displays a map that indicates the locations of each of the road safety measures proposed for installation and/or revision.

Additional Suggested Measures to Improve Road Safety

At staff's meeting with area residents and property owners, other road safety concerns and suggested measures were identified. Staff provide the following comments on these items.

Increase Enforcement of Trucks and Truck Weight Limit

Residents identified continued concerns with truck operations on River Road, particularly turning trucks (drivers may cross the centreline) or drivers apparently failing to respect the posted load limit signage. They emphasized the importance of increased enforcement to address what, in their opinion, is the primary road safety concern.

There is a 9-tonne load limit in effect on River Road between No. 7 Road and Westminster Highway. Richmond RCMP advise that joint enforcement operations are regularly conducted with Community Bylaws staff, who have primary responsibility for enforcement of trucks on weight-limited roads. Most recently, Richmond RCMP conducted a joint operation with Community Bylaws on March 16, 2018 where City bylaw officers issued 18 bylaw infraction municipal tickets to 15 separate truck drivers on River Road, in addition to 24 RCMP-issued speeding tickets to other vehicle drivers. Richmond RCMP and Community Bylaws will continue to regularly conduct joint operations.

Widen Roadway and Provide Cycling and Pedestrian Facilities

For the long term, residents indicated a desire to widen the road to an arterial standard with separate provision for cyclists and pedestrians. Staff note that the majority of River Road between No. 6 Road and Westminster Highway sits on top of the dike. This section of dike will be reviewed in Phase 4 of the Dike Master Plan process, which is scheduled to begin in 2018 following the completion of Phases 2 and 3. The review process will develop long term options for the complete reconstruction of River Road to further improve road safety and facilitate dike raising over the 30-year time frame.

Financial Impact

Table 2 outlines the estimated cost and funding source for each of the proposed road safety measures. All funding sources have been previously approved by Council as part of past annual capital budgets. If approved for implementation, staff would also submit the proposed measures

to ICBC's 2018 *Road Improvement Program* for funding contributions. Should any submitted measures receive funding from ICBC, the City's portion of the total capital cost would be reduced accordingly.

Table 2: Estimated Cost and Funding Source for Recommended Road Safety Measures

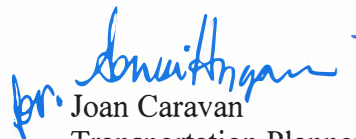
Proposed Road Safety Measure	Estimated Cost	Funding Source
Revise "Single File" signage	\$17,000	Approved Traffic Calming Program
Revise "Caution" signage		
Convert solid double yellow centreline to dashed single yellow centreline at 6 locations	\$21,600	
Remove raised pavement markers (RPMs) and install shoulder-mounted reflective delineator posts along curves at each end	\$10,500	
Purchase 4 and install 2 movable speed reader boards	\$38,500	
Relocate "Bike Route" sign on westbound Westminster Hwy	\$200	
Total	\$87,800	

Conclusion

As directed by the Public Works and Transportation Committee, staff have developed a package of road safety measures (excluding speed humps) proposed for immediate implementation on River Road east of No. 6 Road prior to staff reporting back in Fall 2018 on the outcome of increased Richmond RCMP enforcement during Summer 2018. The recommended measures reflect staff's consideration of feedback from area residents regarding each of the measures and are intended to improve the safety of all road users, not exclusively residents or cyclists.



Bill Dhaliwal
Supervisor Traffic
(604-276.4210)




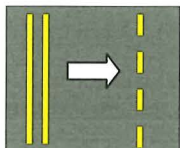


Joan Caravan
Transportation Planner
(604-276-4035)






Att. 1: Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018

Att. 2: Approximate Location of Recommended Road Safety Measures to be Implemented Prior to Fall 2018





Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018

Potential Road Safety Measure	Status	Resident Comments ⁽¹⁾	Staff Comments and Rationale
<p>"Single File" signage</p> 	Approved by Council: Installation Complete	<ul style="list-style-type: none"> Too many signs, which is distracting Too much text and difficult to comprehend at 50 km/h Suggest retain only 2 signs (1 at each end) Suggest retain only 2 signs (1 in each direction) at location where delineator posts are mounted in centreline 	<ul style="list-style-type: none"> Retain signage as it is appropriate for a lane width less than 4.0 m per national Transportation Association of Canada guidelines Reduce number from 24 to 8 in each direction, as warning signs can be placed at longer spacing intervals Increase size of signs at gateway locations at each end (No. 6 Road and Westminster Hwy) to enhance visibility Increase font size of text (tab portion of sign) to enhance legibility Where feasible, co-locate near hydro poles to minimize new stand-alone installations
<p>"Caution" signage</p> 	Approved by Council: Installation Complete	<ul style="list-style-type: none"> Text ignores weekday commuter cyclists Deploy fewer signs (1 at either end plus 1 at No. 7 Road or rail bridge) Deploy 4 signs only on a temporary basis for duration of special events 	<ul style="list-style-type: none"> Retain signage Revise text from "High Cycling Activity on Weekends" to "Watch for Cyclists" to enhance legibility and be inclusive of all cycling activity (not just on weekends) Revise shape from square to diamond (i.e., warning sign) Reduce number from 8 to 4 in each direction, as warning signs can be placed at longer spacing intervals Where feasible, co-locate near hydro poles to minimize new stand-alone installations
<p>"Sharrows" pavement markings</p> 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> Do not implement Would be distracting for motorists If placed in centre of lane, suggest it would be contradictory to Motor Vehicle Act 	<ul style="list-style-type: none"> Considered complementary to "Single File" signage Do not implement at this time to allow assessment and confirmation of location of "Single File" signage Consider implementation next to "Single File" signage (8 in each direction) as part of report back in Fall 2018
<p>Convert solid double yellow centreline to dashed single yellow centreline</p> 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> Implement at selected locations where safe to pass 	<ul style="list-style-type: none"> Implement at 6 locations where it is safe for motorists to change lanes safely to pass Will allow motorists to legally change lanes to pass cyclists

Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018

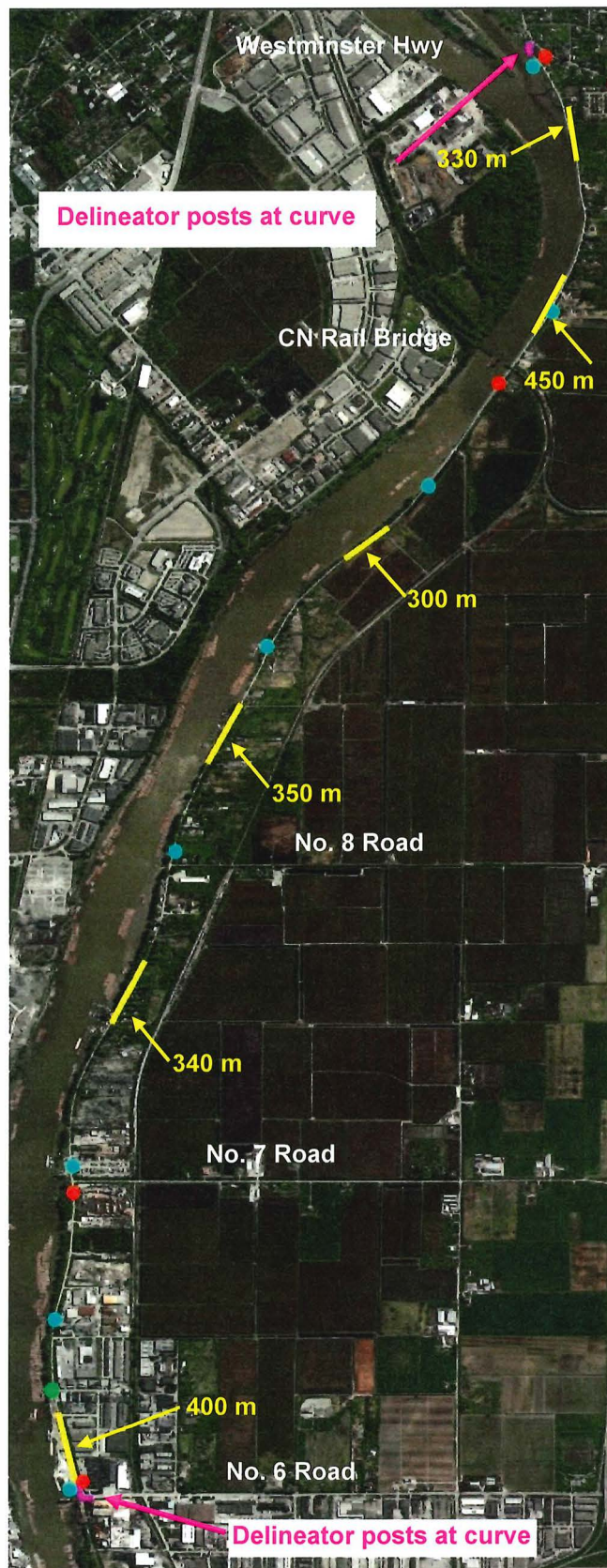
Potential Road Safety Measure	Status	Resident Comments ⁽¹⁾	Staff Comments and Rationale
Remove remaining raised pavement markers (RPMs) 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> Do not remove Reinstate all missing RPMs Consider flush-mounted RPMs Consider RPMs that alert drivers to presence of black ice 	<ul style="list-style-type: none"> Remove RPMs at selected locations where shoulder-mounted reflective delineator posts are installed Retain all other remaining RPMs only if they do not pose a safety concern for cyclists
Install shoulder-mounted reflective delineator posts 	Approved by Council: Installation Pending	<ul style="list-style-type: none"> Do not install in place of RPMs Install in addition to RPMs where hydro poles are close to pavement edge and at train bridge 	<ul style="list-style-type: none"> Install delineator posts at transitions to No. 6 Road and Westminster Hwy to help highlight the curves and edge of the roadway particularly during periods with poor visibility (e.g., foggy conditions)
Install 4 movable speed reader boards 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> Install at permanent locations Consider signs that can be programmed with messages Install traffic radar data collection units 	<ul style="list-style-type: none"> At this time, install 2 movable speed reader boards (one in each direction) near No. 6 Road (at Valmont Way) where the installations would not impact the Riparian Management Area (RMA) on the south side nor the dike core on the north side Should Council approve the staff recommendation, initiate permit process to establish additional 4 locations (2 in each direction with one near Westminster Hwy and one in the middle), as these would impact RMA and dike When all locations are established, rotate the 4 movable speed reader boards amongst the 6 sites
Install signage treatments at 90° curves including chevron warning signs (potential LED) 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> Unnecessary Existing signage is sufficient 	<ul style="list-style-type: none"> Do not implement in 2018 due to insufficient funding Consider as part of report back in Fall 2018
Apply anti-skid pavement treatments at 90° curves 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> Unnecessary Likely not effective 	<ul style="list-style-type: none"> Do not implement in 2018 due to insufficient funding Consider as part of report back in Fall 2018

Assessment of Potential Road Safety Measures to be Implemented Prior to Fall 2018


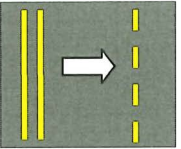








Potential Road Safety Measure	Status	Resident Comments ⁽¹⁾	Staff Comments and Rationale
Increase road cleaning and refreshing of pavement markings 	Proposed by Consultant: Installation Pending	<ul style="list-style-type: none"> Implement Undertake on an on-going basis as required (including washing of signs) 	<ul style="list-style-type: none"> Do not implement in 2018 as the incremental increased maintenance costs (\$15,000) cannot be absorbed as part of current operating budget cycle The additional Operating Budget Impact can be proposed for Council's consideration as part of the 2019 Operating Budget
Replace single file signage with side-by-side signage 	Request of Delegation	<ul style="list-style-type: none"> Implement Conveys that cyclists must ride as far to the right as practicable 	<ul style="list-style-type: none"> Do not implement Requested signage not appropriate for lane width less than 4.0 m per national Transportation Association of Canada guidelines Retain reduced number of existing "Single File" signage
Bury sign post concrete bases 	Request of Delegation	<ul style="list-style-type: none"> Existing bases are too numerous and too close to the edge of the road Burying concrete base will lower signage, which is currently too high for line of sight of motorists Place next to hydro poles where there is typically a wider shoulder 	<ul style="list-style-type: none"> Retain existing installation method On the south side, required installation depth would compromise ability of road shoulder to support a sign post On the north side, required installation depth would impact and may compromise dike core, and require permits from provincial dike inspector Co-locate signage and bases next to hydro poles where feasible to minimize new stand-alone installations
Relocate Bike Route sign on westbound Westminster Hwy 	Request of Delegation	<ul style="list-style-type: none"> Remove sign or add arrow to direct cyclists straight ahead (i.e., remain on Westminster Highway) 	<ul style="list-style-type: none"> Relocate sign further westbound on Westminster Hwy (past River Road) to clarify that Westminster Hwy is a designated bike route (i.e., has cycling-specific facilities such as bike lanes or off-street multi-use pathway)

(1) Includes delegations to March 14, 2018 Community Safety Community meeting and March 21, 2018 Public Works and Transportation Committee meeting.

Approximate Locations of Road Safety Measures Recommended to be Implemented Prior to Fall 2018



LEGEND

	Conversion of double yellow centreline to single dashed centreline	
	Installation of shoulder-mounted delineator posts along curve	
	"Single File" Signage (8 signs in each direction)	
	"Caution" Signage (4 signs in each direction)	
	2 Speed Reader Boards (1 in each direction at Valmont Way)	



City of Richmond

Report to Committee

To: Finance Committee

Date: April 4, 2018

From: Jerry Chong
Director, Finance

File: 03-0925-01/2018-Vol
01




Re: Annual Property Tax Rates (2018) Bylaw No. 9835

Staff Recommendation

That the Annual Property Tax Rates (2018) Bylaw No. 9835 be introduced and given first, second and third readings.

Jerry Chong
Director, Finance
(604-276-4064)

Att. 2

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

Staff Report

Origin

Section 197 of the Community Charter requires municipalities to establish property tax rates for the current year after the adoption of the 5 Year Financial Plan and before May 15th. Council must, under subsection 197(3.1), consider the tax distribution to each assessment class prior to adopting the tax rate bylaw.

This report supports Council's 2014-2018 Term Goal #7 Strong Financial Stewardship:

7.2. *Well-informed and sustainable financial decision making.*

7.3. *Transparent financial decisions that are appropriately communicated to the public.*

Analysis

BC Assessment provides assessment values that reflect the market condition as of July 1st, 2017. Assessment totals are comprised of market values for existing properties and values for new properties (new growth).

Table 1 provides a comparison between 2017 and 2018 market value changes and 2018 new growth. Market value changes reflect the market price of existing properties from year to year. New growth is the term used for new developments, property shifts between assessment classes, and any new exemptions. New developments add taxable value to the class while new exemptions reduce the value to that class.

Table 1: Comparison of Assessment Values 2017 - 2018

	(1) 2017 Total Assessment	(2) 2018 Market Value of Same	(3) 2018 Net Market Change	(4) 2018 New Growth and Re-Class	(5) 2018 Total Assessment	(6) % Net Market Change
Class 01 - Residential	73,414,252,332	78,685,794,420	5,271,542,088	1,845,043,828	80,530,838,248	7.18%
Class 02 - Utilities	26,541,149	29,190,416	2,649,267	59,100	29,249,516	9.98%
Class 03 - Supportive Housing	-	-	-	16	16	0.00%
Class 04 - Major Industry	215,245,900	236,907,600	21,661,700	(32,366,100)	204,541,500	10.06%
Class 05 - Light Industry	2,624,855,200	3,078,679,500	453,824,300	(79,922,300)	2,998,757,200	17.29%
Class 06 - Business/Other	13,093,222,347	15,748,672,143	2,655,449,796	99,860,500	15,848,532,643	20.28%
Class 08 - Recreation/Non-Profit	183,359,800	205,433,000	22,073,200	(4,540,000)	200,893,000	12.04%
Class 09 - Farm	26,566,163	26,683,530	117,367	(386,768)	26,296,762	0.44%
TOTAL	\$ 89,584,042,891	\$ 98,011,360,609	\$ 8,427,317,718	\$ 1,827,748,276	\$ 99,839,108,885	9.41%

Highlights:

- From 2017 to 2018, total market value increased by approximately \$8.427 billion (column 3) or 9.41% (column 6). In comparison, 2016 to 2017 had a total market value increase of approximately \$20.924 billion or 31.35%.
- Breakdown of the market value change by assessment class shows that residential market values increased by \$5.272 billion or an average of 7.18%. This is a much smaller increase compared to 2017 where residential market values increased by \$18.428 billion or an average of 34.49% over 2016.
- A further breakdown of the residential class shows that strata residential properties had an average increase in market value by 18.75% while single family detached properties had an average increase of 1.29%. This is a significant change from 2017 where single family detached homes were in greater demand and had higher market value increases. In 2017, single family detached properties, on average, had significant tax increases while most strata properties had tax decreases. The change in 2018 will reverse the situation and strata properties will have tax increases while single family detached homes will have minimal tax increases or in many cases, tax decreases.
- Total new growth and reclassification (column 4) in 2018 is approximately \$1.828 billion, which is consistent with the prior year new growth of \$1.910 billion.
- The Province created a new assessment class, Class 03 – Supportive Housing, in 2018 for eligible supportive housing properties. Once designated, the property is given an assessed value of \$2 to be apportioned at \$1 for the land and \$1 for the improvements. In order to be given this special valuation, the property must:
 - be designated by Cabinet;
 - provide long-term housing units for persons who were previously homeless or persons who are at risk of homelessness;
 - provide onsite support services; and
 - be used by or on behalf of individuals who receive funding from the provincial government or a regional health board.

In 2018, the City's property at 8080 Anderson Road was designated as supportive housing. The property consists of 8 separate folios and therefore was assessed at \$16 for Class 03.

- New growth and re-class in Class 04 - Major Industry decreased by \$32.366 million in 2018 largely due to properties occupied by WWL Vehicle Services Canada Ltd. The company was successful this year in getting a port designation from the Province as a property with improvements for sea-going cargo loading and storage.

The port designation reduced the assessment value for the property and will result in approximately \$341K in municipal tax savings for the company for 2018. However, in preparation for their application for a port designation, the company voluntarily appealed

to BC Assessment in 2017 for a class switch from Class 05 – Light Industry to Class – 04 Major Industry. This class switch resulted in the Company paying an additional \$389K in municipal taxes in 2017. Comparing what the property would have paid if they stayed as a class 05 property to what they will be paying as a designed port property, there is an immaterial financial impact to the City.

- Majority of the reduction in new growth in Class 05 – Light Industry is due to changes in property use resulting in a re-classification of the property from Class 05 and Class 06 – Business.

Preliminary new growth figures were provided to each municipality in late November 2017 to facilitate each City's budget process. To ensure all municipalities capture the revenue from new growth, BC Assessment adds new growth to the assessment roll based on the state and condition of each development property as of mid-October 2017.

Revenue from new growth was estimated and included as a separate income source when preparing the 2018 Operating Budget. This new tax revenue reduces the tax increase required to balance the operating budget.

2018 Tax Rate Calculation

Under the Community Charter, Council must review the City's property tax distribution prior to adopting the annual property tax rate bylaw. Council's objective, which is stated in the City's 5 Year Financial Plan, is for a property tax distribution that maintains the business to residential tax ratio in the middle in comparison to other municipalities in the comparator group and to ensure that the City remains competitive in attracting and retaining businesses.

Tax Ratio

Tax ratio is a direct comparison of the tax rates between all classes against the residential tax rate. Fluctuations in the market value for residential class will affect all resulting tax ratios since tax rates are adjusted annually to ensure that the City collects only what is needed to balance the budget. With an increase in residential market value for 2018, residential tax rate was adjusted to \$1.51524 per \$1,000 of assessment from the 2017 rate of \$1.57216 per \$1,000 of assessment. Since residential tax rate is the denominator in the tax ratio calculation, if market values of other assessment classes increase more than the residential class, the resulting tax ratio will be lower.

Table 2 provides the 2017 tax rates and business to residential ratio ranking for comparative municipalities. Richmond's business to residential tax ratio of 3.57 was second lowest in comparison and was an improvement from 2016 where the City's business to residential tax ratio was third lowest in the comparator group.

Table 2: Comparison of 2017 Business to Residential Ratios

Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm	Business to Residential Tax Ratio
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114	5.05
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900	4.72
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208	4.60
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420	3.85
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983	3.57
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812	3.34

Tax Distribution

Based on the 2018 Revised Roll, the 2018 calculated tax rates, assessment ratios, folio counts, tax distribution and tax ratios are as follows:

Table 3 – Breakdown of 2018 Assessments and Tax Distribution

	Tax Rates	Assessment Ratio	Folio Count	Tax Distribution	Tax Ratio
Class 01 - Residential	1.51524	80.66%	73,633	56.19%	1.00
Class 02 - Utilities	31.59054	0.03%	123	0.43%	20.85
Class 03 - Supportive Housing	1.51524	0.00%	8	0.00%	1.00
Class 04 - Major Industry	11.80024	0.20%	30	1.11%	7.79
Class 05 - Light Industry	4.83440	3.00%	597	6.82%	3.19
Class 06 - Business/Other	4.83440	15.88%	7,080	35.14%	3.19
Class 08 - Recreation/Non-Profit	1.58328	0.20%	470	0.15%	1.04
Class 09 - Farm	13.47100	0.03%	645	0.16%	8.89
TOTAL	N/A	100.00%	82,586	100.00%	N/A

For comparison purposes, the 2017 assessment ratios and tax distributions are provided in Table 4.

Table 4 – Breakdown of 2017 Assessments and Tax Distribution

	Tax Rates	Assessment Ratio	Folio Count	Tax Distribution	Tax Ratio
Class 01 - Residential	1.57216	81.95%	71,743	55.54%	1.00
Class 02 - Utilities	33.63390	0.03%	118	0.43%	21.39
Class 03 - Supportive Housing	-	0.00%	-	0.00%	-
Class 04 - Major Industry	12.57288	0.24%	30	1.30%	8.00
Class 05 - Light Industry	5.60635	2.93%	605	7.08%	3.57
Class 06 - Business	5.60635	14.62%	7,033	35.32%	3.57
Class 08 - Seasonal/Rec	1.71721	0.20%	468	0.16%	1.09
Class 9 - Farm	13.09827	0.03%	665	0.17%	8.33
Total	N/A	100.00%	80,662	100.00%	N/A

- When average assessment values increase from the prior year, the City must adjust the tax rates lower in order to collect the same amount of taxes as the prior year. Once that adjustment is made, rates are then adjusted for the Council approved tax increase. The proposed 2018 residential tax rate is reduced by \$0.05692 for every \$1,000 of assessment. This reduction is required to reflect the 7.18% increase in average market change and Council's approved overall tax increase of 3.30% for 2018.
- The number of residential folios increased by 1,890 from 71,743 folios in 2017 to 73,633 folios in 2018. New growth in residential assessment value increased by \$1.845 billion and as a result, tax burden for the residential class increased from 55.54% in 2017 to 56.19% in 2018. Since 89.16% of all properties (73,633 out of 82,586 folios) in the City are residential, representing 80.66% of the City's total assessment value, the 2018 residential tax burden is reasonable and fair.
- Properties in Class 03 – Supportive Housing are residential properties with specific requirements and should therefore have the same tax rates as Class 01 – Residential. With the \$2 in assessment value given to each class 03 property, there will be essential no taxes charged to supportive housing units.
- All municipalities are concerned with maintaining competitiveness in attracting businesses to their community and retaining the existing business base. Richmond's business to residential tax ratio decreased from 3.57 in 2017 to 3.19 in 2018. This decrease is largely due to the 17.29% and 20.28% increase in market values for Class 05 – Light Industry and Class 06 - Business properties, respectively. The increase in market value for these commercial properties required a decrease in tax rates from \$5.60635 per \$1,000 in assessment to \$4.83440 in order to collect only what is required to balance the 2018 operating budget.
- Attachment 1 provides a comparison of the average assessment value, municipal taxes, and class burden for various assessment classes in the comparator group. In 2017, the City continued to rank 3rd highest in average residential assessment value at \$1,023,295 and had

the 2nd lowest average municipal taxes of \$1,609 (not including taxes collected for other taxing agencies).

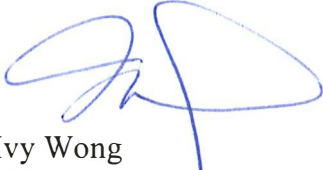
- Business class had the 3rd lowest average assessed value of \$1.862 million and the lowest average taxes of \$10,437. Light Industry class had the 3rd highest average assessment value and the 3rd lowest average municipal taxes.
- Richmond's Major Industry class had the 2nd lowest average assessment value and average municipal taxes in comparison to others in the group. The City's municipal tax as a percentage of assessment value for this class is at 1.26% while other municipalities were charging as high as 3.86% of assessment.
- Municipal taxes as a % of assessment value shows the municipal tax charged for every \$1 of assessment. In the Major Industry, Light Industry, and Business categories, Richmond has the lowest or one of the lowest percentages in the comparator group, which supports Council's objective of being competitive in maintaining and attracting businesses.
- Attachment 2 provides the various 2017 tax rates for the comparator group. Richmond's tax rates were consistently in the middle or amongst the lowest in comparison to the group.
- Comparing recommended 2018 tax rates with Attachments 1 and 2, Richmond should be able to maintain the current competitive tax position relative to the comparator group.

Financial Impact

Property tax rates provided in Bylaw 9835 will generate the municipal taxes (subject to subsequent appeal settlements and adjustments in 2018) necessary to balance the 2018 operating budget.

Conclusion

Richmond's property tax rates have consistently remained in the middle or amongst the lowest in the comparator group. The proposed rates in Bylaw 9835 will generate the necessary taxes to balance the 2018 Operating Budget and to maintain the current level of service.



Ivy Wong
Manager, Revenue
(604-276-4046)

IW:gjn

Att. 1: 2017 Average Municipal Tax and Tax Burden Comparison
2: Comparison of 2017 Tax Rates

2017 Average Municipal Tax and Tax Burden Comparison

Residential				
Municipalities	Average Assessed Value	Average Municipal Tax	Municipal Taxes as a % of Assessment Value	% of Total Tax Burden
Vancouver	\$ 1,674,134.48	\$ 2,110.97	0.13%	52.89%
Burnaby	\$ 1,076,805.42	\$ 1,709.32	0.16%	49.50%
Richmond	\$ 1,023,294.99	\$ 1,608.78	0.16%	55.54%
Delta	\$ 927,614.41	\$ 2,164.77	0.23%	52.42%
Coquitlam	\$ 912,632.36	\$ 1,976.40	0.22%	65.11%
Surrey	\$ 792,818.85	\$ 1,501.97	0.19%	68.20%

Major Industry				
Municipalities	Average Assessed Value	Average Municipal Tax	Municipal Taxes as a % of Assessment Value	% of Total Tax Burden
Delta	\$ 16,467,110.71	\$ 484,138.00	2.94%	9.91%
Vancouver	\$ 13,183,500.00	\$ 455,008.60	3.45%	0.77%
Burnaby	\$ 11,705,506.25	\$ 451,761.14	3.86%	2.88%
Richmond	\$ 7,174,863.33	\$ 90,208.70	1.26%	1.30%
Surrey	\$ 4,665,296.00	\$ 52,246.28	1.12%	0.41%
Coquitlam	N/A	N/A	N/A	N/A

Light Industry				
Municipalities	Average Assessed Value	Average Municipal Tax	Municipal Taxes as a % of Assessment Value	% of Total Tax Burden
Delta	\$ 5,169,380.49	\$ 44,907.96	0.87%	13.66%
Burnaby	\$ 4,746,718.86	\$ 35,552.92	0.75%	5.72%
Richmond	\$ 4,338,603.64	\$ 24,323.73	0.56%	7.08%
Vancouver	\$ 3,814,812.56	\$ 22,116.15	0.58%	1.23%
Surrey	\$ 2,788,645.15	\$ 16,136.13	0.58%	4.29%
Coquitlam	\$ 2,567,332.40	\$ 29,774.64	1.16%	3.85%

Business				
Municipalities	Average Assessed Value	Average Municipal Tax	Municipal Taxes as a % of Assessment Value	% of Total Tax Burden
Vancouver	\$ 4,042,218.48	\$ 23,434.52	0.58%	44.08%
Burnaby	\$ 3,538,713.81	\$ 26,504.97	0.75%	39.62%
Coquitlam	\$ 3,034,774.23	\$ 33,186.77	1.09%	30.03%
Richmond	\$ 1,861,683.83	\$ 10,437.25	0.56%	35.32%
Delta	\$ 1,858,630.77	\$ 16,699.61	0.90%	22.11%
Surrey	\$ 1,814,653.57	\$ 11,471.15	0.63%	26.25%

Comparison of 2017 Tax Rates By Assessment Class

Sorted by Class 01 - Residential							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208

Sorted by Class 02 - Utilities							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208

Sorted by Class 04 - Major Industry							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812

Sorted by Class 05 - Light Industry							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983

Sorted by Class 06 - Business/Other							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983

Sorted by Class 08 - Recreation/Non-Profit							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900

Sorted by Class 09 - Farm							
Municipalities	Residential	Utilities	Major Industry	Light Industry	Business	Recreation Non-Profit	Farm
Delta	2.3337	39.9999	29.4003	8.6873	8.9849	7.5675	19.1420
Coquitlam	2.1656	38.2738	28.9270	11.5975	10.9355	12.6282	15.3114
Richmond	1.5722	33.6339	12.5729	5.6064	5.6064	1.7172	13.0983
Burnaby	1.5874	29.2136	38.5939	7.4900	7.4900	0.9474	7.4900
Surrey	1.8945	32.6801	11.1989	5.7864	6.3214	2.0996	2.9812
Vancouver	1.2609	28.3839	34.5135	5.7974	5.7974	1.2208	1.2208



Annual Property Tax Rates (2018) Bylaw No. 9835

The Council of the City of Richmond enacts as follows:

- (a) Parts 1 through 6 excluding Part 3, pursuant to the *Community Charter*; and
- (b) Part 3 pursuant to section 100 of the *Municipalities Enabling and Validating Act*.

PART ONE: GENERAL MUNICIPAL RATES

1.1 General Purposes

- 1.1.1 The tax rates shown in column A of Schedule A are imposed and levied on the assessed value of all land and improvements taxable for general municipal purposes, to provide the monies required for all general purposes of the **City**, including due provision for uncollectible taxes, and for taxes that it is estimated will not be collected during the year, but not including the monies required for payments for which specific provision is otherwise made in the *Community Charter*.

1.2 City Policing, Fire & Rescue and Storm Drainage

- 1.2.1 The tax rates shown in columns B, C & D of Schedule A are imposed and levied on the assessed value of all land and improvements taxable for general municipal purposes, to provide monies required during the current year for the purpose of providing policing services, fire and rescue services and storm drainage respectively in the City, for which other provision has not been made.

PART TWO: REGIONAL DISTRICT RATES

- 2.1 The tax rates appearing in Schedule B are imposed and levied on the assessed value of all land and improvements taxable for hospital purposes and for Greater Vancouver Regional District purposes.

PART THREE: TRUNK SEWERAGE RATES

3.1 The tax rates shown in Schedule C are imposed and levied on the assessed values of all land only of all real property, which is taxable for general municipal purposes, within the following benefitting areas, as defined by the Greater Vancouver Sewerage & Drainage District:

- (a) Area A, being that area encompassing those portions of sewerage sub-areas and local pump areas contained in the Lulu Island West Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Lulu Island West Sewerage Area; and
- (b) Area B, being that area encompassing Sea, Mitchell, Twigg and Eburne Islands, which is that part of the **City** contained in the Vancouver Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Vancouver Sewerage Area; and
- (c) Area C, being that part of the **City** contained in the Fraser Sewerage Area of the Greater Vancouver Sewerage and Drainage District as shown on the current plan of the Fraser Sewerage Area,

and the total amount raised annually is to be used to retire the debt (including principal and interest) incurred for a sewage trunk system, which includes the collection, conveyance and disposal of sewage, including, without limiting the generality of the foregoing, forcemain sewers and their pumphouses and such ancillary drainage works for the impounding, conveying and discharging the surface and other waters, as are necessary for the proper laying out and construction of the said system of sewerage works, provided however that land classified as "Agriculture Zone" in Section 14.1 of the **Zoning Bylaw**, is exempt from any tax rate imposed or levied pursuant to this Part.

PART FOUR: GENERAL PROVISIONS

4.1 Imposition of Penalty Dates

4.1.1 All taxes payable under this bylaw must be paid on or before July 3, 2018.

4.2 Designation of Bylaw Schedules

4.2.1 Schedules A, B and C are attached and designated a part of this bylaw.

PART FIVE: INTERPRETATION

5.1 In this bylaw, unless the context otherwise requires:

CITY	means the City of Richmond.
ZONING BYLAW	means the Richmond Zoning Bylaw 8500, as amended from time to time.

PART SIX: PREVIOUS BYLAW REPEAL

6.1 Annual Property Tax Rates (2017) Bylaw No. 9695 is repealed.

PART SEVEN: BYLAW CITATION

7.1 This Bylaw is cited as "Annual Property Tax Rates (2018) Bylaw No. 9835".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER



SCHEDULE A to BYLAW NO. 9835

PROPERTY CLASS	COLUMN A GENERAL PURPOSES	COLUMN B POLICING SERVICES	COLUMN C FIRE & RESCUE	COLUMN D STORM DRAINAGE	TOTAL
1. Residential	0.89979	0.33548	0.24753	0.03244	1.51524
2. Utilities	18.75936	6.99421	5.16061	0.67636	31.59054
3. Supportive Housing	0.89979	0.33548	0.24753	0.03244	1.51524
4. Major Industry	7.00732	2.61260	1.92768	0.25264	11.80024
5. Light Industry	2.87080	1.07035	0.78975	0.10350	4.83440
6. Business / other	2.87080	1.07035	0.78975	0.10350	4.83440
8. Recreation / non profit	0.94020	0.35054	0.25864	0.03390	1.58328
9. Farm	7.99946	2.98250	2.20061	0.28843	13.47100

SCHEDULE B to BYLAW NO. 9835

PROPERTY CLASS	REGIONAL DISTRICT
1. Residential	0.04248
2. Utilities	0.14870
3. Supportive Housing	0.04248
4. Major Industry	0.14445
5. Light Industry	0.14445
6. Business/other	0.10409
8. Rec/non profit	0.04248
9. Farm	0.04248

SCHEDULE C to BYLAW NO. 9835

AREA		RATES
A, B, C & Steveston	Sewer Debt Levy (land only)	0.00478



City of Richmond

Report to Committee

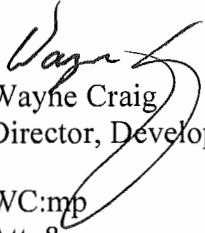
To: Planning Committee
From: Wayne Craig
Director, Development

Date: April 4, 2018
File: HA 18 - 804880


Re: Application by Kanaris Demetre Lazos for a Heritage Alteration Permit at
12111 3rd Avenue (Steveston Hotel)

Staff Recommendation

That a Heritage Alteration Permit be issued which would permit the removal of decorative shutters and the replacement of all the upper-storey windows of the protected heritage property at 12111 3rd Avenue, be issued.


Wayne Craig
Director, Development

WC:mp
Att. 8

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Policy Planning	<input checked="" type="checkbox"/>	

Staff Report

Origin

Kanaris Demetre Lazos has applied for a Heritage Alteration Permit to remove all the decorative shutters on the upper floor and replace all the upper-storey windows of a commercial property at 12111 3rd Avenue, known as the Steveston Hotel. The location maps are included in Attachment 1.

The Steveston Hotel is one of the identified heritage resources in the Steveston Village Heritage Conservation Area. A Heritage Alteration Permit is required for any exterior alterations to a property that is located within the Heritage Conservation Area.

Background

In 2017, a Heritage Alteration Permit (HA16-723477) was approved for the subject property to allow a reconfiguration of lot lines to create two new lots that can function independently of each other in terms of access and parking. The proposed southern lot contains the Steveston Hotel and associated parking, and the proposed northern lot contains a heritage-designated property known as the Steveston Courthouse and a one-storey, non-heritage commercial building and associated parking. The subdivision application is in process.

Also, two additional Heritage Alteration Permits were issued for the subject property in 2017: A Heritage Alteration Permit (HA17-766440) to allow the replacement of a window with a new entry door to provide a separate entrance to a restaurant in the hotel, and a Heritage Alteration Permit (HA17-776233) for the City of Richmond for the painting of a mural on the south elevation of the property as a Canada 150 project.

The subject property is designated as “Neighbourhood Service Centre (NSC)” in the 2041 Official Community Plan and “Heritage Mixed Use” in the Steveston Area Plan, and is zoned “Steveston Commercial (CS2)”.

Surrounding Development

The subject property is surrounded by the following sites.

- | | |
|------------------------|---|
| To the North: | A new three-storey, mixed-use building at 3471 Chatham Street, on a site zoned “Commercial Mixed Use (ZMU26) – Steveston Village”. |
| To the East: | A new mix-used building ranging from one to three storeys on the former Rod’s Lumber site at 12088 3 rd Avenue zoned “Commercial Mixed Use (ZMU33) – Steveston Village”. The building is currently under construction. |
| To the West and South: | The Gulf of Georgia Cannery federal historic site in the “Light Industrial (IL)” zone. |

Related Policies & Studies**Official Community Plan**

The City's 2041 Official Community Plan Section 4 "Vibrant Cities" includes city-wide direction and policy to "preserve, promote and celebrate community heritage".

Steveston Area Plan

The Steveston Area Plan seeks to "conserve significant heritage resources throughout the Steveston area" and "conserve the identified heritage resources within the Steveston Village Node (e.g., as per the Steveston Village Conservation Strategy).

The Steveston Village is designated as a Heritage Conservation Area (HCA) in the Steveston Area Plan. As part of the HCA, 17 sites are identified as protected heritage properties. The Steveston Hotel is one of the 17 protected heritage properties in the Steveston Village HCA.

The Steveston Area Plan specifies that Heritage Alteration Permits issued for identified Steveston Village heritage resources should be consistent with the Steveston Village Conservation Strategy and the Standards and Guidelines for the Conservation of Historic Places in Canada ("S&Gs"), prepared by Parks Canada. The S&Gs are applied to assess the impact of proposed interventions on the heritage values and character-defining elements of a historic place, as identified in a Statement of Significance. The Steveston Village Conservation Strategy includes heritage conservation policies to manage changes to heritage resources in the Steveston Village and provides Statements of Significance for the significant historic sites and features, including the Statement of Significance for the Steveston Hotel.

On December 18, 2017, Council approved a number of changes to the design, land use and heritage policies in the Steveston Area Plan. One of the changes was to include a copy of the "Sakamoto Guidelines for Design Criteria for the Steveston Revitalization Area" and the "Sakamoto Guidelines for Steveston Downtown Revitalization Area Façade Guidelines", originally prepared in 1987 and 1989 respectively, in the Steveston Area Plan for reference purposes. These guidelines can be interpreted flexibly and are to be used in coordination with other applicable guidelines when reviewing development proposals.

The relevant policies and guidelines are further detailed in the "Analysis" section of this report.

Public Consultation

A development sign has been installed on the subject property. Staff have not received any comments from the public about the application in response to the placement of the sign on the property.

Richmond Heritage Commission

The application was presented to the Richmond Heritage Commission on March 21, 2018 and was supported. An excerpt from the Commission meeting minutes is included in Attachment 2.

Analysis

The primary heritage values of the Steveston Hotel are its historic association with the development of the Steveston town site and its social and cultural value as a community gathering place. Architecturally, surviving elements of its two stages of construction, seen in such elements as its flat-roofed form and simple lines, are character-defining elements. The Statement of Significance for the Steveston Hotel is provided in Attachment 3.

The Steveston Hotel has undergone significant exterior alterations since the time of construction in the 1890s. Attachment 4 includes photos of the Steveston Hotel from various eras. Original windows openings have been changed with respect to their location and size, and original windows have been replaced with a mix of aluminum and vinyl windows.

Details of Proposed Work

All the existing upper-level windows are single-pane aluminum windows, except for the eight small sliding windows in the south and north facades, which are white vinyl-framed windows. The existing aluminum windows are fixed windows and are not operable. The attached photos (Attachment 5) show the existing windows.

The proposal is to replace all 41 upper-level windows with black vinyl-framed, double-pane windows for energy efficiency and noise mitigation within the hotel. All the larger windows and the eight small windows in the south and north facades will be clear glass, and the eight bathroom windows in the east and west façades (i.e., front and rear façades) will be frosted glass to add privacy.

All the proposed windows are awning windows (i.e., hinged at the top) except for the small windows in the north and south facades, which will be sliding windows. The width of the existing aluminum window frame is $\frac{3}{4}$ inches and the width of the proposed vinyl frame is $\frac{1}{2}$ inches to match the slim look of the existing aluminum frames.

The existing wooden brick moulding (note: brick mould is a term that refers to a decorative trim that fills the gap between the window frame and masonry opening) and wooden window sills, which provide a traditional look, will be retained and repainted to match the proposed black vinyl frames. The new windows will be inserted into existing openings from inside without disrupting the exterior cladding.

The applicant has also proposed to remove the decorative shutters, which are not operable, on the upper floor. The shutters are not original, or a character-defining element. The existing shutters were installed over the siding, and the siding will remain unchanged after the removal of the shutters.

National Standards

The following are excerpts from the S&G standards that are most relevant to the proposed exterior alterations to the Steveston Hotel (Attachment 6).

- | | |
|-------------|--|
| Standard #1 | Do not remove, replace or substantially alter its intact or repairable character-defining elements. |
| Standard #2 | Conserve changes to a historic place that, over time, have become character-defining elements in their own right. |
| Standard #3 | Conserve heritage value by adopting an approach calling for minimal intervention. |
| Standard #4 | Recognize each historic place as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties or by combining features of the same property that never existed. |

The existing windows and shutters are not original and are not identified as character-defining elements in the Statement of Significance. The exterior of the building has been significantly altered from the time of the original construction and many of the historic elements have been lost. The Statement of Significance identifies the building's current flat-roofed form and simple lines as character-defining elements. The proposed installation method will not disturb the exterior cladding and existing trims and sills, and this minimal intervention approach will help preserve the current character of the building. The proposal would not have adverse impacts on the heritage value and character-defining elements of the building.

National Guidelines

The following are excerpts from the S&G guidelines that are most relevant to the proposed exterior alterations to the Steveston Hotel (Attachment 7).

- Guideline #18 Designing and construction a new window, door or storefront when it is completely missing, with a new design that is compatible with the style, era and character of the historic place, or a replica based on documentary evidence.

The style and pattern of the proposed windows are compatible with the style, era and character of the building, and the existing openings will remain unchanged. The overall appearance of the building would not be substantially altered and the proposed window frame is slim to achieve the similar look as the existing aluminum frames.

Steveston Village Conservation Strategy

The following are the standards and guidelines that are most relevant to the proposed exterior alterations to the Steveston Hotel from the Steveston Village Conservation Strategy.

- The evolution of the resource should be respected. The contribution of all periods is important to the historic development and may merit retention.
- Long-term protection of the historic resource should be balanced with user requirements, and future resource management goals should be identified prior to undertaking any work.
- Conjecture and the falsification of building elements should be avoided in all heritage conservation projects.

The applicant would like to replace the existing single-pane windows with high performance double-glazed windows for energy efficiency. The proposed window design complements the existing character and style of the building, and does not create a false sense of historical development by adding new elements and features.

Sakamoto Guidelines

The “Sakamoto Guidelines for Steveston Downtown Revitalization Area Façade Guidelines” were prepared in 1989 to provide design guides and standards for maintaining continuity in the improvements being carried out. The Guidelines state that adaption of construction and the use of available similar material may be considered provided the appearance is not drastically altered. The intention is the maintenance of the character of the building and not a faithful restoration as reconstruction.

The Guidelines specifies acceptable window patterns and materials; the window frames may be wood, white or coloured aluminum or steel and the glass may be clear or grey tinted. All other coloured or mirror finish glass is unacceptable (Attachment 8).

The existing windows are a mix of aluminum and vinyl frame windows. The proposed vinyl-framed windows will simulate the slim look of the existing aluminum windows, and the proposed multiple-pane window pattern with transoms and mullions will help maintain the historic character of the building.

Financial Impact or Economic Impact

None.

Conclusion

The proposed replacement of the windows and removal of the shutters would not adversely affect the heritage value and character-defining elements of the protected heritage property. The proposal is generally consistent with the Parks Canada’s Standards and Guidelines for the Conservation of Historic Places in Canada, Steveston Village Conservation Strategy and the Sakamoto Guidelines for Steveston Downtown Revitalization Area Façade Guidelines.

Staff recommend that the Heritage Alteration Permit be endorsed, and issuance by Council be recommend.



Minhee Park
Planner 2

MP:cas

Attachment 1: Location Map

Attachment 2: Excerpt from the March 21, 2018 Richmond Heritage Commission Minutes

Attachment 3: Statement of Significance for the Steveston Hotel

Attachment 4: Historic Photos of the Steveston Hotel

Attachment 5: Photos of the Steveston Hotel

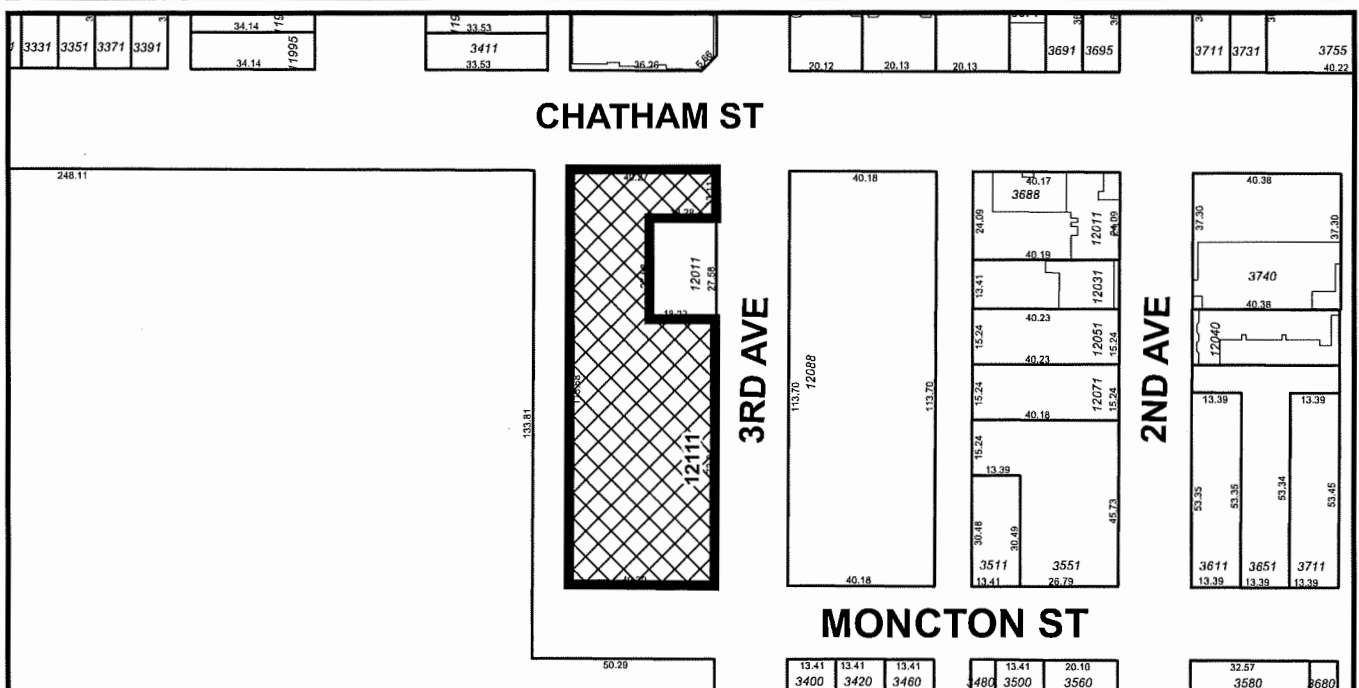
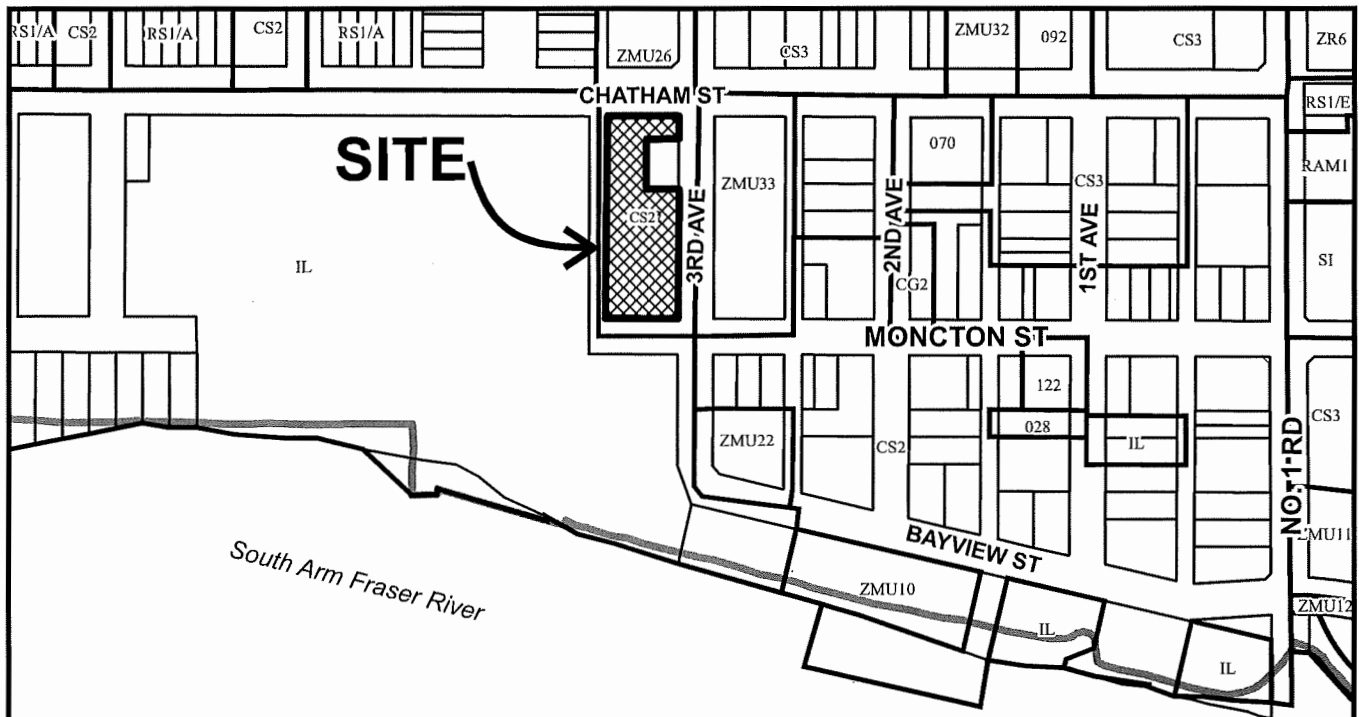
Attachment 6: Excerpt from the National Standards

Attachment 7: Excerpt from the National Guidelines

Attachment 8: Excerpt from the Sakamoto Guidelines



City of
Richmond



HA 18-804880

Original Date: 02/21/18

Revision Date:

Note: Dimensions are in METRES



City of
Richmond



HA 18-804880

Original Date: 02/21/18

Revision Date:

Note: Dimensions are in METRES

Excerpt of Minutes
Richmond Heritage Commission
Held Wednesday, March 21, 2018 (7:00 pm)
M.2.004
Richmond City Hall

Development Proposal – Heritage Alteration Permit (HA18-804880) 12111 3rd Avenue (Steveston Hotel)

Staff summarized the Heritage Alteration Permit application to highlight the key points. It was noted that the applicant is applying to remove the decorative shutters and replace the windows on the upper level. The applicant is proposing black vinyl-framed windows. It was noted that the existing frame is ¾ inches and the proposed frame is narrower than the existing one.

Members looked at historic photos of the building and noted that the shutters were not original to the building.

Staff discussed the Sakamoto Guidelines and the members discussed if this application was consistent with the Guidelines as well as the Parks Canada's standards and guidelines.

The applicant answered questions on the installation process. It was noted that the window sills and brick moulding will be kept. It was further noted that these are upper-storey windows only and are not easy to see from the street level. The applicant noted that he would prefer a wider frame, but decided to go for a narrower frame to achieve the similar look as the existing aluminum frames.

Staff noted that two different types of glazing are proposed. Most of the windows will have clear glazing but the eight bathroom windows will have fogged glass.

Members discussed the proposed window patterns and noted that the proposed pattern with the T-shaped divider is supportable as it would help achieve the historic look.

It was moved and seconded:

That the Richmond Heritage Commission support the proposed windows and removal of existing shutters as presented.

Carried

Steveston Village Conservation Program

Moncton Street resources

22. 12111 3rd Avenue Steveston Hotel/Sockeye Hotel



Description

The Steveston Hotel (Sockeye Hotel) takes up the west side of a full block along Third Avenue. The historic place is a two-storey, utilitarian structure with a flat, unarticulated façade and a flat roof. It directly fronts the street, without transition or landscaping.

Values

The Steveston Hotel is valued for its historic association with the development of the Steveston townsite and its social and cultural value as a community gathering place and local business. Constructed in 1894, the hotel represents the economic infrastructure which supported the local fishing and canning industries historically, and the tourism industry today. As an historic and longstanding fixture in the community, it is significant that this historic place has had continuing use as a gathering place for the town's citizens, and continues to operate in its original function today.

Architecturally, the Steveston Hotel is an excellent example of a building which predates the fire of 1918. A significant landmark building in the commercial downtown of the village, it represents the growth of Steveston as a prosperous frontier town in the late nineteenth and early twentieth centuries. It is also important to note the role of this building as a refuge for many after the fire, and its contribution to rebuilding the town seen in its temporary housing of the Steveston Post Office for a time.

Character-Defining Elements

The character-defining elements of the Steveston Hotel include:

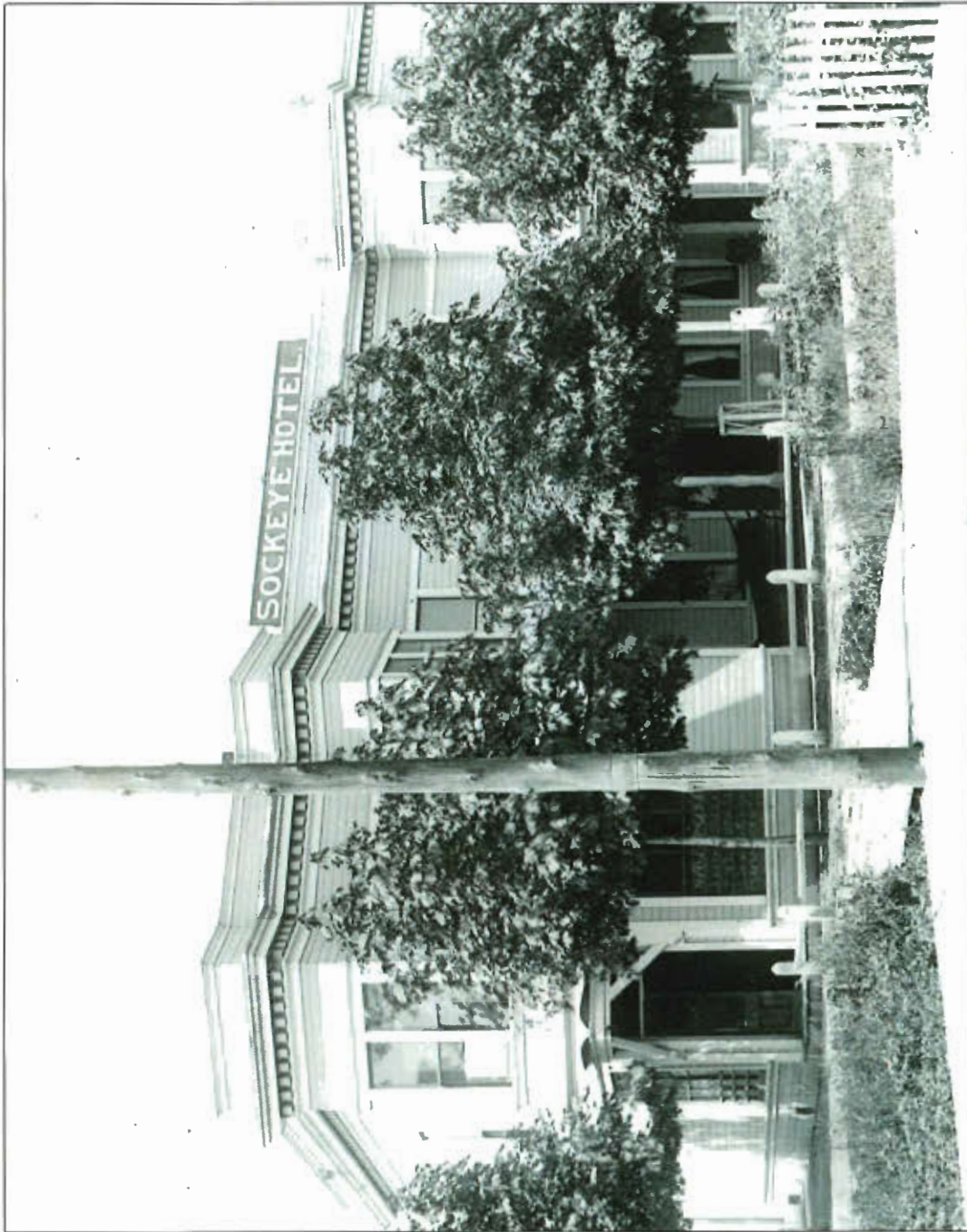
- The hotel's landmark status at the terminus of Steveston's main street
- Its prominent location at the corner of Moncton Street and 3rd Avenue
- The liveliness and diversity the establishment lends to the street edge along 3rd Avenue
- Surviving elements of its two stages of construction, seen in such elements as its flat-roofed form and simple lines

This resource met the following criteria:

- Criterion 1: The overall contribution of the resource to the heritage value and character of Steveston
- Criterion 2: The ability of the resource to represent a certain historical process, function and style
- Criterion 3: The level of importance of associations with an era in Steveston's history and development
- Criterion 4: The intactness and evocative qualities



City of Richmond Archives 1977-19-25
Ca. 1905



City of Richmond Archives 1978-5-10
Ca. 1920

City of Richmond Archives
1977-42-1-200
undated

TELEHOTEL

LOBBY

BUFFET ROOM

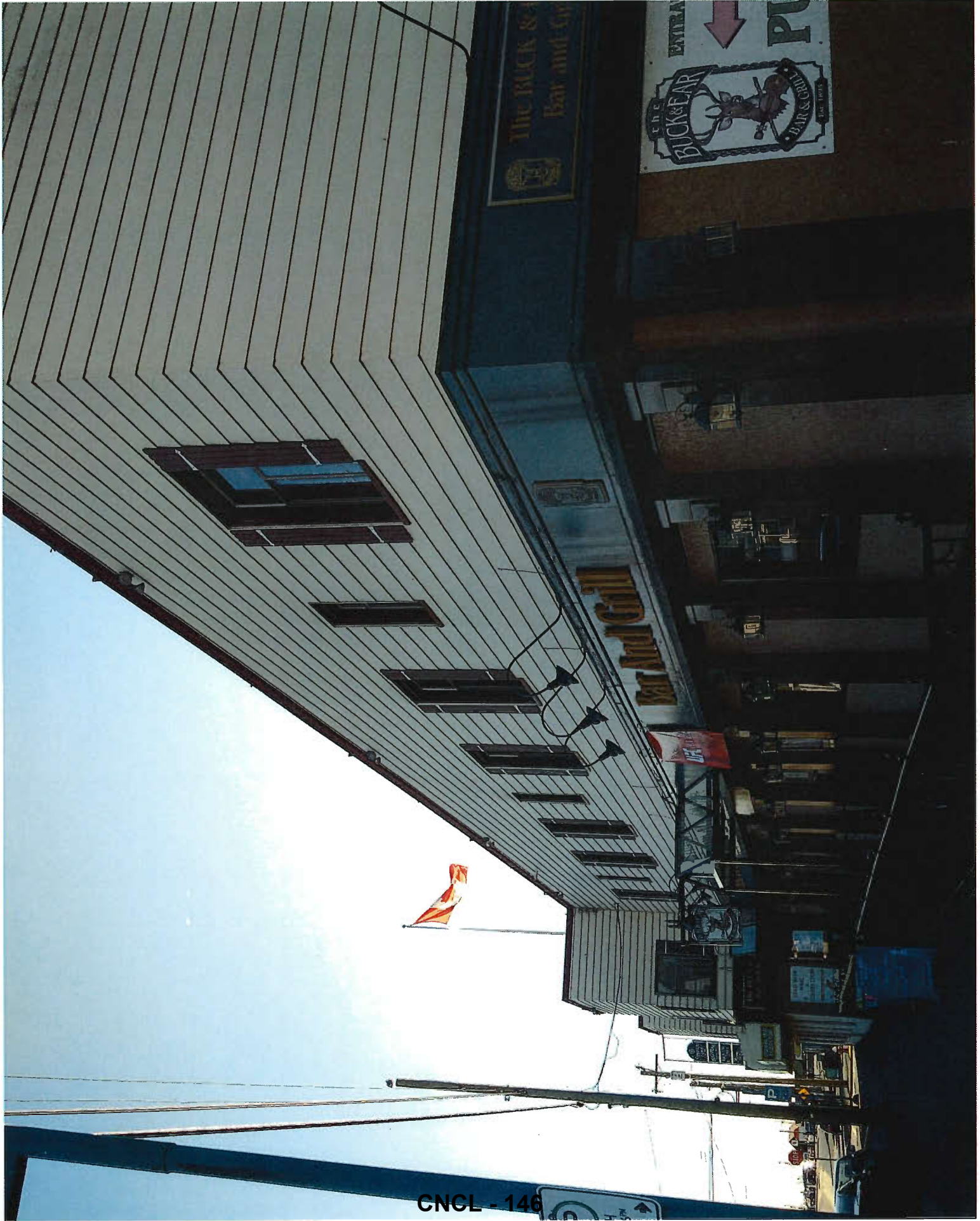
RESTAURANT

CNCL - 144

East (Front) elevation



CNCL - 145



CNCL - 146

South elevation



THE STANDARDS

The Standards are not presented in a hierarchical order. All standards for any given type of treatment must be considered, and applied where appropriate, to any conservation project.

General Standards for Preservation, Rehabilitation and Restoration

1. Conserve the *heritage value* of an *historic place*. Do not remove, replace or substantially alter its intact or repairable *character-defining elements*. Do not move a part of an historic place if its current location is a character-defining element.
2. Conserve changes to an *historic place* that, over time, have become *character-defining elements* in their own right.
3. Conserve *heritage value* by adopting an approach calling for *minimal intervention*.
4. Recognize each *historic place* as a physical record of its time, place and use. Do not create a false sense of historical development by adding elements from other historic places or other properties, or by combining features of the same property that never coexisted.
5. Find a use for an *historic place* that requires minimal or no change to its *character-defining elements*.
6. Protect and, if necessary, stabilize an *historic place* until any subsequent *intervention* is undertaken. Protect and preserve archaeological resources in place. Where there is potential for disturbing archaeological resources, take mitigation measures to limit damage and loss of information.
7. Evaluate the existing condition of *character-defining elements* to determine the appropriate *intervention* needed. Use the gentlest means possible for any intervention. Respect *heritage value* when undertaking an intervention.
8. Maintain *character-defining elements* on an ongoing basis. Repair character-defining elements by reinforcing their materials using recognized conservation methods. Replace in kind any extensively deteriorated or missing parts of character-defining elements, where there are surviving *prototypes*.
9. Make any *intervention* needed to preserve *character-defining elements* physically and visually compatible with the *historic place* and identifiable on close inspection. Document any intervention for future reference.

Additional Standards Relating to Rehabilitation

- 10.** Repair rather than replace *character-defining elements*. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements. Where there is insufficient physical evidence, make the form, material and detailing of the new elements compatible with the character of the *historic place*.
- 11.** Conserve the *heritage value* and *character-defining elements* when creating any new additions to an *historic place* or any related new construction. Make the new work physically and visually compatible with, subordinate to and distinguishable from the historic place.
- 12.** Create any new additions or related new construction so that the essential form and integrity of an *historic place* will not be impaired if the new work is removed in the future.

Additional Standards Relating to Restoration

- 13.** Repair rather than replace *character-defining elements* from the *restoration* period. Where character-defining elements are too severely deteriorated to repair and where sufficient physical evidence exists, replace them with new elements that match the forms, materials and detailing of sound versions of the same elements.
- 14.** Replace missing features from the *restoration* period with new features whose forms, materials and detailing are based on sufficient physical, documentary and/or oral evidence.

ADDITIONAL GUIDELINES FOR REHABILITATION PROJECTS

	Recommended	Not Recommended
18	Designing and constructing a new window, door or storefront when it is completely missing, with a new design that is compatible with the style, era and character of the historic place, or a replica based on documentary evidence.	Changing the number, location, size, or configuration of windows, doors and storefronts, by cutting new openings, blocking in existing openings, or installing replacement units that do not fit the opening.
19	Using signs, awnings, canopies or marquees of a scale and design that is compatible with the historic building.	Introducing a new design that is incompatible in size, scale, material, style or colour.

ADDITIONS OR ALTERATIONS TO WINDOWS, DOORS AND STOREFRONTS

20	Designing and installing new windows, doors or storefronts required by a new use on non-character-defining elevations in a manner that is compatible with the building's style, era and character.	Installing new windows, doors or storefronts that are incompatible with the building's style, era and character, or that obscure, damage or destroy character-defining elements.
21	Providing a setback in the design of drop ceilings, when required, to allow for full height window openings.	Inserting new floors or drop ceilings that cut across windows openings, changing the interior and exterior appearance of the building, and reducing access to daylight.

HEALTH, SAFETY AND SECURITY CONSIDERATIONS

22	Complying with health, safety and security requirements in a manner that conserves the heritage value of the windows, doors and storefronts and minimizes impact on its character-defining elements.	Damaging or destroying elements while making modifications to comply with health, safety and security requirements.
23	Working with code specialists to determine the most appropriate solution to health, safety and security requirements with the least impact on the character-defining elements and overall heritage value of the historic building.	Making changes to windows, doors or storefronts without first exploring equivalent health, safety and security systems, methods or devices that may be less damaging to the character-defining elements of the historic building.
24	Removing or encapsulating hazardous materials, such as lead-based paint, using the least-invasive abatement methods possible, and only after thorough testing has been conducted.	
25	Protecting windows, doors or storefronts against loss or damage by identifying and assessing specific risks, and by implementing an appropriate fire protection strategy that addresses those risks. For example, replacing a character-defining wood door with a compatible fire-rated door, only after carefully considering other options.	Implementing a generic fire-protection strategy, or one that does not appropriately address the specific fire risks of the historic building. Covering flammable, character-defining elements with fire-resistant sheathing or coatings that alter their appearance.

- 7 -

STORE FRONT FACADE GUIDELINES (continued)3.5. Canopies (continued)

Fixed canopies are structurally integrated features of a building face and are either cantilevered, hung or supported on a post. Any post supporting a fixed canopy is to be located on private property.

- Guidelines:
- (a) Fixed canopies may be flat or sloping roofs extending over walkways.
 - (b) Sloping canopies shall be covered with wood cedar shingles.
 - (c) Any supporting post shall be round or square wood with simple details or shaping and may be decorated with wooden brackets.

Unacceptable materials are metal, corrugated fibreglass and concrete (posts).

3.6. Windows

- Guidelines:
- (a) In the store front improvement, the display window should be designed to respect the historic rhythm and be part of the overall facade.
 - (b) The window on the upper floors should form a historic rhythm different from the picture windows and be within a proportion of the overall facade.
 - (c) The upper floor windows should be framed.

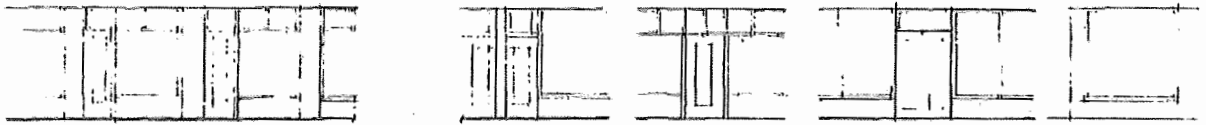
The store fronts are designed to display the business with the "picture" windows being an important feature. At street level, the windows of the store front shows the merchandise and allows visual access into the shop while at the same time forming the wall that separates the inside from the outside.

The design of the windows with transoms, mullions, opaque or translucent glass and multiple glass panes form important patterns in the overall store front facade. The lower portion usually referred to as the "bulkhead", is part of the designed window. The picture window creates store front rhythm and the streetscape.

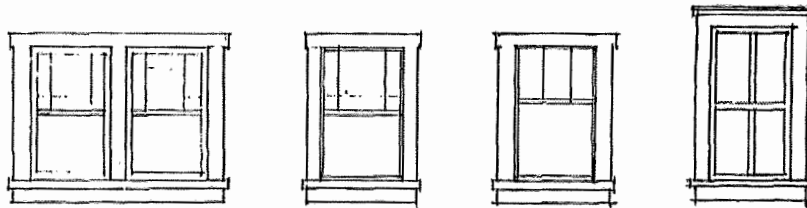
STORE FRONT FACADE GUIDELINES (continued)

3.6. Windows (continued)

Acceptable picture windows are as follows:



Historically, the pattern of the windows on the upper floor is different from the picture windows. They form a rhythm which is in keeping with the overall facade. Acceptable upper floor window patterns are as follows:

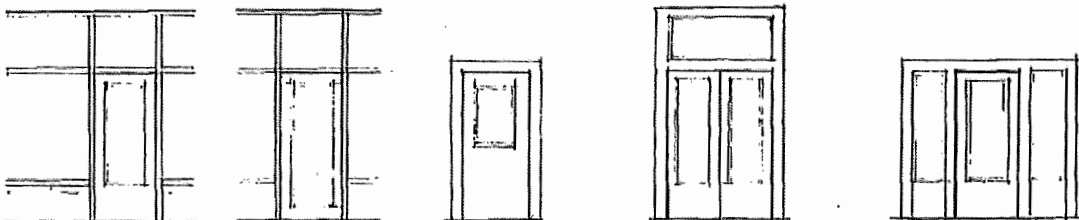


The window frames may be wood, white or coloured aluminum or steel and the glass may be clear or grey tinted. All other colored or mirror finish glass is unacceptable.

3.7. Doors

Guidelines: (a) Doors should be designed to be part of the overall store front character and should have glass panels.

(b) Acceptable doors are as follows:





City of Richmond

Heritage Alteration Permit

Development Applications Division
6911 No. 3 Road, Richmond, BC V6Y 2C1

File No.: HA 18-804880

To the Holder: Kanaris Demetre Lazos

Property Address: 12111 3rd Avenue

Legal Description: LOT 2 SECTION 10 BLOCK 3 NORTH RANGE 7 WEST NEW WESTMISNTER
DISTRICT PLAN 68935

(s.617, *Local Government Act*)

1. (Reason for Permit)
 - ☐ Designated Heritage Property (s.611)
 - ☐ Property Subject to Temporary Protection (s.609)
 - ☐ Property Subject to Heritage Revitalization Agreement (s.610)
 - ☒ Property in Heritage Conservation Area (s.615)
 - ☐ Property Subject to s.219 Heritage Covenant (Land Titles Act)
2. This Heritage Alteration Permit is issued to authorize all works related to exterior alterations in Attachment 1, Plan #1 to Plan #2.
3. This Heritage Alteration Permit is issued subject to compliance with all of the Bylaws of the City applicable thereto, except as specifically varied or supplemented by this Permit.
4. If the alterations authorized by this Heritage Alteration Permit are not completed within 24 months of the date of this Permit, this Permit lapses.

AUTHORIZING RESOLUTION NO. ISSUED BY THE COUNCIL THE DAY OF

DELIVERED THIS DAY OF , 2018

MAYOR

CORPORATE OFFICER

IT IS AN OFFENCE UNDER THE *LOCAL GOVERNMENT ACT*, PUNISHABLE BY A FINE OF UP TO \$50,000 IN THE CASE OF AN INDIVIDUAL AND \$1,000,000 IN THE CASE OF A CORPORATION, FOR THE HOLDER OF THIS PERMIT TO FAIL TO COMPLY WITH THE REQUIREMENTS AND CONDITIONS OF THE PERMIT.

CNCL - 154

STEVESTON HOTEL &
RESTAURANT

1/8"=1'-0"	DATE Feb. 2018
MJJ	APPROVED -
K.D. LAZOS 604-401-4502	BY A-1

[illegible]

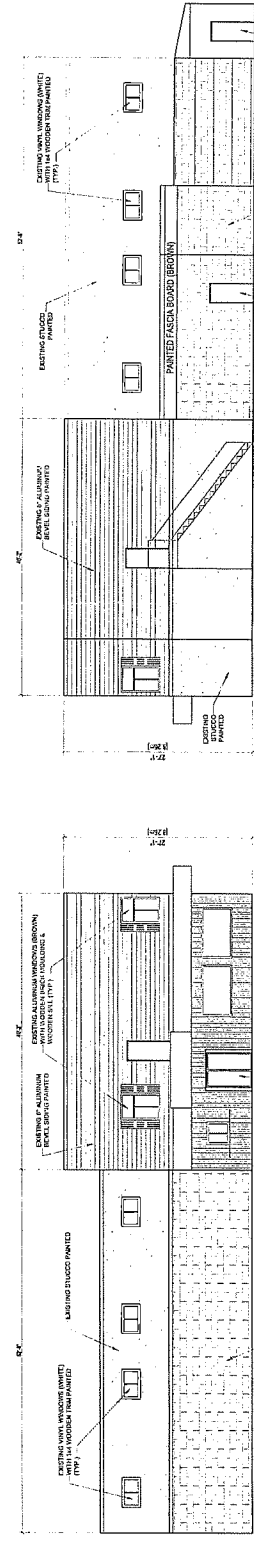
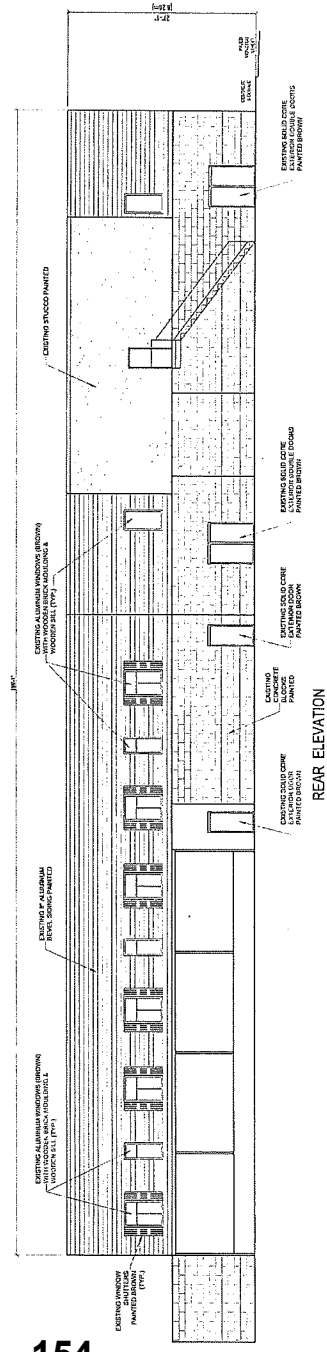
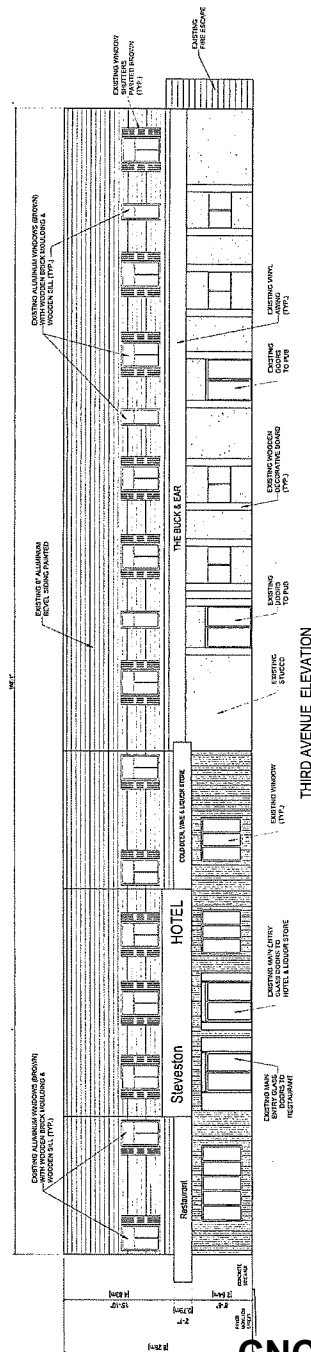
NOTES:

THIS DRAWING WAS BEING PREPARED FOR AN APPLICATION REQUEST TO REMOVE ALL EXISTING WINDOWS OF THE SECOND FLOOR AND REPLACE THEM WITH NEW DOUBLE GLAZED PINTO WINDOWS.

EXISTING WINDOWS FROM WHICH MOULDING A WINDOW WINDOW SILL TO REMAIN AS IS BUT REPAIRED. PAINTED THE SAME COLOR AS NEW WINDOWS.

ALLOW WINDOWS TO BE CHANGED. ALL WINDOWS TO BE CLEAN GLASS EXCEPT BATHROOM WINDOWS WHICH WILL BE OPAQUE GLASS.

ALL WINDOWS TO BE WITH CROWN SILL EXCEPT BATHROOM WINDOWS WHICH ARE TOP PUSH-OUT.



ENCLOSURE

在



City of Richmond

Report to Committee

To: Planning Committee
From: Wayne Craig
Director, Development

Date: April 9, 2018
File: RZ 17-774722


Re: Application by Rav Bains for Rezoning at 3991/3993 Lockhart Road from "Single Detached (RS1/E)" to "Single Detached (RS2/B)"

Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9852, for the rezoning of 3991/3993 Lockhart Road from "Single Detached (RS1/E)" to "Single Detached (RS2/B)", be introduced and given first reading.


Wayne Craig
Director, Development
(604-247-4625)

WC:sds
Att. 7

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	

Staff Report

Origin

Rav Bains has applied to the City of Richmond for permission to rezone the property at 3991/3993 Lockhart Road from the “Single Detached (RS1/E)” zone to the “Single Detached (RS2/B)” zone, to permit the property to be subdivided into two single-family lots, with vehicle access from Lockhart Road (Attachment 1). The subject site is currently occupied by a duplex, which is proposed to be demolished. The proposed subdivision plan is provided in Attachment 2.

Findings of Fact

A Development Application Data Sheet providing details about the development proposal is attached (Attachment 3).

Existing Housing Profile

The applicant has advised both units of the existing duplex are currently rented and contain no existing secondary suites.

Surrounding Development

Development immediately surrounding the subject site is as follows:

To the North: Single-family dwellings on lots zoned “Single Detached (RS1/E)” fronting No. 1 Road, identified for redevelopment as “Arterial Road Single Detached” in the Arterial Road Land Use Policy.

To the South: Across Lockhart Road, single-family dwellings on lots zoned “Single Detached (RS1/B)” fronting Lockhart Road.

To the East: Across No. 1 Road, a single-family dwelling on a lot zoned “Single Detached (RS1/E)”.

To the West: Single-family dwellings on lots zoned “Single Detached (RS1/B)” fronting Lockhart Road.

Related Policies & Studies

Official Community Plan

The Official Community Plan (OCP) land use designation for the subject site is “Neighbourhood Residential (NRES)”. The proposed rezoning and subdivision would comply with this designation.

Arterial Road Land Use Policy

The Arterial Road Land Use Policy in the OCP identifies the subject site for redevelopment as “Arterial Road Single Detached”. The proposed rezoning and subdivision would comply with this designation.

Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.

Public Consultation

A rezoning sign has been installed on the subject property. Staff have not received any comments from the public about the rezoning application in response to the placement of the rezoning sign on the property.

Should the Planning Committee endorse this application and Council grant first reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing, where any area resident or interested party will have an opportunity to comment.

Public notification for the Public Hearing will be provided as per the *Local Government Act*.

Analysis

Built Form and Architectural Character

The applicant has submitted preliminary plans showing the proposed architectural elevations of the corner lot dwelling (proposed Lot 2) at the intersection of No. 1 Road and Lockhart Road (Attachment 4).

Prior to final adoption of the rezoning bylaw, the applicant is required to register legal agreements on Title to ensure the Building Permit application and ensuing development of the corner lot is generally consistent with the submitted conceptual plans, to the satisfaction of the Director of Development, and fencing in the front yard and exterior side yard is limited to a maximum height of 1.2 m. Building Permit plans must comply with all City regulations and staff will ensure the plans are generally consistent with the registered legal agreement.

Legal Encumbrances

Existing legal encumbrances include a 1.5 m by 4.6 m Statutory Right-of-Way (SRW) registered on Title for sanitary sewer utilities located in the northwest corner of the subject property (Plan 52230).

Registration of an additional 1.5 m wide SRW along the north property line, from the east property line to 4.0 m west of the existing storm catch basin, is required to allow for access to the existing storm sewer. An additional 6.0 m wide SRW along the north property line, from the west property line to 3.0 m east of the common property line of the proposed subdivided lots, is also required for sanitary sewer connections. The applicant is required to provide these Statutory Right-of-Ways at Servicing Agreement stage.

The existing and required SRWs will not be impacted by the proposed development and the applicant is aware that encroachment into the SRWs is not permitted.

Transportation and Site Access

Vehicular access to the proposed lots is to be from Lockhart Road, with no access permitted from No. 1 Road, in accordance with Residential Lot (Vehicular) Access Regulation Bylaw No. 7222. Prior to final adoption of the rezoning bylaw, the applicant is required to complete the following:

- Register a legal agreement on Title, ensuring that the only means of vehicle access is to Lockhart Road, and that there is no access to No. 1 Road.
- Provide a 2.75 m road dedication along the east property line to accommodate for future road widening and the required frontage improvements.
- Provide a 4 m x 4 m corner cut road dedication on the southeast corner of the subject site, to be measured from the new property line.

Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report, which identifies tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses nine bylaw-sized trees located on the development site, two trees located on the neighbouring property, and four trees located on City property.

The City's Tree Preservation Coordinator has reviewed the Arborist's Report and Tree Management Plan (Attachment 5), conducted an on-site visual assessment, and concurs with the Arborist's recommendations; with the following comments:

- Three trees (tag# 518, 520 & 523) located on the development site are in good condition. These trees are to be protected as per City of Richmond Tree Protection Information Bulletin TREE-03.
- Two trees (tag# 525 & 526) located in the rear yard are in good condition, however, the trees will be significantly impacted by the installation of the required new sanitary line. Remove and replace.
- Four trees (tag# 519, 522, 524 & 527) located on the development site exhibit sparse canopies, covered in vines, or crowded out by adjacent dominant trees. These trees are not good candidates for retention and should be removed and replaced.

- Two trees (tag# 530 & 531) located on the neighbouring property are to be retained and protected as per City of Richmond Tree Protection Information Bulletin TREE-03.
- Three City-owned trees (tag# 521, 532 & 533) were assessed by the City's Parks Arborist, who has agreed that the applicant can remove the trees due to poor condition. The applicant has received approval from the Parks Department and must contact the department four days prior to removal. Compensation of \$1,300 is required for removal of the trees.
- One City-owned tree (tag# 534) is to be retained and protected. Submission of a Tree Survival Security to the City in the amount of \$2,970 is required as a condition of rezoning approval.

Tree Replacement

The applicant is proposing to remove six on-site trees (tag# 519, 522, 524-527). The OCP tree replacement ratio of 2:1 requires 12 replacement trees to be planted and maintained on-site. The applicant is proposing to plant seven trees. As per Tree Protection Bylaw No. 8057, based on the size of the on-site trees being removed, replacement trees shall be the following minimum sizes:

No. of Replacement Trees	Minimum Caliper of Deciduous Replacement Tree	Minimum Height of Coniferous Replacement Tree
1	6 cm	3.5 m
2	8 cm	4 m
4	9 cm	5 m

To ensure the required replacement trees are planted and maintained on-site, the applicant is required to provide a Landscape Security in the amount of \$3,500 (\$500/tree) prior to final adoption of the rezoning bylaw. In order to ensure the front and exterior yard of the corner lot is enhanced consistent with the landscape guidelines of the Arterial Road Land Use Policy, the applicant is also required to provide an acceptable Landscape Plan and Landscape Security based on 100% of the cost estimate provided by the Landscape Architect, prior to final adoption of the rezoning bylaw. The applicant has submitted a preliminary Landscape Plan (Attachment 6), which will be reviewed in detail prior to final adoption of the rezoning bylaw.

Securities will not be released until a landscaping inspection has been passed by City staff after construction and landscaping has been completed. The City may retain a portion of the security for a one year maintenance period from the date of the landscape inspection.

The applicant is also required to submit a cash-in-lieu contribution in the amount of \$2,500 (\$500/tree) to the City's Tree Compensation Fund for the balance of required replacement trees not planted on the proposed lots (five trees).

Tree Protection

The proposed Tree Management Plan is provided in Attachment 5, which outlines the protection of the three on-site trees (tag# 518, 520 & 523), two neighbouring trees (tag# 530 & 531) and

one City-owned tree (tag# 534). To ensure the protection of these trees, the applicant is required to provide the following, prior to final adoption of the rezoning bylaw:

- Submission to the City of a contract with a Certified Arborist for supervision of all works conducted within or in close proximity to tree protection zones.
- Submission of a Tree Survival Security in the amount of \$32,970 (\$30,000 for the three on-site trees to be protected (based on the sizes of the trees to be retained), and \$2,970 for the one City-owned tree to be retained).

Prior to the demolition of the existing dwelling, the applicant is required to install tree protection fencing around all trees to be retained, in accordance with the City's Tree Protection Information Bulletin TREE-03

Affordable Housing Strategy

The City's Affordable Housing Strategy for single-family rezoning applications prior to July 24, 2017, requires a secondary suite on 100% of new lots, or a secondary suite on 50% of new lots, plus a cash-in-lieu contribution of \$2.00/ft² of total buildable area towards the City's Affordable Housing Reserve Fund for the remaining 50% of new lots, or a 100% cash-in-lieu contribution if secondary suites cannot be accommodated.

The applicant has advised that, due to the size of the proposed lots, accommodating suites would impact house size and design, and reduce the livable space in the proposed dwelling. The applicant proposes to provide a voluntary contribution to the Affordable Housing Reserve Fund based on \$2.00/ft² of total buildable area (i.e. \$9,578.80) in lieu of providing secondary suites, consistent with the Affordable Housing Strategy. The cash-in-lieu contribution must be submitted prior to final adoption of the rezoning bylaw. Staff note that the proposed dwellings are modest in size, and generally support the applicant's proposed Affordable Housing response.

Site Servicing and Frontage Improvements

Prior to Subdivision approval, the applicant is required to enter into a Servicing Agreement for the design and construction of the required site servicing and frontage improvements, as described in Attachment 7. Frontage improvements include, but are not limited to, the following:

- No. 1 Road: New 1.5 m concrete sidewalk at the new property line, plus remaining space to existing curb minimum 1.5 m landscaped boulevard. Frontage improvement must accommodate protection of retained trees along No. 1 Road.
- Lockhart Road: Pavement widening, new curb and gutter, minimum 1.5 m landscaped boulevard and a new 1.5 m concrete sidewalk.

Prior to final adoption of the rezoning bylaw, the applicant will provide a voluntary \$5,650 cash-in-lieu contribution as a cost recovery for the water connection and meter installed by the City's capital water main replacement project along Lockhart Road in 2016.

Prior to Subdivision approval, the applicant is also required to pay current year's taxes and the costs associated with the completion of the required site servicing and frontage improvements as described in Attachment 7.

Financial Impact or Economic Impact

The rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

Conclusion

The purpose of this application is to rezone the property at 3991/3993 Lockhart Road from the "Single Detached (RS1/E)" zone to the "Single Detached (RS2/B)" zone, to permit the property to be subdivided into two single-family lots.

This rezoning application complies with the land use designation and applicable policies contained within the OCP for the subject site.

The list of rezoning considerations is included in Attachment 7, which has been agreed to by the applicant (signed concurrence on file).

On this basis, it is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 9852 be introduced and given first reading.



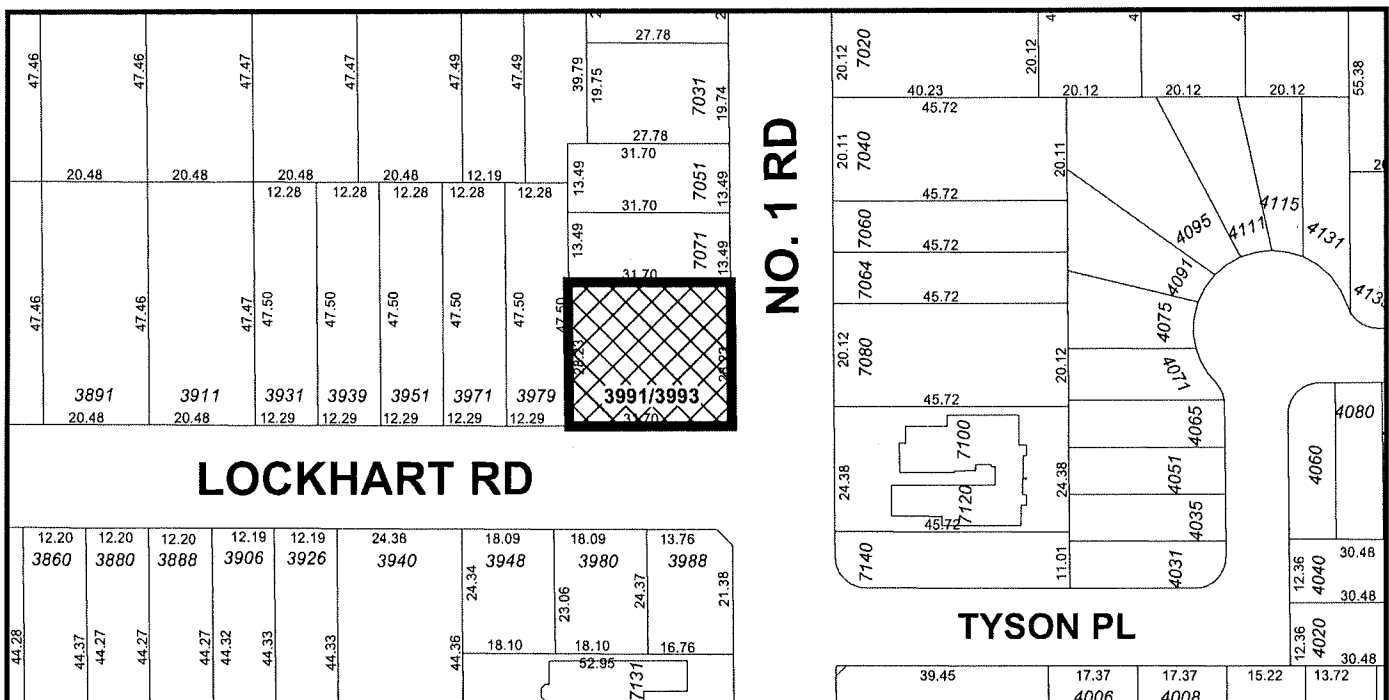
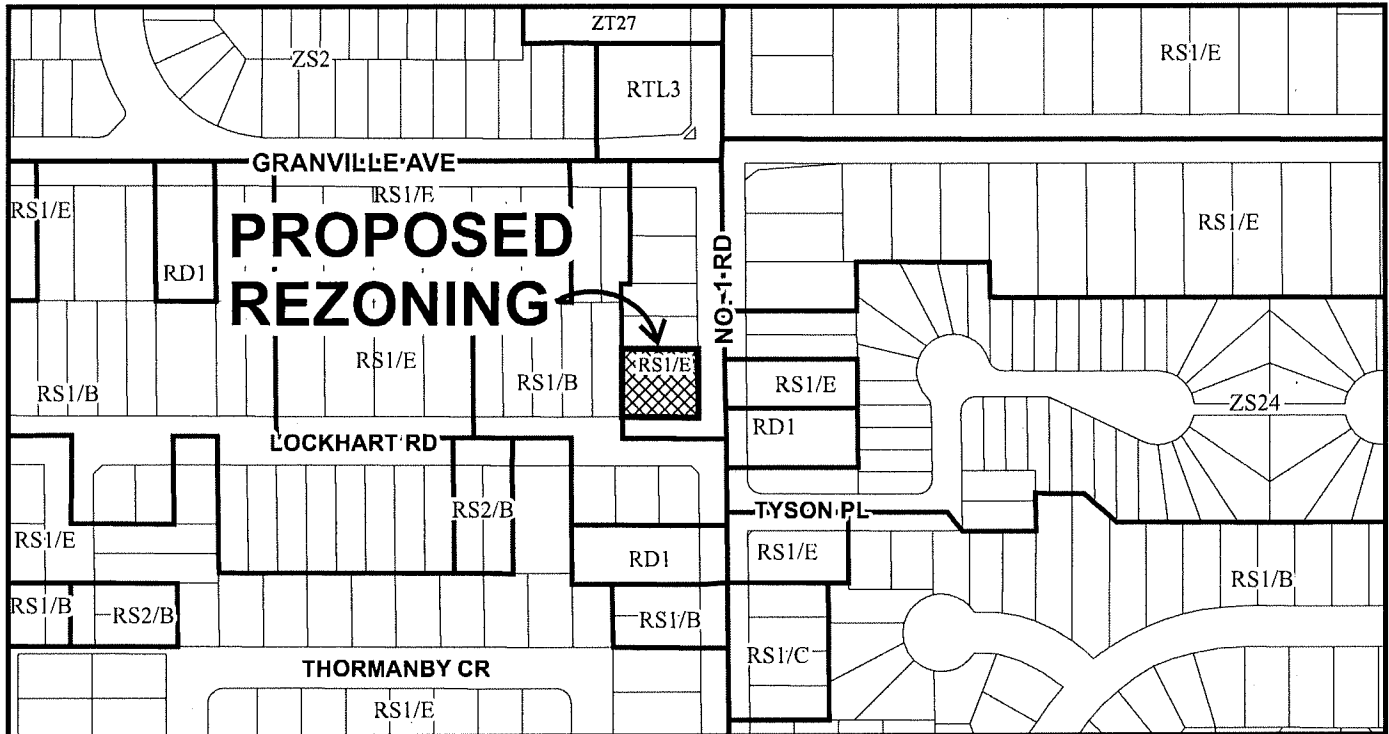
Steven De Sousa
Planning Technician – Design
(604-204-8529)

SDS:blg

- Attachment 1: Location Map/Aerial Photo
- Attachment 2: Proposed Subdivision Plan
- Attachment 3: Development Application Data Sheet
- Attachment 4: Conceptual Building Elevations
- Attachment 5: Tree Management Diagram
- Attachment 6: Preliminary Landscape Plan
- Attachment 7: Rezoning Considerations



City of Richmond



RZ 17-774722

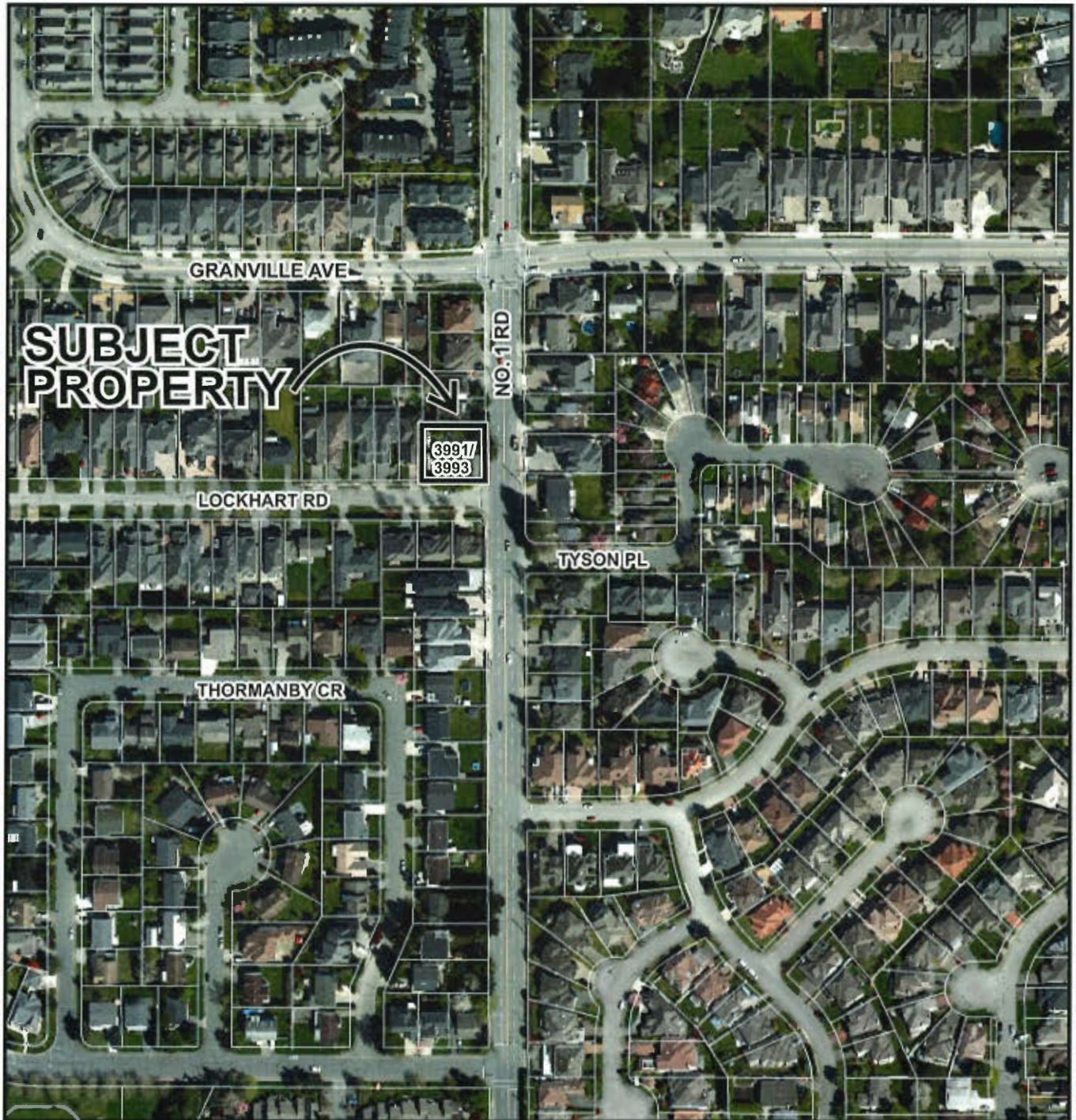
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Revision Date:

Note: Dimensions are in METRES



City of Richmond



RZ 17-774722

Original Date: 06/26/17

Revision Date:

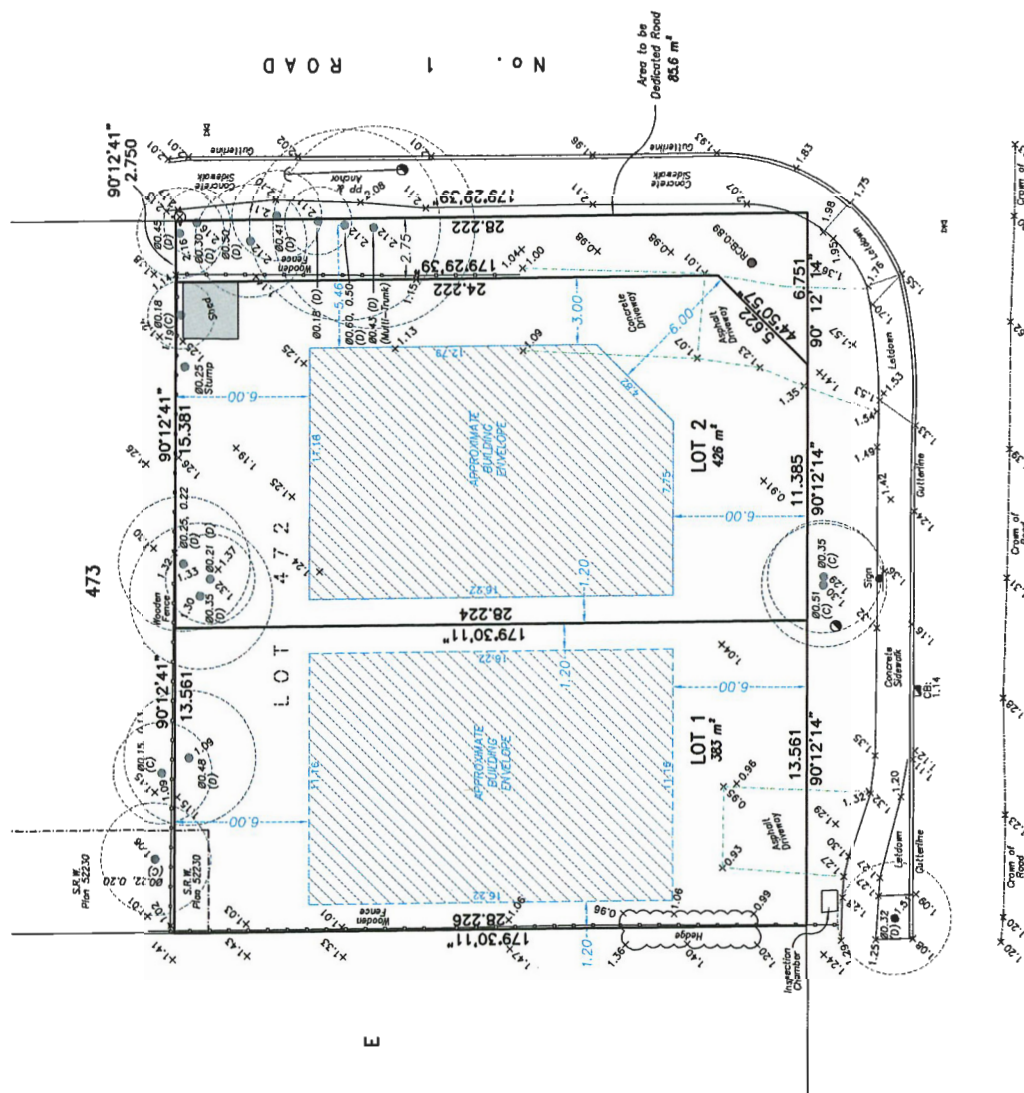
Note: Dimensions are in METRES

TOPOGRAPHIC SURVEY AND PROPOSED SUBDIVISION OF
LOT 472 SECTION 15 BLOCK 4 NORTH RANGE 7 WEST
NEW WESTMINSTER DISTRICT PLAN 52229

#1951 LOCKHART ROAD,
RICHMOND, B.C.
P.I.D. 003-553-591



SCALE: 1:150
ALL DISTANCES ARE IN METRES AND DECIMALS
THEREOF UNLESS OTHERWISE INDICATED



CNCL - 165

NOTES:
Elevations shown are based on
City of Richmond M.P.N.
Benchmark: M.P.N. #235
Control Monument 77144855
Elevation: 1.103m
Benchmark: M.P.N. #234
Control Monument 77144891
Elevation: 1.125m

NOTE:
Use Site Benchmark Tag #1724 for
construction elevation control.

LEGEND:
(C) denotes center
○ denotes catch basin
● denotes round catch basin
W denotes water valve
◇ denotes fire hydrant
▽ denotes sign
⊕ denotes power post
MF denotes main floor

copyright
J. C. Tam and Associates
Canada and B.C. Land Surveyor
115 - 8633 Odlin Crescent
Richmond, B.C. V6X 3Z7
Telephone: 214-8928
Fax: 214-8929
E-mail: office@jctam.com
Website: www.jctam.com
Job No. 6898
PB-333 P14-16
Drawn By: IO

LOCKHART ROAD

CERTIFIED CORRECT:
LOT DIMENSIONS ACCORDING TO
FIELD SURVEY.
JOHNSON C. TAM, B.C.L.S., C.L.S.
MAY 24th, 2017.

DWG No. 6898-Topo-04



RZ 17-774722

Attachment 3

Address: 3991/3993 Lockhart Road

Applicant: Rav Bains

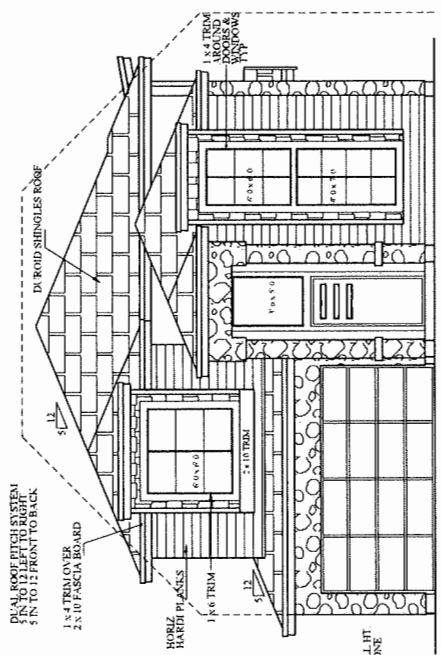
Planning Area(s): Seafair

	Existing	Proposed
Owner:	G., N., K., & D Atwal	To be determined
Site Size:	894.6 m ² (9,629 ft ²)	Lot 1: 383 m ² (4,123 ft ²) Lot 2: 426 m ² (4,585 ft ²) Road dedication: 85.6 m ² (921 ft ²)
Land Uses:	Single-family residential	No change
OCP Designation:	Neighbourhood Residential	No change
Arterial Road Land Use Policy:	Arterial Road Single Detached	No change
Zoning:	Single Detached (RS1/E)	Single Detached (RS2/B)

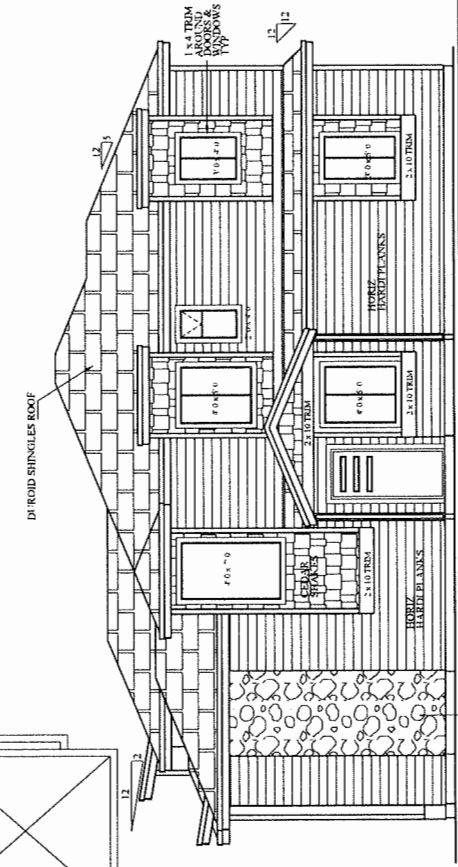
Proposed Lots	Bylaw Requirement		Proposed		Variance
Floor Area Ratio:	Max. 0.55 for 464.5 m ² of lot area plus 0.3 for remainder		Max. 0.55 for 464.5 m ² of lot area plus 0.3 for remainder		None permitted
Buildable Floor Area:*	Lot 1: Max. 210.6 m ² (2,267 ft ²) Lot 2: Max. 234.3 m ² (2,521 ft ²)		Lot 1: Max. 210.6 m ² (2,267 ft ²) Lot 2: Max. 234.3 m ² (2,521 ft ²)		None permitted
Lot Coverage:	Buildings: Max. 45% Non-porous: Max. 70% Landscaping: Min. 25%		Buildings: Max. 45% Non-porous: Max. 70% Landscaping: Min. 25%		None
Lot Size:	360.0 m ²		Lot 1: 383 m ² Lot 2: 426 m ²		None
Lot Dimensions:	Lot 1 Width: 12.0 m Depth: 24.0 m	Lot 2 Width: 14.0 m Depth: 24.0 m	Lot 1 Width: 13.5 m Depth: 28.2 m	Lot 2 Width: 15.3 m Depth: 28.2 m	None
Setbacks:	Front: Min. 6.0 m Rear (60% of rear wall): Min. 20% of lot depth Rear (40% of rear wall): Min. 25% of lot depth Interior side: Min. 1.2 m Exterior side: 3.0 m		Front: Min. 6.0 m Rear (60%): Min. 6.0 m Rear (40%): Min. 7.0 m Interior side: Min. 1.2 m Exterior side: 3.0 m		None
Height:	Max. 2 ½ storeys		Max. 2 ½ storeys		None

Other: Tree replacement compensation required for loss of significant trees.

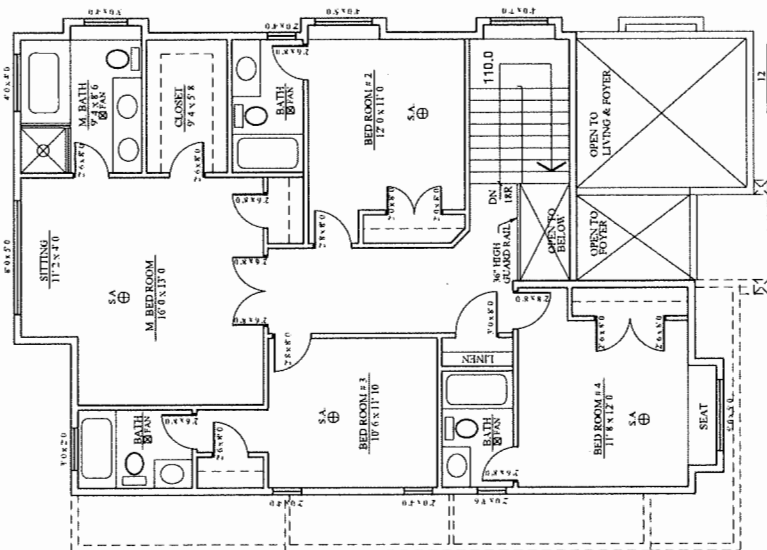
* Preliminary estimate; not inclusive of garage; exact building size to be determined through zoning bylaw compliance review at Building Permit stage.



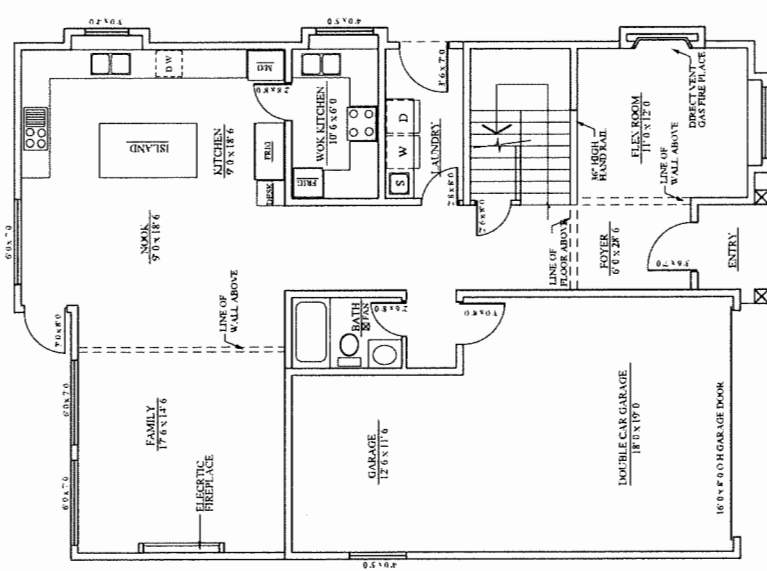
FRONT ELEVATION - Lot 2
(SOUTH ELEVATION)



RIGHT SIDE ELEVATION - Lot 2
(EAST ELEVATION)



SECOND FLOOR PLAN - Lot 2
AREA = 1367 - 107 = 1260



GROUND FLOOR PLAN - Lot 2
AREA = 1785 - 538 = 1247.0 SF

APR 10 2014	REVISED TO CITY COMMENTS
APR 04 2014	REVISED TO CITY COMMENTS
Astonish Design & Detailing Ltd.	
19732 - 718 Ave Langley B.C.	
PH 1 604 539 1740 FAX 1 604 539 1741	
CELL 1 604 728 0389 E-MAIL: astondesign@astondesign.com	
DATE:	Lot 2 - Floor Plans
PROJECT:	1991 - 1993 - Lockhart Road Richmond BC
DESIGNER:	ASTONISH
DRAWN BY:	ASTONISH
CHECKED BY:	ASTONISH

THESE PLANS CONFORM TO
B.C.B.C. 2012 EDITION

Revised Apr 10 4:55 pm

Site plan for Lot 1 and Lot 2, showing building envelopes, trees, and landscaping details. The plan includes a north arrow, a scale bar (0 to 10 meters), and a title block with the text "CNCL-168" and "SCALED TO FIT". The plan is dated "1998" and "1999". The title block also includes the text "ALL DISTANCES ARE IN METRES" and "Page 12".

#	Type	Action	DBH	MPZ
518	Black Locust	Retain	40cm	2.4m
519	Deciduous	Remove	20cm	1.2m
520	Black Locust	Retain	40cm	2.4m
521	Deciduous	Remove	30/15cm	2.5m
522	Deciduous	Remove	15cm	0.9m
523	English Oak	Retain	50/50cm	4.4m
524	Horsechestnut	Remove	20/20/20cm	2.0m
525	Silver Birch	Remove	48cm	2.9m
526	Black Locust	Remove	40cm	2.4m
527	Plum	Remove	35/20/20cm	3.0m
530	Lawson Cypress	Retain	20/10cm	1.8m
531	Lawson Cypress	Retain	12/10cm	1.5m
532	Douglas Fir	Remove	31cm	1.9m
533	Western Redcedar	Remove	34cm	2.0m
534	Armstrong Maple	Retain	33cm	2.0m

550	Grand Fir	0	19cm	1.1m
-----	-----------	---	------	------

DBH- trunk diameter, MPZ- protection zone

Minimum Radial Distance from trunk

#	Type	DBH	Metres	Feet
518	Black Locust	40cm	5.0m	16.4ft
520	Black Locust	40cm	5.0m	16.4ft
523	English Oak	50/50cm	5.0m	16.4ft
530	Lawson Cypress	20/10cm	3.0m	9.8ft
531	Lawson Cypress	12/10cm	2.0m	6.6ft
534	Armstrong Maple	33cm	3.0m	9.8ft

<p>Froggers Creek Tree Consultants Ltd</p> <p>7783 McGeorge Avenue Burnaby BC V5J 4W4 Telephone 604-721-6902 Fax 604-437-3900</p>	<p>TRA</p> <p>3991 and 3993 Lockhart Rd, Richmond BC</p> <p>TRAC</p> <p>THE DRAINAGE SYSTEMS PROPOSED FOR RETENTION, REMOVAL, THEIR CANOPIES, PROTECTION ZONES AND PROTECTION FENCING IN RELATION TO PROPOSED LAYOUT</p> <p>October 3, 1991</p>
--	---

NOTES:
PLANTS IN THE PLANT LIST ARE SPECIFIED ACCORDING TO THE LANDSCAPE CANADA GUIDE SPECIFICATIONS FOR NURSERY STOCK AND THE BCNITA STANDARD FOR CONTAINER GROWN PLANTS.
ALL LANDSCAPING AND LANDSCAPE MATERIALS CONFORM TO THE LATEST EDITION OF THE BCNITA/BCSLA "LANDSCAPE STANDARDS".

SCALED TO FIT

2.5 0 5 10
ALL DISTANCES ARE IN METRES

Page 12

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pmg LANDSCAPE ARCHITECTS
 Suite 2100 4165 8th Ave. S.W.
 Richmond, BC V6X 3E9
 P: 604 294-0011 F: 604 294-0022

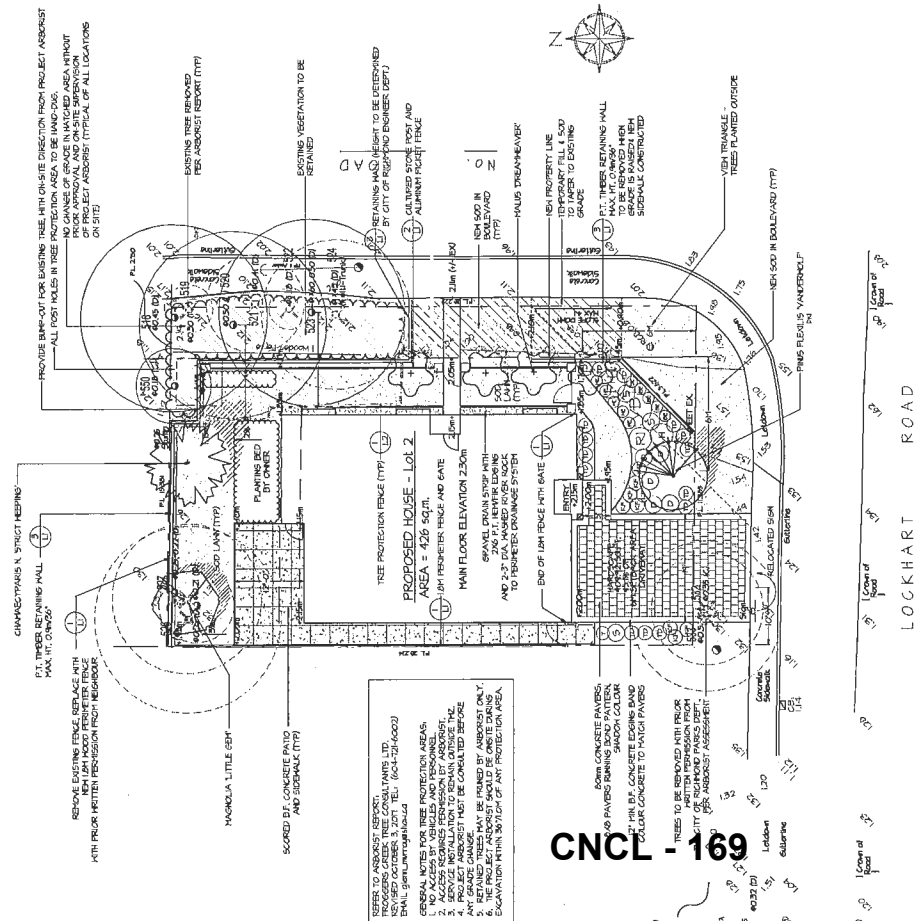
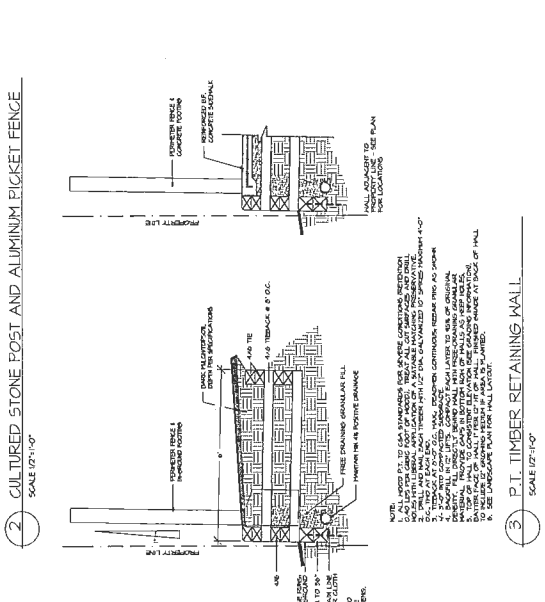
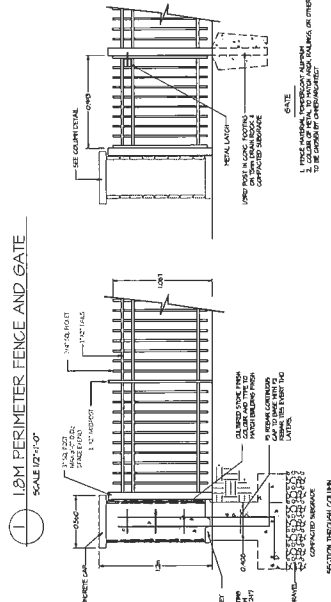
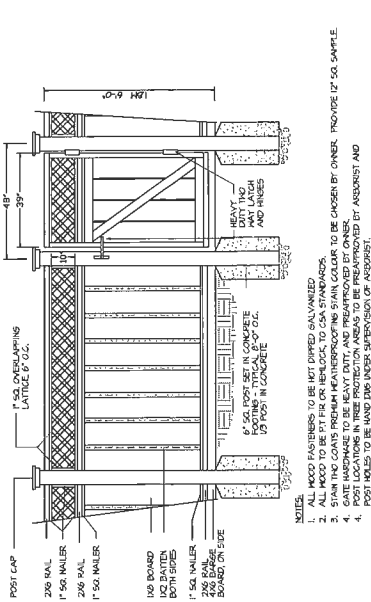
SCALE:

PROJ. DET: RESIDENTIAL REZONING

3993 LOCKHART ROAD
 RICHMOND, BC

DRAWING TITLE
LANDSCAPE PLAN

DATE: 17 DEC 24
 SCALE: 1"=10'-0"
 DRAWN: BJ
 DESIGN: BJ
 CHECK: PDM
 PWD PROJECT NUMBER: 17-236
 OF: 17-236



PLANT SCHEDULE	PLANT SCHEDULE	PLANT SCHEDULE	PLANT SCHEDULE
1. 1.2M PERIMETER FENCE AND GATE	2. CULTURED STONE POST AND ALUMINUM PICKET FENCE	3. P.I. TIMBER RETAINING WALL	4. 1.2M PERIMETER FENCE AND GATE
5. 1.2M PERIMETER FENCE AND GATE	6. CULTURED STONE POST AND ALUMINUM PICKET FENCE	7. P.I. TIMBER RETAINING WALL	8. 1.2M PERIMETER FENCE AND GATE
9. 1.2M PERIMETER FENCE AND GATE	10. CULTURED STONE POST AND ALUMINUM PICKET FENCE	11. P.I. TIMBER RETAINING WALL	12. 1.2M PERIMETER FENCE AND GATE
13. 1.2M PERIMETER FENCE AND GATE	14. CULTURED STONE POST AND ALUMINUM PICKET FENCE	15. P.I. TIMBER RETAINING WALL	16. 1.2M PERIMETER FENCE AND GATE
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25. 1.2M PERIMETER FENCE AND GATE	26. CULTURED STONE POST AND ALUMINUM PICKET FENCE	27. P.I. TIMBER RETAINING WALL	28. 1.2M PERIMETER FENCE AND GATE
29. 1.2M PERIMETER FENCE AND GATE	30. CULTURED STONE POST AND ALUMINUM PICKET FENCE	31. P.I. TIMBER RETAINING WALL	32. 1.2M PERIMETER FENCE AND GATE
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37. 1.2M PERIMETER FENCE AND GATE	38. CULTURED STONE POST AND ALUMINUM PICKET FENCE	39. P.I. TIMBER RETAINING WALL	40. 1.2M PERIMETER FENCE AND GATE
41. 1.2M PERIMETER FENCE AND GATE	42. CULTURED STONE POST AND ALUMINUM PICKET FENCE	43. P.I. TIMBER RETAINING WALL	44. 1.2M PERIMETER FENCE AND GATE
45. 1.2M PERIMETER FENCE AND GATE	46. CULTURED STONE POST AND ALUMINUM PICKET FENCE	47. P.I. TIMBER RETAINING WALL	48. 1.2M PERIMETER FENCE AND GATE
49. 1.2M PERIMETER FENCE AND GATE	50. CULTURED STONE POST AND ALUMINUM PICKET FENCE	51. P.I. TIMBER RETAINING WALL	52. 1.2M PERIMETER FENCE AND GATE
53. 1.2M PERIMETER FENCE AND GATE	54. CULTURED STONE POST AND ALUMINUM PICKET FENCE	55. P.I. TIMBER RETAINING WALL	56. 1.2M PERIMETER FENCE AND GATE
57. 1.2M PERIMETER FENCE AND GATE	58. CULTURED STONE POST AND ALUMINUM PICKET FENCE	59. P.I. TIMBER RETAINING WALL	60. 1.2M PERIMETER FENCE AND GATE
61. 1.2M PERIMETER FENCE AND GATE	62. CULTURED STONE POST AND ALUMINUM PICKET FENCE	63. P.I. TIMBER RETAINING WALL	64. 1.2M PERIMETER FENCE AND GATE
65. 1.2M PERIMETER FENCE AND GATE	66. CULTURED STONE POST AND ALUMINUM PICKET FENCE	67. P.I. TIMBER RETAINING WALL	68. 1.2M PERIMETER FENCE AND GATE
69. 1.2M PERIMETER FENCE AND GATE	70. CULTURED STONE POST AND ALUMINUM PICKET FENCE	71. P.I. TIMBER RETAINING WALL	72. 1.2M PERIMETER FENCE AND GATE
73. 1.2M PERIMETER FENCE AND GATE	74. CULTURED STONE POST AND ALUMINUM PICKET FENCE	75. P.I. TIMBER RETAINING WALL	76. 1.2M PERIMETER FENCE AND GATE
77. 1.2M PERIMETER FENCE AND GATE	78. CULTURED STONE POST AND ALUMINUM PICKET FENCE	79. P.I. TIMBER RETAINING WALL	80. 1.2M PERIMETER FENCE AND GATE
81. 1.2M PERIMETER FENCE AND GATE	82. CULTURED STONE POST AND ALUMINUM PICKET FENCE	83. P.I. TIMBER RETAINING WALL	84. 1.2M PERIMETER FENCE AND GATE
85. 1.2M PERIMETER FENCE AND GATE	86. CULTURED STONE POST AND ALUMINUM PICKET FENCE	87. P.I. TIMBER RETAINING WALL	88. 1.2M PERIMETER FENCE AND GATE
89. 1.2M PERIMETER FENCE AND GATE	90. CULTURED STONE POST AND ALUMINUM PICKET FENCE	91. P.I. TIMBER RETAINING WALL	92. 1.2M PERIMETER FENCE AND GATE
93. 1.2M PERIMETER FENCE AND GATE	94. CULTURED STONE POST AND ALUMINUM PICKET FENCE	95. P.I. TIMBER RETAINING WALL	96. 1.2M PERIMETER FENCE AND GATE
97. 1.2M PERIMETER FENCE AND GATE	98. CULTURED STONE POST AND ALUMINUM PICKET FENCE	99. P.I. TIMBER RETAINING WALL	100. 1.2M PERIMETER FENCE AND GATE



Address: 3991/3993 Lockhart Road

File No.: RZ 17-774722

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9852, the developer is required to complete the following:

1. Road dedication along the entire east property line measuring 2.75 m wide and a 4 m x 4 m corner cut measured from the new property line, for a total area of 85.6 m².
2. Submission of a Landscape Security in the amount of \$3,500 (\$500/tree) to ensure that a total of seven replacement trees are planted and maintained on-site with the following minimum sizes:

No. of Replacement Trees	Minimum Caliper of Deciduous Tree	or	Minimum Height of Coniferous Tree
1	6 cm		3.5 m
2	8 cm		4 m
4	9 cm		5 m

If required replacement trees cannot be accommodated on-site, a cash-in-lieu contribution in the amount of \$500/tree to the City's Tree Compensation Fund for off-site planting is required.

3. Submission of a Landscape Plan for the front and exterior side yards of the proposed corner lot, prepared by a Registered Landscape Architect, to the satisfaction of the Director of Development, and deposit of a Landscaping Security based on 100% of the cost estimate provided by the Landscape Architect, including all hard and soft materials, installation and a 10% contingency. The Landscape Plan should:
 - comply with the guidelines of the OCP's Arterial Road Policy;
 - include a mix of coniferous and deciduous trees;
 - include low fencing along the street frontages (max. 1.2 m in height);
 - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report;
4. City's acceptance of the developer's offer to voluntarily contribute \$2,500 to the City's Tree Compensation Fund for the planting of replacement trees within the City.
5. City's acceptance of the applicant's voluntary contribution of \$1,300 for the removal of the three City-owned trees (tag# 521, 532 & 533), in order for the City to plant two trees at or near the development site.
6. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
7. Submission of a Tree Survival Security to the City in the amount of \$32,970 (\$30,000 for the three on-site trees (tag# 518, 520 & 523) and \$2,970 for the one City-owned tree (tag# 534) to be retained).
8. Registration of a flood indemnity covenant on title.
9. Registration of a legal agreement on title ensuring that the only means of vehicle access is to Lockhart Road and that there be no access to No. 1 Road.
10. Registration of a legal agreement on Title, ensuring that the Building Permit application and ensuing development of the corner lot is generally consistent with the submitted conceptual plans, to the satisfaction of the Director of Development
11. Registration of a legal agreement on Title, ensuring fencing in the front yard and exterior side yard is limited to a maximum height of 1.2 m.
12. The City's acceptance of the applicant's voluntary contribution of \$2.00 per buildable square foot of the single-family developments (i.e. \$9,578.80) to the City's Affordable Housing Reserve Fund.
13. The City's acceptance of the applicant's voluntary contribution of \$5,650 as cost recovery for the water connection and meter installed by the City capital water main replacement project along Lockhart Road in 2016 (Account # 0645 – Cash-in-Lieu Water Provisions Account). This does not include any disconnect/reconnect fees.

Prior Demolition Permit* issuance, the developer must complete the following requirements:

1. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin TREE-03 prior to any construction activities, including building demolition, occurring on-site, and must remain in place until construction and landscaping on-site is completed.
2. Contact the City's Parks Department a minimum of four days in advance to enable signage to be posted for the removal of the City-owned trees (tag# 521, 532 & 533).

At Subdivision* stage, the developer must complete the following requirements:

1. Payment of current year's taxes and the costs associated with the completion of the required site servicing and frontage improvements.
2. Enter into a Servicing Agreement* for the design and construction of engineering infrastructure improvements. Works include, but may not be limited to, the following:

Water Works:

- a) Using the OCP Model, there is 421.0 L/s of water available at a 20 psi residual at the No 1 Road frontage. Based on your proposed development, your site requires a minimum fire flow of 95 L/s.
- b) The Developer is required to:
 - i) Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm development has adequate fire flow for onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.
 - ii) Pay a voluntary \$5,650 cash-in-lieu contribution for the water connection and meter installed by the City capital water main replacement project along Lockhart Road. Payment should be made to the cash-in-lieu water provisions account, transit code 0645. Please note that this does not include any disconnect/reconnect fees required at building permit stage.
- c) At Developer's cost, the City is to:
 - i) Install one new water service connections, complete with meter and meter box, to serve the proposed eastern lot.
 - ii) Retain the existing water connection to serve the proposed western lot.

Storm Sewer Works:

- d) The Developer is required to:
 - i) Cut and cap, at inspection chamber, the existing storm service connection serving the development site. Inspection chamber STIC51798 to be retained to serve 7071 No 1 Road.
 - ii) Cut and cap, at main, the three existing storm service connections along Lockhart Road and remove inspection chambers.
 - iii) Install a new storm service connection at the adjoining property line of the newly subdivided lots, complete with inspection chamber and dual service leads.
 - iv) Provide, at no cost to the City, a 1.5-m wide statutory right-of-way along the north property line from the east property line 4.0 m west for the existing storm catch basin.
- e) At Developer's cost, the City is to:
 - i) Perform all tie-ins for the proposed works to existing City infrastructure.

Sanitary Sewer Works:

- f) The Developer is required to:
 - i) Remove inspection chamber SIC3276 and service connection and extend the existing 150 mm sanitary sewer south approximately 3.0 m and install a new manhole. From the new manhole, install a new 150 mm sanitary sewer east approximately 15.0 m and end with a new manhole at the common property line of the newly subdivided lots.
 - ii) Install two sanitary service connections off of the proposed manhole at the common property line of the newly subdivided lots.
 - iii) Provide, at no cost to the City, a 6.0 m-wide statutory right-of-way along the north property line from the west property line to 3.0 m past the common property line of the newly subdivided lots for the proposed sanitary sewer.
 - iv) Not start onsite excavation or foundation construction until completion of rear-yard sanitary works.
- g) At Developer's cost, the City is to:

- i) Perform all tie-ins for the proposed works to existing City infrastructure.

Frontage Improvements:

- h) The Developer is required to:
 - i) Coordinate with BC Hydro, Telus and other private communication service providers:
 - (1) Before relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
 - (2) To locate all above ground utility cabinets and kiosks required to service the proposed development within the development site.
 - ii) Complete other frontage improvements as per Transportation's requirements, which include, but are not limited to the following:
 - (1) Road dedication along the entire east property line measuring 2.75 m wide and a 4 m x 4 m corner cut measured from the new property line, for a total area of 85.6 m².
 - (2) No. 1 Road: new 1.5 m concrete sidewalk at the new property line, plus remaining space to existing curb minimum 1.5 m landscaped boulevard. A 9.0 m corner radius is required for the new curb at the southwest corner of the intersection. Handrail on No.1 Road may be required depending on the slope to the site behind the new sidewalk. Frontage improvement must accommodate protection of retained trees along No. 1 Road.
 - (3) Lockhart Road: pavement widening and new curb and gutter located at 5.6 m north of existing centreline of road at existing stop bar location and taper back across the site to existing curb location at west property line. Behind the new curb a 1.5 m landscaped boulevard and a 1.5 m concrete sidewalk.
 - (4) All utility work relocations including hydro/tel. poles due to frontage upgrades are the responsibility of the applicant.
 - (5) All future driveway locations to conform to Bylaw 7222 setback requirements from the intersection.
 - (6) Registration of a covenant on Title restricting access to No. 1 Road.
 - (7) Prior to issuance of a Building Permit, construction parking and traffic management plan to be provided to the Transportation Division.

General Items:

- i) The Developer is required to:
 - i) Not encroach into the proposed right of ways with trees, non-removable fencing, or other non-removable structures.
 - ii) Enter into, if required, 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, 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 Building Permit Issuance, the developer must complete the following requirements:

1. 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.
2. If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.
3. If applicable, 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 copy on file]

Signed

Date



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9852 (RZ 17-774722)
3991/3993 Lockhart Road**

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. 003-553-591

Lot 472 Section 15 Block 4 North Range 7 West New Westminster District Plan 52229

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9852"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

CITY OF RICHMOND
APPROVED by 
APPROVED by Director or Solicitor 

MAYOR

CORPORATE OFFICER



City of Richmond

Report to Committee

To: Planning Committee
From: Wayne Craig
Director, Development

Date: April 6, 2018
File: RZ 16-733565


Re: Application by Matthew Cheng Architect Inc. for Rezoning at 8280/8282 and 8300/8320 No. 3 Road from "Two-Unit Dwellings (RD1)" to "Low Density Townhouses (RTL4)"

Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9856, for the rezoning of 8280/8282 and 8300/8320 No. 3 Road from "Two-Unit Dwellings (RD1)" to "Low Density Townhouses (RTL4)", be introduced and given first reading.


Wayne Craig
Director, Development

WC:el
Att.5

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Affordable Housing	<input checked="" type="checkbox"/>	

Staff Report

Origin

Matthew Cheng Architect Inc. has applied to the City of Richmond for permission to rezone 8280/8282 and 8300/8320 No. 3 Road (Attachment 1) from “Two-Unit Dwellings (RD1)” zone to “Low Density Townhouses (RTL4)” zone in order to permit the development of 10 townhouse units with vehicle access from No. 3 Road. The properties are each occupied by an existing duplex, which will be demolished.

Project Description

The two existing lots under this application have a total combined frontage of approximately 50.25 m, and are proposed to be consolidated into one development parcel. The proposed density is 0.60 FAR. The site frontage and proposed density are consistent with the OCP/Arterial Road Land Use Policy. The site layout includes four two-storey units and six three-storey units in three townhouse clusters. One secondary suite and one convertible unit are included in this proposal. Vehicle access is provided by a single driveway access to No. 3 Road.

A preliminary site plan, building elevations, and landscape plan are contained in Attachment 2.

Findings of Fact

A Development Application Data Sheet providing details about the development proposal is attached (Attachment 3).

Subject Site Existing Housing Profile

The applicant has advised that there are no secondary suites in the existing duplexes. All units were tenanted at the time the developer acquired the properties. The units are now vacant and the developer is preparing to demolish the duplexes in April 2018.

Surrounding Development

To the North: An existing duplex on a lot zoned “Two-Unit Dwellings (RD1)”; which is identified for townhouse development under the Arterial Road Land Use Policy, and a public walkway between No. 3 Road and Luton Road.

To the South: Existing single family homes on lots zoned “Single Detached (RS1/E)”; which are identified for townhouse development under the Arterial Road Land Use Policy.

To the East: Existing single family dwellings and duplexes on lots zoned “Single-Detached (RS1/E)” and “Two-Unit Dwellings (RD1)”.

To the West: Across No. 3 Road, existing single family homes on lots zoned “Single Detached (RS1/E)”, “Single Detached (RS1/B)”, and “Compact Single Detached (RC1)”; which are identified for compact lot single detached development under the Arterial Road Land Use Policy.

Related Policies & Studies

Official Community Plan

The 2041 Official Community Plan (OCP) Land Use Map designation for the subject site is “Neighbourhood Residential”. The redevelopment proposal for 10 townhouses is consistent with this designation.

Arterial Road Policy

The Arterial Road Land Use Policy in the City’s 2041 Official Community Plan Bylaw 9000, directs appropriate townhouse development onto certain arterial roads outside the City Centre. The subject site is identified for “Arterial Road Townhouse” on the Arterial Road Housing Development Map and the proposal is largely in compliance with the Townhouse Development Requirements under the Arterial Road Policy. The proposed site assembly will leave a residual development site to the north that will not meet the minimum 50 m site frontage requirement. The residual development site to the north at 8260/8266 No. 3 Road, located between the subject site and the public walkway to the north, has a frontage of approximately 15.19 m.

The applicant advised staff in writing that they have made attempts to acquire adjacent properties, but cannot reach an agreement with the owners. The applicant has requested that this application proceed without the acquisition of the adjacent property to the north.

While the proposed development would create an orphan lot situation on the north side of the subject site, staff support the proposed development, as it will not restrict redevelopment of the adjacent site, at 8260/8266 No. 3 Road, based on:

- the adjacent property owners are not interested in redeveloping their properties at this time;
- a Public Rights-of-Passage (PROP) Statutory Right-of-Way (SRW) over the entire internal drive aisle on the subject site will be registered on Title of the subject site as a condition of rezoning to provide vehicle access to future townhouse development on the adjacent site to the north;
- a development concept plan for the adjacent site to the north has been prepared and is on file; and
- the developer has agreed to provide garbage/recycling collection facilities on-site and allow shared use of those facilities with future townhouse development on the adjacent site to the north. A cross-access easement/agreement will be registered on Title of the subject site as a condition of rezoning to secure this arrangement.

Floodplain Management Implementation Strategy

The proposed redevelopment must meet the requirements of the Richmond Flood Plain Designation and Protection Bylaw 8204. Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.

Public Consultation

A rezoning sign has been installed on the subject property. Staff have not received any comments from the public about the rezoning application in response to the placement of the rezoning sign on the property.

Should the Planning Committee endorse this application and Council grant first reading to the rezoning bylaw, the bylaw will be forwarded to a Public Hearing; where any area resident or interested party will have an opportunity to comment.

Public notification for the Public Hearing will be provided as per the *Local Government Act*.

Analysis

Built Form and Architectural Character

The applicant proposes to consolidate the two duplex lots into one development parcel, with a total area of 2,140 m². The proposal consists of a townhouse cluster with six units along No. 3 Road, and two duplexes (four units in total) along the rear (east) property line. The layout of the townhouse units is oriented around a single driveway providing access to the site from No. 3 Road and a north-south internal manoeuvring aisle providing access to the unit garages. The outdoor amenity area will be situated at southeast corner of the site. An on-site turnaround will be provided on the east side of the internal drive aisle adjacent to the proposed outdoor amenity space.

The height of the townhouse cluster proposed along No. 3 Road is three storeys, with a minimum 7.5 m side yard setback provided to the third floor of the building. Two-storey duplex units are proposed along the rear lot line (east) to serve as a transition to the single-family homes to the east. One ground level secondary suite is proposed to be included in Unit 1, located at the northwest corner of the site, fronting on No. 3 Road (see Attachment 2). The size of the secondary suite is approximately 28 m² (299 ft²) and the total net floor area of Unit 1 is approximately 150 m² (1,613 ft²). A dedicated surface parking stall will be assigned to the secondary unit.

To ensure that the secondary suite will not be stratified or otherwise held under separate title, registration of a legal agreement on Title is required prior to final adoption of the rezoning bylaw.

To ensure that the secondary suite is built, registration of a legal agreement on Title, stating that no Building Permit inspection granting occupancy will be completed until the secondary suite is constructed to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw, is required prior to final adoption of the rezoning bylaw.

To ensure that the parking stall assigned to the secondary suite is for the sole use of the secondary suite, registration of a legal agreement on Title is required prior to final adoption of the rezoning bylaw.

A Development Permit processed to a satisfactory level is a requirement of zoning approval. Through the Development Permit, the following issues are to be further examined:

- Compliance with Development Permit Guidelines for multiple-family projects in the 2041 Official Community Plan (OCP).
- Refinement of the proposed building form.
- Refinement of the proposed site grading to ensure survival of all proposed protected trees, and to provide appropriate transition between the proposed development and adjacent existing developments.
- Refinement of the outdoor amenity area design, including the choice of play equipment and bollards/fencing; to create a safe and vibrant environment for children's play and social interaction.
- Review of size and species of on-site replacement trees to ensure bylaw compliance and to achieve an acceptable mix of conifer and deciduous trees on-site.
- Opportunities to maximize planting areas along internal drive aisles; to maximize permeable surface areas, and to better articulate hard surface treatments on site.
- Review of aging-in-place features in all units and the provision of convertible units.
- Review of a sustainability strategy for the development proposal; including measures to achieve an EnerGuide Rating System (ERS) score of 82.

Additional issues may be identified as part of the Development Permit application review process.

Existing Legal Encumbrances

There is an existing 3.0 m wide utility Right-of-Way (ROW) along the east property line of 8280/8282 No. 3 Road for an existing sanitary sewer line. In addition, there is an existing 1.5 m x 3.0 m utility ROW at the southwest corner of the subject site for an existing storm sewer connection. The developer is aware that no construction is permitted in these areas.

There are also currently two restrictive covenants on Title (one on each subject lot) restricting the use of these properties to a two-family dwelling only (registration number AD281208 and AB169999). Prior to final adoption of the rezoning bylaw, the applicant must discharge these covenants from Titles of the properties.

Furthermore, there is an existing restrictive covenant on Title of 8300/8320 No. 3 Road (registration number Z173798) requiring that any dwelling on the land be designed to enable vehicles to enter and leave the property without having to reverse onto the street. As an on-site turnaround will be provided for truck movements, this covenant will no longer be required. This covenant may be discharged from the Title of the property by the developers at their sole cost, after final adoption of the rezoning bylaw and issuance of the Development Permit for the subject development, subject to Transportation Department's review and confirmation.

Transportation and Site Access

Access to the development will be from a new entry driveway from No. 3 Road, located along the south property line of the subject site. An on-site turnaround will be provided opposite to the entry driveway on the east side of the internal driveway. It is expected that the properties to the north and south will be redeveloped as townhouses in the future and access to the future townhouse developments will be via the proposed driveway located on the subject site. A Public Right-of-Passage (PROP) Statutory Right-of-Way (SRW) over the entire area of the proposed entry driveway from No. 3 Road, the on-site turnaround, and the internal east-west manoeuvring aisle will be secured as a condition of rezoning. It is expected that, when the adjacent property to the south is redeveloped into a townhouse development, on-site turnaround would be accommodated on the entry driveway and the internal aisle. At that time, the on-site turnaround area located adjacent to the outdoor amenity area will no longer be warranted. In order to ensure that the on-site turnaround area will be used as outdoor amenity when the on-site turnaround area becomes unwarranted, language should be included in the SRW document to secure this arrangement.

Tandem Parking

The proposal will feature four units with a total of eight spaces in a tandem arrangement (40% of total required residential parking spaces), which is consistent with the maximum 50% of tandem parking provision of Richmond Zoning Bylaw 8500. A restrictive covenant to prohibit the conversion of the tandem garage area into habitable space is required prior to final adoption.

Tree Retention and Replacement

The applicant has submitted a Certified Arborist's Report; which identifies on-site and off-site tree species, assesses tree structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses 25 bylaw-sized trees on the subject property, eight trees on neighbouring properties, and two street trees on City property. The City's Tree Preservation Coordinator and Parks Operations staff have reviewed the Arborist's Report and supports the Arborist's findings, with the following comments:

- A 41cm caliper Catalpa tree (tag# 19) and a 53cm caliper Lombardy Poplar tree (tag# 31) located on the development site are identified in good condition and should be retained and protected as per Arborist report recommendation.
- 23 trees (tag# 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 27, 28, 29 and 36) located on the development site are all in poor condition, as they are either dead, dying (sparse canopy foliage), or have been previously topped or exhibit structural defects (such as cavities at the main branch union and co-dominant stems with inclusions). As a result, these trees are not good candidates for retention and should be replaced. Replacement trees should be specified at 2:1 ratio as per the OCP.
- Two Mountain Ash trees (tag# 1 and 2) located on City property are in poor condition and should be replaced. Compensation of \$ \$2,600 is required, as per Parks Operations' requirements.

- Seven trees (tag# 3, 10, 30, 32, 33, 34 and 35) located on neighbouring property to be protected as per Arborist's Report recommendations.

Tree Replacement

The applicant wishes to remove 23 on-site trees. The 2:1 replacement ratio would require a total of 46 replacement trees. According to the Preliminary Landscape Plan provided by the applicant (Attachment 2), the developer is proposing to plant 36 new trees on-site. The size and species of replacement trees will be reviewed in detail through Development Permit and overall landscape design. The applicant has agreed to provide a voluntary contribution of \$5,000 to the City's Tree Compensation Fund in lieu of planting the remaining 10 replacement trees should they not be accommodated on the site.

Tree Protection

Two trees on the subject property and eight trees on neighbouring properties are to be retained and protected. The applicant has submitted a tree protection plan showing the trees to be retained and the measures taken to protect them during development stage (Attachment 4). To ensure that the trees identified for retention are protected at development stage, the applicant is required to complete the following items:

- Prior to final adoption of the rezoning bylaw, submission to the City of a contract with a Certified Arborist for the supervision of all works conducted within or in close proximity to tree protection zones. The contract must include the scope of work required, the number of proposed monitoring inspections at specified stages of construction, any special measures required to ensure tree protection, and a provision for the arborist to submit a post-construction impact assessment to the City for review.
- Prior to Development Permit issuance, submission to the City of a Tree Survival Security as part of the Landscape Letter of Credit. No Landscape Letter of Credit will be returned until the post-construction assessment report, prepared by the Arborist, confirming the protected trees survived the construction, is reviewed by staff.
- Prior to demolition of the existing dwelling on the subject site, installation of tree protection fencing around all trees to be retained. Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin Tree-03 prior to any works being conducted on-site, and remain in place until construction and landscaping on-site is completed.

Affordable Housing Strategy

In addition to the provision of one secondary suite on site, the applicant proposes to make a cash contribution to the Affordable Housing Reserve Fund in accordance to the City's Affordable Housing Strategy. As the proposal is for townhouses, and the rezoning application was submitted prior to the Affordable Housing cash contribution rates were updated, the applicant will make a cash contribution of \$4.00 per buildable square foot as per the Strategy; for a contribution of \$55,285.25.

Public Art

In response to the City's Public Art Program (Policy 8703), the applicant will provide a voluntary contribution at a rate of \$0.81 per buildable square foot (2016 rate) to the City's Public Art Reserve fund; for a total contribution in the amount of \$11,195.26.

Townhouse Energy Efficiency and Renewable Energy

The applicant has committed to achieving an EnerGuide Rating System (ERS) score of 82 and all units will be pre-ducted for solar hot water for the proposed development. A legal agreement to ensure that all units are built and maintained to this commitment is required prior to rezoning bylaw adoption. As part of the Development Permit application review process, the developer will be required to retain a certified energy advisor (CEA) to complete an Evaluation Report to confirm details of construction requirements needed to achieve the rating.

Amenity Space

The applicant is proposing a cash contribution in-lieu of providing the required indoor amenity space on site, as per the OCP. As the rezoning application was submitted prior to the Amenity Contribution rates were updated, the applicant will make a cash contribution of \$1,000 per unit, for a contribution of \$10,000.

Outdoor amenity space will be provided on-site. Based on the preliminary design, the size of the proposed outdoor amenity space complies with the Official Community Plan (OCP) requirements of 6 m² per unit. Staff will work with the applicant at the Development Permit stage to ensure the configuration and design of the outdoor amenity space meets the Development Permit Guidelines in the OCP.

Site Servicing and Frontage Improvements

Prior to issuance of a Building Permit, the developer is required to enter into the City's standard Servicing Agreement to design and construct frontage beautification along the site frontage and service connections (see Attachment 5 for details). All works are at the developer's sole cost (i.e., no credits apply). The developer is also required to pay DCC's (City & GVS & DD), School Site Acquisition Charge and Address Assignment Fee.

Financial Impact or Economic Impact

The rezoning application results in an insignificant Operational Budget Impact (OBI) for off-site City infrastructure (such as roadworks, waterworks, storm sewers, sanitary sewers, street lights, street trees and traffic signals).

Conclusion

The proposed 10-unit townhouse development is generally consistent with the Official Community Plan (OCP) and the Arterial Road Policy in the OCP. Further review of the project design is required to ensure a high quality project and design consistency with the existing neighbourhood context, and this will be completed as part of the Development Permit application review process. The list of rezoning considerations is included as Attachment 5; which has been agreed to by the applicants (signed concurrence on file). On this basis, staff recommend support of the application.

It is recommended that Richmond Zoning Bylaw 8500, Amendment Bylaw 9856 be introduced and given first reading.

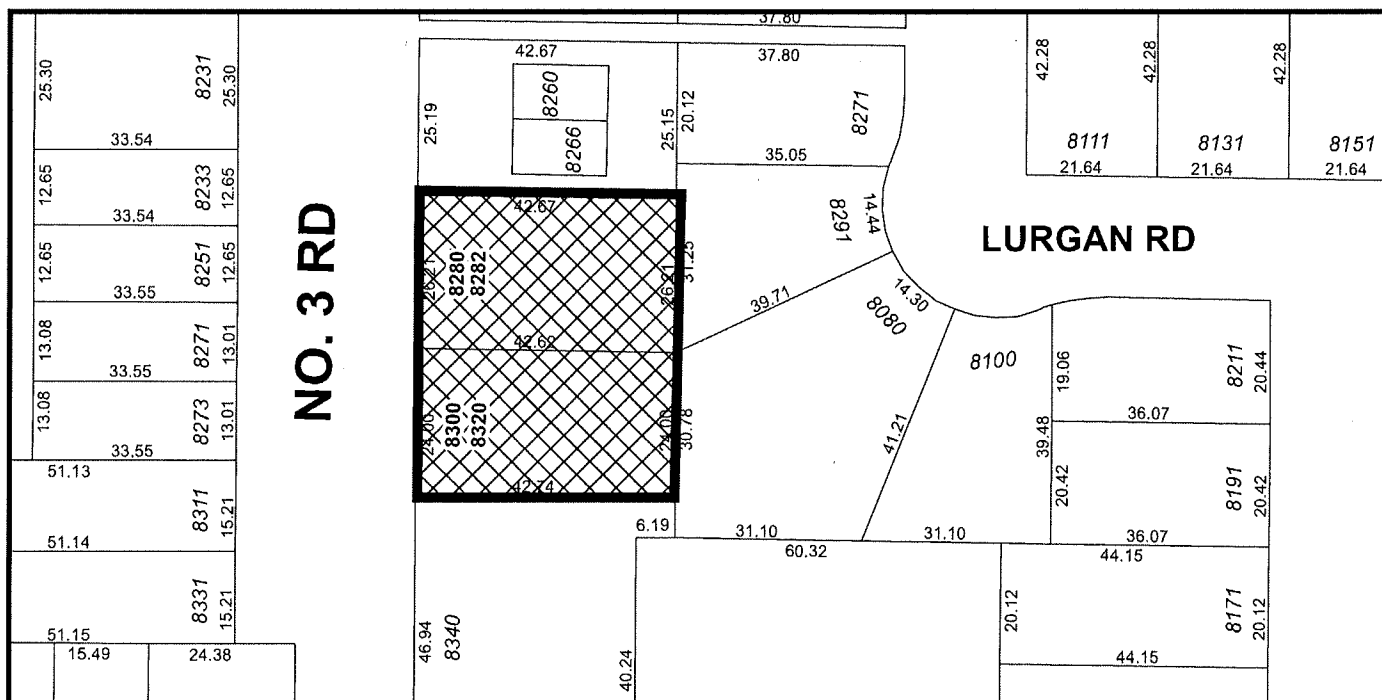
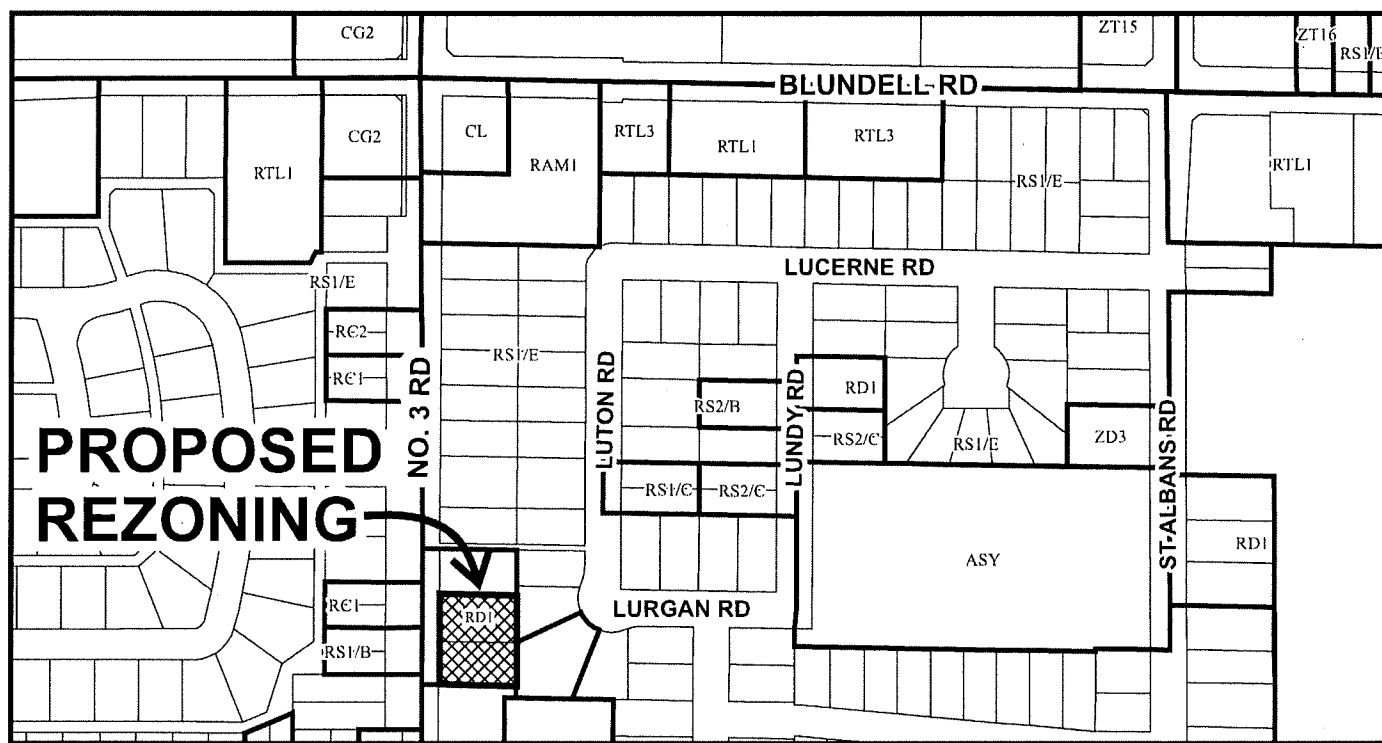


Edwin Lee
Planner 1
(604-276-4121)

EL:blg

Attachment 1: Location Map
Attachment 2: Conceptual Development Plans
Attachment 3: Development Application Data Sheet
Attachment 4: Tree Management Plan
Attachment 5: Rezoning Considerations

City of
Richmond



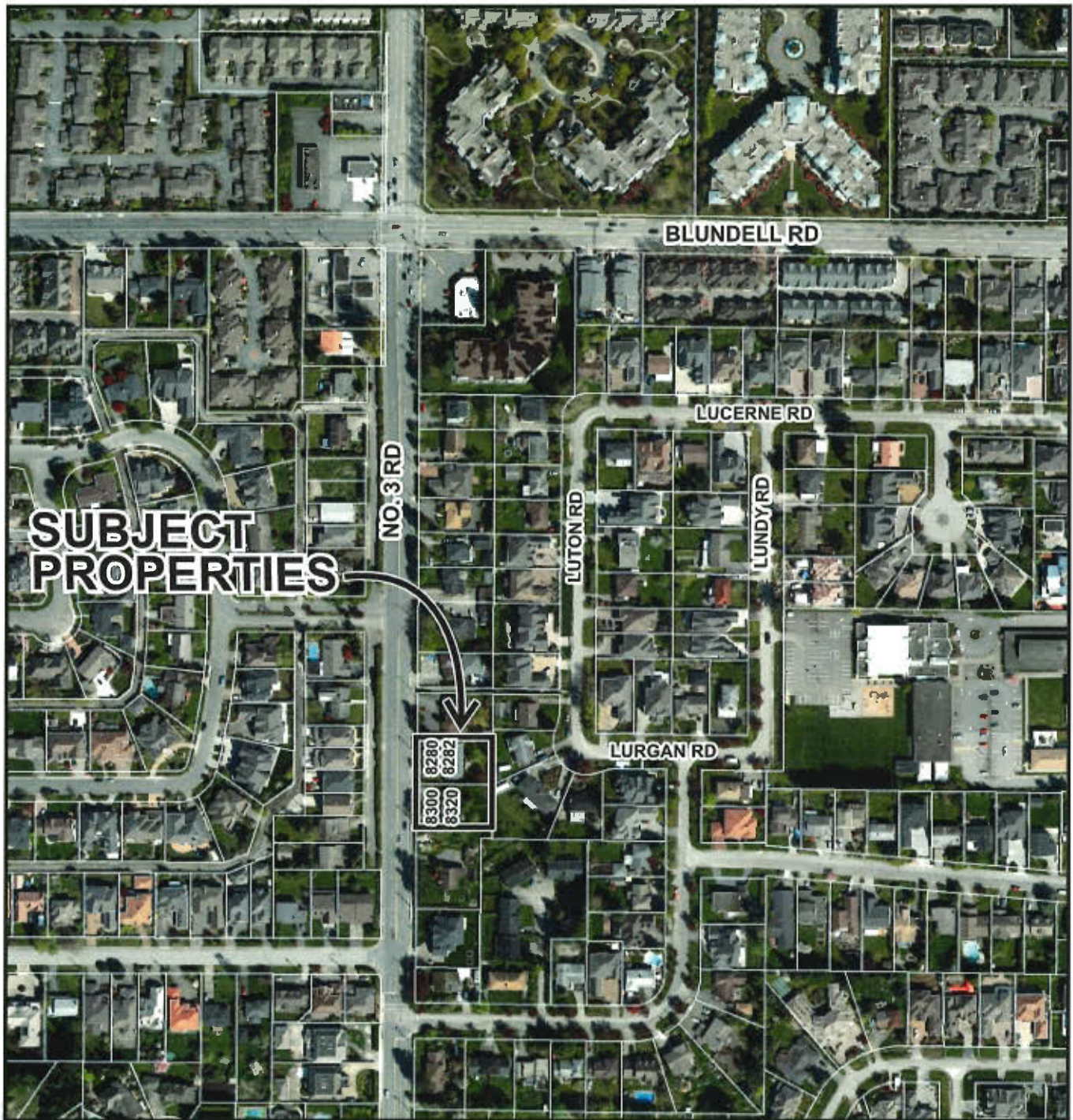
RZ 16-733565

Revision Date: 07/07/16

Note: Dimensions are in METRES



City of
Richmond



RZ 16-733565

Original Date: 07/06/16

Revision Date: 07/07/16

Note: Dimensions are in METRES



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Revised:

Comments:



8280 / 8300 NO.3 ROAD RICHMOND

10 UNIT TOWNHOUSE DEVELOPMENT (RZ 16-733565)

CNCL - 186

City of Richmond

Development Application Data Sheet
Development Applications Division
8911 No. 3 Road, Richmond, BC V6V 2C1

TABLE FILLED ON JANUARY 23, 2018

DP: _____

Address: 8280 & 8300 NO.3 ROAD

Applicant: Matthew Cheng Architect Inc. Owner: Chislon Development Corp.

Planning Area(s): Broadmead

Floor Area: Gross: 1,814.39 m² Net: 1,282.66 m²

Sheet Number	Sheet Name
A0.0	COVER PAGE
A0.1	SITE PLAN
A0.2	CONCEPT FUTURE DEVELOPMENT
A0.3	CONTEXT PLAN & ELEVATIONS
A0.4	FIRE TRUCK ACCESS
A1.1	COMPLEX LEVEL 1
A1.2	COMPLEX LEVEL 2
A1.3	COMPLEX LEVEL 3
A1.4	AREA OVERLAY
A1.5	CONVERTIBLE UNIT
A2.1	BUILDING A ELEVATIONS
A2.2	BUILDING B & C ELEVATIONS
A3.0	SECTIONS

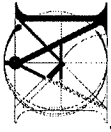


Site Area	Existing	Proposed	Variance
Land Uses	SINGLE DETACHED	TOWNHOUSE	
OPP Designation	NRES	NRES	
Zoning	RD1	RTL4	
Number of Units	2	10	
Setback Requirements			
Floor Area Ratio	Max. 0.8 (1,284 m ²)	0.8 (1,281.52 m ²)	None permitted
Let Coverage - Building	Max. 40% (856 m ²)	35.90% (768.24 m ²)	None
Let Coverage - Non-porous Surface	Max. 65% (1,331 m ²)	63.06% (1,349.46 m ²)	None
Let Coverage - Landscaping	Min. 25% (525 m ²)	34.70% (742.79 m ²)	None
Setback - Front Yard (m)	Min. 6 m	6.1 m	None
Setback - Side Yard (m) NORTH	Min. 3 m	3.13 m	None
Setback - Side Yard (m) SOUTH	Min. 3 m	8.02 m	None
Setback - Rear Yard (m)	Min. 6 m	6.1 m (4.5 m w/ Projection)	None
Height (m)	Max. 7.5 m	10.07 m	None
Building B (Storey)	7.15 / 7.26 m	7.15 / 7.26 m	None
Let Size (m) dimensions	50.14M X 42.60M	50.14M X 42.60M	None
Off-street Parking Spaces - Resident	Min. 20/2	21/20/2	None
Off-street Parking Spaces - Total	Min. 20/2	21/20/2	None
Off-street Parking Spaces - Visitor	Max. 10	8	None
Off-street Parking Spaces - Tandem	Not allowed	0	None
Off-street Parking Spaces - Small Car	Not allowed	0	None
Off-street Parking Spaces - Accessible	Not required	0	None
Off-street Parking Spaces - Class 1 / Class 2	Min. 13/2	17/3	None
Off-street Parking Spaces - Total	Min. 15	20	None
Amenity Spaces - Indoor	Not required	0	None
Amenity Spaces - Outdoor	Min. 60 m ²	94.89 m ²	None

Project File
8280 NO.3 Road
RICHMOND

Sheet Title
COVER PAGE

Drawn: RK
Checked: MC
Scale:
Project Number: BRTH01
Revision Date:
Print Date: 20180228
A0.0



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Revision

Comments

Project Title
8280 NO.3 ROAD
RICHMOND

Site Plan

Drawn: RK

Checked: MC

Scale: As indicated

Project Number: 10RTH01

Project Date: 2018/03/07

Project Size: 10,000 sq. ft.

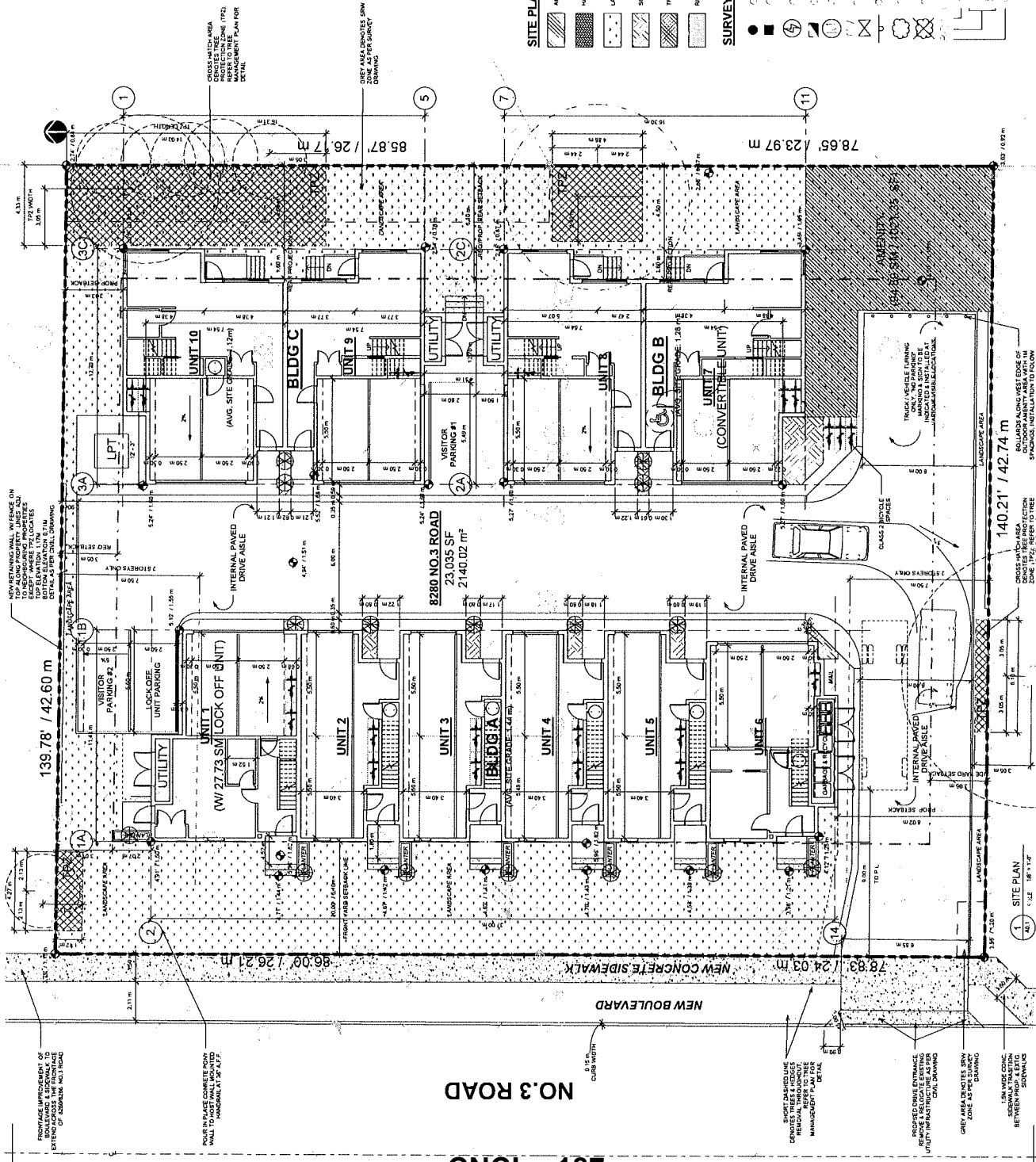
Project Name: A0.1

SITE PLAN HATCH LEGEND

- AMENITY AREA
- HAMMERHEAD / AMENITY HARD SURFACE AREA
- LANDSCAPE AREA
- SOIL BED
- TREE PROTECTION ZONE
- RIGHT OF WAY

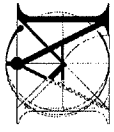
SURVEY PLAN UNDERLAY LEGEND

- denotes standard iron post
- denotes lead post
- denotes hydrant post
- denotes catch basin
- denotes manhole
- denotes gas valve
- denotes sign post
- denotes tree
- denotes tree removal
- trip line radius (m)
- sewer ducts
- road ducts
- fire hydrant



NO.3 ROAD

CNCL - 187



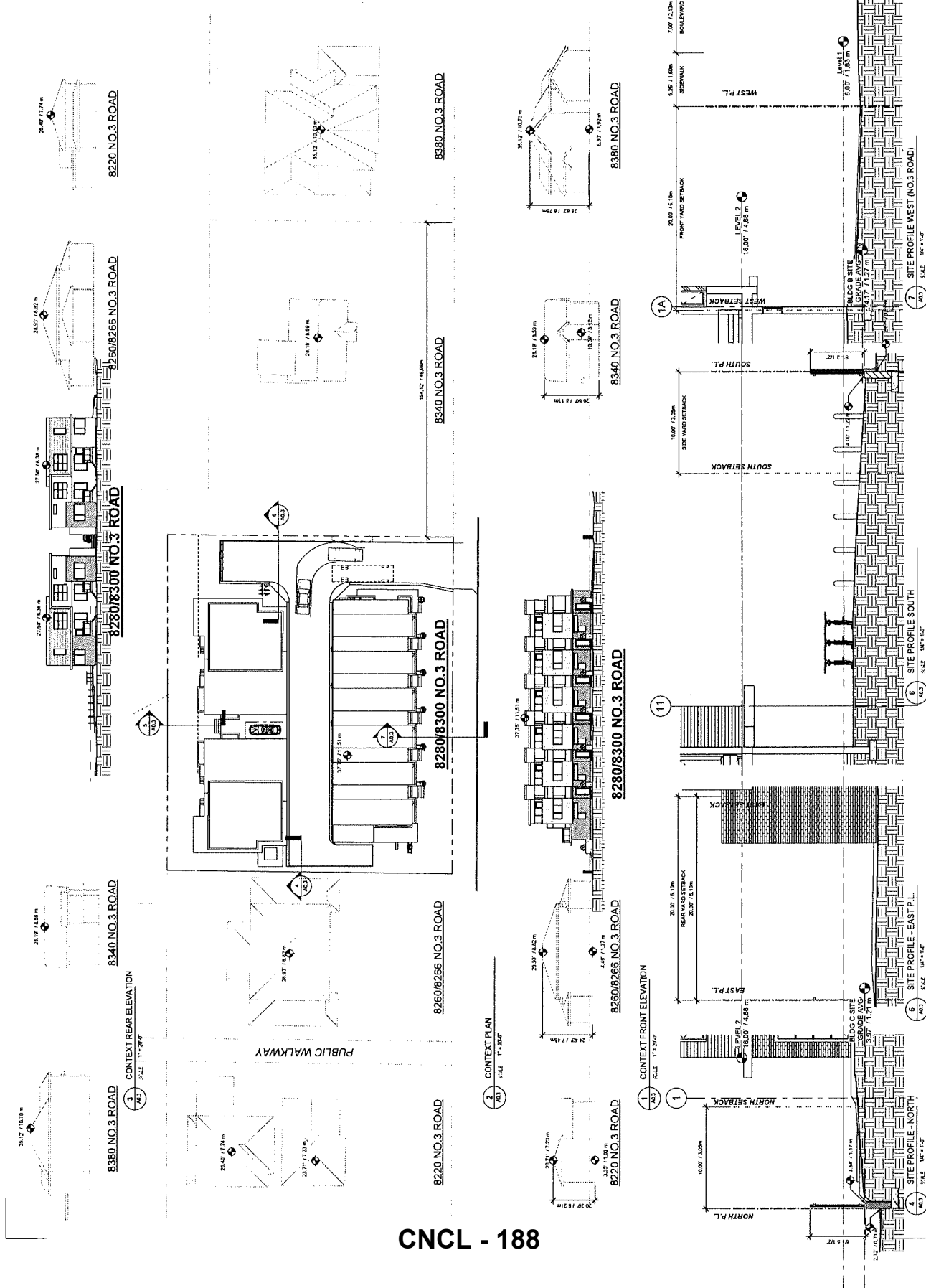
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Revisions

Comments



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Revision:

Conclusions

Project Title
8280 NO.3 Road
RICHMOND

BUILDING A ELEVATIONS

RK

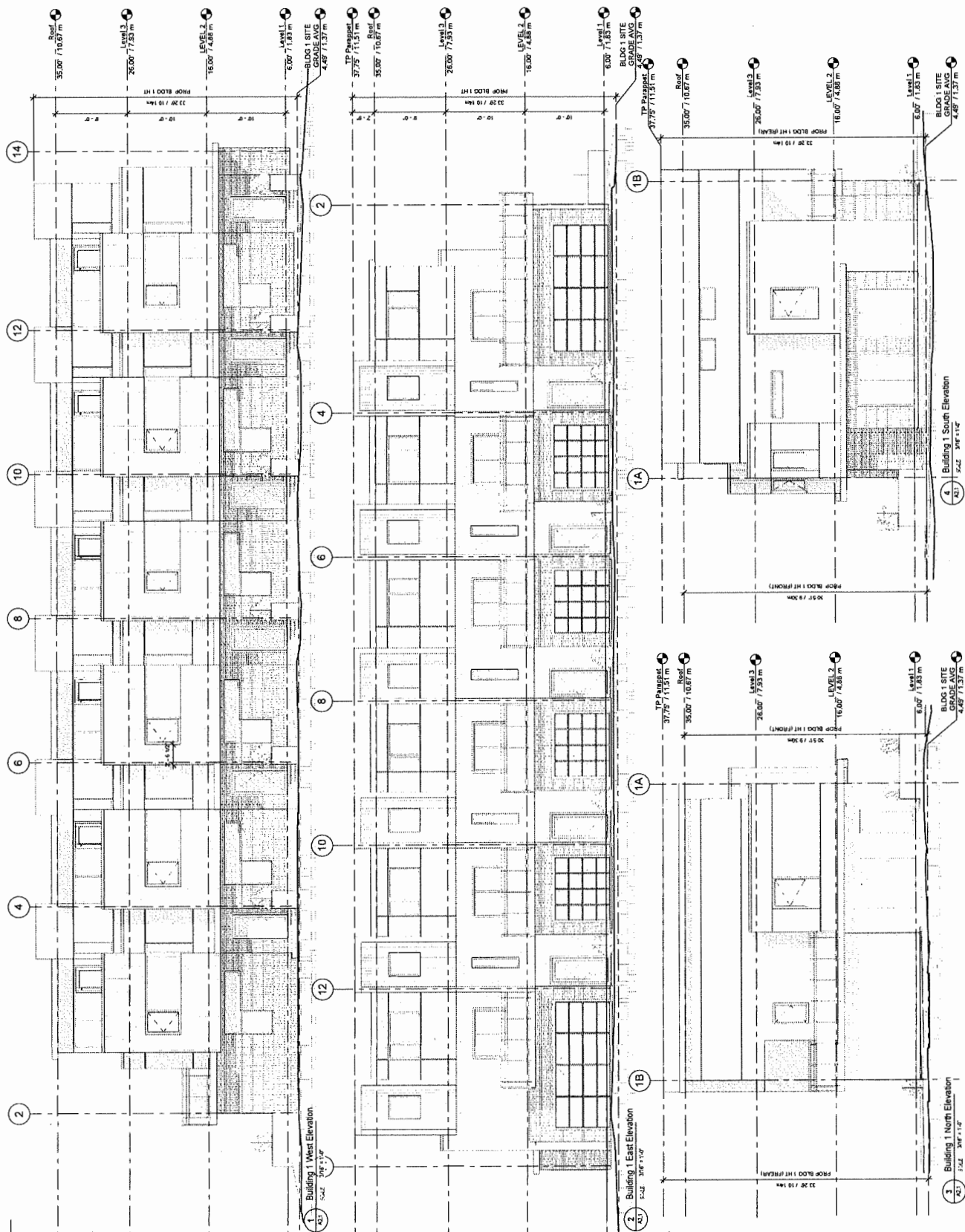
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Project Number

Revision Date	Days
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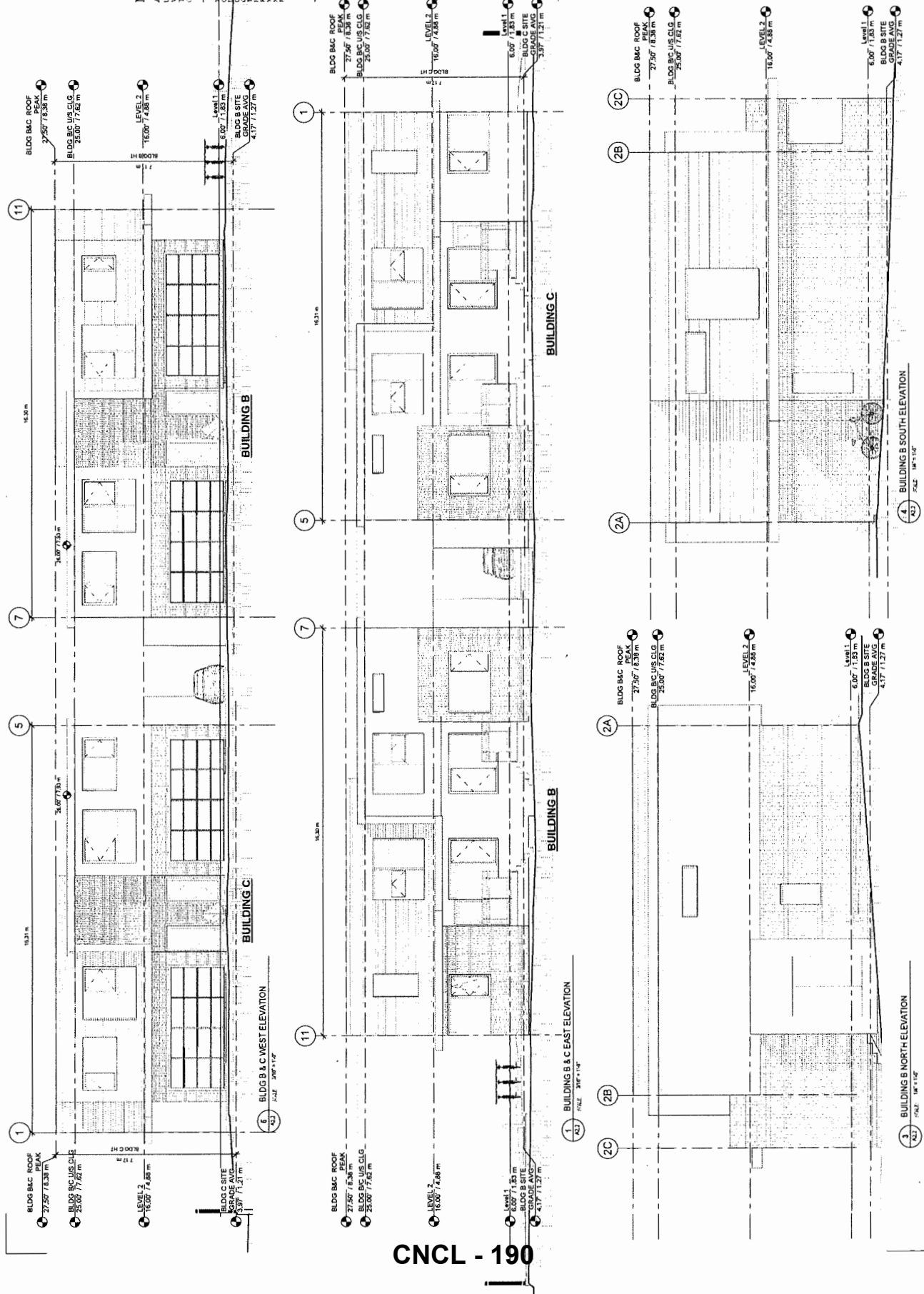
Print Date: 10/16/2028





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Revised:

Comments:



① Building 1, Rear View



② BUILDING 2, 3 & 4, Rear View



④ Building 1, Front View 2

Project Title
8280 NO.3 Road
RICHMOND

Sheet Title
3D VIEWS

Drawn: RK	
Checked: MC	
Scale:	
Project Number: 16RTH01	Design:
Revision Date:	
Print Date: 20180228	Sheet No: A2.3

[illegible]

All soil landscape areas to be irrigated with automatically controlled sub-surface system, irrigation design and installation is I.A.B.C. Standard, best water.

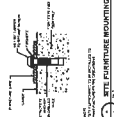


Modern Poly Beams, Mold Number: MNTB5
BY WISHBONE SITE FURNISHINGS
Utargut™ Revolved Plastic Glass-Infused
Long Lasting Stainless Steel Hardware
Ph: 604 626 0476

RockScape Crest
Model No 7085
Colour:Eco Earth
BY GAMUTIME-SUTTLE RECREATION.

BY GAMOTINO, SUTTLE RECREATION,

NATURAL PLAY ELEMENTS



BY: MATTHEW CHENG ARCHITECT INC.
 PROJECT:
 112 UNIT TOWNHOUSE
 DEVELOPMENT
 8280 - NO. 3 ROAD
 RICHMOND

DRAWING TITLE:
**LANDSCAPE
PLAN**

DATE: March 20, 2017

1

DRAWN: DD
DESIGN: DD

CHKO: PCM

PMG PROJECT NUMBER: 17-023

0170723-06 ZP



RZ 16-733565

Attachment 3

Address: 8280/8282 and 8300/8320 No. 3 Road

Applicant: Matthew Cheng Architect Inc.

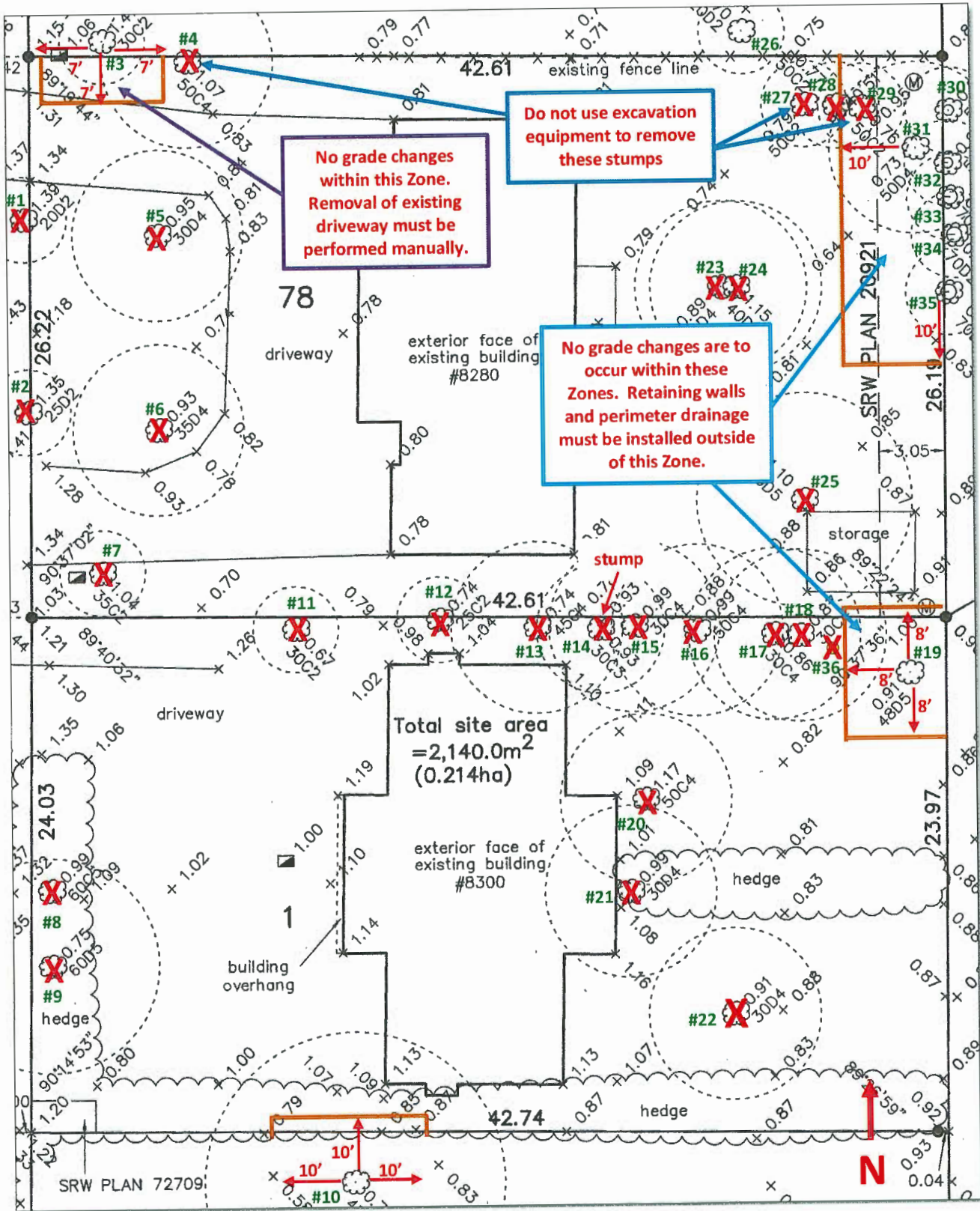
Planning Area(s): Broadmoor

	Existing	Proposed
Owner:	158571 BC Ltd.	No Change
Site Size (m²):	2,140 m ²	No Change
Land Uses:	Duplex	Multiple-Family Residential
OCP Designation:	Low-Density Residential	No Change
Area Plan Designation:	N/A	No Change
702 Policy Designation:	N/A	No Change
Zoning:	Two-Unit Dwellings (RD1)	Low Density Townhouses (RTL4)
Number of Units:	4	10
Other Designations:	N/A	No Change

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Floor Area Ratio:	Max. 0.60	0.60 Max.	none permitted
Lot Coverage – Building:	Max. 40%	40% Max.	none
Lot Coverage – Non-porous Surfaces:	Max. 65%	65% Max.	none
Lot Coverage – Landscaping:	Min. 25%	25% Min.	none
Setback – Front Yard (m):	Min. 6.0 m	6.0 m Min.	none
Setback – North Side Yard (m):	Min. 3.0 m	3.0 m Min.	none
Setback – South Side Yard (m):	Min. 3.0 m	8.02 m	none
Setback – Rear Yard (m):	Min. 3.0 m	6.0 m Min. with 50% ground floor projection (at 4.5m)	none
Height (m):	Max. 12.0 m (3 storeys)	12.0 m (3 storeys) Max. along No. 3 Road and 7.5 m (2 storeys) Max. along east property line	none
Lot Width:	Min. 50.0 m	50.25 m	none
Lot Depth:	Min. 35.0 m	42.67 m	none

On Future Subdivided Lots	Bylaw Requirement	Proposed	Variance
Off-street Parking Spaces – Regular (R) / Visitor (V):	2 (R) and 0.2 (V) per unit + 1 (R) per secondary suite	2 (R) and 0.2 (V) + 1 (R) per secondary suite	none
Off-street Parking Spaces – Total:	21 (R) and 2 (V)	21 (R) and 2 (V)	none
Tandem Parking Spaces:	Max. 50% of proposed residential spaces in enclosed garages (20 x Max. 50% = 10)	8	none
Small Car Parking Spaces	None when fewer than 31 spaces are provided on site	0	none
Handicap Parking Spaces:	None when fewer than 3 visitor stalls are required	0	none
Bicycle Parking Spaces – Class 1 / Class 2:	1.25 (Class 1) and 0.2 (Class 2) per unit	1.7 (Class 1) and 0.3 (Class 2) per unit	none
Off-street Parking Spaces – Total:	13 (Class 1) and 2 (Class 2)	17 (Class 1) and 3 (Class 2)	none
Amenity Space – Indoor:	Min. 70 m ² or Cash-in-lieu	Cash-in-lieu	none
Amenity Space – Outdoor:	Min. 6 m ² x 10 units = 60 m ²	94.89 m ²	none

Other: Tree replacement compensation required for removal of bylaw-sized trees.



Preliminary Tree Retention & Removal Plan – Scale 1:250

TREE #	SPECIES (Botanical name)	DBH (cm)	SPREAD (m) est.
1	Mountain Ash (<i>Sorbus sp.</i>)	101 combined	1.25m
2	Mountain Ash (<i>Sorbus sp.</i>)	167 combined	1.25m
3	Serbian Spruce (<i>Picea omorika</i>)	32	1.25m
4	Cypress (<i>Chamaecyparis sp.</i>)	77	3.75m
5	Birch (<i>Betula sp.</i>)	30	3.75m
6	Birch (<i>Betula sp.</i>)	41 combined	3.75m
7	Cedar (<i>Thuja occ.</i>)	35 combined	1.25m
8	Douglas Fir (<i>Pseudotsuga menziesii</i>)	60 per survey	4.25m
9	Maple (<i>Acer sp.</i>)	60 per survey	4.25m
10	Apple (<i>Malus sp.</i>)	48 per survey	6.25m
11	Cypress (<i>Chamaecyparis sp.</i>)	28 combined	1.25m
12	Cedar (<i>Thuja occ.</i>)	27 combined	1.25m
13	Cypress (<i>Chamaecyparis sp.</i>)	47	3.75m
14	Stump	-	-
15	Hemlock (<i>Tsuga sp.</i>)	28	3.25m
16	Cedar (<i>Thuja sp.</i>)	41 combined	3.25m
17	Cedar (<i>Thuja sp.</i>)	31	3.25m
18	Cedar (<i>Thuja sp.</i>)	42 combined	3.25m
19	Catalpa (<i>Catalpa sp.</i>)	41	3.25m
20	Cypress (<i>Chamaecyparis sp.</i>)	61 combined	3.25m
21	Mountain Ash (<i>Sorbus sp.</i>)	23 combined	3.25m
22	Birch (<i>Betula sp.</i>)	30	3.25m
23	Mountain Ash (<i>Sorbus sp.</i>)	62 combined	3.25m
24	Birch (<i>Betula sp.</i>)	33 combined	3.25m
25	Plum (<i>Prunus sp.</i>)	97 combined	3.75m
26	Plum (<i>Prunus sp.</i>)	20	1.25m
27	Cedar (<i>Thuja occ.</i>)	62 combined	1.25m
28	Cedar (<i>Thuja occ.</i>)	51 combined	1.25m
29	Cedar	40	1.25m

TREE #	SPECIES (Botanical name)	DBH (cm)	SPREAD (m) est.
	(<i>Thuja occ.</i>)	combined	
30	Lombardy Poplar (<i>Populus nigra</i>)	50 per survey	1.25m
31	Lombardy Poplar (<i>Populus nigra</i>)	53	3.5m
32	Lombardy Poplar (<i>Populus nigra</i>)	50 per survey	1.25m
33	Lombardy Poplar (<i>Populus nigra</i>)	70 per survey	1.25m
34	Lombardy Poplar (<i>Populus nigra</i>)	70 per survey	1.25m
35	Lombardy Poplar (<i>Populus nigra</i>)	70 per survey	1.25m
36	Cypress (<i>Chamaecyparis sp.</i>)	34 combined	1.25m

Suitable Replacement Tree Species

- Purple Fountain European Beech (*Fagus sylvatica* 'Purple Fountain')
- Japanese Tree Lilac 'Ivory Silk' (*Syringa reticulata* 'Ivory Silk')
- Japanese maple (*Acer palmatum sp.*)
- Persian Ironwood (*Parrotia persica*)
- Stewartia (*Stewartia pseudocamellia*)
- Ginkgo 'Princeton Sentry' (*Ginkgo biloba* 'Princeton Sentry')
- Dik's Weeping Cypress (*Chamaecyparis lawsoniana* 'Dik's Weeping')
- Serviceberry (*Amelanchier x grandiflora* 'Autumn Brilliance')
- Oriental Dogwood (*Cornus kousa*)
- Paperbark maple (*Acer griseum*)
- Threadleaf Cypress (*Chamaecyparis pisifera* 'Fillifera')
- Sentinel Columnar pine (*Pinus nigra* 'sentinel')

Picea omorika (Serbian spruce)



Address: 8280/8282 and 8300/8320 No. 3 Road

File No.: RZ 16-733565

Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9856, the developer is required to complete the following:

1. Consolidation of both lots into one development parcel (which will require the demolition of all existing dwellings).
2. Registration of a statutory right-of-way (SRW), and/or other legal agreements or measures; as determined to the satisfaction of the Director of Development, over the entire area of the proposed entry driveway from No. 3 Road, the truck turnaround area proposed opposite to the entry driveway, and the internal north-south manoeuvring aisle, in favour of future residential (townhouse) developments to the north and south. Language should be included in the SRW document that the truck turnaround area can be removed from the SRW area and used as additional outdoor amenity space for the sole use of the subject development when the adjacent property to the south is redeveloped into townhouses and on-site truck turnaround is accommodated on the entry driveway and the internal drive aisle on the subject and adjacent developments to the south. Language should also be included in the SRW document that the City will not be responsible for maintenance or liability within the SRW and that utility SRW under the drive aisle is not required.
3. Registration of a cross-access easement agreement over the garbage/recycling/organic waste collection facility (design as per Development Permit for 8280/8282 and 8300/8320 No. 3 Road), in favour of the future residential (townhouse) development at 8260/8266 No. 3 Road, allowing access to/from the garbage/recycling/organic waste collection facility at the development site.
4. Registration of a flood indemnity covenant on Title.
5. Registration of a legal agreement on Title or other measures, as determined to the satisfaction of the Director of Development, to ensure that:
 - a) No final Building Permit inspection granting occupancy will be completed until one secondary suite is constructed on site, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw.
 - b) One surface parking stall is assigned to the unit with a secondary suite, and that the parking stall will be for the sole use of the secondary suite of the unit.
 - c) The secondary suite cannot be stratified or otherwise held under separate title.
6. Discharge of restrictive covenants:
 - a) AD281208 from Title of 8280/8282 No. 3 Road.
 - b) AB169999 from Title of 8300/8320 No. 3 Road.
7. Registration of a legal agreement on Title, prohibiting the conversion of the tandem parking area into habitable space.
8. Registration of a legal agreement on Title, identifying that the proposed development must be designed and constructed to meet or exceed EnerGuide 82 criteria for energy efficiency and that all dwellings are pre-ducted for solar hot water heating.
9. Submission of a Contract entered into between the applicant and a Certified Arborist for supervision of any on-site works conducted within the tree protection zone of the trees to be retained on site and on adjacent properties. The Contract should include the scope of work to be undertaken, including: the proposed number of site monitoring inspections, and a provision for the Arborist to submit a post-construction assessment report to the City for review.
10. City acceptance of the developer's offer to voluntarily contribute \$5,000.00 to the City's Tree Compensation Fund for the planting of ten replacement trees within the City. If additional replacement trees (over and beyond the 36 replacement trees as proposed at the rezoning stage) could be accommodated on-site (as determined at Development Permit stage), the above cash-in-lieu contribution would be reduced in the rate of \$500 per additional replacement trees to be planted on-site.

Note: Should the applicant wish to begin site preparation work after third reading of the rezoning bylaw, but prior to final adoption of the rezoning bylaw and issuance of the Development Permit, the applicant will be required to obtain a Tree Permit and submit landscaping security (i.e. \$25,000 in total) to ensure the replacement planting will be provided.

11. City acceptance of the developer's offer to voluntarily contribute \$2,600 to Parks Division's Tree Compensation Fund for the removal of two Mountain Ash trees located on the City's boulevard in front of the site.

Note: Developer/contractor must contact the Parks Division (604-244-1208 ext. 1342) four business days prior to the removal to allow proper signage to be posted. All costs of removal and compensation are the responsibility borne by the applicant.

12. City acceptance of the developer's offer to voluntarily contribute \$4.00 per buildable square foot (e.g. \$55,285.25) to the City's affordable housing fund.
13. City acceptance of the developer's offer to voluntarily contribute \$0.81 per buildable square foot (e.g. \$11,195.26) to the City's Public Art fund.
14. Contribution of \$10,000 in-lieu of on-site indoor amenity space.
15. The submission and processing of a Development Permit* completed to a level deemed acceptable by the Director of Development.

Prior to a Development Permit* being forwarded to the Development Permit Panel for consideration, the developer is required to:

1. Complete a proposed townhouse energy efficiency report and recommendations prepared by a Certified Energy Advisor which demonstrates how the proposed construction will meet or exceed the required townhouse energy efficiency standards (EnerGuide 82 or better), in compliance with the City's Official Community Plan.

Prior to a Development Permit* issuance, the developer is required to complete the following:

1. Submission of a Landscaping Security based on 100% of the cost estimate provided by the landscape architect.
2. Submission of a Tree Survival Security to the City as part of the Landscape Letter of Credit to ensure that all trees identified for retention will be protected. No Landscape Letter of Credit will be returned until the post-construction assessment report, confirming the protected trees survived the construction, prepared by the Arborist, is reviewed by staff.

Prior to Building Permit Issuance, the developer must complete the following requirements:

1. Installation of appropriate tree protection fencing around all trees to be retained as part of the development prior to any construction activities, including building demolition, occurring on-site.
2. 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. Incorporation of accessibility measures in Building Permit (BP) plans as determined via the Rezoning and/or Development Permit processes.
4. Enter into a Servicing Agreement* for the design and construction of engineering infrastructure improvements. Works include, but may not be limited to:

Water Works

- Using the OCP Model, there is 1001 L/s of water available at a 20 psi residual at the No. 3 Road frontage. Based on your proposed development, your site requires a minimum fire flow of 220 L/s.
- The Developer is required to:
 - Submit Fire Underwriter Survey (FUS) or International Organization for Standardization (ISO) fire flow calculations to confirm the development has adequate fire flow for on-site fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage Building designs.

- At the Developers cost, the City is to:
 - Install one new water service connection, off of the existing 400 mm AC watermain on No. 3 Road. Meter will be placed on site (i.e. mechanical room).
 - Cut and cap at main, the two existing water service connections at the No. 3 Road frontage.

Storm Sewer Works

- At Developer's cost, the City is to:
 - Install a new storm service connection off of the existing box culvert along No. 3 Road complete with inspection chamber.
 - Cut, cap and remove the existing service connection and inspection chamber STIC59019.

Sanitary Sewer Works

- The Developer is required to:
 - Not start on-site building construction prior to completion of rear yard sanitary works.
- At Developer's cost, the City is to:
 - Install a new sanitary service connection off of the existing manhole SMH2399 at the northeast corner of the subject site. The manhole will serve as the inspection chamber.
 - Cut and cap the existing sanitary service leads along the east property line of the development site.

Frontage Improvements

- The Developer is required to:
 - Remove the existing sidewalk behind the curb and backfill the area to provide a minimum 1.5 m wide grass/treed boulevard (width of the boulevard is exclusive of the 0.15 m wide top of curb).
 - Construct a new 1.5 m wide concrete sidewalk behind the new boulevard and next to the property line. The new sidewalk is to transition to connect to the existing sidewalk north and south of the subject site.
 - The new sidewalk may have to be deigned to go around trees that have been identified for retention. Consult Parks on the design of the new sidewalk to ensure that tree root systems are not compromised and natural irrigation can be maintained.
 - The frontage improvements identified under above are to be extended across the frontage of 8260/8266 No. 3 Road.
 - Road dedication would be required if the existing width between the curb and the property line is not sufficient to accommodate the required minimum frontage improvements noted above.
 - All existing driveways along the subject site's No. 3 Road frontage are to be closed permanently and replaced by a single driveway.
 - Remove the existing driveway crossings and replace with barrier curb/gutter, boulevard and sidewalk per standards described above. The applicant is responsible for the design and construction of curb/gutter, sidewalk and boulevard as part of the driveway closure works in addition to other required frontage improvements.
 - Design new driveway to City design standards (6.7 m driveway width at the property line, with 0.9 m flares at the curb and 45° offsets to meet existing grade of sidewalk/boulevard).
 - Coordinate with BC Hydro, Telus and other private communication service providers
 - To underground Hydro service lines.
 - When relocating/modifying any of the existing power poles and/or guy wires within the property frontages.
 - To determine if above ground structures are required and coordinate their locations (e.g. Vista, PMT, LPT, Shaw cabinets, Telus Kiosks, etc.). These should be located on-site.

General Items

- The Developer is required to:
 - Enter into, if required, 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, 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.
 - Provide, prior to soil densification and preload installation, a geotechnical assessment of preload and soil densification impacts on the existing utilities surrounding the development site and provide mitigation recommendations.
- 5. If applicable, payment of latecomer agreement charges, plus applicable interest associated with eligible latecomer works.
- 6. 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 9856 (RZ 16-733565)
8280/8282 and 8300/8320 No. 3 Road**

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 **"Low Density Townhouses (RTL4)"**.

P.I.D. 003-476-375

Lot 78 Section 21 Block 4 North Range 6 West New Westminster District Plan 20790

P.I.D. 004-962-451

Lot 1 Section 21 Block 4 North Range 6 West New Westminster District Plan 72708

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9856"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

CITY OF RICHMOND
APPROVED by <i>E.I.</i>
APPROVED by Director or Solicitor <i>BK</i>

MAYOR

CORPORATE OFFICER



To: Planning Committee

Date: April 5, 2018

From: Barry Konkin
Manager, Policy Planning

File: 08-4057-00/Vol-1

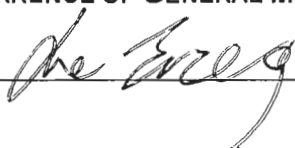

Re: Proposed City Response to Residential Strata Redevelopment

Staff Recommendation

1. That the staff report titled "Proposed City Response to Residential Strata Redevelopment" dated April 5, 2018, from the Manager, Policy Planning be received for information;
2. That staff be directed to only commence processing development applications for sites occupied by a pre-existing multiple-family residential strata building where there is a written record of the Supreme Court ruling confirming wind-up of the strata corporation, or where there is a written record of 100% support from all owners of a strata with fewer than 5 units, and, in either case, where information is provided related to the building's condition and confirmation has been provided on the developer's relocation assistance to any owner not in support of the strata wind-up.
3. That a letter be sent to the Premier of British Columbia, and the Minister of Municipal Affairs and Housing, with copies to all Richmond Members of the Legislative Assembly, and the Leader of the Third Party, and the Leader of the Official Opposition, requesting that the Province review the provisions of Bill 40 which enables wind-up of a strata corporation with less than unanimous support from strata owners.


Barry Konkin
Manager, Policy Planning

BK:je
Att. 3

REPORT CONCURRENCE		
ROUTED TO: Affordable Housing Development Applications Law	CONCURRENCE <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER 
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CS	APPROVED BY CAO 

Staff Report

Origin

In July 2016, the previous Provincial government approved Bill 40 of the *Strata Property Act*, which enabled strata corporations to “wind-up” and cancel a strata plan where 80% or more owners vote in favour of the wind-up. Prior to the amendment to the *Strata Property Act*, 100% agreement of owners or a court order was required in order to wind-up a strata corporation.

Since the changes to the Act were enacted by the Province and came into force, the wind-up of strata corporations has become an emerging issue in the City. Staff have received numerous inquiries from developers, strata corporations and real estate agents regarding potential redevelopment of existing strata townhouse and apartment developments. As the Province now enables a strata to wind-up with a vote of 80% of owners in favour, up to 20% of residents may be forced to sell their homes and relocate against their wishes.

As Richmond’s first strata corporation wind-up was recently approved by the Supreme Court of BC, and staff continue to receive inquiries related to the wind-up of other strata sites, time is of the essence in addressing this issue. A clear Council policy on this issue will assist staff and avoid undue pressure on strata owners due to a development application being submitted prior to resolution of the wind-up.

Staff wish to emphasize to Council that as strata wind-up is regulated by the Province through the *Strata Property Act*, and involves private property owners (strata owners) and potential purchasers or developers, there is no approval role for local government in the wind-up process. Provincial regulations rely on the BC Supreme Court to review the application and approve of the wind-up process.

This report responds to Council’s 2014-2018 Term Goal #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.

3.1. Growth and development that reflects the OCP, and related policies and bylaws.

Analysis

Bill 40 Process for Termination (Winding Up) of Strata Corporations

Bill 40 allows a strata corporation to proceed to wind-up with a vote of at least 80% of all registered owners (not all owners present or those holding proxies) in favour of the wind-up resolution. Under Bill 40, the BC Supreme Court must also review the proposal, confirm that all required steps have been met, and confirm that no owners are unfairly treated. Unless a strata corporation has fewer than 5 units, Supreme Court review is required for all strata corporation wind-up applications even if there is a vote of 100% of owners in favour of the resolution.

We note for Council that a strata corporation with fewer than 5 units can apply to the Land Title Office to cancel the strata plan, with confirmation of a unanimous vote on the wind-up resolution. No BC Supreme Court order is required.

For strata corporations with 5 or more units and at least 80% of owners voting in support of the wind-up, Bill 40 requires the Supreme Court to consider:

- whether the application is in the best interests of the strata owners;
- the probability and extent of any significant unfairness to an owner or charge holder if the wind-up is confirmed or not confirmed; and
- the probability and extent of significant confusion or uncertainty in the affairs of the strata corporation, whether wind-up is confirmed or not.

Under Bill 40, following the BC Supreme Court review and court order approving of the proposed wind-up, owners have the right to file an appeal within 30 days of the Court order.

See Attachment 1 for the Province's overview of the process for cancellation of a strata plan and winding up of a strata corporation under Bill 40.

Precedents in the Metro Vancouver

There is significant interest across the Metro Vancouver region in winding up existing strata corporations for the purpose of redevelopment. Staff have reviewed how other municipalities respond to proposed strata wind-ups, and if there are requirements imposed for development applications. None of the municipalities have adopted Council policies for applications involving strata-wind-up, however, the City of Vancouver and the District of North Vancouver have developed processes for rezoning applications that involve strata wind-up.

See Attachment 2 for a table summarizing the processes other municipalities are following to address this issue.

Strata Redevelopment Pressure

The recent Provincial government changes to the *Strata Property Act* have resulted in increased interest in stratified multi-family residential sites for redevelopment.

Multi-Family Residential Strata Units in Richmond – Potential Magnitude of Redevelopment

Staff analysis shows that there are 259 multi-family strata sites in Richmond that were built in 1990 or earlier, with over 13,000 strata-titled dwelling units. These statistics demonstrate the potential magnitude of residential strata units that could be subject to redevelopment, particularly with the easier wind-up process enabled by the *Strata Properties Act*. Staff are of the opinion that buildings constructed after 1990 are less likely to be redeveloped at this time, given their age. Table 1 provides a breakdown of strata apartment buildings and townhouses sites, with corresponding number of units, built between 1970 and 1990:

Table 1: Strata Units Built Prior to 1990

Age of Building	Number of Buildings (Apartments) or Sites (Townhomes)	Number of Units
1970 and older	12	780
1971 to 1980	64	5,345
1981 to 1990	183	7,097
<i>Total</i>	259	13,222

The Metro Vancouver 2017 Housing Data Book estimates that there are 4,223 rented private condominiums (apartments and townhomes) in Richmond. In an analysis completed by staff, that number is potentially higher: based on Home Owner Grant applications in 2017 for strata units, approximately 7,533 strata units in Richmond did not claim the Home Owner Grant. These units are not owner-occupied and it is possible that these units may be rental units.

Approximately 1,175 of these strata units are listed as secured market rental housing by the Canadian Mortgage and Housing Corporation (CMHC), and as a result could also be subject to any City-adopted policies on market rental housing.

Implications of Strata Wind-up and Redevelopment

Strata wind-up and redevelopment of existing stratified multiple-family residential buildings has potential negative consequences: it displaces owners who do not support the wind-up and any tenants, reduces local affordable home ownership opportunities, and removes units from the secondary rental market.

1. Displacement

Under Bill 40, up to 20% of owners in a building may not agree to winding-up the strata and would be forced to sell their homes against their wishes. New or comparable housing in the area may be limited or unaffordable to owners.

2. Loss of affordable home ownership or secondary rental market units

Existing older strata buildings provide options for lower priced home ownership, and are a component of the secondary rental market. It is estimated that 15,500 Richmond households find housing in the secondary rental market. Redevelopment of older stratified multiple-family residential may reduce options for affordable home ownership and remove units from the secondary rental market housing in the city.

Policy Recommendations

Staff recommend that Council pass a policy resolution to address on-going pressures on existing older stratified multiple-residential buildings. A policy by Council resolution will enable staff to provide a quick response to any possible future legislation changes enacted by the Provincial government, as a bylaw amending the Official Community Plan would not be required. This

would allow staff to assess legislative changes, and present required amendments to the policy in a timely manner.

As staff cannot refuse the submission of a development application, it is recommended that processing of development applications for existing stratified multiple-family residential strata sites only be commenced when there is confirmation that the mandatory process has concluded. Where the stratified multiple-family residential strata site has more than 5 units, and as a result requires confirmation by the Supreme Court of BC, staff also recommend that such an application not be processed until 30 days following the Supreme Court order. By waiting 30 days, which is the appeal period permitted through the *Strata Property Act*, the City mitigates the risk that the court order would be overturned. It is extremely unlikely that an unsuccessful appellant in a strata wind-up matter at the provincial level would be heard by the Supreme Court of Canada, and as a result a court order from the BC Supreme Court can be considered a definitive action.

For a development application that involves an existing stratified multiple family residential site with fewer than 5 units, and as a result is not required to be confirmed by the Supreme Court of BC, Staff recommend that processing not be commenced until the City has received written confirmation of a favourable vote by 100% of all owners, and a copy of the certificate of Strata Corporation stating that the resolution required to be passed by under the *Strata Property Act* to cancel a strata plan has been passed.

The intent of the proposed policy is to prevent additional pressure being placed on owners as a result of a development application being submitted before the strata corporation completes wind-up.

Proposed Policy

The proposed policy requires that the following information be submitted prior to the processing of a rezoning or a Development Permit application for a multiple family residential strata site:

- i. For any strata corporation with 5 or more units, certified confirmation of the Supreme Court decision on the strata's application for wind-up (i.e. the court order).
- ii. For any strata corporation with 5 or more units, written confirmation that at least 80% of owners voted to wind-up the strata, including the total number of owners in support, not in support, or absent from the vote.
- iii. Meeting minutes from the General Meeting where the resolution to wind-up was approved and a letter describing the rationale for the wind-up, the general processes followed by the strata, and how the views of any dissenting owners were considered during that process.
- iv. A certificate of Strata Corporation (Form E of the *Strata Property Regulation*) stating that the resolution required to be passed under *the Strata Property Act* to cancel a strata plan has been passed.
- v. A statutory declaration by the applicant / new owner executed at least 30 days after the date of the court order confirming the resolution to cancel the strata plan, and

confirming that as of the date of the statutory declaration, there has been no appeal filed with the Supreme Court in relation to that court order.

- vi. A Building Condition Assessment Report or a Depreciation Report which justifies that the building(s) is in such an advanced state of disrepair that redevelopment is more practical than repair or maintenance. The report would include the life expectancy of the building, the state of repair, the cost of necessary repairs or major maintenance projects, and degree of compliance with all City bylaws, servicing standards and requirements.
- vii. A statement on how the developer has offered assistance to any owner opposed to the wind-up. This may include:
 - Assistance with finding alternative accommodation;
 - Offering free or discounted rent following completion of the sale but prior to demolition of the building;
 - Offering significant notice to vacate the unit for site redevelopment after completion of the sale; and/or
 - Offering the first opportunity to purchase new units.

As a note to Council, a statutory declaration is similar to an oath made in court, and any false declaration would be considered perjury under the Criminal Code of Canada. In addition to the declaration submitted by the applicant/new owner, staff will verify through the court registry whether any appeals were made during the 30 day period following issuance of the court order.

See Attachment 3 for a draft Bulletin outlining the proposed policy.

Should Council endorse the proposed Residential Strata Redevelopment Policy, staff will refer the policy to the members of the development community (e.g. Urban Development Institute) and the Condominium Homeowners' Association of British Columbia (an industry resource and advocacy group for strata home owners across the province) for their information.

In addition, as the process for strata redevelopment with less than 100% support of owners is under the Province's jurisdiction through the *Strata Properties Act*, Staff recommend that a letter be sent to the Premier of BC, the Leader of the Opposition and the Minister of Municipal Affairs and Housing, with copies to all Richmond Members of the Legislative Assembly, the Leader of the Third Party, and the Leader of the Official Opposition, requesting that the Province review the provisions of Bill 40.

Financial Impact

None.

Conclusion

Since 2016, when the Province approved Bill 40 of the *Strata Property Act*, strata corporations have been able to wind-up with only 80% rather than 100% of owners voting in favour. Since the bill came into force, staff have received a number of redevelopment inquiries.

This report provides a summary of the strata wind-up process and recommends that staff be directed through a Council resolution to not consider redevelopment applications for sites occupied by existing stratified multiple-family residential buildings unless the criteria outlined in this report are met.

It is further recommended that the City forward a letter to to the Premier of British Columbia, and the Minister of Municipal Affairs and Housing, with copies to all Richmond Members of the Legislative Assembly, and the Leader of the Third Party, and the Leader of the Official Opposition, to request reconsideration of Bill 40 and the strata corporation wind-up procedures.



Jeanette Elmore
Planner 2
604-247-4660

JE:cas

Attachment 1: Provincial Overview of the Process to Terminate (Wind-Up) Strata Corporations

Attachment 2: Environmental Scan (Metro Vancouver) of Residential Strata Redevelopment
Requirements

Attachment 3: Bulletin: Proposed City Response to Residential Strata Redevelopment



Termination (Winding Up) of Strata Corporations

Strata corporations can now terminate (wind up and cancel the strata plan) with an 80% vote of all owners, instead of the previous unanimous voting requirement.

It is strongly recommended that a strata corporation considering termination seek independent professional and legal advice well in advance of a vote to wind up (terminate). There are many steps in the termination process and not all of these are referenced in strata legislation.

Bare land strata corporations ("strata subdivisions") wishing to terminate must also notify the applicable local government 90 days in advance. A bare land strata corporation considering termination may wish to transfer responsibility for bare land strata services (e.g. sewer, roads, water) to local government. *The applicable local government does not have to accept responsibility for any bare land strata services. Prior to a vote on termination, the strata should clarify how services will be provided.*

This page provides a basic overview of the strata termination process; it is not a substitute for legal advice.

Learn more on this page:

[Why Would a Strata Corporation Choose to Terminate?](#)

[From Unanimous to 80%](#)

[Overview of the Termination Process](#)

[Exploring Termination](#)

[Giving Notice of a General Meeting for a Termination Vote](#)

[Voters](#)

[Court Oversight](#)

[Submitting an Application to the Land Title Office](#)

[Bare Land Stratas - Additional Requirement](#)

Why Would a Strata Corporation Choose to Terminate?

Under some circumstances, terminating a strata corporation may be the best choice for strata lot owners. As some older strata corporations reach the end of their life cycle, the cost of repair may not make economic sense or owners may not have the financial ability to pay for the necessary repairs. Sometimes the land can be sold for redevelopment; for example, a low-rise building could be redeveloped into a building with many more units.

Bare land stratas ("strata subdivisions") may want to terminate as well; this is known as cancelling the bare land strata plan. For example, a bare land strata corporation may want to convert to a fee simple (non-strata titled) subdivision or, in certain circumstances, become a single parcel with "tenants-in-common".

From Unanimous to 80%

Effective July 28, 2016, strata owners are now able to terminate (wind up) their strata corporation with an 80% vote instead of the previous difficult-to-achieve unanimous voting requirement. Many other jurisdictions, including Alberta and Ontario, do not require a unanimous vote to terminate.

The 80% vote means the termination resolution **must have 80% approval of all the registered owners**. It is not a quorum vote. Unlike majority and 3/4 votes, it is not an 80% vote of those owners present, or holding proxies, at the meeting (learn more in [types of voting](#)). For strata corporations with fewer than 5 strata lots, the 80% voting threshold is effectively unanimous.

Given the significance of terminating a strata corporation, there is court oversight to protect any dissenting owners and registered charge holders (e.g. mortgage providers).

[These changes to the Strata Property Act](#) are based on the [BC Law Institute's recommendations](#). There was extensive public consultation and the changes are widely supported by the strata community.

Overview of the Termination Process

Voluntary winding up from initial exploration to finalizing the sale (or liquidating) and owners moving out can take up to 18 months or even longer. This section provides a general overview of voluntary winding up but it does not list all the steps. Strata corporations are strongly advised to seek independent professional and [legal advice](#) from a knowledgeable strata lawyer as it is important to understand the full termination process and implications, well in advance of a vote to wind up a strata corporation. A lawyer can also advise on the pros and cons of voluntarily winding up with and without the services of a liquidator. (In addition to voluntary winding up, the *Strata Property Act* also continues to allow a court-ordered winding up, a rare occurrence).

Sometimes strata lot owners may be concerned about protecting their interests. The termination process has a number of safeguards built in including: advance notification to every owner; an 80% vote of approval from all owners (not a quorum vote from those present, or holding proxies, at a meeting); and court oversight. However, individual owners may also wish to consult a strata lawyer for independent advice.

Listed below are some other resources if termination is being considered:

- [Strata associations](#) have information about the new termination process and may offer consultation services for a fee.
- The [Civil Resolution Tribunal \(CRT\)](#) does not replace the court's role in the termination process. However the CRT can play a role to address certain unfair actions under sections 164 and 173 of the *Strata Property Act*. The CRT may make an order:
 - regarding an action or threatened action by the strata corporation, including the council, in relation to an owner or tenant
 - regarding a decision of the strata corporation, including the council, in relation to an owner or tenant

ENCL-1241

- directed at the strata corporation, the council or a person who holds 50% or more of the votes, if the order is necessary to prevent or remedy a significantly unfair action, decision or exercise of voting rights.

- If there are concerns about professionals not acting in good faith, please check with their professional disciplinary bodies.
- Additional information on the termination process includes: CHOA's spring 2016 Journal Article "[How Simple is Liquidation of a Strata Corporation?](#)" and a [termination \(winding up\) infographic](#) by Clark Wilson LLP.

Exploring Termination

Often a termination process starts when a developer approaches a strata corporation wishing to buy all the strata lots for redevelopment. Or a strata corporation may be interested in winding up and selling for redevelopment because of excessive repair and maintenance costs.

Open and transparent communication with owners is essential. Information meetings should be held with owners from the very beginning to discuss options and collectively learn more about termination (winding up) including disbursement of funds to owners (if selling to a developer), costs and fees.

Owners will also want to understand how funds from selling would be disbursed. Disbursement to owners will be affected by when the strata plan was filed: before August 1974, unit entitlement; August 1974 to 2000, interest upon destruction; after 2000, relative assessed values.

If the majority of owners are interested in termination, usually a resolution is adopted to enable the strata council to move the process forward and hire legal counsel. Given the costs of the legal review and governance implications, the strata council should only proceed once the owners have formally given direction. The strata corporation is strongly advised to obtain independent legal and professional advice.

The strata council may also hire a real estate broker to market the property or negotiate an offer from a developer. When hiring a broker, the strata corporation's legal counsel should closely review: the terms and conditions of the agency agreement; the commission rates; and whether any type of limited dual agency (i.e. representing both buyer and seller) is permitted.

There is no set procedure but once an eligible offer has been received, a resolution to terminate can be drafted. The winding up resolution should be drafted by the strata's legal counsel and will usually be a detailed multi-paged document. The termination resolution will authorize termination of the strata plan, authorize the strata corporation to apply to the Supreme Court for termination orders and a vesting order authorizing the cancellations of the strata plan and winding up of the strata corporation; approve expenditures (funding for the lawyer, liquidator, liquidator's legal representation, fees and commissions); and may also address miscellaneous matters like move out timelines or rent-free periods.

Giving Notice of a General Meeting for a Termination Vote

A strata corporation is required to give at least two weeks' written notice of a general meeting. However if the agenda includes a resolution on termination, the strata must give at least four weeks' written notice. Four weeks actually means at least 32 days when also considering the notice requirements under the *Interpretation Act*. If the general meeting is called by petition, then eight weeks' written notice (at least 60 days when also considering the notice requirements under the *Interpretation Act*) is needed.

The notice of the general meeting to vote on termination must be given to all persons who are entitled to receive the meeting notice, regardless of whether a person previously waived the right to receive notification. Learn more about [notice requirements](#) and [preparing for a general meeting](#).

Voters

Approving a strata termination resolution requires an 80% vote of approval from all the strata owners. It is not a quorum vote of those owners present or holding proxies at a meeting.

Given the importance of a termination resolution, all strata owners are eligible to vote on the resolution, regardless of any provisions in the bylaws making a strata owner ineligible to vote if the owner has unpaid special levies or unpaid strata fees.

In some situations a mortgagee (the person, organization or financial institution holding the mortgage) of a strata lot may vote at a general meeting on matters relating to insurance, maintenance, finance or other matters affecting the security for the mortgage. However, a mortgagee is not permitted to vote on a resolution to terminate a strata corporation.

Court Oversight

After passing a resolution to terminate, a strata corporation with five or more strata lots must apply to the BC Supreme Court for an order confirming termination.

For small strata corporations with fewer than five lots, the requirement for an 80% vote to terminate is effectively unanimous. These stratas may choose whether to apply for a court order or not. On the one hand, obtaining a court order has a cost. On the other hand, having a court order means small strata corporations do not have to get unanimous written consent of the registered chargeholders.

The *Strata Property Act* provides guidance to the court in how to consider the best interests of the owners, including any significant unfairness to any dissenting minority owners or registered charge holders (e.g. mortgage provider) and ensures all parties have a standing in court.

Submitting an Application to the Land Title Office

When the strata corporation is ready to submit an application to the Land Title Office to cancel a strata plan, the strata corporation in addition to other documents, must include the following:

If the strata has obtained a court order:

- a Certificate of Strata Corporation confirming:
 - the winding up (termination) resolution has passed, and
 - the strata corporation has no debts other than the debts held by holders of registered charges.
- a copy of the court order

If the strata has fewer than 5 strata lots (and does not obtain a court order):

- the written consent of all holders of registered charges

- a Form E Certificate of Strata Corporation for Section 274 confirming:
 - the winding up (termination) resolution has passed, and
 - the strata corporation has no debts other than the debts held by persons who have consented in writing to the winding up of the strata corporation.

Bare Land Stratas Additional Requirement: Notification of Intent to Cancel

In addition to the process outlined above, bare land strata corporations must also meet another requirement in order to terminate.

Bare land strata corporations ("strata subdivisions") wishing to terminate must notify the applicable local government 90 days in advance. A bare land strata corporation considering termination may wish to transfer responsibility for bare land strata services (e.g. sewer, roads, electricity) to local government.

However, the applicable local government does not have to accept responsibility for any bare land strata services and this may prevent the bare land strata from terminating.

Bare Land Strata Subdivision Services

Many bare land strata corporations have significant responsibilities for common property and limited common property such as roads, water, sewage, hydro and recreation facilities.

However, a bare land strata corporation's water and sewer services may or may not be provided by the local government and may or may not be constructed, installed and maintained to local government standards. Local government subdivision standards may also differ for things like building setbacks, road widths, road construction, road finishing, sidewalks, curbs and gutters. In Electoral Areas (parts of Regional Districts) roads are the responsibility of the Province and strata roads may or may not meet provincial standards.

- It is strongly recommended that a bare land strata corporation wishing to cancel a strata plan (terminate the strata) consult with the appropriate local government officials (including those in development and planning) *well in advance of submitting an application to cancel a bare land strata plan, e.g. six months.*
- It is very important that the bare land strata corporation and the appropriate local government have come to a shared agreement, with legal documentation, about who will be responsible for the bare land strata property's common property and assets and the associated repair and maintenance costs if the bare land strata terminates. This shared agreement should be reached *before* owners vote on a termination resolution.
If a bare land strata corporation does not reach a shared agreement with the appropriate local government (or in some cases the Province) and terminates without having an approved subdivision plan, the owners could inadvertently become "tenants-in-common" on a single land parcel. Being "tenants-in-common" has significant legal implications including not being governed by strata legislation.

A bare land strata corporations cannot unilaterally transfer their responsibilities for strata services to local government.

Form BL-A Notice of Intent to Wind Up a Strata Corporation and Cancel a Bare Land Strata Plan

Before submitting an application to the registrar in Land Titles to cancel a bare land strata plan, the bare land strata corporation must provide notice of the cancellation to the appropriate local government 90 days in advance using "Form BL-A Notice of Intent to Wind Up a Strata Corporation and Cancel a Bare Land Strata Plan".

The notification requirement is a step to help ensure that the bare land strata corporation and the applicable local government (e.g. municipality or regional district or, in some situations, the Province) are aware of their respective termination responsibilities and have come to a mutual agreement.

Like other strata corporations contemplating termination, bare land strata corporations are strongly advised to retain independent legal counsel familiar with strata law and bare land strata corporations.

References:

Strata Property Act: Sections 43, 45, 54, 273.1, 274, 278.1, 279, 284

Bare Land Strata Plan Cancellation Regulation: Section 2.1

The information on strata housing is provided for the user's convenience as a basic starting point; it is not a substitute for getting legal advice. Learn more about the site's purpose and limits. The content on this website is periodically reviewed and updated by the Province of British Columbia as per the date noted on each page: February 20, 2017.

Professional and Legal Advice

It is highly recommended stratas get independent professional and legal advice if considering termination.

- Options for Getting Legal Advice

Strata associations offer useful information for strata owners and strata council members.

- CHOA (Condominium Home Owners Association of BC)
- VISOA (Vancouver Island Strata Owners Association)
- CCL Vancouver Chapter (Canadian Condominium Institute)

Strata Legislation

Environmental Scan (Metro Vancouver) of Residential Strata Redevelopment Requirements

Municipality	Residential Strata Redevelopment Requirements
City of Vancouver	<ul style="list-style-type: none"> • At the time of a rezoning application involving strata wind-up, proof is required that an application has been filed with the Supreme Court to cancel the strata plan and wind-up the strata corporation. • If the applicant is a developer who owns 80% or more of the strata lots at the time of making an application, the application may be accepted as long as the remaining owners authorize the applicant to submit an application on their behalf, in lieu of presenting proof of filing with the court. • Prior to a rezoning application being considered by Council at a public hearing, the City requires proof that the strata plan has been cancelled and that the strata corporation has been wound up. An updated title search showing that the property is no longer strata-titled is considered acceptable proof. • While a rezoning application may proceed while a strata wind-up is in process (subject the requirements noted above), the City will not grant final approval until the strata wind-up has been completed
District of North Vancouver	<ul style="list-style-type: none"> • At the time of a preliminary rezoning application, the District requires a letter from the strata president showing that at least 80% of owners supported the wind-up, and the meeting minutes showing the total number of owners in support of wind-up. • In order to accept a detailed rezoning application, the District requires confirmation that there is a single owner of the property or that wind-up has been approved by the court and the applicant has been granted signing authority. • Where there is a rental component, the developer is asked to provide a housing strategy for tenants, such as hiring a consultant to assist with relocation to comparable housing. • The District is currently reviewing two rezoning applications for strata redevelopment.
Other Municipalities	<ul style="list-style-type: none"> • The Cities of Burnaby Coquitlam and New Westminster have received inquiries related to the redevelopment of strata wind-up sites, and the City of Coquitlam has received a rezoning application for a strata wind-up site. • None of these cities have any additional requirements.

BULLETIN: City Response to Residential Strata Redevelopment

The City will not commence processing of any rezoning or Development Permit application that involves an existing stratified multiple-family residential strata site, until the following has been submitted:

- i. For any strata corporation with 5 or more units, certified confirmation of the Supreme Court decision on the strata's application for wind-up (i.e. the court order).
- ii. For any strata corporation with 5 or more units, written confirmation that at least 80% of owners voted to wind-up the strata, including the total number of owners in support, not in support, or absent from the vote.
- iii. Meeting minutes from the General Meeting where the resolution to wind-up was approved and a letter describing the rationale for the wind-up, the general processes followed by the strata, and how the views of any dissenting owners were considered during that process.
- iv. A certificate of Strata Corporation (Form E of the *Strata Property Regulation*) stating that the resolution required to be passed under *the Strata Property Act* to cancel a strata plan has been passed.
- v. A statutory declaration by the applicant / new owner executed at least 30 days after the date of the court order confirming the resolution to cancel the strata plan, and confirming that as of the date of the statutory declaration, there has been no appeal filed with the Supreme Court in relation to that court order.
- vi. A Building Condition Assessment Report or a Depreciation Report which justifies that the building(s) is in such an advanced state of disrepair that redevelopment is more practical than repair or maintenance. The report would include the life expectancy of the building, the state of repair, the cost of necessary repairs or major maintenance projects, and degree of compliance with all City bylaws, servicing standards and requirements.
- vii. A statement on how the developer has offered assistance to any owner opposed to the wind-up. This may include:
 - Assistance with finding alternative accommodation;
 - Offering free or discounted rent following completion of the sale but prior to demolition of the building;
 - Offering significant notice to vacate the unit for site redevelopment after completion of the sale; and/or
 - Offering the first opportunity to purchase new units.



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Victor Wei, P. Eng.
Director, Transportation
Date: March 21, 2018
File: 01-0100-30-TSAD1-
01/2018-Vol 01
Re: **Traffic Safety Advisory Committee – Proposed 2018 Initiatives**

Staff Recommendation

1. That the proposed 2018 initiatives for the Traffic Safety Advisory Committee, as outlined in the staff report titled "Traffic Safety Advisory Committee - Proposed 2018 Initiatives" dated March 21, 2018 from the Director, Transportation, be endorsed.
2. That a copy of the above staff report be forwarded to the Richmond Council-School Board Liaison Committee for information.

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

REPORT CONCURRENCE		
ROUTED TO: Community Bylaws Fire Rescue RCMP	CONCURRENCE <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/>	CONCURRENCE OF GENERAL MANAGER
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: CS	APPROVED BY CAO

Staff Report

Origin

Council endorsed the establishment of the Traffic Safety Advisory Committee (TSAC) in 1997, in order to create a co-operative partnership between City staff, community groups and other agencies that seek to enhance traffic and pedestrian safety in Richmond. The Committee provides input and feedback on a wide range of traffic safety issues such as school zone concerns, neighbourhood traffic calming requests and traffic-related education initiatives. TSAC has representation from the following groups: Insurance Corporation of BC (ICBC), Richmond School District, Richmond RCMP, Richmond Fire-Rescue, Richmond District Parents Association, and the City's Transportation and Community Bylaws Departments. This report summarizes the Committee's activities in 2017 and identifies proposed initiatives for 2018.

This report supports Council's 2014-2018 Term Goal #1 A Safe Community:

Maintain emphasis on community safety to ensure Richmond continues to be a safe community.

1.4. Effective interagency relationships and partnerships.

This report supports Council's 2014-2018 Term Goal #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.

3.3. Effective transportation and mobility networks.

This report supports Council's 2014-2018 Term Goal #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.

5.2. Strengthened strategic partnerships that help advance City priorities.

Analysis

The Committee's major activities and accomplishments in 2017 are summarized below.

Road and School Zone Safety Initiatives in 2017

The Committee provided input on and/or participated in the following measures aimed at improving the safety of Richmond roads for all users, particularly in school zones.

- Pedestrian Zone Markers in School Zones: Given the past success of in-street mounted signage in school zones and other locations in Richmond, two signs were installed within the school zone on Smith Drive fronting Hamilton Elementary School. Similar signs were also

installed on Jack Bell Drive near Cambie Secondary School where there is a slight curve to advise approaching motorists of a crosswalk (Figure 1).



Figure 1: In-Street Pedestrian Zone Markers on Jack Bell Drive

- *School Travel Planning*: Completion of a pilot program with the Richmond School District, TravelSmart (part of TransLink) and HASTe (Hub for Active School Travel, contractor to TravelSmart) to develop a customized School Travel Plan for three elementary schools: Garden City, AB Dixon and Walter Lee. The Plans aim to create an environment that encourages healthy and active transportation to and from school, improves the journey for those who use vehicles or take school busses, and improves transportation safety for everyone.
- *No. 2 Road-Francis Road*: In response to area residents' concerns and the crash history, a traffic safety review of the Francis Road-No. 2 Road intersection was undertaken in conjunction with ICBC to identify safety issues and potential collision causes, and generate and assess potential mitigation measures. Based on the findings of the review, improvements will be made to better protect residents at the northeast corner from off-road collisions (i.e., installation of decorative crash barrels).
- *River Road (No 6 Road-Westminster Highway)*: Identification of potential road safety improvement measures on River Road to address on-going concerns related to motorist speeding and conflicts with cyclists.

Traffic and Pedestrian Safety Campaigns in 2017

Committee members participated in the following ICBC- and Richmond RCMP-led road and pedestrian safety campaigns.

- *Pedestrian Safety*: In Fall 2017, Richmond RCMP in partnership with ICBC and Richmond Fire-Rescue conducted four pedestrian safety education and enforcement campaigns that involved the distribution of over 7,000 reflectors and proactive engagement with pedestrians. Locations focused on No. 3 Road around the Richmond-Brighouse and Lansdowne Canada Line Stations including on the trains, and the Minoru Library/Cultural Centre.

- *“Project Swoop”*: During this event held in May, Speed Watch volunteers set up a speed reader board at a high incident crash location and those drivers who choose to continue to speed even after being clocked by the Speed Watch volunteers will receive a speeding ticket from an RCMP officer a few blocks down the road. Nine officers and 29 volunteers were deployed at eight locations and checked nearly 7,000 motorists. Locations included the 8,000-block No. 5 Road, River Road-Nelson Road, Westminster Highway-No. 8 Road, and Alderbridge Way-May Drive. A total of 14 charges and two written warnings were issued.
- *Distracted Driving*: As part of this campaign that is conducted year-round, RCMP officers and community police volunteers conducted two “Cell Watch” blitz days in March and September that involved a total of 41 deployments (comprising 22 RCMP officers and 99 volunteers) who collectively checked over 41,000 motorists. Targeted locations in March included the Alderbridge Way corridor, Steveston Highway in the vicinity of Ironwood Plaza and streets connecting to Highway 99 in north Richmond (e.g., Great Canadian Way and Bridgeport Road). Locations in September featured No. 3 Road in the City Centre and streets in the vicinity of Ironwood Plaza (e.g., Steveston Highway, Horseshoe Way). A total of 82 charges and 41 written warnings were issued.
- *Auto Crime Awareness*: As part of this annual campaign, RCMP officers and community police volunteers conducted seven “Lock Out Auto Crime” blitz days throughout the year and issued nearly 4,000 notices. At the same, nearly 8,700 licence plates were checked as part of the Stolen Auto Recovery program, which uses up-to-date information on stolen vehicles (provided by the BC Crime Prevention Association) to search licence plates of parked and moving vehicles. If a plate number comes up as a match, the volunteers notify police. Locations focused on parking lots for shopping malls, hotels and other destinations such as Lansdowne Mall, Richmond Centre, Riverport, Richmond General Hospital, and Seafair Shopping Centre.

Proposed Traffic Safety Activities for 2018

In addition to developing and providing input on corrective measures to address identified traffic safety concerns, the Committee will undertake a number of proactive initiatives to enhance traffic safety in 2018.

- *Traffic Calming*: The assessment, implementation and monitoring of road safety and traffic calming measures where warranted in local neighbourhoods, together with consultation with Richmond RCMP and Richmond Fire-Rescue prior to the implementation of any traffic calming measures.
- *School Zone Traffic Safety*: On-going review and improvement of traffic and pedestrian safety in school zones through improving vehicle parking and circulation layout at schools, supporting the enforcement of school zone traffic violations, and introducing new walkways and crosswalks as well as upgraded crosswalks to improve pedestrian safety. The three schools involved in the School Travel Planning process noted above (i.e., Garden City, AB Dixon and Walter Lee) are anticipated to be included in the reviews for 2018.
- *Pedestrian and Traffic Safety Projects and Campaigns*: Continue to provide input on potential road safety improvement measures on River Road (No. 6 Road-Westminster

Highway) and continue to support and participate in on-going multi-agency efforts to increase the level of pedestrian and traffic safety, such as the annual campaigns held by ICBC and Richmond RCMP in various locations.

- Discouraging Vehicle Speeding: The member agencies of the Committee will continue to jointly work on initiatives to curb vehicle speeding in the community, such as the deployment of Speed Watch volunteers in various school zones when requested by principals and the targeted enforcement program of Richmond RCMP.
- Special Events: Provide comment and input from a traffic safety perspective on the development and implementation of traffic management plans to support special events (e.g., World Festival, Harvest Fest).

Costs associated with the installation of traffic control devices, walkway construction and other road and traffic safety improvements are normally accommodated in the City's annual capital budget and considered as part of the annual budget review process. Some of these projects are eligible for financial contribution from external agencies (e.g., ICBC and TransLink). If successful, staff will report back on the amount of financial contribution obtained from these external agencies through the annual staff reports on ICBC and TransLink cost-sharing programs respectively.

Financial Impact

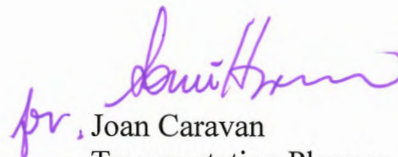
None.

Conclusion

The Traffic Safety Advisory Committee is one of the few multi-agency forums in the region dedicated to enhancing pedestrian and traffic safety within its home municipality. Since its inception in 1997, the Committee has provided input on and support of various traffic safety improvements and programs and initiated a range of successful measures encompassing engineering, education and enforcement activities. Staff recommend that the proposed 2018 initiatives of the Committee be endorsed and this staff report forwarded to the Richmond Council-School Board Liaison Committee for information.



for Donna Chan, P.Eng., PTOE
Manager, Transportation Planning
(604-276-4126)
(on behalf of the Traffic Safety Advisory Committee)



pr. Joan Caravan
Transportation Planner
(604-276-4035)



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: John Irving, P.Eng. MPA
Director, Engineering
Date: March 1, 2018
File: 10-6060-03-01/2017-Vol 01
Re: Integrated Rainwater Resource Management Strategy

Staff Recommendation

That the "Integrated Rainwater Resource Management Strategy" as attached to the staff report titled "Integrated Rainwater Resource Management Strategy," dated March 1, 2018 from the Director, Engineering be approved.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Sewerage & Drainage	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Corporate Communications	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

Municipal Commitment 3.4.7 of Metro Vancouver's Integrated Liquid Waste Resource Management Plan dated May 2010 commits member municipalities to develop and implement integrated stormwater management plans at the watershed scale that integrate with land use to manage rainwater runoff. Richmond's integrated stormwater management plan, titled the Integrated Rainwater Resource Management Strategy (the "Strategy"), fulfils this requirement and supports Council's Term Goal #4 *Leadership in Sustainability*.

At the May 24, 2016 Regular Council Meeting, Council adopted the following motion:

That the "Integrated Rainwater Resource Management Strategy" as attached to the staff report titled "Integrated Rainwater Resource Management Strategy," dated April 29, 2016 from the Director, Engineering be endorsed for the purpose of public consultation.

The Strategy was taken to public stakeholders and feedback has been incorporated. This report summarizes the outcomes of engagement activities and presents the final Integrated Rainwater Resource Management Strategy for Council's consideration.

Analysis

Richmond's Integrated Rainwater Resource Management Strategy

The City of Richmond is comprised of a series of islands in the delta of the Fraser River, with the majority of the land mass located on Lulu Island. Lulu Island forms a single watershed with carefully engineered drainage catchments that include channelized watercourses, sloughs and ditches that serve drainage, irrigation and habitat functions. As a floodplain municipality with soft soils, low gradients and a naturally high water table, the City of Richmond has unique stormwater management issues and needs compared to regional neighbours. The development of the Strategy is guided by four main goals to address these specific needs:

1. Minimize the impacts of future development and redevelopment on drainage infrastructure and ecological health;
2. Reduce potable water use;
3. Address existing and future sedimentation issues; and
4. Support the City's Ecological Network.

The Strategy identifies four key strategies to address these goals, with a series of initiatives and an implementation plan outlined for each strategy:

1. Strategic detention of water;
2. Water quality treatment and sediment control;
3. Rainwater harvesting and reuse; and
4. Protection, enhancement and building of green infrastructure.

Stakeholder Engagement and Feedback and Strategy Updates

Staff engaged the development community through presentations made to the Urban Development Institute and Small Builders Group. Staff also engaged the public through the City's community engagement website, Let'sTalkRichmond.ca, where the Strategy was made available online for public feedback. 170 people viewed this site and 66 people participated in the online survey and provided feedback. The majority of public respondents felt that the Strategy adequately addresses Richmond's stormwater management needs. Feedback received through the stakeholder presentations and public surveys are summarized below:

- Of the strategies presented, residents most favoured exploring opportunities for rainwater re-use in parks and conservation lands.
- Approximately 40% of participants who completed the online survey have not previously heard of stormwater management. Residents support hearing more about stormwater management opportunities and initiatives such as the City's rain barrel program.
- There was mixed feedback from both the public and the development community regarding daylighting initiatives and stormwater re-use on private property. While some respondents support these initiatives, others are concerned that these initiatives would become mandated requirements. The current strategy aims to identify, encourage and strategically implement these initiatives on an opportunistic basis.
- Residents expressed the desire to see the retention of tree canopies to promote stormwater retention assessed and incorporated into the strategy. The assessment of Richmond's Urban Forest is addressed through the City's Urban Forest Management Strategy and is regulated through the Tree Protection Bylaw, Zoning Bylaw, Environmentally Sensitive Areas and Public Parks and Schools Grounds Regulation Bylaw. The Urban Forest Management Strategy which addresses trees on public property is currently under review and will be updated in 2018. The Strategy has been updated to include reference to the Urban Forest Management Strategy based on feedback received.
- Residents felt that although stormwater management may be important, flood protection is of a greater concern for the City. The Strategy works in conjunction with Richmond's Flood Management Protection Strategy, which provides a guiding framework for continual upgrading and improvement of the City's flood protection.
- Residents expressed concern at building massing and the impacts of increased impermeable surface areas on stormwater management and ecological health of green infrastructure. Development applications are reviewed by staff to ensure compliance with City bylaws, policies and initiatives.

In addition to revisions to incorporate stakeholder feedback, the strategy has also been updated to include examples of stormwater re-use at a detention pond within the Garden City Lands that will be used for the irrigation of farm fields within the park.

Next Steps

The Strategy has been updated to incorporate stakeholder feedback received. If the proposed strategy is approved by Council, staff will begin execution of the implementation plan identified in the Strategy. Projects and policies that are developed according to this Strategy will be presented to Council for review prior to implementation.

Financial Impact

None.

Conclusion

Richmond's Integrated Rainwater Resource Strategy introduces a number of initiatives and strategies to address the City's unique stormwater management needs. The Strategy complements existing City strategies and initiatives such as the Official Community Plan, Flood Protection Management Strategy, Ecological Network Management Strategy and Urban Forest Management Strategy, and fulfils Richmond's obligations in Metro Vancouver's Integrated Liquid Waste Resource Management Plan to develop an Integrated Stormwater Management Plan.



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

Att. 1: Integrated Rainwater Resource Management Strategy – March 2018



City of Richmond

Integrated Rainwater Resource Management Strategy

March 2018

CNCL - 225



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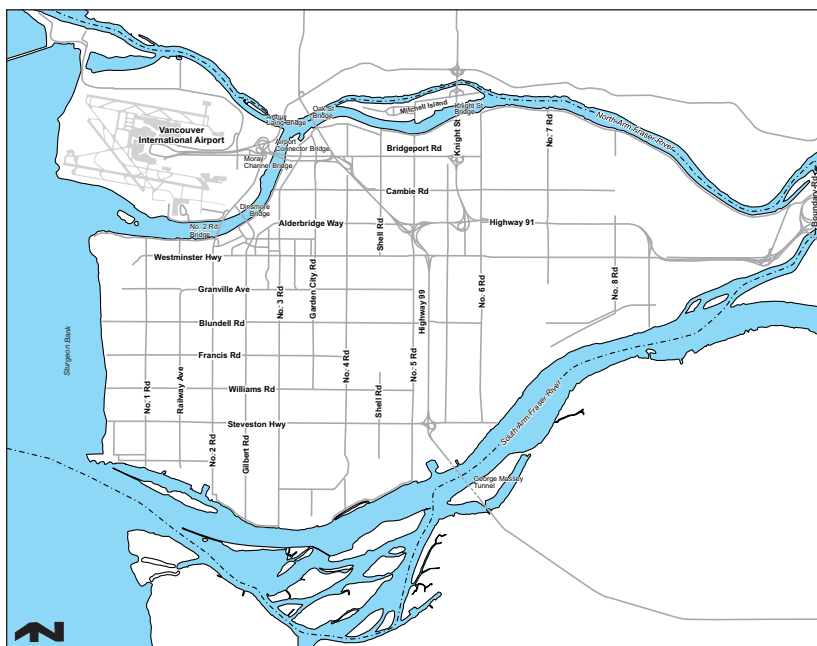
Introduction

Geographic Context

The City of is comprised of a series of islands in the delta of the Fraser River, with the majority of the land mass located on Lulu Island. Early settlers built dikes and drained the land to farm. Today, agriculture remains an important part of Richmond's economy and character. While West Richmond is predominantly urban, East Richmond is considered to be rural and agricultural.

Lulu Island is characterized by a relatively flat topography with an average elevation of one meter above sea level. Since much of the island is below the elevation of high tide, the perimeter of the island has been diked to prevent flooding. Stormwater runoff is either drained by gravity during low tides, or pumped out of the City during high tides.

The island forms a single watershed with carefully engineered drainage catchments that include channelized watercourses, sloughs and ditches that serve drainage, irrigation and habitat functions. The peat bog substrate, high water table and limited gradient typical of flood plain ecosystems result in slow flowing watershed drainage and water that has elevated temperatures, low dissolved oxygen, and high dissolved iron and other metals when compared to traditional watersheds. The City's inland watercourses are generally considered to be not hospitable to anadromous fish species, but do however, flow into and support an abundance of fish life in the receiving waters of the Fraser River Estuary.



Richmond's Needs for Stormwater Management

Growth: The City of Richmond's population is projected to grow substantially in the next 30 years, as described in the City's *2041 Official Community Plan Update*. Significant development activities anticipated within Richmond result in the following consequences that are addressed through rainwater management in the City:

- Additional **demands on the City's drainage infrastructure** due to increased stormwater runoff from increases in impervious land area.
- **Reduced storage capacity** due to the replacement of roadside ditches and watercourses with pipes or culverts.
- **Increased maintenance demands** for the City's stormwater system due to increased sediment from construction sites and increased road runoff.
- **Impacts to the ecological health** of receiving water bodies due to a proportional increase in pollutant load.

Topographic and Water Quality Challenges: Richmond's distinct topography creates the following unique challenges and opportunities that guide the development of our *Integrated Rainwater Resource Management Strategy*:

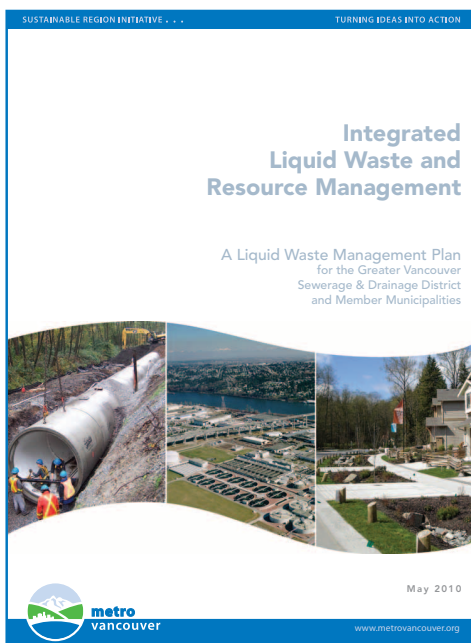
- Low gradients in Richmond's gravity drainage system results in slow conveyance, increased temperatures, and lower levels of dissolved oxygen when compared to traditional watersheds.
- A naturally high water table limits the capacity to infiltrate rainwater.
- Richmond's peat bog substrates contribute to naturally occurring dissolved iron and other metals to water and the inland watercourses are generally considered to be inhospitable to anadromous fish species.

Richmond's *Integrated Rainwater Resource Management Strategy* provides a strategic approach to address Richmond's unique stormwater management issues and needs. This results in an approach that differs from many other municipalities. The strategy aims to protect and enhance the City's stormwater conveyance infrastructure and ecological assets under more frequent rainfall events, and considers rainwater as a resource to be utilized.

Regulatory Context

As a member of the Greater Vancouver Sewerage and Drainage District, the City of Richmond is committed to the stormwater management requirements set out in the *2010 Metro Vancouver Integrated Liquid Waste Resource Management Plan* and the terms of the *Minister of Environment's Letter of Acceptance (2011)*. Specifically, the plan commits member municipalities to:

- Develop and implement integrated stormwater management plans that integrate with land use to manage rainwater runoff.
- Update municipal bylaws and utility design standards to meet the criteria set out in the integrated stormwater management plan and enable and encourage on-site rainwater management.



- Develop a program to monitor stormwater, assess and report the implementation and the effectiveness of the integrated stormwater management plan.

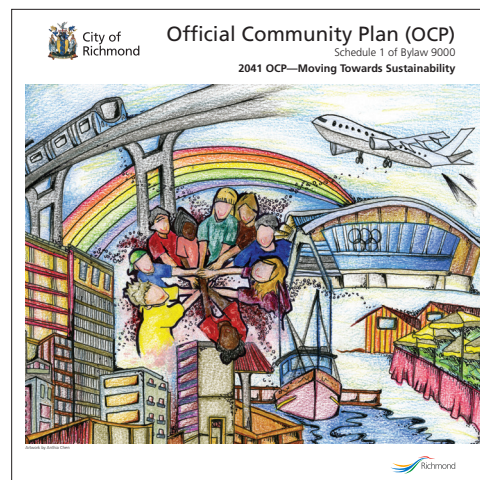
Richmond's *Integrated Rainwater Resource Management Strategy* aims to fulfill requirements of the *Integrated Liquid Waste Resource Management Plan* for stormwater management.

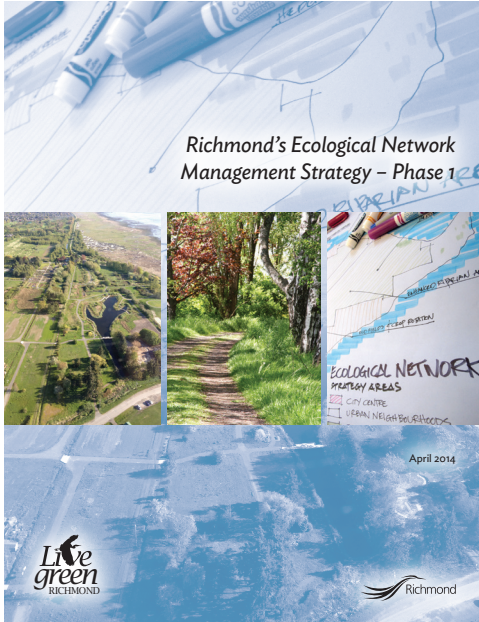
In addition, 119 km of Richmond's 223 km of open waterways are designated Riparian Management Area protected under the provincial *Riparian Area Regulation* and the *Federal Fisheries Act* as they flow into and support fish life in the Fraser River. The new provincial *Water Sustainability Act* also applies to the City's drainage infrastructure. This *Integrated Rainwater Resource Management Strategy* will work to address requirements of these provincial regulations.

Municipal Strategic Context

The *Integrated Rainwater Resource Management Strategy* supports and is congruent with the mandates of several Richmond policies, plans and objectives, including the:

- **2041 Official Community Plan (OCP)**, updated in 2012 forms the City's framework in establishing the City's social, economic, land use, urban design, servicing, transportation and environmental future. The Plan anticipates the City's population to grow by 80,000 people by 2041 and mandates that the City's infrastructure be maintained and improved upon to meet growing needs. The *Integrated Rainwater Resource Management Strategy* aims to address these needs.
- **Flood Protection Management Strategy**, originally adopted by Council in 2008, provides an integrated flood protection framework to minimize flooding and its impacts. While the objectives of the strategies differ, recommendations in the Flood Protection Strategy overlap with those of the *Integrated Rainwater Resource Management Strategy*. Overlapping strategies include the utilization of stormwater retention and detention, strategic raising of land levels through development, and establishment of a Floodplain Bylaw.
- **East Richmond Agricultural Water Supply Study (2006)** and **East Richmond Agricultural Water Supply Update (2013)**, provides a strategy for improving the drainage system in East Richmond to address flood protection and irrigation needs for agricultural lands. As rainwater management strategies within East Richmond's agricultural lands are addressed in the *East Richmond Agricultural Water Supply Study* and its update, the *Integrated Rainwater Resource Management Strategy* will aim to complement that, with a greater focus placed on land uses within West Richmond.
- **Ecological Network Management Strategy (ENMS)**, adopted by Council in 2015, identifies and describes Richmond's Ecological Network and recommends goals, strategies, and actions for protecting, enhancing and connecting natural lands within the City. The strategy addresses similar issues to the *Integrated Rainwater Resource Strategy* including water and habitat quality, impervious surfaces, riparian habitat issues such as bank erosion and green infrastructure enhancement opportunities to increase ecosystem services.





- **Riparian Response Strategy (RRS)** protects Riparian Management Areas that form part of the City's Ecological Network. The strategy, adopted by Council in 2006 identifies 5 m and 15 m riparian setbacks on minor and major watercourses that flow into and support fish life in the Fraser River. The RRS is the City's response to the *Provincial Riparian Area Regulation* (RAR) to protect habitat from industrial, commercial and residential development. Following a Provincial Ombudsperson review of local government's RAR implementation methods in 2012, the City is working with the Province to implement new legislated protection and enhancement measures that is compliant with the directive. The Provincial RAR applies to the City's inland watercourses, but not the foreshore of the Fraser River. The Fraser River foreshore is also part of the City's Ecological Network and is designated Environmentally Sensitive Area in the City's OCP protected under development permit.
- **Urban Forest Management Strategy**, originally adopted by Council in 2001, guides the management and protection of the City's urban forest on public property, which includes trees in City Parks, right-of-ways and boulevards. The strategy is supported by the Tree Protection Bylaw, adopted by Council in 2006. The urban forest supports stormwater management by providing rainwater detention and treatment. The Integrated Rainwater Resource Management Strategy compliments the Urban Forest Management Strategy in supporting initiatives for the protection and maintenance of tree canopies.

Goals

The development of Richmond's *Integrated Rainwater Resource Management Strategy* is guided by four primary goals:

1. To **minimize impacts of future development and redevelopment** on drainage infrastructure and ecological health of receiving water bodies;
2. To **reduce potable water use** consistent with Richmond's sustainability goals;
3. To **address existing and future sedimentation issues** and the associated impacts on the conveyance system; and
4. To **support the City's Ecological Network** through enhancement of green infrastructure.

Strategies

A series of key strategies have been developed to address Richmond's stormwater management needs:

1. Strategic detention of stormwater.
2. Water quality treatment and sediment control.
3. Rainwater harvesting and re-use.
4. Protect, enhance and build green infrastructure.

Management Strategies

Strategy #1: Strategic Detention of Stormwater

IRRMS Goal:

#1: Minimize impacts of future development and redevelopment

As a result of Richmond's growth and ongoing development activities, impervious area in West Richmond is projected to increase. This leads to an escalation in water runoff volumes during major storm events and capacity demands on the City's drainage infrastructure.

The strategy proposes to utilize stormwater detention as a means to reduce excess runoff and consequently minimize or eliminate the need for potential drainage capacity upgrades.

Select Initiatives and Outcomes:

- **Strategic implementation of water detention measures.** Because of the City's low hydraulic grade line, stormwater detention is most effective for developments located near the central areas of the island. The City will pursue opportunities for detention in conjunction with other strategic benefits such as rainwater re-use and ecological and aesthetic enhancements. Applications of detention facilities in The Gardens Agricultural Park and Garden City Community Park set precedence for ongoing collaboration between the City, developers and community groups to incorporate rainwater detention to create innovative and mutually beneficial rainwater management schemes.
- **Increase storage capacity in the City's drainage conveyance system.** Open watercourse and ditches provide greater storage capacity than an enclosed pipe system. The City will continue to preserve open watercourses and is considering daylighting strategies to convert existing drainage pipes to open watercourses as a means to provide detention as well as ecological values.
- **Encourage stormwater detention on private properties** through development and provide guidance and support for voluntary implementation. Examples of potential detention measures include green roofs and rain gardens.



Implementation of rain gardens and rock trenches for detention on private properties.

Application Examples



The Gardens Agricultural Park: The multi-family development located at the corner of Steveston Highway and No. 5 Road utilizes a pond located within the City's The Gardens Agricultural Park to serve as stormwater detention for the development. The City worked with private development to identify opportunities to reduce stormwater run-off and improve water quality while providing aesthetic enhancements for the park.



Garden City Community Park: The Garden City Community Park incorporates a central pond, wetland and swale network that serves as a stormwater detention area during heavy rainfall events. The central pond, together with surrounding trails and a pedestrian bridge, forms a main feature in the park and provides users with a highly liveable and beautiful environment.

Strategy #2: Water Quality Treatment and Sediment Control

IRRMS Goals:

- #1: Minimize impacts of future development and redevelopment**
- #3: Address existing and future sedimentation issues**

Sediment Control

Ongoing development activities place additional sediment demands on the City's stormwater infrastructure. Primary sources of sediment demands include construction activities such as sand preloading, the filling of sites to meet flood protection levels and vehicular runoff from additional impervious areas introduced through development.

Sediments are introduced to watercourse and storm sewers during significant rain events, leading to increased maintenance demands for Richmond's watercourses and sewers, and impacts downstream ecology, including the Fraser River.

Sediment and erosion management is important as it allows for future development and redevelopment while protecting environmental values and existing infrastructure.

Select Initiatives and Outcomes:

- **Strengthen and enforce erosion and sediment control requirements** for construction activities. Consider the development of a specific Erosion and Sediment Control Program that includes a bylaw with regulatory requirements. The program should address erosion and sediment control expectations, acceptable Best Management Practices, sampling and reporting requirements for construction sites and specific controls for preload activities.
- **Enhance riparian vegetation and implement bank protection works** for areas of watercourses vulnerable to sloughing.
- **Encourage water quality improvement** for runoff from impervious areas to mitigate the migration of pollutants into the drainage network. Strategies for improving water quality for specific land uses include:
 - **Single-family residential:** Pollutant removal through absorbent landscaping or rain gardens.
 - **Multi-family residential, Industrial, Commercial and Institutional:** Pollutant removal through absorbent landscaping, rain gardens or manufactured oil-grit separators.
 - **Parks and Conservation Lands:** Pollutant removal through absorbent landscaping or rain gardens.



Additional sediment demands are introduced construction activities and increasing impervious areas.



Water Quality Treatment and Monitoring

The BC Minister of Environment's approval of Metro Vancouver's *Integrated Liquid Waste Resource Management Plan* requires that municipalities monitor stormwater to assess and report on the effectiveness of the stormwater management plan implementation. To fulfill this provincial requirement, Metro Vancouver developed a *Monitoring and Adaptive Management Framework* (MAMF) with recommended parameters to monitor watershed health and assess the effectiveness of stormwater management throughout the region.

Due to Richmond's unique water quality conditions, the recommended MAMF parameters do not adequately reflect the effectiveness of Richmond's stormwater management plan. Under pre-development conditions, naturally occurring water quality parameters may exceed the water quality guidelines due to slow conveyance and natural soil conditions, and it is not the intent of the *Integrated Rainwater Resource Management Strategy* to alter naturally occurring conditions. As such, Richmond **will pursue a modified MAMF to guide water quality monitoring** for development activities within Richmond. Monitoring and reporting may include the following parameters:

- **Physical:** pH.
- **Sediment:** Total suspended sediment, turbidity.
- **Nutrients:** Nitrate.
- **Microbiological indicators:** E. coli, fecal coliforms.
- **Metals:** Total copper, total lead, total zinc, total cadmium.
- **Flow monitoring:** MAD, TQ Mean, Low Pulse Count, Low Pulse Duration, Summer Baseflow, Winter Baseflow, High Pulse Count, and High Pulse Duration.

Monitoring should be undertaken on Richmond's larger watercourses, near pump station or other locations that capture the majority of catchment flow.

Strategy #3: Rainwater Harvesting and Re-use

IRRMS Goals:

- #1: Minimize impacts of future development and redevelopment**
- #2: Reduce potable water use**

Rainwater harvesting and re-use strategies utilizes water as a resource and offer the two-fold benefit of reducing stormwater runoff volumes as well as potable water consumption. It is a key aspect in addressing the “resource” component of the *Integrated Rainwater Resource Management Strategy*.

Rainwater, primarily from building roofs, can be collected, stored, and treated as required depending on its intended application. Primary applications for rainwater re-use include indoor use for toilet flushing and outdoor use for irrigation and vehicle washing. Richmond currently utilizes potable water for these applications.

Select Initiatives and Outcomes:

- **Address barriers to implementation** for the utilization of harvested rainwater for indoor, non-potable uses such as toilet flushing. The City will review internal and external guidelines and work to enable rainwater re-use for a wider range of applications.
- **Explore further opportunities to incorporate rainwater re-use strategies in parks and conservation lands** through continued ongoing collaborations between the City of Richmond Engineering, Parks and Sustainability departments, as well as developers and community groups.
- **Provide education and support** to improve public knowledge and acceptance of rainwater re-use practices.
- **Monitor the prevalence of re-use technologies inside and outside Richmond.** The price of potable water is currently \$1.26/m³. Potable water-use thresholds for economical benefits of rainwater re-use strategy applications in residential, industrial and commercial applications are as follows:
 - Single-family residential: \$4/m³
 - Multi-family residential (medium- to high-density developments): \$3/m³
 - Office (medium- to high-density developments): \$2/m³

Application Examples



Water Sky Garden at the Richmond Olympic Oval:

The Water Sky Garden at the Richmond Olympic Oval contains a wetland treatment pond which serves as a component of a public art piece and provides runoff detention as well as stormwater re-use. Rainwater from the Olympic Oval's two-hectare roof is drained into the pond, where it is treated by vegetation and aerated through a fountain. The harvested and treated water is used for toilet flushing in the Oval and irrigation of plants in the surrounding space.



Garden City Lands: Upon completion, the Garden City Lands will host a number of water bodies that serve both as aesthetically pleasing landscape features as well as measures for stormwater detention and re-use. In 2017, a pond was constructed within the park to serve both as irrigation storage for farm fields within the park and stormwater detention. Several other water storage bodies are planned for future phases of the park. Additionally, the Bog located on the eastern half of the site serves both as a site for restoration of sensitive ecological habitat as well as a large stormwater detention measure.



Rain Barrel Program: In 2005, the City of Richmond implemented the rain barrel program aimed at encouraging residential water conservation. The program invites Richmond residents to purchase rain barrels from the City at a subsidized rate. Rain barrels are used by residents to collect and store water for outdoor usage such as watering gardens and washing vehicles. As of January 1, 2016, the City has sold 1,247 barrels to Richmond's residents.

Strategy #4: Protect, Enhance and Build Green Infrastructure

IRRMS Goal:

#4: Support the City's Ecological Network

Green infrastructure encompasses the components of the natural and built environment that provide ecosystem services such as drainage, water filtration, green space and wildlife habitat. The development of these green infrastructures for stormwater management purposes opens opportunities to enhance watercourse habitat and provide other ecosystem services.

This strategy aims to support Richmond's *Ecological Network Management Strategy* through the protection and enhancement of green infrastructure including watercourses, riparian areas and wetlands.

Select Initiatives and Outcomes:

- Improvement of watercourse health through restoration and enhancement of riparian areas.
- Creation of wildlife habitat values and temperature mitigation services (ecosystem services) through the creation or restoration of wetlands for the retention, detention and treatment of runoff.
- Improvement of ecosystem services through green infrastructure projects such as rain gardens and green roofs.
- Enhancement of the Ecological Network's connectivity and maximization of ecosystem services through the protection, enhancement and connectivity of natural lands including the daylighting of watercourses.

Daylighting Strategy

A key component of the strategy involves the daylighting, or exposing, of previously covered waterways or stormwater drains. Daylighting of watercourses re-introduces ecosystem services to a catchment, which serve to improve water and habitat quality, flood mitigation and conveyance, provide community amenities and connecting existing isolated ecological lands.

Daylighting opportunities will be identified through assessment of daylighting benefits and triggers.



Typical watercourse conditions in Richmond's RMAs.

Implementation Plan

The implementation plan outlines recommended actions and corresponding target implementation timeframes for each strategy. Timeframes for the implementation plan are defined as follows:

- Short-term: 1-2 years
- Medium-term: 3-5 years
- Long-term: 5+ years
- Ongoing: Initiatives the City is currently undertaking and will continue to undertake

The implementation plan will be subject to annual review to measure progress towards achieving the strategy's outcomes. The plan will be updated as required to address and incorporate emerging needs and priorities, new science, information, techniques and best practices.

Strategy	Action	Timeframe
Strategy #1 Strategic Detention of Stormwater	1. Update the City of Richmond's Engineering and Design Specifications Manual to include recommendations on the design of rock trenches and rain gardens.	Short-term
	2. Update policies to provide more clarity regarding requirements for rainwater management and lot coverage for landscaping.	Short-term
	3. Work with external agencies such as Metro Vancouver and other municipalities in developing and promoting the implementation of stormwater detention facilities.	Ongoing
	4. Continue to collaborate with Parks, Sustainability and other City departments in implementing stormwater detention facilities in parks and other special projects.	Ongoing
Strategy #2 Water Quality Treatment and Sediment Control	Undertake an internal review to develop an effective and comprehensive Erosion and Sediment Control program.	Short-term
	Update the City of Richmond's Pollution Prevention and Clean-up Bylaw No. 8475 and Engineering and Design Specification Manual to include the following: <ul style="list-style-type: none"> • Details on erosion and sediment control measures that should be implemented for construction projects, including site monitoring and reporting requirements. • Inspection and enforcement for sediment control and erosion management in non-ALR areas. 	Short-term
	Collaborate with Metro Vancouver to establish a modified MAMF specific for Richmond to guide water quality monitoring.	Short-term
	Collaborate between the City of Richmond's Engineering, Sustainability and Operations departments to identify areas of watercourses vulnerable to sloughing for implementation of bank protection works.	Short-term
	Evaluate the need to establish Total Suspended Solids (TSS) removal criteria to address road runoff.	Medium-term

Strategy	Action	Timeframe
Strategy #2 Water Quality Treatment and Sediment Control (con't)	Evaluate the effectiveness of this strategy through periodic monitoring according to modified MAMF guidelines specific for Richmond.	Long-term
	Monitor annual sediment removal volumes by municipal maintenance crews. Review and evaluate the effectiveness of existing Erosion and Sediment Control policies on a 5-year basis.	Long-term
	Monitor contractor compliance with Erosion and Sediment Control requirements and consider the implementation of additional measures to improve compliance.	Long-term
Strategy #3 Rainwater Harvesting and Re-use	Monitor the implementation and success of water re-use technologies inside and outside Richmond.	Ongoing
	Education to eliminate public unfamiliarity with rainwater re-use practices, with a target towards homeowners, regulatory staff, contractors, designers and trades.	Ongoing
	Complete pilot studies to obtain information on actual costs and potable water use reductions for residential and ICI applications.	Short-term
	Implement rainwater re-use for medium- and high-density office developments for toilet fixture applications.	Medium-term
	Update the Drainage, Dyke and Sanitary Sewer System Bylaw No. 7551 to allow rainwater re-use as an alternative to collection and conveyance of all surface drainage to the municipal stormwater sewer system.	Medium-term
	Work with external agencies to: <ul style="list-style-type: none"> • Remove regulatory barriers that limit re-use applications. • Establish water quality treatment and local Health Authority approval requirements to address various re-use applications. • Develop regulations, guidelines and established practices for rainwater harvesting. 	Medium-term
	Monitor changes in the price of water.	Long-term

Strategy	Action	Timeframe
Strategy #4 Protect, Enhance and Build Green Infrastructure	Update the City's Riparian Response Strategy to meet Provincial requirements for compliance with the Riparian Area Regulation.	Short-term
	Incorporate projects and opportunities identified through the Daylighting Strategy in the City's drainage capital planning process and through collaboration with the development community.	Short-term
	Update the criteria for the City of Richmond's Protection of Environmentally Sensitive Areas document to include best management practices for managing and enhancing habitat as part of rainwater management.	Short-term
	Identify and map opportunities for wetland creation in parks and other public land and develop guidelines for the use of parks and other public lands for rainwater management, habitat enhancement, and other green infrastructure projects to be incorporated into the Parks and Open Space Strategy.	Medium-term
	Collaborate on the development of an Erosion and Sediment Control program to address water quality in watercourses.	Medium-term
	Support invasive species management activities under the direction of the Invasive Species Action Plan to improve watercourse health and reduce long-term maintenance cost.	Ongoing



City of Richmond

Report to Committee

To: Public Works and Transportation Committee

Date: March 21, 2018

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

File: 10-6045-09-01/2018-
Vol 01

Re: **Dike Master Plan - Phase 2 Report**

Staff Recommendation

1. That the existing dike alignment in the Dike Master Plan Phase 2 study area (West Dike from Williams Road to Terra Nova and North Dike from Terra Nova to No. 6 Road) continue to be the primary flood protection dike alignment.
2. That the work plan identified in the staff report titled Dike Master Plan – Phase 2 Report from the Director of Engineering, dated March 21, 2018, be endorsed.

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

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Real Estate Services	<input checked="" type="checkbox"/>	
Roads and Construction	<input checked="" type="checkbox"/>	
Sewerage and Drainage	<input checked="" type="checkbox"/>	
Parks	<input checked="" type="checkbox"/>	
Development Applications	<input checked="" type="checkbox"/>	
Policy Planning	<input checked="" type="checkbox"/>	
Transportation	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

By the year 2100, climate change scientists estimate that sea level will rise approximately 1.0 meter and the City will subside 0.2 meters. To maintain Richmond's high level of flood protection, the City will need to increase the height of the City's dikes by 1.2 m over the next 25 to 75 years.

The 2008 – 2031 Richmond Flood Protection Strategy identified the need to “Prepare and implement a comprehensive dike improvement program.” On February 11, 2014, Council approved \$200,000 from the 2014 Capital Budget to prepare Dike Master Plan Phase 2.

The Dike Master Plan Phase 2 Draft Report was presented at the regular Council meeting on January 26, 2017, where Council resolved:

“That the public and key external stakeholders be consulted to provide feedback on the medium and long term dike improvements required for part of Richmond's West Dike (between Williams Road and Terra Nova Rural Park) and part of the North Dike (between Terra Nova Rural Park to No. 6 Road) as identified in the staff report titled “Dike Master Plan – Phase 2” from the Director of Engineering, dated December 6, 2016.”

Staff have completed stakeholder consultation for Dike Master Plan Phase 2 and the results of that consultation are the focus of this report.

This report supports the following Council 2014-2018 Term Goals:

#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.

5.2. Strengthened strategic partnerships that help advance City priorities.

#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.

6.1. Safe and sustainable infrastructure.

#9 A Well-Informed Citizenry:

Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making.

9.2. Effective engagement strategies and tools.

Analysis

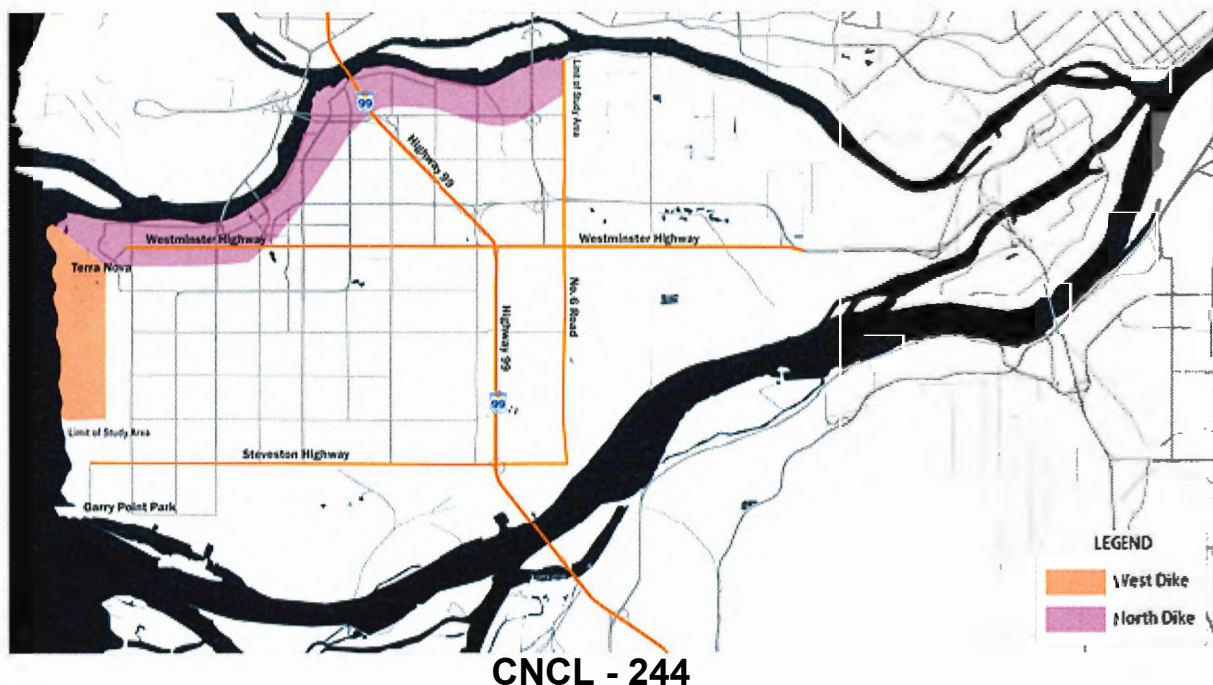
The Dike Master Plan is intended to be a comprehensive guide to upgrade the City's dikes to:

- Protect Richmond from both ocean storm surges and Fraser River freshet events;
- Adapt to sea level rise and land subsidence;
- Be seismically resilient;
- Integrate the Ecological Network Management Strategy principles and goals;
- Follow the five strategic directions of the City's 2009 Waterfront Strategy; and
- Prioritize dike improvement phasing to efficiently use resources.

The current phases of the Dike Master Plan are shown in Attachment 1. Phase 1 is complete and was endorsed by Council on April 22, 2013. Stakeholder consultation for the draft version of Phase 2 is complete and is the focus of this report. National Disaster Mitigation Program grant funding was secured for Phase 3 and work was deferred from an original March 2017 start date to November 2017 to meet the funding conditions of the grant. Work on Phase 4 of the Dike Master Plan began in October 2017. Staff anticipate that both Phase 3 and Phase 4 will be completed in 2018. Staff recently secured a \$150,000 grant from the Union of BC Municipalities Community Preparedness Fund for Phase 5 of the Dike Master Plan and work will begin in 2018.

Dike Master Plan Phase 2 focusses on the north portion of Richmond's West Dike between Williams Road and Terra Nova Rural Park and part of Richmond's North Dike between Terra Nova Rural Park and No. 6 Road (Phase 2 Study Area), as shown in Figure 1. The Dike Master Plan Phase 2 Report is appended as Attachment 2.

Figure 1 – Dike Master Plan Phase 2 Study Area



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Public Feedback

Dike Master Plan Phase 2 was presented to the public through two open houses and the City's Let's Talk Richmond web site. Approximately 200 people attended the open houses and 532 people visited the web page. Two people submitted written comments at the open houses and 68 people completed an online survey.

Based on feedback received, the public indicated:

- general acceptance that climate change is real;
- support for ongoing sea level monitoring;
- support for dike master planning and dike raising;
- support for coordination with development to create super dikes;
- support for the creation of barrier islands on Sturgeon Banks;
- support for flood construction levels;
- support for consideration of environmental impacts in the Dike Master Plan;
- concern regarding the uncertainty in sea level rise forecasting and support for building dikes higher than the currently proposed levels;
- that the dike trail network is an important amenity. Of those that expressed a preference, 70% preferred a more natural trail integrated with the surrounding environment and 30% preferred a paved, "Sea Wall" type trail. The 2010 Richmond Trail Strategy guides the City in trail development and will be incorporated into all of the City's dike improvement projects; and
- that they would like more information regarding the amount of capital assigned to dike improvements and the timing of dike upgrades. Council has approved the 2018 to 2022 Drainage and Diking Capital plan which includes \$5 million in dike upgrade every year for the next five years. Staff will continue to inform the public on the timing and funding of the projects through capital open houses, the City's website and information in utility inserts.

Key External Stakeholder Feedback

Key external stakeholders consulted included:

- Department of Fisheries and Oceans
- Provincial Inspector of Dikes
- Ducks Unlimited Canada
- The City's Advisory Committee for the Environment

- The City's Heritage Commission
- The Urban Development Institute
- Fraser Basin Council
- Port Metro Vancouver

Stakeholders that returned comments were generally supportive of the findings in Dike Master Plan Phase 2.

The Department of Fisheries and Oceans - Small Craft Harbours indicated they are considering options that restore intertidal sediment supply to Sturgeon Banks as part of an overall sediment management plan. They expressed concerns regarding the barrier islands concept based on a possibility that tidal flood and storm currents could cause gulying of tidal flat sediments around the proposed barrier islands.

The Provincial Inspector of Dikes indicated that Dike Master Plan Phase 2 is a reasonable plan, but indicated that any "unconventional" strategies would require further consultation with the Province.

The City's Heritage Commission indicated support for Dike Master Plan Phase 2 and recommended that the City incorporate the cultural and historical aspects of the diking system into diking improvements.

The Urban Development Institute stated in writing that Dike Master Plan Phase 2 will mutually benefit the City of Richmond and UDI members as the design for specialized flood protection along the waterfront will increase the livability and value of large developments by increasing flood protection.

Next Steps

Dike Master Plan Phase 2 identifies a long term program for dike improvements from Williams Road to No. 6 Road over the next 25 to 75 years to stay ahead of climate change induced sea level rise and land subsidence. Funding for dike improvements is secured through the Drainage and Diking Utility which currently collect \$11.6 million annually through utility rates for drainage and diking capital projects.

As sea level rise is realized, the rate of dike improvement will be adjusted accordingly. Staff will present annual utility funding levels for dike improvement for Council's consideration through the bi-annual Ageing Infrastructure Report. Upgrades will also occur in conjunction with the City's growth, allowing synergies between the City and the development community. In the short and medium term, there is a significant amount of work that can be carried out in preparation for these upgrades. Should Council endorse this work plan, staff will:

- Investigate the application of barrier islands and the impacts to habitat for the Sturgeon Bank area. Coordinate these actions with other jurisdictions that have interests in Sturgeon Bank;
- Encourage the construction of superdikes through development;

- Re-evaluate current and future flood construction levels and development bylaws to reduce flood risk;
- Strategically acquire property in support of future dike upgrading;
- Monitor sea level rise using water level sensors; and
- Investigate creation of a habitat banking program to support dike improvement projects based on environmental assessment.


Financial Impact


Capital projects will be brought forward for Council's consideration as part of the Council budget process.

Conclusion

Consistent with the City's 2008 – 2031 Richmond Flood Protection Strategy, Dike Master Plan Phase 2 identifies medium and long term dike improvements along part of the West Dike (Williams Road to Terra Nova Rural Park) and part of the North Dike (Terra Nova Rural Park to No. 6 Road) that will be required to address climate change induced sea level rise. Dike Master Plan Phase 2 generally recommends that the City maintain the existing dike alignments in the study area, pursue superdikes through development, and investigate wave mitigating barrier islands on Sturgeon Banks.

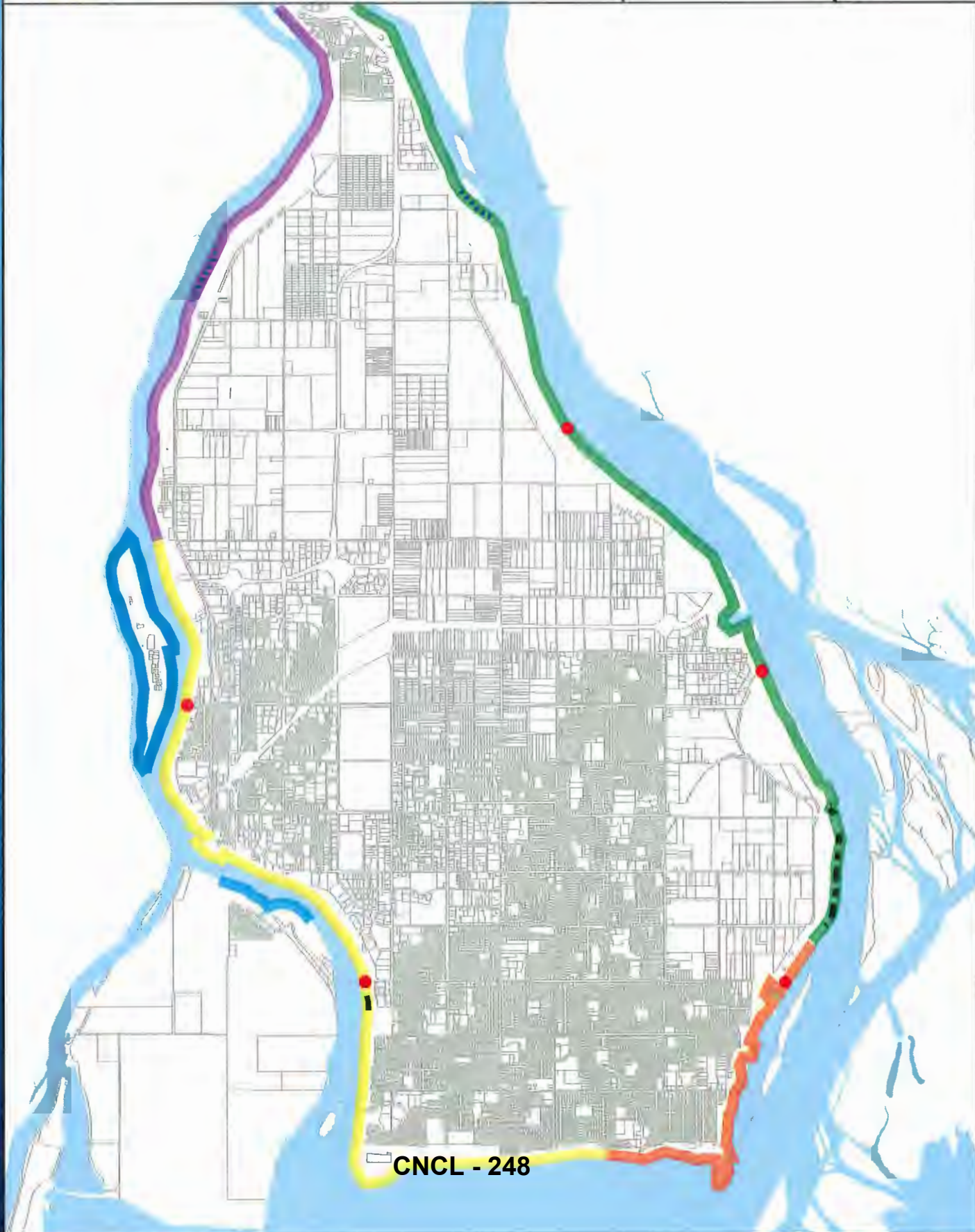
Public and key stakeholder feedback on Dike Master Plan Phase 2 is positive and will be incorporated into capital dike improvement projects identified in this plan.


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Project Engineer, Engineering Planning
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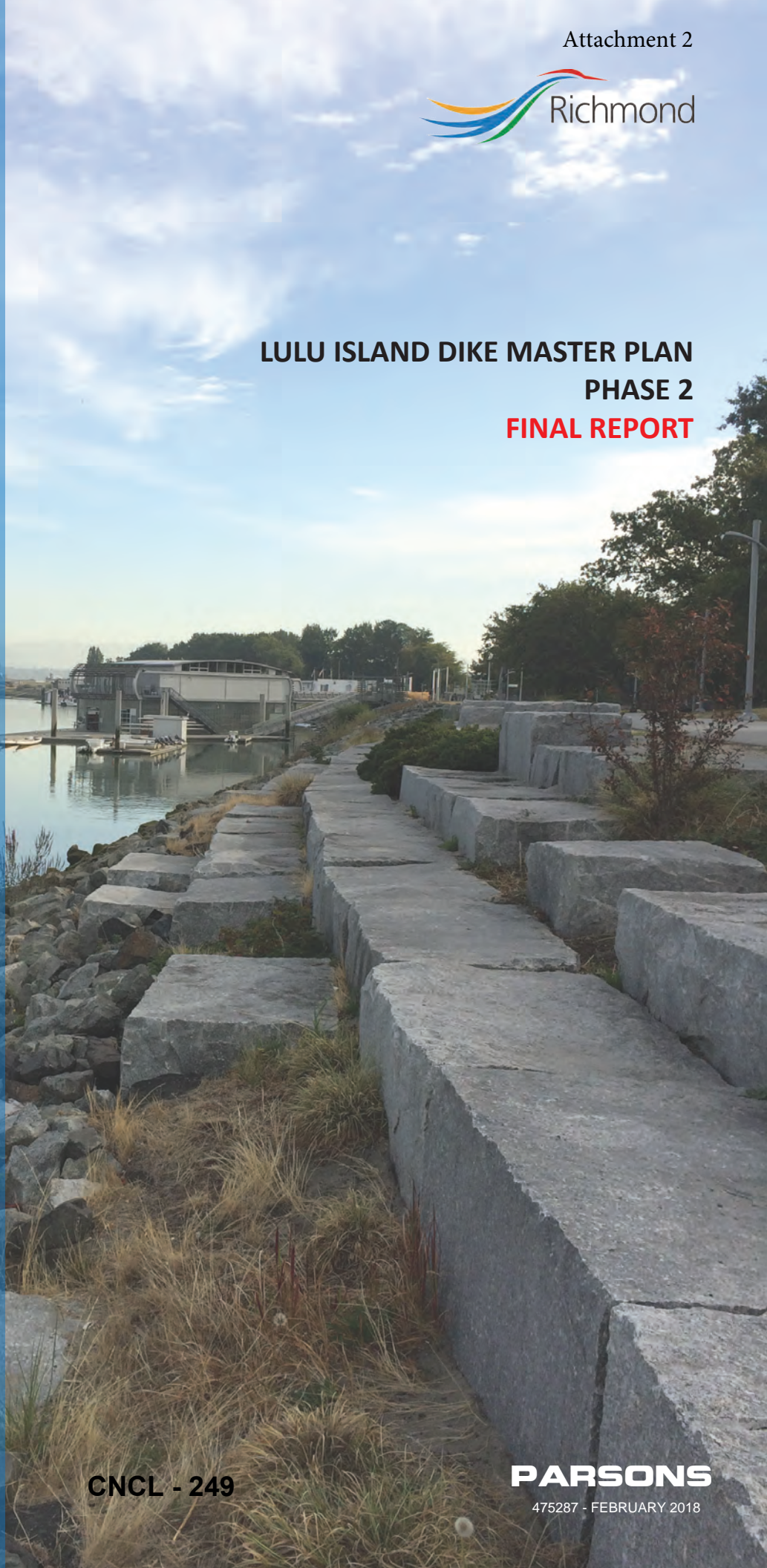
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Att. 1: Dike Master Plan Phasing Map
Att. 2: Dike Master Plan Phase 2 Final Report 2018



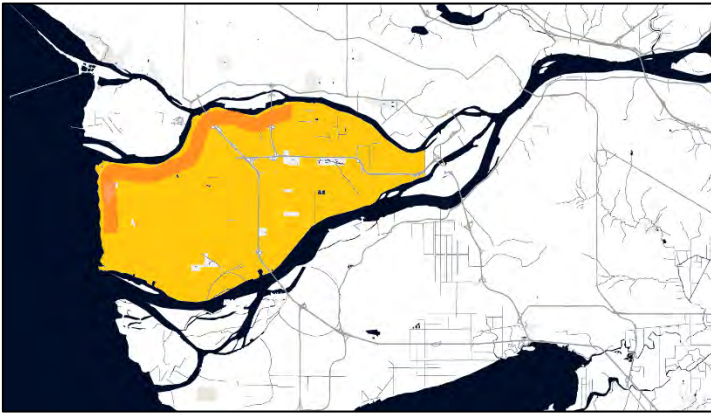
Note:
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LULU ISLAND DIKE MASTER PLAN PHASE 2 FINAL REPORT



Executive Summary

The purpose of the Lulu Island Dike Master Plan (LIDMP) is to identify preferred methods for implementing the objectives of the City of Richmond's 2008 – 2031 Flood Protection Strategy. The Lulu Island Dike Master Plan is being prepared in phases. Parsons (as Delcan) prepared Phase 1 of the plan for the Steveston and southern West Dike areas¹ (Phase 1 LIDMP). The Study Area for Phase 2 has been defined from Williams Road on the West Dike to No. 6 Road on the North Dike. The Study Area is highlighted orange within Lulu Island in the figure below. Lulu Island lies in the Fraser River Delta, and is surrounded by the Fraser River Estuary. The estuary provides critical habitat for many species of fish and wildlife, and important ecosystems services such as erosion control, shoreline stabilization and storm surge protection.



Phase 2 LIDMP Study Area on the West Dike and North Dike within Lulu Island

The Phase 1 LIDMP focused largely on technical issues of assessing significant changes in dike alignment. Instead of adapting upgrades to the existing shoreline alignment which may have impacted heritage structures in Steveston, the engineering feasibility of a future dike and flood-gate along Steveston Island was presented.

In the Phase 2 Study Area, the existing dike alignment along the waterfront is established and well defined. There is limited basis to support any major changes to the alignment of the existing dike, thus the recommendations are generally in keeping with traditional dike crest increases, with consideration for localized constraints and opportunities. The Study Area

has been segmented into thirteen design areas to make these recommendations on an area specific basis. There are also opportunities to consider flood protection strategies that are applicable throughout the entire Study Area. These area wide strategies may be implemented to fortify the area specific adaptations.

The City has identified a target dike crest elevation of 4.7 m, with consideration for raising the dike to 5.5 m in the long term future. Dike adaptations that achieve the target crest elevation are considered by area, forming the area specific adaptations. These include dikes and floodwalls in any conformation. Area wide adaptations are those which may not achieve the target dike crest elevation on their own, but contribute to overall flood protection. For example, barrier islands that reduce wave run-up to eliminate the need for additional target crest increases, or policy changes that facilitate the implementation of dike adaptations are both categorized as area wide adaptations. Both area wide and area specific strategies will be presented in the LIDMP, forming a comprehensive plan to achieve the objectives of the Flood Protection Strategy. Area wide and area specific strategies will be considered within the context of the City's Ecological Network Management Strategy (ENMS) such that the recommendations presented in the LIDMP are consistent with strengthening the City's green infrastructure, while managing and enhancing ecological assets.

Area Wide Protection Strategies

A number of area wide approaches can be considered to enhance long term flood protection in the City and create resiliency in addressing climate change and sea level rise. Preferred strategies are summarized below.

Plan for the long-term raising of lands adjacent to and inland of the existing dikes: Long term raising of land levels has previously been recommended (2008-2031 Flood Protection Strategy). Maximizing the width of raised land adjacent to the river decreases flood and seismic risks by increasing the integrity of the dike. Plan to raise the ground elevation of waterfront development sites to the prescribed dike crest elevation.

¹ Lulu Island Dike Master Plan Phase 1, Delcan, March 2013

Enhance floodproofing through amendments to the FCL By-law: The City's Flood Construction Level (FCL) Bylaw establishes minimum levels to which land needs to be raised. Amending the FCL bylaw is the recommended area wide strategy to regulate raising ground elevations with redevelopment to improve flood protection throughout the Study Area.

Support site assemblies along the waterfront that promote cohesive adaptations for flood protection: Large developments along the waterfront allow for major improvements to flood protection infrastructure and often result in robust superdike conditions.

Plan for implementation of offshore protection on Sturgeon Banks: If climate change and sea level rise predictions materialize, increased depths offshore could simultaneously increase wave heights, particularly in the Georgia Strait. Upland limitations to natural accretion within the Sturgeon Bank Wildlife Management Area may also contribute to increased offshore depths beyond the West Dike. Offshore barrier islands are one option to consider to dissipate wave energy prior to waves reaching the West Dike and stabilize shorelines, thereby minimizing future dike crest increases. Enhancement of intertidal habitat alongside the creation of offshore barrier islands may provide natural ecosystem mechanisms to further dissipate wave energy. The City may consider offshore protection in its long-term plans for flood protection along the West Dike.

Area Specific Flood Protection Strategies

In practice, when dike upgrades have been made, they have been made along the existing alignment. Apart from select site specific constraints and opportunities, the recommended future dike alignment for the Phase 2 Study Area matches the existing dike alignment. Area specific strategies were selected with consideration for: flood protection, environmental, geotechnical, infrastructure, site-specific constraints, social, property, economic, operational and cost considerations. The City is committed to avoid, mitigate or compensate for any environmental impacts that may result from dike adaptation projects. Completely avoiding any impact on an environmental area may not be feasible in some cases, for example where dikes are highly constrained. In these instances, mitigation or compensation that follows a net gain approach may be pursued.

Area specific strategies for the Phase 2 study are summarized below:

West Dike: Raise the dike on the existing alignment. Additional studies required to quantify drainage impacts of land side expansion, habitat impacts and costs associated with water side or land side expansion, and long term resiliency of a constrained dike solution. Consider routing the dike inland through Terra Nova Rural Park.

North Dike: Terra Nova to No. 2 Road Bridge: Raise the dike on the existing alignment with land side expansion. Plan for the raising of River Road.

North Dike: No. 2 Road Bridge to Dinsmore Bridge: Existing and proposed developments are raising elevations to 4.0 m to 4.7 m. Future raisings to 5.5 m can take place on the existing alignments and integrate into the adjacent landscaping.

North Dike: Dinsmore Bridge to Moray Bridge: Raise the dike with land side expansion. Consider creation of a set-back dike and inland raising (superdike) in conjunction with the future Middle Arm Waterfront Park construction. Ensure any interim dike upgrades are compatible with the long term strategy of constructing superdikes.

North Dike: Moray Bridge to Oak Street Bridge: Implement flood protection with approved development plans for Duck Island and the River Rock Casino when available. If required to address sea level rise and climate change prior to implementation of the approved strategy at the Duck Island or River Rock Casino sites, plan for a temporary adaptation, such as a demountable floodwall, to protect City assets

North Dike: Oak Street Bridge to No. 4 Road: Raise the dike on the existing alignment. Site specific solutions may be required at the Fraser River Terminal site. Plan for temporary dike along the alternate alignment if required to address sea level rise and climate change prior to implementation of a strategy at the Fraser River Terminal site.

North Dike: No. 4 Road to Shell Road: Existing and proposed developments will raise the area generally to an elevation of 4.7 m. Future raisings to 5.5 m can take place on the existing alignments and integrate into the adjacent landscaping.

North Dike: Shell Road to No. 6 Road: Raise the dike on the existing alignment. Land acquisition may be required to facilitate construction of a trapezoidal dike (through redevelopment or otherwise). Implementation of a temporary floodwall

adjacent to the waterfront lots may be required in advance of a permanent adaptation to address sea level rise and climate change. Consider Bath Slough Revitalization Initiative for future designs. Additional studies are required to quantify drainage, habitat impacts, and costs associated with land side expansion of a trapezoidal dike. A constrained land side slope may be required to integrate with the existing drainage infrastructure.

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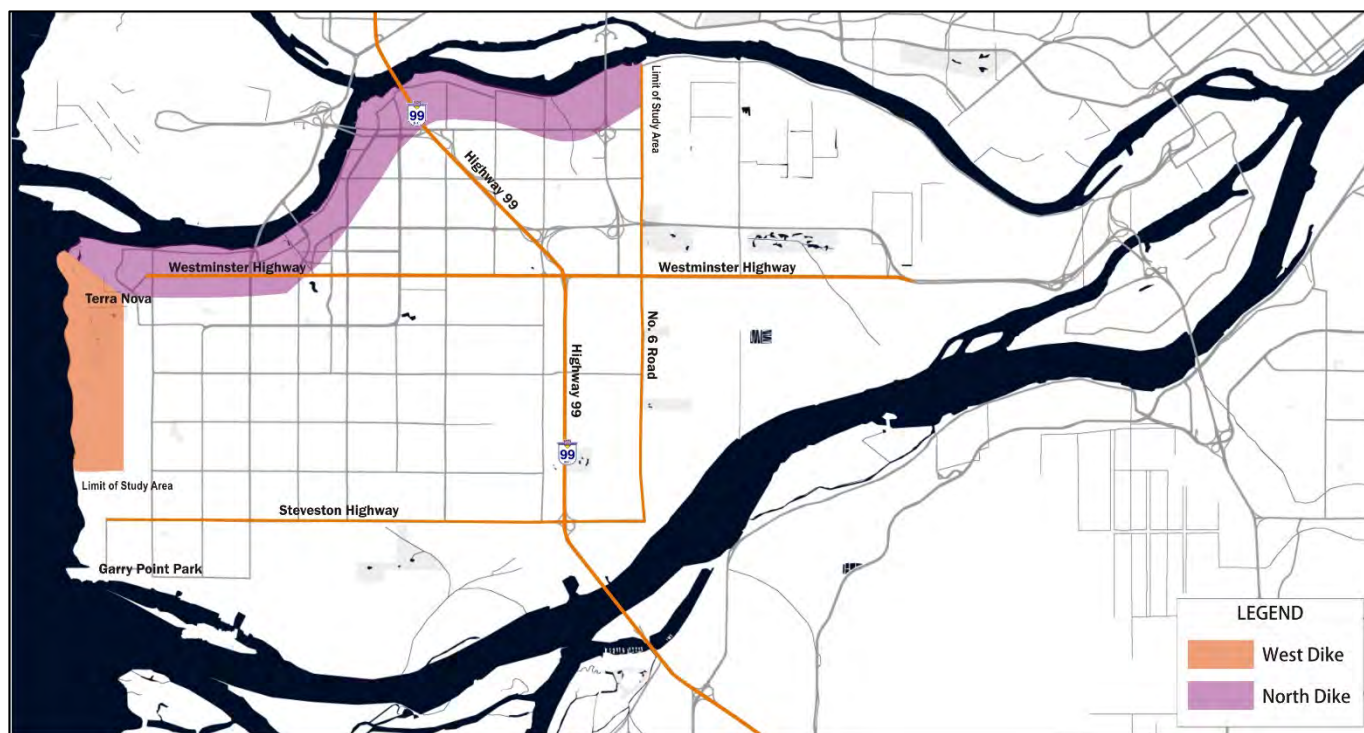
1 Introduction

Richmond is a city of over 200,000 people in 130 square kilometres with considerable assets to be protected from flood damage. The City has endeavoured to adapt its flood protection systems to changing flood risks, including anticipated increases to flood levels resulting from climate change and sea level rise. With the establishment of the 2008 – 2031 Flood Protection Strategy, the City committed to prepare and implement a perimeter dike improvement program. The purpose of the Lulu Island Dike Master Plan (LIDMP) is to identify preferred methods for implementing the objectives of the City of Richmond's 2008 – 2031 Flood Protection Strategy.

With Richmond located at the mouth of the Fraser River, and the flood protection infrastructure interfacing with the high ecological value of the Fraser River Estuary, the LIDMP also works to integrate the objectives of key City documents such as the City's Ecological Network Management Strategy (ENMS), and put forward recommendations that will strengthen the City's green infrastructure network.

The LIDMP is being prepared in phases. Parsons (as Delcan) prepared Phase 1 of the LIDMP for the Steveston and southern West Dike areas² (Phase 1 LIDMP). The Study Area for the second phase of the LIDMP (Phase 2 LIDMP) includes the West Dike from Willams Road to Terra Nova Rural Park, and the North Dike from Terra Nova Rural Park to No. 6 Road as shown in *Figure 1*.

Figure 1: Study Area



The Phase 2 LIDMP provides the framework to direct future dike improvement projects and ensure that diking requirements are considered as waterfront lands are redeveloped. It establishes a well-planned strategy to identify future flood protection infrastructure requirements along the waterfront. The Phase 2 LIDMP presents recommended adaptations for flood protection, including guidelines for incorporating flood protection into future waterfront developments. It also presents considerations for any dike adaptation project in the Study Area to minimize impacts and to integrate adaptations within the public and natural realms.

² Lulu Island Dike Master Plan Phase 1, Delcan, March 2013

1.1 SCOPE

The recommended flood protection adaptations forming the Phase 2 LIDMP are assessed for their ability to achieve a minimum crest elevation of 4.7 m, and accommodate a future increase to 5.5 m as prescribed by the City. No independent evaluation of these crest elevations has been conducted by Parsons. These target elevations have been accepted as the basis for the Phase 2 LIDMP.

Recommendations have been categorized as either area wide or area specific adaptations. Area wide strategies encompass adaptations that are applicable for the entire Study Area, or a substantial part of it. These include policy adaptations, as well as structural adaptations that would fortify the primary dike, but would not achieve the City's target crest elevation on its own. The Phase 2 LIDMP recommends adaptations in both categories to produce a comprehensive strategy for improving flood protection in the Study Area.

Area specific strategies are structural adaptations that modify the existing dike or replace it to achieve the City's target dike crest elevation of 4.7 m. The Study Area has been broken into thirteen design areas to recommend area specific adaptations. The design areas have been delineated according to the boundaries for planning areas in the City's Official Community Plan (OCP). The design areas are described further in **Section 2** and **Section 4.2**.

The Phase 2 LIDMP is a guidance document for future dike adaptation design and construction projects. No detailed design, nor any construction will be undertaken as part of the Phase 2 LIDMP. Design and construction projects are beyond the scope of the current planning exercise. Proponents of diking design and construction projects will need to confirm their projects are in compliance with all regulatory requirements, in addition to adhering to the Master Plan, when projects move forward.

1.2 APPROACH

In preparation of the Phase 2 LIDMP, Parsons previously prepared and submitted two technical memos to the City. Technical Memo #1³ (TM #1) presented potential flood protection options that may be appropriate for implementation in the Study Area, based on a detailed review of current and future land uses, environmental and geotechnical conditions, and other City guidance documents. Technical Memo #2⁴ (TM #2) outlined the evaluation of potential flood protection adaptations within the Phase 2 Study Area, and presented the preliminary concept for the Phase 2 LIDMP. Both technical memos have been attached to the Phase 2 LIDMP as **Attachment 1** and **Attachment 2** for reference.

Both technical memos were circulated internally to relevant City departments for review. The feedback received from these stakeholders was integrated into the technical memos before each was finalized. The final Phase 2 LIDMP is derived from these previous studies and as such, City feedback has been incorporated into the Phase 2 LIDMP.

1.3 ADDITIONAL GUIDANCE DOCUMENTS

The recommendations in the Phase 2 LIDMP have been prepared in keeping with other City strategies and plans. Any proposed diking projects should be designed and constructed with consideration for the Phase 2 LIDMP, as well as any other City guidance documents in effect at the time an adaptation project proceeds to design and construction. Policy adaptations should also be implemented with consideration for compatibility with other City strategies and guidelines. City guidance documents considered in the development of the Phase 2 LIDMP included:

2009 Waterfront Strategy:	The five Strategic Directions of the 2009 Waterfront Strategy were considered in the development of the Phase 2 LIDMP. The Strategic Directions include: 1) Working Together; 2) Amenities and Legacy; 3) Thriving Ecosystems; 4) Economic Vitality; and 5) Responding to Climate Change and Natural Hazards.
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³ Lulu Island Dike Master Plan Phase 2 – Technical Memo No. 1: Review of Existing Conditions, Parsons, Oct 5, 2016

⁴ Lulu Island Dike Master Plan Phase 2 – Technical Memo No. 2: Analysis of Flood Protection Alternatives, Parsons, Oct 5, 2016

Flood Plain Designation and Protection By-Law 8204:	The Phase 2 LIDMP considers the existing Flood Plain Designation and Protection By-Law, and will consider outlines potential options to amend or accelerate increasing flood construction levels adjacent to the foreshore.
2008 – 2031 Richmond Flood Protection Strategy:	The Phase 2 LIDMP has been developed to address the goals of the Flood Protection Strategy.
2015 Ecological Network Management Strategy:	The Phase 2 LIDMP is informed by the strategic goals outlined in the 2015 Ecological Network Management Strategy (ENMS) to promote the Ecological Network. The City's ENMS is an ecological blueprint for the preservation of natural land City-wide. Through the ENMS the City will protect, restore and connect natural lands to avoid habitat fragmentation. The strategic goals outlined in the ENMS are: 1) Manage and Enhance Ecological Assets; 2) Strengthen City Green Infrastructure; 3) Create, Connect, and Protect Diverse and Healthy Spaces; 4) Engage through Stewardship and Collaboration. The objective of developing an Ecological Network was initially outlined in the OCP under Chapter 9: Island Natural Environment (and Ecological Network Approach).
2006 Riparian Response Strategy:	The Phase 2 LIDMP is consistent with the Riparian Response Strategy (RRS), which protects Riparian Management Areas that form part of the City's Ecological Network. The RRS identifies 5 m and 15 m Riparian Management Area (RMA) setbacks on minor and major watercourses that flow into and support fish life in the Fraser River, and are to remain free from development in accordance with requirements under the provincial Riparian Area Regulation. The RRS applies to riparian habitat on the City's inland watercourses but does not apply to the Fraser River, which is protected through designation as Environmentally Sensitive Area (ESA) in the OCP.
2008 Climate Change Response Agenda:	The recommendations from the Phase 2 LIDMP are made with consideration of the 3 rd pillar of the City's Climate Change Response Agenda – implement strategies for adapting to unavoidable changes. Strategies have been considered that can meet the short and long term goals with respect to crest elevations; however, they must also be adaptable to change.
2010 Richmond Trail Strategy:	The Phase 2 LIDMP is developed with regard for the goal of maximizing access to the waterfront, as identified in the Richmond Trail Strategy.

2 Study Area

The Phase 2 Study Area includes parts of the West Dike and the North Dike. The West Dike section of the Study Area spans from Williams Road to Terra Nova Rural Park at the Middle Arm of the Fraser River. The North Dike section of the Study Area spans from Terra Nova Rural Park to No. 6 Road.

On the water side of the West Dike is Sturgeon Bank, a provincially designated Wildlife Management Area (WMA) within the Fraser River Estuary. It is comprised primarily of near shore and intertidal brackish marsh, sandflats, mudflats, and open water. It is a protected area for the conservation of critical, internationally significant habitat for year-round migration and wintering waterfowl populations and important fish habitat. The water side of the North Dike includes pockets of mud flat, salt marsh, and eelgrass habitat.

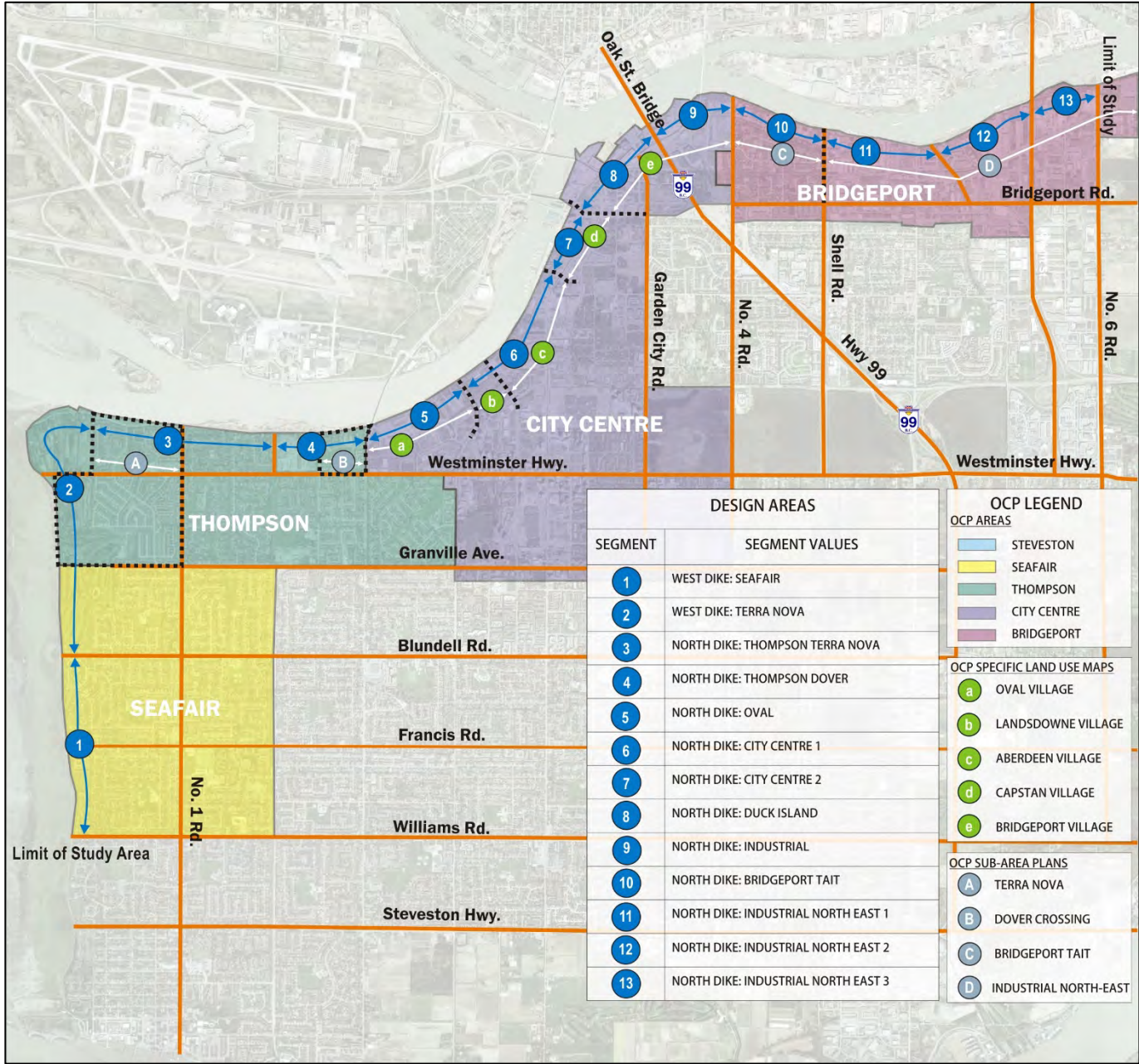
On the land side of the West and North Dikes, Riparian Management Areas (RMA's) are interspersed throughout the Study Area. RMA designated watercourses are wetted the majority of the year and flow into and support fish life in the Fraser River. The City's RMA's have predetermined setbacks of 5 m or 15 m from top of bank to delineate areas that support the form and function of the watercourses. These areas are protected under the provincial Riparian Area Regulation and form

a key component of the City's ENMS. The entire Study Area is also designated Environmentally Sensitive Area (ESA) within the OCP.

For the purposes of evaluating current and future land conditions and recommending appropriate structural adaptations, the Study Area has been broken into thirteen design areas. These areas are based on the planning boundaries established in the OCP for OCP Areas, OCP Sub-Area Plans, and OCP Specific Land Use Maps. The relevant OCP figures showing these areas are provided for reference in *Appendix A*.

The design areas have been delineated using the OCP boundaries to ensure that the recommendations in this Master Plan can be readily integrated with other City guidelines and City planning initiatives. Area specific adaptations are recommended by area, with consideration for special sites within the thirteen design areas. Existing conditions for each design area, as well as future conditions as provided for in the OCP, are described in *Section 2.1*. The design areas within the Study Area are illustrated in *Figure 2*.

Figure 2: Design Areas and OCP Boundaries



2.1 PRESENT AND FUTURE LAND USE

A brief summary of existing conditions and planned future uses (as outlined in the OCP) for each of the thirteen design areas is provided in **Table 1**. Site conditions or future uses having an anticipated impact on dike planning are discussed in more detail in the discussion of each design area in **Section 4.2**, where the recommended adaptation is presented for each design area.

Table 1: Summary of Existing and Future Conditions

DESIGN AREA	BOUNDARIES		DESCRIPTION OF EXISTING AND FUTURE CONDITIONS PER OCP
SEAFAIR	Williams Rd to Granville Ave	Existing	Primarily established single family and low-rise residential. Sturgeon Bank is west of the dike. The West Dike Trail is over the dike, with natural areas on either side. The northern third of the plan is the Quilchena Golf & Country Club, situated on Agricultural Land Reserve (ALR) lands. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated.
TERRA NOVA	Granville Ave to Terra Nova Rural Park	Existing	Situated entirely on ALR lands. Primarily open space, with few buildings. Includes Quilchena Golf & Country Club, Terra Nova Rural Park, and agricultural areas. Sturgeon Bank is west of the dike; includes the Grauer Lands, an enhanced habitat site. West Dike Trail continues north. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated.
THOMPSON TERRA NOVA	Terra Nova Rural Park to McCallan Road	Existing	Established residential neighbourhood of single family homes. River Road is substantially offset from the waterfront, with a wide open space from the road to the dike, which includes a trail. Typical park amenities are in the open space, including benches, sign posts and washroom facilities. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated.
THOMPSON DOVER	McCallan Road to No. 2 Rd Bridge	Existing	Half industrial, a City works yard and recycling depot. Half residential neighbourhood of townhouses and medium-density apartment complexes. Buildings are set back from River Road, and built on higher land than the road elevation. No driveway access from River Road to the condo complexes. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated.
OVAL	No. 2 Rd Bridge to Dinsmore Bridge	Existing	Mostly redeveloped in the past fifteen years, with the Olympic Oval, high-rise condos and offices. River Road is realigned behind waterfront development. A waterfront trail and recreational areas are along the waterfront, including intertidal zones and park amenities, such as benches. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	Development is currently underway for the remaining sites, and nearly complete. These areas are designated for mixed use in the OCP. Retail and other commercial uses will be at the main levels of new developments.
CITY CENTRE 1	Dinsmore Bridge to Cambie Rd	Existing	Low-rise office industrial lands and parking lots. Office sites have substantial footprints. River Road is adjacent to the waterfront. The UBC Boathouse and other marinas are on the water. Along the waterfront there is a thin linear park including a dike trail with park amenities and public art. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	The area from the waterfront to the former rail corridor is planned to be the proposed Middle Arm Park, a large park surrounded by high density mixed use and commercial uses of the planned Pedestrian-Oriented Retail Precincts. A museum and arts centre are proposed for this area.
CITY CENTRE 2	Cambie Rd to Moray Bridge	Existing	Low-rise office industrial lands and parking lots. Office sites have smaller footprints with narrow frontages on the water. River Road is adjacent to the waterfront, with parking lots along the dike. Marinas are present along this entire area. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	Intensification of the urban area with high density mixed use and commercial zones in planned Pedestrian-Oriented Retail Precincts. Expansion of marinas for residential and non-residential boats. The proposed Capstan Canada Line Station .

DESIGN AREA	BOUNDARIES		DESCRIPTION OF EXISTING AND FUTURE CONDITIONS PER OCP
DUCK ISLAND	Moray Bridge to Oak St Bridge	Existing	Former industrial lands, currently vacant lots that host the Richmond Night Market during the summer. River Rock Casino & Marina, and large parking lots. A constructed wetland between the parking lot and the marina. Smaller industrial sites west of the Oak Street Bridge. Disused CP Rail bridge. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	Parklands and marinas along the waterfront. Development of urban commercial and residential uses. A bridge for the Canada Line and a new Skytrain station. NOTE: Private developers are currently submitting development plans to the City for approval.
INDUSTRIAL	Oak St Bridge to No. 4 Rd	Existing	Industrial facilities and parking lots. Fraser River Terminal, BC Hydro power station. Canada Line and Bikeway bridge. River Drive in aligned inland. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated. Industrial lands for the foreseeable future. Residential uses are prohibited.
BRIDGEPORT TAIT	No. 4 Rd to Shell Rd	Existing	Formerly industrial, presently existing high-rise condos; approved condo and townhouses currently under development. River Road at the waterfront was decommissioned on this section. Small light industrial site remains. Single family residential south of the waterfront area. Log booms on the water. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	Ongoing redevelopment to be completed in the near future. No major changes anticipated once redevelopment is complete.
INDUSTRIAL NORTH EAST 1	Shell Rd to Bath Slough	Existing	Industrial area. Businesses and associated parking lots on the narrow strip of land between River Road and the waterfront. Log booms on the water. ESA type is Shoreline, Intertidal or Freshwater Wetland.
		Future	No major changes anticipated.
INDUSTRIAL NORTH EAST 2	Bath Slough to Knight St Bridge	Existing	Industrial area. Offices and parking lots. River Road is against the waterfront. Large trees and established vegetation on the waterfront area north of River Road. A small vacant lot under Port Metro Vancouver ownership is west of the Knight Street Bridge. Drainage ditches south of River Road. ESA type is Shoreline, Intertidal or Freshwater Wetland.
		Future	No major changes anticipated.
INDUSTRIAL NORTH EAST 3	Knight St Bridge to No. 6 Rd	Existing	Industrial area. Large lumber processing yard and waterfront log transport facilities. Large trees and established vegetation on the waterfront. Public access to River Road is blocked by gates however the City has a ROW. ESA type is Shoreline on the land side and Intertidal on the water side.
		Future	No major changes anticipated.

2.2 GEOTECHNICAL CONDITIONS

Thurber Engineering Ltd (Thurber) conducted a review of the Study Area to assess the anticipated geotechnical conditions. Based on their review, the anticipated subsurface conditions within the Study Area are primarily fill and silt overlying alluvial Fraser River deposits. The silt is clayey near the surface and becomes sandier with depth. This layer is generally about 2 to 4 m thick, although it ranges from about 1 m to 6 m thick. Below the silt, there is a zone that transitions from silt to sand at about 7 m depth. The sand layer below about 7 m depth becomes cleaner and coarser with depth and is typically 8 to 25 m thick. This sand layer is susceptible to seismically induced liquefaction. Below the sand there is a sequence of silt and sand layers. Underlying the silt and sand sequence, there is a thick deposit of silt, which is underlain by dense till-like soil at depths of 50 m or more. Geotechnical investigations and modelling may be required at the design stage of a dike adaptation project to establish site-specific subsurface conditions, and any associated geotechnical requirements.

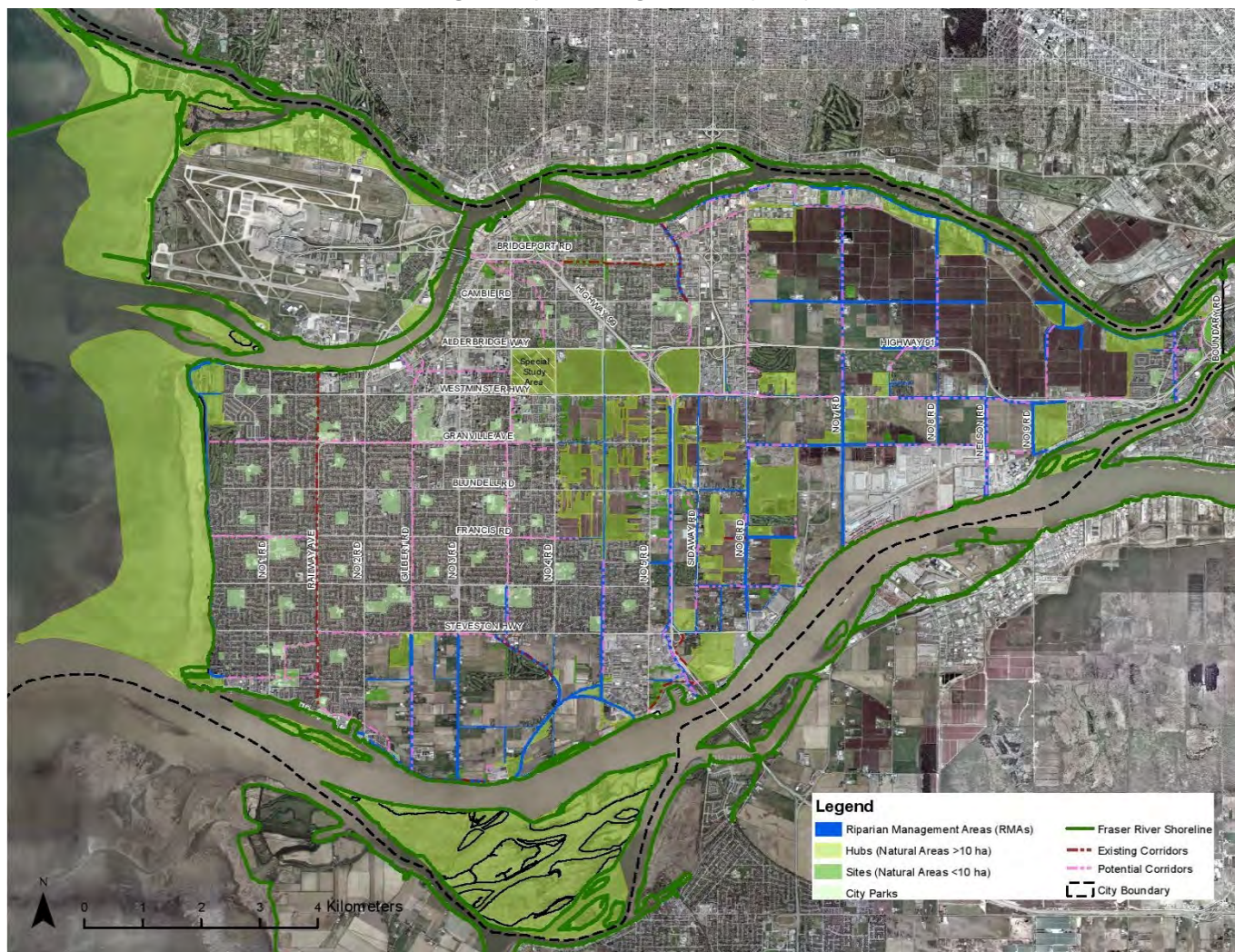
The report⁵ prepared by Thurber in support of the Phase 2 LIDMP is included as **Attachment 3** for reference.

⁵ Lulu Island Dike Master Plan - Phase 2: Geotechnical Input, Thurber Engineering Ltd., October 6, 2016

2.3 ENVIRONMENTAL CONDITIONS

Richmond is located at the mouth of the Fraser River, an urban and agricultural City juxtaposed within the high ecological values of the Fraser River Estuary. The City's Ecological Network Management Strategy (ENMS) provides context for the protection, enhancement and connectivity of an interconnected system of natural areas that make up Richmond's distinctive landscape. The ENMS recognizes the essential ecosystem services integral to the subtidal, intertidal and upland riparian areas within the Study Area, such as water storage and filtration, wave energy attenuation, temperature mitigation and prevention of soil erosion. Green infrastructure, which refers to components of the natural and built environment that provide ecosystem services, are also promoted within the ENMS. A map of Riparian Management Areas (RMA's) of Lulu Island is shown below in **Figure 3** and provided in full size in **Appendix B**.

Figure 3: Riparian Management Areas (RMA's)



Ecological lands within the LIDMP Study Area include City parks, RMA's and ESA's designated in the OCP, as well as other ecologically valuable lands such as the provincially designated Sturgeon Bank WMA. The LIDMP Study Area includes six of the ten geographic strategy areas identified within the ENMS: Traditional Neighbourhoods, City Centre, West Dike, WMA's, Industrial Area and the Fraser River. The ENMS and associated Strategy Areas inform the LIDMP.

The ENMS encompasses all ecological lands in the City, regardless of tenure. Priorities to reduce the fragmentation of natural habitats is central to the ENMS principles. The LIDMP Study Area includes some of the City's highest ecological values within the Fraser River delta. An overview of the City and non-City designated ecological attributes within the Study

Area is provided below. Further detail is provided in the Envirowest Technical Brief⁶ included as ***Attachment 4*** for reference. The following discussion presents environmental factors, regulations and guidance documents in place at the time of this writing. Any additional regulations that may be in place in future at the time that any diking project moves forward should also be reviewed and considered in the preparation of dike design and construction plans.

Riparian Management Areas (RMA's) and Channelized Watercourses

Richmond has interconnected drainage catchments that are delineated by the operation of pump stations that discharge into the Fraser River. The inland watercourses are slow moving and wetted the majority of the time. The high groundwater table that feeds local watercourses and sloughs contains naturally-occurring dissolved iron and other metals, and low levels of dissolved oxygen. These water quality conditions are generally inhospitable to salmon and trout; however, other species of fish, reptiles and amphibians may utilize the inland aquatic areas.

The City's watercourses flow into and contribute to fish and wildlife resources sustained by the Fraser River. As such the watercourses are designated fish habitat under the federal Fisheries Act, the provincial Water Sustainability Act, and the provincial Riparian Areas Protection Act. While the majority of these watercourses have been historically realigned into road grid to support agricultural development, they are identified by the City as channelized watercourses and not stormwater ditches. To support the form and function of these channelized watercourses, pre-designated riparian setbacks of 5 m and 15 m are designated by the City on minor and major watercourses, respectively. These setbacks, developed in consultation with the Department of Fisheries and Oceans (DFO), are identified by the City as Riparian Management Areas (RMA's) and protected from development. Channelized watercourses, and their associated RMA's, are interspersed on the landside of the West and North dikes within the LIDMP Study Area. Locations of RMA's are shown on the map included in ***Appendix B***.

Environmentally Sensitive Areas

The City has designated Environmentally Sensitive Areas (ESA's) throughout the City. As identified in Chapter 9 of the OCP, intertidal and shoreline ESA Development Permit (DP) areas are in place around the Lulu Island perimeter. The intertidal DP area is defined as 30 m out into the intertidal or subtidal area measured from the High Water Mark as defined in the Riparian Area Regulations. The shoreline DP area is defined as 30 m inland of the shoreline into upland riparian habitat. This ESA recognizes the estuarine values surrounding Lulu Island and provide direction for application of the DP through DP permit guidelines. Along the West Dike section of the Study Area, ESA DP areas contain upland riparian, brackish marsh, sandflats, mudflats, and open water habitat. Along the North Dike section of the Study Area, ESA DP areas contain pockets of mud flat, salt marsh, eelgrass and upland riparian habitat. This ESA recognizes the estuarine values surrounding Richmond and provides direction for application of the DP through DP permit guidelines. Along the West Dike section of the LIDMP Study Area, the ESA Development Permit Area contains upland riparian, brackish marsh, sandflats, mudflats, and open water habitat. Along the North Dike section of the LIDMP Study Area, the ESA Development Permit Area contains pockets of mud flats, salt marsh, eelgrass and upland riparian habitat. Locations of ESA's are shown on the map included in ***Appendix C***.

City Parks

The West Dyke Trail and Terra Nova Rural Park are both City park attributes contained within the Study Area. There is habitat functionality and ecological value comprised within these lands.

Bath Slough

The Study Area includes Bath Slough at the boundary between the Industrial North East 1 and Industrial North East 2 design areas. Bath Slough forms part of the historical watercourse complex that stretched across Lulu Island, and receives run-off from industrial and residential lands in the Bridgeport area. Through the 2014 Bath Slough Revitalization Initiative, the City has conducted a number of innovative ecological initiatives along Bath Slough including water quality improvements, riparian enhancements and native pollinator pasture initiatives. The Bath Slough Revitalization Initiative should be considered in the design and construction phase of proposed dike upgrade projects in this area.

⁶ Lulu Island Dike Master Plan Phase 2: Technical Brief, Envirowest Consultants, November 2, 2016.

Ecological Network Management Strategy (ENMS) Strategy Areas

Both inland and foreshore ecological values are embedded within the six ENMS Strategy Areas. The ENMS and associated Strategy Areas provide key ecological context within the Study Area. ENMS Strategy Areas as shown on the map included in *Appendix D*.

Wildlife Management Area (WMA) – Sturgeon Bank

Sturgeon Bank is a provincially designated Wildlife Management Area (WMA) established in 1998 and is located on the water side of the West Dike. It is protected for the conservation of critical, internationally-significant habitat for year-round bird migration and wintering waterfowl populations. It is also important fish habitat. It is comprised primarily of near shore and intertidal brackish marsh, sandflats, mudflats, and open water. The WMA foreshore marsh and mudflat habitats provide critical ecological values as well as ecosystem services for wave energy attenuation and shoreline erosion and stabilization. Consideration for these key climate change adaptation and resiliency attributes along Sturgeon Bank should be considered in the design and construction phase of proposed dike upgrade projects in this area.

Fraser River Estuary Management Program (FREMP) Mapping

Since the mid-1980's habitat productivity mapping has been undertaken along the Fraser River shoreline from the mouth of the Fraser River Delta upstream to the Pitt River/Maple Ridge area. This mapping was undertaken by the former Fraser River Estuary Management Program (FREMP). FREMP was a cooperative agreement amongst member agencies, including Environment Canada, Fisheries and Oceans Canada, Transport Canada, Fraser River Port Authority, North Fraser Port Authority, BC Ministry of Environment, and the Greater Vancouver Regional District. Though FREMP ceased to exist in 2013, the City continues to utilize this data resource to inform activities in and along the City's Fraser River foreshore. The FREMP classification system comprises a three tiered colour-coded system: habitats are colour-coded red, yellow or green. Red-coded shorelines sustain highly productive fish and wildlife habitats. Yellow-coded shorelines sustained moderately productive habitats, while green-coded shorelines were characterized by habitats of low productivity. Generally development constraints are greatest within red-coded habitats, while development within green-coded habitats are constrained the least. Habitat productivity within the LIDMP Study Area includes a majority of red-coded reaches along the West Dike and North Arm.

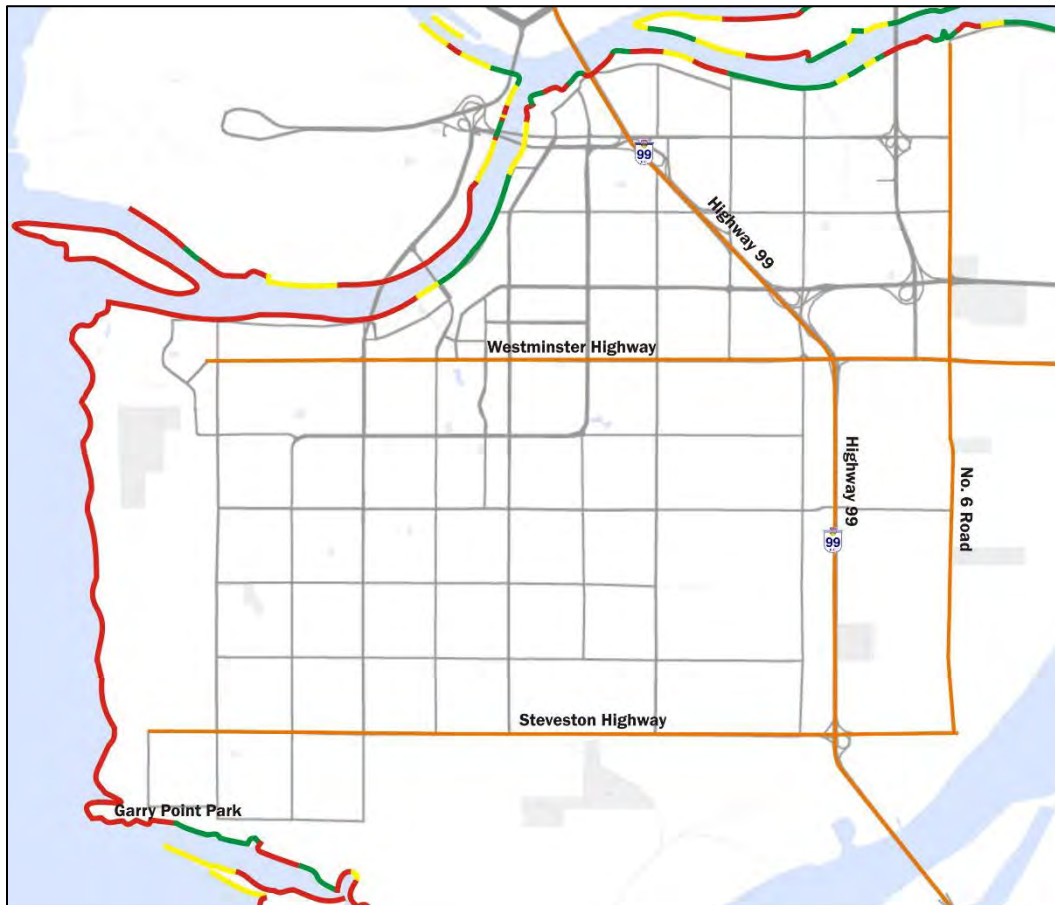
Detailed maps showing habitat coding throughout the Study Area are presented in *Appendix E*. An overview of the foreshore habitat coding in the Study Area is shown in *Figure 4*. High productivity habitat is depicted to extend along the north dike generally from No. 6 Road to the Knight Street bridge, along the Tait Waterfront Park, from No.4 Road to the Canada Line bridge, under the Oak Street Bridge, immediately west of the River Rock casino, south of the Canada Line YVR line, and west of Hollybridge Way to the Terra Nova Rural Park. Moderate and low productive habitat are interspersed along this shoreline between Hollybridge Way and Knight Street bridge. High productivity habitat is depicted to extend along the entire seaward edge of the west dike fronting Sturgeon Bank and Terra Nova Rural Park.

Fraser River Fish and Species at Risk Values

The Fraser River Estuary contains rich habitat for many species of fish and wildlife. Estuary marshes support a significant portion of the regions migrating salmon. While the inland watercourses are generally considered to not be hospitable to salmon and trout species, they do flow into and support fish life in the Fraser River and are therefore considered to be nutrient providing fish habitat.

A desktop review for species of management concern (i.e. included in Schedule 1 of the Federal Species at Risk Act, and Provincial Conservation Data Centre red- and blue-listed species) was undertaken on the Provincial Conservation Data Centre web map. The search provided a single result, specifically utilization of the Fraser River by white sturgeon. The search did not provide any results along the seaward extent of the west dike, or along inland channelized watercourses. The absence of search results does not indicate that species at risk or of management concern are absent, but that they have either not been observed and /or recorded within these areas. A detailed species at risk assessment will need to be undertaken at the time of design construction as the potential for listed species such as white sturgeon, Vancouver Island begettick, streambank lupin etc. within the Study Area is high.

Figure 4: Foreshore Habitat Coding in the Study Area



2.4 EXISTING FLOOD PROTECTION INFRASTRUCTURE

At present, Lulu Island is protected from flood hazards by a perimeter ring dike consisting of the West Dike, the North Dike, and the South Dike. The Study Area comprises the waterfront and lands protected by the West Dike, and part of the North Dike from Terra Nova Rural Park to No. 6 Road. These dikes provide flood protection from storm surges and Fraser River freshet events. Generally the dike is a standard trapezoidal earth dike in most locations, with a trail or a road over the dike crest.

The existing dike crest elevations in the Study Area vary from 3.0 m to 4.7 m depending on when the dike was last upgraded, or when surrounding lands were last redeveloped. Drainage ditches and storm sewers behind the dikes convey storm flows and flood waters to pump stations discharging to the Fraser River and the Georgia Strait. Public dikes and all drainage infrastructure are now owned solely by the City of Richmond.

The West Dike protects the City from high tides and storm surges originating in the Strait of Georgia. Sturgeon Bank, a mudflat and marshland, extends up to 6 km into the Strait of Georgia from the toe of the dike. These lands consist of a relatively flat face with grass cover next to the dike, then marsh and mudflats further out towards the sea. Sturgeon Bank currently provides some protection from wave run-up to the West Dike.

The North Dike protects the City from high tides and storm surge impacts originating in the Strait of Georgia and migrating up the North and Middle Arms of the Fraser River. To a lesser extent, these dikes protect from high Fraser River freshet events. Generally the North Dike is bounded by the Fraser River foreshore and River Road. Through the City Center OCP Area, the dike is primarily a linear park on the waterfront bounded on the land side by River Road or development. Waterfront developments that have been constructed in the past ten years have often elected to raise their lands to the

dike crest elevation, forming a superdike. A superdike is formed whenever the lands behind the dike are filled to the same elevation as the dike crest, and development is built on a ground elevation equal to the dike crest. Superdikes are discussed in greater detail in **Section 4.1.2**. Through the industrial areas north of the City Center, the dike remains generally earthfill with sections of sheet pile and floodwalls associated with specific sites.

2.5 EXISTING FLOOD PROTECTION POLICY

The City of Richmond has two primary policies in place that guide flood protection initiatives. The OCP establishes flood protection as a priority in the context of land use planning. Flood proofing objectives are enforced through Bylaw No. 8204.

At present, the OCP states that ESA's serve the dual purpose of planning for environmental and flood protection needs. Flood protection has been established as a priority alongside environmental priorities within the OCP, especially in areas that are designated ESA's. This includes the entire waterfront of the Study Area. The OCP also establishes a priority for a green infrastructure network throughout the City's ecological network, including the intertidal, shoreline and upland riparian areas. A green infrastructure network integrates the built and natural environment to realize associated ecosystem services such as flood mitigation, and stormwater management.

The City currently enforces flood proofing through the Flood Plain Designation and Protection Bylaw No. 8204, established in 2008 to set minimum Flood Construction Levels (FCL's) throughout the City. The FCL prescribes the minimum elevation where the underside of a floor system can be constructed. The By-law also provides for diking needs such as ROWs by specifying that lands at a certain distance from the dike or waterfront must be dedicated to dike works.

Proposed developments at the waterfront must commit to implementing flood protection measures in order to secure approval for development plans. These are typically negotiated with the City on a site-by-site basis. In recent years, residential developers have voluntarily raised the elevation of development lands to the same elevation as the dike crest (creating a superdike) to ensure that the units on the ground floor will have a view of the water.

3 Considerations

The considerations in this section were used to evaluate potential flood protection adaptations to make the recommendations that comprise the Phase 2 LIDMP. Any flood protection adaptation, whether in compliance with or deviating from the Phase 2 LIDMP, should use the following considerations in evaluating the suitability of a proposed flood protection project for implementation. It is important that any proposed project avoid or mitigate negative impacts, while maximizing the benefits, as a balance of the following considerations. In the event that a dike adaptation project differs from the recommended adaptation for that design area, the project should still take these considerations into account. These considerations outline important factors that should be incorporated into the implementation plans for both structural adaptations that will alter the existing landscape, or policy adaptations that have indirect impacts on the landscape.

3.1 FLOOD PROTECTION CONSIDERATIONS

The City has established a design crest elevation of 4.7 m with consideration to be further raised to 5.5 m in response to climate change and sea level rise predictions. These design crest elevations have been adopted by the City in response to a combination of sea level rise predictions (1.0 m) and land subsidence (0.2 m)⁷, anticipated to materialize by the year 2100.

Increases in dike crest levels (up to 4.7 or future 5.5 m) to address sea level rise and climate change are anticipated to be staged and implemented over the next few decades to respond to rising sea levels. The City will continue to monitor sea level rise and adjust the target dike crest elevations as required. Any flood protection project in the Study Area should, at

⁷ Sea Level Rise Adaptation Primer, Arlington Group et. al, January 2013

a minimum, adhere to these elevations. Additional regional guidelines should also be considered at the design stage of dike improvements.

Adaptations should be compatible with existing dikes and other flood protection measures adjoining the site of proposed works. Connections to existing flood protection works should be designed to ensure there will not be inconsistencies or weak points where an adaptation meets a pre-existing dike.

3.2 ENVIRONMENTAL CONSIDERATIONS

The Study Area is situated along the Georgia Strait and the Fraser River, two important fish and wildlife habitats. There are also riparian areas and intertidal zones that have ecological value. Any diking projects should be well-integrated with the surrounding natural realm, and should be designed to mitigate alterations that compromise the local environment, either aesthetically or ecologically. The Study Area includes substantial open space and parklands, including wetlands and natural areas on the waterfront. The City has an interest in preserving the environment at the waterfront for public uses, in particular the dike trail for cyclists and pedestrians. The aesthetic value of the natural environment along the trails should be considered as well as ecological significance.

The breadth of ecological values comprised within the study area is reflective of estuary habitats as described in **Section 2.3**. The perimeter ring dike in the Study Area is flanked by either riparian or upland ESA habitat to the landside, and high value shoreline & intertidal ESA or WMA habitats on the foreshore. Any proposed dike design and construction projects should undertake an assessment of the adjacent ecological values to determine the most appropriate dike design and footprint using an approach to avoid alterations in high value habitats, and if that is not feasible, then mitigate or compensate with a net gain approach. The Study Area is comprised of large tracts of open space and park lands that contribute significant aesthetic values within the estuary which must be considered in concert with the ecological values.

An overview of the federal and provincial regulatory context is provided above in **Section 2.3**. Detrimental impacts to the environment are to be avoided wherever possible, in accordance with the City's environmental regulations. In addition, sea level rise should be monitored and reviewed in order to determine the impact on existing foreshore wetlands within the Study Area. Additional guidance documents outlining the City's environmental protection and enhancement strategies are listed in **Section 1.3**. Any flood protection project should be prepared by qualified persons having reviewed and understood these documents, as well as any environmental guidance documents or regulations in effect at the time a project is proposed. The design of proposed diking projects should follow the City's approach regarding the priority to avoid habitat impact first. Where that is not feasible, enhancement and mitigation may be pursued with a net gain approach.

3.3 GEOTECHNICAL CONSIDERATIONS

Geotechnical design considerations for dike adaptations include seepage control both under and through the dike, dike slope stability, dike crest settlement, and seismic performance. Furthermore, additional loading from increased dike size over any existing structures, such as building footings or bridge abutments, will need to be verified for confirmation that existing infrastructure will not be negatively impacted. Other types of structural flood protection measures will also need to be verified for impacts to existing infrastructure.

Thurber has reviewed the existing geotechnical conditions in the Study Area. Their comments on the key design considerations are outlined on the following pages.

Seepage

Seepage risk should be assessed and mitigated for any dike adaptation project, whether for dikes or floodwall systems. Seepage becomes problematic where water flow through or under the dike dislocates the fill materials forming the dike, which may weaken the integrity of the dike and increase the risk of failure during high water events. Adaptations should be designed with proper drainage to mitigate seepage risks.

Increasing the height of an existing dike to 4.7 m or 5.5 m may increase the design flood height, defined as the height from the ground at the land side toe of the dike to the height of water against the dike during a high water event. Existing dikes

are between 3.0 m and 4.7 m, and the ground elevation on the landside of the dikes is generally at about 2.0 m. Raising an existing dike may also increase the flood height, unless the lands adjacent to the dike are also raised in conjunction with crest height increases, forming a superdike. Increasing the flood height may increase risks of landside heave of the less permeable surficial silt layer, and piping through the dike or its foundation.

Piping occurs when excessive seepage forces cause the migration of soil particles through the soil matrix resulting in internal erosion and eventually retrogressive failure. Heave can occur when there are excessive hydraulic pressures on the landside of the dike caused by a lower permeability soil layer forming a cap over a more permeable layer near the ground surface. Heave can lift and fracture the cap, causing large localised seepage volumes and internal erosion, which could cause a dike breach.

To provide reliable protection from higher design flood heights, a system of seepage control measures will likely be required for any dike adaptation project. The potential for heave and piping may be mitigated using relief wells, drainage blankets or trenches to drain water from behind the dike face to an outlet such as a sewer or ditch. The receiving system's capacity should be verified to ensure drainage can be accommodated in the system. Relief wells and trenches should be designed with filters, such as a geotextile, to prevent piping and internal erosion. Seepage exits should be similarly protected with filters to minimize risk of fill materials migrating out of the dike.

Where there are ditches at the toe of an existing dike, filling the ditches may be considered within the scope of a proposed dike adaptation project. Ditches at the toe of a dike increase the risk of piping, since these ditches shorten the seepage path length and increase the hydraulic gradient. Filling the ditches may contribute to a comprehensive plan to reduce the risk of seepage.

Seepage potential should be evaluated and mitigated for any structural adaptation, as seepage may cause build-up of pressures behind the structure that may increase risks of failure. Constrained dikes, designed with a retaining wall on one or both sides, may be less susceptible to seepage risk if the dike face is a uniform material, such as a concrete cut-off wall or a floodwall. A dike face constructed with a segmental wall system, such as lock blocks or armour stone, may need to have the joints between segments grouted to prevent seepage at the joints.

Stability

Any dike adaptation project should be designed and constructed to withstand pressures and forces it may be subjected to during a high water event. For dike adaptations, high quality dike fill materials should be used and placed in accordance with accepted engineering practice to maximize stability. The standard dike section is anticipated to be generally stable with increased flood heights, although it will be less stable than the lower height configuration. In areas where stability is a concern, minor modifications to the standard dike section may be required, such as flattening the landside slope, constructing a toe berm or providing a seepage cut-off and filter within the dike. The stability of dikes may be further improved where ditches at the landside toe are infilled.

Settlement

Any dike adaptation project should be designed and constructed with consideration for settlement. Designs that minimize settlement are preferred, though some measure of settlement is anticipated in the long-term in all cases.

Raising existing dikes may induce consolidation settlement of the surficial silt layers. This settlement could be up to about 5% of the increase of the thickness of new dike fill placed. Dikes and surrounding areas may also experience compression settlement due to on-going long-term compression of deeper silt layers. This ongoing settlement is typically in the range of 1 to 2 mm per year for dikes built on soil conditions in Richmond. Settlement could potentially be compensated for by overbuilding the dike to a higher initial crest elevation, anticipating that it will settle to the target dike crest.

Local soil properties should be investigated prior to finalizing the design of any adaptations. Where construction is over peat or highly organic soils, settlement may be higher.

Seismic Performance

The Provincial Seismic Design Guidelines for Dikes⁸ (Seismic Guidelines) published in June 2014 recommends designing high consequence dikes to control seismic deformations within prescribed limits. For a trapezoidal dike to achieve the objectives of the Seismic Guidelines, ground improvement may be required. Ground improvement reduces seismic vulnerability by densifying the foundation of the dike. Compaction of the ground underlying the dike may achieve the targets in the Seismic Guidelines. However, more intensive methods such as deep soil mixing or vibro-replacement to a specified depth may be pursued if compaction alone is found to be insufficient. These ground improvements may be very costly. Dikes that are set back from the waterfront are more resistant to seismic events due to being restrained by earth at both dike toes, as compared to a waterfront dike where the waterside toe is much deeper and may provide less force anchoring the dike in place. Therefore, setback dikes require less intensive methods to meet the Seismic Guidelines. Likewise, widening the dike crest to create a superdike increases resilience to seismic events without typically requiring ground improvements. Superdikes are discussed in greater detail in **Section 4.1.2**.

To further understand the potential seismic risks to dikes within the Study Area, Thurber conducted seismic deformation analyses at three select locations (No. 1 Road Pump Station, No. 4 Road Pump Station, and Bath Slough Pump Station). Results are included in their Seismic Deformation Analysis report⁹ included in **Attachment 5**. Results from the assessment identified that at the three sites selected, horizontal deformations were within the allowances prescribed for the 1:2,475 year event by the Seismic Guidelines. Vertical deformations exceeded the tolerances; however, overbuilding the dike to provide post-earthquake freeboard may be an acceptable alternate to meet the Seismic Guidelines instead of costly ground improvements. The results are largely depended on the underlying soil conditions, slope of the riverbank, and depth of the river bottom. Larger deformations could be expected where the river channel is deeper and steeper. The results discussed in the Seismic Deformation Analysis pertain only to the three sections analyzed; these are generally representative of Lulu Island however the results cannot be assumed to be consistent for any other locations. At the design stage of a proposed dike adaptation project, a site-specific seismic deformation analysis should be conducted to confirm seismic risks, and possible mitigation requirements. A seismic deformation analysis, for example a Plaxis model, may inform whether ground improvements may be required, and what level of ground improvements may be required to meet the Seismic Guidelines.

3.4 INFRASTRUCTURE CONSIDERATIONS

It is advantageous to pursue dike works alongside other infrastructure upgrades in the vicinity of the dike. Where infrastructure works are proposed on the waterfront, local diking needs should be evaluated and included in the scope of proposed work wherever possible. For example, when a road is being raised or resurfaced, the adjacent dike could be upgraded concurrently. Including dike adaptations within the scope of other municipal works may also present a cost savings as compared to pursuing projects independently. The resulting dikes may also be better integrated with the local landscape if they proceed concurrently with neighbouring infrastructure upgrades.

Any impacts to local stormwater drainage patterns should be evaluated to ensure compatibility with the local infrastructure, such as pump stations or roads. Where adaptations will interfere with existing drainage patterns, the capacity of the receiving pump station must be confirmed. If ditches at the toe of the dike are to be filled, the associated loss of stormwater storage and conveyance functions may need to be compensated with underground pipes or alternative systems.

Above ground utilities may be impacted by diking projects. Utility poles may need to be temporarily relocated while dike works are underway, and relocated to a permanent position when works are complete. There may be an opportunity to relocate cables underground when dike works proceed, particularly if roadworks are included. The dike trail and associate park infrastructure, such as park benches and lookouts, may need to be relocated to accommodate dike adaptations.

⁸ Seismic Design Guidelines for Dikes, 2nd ed., Golder, Ministry of Forests Lands and Natural Resources (MFLNRO) Flood Safety Section, Jun 2014

⁹ Lulu Island Dike Master Plan - Phase 2: Seismic Deformation Analysis, Thurber Engineering Ltd., Sep 12, 2016

3.5 SITES WITH UNIQUE CONSTRAINTS

There may be sites with unique features that must be accommodated when adaptations proceed. Dike adaptations may be realigned to avoid special sites, however this may not always be feasible. Where development and infrastructure exists along the waterfront where a dike adaptation project would ideally proceed, a custom design to accommodate that site may be required. Examples include pump stations, bridges, or industrial sites located immediately on the water. There are a number of bridges in the Study Area. Adaptations at bridge sites are discussed further under *Section 4.3*.

The adjoining adaptations on either side of the special site should be well-integrated with that site's custom adaptation design, to ensure there are no vulnerabilities in the flood protection strategy at the boundaries between adaptation types. For example, a section of floodwall within a dike should be protected at the joints to ensure the joints are as robust as both the dike and floodwall. The joints should be as capable of withstanding high water levels as the adaptations on either side.

3.6 SOCIAL CONSIDERATIONS

Dike adaptations should be designed with consideration of the public realm. The City's 2009 Waterfront Strategy presents a vision that promotes community wellness, economic vitality and a healthy environment through initiatives that integrate the waterfront with the urban landscape. The Study Area contains recreation, culture and heritage resources to be preserved wherever feasible, according to the regulatory protections in place for heritage resources. Recreational uses may include walking and cycling on the trail, as well as offshore activities such as sport fishing and boating.

Heritage sites may be treated as sites with unique constraints, as described in *Section 3.5*, that require special accommodations within a diking project. Heritage sites that have been identified as culturally significant should be preserved per the Heritage Procedures Bylaw 8400 as applicable.

Any impacts that restrict use and enjoyment of the waterfront, as well as views of the waterfront, should be mitigated. Impacts on cultural and heritage resources limiting the accessibility of these sites should be mitigated. Sites should remain accessible to all people including those using mobility aids, such as wheelchairs or crutches.

Public access to the waterfront is provided by the perimeter dike trail system. Where waterfront access is constrained, the City's Parks Planning and Design (Parks) department has identified connectivity at the waterfront as preferable to inland trail detours. For example, where the existing dike trail alignment crosses under low bridges, raising the dike may not provide adequate clearance to maintain the trail over the dike. The preference is to keep the trail at the waterfront. A boardwalk at the waterside toe of the dike would be a preferred approach as opposed to directing pedestrians up to the road to circumvent a barrier.

Adaptations should be aesthetically integrated with the surrounding area. For example, in recreational areas or ecological landscapes, adaptations that do not detract from the natural beauty of the local environment are preferable to those adaptations requiring severe hardscaping, such as concrete or retaining walls. The local character of industrial areas is amenable to man-made structures thus floodwalls may be in keeping with the landscape themes in industrial areas.

Adaptations should support, and be integrated with, the habitat functionality and aesthetics of the surrounding environment.

3.7 PROPERTY CONSIDERATIONS

The City must have permanent access to the dike adaptations in the long-term, for both construction and ongoing maintenance operations. Acquiring property may add considerable costs to a diking project. Wherever feasible, adaptations should proceed within the lands that are already under City ownership, or that the City may access through easements or right-of-ways (ROW's).

Much of the City's waterfront was developed prior to the establishment of robust policies for dedicating lands to diking. As a result, older buildings remain directly on the waterfront, or within 30 m from the natural boundary. In cases where no alternative alignment can be implemented, it may be necessary for the City to acquire waterfront lands or obtain easements or ROWs to construct or maintain adaptations.

3.8 ECONOMIC CONSIDERATIONS

For the purposes of the Phase 2 LIDMP, economic considerations encompass impacts to local businesses operating in the vicinity of existing or proposed dikes. The cost of adaptation projects is also an economic consideration, however for the purposes of the Phase 2 LIDMP these will be referred to as “cost considerations,” discussed further under **Section 3.10**.

Flood protection projects provide an overall economic good by preventing damage to assets. However, any changes to existing conditions may trigger negative impacts to the local economy. For example, diking may damage views to the waterfront, or challenge industrial activities by limiting water access.

Where economic impacts cannot be completely avoided, they should be mitigated to the extent feasible. Dike adaptations should consider local economic factors in the overall decision making context.

Lands that were formerly used for economic purposes, such as waterfront shipping facilities, but are no longer being used for economic activities may be suitable lands for dike adaptations. If alternative lands are available that do not have any associated economic uses, those lands should be used rather than compromising lands of economic interest.

3.9 OPERATIONAL CONSIDERATIONS

Dikes in the Study Area provide access to City assets that must be maintained, such as drainage ditches and trails. Adequate clearance must be retained for maintenance vehicles to navigate the dikes where required, and carry out maintenance activities. For example, if a dike is raised in an area where there are drainage ditches at the dike toe, the boom of an excavator on the dike must be able to reach the ditches for cleaning and maintenance.

Raising a dike may complicate access as the slopes must remain suitable for maintenance and emergency access. Additional lands may be required to improve access to the dike.

3.10 COST CONSIDERATIONS

The overall cost of implementing adaptations is driven by a number of factors that include habitat consideration, land acquisition and ground improvements. When evaluating the cost of an adaptation, the costs of all associated works and mitigation plans should be included. A project with relatively higher construction costs may still be the least expensive option if it does not require any habitat compensation, for example.

3.11 STAKEHOLDER FEEDBACK

The diking solutions were presented to key stakeholders and the general public. The public and key stakeholder groups were pleased with the City’s proactive approach to addressing climate change and sea level rise in the community. Comments with the West Dike and North Dike (from Terra Nova to No. 6 Road) related to the height in which the dikes would be raised, possible increased dredging needs, and the disruption it may cause to the environment, wildlife and their habitats were raised.

Two public open houses were held to present the flood protection concepts for the Phase 2 area. The first session was held at City Hall on April 20th, 2017 and the second session was held at the City Centre Community Centre on June 21st, 2017. All materials provided at the Open Houses were made available on the City’s community engagement website address, Letstalkrichmond.ca. There were 532 individuals that viewed the project on this website, 68 of which provided feedback.

A summary of the open house and website feedback is presented in **Table 2**.

Table 2 – Public Consultation Feedback

TOPIC	SUMMARY OF COMMENTS
Dike Raising / Construction Time	Most of the comments expressed that the dikes are not being raised high enough. Some additional comments noted that the timeline for raising the dikes may also be too slow. The majority of the commentary referenced media and scientific reports that suggest the rate and amount of sea level rise could be more accelerated and higher than previously estimated.
Dike Esthetics / Recreational use	There was a strong desire to maintain walkways and recreational access on and along the dikes, with some individuals preferring not to have a paved path to maintain a more natural aesthetic in and around key wildlife areas and others preferring a paved path to increase convenient access for pedestrians and cyclists.
Seismic	Some individuals raised the issue of seismic stability and the desire to have an increased level of safety in the event of an earthquake or tsunami.
Superdikes	Individuals who commented on superdikes were generally in support of this option.
Development	Comments were received from several residents that the flood control level for new developments should be raised for further protection. One resident expressed concern about the raising the flood control levels for new developments could also be detrimental to the character of the neighbourhoods.
Flood Protection	Concerns were raised about what additional flood protection measures are in place in the event of the dike breach, such as increased pump station capacity to reduce flooding. One resident also suggested installing new data recording instruments to monitor flood levels and settlement of the dikes more regularly.
The Environment	Two residents commented that the City should consider all of the environmental impacts of the dike and flood protection upgrades, emphasizing that preservation of the natural environment be considered during all phases of the dike master planning and upgrades.
Barrier Island	Several residents commented on their interest in a barrier island, but wanted more information on the cost of these features and if they might impact the water quality or natural ocean processes.
Property Value	One resident expressed that the dike upgrades would help keep property values high.
Funding	Several residents questioned what the cost of the dike upgrades would be for taxpayers and where there were opportunities for residential developers to pay for upgrades.
General	Several comments were received that indicated a desire for more information on the key solutions being considered as well as access to the consultation and feedback from environmental agencies.

In addition to the two public open houses, all materials were provided to key stakeholders. The City also hosted a number of individual key stakeholder meetings to solicit feedback. Comments received in the meetings and through email correspondence are summarized in **Table 3**.

Table 3 – Other Key Stakeholder Feedback

STAKEHOLDER	SUMMARY OF COMMENTS
Provincial Inspector of Dikes	The Deputy Inspector of Dikes did not foresee any major issues in moving forward with the master plan, but noted that additional discussion and correspondence would be required where alternative strategies that deviate from the existing flood protection (e.g. superdikes) are proposed.
City of Richmond Advisory Committee for the Environment	The Advisory Committee for the Environment (ACE) did not have any comments after the City presented the Phase 2 LIDMP to them in April 2017.
Urban Development Institute	The Urban Development Institute (UDI) noted that the Phase 2 LIDMP will mutually benefit the City of Richmond and UDI as the flood protection solutions will increase the livability and value of development within the City. UDI has acknowledged support of the presented flood protection strategies with the awareness that there could be increased costs incurred by the development industry.
Port of Metro Vancouver	<p>Port Metro Vancouver (PMV) had the following comments:</p> <ul style="list-style-type: none"> • The Vancouver Fraser Port Authority (VFPA) does not have any infrastructure in the area and the report recommendations do not affect the two Port Sites within the study areas. • The report refers to secondary dikes that work in conjunction with primary dikes. Has consideration been given to extending the secondary dike concept to inlands (perhaps through improving performance/raising elevations of existing roads) to provide redundancy and limit extent of area being flooded in the event a section of dyke is breached?
City of Richmond Heritage Commission	The Heritage Commission supports the “Dike Master Plan – Phase 2” initiative and recommends that staff/Council take into account the cultural and historical aspect of the diking system as improvements are designed and implemented.
Department of Fisheries and Oceans – Small Craft Harbours Branch (SCH)	<p>The Small Craft Harbours (SCH) Branch of the Department of Fisheries and Oceans provided the following comments:</p> <ul style="list-style-type: none"> • The longer the distance incoming storm waves travel over shallow tidal flats the less vulnerability and the need for dike wave run-up freeboard and armouring. The concept is to provide replacement for lost sediment nourishment to and allow natural wave action to distribute the sediment pile gradually over the flats over time (as used to be the case prior to manmade deflection and interception of river supplied Sturgeon Bank sediment accretion). This would go hand in hand with investigating the details of the more intrusive and expensive approach of constructing offshore barrier islands as mentioned in the report. • The offshore berms could be a challenging geotechnical and coastal design with considerable expense and risk. • A side observation is the likely contributing effects of dredging of the legacy Fisherman' slough harbour cut into the southern area of the flats. This probably confounds the above situation in that it provides a sediment "sink" for any mobile sediments that find their way into the harbour "hole" which is then removed from time to time by dredging and removed from the system by disposal at sea. Either the slough harbour should be isolated in such a way so as not to be a sediment sink or it should be eliminated. In any situation, material removed from the slough belongs on the tidal flats and not removed and dumped in deep water. • Considering the above, there are a couple of primary observations that map directly to the Phase 2 report. Firstly, making it clear that the erosional loss of elevation and width of the tidal flats of Sturgeon Bank due to a century of indiscriminate messing about with the natural sediment regimes needs to be highlighted. It is inferred in the report but does not stand out. This is the core of the seaward vulnerabilities both present and future with SLR. I am aware for instance that Golder has produced a DRAFT (2015) report on the erosion of Point Grey which has similar issues regarding loss of sediment supply and erosion of tidal flats and perhaps should be appended to the Sturgeon Bank Report. • The proposals for the barrier islands are a conceptual means to address the problems of protecting the dikes from increased wave attack and a "squeeze" on the upper shore, including wave run up on dikes. This squeeze will be aggravated by SLR as the deeper water allows for both larger storm waves penetrating to the dike as well as increased erosion of the highly mobile tidal flat due to both the intensity of wave induced particle movements, increased transport by tide induced flows and the net amount of time of these conditions occurs. To aggravate the situation, storm waves will be partially reflecting from a rock armoured dike. Tidal flood and ebb and storm setup currents behind and around the barrier islands would be likely to cause gulying of the fine tidal flat sediments. Anything that puts sediment back to accrete and be wave sorted naturally and gently on the tidal flats and upper marsh zones, whether deflected from the river freshens or enhanced artificially with placement (i.e. dredgeate) should have net positive outcomes provided the material is "clean" biologically speaking, and is representative in the mix of sand and silt particle sizes of what had been deposited naturally in the past. • We would have reservations about the more intrusive barrier island concept. It is complicated and it would lead to significant wave concentration at the hardened boundaries of the armoured islands. They would also create concentrated tidal flow and wave induced currents. The fine particle size silty sands of the outer flats would be extremely sensitive to those flows and also to compression and settlement under the weight and cyclical tidal buoyancy fluxes of

STAKEHOLDER	SUMMARY OF COMMENTS
	<p>the placed islands. Being well out into the deep water, exposed to higher wave regimes, the islands would need to be Rock armoured and constructed to very rigorous standards to stay put. Indeed they would have to be constructed very expensively as rock breakwaters. As such, they would also load the delta slopes and under earthquake shakes would likely increased the risk of major deltaic slumps or slides into deep water.</p> <p>The SCH Branch provided the following conclusions:</p> <ul style="list-style-type: none"> • A serious study of the history, evolution and current status of the flats including updated data on the hydrographic changes, the sediment size characteristics today and yesterday, the baseline sediment chemical conditions (i.e. Pah's) and of course the biological values both current and historic with the trends indicated. • A serious pilot program to place clean Fraser River silty sands into the tidal flats regime, probably as before, placed in one corner and allowed to spread by wave action over time. This would be monitored for effects and quality, and then linked to the potential for being part of a larger long term sediment management plan, encompassing Sturgeon Bank flats, and both Cannery Channel and the Ports shipping channel. <p>The SCH Branch provided the following additional comments on the report document:</p> <p><i>Executive Summary</i></p> <ul style="list-style-type: none"> • "For example, barrier islands that reduce wave run-up to eliminate the need for additional target crest increases," ... SCH Comment: And/or barrier islands in concert with restoring intertidal sediment supply and elevations as part of overall sediment management plan including redirection of dredgeate and in river sediment bypassing. • FCL should be incorporated in planning for small craft harbours harbour buildings and infrastructure as well as potential increased use of floating structures for enhanced adaptation long term. • SCH Comment: Restoring sediment input to intertidal areas may be an environmental net gain if done in an integrated manner. <p><i>Additional Guidance Documents</i></p> <ul style="list-style-type: none"> • With respect to the Phase 2 LIDMP reference to the existing Floodplain Designation and Protection By-Law 8204, it should be linked with overall Fraser River sediment management plan. Past practices and jurisdictional stovepipes have increased flood risk to West Dike area due to reductions of previous natural rates of sediment accretion and intertidal elevation. • The 2015 Ecological Network Management Strategy items are a potential fit with in river sediment bypass as well as sediment nourishment to sturgeon bank tidal flats. <p><i>Environmental Conditions</i></p> <ul style="list-style-type: none"> • What has been and will be the impacts to the environmental sensitive areas due to the combination of lowered intertidal elevations combined with SLR and what might be done to reverse impacts over time? • High productivity habitat is depicted to extend along the entire sea-ward edge of the west dike fronting Sturgeon Bank and Terra Nova Rural Park, but could be negatively impacted if tidal flat elevations do not keep pace with SLR armouring of west dikes would aggravate erosion of tidal flats. • There is an overall lack of comprehensive data on the species risk within the study area. This should be a top priority. <p><i>Flood Risk Management Adaptations</i></p> <ul style="list-style-type: none"> • Small craft harbours could continue science examination of nourishment to intertidal areas as part of overall sediment management plan. • With respect to breakwaters and barrier islands, there is an opportunity for SCH to provide resources and guidance in the planning process. • With respect to enhancement of intertidal habitat, the City could restore wide flat and elevated tidal flats uniformly with or without barrier islands. • With respect to barrier islands, raised islands may be more problematic than simply restoring sediment nourishment to raise overall tidal flats. • There is an overall lack of comprehensive data on the species risk within the study area. This should be a top priority. • With respect to slough dredging, any repeated dredging of the slough may be contributing to impacts on tidal flats especially if mandated to be disposed out of the sturgeon bank sediment regime by ocean disposal regulations. • With respect to discussion of breakwaters, expand to encompass raising of tidal flats with restored sediment supply.

4 Flood Risk Management Adaptations

Flood Risk Management adaptations have been categorized as either area wide or area specific.

Ultimately the City's goal is to fortify the perimeter ring dike to a design crest elevation of 4.7 m, with consideration to be further raised to 5.5 m in response to climate change and sea level rise predictions. Area wide adaptations are those that facilitate the City's flood protection objectives in tandem with the dikes or alternative protection measures in place at the waterfront. These could be policy adaptations, structural measures, or enhancement of green infrastructure to secure additional benefits to an adaptation that will achieve the 4.7 m crest elevation. Area wide adaptations may not be sufficient to meet the City's target dike crest elevation if implemented in isolation, however they may facilitate achieving the City's flood protection goals. For example, revising City policies to include specific diking requirements would be an area wide adaptation, as this is applicable across the entire Study Area, however, on its own, a revision to City policy would not achieve the target dike crest elevation. Area wide adaptations encompass strategies to facilitate implementing flood protection projects, and seizing opportunities presented by waterfront development to implement flood protection works concurrently. Area wide adaptations are defined and described in further detail in **Section 4.1**.

Area specific adaptations are recommended for each of the thirteen specified design areas. These include all dike and floodwall adaptations that may achieve the 4.7 m design crest, and may be further raised to 5.5 m in future when required. As noted in **Section 2**, the design areas have been delineated using the City's Official Community Plan (OCP) boundaries as identified in the OCP Areas, OCP Land Use Maps and OCP Sub-Area Plans. OCP Areas have been subdivided where similar waterfront conditions exist for a clearly defined part of an area. Area specific adaptations are defined and described in further detail in **Section 4.2**.

Recommendations from both area wide and area specific categories have been made to create a comprehensive flood protection strategy for the Study Area. A summary of the recommended Flood Risk Management Strategies that apply to either specific design areas, or all of the Study Area is provided in **Table 4**. The contexts for the recommended application of each adaptation are detailed in **Section 4.1** and **Section 4.2**.

Table 4: Recommended Flood Risk Management Strategies

AREA SPECIFIC				AREA WIDE				
DIKES		FLOODWALLS						
Widen Footprint to Land or Water Side	Raise in Place / Constrained Dike	Permanent	Demountable	Superdikes	Flood Proofing	Planning and Development Controls	Breakwaters and Barrier Islands	Secondary Dikes

Note that other adaptations were reviewed and evaluated for implementation in the Study Area, though only the recommended adaptations are presented in the Phase 2 LIDMP. Adaptations that were eliminated at the evaluation phase include coastal wetlands, emergency preparedness and response, and managed retreated.

Coastal Wetlands: Coastal wetlands, including intertidal habitat such as brackish wetlands, eelgrass beds, mud flats, and sandflats, temper the extremity of storm impacts by attenuating wave energy, similar to breakwaters. There are no candidate sites within the Study Area to create new coastal wetlands for the purposes of flood protection; however, existing coastal wetlands can be maintained and enhanced to improve their flood protection characteristics.

The West Dike runs adjacent to the Sturgeon Bank WMA which is comprised of intertidal brackish marsh, sandflats, mudflats, and open water. The North Dike runs adjacent to pockets of mud flat, salt marsh, and eelgrass habitat. This intertidal habitat currently provides ecosystem services such as erosion and wave attenuation. Where feasible through dike upgrades this intertidal habitat could be enhanced. As part of the LIDMP the City will need to continue to work with inter-jurisdictional partners to monitor the complexity of the surrounding intertidal habitat, evaluate the existing ecosystems services that this habitat provides, and based on monitoring collaborate of efforts and initiatives to maintain and enhance this area.

**Emergency
Preparedness and
Response:**

This strategy accommodates flood risks by preparing robust mitigation plans, to be carried out in the event of flood emergencies. The City has an existing emergency response plan: the Emergency Operations Centre coordinates with various departments to execute the Emergency Preparedness Flood Management Plan. The plans in place have not been reviewed as part of the Phase 2 LIDMP as this is beyond the scope of this study.

Managed Retreat:

Managed retreat involves decommissioning or demolishing existing assets within a specified hazard zone, thereby eliminating flood risk by removing any development where flooding may occur. This strategy is not appropriate for the Study Area. The economic value of retaining existing assets exceeds the cost of reducing the risk of flood damage by relocating assets. The existence of development on Lulu Island that must be protected from flooding is considered a permanent condition for the purposes of the LIDMP.

4.1 AREA WIDE ADAPTATIONS

In the context of the Phase 2 LIDMP, area wide adaptations are those that facilitate the City's flood protection objectives in tandem with the dikes or alternative protection measures in place at the waterfront, but may not be sufficient to meet the City's target dike crest elevation in isolation. The target dike crest elevation is addressed through the area specific adaptations described in *Section 4.2*.

The recommended area wide adaptations are: superdikes; floodproofing; planning and development controls; breakwaters and barrier islands; and, secondary dikes,. Each recommended adaptation is discussed in the following sections.

4.1.1 SUPERDIKES

As noted in *Section 2.4*, a superdike is formed where the lands behind the dike are filled to the same elevation as the dike crest. Development is then built on a ground elevation equal to the dike crest.

Maximizing the width of raised land adjacent to the river decreases flood and seismic risks by increasing the integrity of the dike. The existing dikes of Lulu Island are built on soft soils that are subject to liquefaction during seismic events. These dikes may require ground improvements to meet the 2014 Seismic Design Guidelines (Seismic Guidelines). Superdikes are an approach to achieve the dual objectives of reducing vulnerability to both high water levels and seismic events. A superdike is more likely to withstand lateral movement and sloughing of the dike face without resulting in a dike breach, as compared to a standard trapezoidal dike alone. By raising lands to a superdike condition, costly ground improvements may not be required, even if they may have been required for a standard trapezoidal dike in the same area.

Any proposed dike adaptation project should comply with the Seismic Guidelines. If a proposed dike adaptation project will not meet the requirements in the Seismic Guidelines, superdikes may be considered as an alternative to ground improvements. At the design stage, a number of strategies should be investigated to determine which will meet the Seismic Guidelines at the lowest cost, on the overall balance of the considerations listed in *Section 3*.

Any redevelopment of waterfront sites presents an opportunity to fortify existing flood protection measures. Although the Study Area is already fully built out, lands will continue to be redeveloped over the long-term future. Opportunities for implementing superdikes are most attainable where existing commercial and industrial sites are leveled in support of

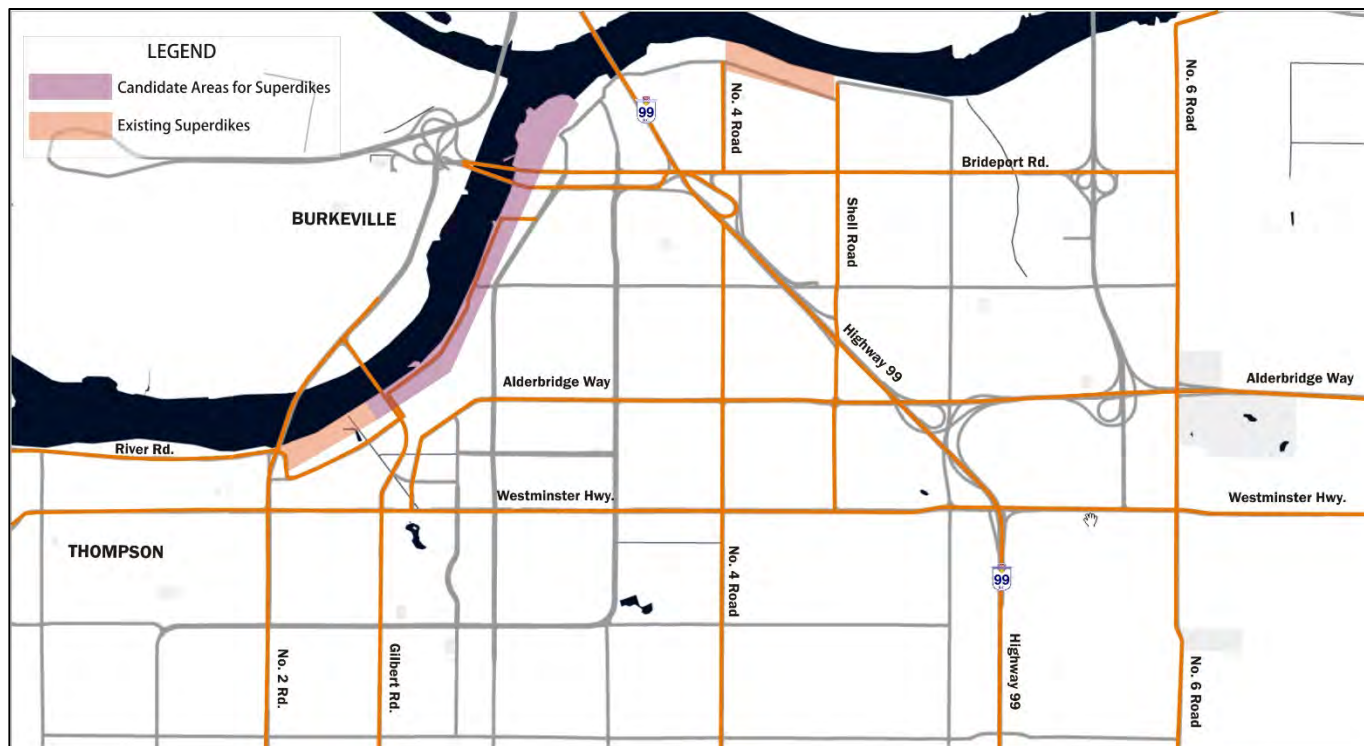
developing residential uses. Generally, industrial sites have different waterfront access and aesthetic needs than residential sites, which benefit most from a superdike condition. In recent years, residential developers have voluntarily raised the ground elevation of development sites to the same elevation as the dike crest to ensure that the units on the ground floor will have a view of the water. Within the Study Area, this has been the case at the multi-family residential developments next to the Olympic Oval, and the multi-family residential development under construction on the formerly industrial waterfront sites between No. 4 Road and Shell Road.

Application: Commercial & Residential Lands on the North Dike

The lands of the City Centre area are anticipated to experience extensive intensification and redevelopment in the coming years, further detailed in **Section 4.2.7** and **Section 4.2.8**. This area has been identified as a candidate for superdikes, as shown in **Figure 5**.

Redevelopment of waterfront sites presents opportunities to implement flood protection works concurrently with development. The optimal time for implementing superdikes is when existing assets are demolished and the site is leveled to accommodate new development.

Figure 5: Superdikes in the Study Area



4.1.2 FLOOD PROOFING

Flood proofing is a strategy to minimizing the damage to critical infrastructure in the event of a dike breach. Buildings can be constructed as flood proofed by ensuring habitable space is set at an elevation above the flood risk zone. Damage and losses incurred during flooding are minimal as any valuable or vulnerable assets are located above the possible flood elevation. In these buildings, habitable space and sensitive assets are located above a prescribed ground floor elevation, and lower floors are used only for storage of flood-resistant or low value assets. Another flood proofing strategy is using only impermeable building materials and watertight building equipment below the prescribed flood risk elevation.

The City's influence on where private building operators locate their assets within their buildings is limited, however construction of buildings with habitable space or vital assets below a specified elevation may be prohibited through legislation. By flood proofing buildings located in a specified waterfront or low elevation area, vital assets are prohibited from being located in high risk zones so that flooding will only affect non-vital infrastructure. Generally, flood proofing

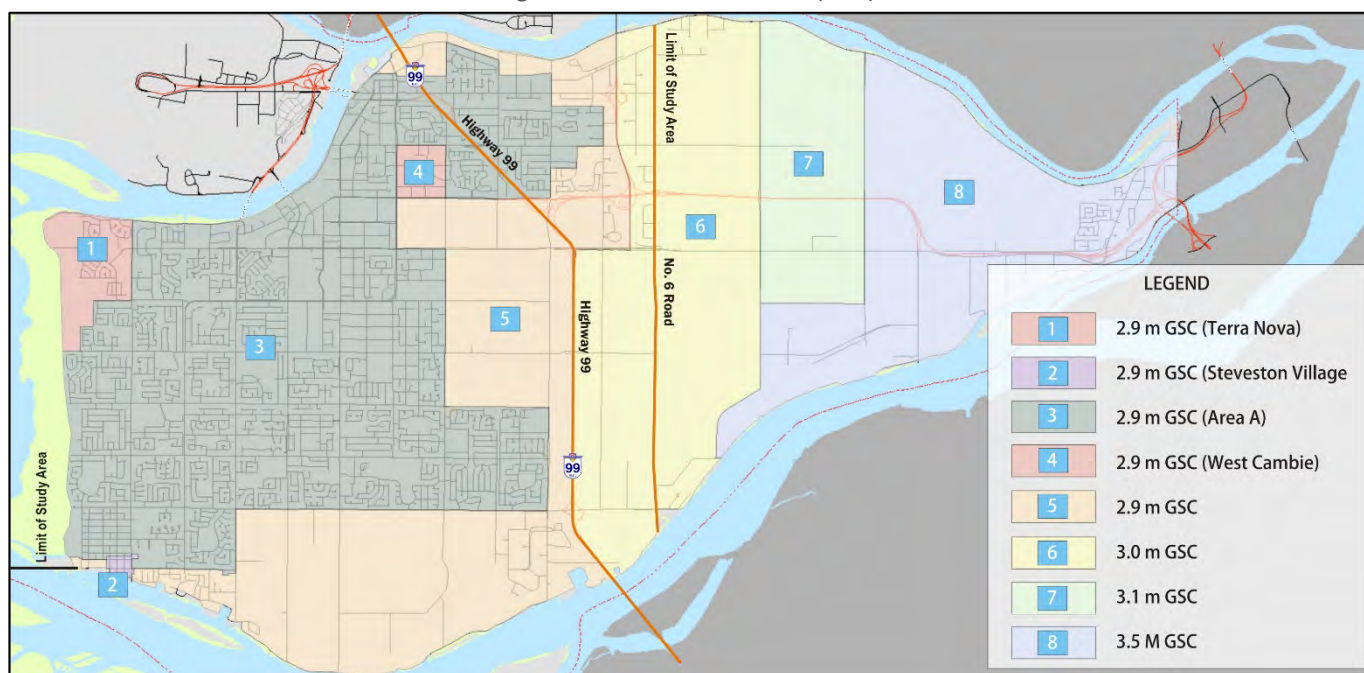
legislation impacts only the construction of new buildings; existing buildings constructed prior to the legislation's implementation are typically not impacted except through building permit applications for renovations or additions.

As noted in **Section 2.5**, the City currently enforces flood proofing through the Flood Plain Designation and Protection Bylaw No. 8204. The Bylaw sets minimum Flood Construction Levels (FCL's) throughout the City. The FCL prescribes the minimum elevation where the underside of a floor system can be constructed. Long term raising of land levels has previously been recommended (2008-2031 Flood Protection Strategy); however, is challenging to implement in already built up areas. The bylaw also specifies setbacks from a dike ROW to make land available for diking.

Application: Flood Construction By-law Amendments

Every part of Lulu Island has a designated FCL, not only the waterfront area. The bylaw organizes FCL's by area, as shown in **Figure 6**. Presently, the majority of the Study Area fronting the existing dikes is within 'Area A' of the bylaw. The requirements for 'Area A' are to construct to 2.9 m or at least 0.3 m above the highest elevation of the crown of any road that is adjacent to the parcel. Commercial and industrial buildings are fully exempt if the main entrance is within 3 m of a road. Developments within the Terra Nova Area are further exempt only requiring the underside of the floor slab to be greater than 2.6 m. There are no exemptions in the north-east portion of the Study Area, where a 2.9 m FCL is required.

Figure 6: Flood Construction Levels (FCL's)



Amendments to Bylaw No. 8204 may be appropriate given the current predictions for sea-level rise. These amendments could include creation of an additional FCL Area adjacent to or within a stipulated distance from the existing dike or waterfront. The area could require an FCL of 4.7 m with exemptions based development size or parcel size. The FCL's would also have to consider overall lot raising and not just habitable space.

Examples of alternate concepts for consideration are provided below:

Single Family Dwellings and Small Lots: The bylaw could be amended to increase the rate at which land is raised concurrently with redevelopment. Presently, this rate is 0.3 m above the road centreline. For smaller lots, this strategy may then present challenges to local grading, producing inconsistent grades across lots and possibly introducing complex drainage patterns. Smaller lots are more likely to be highly constrained by existing grades on neighbouring lots and the road. Where grading is highly constrained, retaining walls may be required to accommodate substantial changes in elevation. Aesthetically, abrupt grade changes are undesirable, especially in neighbourhoods of single family homes. Varied grading between lots can also create issues with differential settlement. Grading designs that are consistent with the surrounding lot fabric and do not use retaining walls are

preferred. The sidewalks and road network must also be carefully graded to maintain minimal slopes and safe connections at intersections. Any FCL increase must be implemented strategically to mitigate the potential grading challenges it may introduce.

Zoning bylaws could potentially be modified to provide additional guidance and requirements for lot coverage, setback, building heights, and others to help plan how the greater staggered lot elevations may integrate with each other. This will be challenging to implement but would increase the rate of increasing the land height in residential areas.

Mid-Size Development Lots or Building Permit Value Criteria: The bylaw could be amended to require raising to 4.7 m or 1 m (or alternate) above the road. Challenges may still exist with incorporating grading to adjacent parcels and roads.

Large Development Lots or Building Permit Value Criteria: The bylaw could be amended to require raising to 4.7 m and upgrading the local road network to accommodate access. This is currently done in practice, however, it is not specifically required under the current bylaw.

Additional studies on implementation of modified FCL bylaws should be conducted prior to proceeding with any changes. Input should be provided from architects, planners, engineers, environmental consultants and key stakeholders to obtain a comprehensive understanding of opportunities and factors to be mitigated while achieving flood protection goals.

Flood risk should be evaluated by the City periodically to determine whether increased risk warrants raising the target dike crest elevation. The bylaw can be amended as required to meet evolving City guidelines as they are adjusted per changes to flood risk conditions. For example, if the design crest elevation is raised from 4.7 m to 5.5 m, the FCL bylaw can be amended to reflect the new minimum elevation. In this way, flood proofing can progress over time as required.

4.1.3 PLANNING AND DEVELOPMENT CONTROLS

Planning and development controls may be implemented by enacting legislation to prohibit or restrict development in a defined hazard zone, such as a floodplain. More flexible policies can also be enacted to include conditional development approvals, where projects may be approved on condition that developers commit to implementing flood protection measures such as raising the abutting dike or raising the land elevation to a superdike.

Application: Site Assembly Size in the City Centre

In the Study Area, there are opportunities to pursue flood protection improvements in conjunction with new development, especially in areas expected to be intensified in the coming years. In Richmond, planning and development controls can be implemented through bylaws or amendments to the OCP.

Increasing the ground elevation of a single waterfront site is restricted by the existing elevations of adjacent lands. Where adjacent sites remain low, a redevelopment site can only be minimally raised without introducing challenges to the local road network and drainage patterns. To avoid complications arising from steep grades or retaining walls, the City can encourage developers to assemble multiple adjacent sites until a specified minimum waterfront frontage can be developed concurrently. This strategy permits increasing the dike crest level fully to the current standard elevation, and eases the transition of the waterfront to a superdike.

4.1.4 BREAKWATERS AND BARRIER ISLANDS

Breakwaters may be constructed to dissipate wave energy before waves reach the shore. This reduces the burden on the flood control structures at the waterfront. In combination with a foreshore structure, flood control structures with lower crest elevations may remain adequate to withstand increased wave run-up associated with increased water depths due to climate change and sea level rise.

With appropriate environmental consideration during design and construction, breakwaters and barrier islands can create intertidal habitat, such as sand flats, mud flats, salt marsh and eelgrass beds. These features can assist with erosion and

wave attenuation. The intertidal habitat can work in combination with a constructed flood control structures like dikes and floodwalls, to mitigate flood risk.

Sea level rise and upland limitations to natural accretion within the Sturgeon Bank WMA could result in increased offshore depths beyond the West Dike, which could simultaneously increase wave heights reaching the West Dike.

Increased water depths off-shore reduce the wave attenuating properties of Sturgeon Bank. The current predictions and assumptions used in the BC Sea Dike Guidelines¹⁰ for the year 2100 suggest wave run-up may account for up to 2.7 m of the future dike crest elevation. The full extent of future crest height increases will require detailed observation and study of observed sea level rise.

Application: The West Dike Foreshore - Sturgeon Bank

The West Dike runs adjacent to Sturgeon Bank WMA comprised of intertidal brackish marsh, sandflats, mudflats, and open water. Maintenance and enhancement of these areas could provide wave dissipation and erosion protection.

The West Dike is a candidate for barrier islands, as presented in the Phase 1 LIDMP. Presently, the features of Sturgeon Bank dissipate wave energy. With future increased water depths on the Sturgeon Bank, wave heights are expected to increase, reducing the wave dissipate benefits of Sturgeon Bank, putting the West Dike at higher future risk of overtopping. Construction of breakwaters or barrier islands, including the maintenance and enhancement of intertidal habitat, is one approach to offset the potential future loss the existing wave dissipation benefits of Sturgeon Banks.

While breakwaters and barrier islands will not address the immediate crest elevation requirements of 4.7 m, construction of barrier islands may allow for future deferrals of crest height increases. A general concept plan showing possible locations for barrier islands is presented in ***Figure 7***.



Photograph: Sturgeon Bank Management Area

¹⁰ Climate Change Adaption Guidelines for Sea Dikes and Coastal Flood Hazard Land Use Draft Policy Discussion Paper, Ausenco Sandwell, Jan 27 2011

Figure 7: Artistic Rendering of Barrier Island Concept for Sturgeon Bank



Breakwaters are most effective when constructed close to the shore, as broken waves grow again behind the breakwater under the influence of wind. The effectiveness depends also on the crest height of the breakwater, with a higher breakwater giving more wave reduction. Preliminary calculations from the Phase 1 LIDMP indicated that wave reduction with a breakwater or barrier islands constructed to +3.0 m geodetic would reduce wave height by 70% if constructed 200 m offshore, 60% at 500 m offshore, and 45% at 2000 m offshore.

Intertidal ecosystems are driven by interdependent components including rates of accretion, stream velocity, salinity, water quality, sea level, temperature, vegetation productivity, adjacent land use etc. that are complex to measure and model. Understanding the complexity of current conditions to better prepare for predictable increases in sea level rise will help direct strategies to maintain and enhance intertidal ecosystems. To this end, the City continues to work on inter-jurisdictional efforts to better understand the influencing factors that affect the Sturgeon Bank WMA, and intertidal habitat throughout the Fraser River Estuary.

4.1.5 SECONDARY DIKES

Secondary dikes work in conjunction with primary dikes to reduce the impact of a flood in the event that a primary dike is breached or overtopped. A secondary dike protects assets behind the secondary dike alignment while the lands between the primary and secondary dikes may flood intermittently. Secondary dikes are appropriate for implementation where the lands between the primary and secondary dike require a different measure of protection than lands behind the secondary dike. Eligible areas may include parking lots, parks or natural areas that can withstand intermittent flooding with minimal damage or losses incurred.

As secondary dikes are built inland, they can be less costly to build and less susceptible to damage during seismic events as compared to adaptations directly on the waterfront. The advantage is that an equivalent measure of protection can be

extended to important inland assets, at a lower cost and lower seismic risk, than raising the primary dike at the waterfront. In the Study Area, secondary dikes are recommended for consideration where no critical assets are located on waterfront lands and there are assets further inland that require protection.

Application: Terra Nova

In future, the City may consider exploring establishing an alternative dike alignment for a part of the Terra Nova area through the park lands, as shown in **Figure 8**.

By setting the alignment inland, the City may avoid costly ground improvement measures that may be required for upgrading the existing alignment on the waterfront. Assets sensitive to flooding, such as private homes and heritage sites, would be protected by the secondary dike. Less sensitive assets, such as the park, trails and open space lands, can withstand occasional flooding with minimal losses incurred and therefore may be adequately protected by a dike with a relatively lower crest elevation.

A proposed breach in the primary dike to connect the Terra Nova Slough to the Fraser River for the purpose of creating a Chum Salmon spawning slough will increase flood risk to the City. A secondary dike will mitigate the risk.

Figure 8: Secondary Dike Alignment through Terra Nova



4.2 AREA SPECIFIC ADAPTATIONS

For the purposes of the master plan, an area specific adaptation is a structural adaptation that can achieve the target 4.7 m crest height, with consideration for a future increase to 5.5 m. This section outlines the preferred area specific adaptation measures for each of the thirteen design areas.

The recommended approaches to area specific adaptations includes: widen footprint to land or water side; raise in place / constrained dike; permanent floodwall; demountable floodwall.

Widen Footprint to Land or Water Side

Dikes are the most common form of structural flood protection. Lulu Island is currently protected by a perimeter ring dike, with floodwalls or alternative protections at some sites. In the Study Area, improvements to the existing dike should be pursued wherever possible.

As per the typical dike sections presented in **Appendix F**, the typical City dike upgrade cross-section consists of a 2:1 slope on the water side, and a 3:1 slope on the land side¹¹. Raising a dike by 1 m then triggers a 5 m horizontal space requirement (assuming the standard slopes are applied). Land side dike expansions can be challenging where the footprint is constrained by existing buildings, infrastructure, drainage ditches, or RMA's at the toe. Where a dike's land side toe is heavily constrained, a standard dike can be raised by widening its footprint onto the water side.

While shoreline habitat within the Fraser River Estuary will generally have a higher habitat value, and expansion into this area should be avoided, this may not always be the case. Implementation of area specific flood protection strategies will have an environmental impact regardless of the strategy put forth for a given area. Environmental assessments and valuation will be undertaken in the design construction phase, where possible habitat impact will be avoided. Where impact cannot be avoided, efforts will be made to mitigate, and if necessary compensate for impact following a net gain approach.

Raise in Place / Constrained Dike

Where dike expansion is constrained on both the land and water sides, it may be possible to raise a dike within its existing footprint, creating a constrained dike. This may be achieved by introducing a retaining wall on one or both sides. In Richmond, RMA's, development and infrastructure may abrupt to the landside of the dike, and intertidal habitat or marine infrastructure may be on the water side of the dike, meaning the dike may have constraints on both sides. In the Study Area, raising the dike in place can be pursued to minimize impacts on adjacent lands.

Permanent Floodwall

A floodwall is a constructed barrier designed to hold back flood waters. In the Study Area, floodwalls can be implemented where space is limited and a dike would interfere with other land uses or infrastructure, such as existing buildings. Floodwalls may also be preferable to a dike where access to the water is required for economic activity, such as fishing or shipping. Generally, where feasible, earth fill trapezoidal dikes are preferable as they generally have lower costs, they are easier to maintenance, they are more reliable and easier to repair in emergency situations.

Demountable Floodwall

In areas where waterfront access is desired, demountable flood barriers can be constructed so that the barrier is erected only when required, during storm events. Regular access to the waterfront is maintained otherwise. This adaptation may be applied in the Study Area at industrial sites or marinas, where activities require amenities directly on the waterfront that cannot be set back behind a floodwall or dike. Where possible, this form of dike is avoided due to their higher costs, mobilization requirements, and reliability concerns.

Parsons assessed each potential dike adaptation strategy based on the considerations outlined in **Section 3**. A summary of the recommendations for each design area is provided in **Table 5**. Key issues and opportunities to be considered when implementing the recommended adaptations are presented for each design area in **Section 4.2.1** through **Section 4.2.13**.

¹¹ Typical Cross Section River Dike Upgrade, City Drawing Mb-98, Golder Associates, 2008

Table 5: Recommended Area Specific Adaptations

FLOOD PROTECTION SEGMENT	RECOMMENDATION
WEST DIKE	
Seafair	Raise the dike on the existing alignment. Additional studies required to quantify drainage impacts of land side expansion, habitat impacts and costs associated with water side or land side expansion, and long term resiliency of a constrained dike solution.
Terra Nova	Raise the dike on the existing alignment. Additional studies required to quantify drainage impacts of land side expansion, habitat impacts and costs associated with water side or land side expansion, and long term resiliency of a constrained dike solution. Alternatively, consider routing a secondary dike inland through Terra Nova Rural Park, in lieu of raising the primary dike at the waterfront.
NORTH DIKE	
Thompson Terra Nova	Raise the dike on the existing alignment with land side expansion. Plan for the long-term raising of River Road.
Thompson Dover	Raise the dike on the existing alignment with land side expansion. Plan to raise River Road.
Oval	Existing area generally redeveloped as a superdike scenario (elevations from 4.0 to 4.5m). Future raisings to 5.5 m can take place on the existing alignments and integrate into the adjacent landscaping.
City Centre 1	Raise a dike with land side expansion. Consider creation of a set-back dike and inland raising (superdike) in conjunction with the future Middle Arm Waterfront Park construction.
City Centre 2	Raise the dike on the existing alignment with land side expansion in conjunction with redevelopment. Ensure any interim dike upgrades are compatible with the long term strategy of constructing superdikes.
Duck Island River Rock	Implement approved development plans. Plan for temporary dike to protect City assets if required to address sea level rise and climate change prior to implementation of the approved strategy at the Duck Island or River Rock Casino sites.
Industrial	Raise the dike on the existing alignment. Site specific solutions may be required at the Fraser River Terminal site. Plan for temporary dike along the alternate alignment if required to address sea level rise and climate change prior to implementation of a strategy at the Fraser River Terminal site.
Bridgeport Tait	Existing area generally redeveloped as a superdike scenario (elevation 4.7m). Future raisings to 5.5 m can take place on the existing alignments and integrate into the adjacent landscaping.
Industrial North East 1	Raise the dike on the existing alignment. Land acquisition may be required to facilitate construction of a trapezoidal dike (through redevelopment or otherwise). Implementation of a temporary floodwall adjacent to the waterfront lots may be required in advance of a permanent adaptation to address sea level rise and climate change. Consider Bath Slough Revitalization Initiative for future designs.
Industrial North East 2	Raise the dike on the existing alignment. Additional studies required to quantify drainage, habitat impacts, and costs associated with land side expansion of a trapezoidal dike. A constrained land side slope may be required to integrate with the existing drainage infrastructure. Consider Bath Slough Revitalization Initiative for future designs.
Industrial North East 3	Raise the dike on the existing alignment. Additional studies required to quantify drainage, habitat impacts, and costs associated with land side expansion of a trapezoidal dike. A constrained land side slope may be required to integrate with the existing drainage infrastructure.

4.2.1 SEAFAIR

The Seafair design area consists of established residential neighbourhoods of single family homes and townhouse complexes. On the foreshore, lands are undeveloped as is the case for the entirety of Sturgeon Bank. The Quilchena Golf & Country Club makes up the northern third of the plan; it sits entirely on Agricultural Land Reserve (ALR) lands. No major changes to the Seafair waterfront are identified in the OCP.

The preferred adaptation is to raise the dike on its existing alignment. Expansions to either side are constrained by environmental and infrastructure factors. These should be evaluated at the time an adaptation project is proposed to inform a detailed design that will best balance the considerations outlined in *Section 3*.

Barrier islands may be considered to reduce wave run-up and mitigate the need for future dike crest increases, as discussed in *Section 4.1.4*.

If ditches at the toe of the dike are to be filled, the associated loss of stormwater storage and conveyance may need to be compensated with underground pipes or alternative systems. Ditches may be designated as RMA's. Associated restrictions to alterations should be investigated when dike adaptations proceed to design and construction. Revised drainage plans must be compatible with local pump stations.

The Williams Road pump station was upgraded in 2013. The dike crest in the vicinity of the pump station is higher than adjacent lands. The pump station is not anticipated to pose special requirements for raising the dike on adjacent lands, however raising the dike crest over the pump station may increase the loading on this infrastructure. Dike adaptation projects that include raising the dike crest over the pump station should consider the pump station's structural and operational needs, including access.



LOCATION:

Williams Road to Granville Avenue

RECOMMENDATION:

Raise the dike on the existing alignment. Additional studies required to quantify drainage impacts of land side expansion, habitat impacts and costs associated with water side or land side expansion, and long term resiliency of a constrained dike solution.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- West Dike
- Traditional Neighbourhood

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded

RMA Presence

- 5m RMA Presence

PHOTOGRAPH:

West Dike, facing north at Williams Road Pump Station

4.2.2 TERRA NOVA

The Terra Nova area is primarily recreational and agricultural including small, low density areas of single family homes. Recreational and natural areas include the Quilchena Golf & Country Club and Terra Nova Rural Park. The park has extensive natural areas with trails and observation decks at the slough and wetland areas. A large children's play structure, the Adventure Play Environment, opened in 2014 at the northwest corner of the park. No major changes to the waterfront or parklands are identified in the OCP for this design area. The entire park is identified as conservation lands within the OCP.

The open space provides a unique setting within the Study Area to consider both waterfront adaptations at the existing primary dike, or a secondary dike alignment through the park. For more information on the secondary dike option, refer to **Section 4.1.5**. Barrier islands may be considered for implementation on Sturgeon Bank to reduce wave run-up and avoid the need for future dike crest increases, as discussed in **Section 4.1.4**. Opportunities to create intertidal habitat areas in the park may be pursued when dike adaptations proceed.

The historic Terra Nova Cannery site is present on the north side of the park, in front of the private homes on River Road within the park. There are no visible remains of the cannery, except the shoreline recedes inwards around the former cannery's boundaries. Heritage status and associated restrictions to local alterations should be investigated when dike upgrades at the waterfront are proposed. Sheet pile may need to be considered for the segment adjacent to the Cannery site to minimize impacts.



LOCATION:

Granville Avenue to Terra Nova Rural Park

RECOMMENDATION:

Raise the dike on the existing alignment. Additional studies required to quantify drainage impacts of land side expansion, habitat impacts and costs associated with water side or land side expansion, and long term resiliency of a constrained dike solution.

Alternatively, consider routing a secondary dike inland through Terra Nova Rural Park, in lieu of raising the primary dike at the waterfront.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- West Dike

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded

RMA Presence

- 5 m & 15m RMA Presence

PHOTOGRAPH:

West Dike, facing north at Terra Nova Rural Park

4.2.3 THOMPSON TERRA NOVA

The Thompson Terra Nova design area is residential, with recreational uses between River Road and the waterfront in the form of the dike trail and surrounding open space. The residential areas consist primarily of single family homes. No major changes to the Thompson Terra Nova design area are identified in the OCP.

The existing dike is situated between the Middle Arm of the Fraser River and River Road. Future expansions in some areas will be challenging due to the lack of space. Raising River Road will help with future dike crest elevation increases; however, will be challenging to implement.

Single family homes have driveway access from River Road throughout the design area. Individual lots are anticipated to be incrementally raised as they are redeveloped, however, this will take numerous decades to occur.



LOCATION:

Terra Nova Rural Park to
McCallan Road

RECOMMENDATION:

Raise the dike on the existing alignment with land side expansion. Plan for the long-term raising of River Road.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- Traditional Neighbourhood

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded

RMA Presence

- None

PHOTOGRAPH:

North Dike, facing east near
Terra Nova Rural Park
entrance

4.2.4 THOMPSON DOVER

The Thompson Dover design area includes a City works yard and recycling facility, as well as mid-rise multi-family residential complexes. Recreational uses exist between River Road and the waterfront in the form of the dike trail and surrounding open space. Within the Thompson Dover design area, only the City works yard has driveway access to River Road. No major changes to the Thompson Dover design area are identified in the OCP. It is anticipated that the City works yard will be redeveloped to residential uses consistent with the surrounding neighbourhood at some point in the future.

It would be advantageous to raise River Road and assist in future land and dike crest increases in the long term. The multi-family residential lands were raised much higher than River Road when these sites were developed. Raising River Road at this location would not have the same access challenges as the Thompson Terra Nova area as there is no driveway access and the buildings are already on high land. River Road may be raised to the dike crest elevation on this section at any time. It would be advantageous to do a longer segment of River Road together, thus raising the road here should proceed concurrently with raising River Road in the Thompson Terra Nova design area to the west. Raising River Road along the City works yard may be considered concurrently with redevelopment of the site in the event that this site is redeveloped.

Issues and opportunities with raising River Road are further discussed in *Section 4.3.2*.



LOCATION:

McCallan Road to No. 2 Road Bridge

RECOMMENDATION:

Raise the dike on the existing alignment with land side expansion. Plan for the long-term raising of River Road.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded

RMA Presence

- None

PHOTOGRAPH:

North Dike, facing east at Lynas Lane

4.2.5 OVAL

Within the Oval design area, the River Road alignment has been relocated south of development to the former rail corridor. The dike trail is part of a wide landscaped area abutting high rise condos. Redevelopment of the Oval design area began in advance of the 2010 Vancouver Winter Olympics, for which the Richmond Olympic Oval skating and fitness centre was built. The adjacent sites have since been redeveloped as well. The majority of these lands were filled to the dike crest elevation when the dike was raised in conjunction with site redevelopment. This design area is considered complete for the time being as the dike crest elevations vary from 4.0 m to 4.5 m, which is within range of the current 4.7 m target dike crest elevation.

There is one existing building directly west of the Dinsmore Bridge, forming the one remaining section of this design area to be raised. As this building has been set back from the waterfront, there is land available to raise the dike by widening the footprint to the land side at this site. This option may be pursued when this segment of River Road is decommissioned and relocated to the former rail corridor inland.



LOCATION:

No. 2 Road Bridge to
Dinsmore Bridge

RECOMMENDATION:

Existing area generally redeveloped as a superdike scenario (elevations from 4.0 to 4.5m). Future raisings to 5.5m can take place on the existing alignments and integrate into the adjacent landscaping.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded

RMA Presence

- 5 m & 15 m RMA Presence

PHOTOGRAPH:

North Dike, facing east at the
Richmond Oval

4.2.6 CITY CENTRE 1

The City Centre 1 design area is presently long-established office industrial sites with sizeable parking lots. All sites have access from River Road, which runs along the waterfront in this design area. Marinas exist along the waterfront. The existing Middle Arm Waterfront Park is a linear park along the waterfront constructed concurrently with the Olympic Oval in 2009. The park's amenities include the dike trail, playgrounds, and piers. Outdoor seating and stages for public events have been inset on the water side dike face. The OCP identifies major changes, including commercial intensification and creation of a large park.

A new park, Middle Arm Park, is proposed in the OCP adjacent to the existing Middle Arm Waterfront Park, as shown on the City Centre Area Plan presented in **Appendix A**. The existing River Road is planned to be realigned to the former rail corridor, and all lands between the rail corridor (the future River Road) and the waterfront are proposed to become the parklands forming Middle Arm Park. A concept sketch¹² is presented in **Figure 9**.

Plans for the new park have not yet been formalized; however, based on consultation with City staff, there is support for establishing the future dike alignment inland to improve public connectivity with the waterfront, and facilitate creation of intertidal habitat within the park. A set-back dike combined with inland raising to create a superdike would provide the most resilient solution for this area. Dike plans should be prepared concurrently with plans for the proposed park.

In the event that the City wishes to fortify the existing dike in advance of the development of Middle Arm Park, the City may consider raising a temporary flood protection adaptation in the interim until the proposed park's plans are finalized and implemented.

LOCATION:

Dinsmore Bridge to Cambie Road

RECOMMENDATION:

Raise dike with land side expansion. Consider creation of a set-back dike and inland raising (superdike) in conjunction with the future Middle Arm Waterfront Park construction.



Figure 9: 2006 Concept Plan for the Proposed Middle Arm Park



ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Yellow-coded
- Green-coded

RMA Presence

- None

PHOTOGRAPH:

North Dike at Gilbert Road, facing east

¹² Middle Arm Open Space Master Plan Concept, PFS Studio, December 2006

4.2.7 CITY CENTRE 2

Marinas are present throughout the City Centre 2 design area. The dike trail ends approximately 200 m north of Cambie Road, where the dike becomes marina parking lots. The proposed Middle Arm Park ends where the dike trail becomes parking lots. These parking lots are directly adjacent to the trafficable road; there is no shoulder between the road and the parking lots. Parking lots are raised from River Road with either steep slopes or retaining walls. This section of River Road will ultimately be realigned to the former rail corridor. Lands are planned to be redeveloped into high density commercial and mixed use buildings. Redevelopment of this area has begun.

While the optimal time to implement flood protection adaptations is concurrently with redevelopment of adjacent sites, the parcels of land in this area have narrow frontages, and smaller lot depths. This lot geometry can create challenges in implementing flood protection upgrades alongside redevelopment. These issues can be addressed through site assemblies, as detailed above in **Section 4.1.3**. The approach to flood protection in this area should generally mimic the recent improvements in the Oval area, with redevelopment raising the waterfront and the development site to establish a superdike.

The adaptations along this design area may include sites with floodwalls in order to maintain access and usage of the existing marinas. Any interim dike upgrades planned in this area should be designed with consideration for future adaptations to establish a superdike, the long-term goal in this area.



LOCATION:

Cambie Road to Moray Bridge

RECOMMENDATION:

Raise the dike on the existing alignment with land side expansion in conjunction with redevelopment. Ensure any interim dike upgrades are compatible with the long term strategy of constructing superdikes.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Yellow-coded
- Green-coded

RMA Presence

- None

PHOTOGRAPH

Float homes off North Dike at Capstan Way

4.2.8 DUCK ISLAND

The Duck Island design area consists of former industrial lands, substantial parking lots and the River Rock Casino, which includes a marina and a wetland. The River Road alignment is inland from Duck Island. The former industrial area, now vacant, hosts the Richmond Night Market in the summer. The landowners of this area are currently seeking development approval to develop the site for commercial uses, consistent with the land uses identified in the OCP.

The existing waterfront lands in the Duck Island design area are entirely privately-owned. The landowners are currently developing private flood protection plans, to be reviewed and approved by the City. The plans are expected to be implemented in the near future, upon approval by the City.

In the event that a suitable strategy is not developed for the private waterfront lands in this area, or if an interim adaptation measure is required, there are inland alternative alignments available to the City to maintain protection for Lulu Island. The alternate alignment would follow River Road or the CN Rail Corridor through this design area. This approach is not preferred; however, details on the alignment and approach are outlined in TM#2 (*Attachment 2*).



LOCATION:

Moray Bridge to Oak Street

RECOMMENDATION:

As per approved development plans. Plan for temporary dike to protect City assets if required to address sea level rise and climate change prior to implementation of the approved strategy at the Duck Island or River Rock Casino sites.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded
- Yellow-coded
- Green-coded

RMA Presence

- None

PHOTOGRAPH:

Marina at River Rock Casino

4.2.9 INDUSTRIAL

The Industrial design area includes industrial areas and parking lots. The Fraser River Terminal and a BC Hydro power station are located here. River Drive is aligned south of these sites, set back from the waterfront. These lands are anticipated to be industrial uses for the foreseeable future, as noted in the OCP.

The North Arm Bridge carrying the Canada Line and a bikeway was constructed in this design area in 2009 with ample clearance for dike works beneath the bridge deck. At the detailed design stage, dike works would need to be verified for confirmation that the footings can withstand additional loading without risk of settling, or any other risks that may compromise the bridge structure.

Adaptations in this area are constrained by existing waterfront development and uses. This industrial area includes the Fraser River Terminal - a shipping port and ship repair centre – as well as the BC Hydro Kidd #2 Substation. This area is anticipated to be industrial for the foreseeable future. Because waterfront lands are constrained by private industrial uses, the City may consider pursuing a temporary adaptation in the interim until the industrial sites are redeveloped. A temporary structure along the River Drive alignment may be considered. This approach is not preferred; however, details on the alignment and approach are outlined in TM#2 (*Attachment 2*).



LOCATION:

Oak Street Bridge to No. 4 Road

RECOMMENDATION:

Raise the dike on the existing alignment. Site specific solutions may be required at the Fraser River Terminal site. Plan for temporary dike along the alternate alignment if required to address sea level rise and climate change prior to implementation of a strategy at the Fraser River Terminal site.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded
- Green-coded

RMA Presence

- None

PHOTOGRAPH:

North Dike, west of Fraser River Terminal

4.2.10 BRIDGEPORT TAIT

The Bridgeport Tait design area was formerly entirely industrial. An auto repair facility remains at its eastern edge. The remainder of these lands were recently developed to high-rise multi-family residential, with ongoing development of associated residential and commercial uses.

During site development, the dike crest elevation was raised to 4.7 m and the development lands were filled to a superdike condition. This area is considered complete for the time being. A wide landscaped area exists between the waterfront and the buildings, providing a trail through the neighbourhood at the waterfront. Future dike crest height increases can be accommodated in this area, and integrated with the local landscaping and waterfront trail.



LOCATION:

No. 4 Road to Shell Road

RECOMMENDATION:

Existing area generally redeveloped as a superdike scenario (elevation 4.7m). Future raisings to 5.5 m can take place on the existing alignments and integrate into the adjacent landscaping.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- City Centre

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded
- Yellow-coded

RMA Presence

- None

PHOTOGRAPH:

North Dike, facing west at the Park Riviera Development

4.2.11 INDUSTRIAL NORTH EAST 1

The Industrial NE 1 design area is entirely industrial, and no major changes are outlined in the OCP. Limited space is available in this design area as River Road is either directly on the waterfront or confined by developed lots. Where River Road is adjacent to the waterfront, it will need to be raised concurrently with dike works to meet the target dike crest elevation with a standard trapezoidal cross-section. This may impact driveway access to the lots south of River Road. An interim constrained land side dike toe may be required to mitigate impacts to adjacent lots in the interim until redevelopment and land raising occurs.

A number of small businesses operate on a narrow strip of land between River Road and the waterfront. These lands, approximately 2 ha, are privately owned. The City may consider acquiring these lands to implement diking in this area. The acquisition of approximately 2 ha of private lands north of Simpson Road may add significant costs to diking in this area.

A floodwall may be considered for this section of the design area as an interim solution in advance of the City implementing a permanent trapezoidal dike adaptation. Any interim solutions will require cooperation with the existing landowners. Outside this section, there are lands available from the River Road ROW to the shore to raise the existing dike. At the detailed design stage, if lands are too highly constrained to expand the dike footprint, the City may also consider acquiring additional lands from the parking lots on the south side of River Road.

The Industrial North East 1 LIDMP Study Area is bounded by Bath Slough. Through the Bath Slough Revitalization Initiative, adopted in 2014, the City has conducted a number of innovative ecological initiatives along Bath Slough including water quality improvements, riparian enhancement and native pollinator pasture initiatives. The Bath Slough Revitalization Initiative should be considered in the design and construction phase of diking in this area.



LOCATION:

Shell Road to Bath Slough

RECOMMENDATION:

Raise the dike on the existing alignment. Land acquisition may be required to facilitate construction of a trapezoidal dike (through redevelopment or otherwise). Implementation of a temporary floodwall adjacent to the waterfront lots may be required in advance of a permanent adaptation to address sea level rise and climate change. Consider Bath Slough Revitalization Initiative for future designs.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- Industrial

ESA Habitat Type

- Intertidal
- Shoreline
- Freshwater Wetland

FREMP Data

- Yellow-coded
- Green-coded

RMA Presence

- 15m RMA Presence

PHOTOGRAPH:

North Dike, facing west at No. 5 Road

4.2.12 INDUSTRIAL NORTH EAST 2

The Industrial NE 2 design area is entirely industrial. River Road abuts the waterfront. Port Metro Vancouver owns a vacant lot west of the Knight Street Bridge. There are large ditches along the south side of River Road. No major changes to this area are presented in the OCP.

River Road is currently the dike in this design area. There are insufficient lands available north of the road to raise the dike, although the elevation of the entire River Road may be raised. No businesses within this area access the waterfront directly from their lots, therefore maintaining waterfront access for these businesses is not required. Existing drainage on the land side may need to be modified as large ditches are present along River Road.

Public access to the waterfront may be improved by the addition of a trail adjacent to the raised River Road, in compliance with the City's long term vision of a connected trail system at the waterfront of the entire island.

The Industrial North East 2 LIDMP Study Area is bounded by the Bath Slough. Through the Bath Slough Revitalization Initiative, adopted in 2014 the City has conducted a number of innovative ecological initiatives along Bath Slough including water quality improvements; riparian enhancement and native pollinator pasture initiatives. The Bath Slough Revitalization Initiative should be considered in the design construction phase of dike upgrades in this area.



LOCATION:

Bath Slough to Knight Street Bridge

RECOMMENDATION:

Raise the dike on the existing alignment. Additional studies required to quantify drainage, habitat impacts, and costs associated with land side expansion of a trapezoidal dike. A constrained land side slope may be required to integrate with the existing drainage infrastructure. Consider Bath Slough Revitalization Initiative for future designs.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- Industrial

ESA Habitat Type

- Intertidal
- Shoreline
- Freshwater Wetland

FREMP Data

- Red-coded
- Yellow-coded
- Green-coded

RMA Presence

- 15m RMA Presence

PHOTOGRAPH:

North Dike, facing east at Bath Slough Pump Station

4.2.13 INDUSTRIAL NORTH EAST 3

The Industrial NE 3 design area is entirely industrial. River Road abuts the waterfront and provides access to substantial parking lots for associated industrial sites and businesses. There are large ditches along the south side of River Road. No major changes to this area are presented in the OCP.

River Road is currently the dike in this design area. Large natural areas along the waterfront host mature trees, primarily on the north side of the dike. There is also smaller, less established vegetation along the south side of River Road. It is anticipated that the entire road must be raised to implement dike crest increases.

A lumber yard occupies a substantial part of this design area. The City has a ROW through the site over the River Road alignment, however access is blocked off with gates at either end of the lumber yard site. The waterfront trail is also currently blocked off through this area. If ever this site is redeveloped, dike adaptations may be pursued concurrently. However, no major changes to this industrial area are anticipated in the near future.



LOCATION:

Knight Street Bridge to No. 6 Road

RECOMMENDATION:

Raise the dike on the existing alignment. Additional studies required to quantify drainage, habitat impacts, and costs associated with land side expansion of a trapezoidal dike. A constrained land side slope may be required to integrate with the existing drainage infrastructure.

ENVIRONMENTAL CONSIDERATIONS:

ENMS Strategy Area

- Fraser River
- Industrial

ESA Habitat Type

- Intertidal
- Shoreline

FREMP Data

- Red-coded
- Green-coded

RMA Presence

- 15m RMA Presence

PHOTOGRAPH:

Conveyor belt over North Dike at No. 6 Road.

4.3 SITE SPECIFIC ADAPTATIONS

Where existing infrastructure conflicts with the recommended flood protection adaptation, a custom design for that site may be required, or the existing infrastructure may be retrofitted to accommodate diking. Infrastructure including but not limited to pump stations, road or railways, bridges or industrial infrastructure may present site-specific constraints that preclude the implementation of the recommended adaptation for the rest of that design area.

Ideally, dike adaptations are pursued when the adjacent lands are redeveloped. Flood protection measures can then be included in the scope of the proposed works. However, existing infrastructure may be suitable for a design life extending far into the future, farther than the City wishes to defer dike adaptations. In these cases, interim adaptations may be pursued.

Site-specific adaptation designs, whether permanent or temporary, should take into account all the considerations listed in *Section 3*.

4.3.1 BRIDGES

Bridges have unique constraints within a design area. The recommended adaptation for a design area may not be feasible at a bridge site, in which case a site-specific adaptation may be designed to be integrated with the standard adaptation on either side of the bridge.

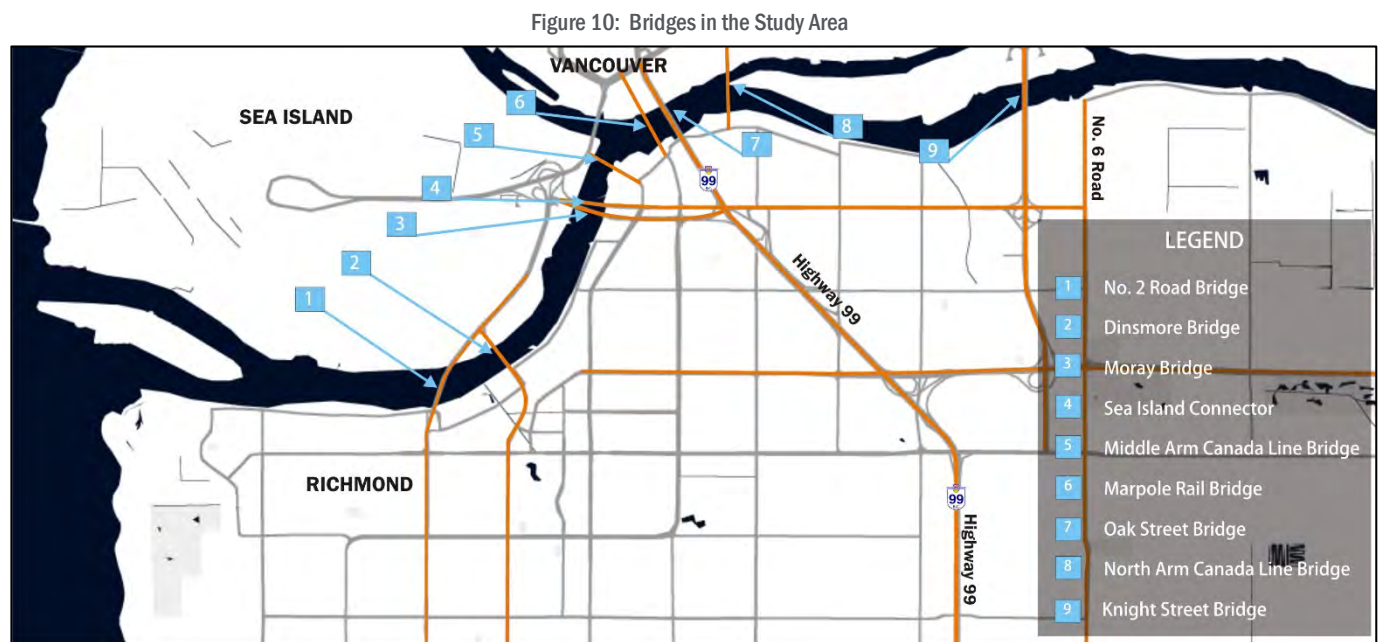
A list of bridges and the particular constraints that may guide a site-specific adaptation is presented in *Table 6* below. Note that the recommended adaptation strategies in the table are recommended based on adaptations proceeding in advance of any bridge upgrades or replacement. If any bridges are to be upgraded or replaced, flood protection measures at the bridge site should be included within the scope of work.

Table 6: Bridge Constraints and Recommended Adaptations

BRIDGE NAME (OWNERSHIP, BRIDGE TYPE)		
AREA	CONSTRAINTS AND CONDITIONS	RECOMMENDED ADAPTATION STRATEGY
1) NO. 2 ROAD BRIDGE (CITY OF RICHMOND, ROAD)		
Oval	<ul style="list-style-type: none"> Bridge deck is low. Footings are under the existing dike. Bridge crosses over River Road. Bridge crosses over dike trail. Bike ramp to bridge from dike trail sensitive to grade changes. 	Tied to abutments
2) DINSMORE BRIDGE (CITY OF RICHMOND, ROAD)		
Oval	<ul style="list-style-type: none"> Bridge deck is low. Footings are under the existing dike. Bridge crosses over River Road with 4.3m clearance. Bridge crosses over dike trail. 	Tied to abutments
3) MORAY BRIDGE (CITY OF RICHMOND, ROAD)		
City Centre 1	<ul style="list-style-type: none"> Bridge deck is very low. Existing dike is inland, not under the bridge. Bridge does not cross any road or trail. No waterfront trail currently exists under the bridge. Existing dike is aligned over the bridge. 	Tied to abutments
4) SEA ISLAND CONNECTOR (CITY OF RICHMOND, ROAD)		
City Centre 1	<ul style="list-style-type: none"> Bridge deck is very low. Existing dike is inland, not under a bridge. Bridge does not cross any road or trail. No waterfront trail currently exists under the bridge. Existing dike is aligned over the bridge. 	Tied to abutments

BRIDGE NAME (OWNERSHIP, BRIDGE TYPE)		
AREA	CONSTRAINTS AND CONDITIONS	RECOMMENDED ADAPTATION STRATEGY
5) MIDDLE ARM CANADA LINE BRIDGE (TRANSLINK, RAIL)		
Duck Island	<ul style="list-style-type: none"> None 	Under span
6) MARPOLE RAIL BRIDGE (CP RAIL, RAIL)		
Duck Island	<ul style="list-style-type: none"> Bridge deck is low. Timber trestle bridge; minimal space between footings. Not currently operational. Repairs required to return bridge to operational conditions. CP Rail's intentions for future use are unknown. 	Tied to abutments
7) OAK STREET BRIDGE (BC MINISTRY OF TRANSPORTATION, ROAD)		
Duck Island	<ul style="list-style-type: none"> None 	Under span
8) NORTH ARM CANADA LINE BRIDGE (TRANSLINK, RAIL)		
Industrial	<ul style="list-style-type: none"> None 	Under span
9) KNIGHT STREET BRIDGE (TRANSLINK, ROAD)		
Industrial NE2	<ul style="list-style-type: none"> None 	Under span
10) PROPOSED BURKEVILLE PEDESTRIAN BRIDGE (CITY OF RICHMOND, PEDESTRIAN)		
City Centre 1	<ul style="list-style-type: none"> Proposed bridge design has not yet been prepared. Diking to be incorporated when design proceeds. 	N/A

The locations of all bridges listed in *Table 6* are shown in *Figure 10*.



4.3.2 RAISE RIVER ROAD

In the Thompson Terra Nova and Thompson Dover areas, River Road is immediately adjacent to the existing dyke; however, is constructed at a lower elevation to match the existing developed area. It is anticipated that land-side expansion of the existing dike will encroach on River Road. As such, the City should consider raising the grade of River Road from Cornwall Drive to No. 2 Road. The area identified for this strategy is show in *Figure 11*.

Figure 11: Raising River Road in the Thompson Neighbourhood



The benefits to long-term flood protection associated with raising River Road include:

- Improves dike stability and seepage performance;
- Reduce requirement for water-side expansion and impacts to environmental habitat;
- Promotes the long-term increase in site grades for redevelopment of the Thompson Residential Area; and,
- Facilitates future dike crest increases or overbuilding of the existing dike height to accommodate settlement during a seismic event.

Challenges to raising River Road will include:

- Maintaining driveway access and for the single family residential developments;
- Tying the raised River Road into adjacent streets;
- Addressing settlement concerns with underground utilities;
- Planning to cost-effectively stage incrementally raising of River Road; and,
- Addressing potential impacts to RMA's and ESA's.

Raising River Road is then a very long-term strategy to assist with achieving higher waterfront land elevations, and minimize future waterside works to achieve higher crest elevations.

5 Timing of Adaptation Projects

Implementation of adaptations is best pursued alongside adjacent works. For example, when adjacent lands are being developed, dike adaptations can be included in the scope of site redevelopment. If there are substantial works to an area that are upcoming, the City may choose to implement an interim adaptation until those adjoining works proceed.

5.1 REDEVELOPMENT OF SMALL LOTS

Small lots with narrow frontages are highly constrained by grading. There must be adequate lands available to raise a dike immediately to the target crest elevation. In areas where lot sizes are too small to implement adaptations that may immediately achieve the dike crest elevation, lands can be incrementally raised by raising the lots in small intervals each time it is redeveloped. Similarly, the frontage road can be raised by a practical interval whenever substantial road rehabilitation works proceed. This is a very long-term strategy.

The ground elevation of individual lots may be raised as they are redeveloped, however the grading will be constrained by matching neighbouring ground elevations, as well maintaining driveway access to the road. If the road is also raised, then individual lots can be raised higher, however existing lots at relatively low elevations must still have driveway access to the road. This limits the overall height that the frontage road can be raised. Over time, the frontage road and adjoining lots are raised at different times. In this way, the road and surrounding lots are raised in steps. In the very long term, the overall land elevation can be raised to the target dike crest elevation using this strategy. The City may pursue interim adaptations if a greater level of flood protection is deemed to be required before the lands can be raised to the specified elevation.

Where flood protection will be integrated with redevelopment, lot consolidation is preferred to minimize impacts associated with tying in to neighbouring properties.

5.2 LAND ACQUISITIONS & LEGAL ACCESS

The City may need to acquire property where development is immediately adjacent to the waterfront, and bound on the land side by roads, buildings or other assets. Obtaining a sufficient ROW from some properties for diking may effectively sterilize the lot, leaving insufficient space available for development. In those instances, the City may need to acquire the entire property in order to implement dike adaptations. The riverfront lots between Shell Road and No. 5 Road may be candidates for acquisition when dike upgrades proceed in that area, depending on land requirements to implement dike upgrades.

The City should acquire easements where dikes are being constructed on private property. All adaptations on private lands depend on the City being able to secure legal access to the property in order to maintain them.

5.3 RAISING THE TARGET DIKE CREST ELEVATION

The City should monitor sea level rise to pursue flood protection adaptations when higher dike crest elevations become necessary. Presently, all adaptations will be designed to meet the 4.7 m target crest elevation, with consideration for an increase to 5.5 m. Depending on whether sea level rise predictions materialize, the City may wish to raise the target dike crest elevation.

5.4 INTERIM ADAPTATIONS

Temporary adaptations, such as a demountable floodwall, may be necessary where existing conditions are constrained by existing infrastructure (such as bridges, roads, ditches, or buildings) that cannot be impacted or modified to make way for diking. Temporary adaptations may also be pursued in instances where the City cannot yet secure adequate lands or capital to implement the ultimate adaptation.

The timeline until the ultimate adaptation can be implemented should be considered when allocating resources to temporary works. For example, if the interim adaptation will only be in place for a period of a few months, it is likely not worth investing substantial resources into it. Interim adaptations may be considered if necessitated by sea level rise or any other increase in flood risk.

Compatibility with the ultimate adaptation should be considered in the design of any interim adaptation. An interim adaptation should be easily decommissioned, or able to remain in place indefinitely without interfering with the ultimate

adaptation or any other land use. The ultimate adaptations are anticipated to be implemented alongside concurrent waterfront works, as noted in *Table 7*.

Table 7: Triggers to Implementation of Adaptations

AREA	EXISTING	SUMMARY OF RECOMMENDED ADAPTATION	TRIGGER TO IMPLEMENTATION OF RECOMMENDED ADAPTATION
Steveston	Earthfill Dike	Raise Dike on Existing Alignment & Consider Construction of Barrier Islands	City Initiative
Seafair	Earthfill Dike	Raise Dike on Existing Alignment & Consider Construction of Barrier Islands	City Initiative
Terra Nova	Earthfill Dike	Raise Dike on Existing Alignment & Consider Construction of Barrier Islands	City Initiative
Thompson Terra Nova	Earthfill Dike	Raise Dike on Existing Alignment & Plan for Long-term Raising of River Road	River Road is Reconstructed
Thompson Dover	Earthfill Dike	Raise Dike on Existing Alignment & Plan for Long-term Raising of River Road	River Road is Reconstructed
Oval	Superdike	Complete	N/A
City Centre 1	Earthfill Dike	Raise Dike at Waterfront or Set Back & Fill Adjoining Lots to Superdikes	Development of Middle Arm Park
City Centre 2	Earthfill Dike	Raise Dike on Existing Alignment & Fill Adjoining Lots to Superdikes	Redevelopment
Duck Island	Varies	Implement Recommendations of Approved Developer's Plan	Approval of Developer's Plan
Industrial	Varies	Raise Dike on Existing Alignment	Redevelopment of Fraser River Terminal
Bridgeport Tait	Superdike	Complete	N/A
Industrial North East 1	Earthfill Dike	Raise Dike on Existing Alignment	Assembly of Sufficient Lands to Implement Dike Upgrades
Industrial North East 2	Earthfill Dike	Raise Dike on Existing Alignment	Rehabilitation of River Road or Redevelopment of Industrial Sites
Industrial North East 3	Earthfill Dike	Raise Dike on Existing Alignment	Rehabilitation of River Road or Redevelopment of Industrial Sites

6 Implementation Opportunities

Dike upgrades are best undertaken alongside alterations to adjacent lands and infrastructure. In addition to the examples of concurrent infrastructure development noted in the sections above, dike adaptations may present opportunities to implement projects strategically to accomplish other City goals.

6.1 WATERFRONT TRAIL SYSTEM

The City's Parks Planning and Design (Parks) department has identified a goal to improve public access to the waterfront. Recreational trails and linear parks should be considered wherever dikes are modified. Even where waterfront trails are

already present, there may be an opportunity to increase waterfront access by improving trails with ramps or paved surfaces. Dike trails should remain accessible to people using mobility aids, such as wheelchairs or strollers.

The Parks department's preference is to have a trail directly adjacent to the water, without any rerouting inland, even if this means trails are sometimes flooded.

6.2 INTERTIDAL ZONES

Dike adaptations that proceed alongside the development of waterfront parks may be suited to the concurrent development of intertidal zones, to create additional habitat. The local ecosystem's productivity may be increased by providing a rich riparian environment. These intertidal zones may be integrated with the typical foreshore rip rap or other erosion protection by inseting habitat at lower elevations to be closer to the daily water level, and flooded during high water events. Projects incorporating the development of intertidal habitat may be designated as compensation sites for alterations required in environmentally sensitive areas.

6.3 HABITAT BANKING

As the Study Area lies within intertidal, shoreline and upland riparian habitat, environmental impact may be unavoidable. Environmental assessments and valuation will be undertaken in the design construction phase, where possible habitat impact will be avoided. Where impact cannot be avoided, efforts will be made to mitigate, and if necessary compensate for impact following a net gain approach. To achieve a net gain approach to compensation the City may consider establishing a formal habitat banking program. Habitat banking guidelines should articulate appropriate compensation ratios by habitat type, monitoring periods and success measures for created or enhanced habitat. Additionally a hierarchy of compensation options may be considered that replaces habitat types in order of priority as follows:

- Create or increase productive capacity of like for like habitat within the same ecological unit;
- Create or increase the productive capacity of unlike habitat in the same ecological unit; and
- Create or increase the projective capacity of habitat in a different ecological unit.

Habitat credits could be applied to multiple projects, or stored for future dike works. A formal habitat banking program may assist with the implementation of long term flood protection infrastructure upgrade programs.

7 Recommendations

Key recommendations for the Phase 2 LIDMP Study Area are outlined as follows:

1. Plan to raise the existing dike on its existing alignment.

The existing dike alignment along the waterfront is established and well defined. There is limited basis to support any major changes to the alignment of the existing dike, thus the recommendations are generally in keeping with traditional dike crest increases, with consideration for area specific constraints and opportunities.

2. Prepare conceptual level designs for the West Dike upgrades and conduct drainage and environmental studies on the alternatives.

Future crest height increases to the West Dike will required landside or waterside expansion. Both will have impacts to either intertidal, or upland riparian habitat. Environmental impacts should be quantified, and an approach of avoid, mitigate, and compensate following a net gain approach should be used to in evaluating the preferred strategy.

Landside expansion will impact drainage infrastructure. Impacts should be quantified to identify potential internal drainage network upgrades required if landside expansion is the preferred alignment.

3. Continue to monitor sea level rise.

Design crest height elevations are selected with consideration for climate change and sea level rise predictions. The City should continue to monitor sea level rise and adjust crest height targets and City flood protection police as required to address any changes in predicitions.

4. Plan to establish a habitat banking program for dike improvement projects.

Where impact to habitat cannot be avoided, efforts will be made to mitigate, and if necessary compensate for impacts following a net gain approach. To achieve a net gain approach to compensation, the City may consider establishing a formal habitat banking program. Habitat banking guidelines should outline appropriate compensation ratios by habitat type, monitoring periods, and success measures.

5. Plan for implementation of offshore protection along the West Dike as a response to climate change and sea level rise.

Sea level rise and upland limitations to natural accretion within the Sturgeon Bank WMA could result in increased offshore depths beyond the West Dike, which could simultaneously increase wave heights reaching the West Dike. Offshore barrier islands are one option to consider to dissipate wave energy prior to reaching the west dike, thereby minimizing future dike crest increases.

With appropriate environmental consideration during design and construction, breakwaters and barrier islands can create intertidal habitat, such as sand flats, mud flats, salt marsh and eelgrass beds. These features can assist with erosion and wave attenuation. The intertidal habitat can work in combination with a constructed flood control structures like dikes and floodwalls, to mitigate flood risk.

The City should continue to coordinate with relevant agencies including (Port of Vancouver, Fisheries and Oceans Canada, and others) to research and identify opportunities to improve flood protection and enhance intertidal habitats in the Sturgeon Bank WMA and throughout the Fraser River Estuary.

6. Plan to raise River Road in the Thompson neighborhood.

The existing dike in the Thompson Neighborhood is confined by the Fraser River and River Road. Increasing the grade of River Road will improve dike stability and resilience; and minimize requirement to expand the dike into the Fraser River. The City should plan to incrementally raise River Road.

7. Consider acquiring land to accommodate future dike construction between Shell Road and No. 5 Road.

Land acquisition may be required to accommodate construction of a future trapezoidal dike between Shell Road and No. 5 Road. It is anticipated that acquisition will primarily be achieved through redevelopment, however, where redevelopment does not occur; the City may consider opportunistic land purchase to accommodate future dike crest height increases in the area. Plan to complete a conceptual design of the future dike through the constrained area to verify the future dike footprint.

8. Plan for the long-term raising of lands adjacent to and inland of the existing dikes.

Long term raising of land levels has previously been recommended (2008-2031 Flood Protection Strategy). Maximizing the width of raised land adjacent to the river decreases flood and seismic risks by increasing the integrity of the dike. Plan to raise the ground elevation of waterfront development sites to the prescribed dike crest elevation.

9. Support site assemblies along the waterfront that promote cohesive adaptations for flood protection.

Large developments along the waterfront allow for major improvements to flood protection infrastructure and often result in robust superdike conditions.

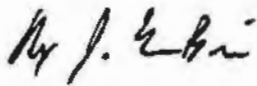
10. Consider enhanced floodproofing through amendments to the FCL Bylaw

The City's Flood Construction Level (FCL) Bylaw establishes minimum levels to which land needs to be raised. Amending the FCL bylaw is the recommended area wide strategy to regulate raising ground elevations with redevelopment to improve flood protection throughout the Study Area. Plan to conduct an assessment on the implementation of a modified FCL bylaw.

11. Facilitate public access to the waterfront.

Integrate new trails and trail improvements with diking projects; provide trails and waterfront recreation areas that are accessible to persons using mobility aids; and, route any new trails along the waterfront instead of rerouting the trail inland.

Regards,



Alex McBride, P.E.
Project Manager



Phil Lobo, P.Eng.
Project Reviewer



City of Richmond

Report to Committee

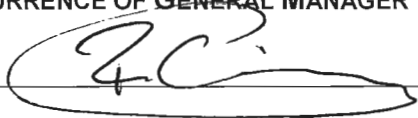

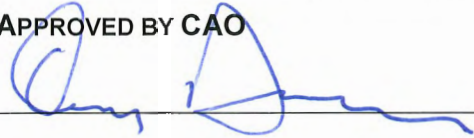
To: Public Works and Transportation Committee
From: Tom Stewart, ASCT.
Director, Public Works Operations
Date: March 26, 2018
File: 10-6370-01/2018-Vol
01
Re: **Annual Report 2017: Recycling and Solid Waste Management**

Staff Recommendation

That the annual report titled, "Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality" be endorsed and Attachment 1 be made available to the community through the City's website and through various communication tools including social media channels and as part of community outreach initiatives.

Tom Stewart, ASCT.
Director, Public Works Operations
(604-233-3301)

Att. 1

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

Staff Report

Origin

This report presents the City's annual progress toward waste diversion goals as outlined in the attached "Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality".

This report supports Council's 2014-2018 Term Goal #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 that maintain Richmond's position as a leader in sustainable programs, practices and innovations.

4.1. Continued implementation of the sustainability framework.

This report supports Council's 2014-2018 Term Goal #9 A Well-Informed Citizenry:

Continue to develop and provide programs and services that ensure the Richmond community is well-informed and engaged on City business and decision making.

9.1. Understandable, timely, easily accessible public communication.

Analysis

Background

The City has established a waste diversion target of 80% by 2020 which is aligned with regional targets in the Integrated Solid Waste and Resource Management Plan (ISWRMP). With the full suite of programs now available in the community, and the continued commitment by community members to recycle, Richmond is on track to achieve this target and its goal to be a Recycling Smart City.

"Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality" (the Report) presents the City's annual progress update (Attachment 1). The Report summarizes Richmond's comprehensive initiatives, and includes tips and resources to support recycling and sustainable waste management.

2017 Highlights

The Report provides an overview of Richmond's progress towards its waste diversion targets as well as the initiatives underway to promote increased recycling. The Report also highlights outreach initiatives and measures to improve efficiency in service delivery. By delivering responsive services that meet emerging needs and priorities, and applying community outreach, education and communication initiatives, Richmond continues to work with the community to achieve goals.

Key accomplishments in 2017 include:

- Achieved 78% waste diversion for residents in single-family homes.
- Launched the “Let’s Recycle Correctly!” campaign to engage directly with residents to improve the quality of recycling and reduce contamination levels. This included the launch of instructional videos to assist residents in improving recycling quality.
- Introduced and increased awareness of the Recycling Wizard which allows residents to search for information about drop-off locations for various materials. Since its launch, there have been 38,358 online searches for collection day details and 65,571 searches for materials using the Recycling Wizard.
- Supported the Green Ambassador program which engaged 135 student volunteers as they contributed 3,130 hours to promote recycling and responsible waste management at community events. Green Ambassadors also spent 390 hours at training and engagement symposiums hosted by the City.
- Supported recycling for approximately 175,000 attendees at 69 events.
- Responded to over 20,600 customer service requests and administrative transactions related to garbage and recycling via the Environmental Programs Information Line.
- Delivered 23 waste reduction workshops with approximately 328 attendees, held 7 Recycling Workshops for 128 residents, hosted 11 Recycling Depot tours for 218 students and teachers, and participated at 10 community events to raise awareness about how to properly sort recyclables to reduce contamination.
- Served residents in vehicles every 53 seconds for drop off recycling services at the City’s Recycling Depot.

These and other key accomplishments in 2017 are outlined in further detail in the Report.

Report 2017 Overview

The 2017 Report contains four chapters. The first three chapters summarize outcomes and accomplishments in the past year, provide data to report on progress related to current waste management and recycling services, and highlight the variety of public education/community outreach programs delivered across the city. The final chapter in the Report is a comprehensive tips and resources section. The Report content also features tips for residents to help them connect with City and producer stewardship programs for disposing of a variety of items.

A summary overview of each chapter follows.

Chapter 1: Annual Outlook – Improving Recycling Quality highlights the new challenges the City encountered in 2017 and its continued need to remain focused on best practices and opportunities to support its target for 80% waste diversion by 2020. A key initiative in 2017 was the “Let’s Recycle Correctly!” campaign, a program designed to improve the quality of recycling to address higher standards imposed by China, a significant buyer of recycling commodities in

the marketplace. The “Let’s Recycle Correctly!” campaign was designed to not only improve the quality of recycling materials, but was also leveraged to help support increased recycling.

The program includes an information and awareness campaign to inform residents about items that can cause contamination and provides tips on how to recycle these items correctly. The campaign also recognizes residents who are recycling correctly with a Gold Star on their Blue Box, along with a thank you from the City. Early measurement is showing positive outcomes as the amount of contamination is decreasing and a growing number of Gold Stars are being awarded to residents. To support the “Let’s Recycle Correctly!” program, the City has focused on increasing awareness of the Recycling Wizard, which makes it easy for residents to search for information on how to recycle various items. The Recycling Wizard is available online at www.richmond.ca/recyclesearch, or in the free Richmond Collection Schedule app.

Multi-family complexes were also the focus of an information campaign to help reduce contaminants in their Green Carts. The City reached out to residents in multi-family complexes to help increase understanding about how to recycle with their Green Cart, along with tips on how to reduce contamination. As part of this program, contamination alerts were sent to 14,395 units, notifying them of the issue in their building and staff hosted 30 information sessions.

Seeing a vehicle every 53 seconds, the Richmond Recycling Depot continues to offer a valuable drop-off recycling service for residents. To support this service, the City signed a new service contract to ensure Richmond residents can continue to enjoy great service at the Recycling Depot for years to come.

Chapter 2: Programs and Services – Delivering Services to Make Recycling Easy and Convenient describes the City’s comprehensive recycling and waste reduction initiatives and highlights how each program contributes to overall diversion targets and sustainability goals. This chapter provides details on the quantities collected through the Blue Box, Blue Cart, and Green Cart recycling programs, drop-off services at the Richmond Recycling Depot, Yard Trimmings Drop Off service and litter collection services. This section also includes details on the major categories of items collected through the City’s Large Item Pick Up Program. It is noteworthy that residents recycled nearly 21,000 tonnes of food scraps, and yard and garden trimmings in 2017 alone, with the majority coming from single-family homes followed by townhomes and multi-family housing sites.

Chapter 3: Outreach and Customer Service – Supporting Awareness and Education presents the City’s commitment to support waste reduction and reuse by working together with community members and partners. This includes working with children and youth through school programs and the Green Ambassador program to support recycling leadership in the community. Free workshops on reducing food waste and how to sort recycling correctly are offered throughout the year, as are outreach displays at various events. City staff partnered with the Richmond School District to engage 1,129 elementary school students in 10 productions to teach them how to recycle and inspire them to reduce waste. The City acknowledged elementary schools that made great efforts to reduce litter in their neighbourhood parks, presenting Maple Lane Elementary School with the award for “My School Always Sparkles” and Diefenbaker Elementary School with the “My School Now Sparkles” award. City staff members also mentored 135 high school

Green Ambassadors, who contributed more than 3,520 volunteer hours to support community events and the annual REaDY Summit.

Chapter 4: Tips and Resources – Easy Steps to Increase Recycling and Reduce Waste provides a comprehensive guide to recycling. It includes specific information on how and what to recycle in the City's Blue Box, Blue Cart, Large Item Pick Up and Green Cart programs. There is information on how to compost at home, the items accepted for recycling at the Richmond Recycling Depot, and what to do with many household items ranging from medication to recyclable mattresses. In addition to these tips and resources, the City continues to use communication tactics such as advertising and social media, to raise awareness about key programs and new initiatives.

The resources section includes information on what to do with special waste items and banned materials, including recycling and disposal options through take-back programs. There is contact information and locations for Richmond services and community partners involved in stewardship programs.

Moving Forward

As the City continues to work with residents to achieve 80% waste diversion and improve the quality of recycling, key focus areas in 2018 will include:

1. Partner with the Major Appliance Recycling Roundtable on a pilot program to evaluate opportunities to offset taxpayer costs associated with the collection of large appliances.
2. Leverage public engagement by continuing to promote Green Ambassadors and raise awareness about how to recycle correctly, as well as the importance of responsible waste management through support workshops, theatrical shows, digitally-led classroom activities, and support the 7th Annual REaDY Summit.
3. Improve recycling quality by continuing the "Let's Recycle Correctly!" program to generate awareness about the types of materials that are recyclable in Richmond's programs and how to sort recyclables properly to reduce contamination.
4. Enhance the Richmond Recycling Depot by reporting on potential changes to the configuration, including hours and days of operation and items accepted.
5. Expand public spaces recycling options by installing new public spaces recycling bins to provide convenient, accessible recycling, and enhance the container replacement and maintenance program.
6. Increase awareness of proper grease disposal through a pilot program to collect waste grease from a small number of multi-family complexes.
7. Incorporate an engaging Recycling Challenge game to help raise awareness of proper sorting of recycling and also incorporate an on-line supply ordering tool.
8. Improve litter collection efficiency by continuing to review opportunities to install additional in-ground containers in high traffic and/or remote public spaces to address garbage capacity concerns and reduce service frequency.

Another key activity in 2018 will be the commencement of a competitive request for proposals process for the City's garbage and recycling services under contract, as the existing contract expires on December 31, 2018.

Proposed Communication

Subject to Council's approval, the annual "Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality" will be posted on the City's website and made available through various communication tools including social media channels and as part of community outreach initiatives.

Financial Impact

Programs related to solid waste that impact service levels are brought to Council for review and consideration throughout the year.

Conclusion

Through the annual "Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality", the City is providing its residents with a progress report on the many recycling and waste management programs and activities delivered in the community. The Report also serves as a comprehensive resource guide that supports recycling, reuse and reduction activities throughout the year. By tracking progress towards its goals for waste diversion and reporting this to the community, the City is demonstrating Richmond's commitment to responsive services, responsible government and accessible information and communication.

It is through residents' participation and commitment to recycling that those living in single-family homes have achieved 78% waste diversion in 2017, which is on track for the goal to divert 80% of waste by 2020.



Suzanne Bycraft
Manager, Fleet and Environmental Programs
(604-233-3338)

Att. 1: Report 2017: Recycling and Solid Waste Management – Improving Recycling Quality

City of Richmond

REPORT 2017

RECYCLING AND SOLID WASTE MANAGEMENT



IMPROVING RECYCLING QUALITY

Let's trim our waste!



**LET'S
TRIM
OUR
WASTE!**

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2017 REPORT • IMPROVING RECYCLING QUALITY

ANNUAL OUTLOOK

IMPROVING RECYCLING QUALITY

When it comes to recycling and sustainable waste management, it's clear that each success will be followed by new challenges and the need to remain focused on best practices and opportunities for improvement. Richmond residents are leaders in recycling and are now diverting close to 80% of their waste from landfills.

At the same time, in 2017, the City of Richmond continued to strive for improved operational efficiency to support enhanced service delivery through its many programs and services. The City has also been responding to a growing imperative to improve the quality of recycling, and is making progress in multiple new initiatives that support achieving its goals for continuous improvement in waste management.

One of the largest new initiatives in 2017 stems from the need to reduce contamination in recycling to keep costs down and ensure that recycling can be sold to be converted into new products. Improving the quality of recycling is no longer just an ideal – it's a requirement. This is because China, the world's largest purchaser of recycled materials, is setting higher standards for recycling quality under its National Sword campaign and will not purchase contaminated recycling. As well, the City may be subject to fines and other penalties when its contamination levels exceed 3% as part of its contract with RecycleBC.

To help address these concerns and improve the quality of recycling, the City launched its "Let's Recycle Correctly!" program. The program includes an information and awareness campaign to inform residents about items that can cause contamination and provide tips on how to recycle these items correctly. The campaign also recognizes residents who are recycling correctly with a Gold Star on their Blue Box, along with a thank you from the City. The program is being implemented in two phases, starting in 2017 and completing in 2018. Recycling teams have been randomly auditing curbside recycling and leaving behind information kits for residents. The campaign also includes a broader community campaign through advertising, media relations, social media and videos posted online.

In the first phase, more than 6,300 households were visited (5,320 single-family homes and 1,067 homes in multi-family complexes). Recycling teams were able to engage with residents at close to 30% of the homes visited. Of those engaged, 86% were happy with the program and 12% had a lot of questions that the teams answered. The teams gave Gold Stars to 2,519 households in the first phase of the program – about 39% of the homes visited. Early measurement is showing positive outcomes as the amount of contamination is decreasing and a growing number of Gold Stars are being awarded to residents.

As an added service to help make it easy and convenient for residents to find out where to recycle various household items, the City has introduced its Recycling Wizard and is promoting this new tool through advertising and social media. With the Recycling Wizard, residents simply type in a wide variety of household items and the app will tell them where each item can be recycled. The Recycling Wizard is available online at www.richmond.ca/recyclesearch, as well as in the free Richmond Collection Schedule app, which is available through the Apple and Android app stores. The app also provides residents with reminders about their collection day and other recycling tips.

With its commitment to continuous improvement and service excellence, the City also introduced a new service contract at the Richmond Recycling Depot to ensure residents can continue to enjoy great service. The Recycling Depot sees a vehicle every 53 seconds on average during operating hours as residents come to drop off recycling items such as Styrofoam, batteries, cooking oil, large and small appliances, extra yard waste and many other recyclable materials.

CITY OF RICHMOND

Improving the quality of recycling will help ensure it can be sold to processors and is important for keeping taxpayer costs down.

The City has also improved efficiencies in litter management to help keep up with population growth while ensuring that public spaces remain clean and litter free. As part of these updates, the City has made adjustments to routing for litter collection and installed large in-ground containers that have larger capacity.

Richmond also recognizes that there are opportunities to improve how recycling is managed at multi-family and commercial buildings through the design of effective waste management areas for recycling and waste collection. To support these improvements, the City has provided a guide for commercial and multi-family developments. The new *Waste Management Design Guidelines for Commercial and Multi-Family Developments* highlights developer responsibilities, provides design guidelines and criteria, and includes a new requirement for a waste management overlay plan.

Multi-family complexes have also been the focus of an information campaign to help reduce contaminants in their Green Carts. While this is different than the challenge in Blue Box/Blue Cart contamination, it's equally important to ensure only organics go into the Green Cart as the City is still subject to fines or other penalties when contamination is found. To help address this issue, the City reached out to residents in multi-family complexes to help increase understanding about how to recycle with their Green Cart along with tips on how to reduce contamination. As part of this program, contamination alerts were sent to 14,395 units, notifying them of this issue in their building, and 30 information sessions were held.

Recognizing that success in sustainable waste management is based on continuous improvement, the City is already looking ahead with plans for the upcoming year. The City will be rolling out new public spaces recycling bins and continue public engagement to support its programs and services. In particular, the City remains focused on its goals to increase recycling to achieve 80% diversion by 2020, and improve recycling quality through the "Let's Recycle Correctly!" program. As with all new initiatives in waste management, the City looks forward to working with residents to implement these new programs and achieve its goal to be a Recycling Smart City.

RICHMOND COLLECTION SCHEDULE APP - ALL TIME STATS



20,864 UNIQUE ADDRESS SEARCHES AND **38,358** TOTAL ADDRESS SEARCHES

4,771 MOBILE APPS INSTALLED

7,482 ACTIVE REMINDERS

1,535 PDF CALENDAR DOWNLOADS

65,571 RECYCLING WIZARD SEARCHES

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OUR TOP ACCOMPLISHMENTS IN 2017

The following are some of the key accomplishments in 2017:

LET'S RECYCLE CORRECTLY CAMPAIGN

Introduced the "Let's Recycle Correctly!" program to raise awareness about the issues stemming from contamination in Blue Box/Blue Cart recycling, and increase understanding about how to sort and recycle correctly. The program included random audits by recycling teams who also met directly with residents to answer questions and provide tips, information kits for residents and a broader information campaign that included advertising, social media and online instructional videos.

COLLECTION SCHEDULE APP

Increased awareness of the Richmond Collection Schedule App to provide residents with reminders about their curbside collection day and information about drop-off locations for various materials using the Recycling Wizard. Since its launch, there have been 38,358 online searches for collection day details, 65,571 searches for materials using the Recycling Wizard, and 7,482 residents signed up for weekly reminders.

GREEN AMBASSADORS

Supported 135 student volunteers as they contributed 3,130 hours to promote recycling and responsible waste management at 23 community events. Green Ambassadors also spent 390 hours at training and engagement symposiums.

LITTER MANAGEMENT

Improved litter management with the installation of three in-ground containers to increase capacity while reducing the need for frequent collection, and implemented new litter collection routes to maximize operational efficiency as part of continuous improvement. Litter crews inspected and/or serviced containers more than 280,000 times in 2017.

GREEN CART CONTAMINATION

Initiated an information campaign in multi-family complexes to increase awareness about contaminants in Green Cart recycling. The City hosted 30 information sessions, met with residents to provide tips on how to reduce contamination, and sent alerts to 14,395 units to flag issues in their building.

RICHMOND RECYCLING DEPOT VISITS

Provided recycling drop-off services with more than 160,000 visits to the Richmond Recycling Depot, which equates to one visit every 53 seconds.

EVENT RECYCLING

Supported improved waste diversion by providing recycling containers for approximately 175,000 attendees at more than 69 events.

CUSTOMER SERVICE

Responded to more than 20,693 customer service requests and administrative transactions related to garbage and recycling via the Environmental Programs Information Line.

STUDENT & COMMUNITY ENGAGEMENT

Delivered 30 recycling and waste reduction workshops with approximately 460 attendees, organized 10 DreamRider productions at local schools involving 1,129 students, hosted 11 Recycling Depot tours for 218 students and teachers, and participated at 10 community events to raise awareness about how to properly sort recyclables to reduce contamination.

CITY OF RICHMOND

OUR GOALS

Richmond's long-term goal is to be a Recycling Smart City, and the annual goals listed below are designed to help achieve this target. Each goal is designed to make it easy and convenient to recycle and reduce waste in Richmond, as well as creating and promoting opportunities for innovation, partnership and continuous improvement.





THANK YOU TO RICHMOND RESIDENTS

Over the past decade, Richmond residents have consistently demonstrated their commitment to recycling. Thanks to their efforts, Richmond is close to achieving its target of 80% waste diversion by 2020. Residents are also recycling at the Richmond Recycling Depot, with more than 160,000 visits per year.

In 2017, we reached out to residents and asked them to help us with a new challenge – the need to improve the quality of recycling. It is no surprise that our residents are taking this new challenge to heart and working to help sort their recycling correctly. Our thanks and appreciation go to residents for working with us to help improve the quality of our recycling by sorting items correctly. We also want to send out a special thank you to residents who have demonstrated their recycling expertise and were recognized with a Gold Star.

Recycling and waste diversion takes continuous commitment, and we appreciate the way our residents work hard to keep recycling out of the garbage when they are at home and on the go in our community. We ask all residents to help us as we strive to achieve 80% waste diversion and improve the quality of our recycling. Thank you!

DID YOU KNOW?

There are three common causes of recycling contamination:

1. Materials that are not accepted in the Blue Box/ Blue Cart program are placed in the bins;
2. Recyclable materials are not sorted correctly, such as glass being placed in the Blue Box/Blue Cart; and
3. Items are not recycled properly, such as leaving food residue in containers or bundling materials in a plastic bag.

See page 23 for more details.

CITY OF RICHMOND

2

**CONVENIENT,
HIGH QUALITY
AND RELIABLE
SERVICES**

.....8

2017 REPORT • IMPROVING RECYCLING QUALITY

PROGRAMS AND SERVICES

DELIVERING SERVICES TO MAKE RECYCLING EASY AND CONVENIENT

Richmond residents in single-family homes are diverting 78% of their waste, and recycling is increasing in townhomes and other multi-family complexes. To support residents and their commitment to recycling, Richmond continues to deliver services to help residents reduce their garbage and create incentives to promote increased recycling. Green Cart and Blue Box/Blue Cart recycling remain core services to help residents recycle. Residents can also drop off a growing list of recyclable items at the Richmond Recycling Depot and other drop-off facilities.

Richmond works with residents, industry partners, product stewardship groups and businesses to achieve its goal to be a Recycling Smart City and implement sustainable waste management. Through partnerships and community engagement, Richmond's commitment to continuous improvement results in enhanced services to benefit residents.



Residents in single-family homes are now diverting 78% of their waste.



RICHMOND RECYCLING AND WASTE MANAGEMENT

Richmond delivers a wide range of recycling and waste management services for residents to ensure that all waste is managed effectively and efficiently. The following are the key recycling and waste management services offered through the City of Richmond.

BLUE BOX

Weekly curbside collection for paper, newsprint, glass, plastic containers, empty aerosol cans, milk cartons, plastic/paper drink cups, spiral wound containers, and tin and aluminium containers. This program is provided to over 40,500 residential units in single-family homes and townhomes. For details, see page 32.

BLUE CART

Weekly recycling collection for paper, newsprint, glass, plastic containers, aerosol cans, milk cartons, plastic/paper drink cups, spiral wound containers and tin and aluminium containers. This program is provided to more than 35,600 multi-family units. For details, see page 34.

GREEN CART

Collection for foods scraps and yard trimmings. This program is provided to residents in single-family homes and townhomes as well as multi-family complexes. For details, see page 36.

RECYCLING DEPOT

Drop-off service for products ranging from yard trimmings and household items, to hazardous materials and take-back program products. This service is available to all residents and in limited quantities for commercial operators. The Recycling Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers for use at the Vancouver Landfill. For details, see page 40.

GO! RECYCLE PUBLIC SPACES AND EVENT RECYCLING

Recycling bins in the community make it easy to recycle on the go, such as in parks, at community centres, in the Steveston business district and at the Canada Line stations and Richmond central bus stops. Richmond supports community events by loaning garbage and recycling bins for local events at no charge.

COMPOSTING AT HOME

Support for residential composting includes the sale of compost bins, a composting demonstration garden and related workshops. These services are available to all residents. For details, see page 37.



CURBSIDE GARBAGE COLLECTION

Curbside collection of garbage, not including banned items such as hazardous waste and materials that can be recycled, is available to residents in single-family homes and some townhomes. For details, see page 38.

EXTRA GARBAGE DISPOSAL

Garbage tags or disposal vouchers for the Vancouver Landfill provide options for residents when they need to dispose of additional garbage or large items. For details, see page 38.

LARGE ITEM PICK UP PROGRAM

Residents in single-family homes, some townhomes and some multi-family complexes can arrange for collection of four large household items per year. For details, see page 39.

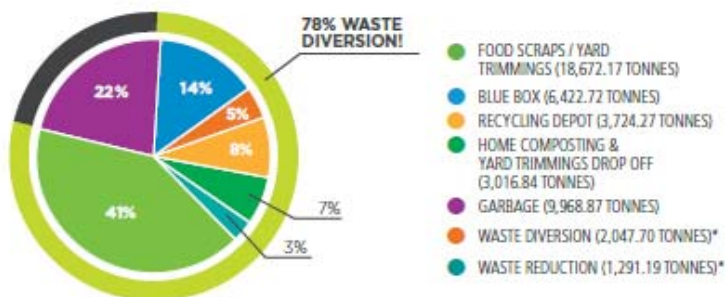
COMMUNITY AND SCHOOL ENGAGEMENT

Through partnerships with students, teachers and the School District, Richmond sponsors educational shows, awareness programs and volunteer opportunities to increase understanding of recycling and the benefits of reducing waste. For details see the Outreach and Customer Service section on page 25.

DID YOU KNOW?

Some items are banned from the garbage. Food scraps and other recyclable materials like paper, plastic containers, glass bottles, and aluminium cans are no longer permitted in the regular garbage and can instead be recycled using the City's convenient recycling programs.

SINGLE-FAMILY RECYCLING



Residents in single-family homes recycled or reduced 35,174.89 tonnes in 2017 – 78% of total estimated waste generated – through a number of recycling and waste reduction opportunities, including curbside and Recycling Depot collection, as well as composting programs.

* Estimated



RESIDENTIAL RECYCLING PROGRAMS

With weekly collection services, drop-off programs, public spaces recycling and community take back programs, it's easy and convenient to recycle in Richmond. Richmond offers residents a range of services to support recycling at home and on the go.

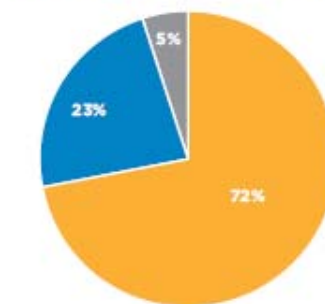
BLUE BOX RECYCLING PROGRAM

The Blue Box recycling program provides convenient collection services in the community. Residents in single-family homes and some townhome complexes use the City's Blue Box program to recycle newspaper, paper products and cardboard along with tin, aluminium, glass bottles and jars, and plastic containers. More than 40,500 residential units are serviced with weekly collection under this program.

In 2017, more than 6,400 tonnes of materials were recycled in the Blue Box program. Of this, 72% was mixed paper, 5% was glass jars and glass bottles and 23% was mixed containers.

Items that can be recycled through this program are listed in the Tips and Resources section of this publication and at www.richmond.ca/recycle.

2017 BLUE BOX RECYCLING MIX



- MIXED PAPER (4,594.49 TONNES)
- GLASS (341.33 TONNES)
- CONTAINERS (1,486.90 TONNES)

2017 REPORT • IMPROVING RECYCLING QUALITY

BLUE CART RECYCLING PROGRAM

People who live in multi-family complexes can recycle the same products as residents who use the Blue Box program through the City's Blue Cart recycling program. The City provides recycling carts to create a mini-recycling depot at each complex, which is generally located in the recycling enclosure or other convenient location. This service is currently available to more than 35,600 multi-family units. The City offers information sessions and provides communication materials such as Blue Cart decals, posters and brochures for stratas and property managers to help raise awareness and increase participation.

In 2017, more than 1,960 tonnes of materials were recycled through the Blue Cart recycling program.

It is important to recycle using the correct carts. For a detailed list of items that can be recycled through the Blue Cart recycling program, see the Tips and Resources section or visit www.richmond.ca/recycle.

**TIP FOR RESIDENTS**

Residents in single-family homes and some townhomes can pick up complimentary Blue Box supplies at the Richmond Recycling Depot and City Hall.

Residents in multi-family complexes with Blue Cart service can pick up an indoor collection bag at the Richmond Recycling Depot or phone the Environmental Programs Information Line at 604-276-4010.



CITY OF RICHMOND



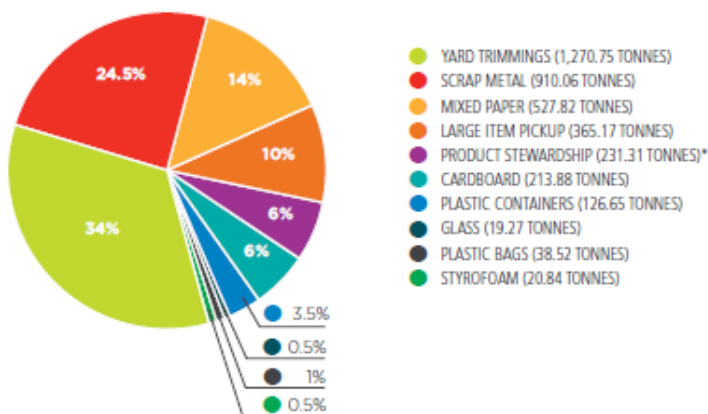
RECYCLING DEPOT PROGRAM

The Richmond Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday for drop off of a broad range of materials. The Recycling Depot also sells compost bins, rain barrels, Garbage Tags and Garbage Disposal Vouchers. The Richmond Recycling Depot is a product stewardship (take back) collection site for small appliances, paints, solvents, flammable liquids, pesticides, lights and lighting fixtures.

RECYCLING DEPOT SERVICES

This facility accepts a wide range of materials including cardboard, yard and garden trimmings, mixed paper and newspapers, as well as Styrofoam, used books, cell phones, household batteries and plastic bags. The facility also accepts large appliances (e.g. fridges, stoves, washing machines), metal items (e.g. bike frames, barbecues, lawn mowers), glass bottles, glass jars, tin and aluminium cans, paints, pesticides and solvents. For a detailed list of items, see page 41. The Recycling Depot is owned and operated by the City of Richmond, with two full-time staff and additional staff support in the summer months to manage increased recycling volumes. Staff on site are available to answer questions and provide assistance with unloading awkward or heavy items.

DEPOT RECYCLING: BREAKDOWN OF MATERIALS COLLECTED IN 2017



TOTAL TONNAGE = 3,724.27

In 2017, 3,724.27 tonnes of recyclable materials were collected at the Recycling Depot. This includes yard trimmings, scrap metal, mixed paper products and rigid plastic containers. For more information on drop-off programs for yard trimmings, see page 17.

* Estimated

2017 REPORT • IMPROVING RECYCLING QUALITY

DEPOT RECYCLING: MATERIALS AND AMOUNTS COLLECTED THROUGH TAKE BACK PROGRAMS IN 2017

PAINT
216,000
EQUIVALENT
LITRES



AEROSOLS
9,275 EQUIVALENT
LITRES



SOLVENTS & PESTICIDES
8,640 EQUIVALENT
LITRES



SMALL APPLIANCES
89.19 TONNES



CFLS
474 BOXES



4' TUBES 8' TUBES
362 BOXES 34 BOXES

FOR SALE AT THE RECYCLING DEPOT

Residents can purchase the following items:

- Compost bins - \$25 each + GST
- Rain barrels - \$30 each + GST
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers - \$5 each for Richmond residents and it is worth up to \$25 at the Vancouver Landfill

RECYCLE AT THE DEPOT

Richmond's free drop-off program includes:

- Styrofoam
- Batteries (household batteries 5 kg or under)
- Cell phones
- Cooking oil and animal fats
- Used books
- Plastic bags and plastic overwrap
- Large and small appliances
- Scrap metal
- Yard and garden trimmings

For a full list of items that can be recycled at the Recycling Depot, see page 41.

**TIP FOR RESIDENTS**

Fats, oils and grease should never be disposed down sinks, drains or garburators as the material hardens and builds up on the inside of sewage lines, causing blockages. This can lead to breaks and sewage spills or overflows. Recycle food scraps, grease solids and small amounts of cooking oil that can be absorbed with a paper towel in your Green Cart, and take used cooking oils and animal fats in a sealed container to the Richmond Recycling Depot (5555 Lynas Lane, open Wednesday to Sunday from 9:00 a.m. to 6:15 p.m.) for free disposal.

CITY OF RICHMOND



COMPOSTING PROGRAMS

Composting is a simple and organic process that can reduce household waste by up to 40%. Fruit and vegetable peelings, along with grass, leaves and other yard trimmings, can be added to a compost bin. In addition, composted matter produces a very nutrient-rich soil to keep lawns and gardens healthy.

BACKYARD COMPOST BIN DISTRIBUTION PROGRAM

The City of Richmond supports composting by incorporating composting information into Food Waste Reduction workshops. The City offers compost bins for sale at the Recycling Depot for \$25 plus tax each. Backyard composting is the most effective way to dispose of fruit and vegetable peelings, eggshells, coffee grounds, filters, tea bags and yard trimming materials. Since this program started in 1992, 10,810 compost bins have been distributed.

Additional tips and information on composting are provided in the Tips and Resources section and at www.richmond.ca/recycle.

COMPOST DEMONSTRATION GARDEN

To help residents learn about backyard composting, the City offers a Compost Demonstration area in the Terra Nova Rural Park located at 2631 Westminster Highway just west of No.1 Road. It is open from dawn to dusk year-round. Residents are encouraged to take a self-guided tour to learn about different types of compost bins and the benefits of composting.



TIP FOR RESIDENTS

The Compost Hotline at 604-736-2250 offers tips and advice on how to compost and use the nutrient-rich soil produced for home gardens. Compost from yard trimmings drop-off programs and through the Green Cart collection programs is sold for use in the landscaping industry.

2017 REPORT • IMPROVING RECYCLING QUALITY

**DID YOU KNOW?**

Cut grass can act as a great slow-release fertilizer. One bag of grass clippings produces 100 g of nitrogen-rich fertilizer that can help conserve water and enrich the soil to help your garden bloom.

YARD TRIMMINGS DROP-OFF PROGRAMS

ECOWASTE INDUSTRIES

The City offers residents the option to drop off unlimited quantities of yard and garden trimmings for free at Ecowaste Industries located at 15111 Triangle Road. Proof of Richmond residency is required. Commercial landscapers servicing multi-family residential properties are also eligible for free drop-off. They must apply for this exemption.

Visit ecowaste.com or call 604-277-1410 for hours of operation and directions.

RICHMOND RECYCLING DEPOT

Residents may drop off limited quantities of yard and garden trimmings (up to 1 cubic yard) at the Richmond Recycling Depot. A fee of \$20 applies for each additional cubic yard. Commercial operators may also use the Recycling Depot to drop off yard trimmings for a fee of \$20 per cubic yard. The Recycling Depot is located at 5555 Lynas Lane and is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday.

For a detailed list of all items that can be recycled at the Recycling Depot, please refer to the Tips and Resources section on page 41.

DROP OFF TONNAGE IN 2017

In 2017, 4,421.90 tonnes of yard trimmings were collected at the Recycling Depot and through the Ecowaste residential and multi-family drop-off service.

**1,270.75
TONNES**

RECYCLING DEPOT

+

**3,151.15
TONNES**

ECOWASTE INDUSTRIES

=

**4,421.90
TONNES**

CITY OF RICHMOND



GREEN CART PROGRAM

Richmond's Green Cart recycling program is available to all Richmond residents to ensure they have a convenient service to recycle food scraps, and yard and garden trimmings, which are banned from the garbage. Green Cart recycling totalled 20,920.27 tonnes in 2017. The majority came from single-family homes followed by townhomes and apartments in multi-family housing sites.

Food scraps and yard trimmings represent about 40% of household waste, and the increase in Green Cart recycling along with Richmond's other recycling services has contributed to residents in single-family homes reducing their garbage by 78% in 2017. The Green Cart program is also an important service to support residents with an easy and convenient recycling option to meet requirements for Metro Vancouver's disposal ban on food scraps.

MULTI-FAMILY RECYCLING BY THE NUMBERS

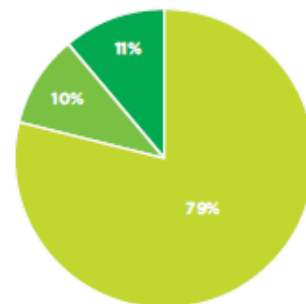
Residents in multi-family buildings are continuing to improve their recycling performance.

When it comes to Green Cart organics recycling, Richmond multi-family residents trend slightly above regional averages. In 2017, Richmond residents recycled 39.11 kg/capita or 78.22 kg/unit. The regional average in 2017 was 35 kg/capita. Drop off of yard trimmings by commercial operators serving multi-family properties in Richmond was 34.04 kg/capita or 68.08 kg/unit in 2017.

When organics and yard trimmings are combined, multi-family residents diverted a total of 73.15 kg/capita or 146.3 kg/unit in 2017.

Regional estimates indicate that multi-family residents disposed of 212 kg/capita in 2017 and recycled 82 kg/capita of paper, containers and glass.

2017 RESIDENTIAL GREEN CART RECYCLING



- SINGLE-FAMILY HOMES (16,496.68 TONNES)
- TOWNHOMES (2,175.49 TONNES)
- APARTMENTS & CONDOMINIUMS (2,248.10 TONNES)

Most household items are recyclable. Think twice before putting items in the garbage to help keep recyclables out of your Garbage Cart.

.....

GARBAGE COLLECTION SERVICES

Richmond's curbside garbage collection services provide residents with convenient options for waste disposal. Household garbage is collected biweekly using City-provided garbage carts, and residents are offered curbside collection for up to four large household items through the City's Large Item Pick Up program.

GARBAGE COLLECTION

Richmond's biweekly Garbage Cart program, includes City-provided carts with wheels and lids and is designed to lower costs for residents who are reducing their garbage by recycling their household waste.

Residents who select smaller cart sizes are generating less garbage and as a result, they pay less for their annual curbside garbage collection. Residents can exchange their cart for a different size, and their curbside garbage collection fees are adjusted according to the size selected.

With biweekly collection, garbage is collected every other week and recycling is collected weekly. Residents receive an annual Garbage Collection Schedule, which is customized to each collection zone.

GARBAGE CART SIZE OPTIONS



There are four standard sizes of Garbage Carts, and an additional Extra Small cart is available by request.

EXTRA LARGE
360 litres
D 34.5 x W 25 x H 44.5 in

LARGE
240 litres
D 27.5 x W 24.5 x H 43 in
Standard size for
single-family homes

MEDIUM
120 litres
D 21.5 x W 19 x H 37.5 in
Standard size
for townhomes

SMALL
80 litres
D 20 x W 16 x H 34.5 in

CITY OF RICHMOND



EXTRA GARBAGE OPTIONS

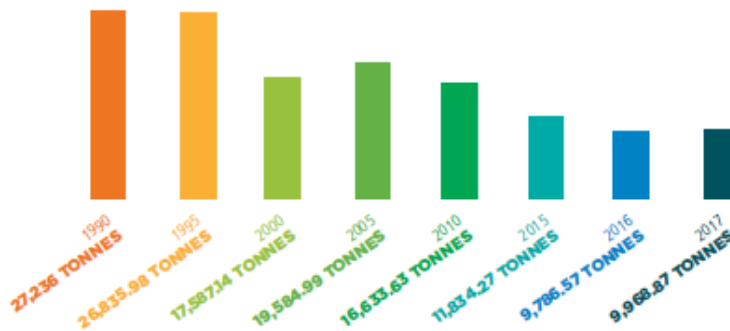
For the occasions when residents have extra garbage, the City offers several options:

- Residents can purchase \$2 Garbage Tags from City facilities for excess garbage bags/cans as needed.
- Use Richmond's Large Item Pick Up program for curbside collection of up to four large items each year. To schedule a large item pick up, residents call the City's service provider, Sierra Waste Services at 604-270-4722.
- A \$5 Garbage Disposal Voucher for the Vancouver Landfill (one per Richmond household per year) can be purchased at City facilities. The voucher is good for up to \$25 in value for garbage drop off at the Vancouver Landfill located at 5400 72nd Street, Delta. For more information, call 604-276-4010.

10,858
GARBAGE TAGS SOLD

786
GARBAGE DISPOSAL
VOUCHERS SOLD

GARBAGE DISPOSAL OVER THE YEARS



2017 REPORT • IMPROVING RECYCLING QUALITY



LARGE ITEM PICK UP PROGRAM

Richmond's Large Item Pick Up program provides curbside collection of up to four large items per year. This program is provided to residents in single-family homes, as well as townhomes and multi-family complexes with the City's Garbage Cart and/or Blue Box program. This service makes it easier for residents who do not have access to a vehicle to dispose of large items. Residents can contact the City's service provider at 604-270-4722 to arrange for collection of up to four large items per year. All four large items can be picked up at the same time, or in varying bundles for a total of four items annually.

Items accepted in this program include furniture, appliances and small household goods. Restrictions apply to ensure items can be handled safely and mattresses must be covered in plastic to keep them dry. If residents have more than four large items to dispose of, they can purchase a Garbage Disposal Voucher for \$5 from any City facility and use the voucher to dispose of up to \$25 worth of garbage items at the Vancouver Landfill.

For more information on this program, see page 39 or visit www.richmond.ca/recycle.

APPROXIMATELY **8,890** REQUESTS FOR SERVICE



3,122
MATTRESSES &
BOXSPRINGS



594
WASHERS & DRYERS



352
TELEVISIONS



655
FRIDGES & FREEZERS



401
BARBECUES



222
DISHWASHERS

553 TONNES WERE COLLECTED
AND OF THIS, **288**
TONNES WERE RECYCLED



268
STOVES



48
MICROWAVES



1,060
OTHER

7,789
NON-RECYCLABLE HOUSEHOLD ITEMS COLLECTED
FOR SAFE HANDLING AND DISPOSAL

14,511 ITEMS COLLECTED

CITY OF RICHMOND



LITTER COLLECTION SERVICES

Maintaining a litter-free city is a key focus area to ensure residents can enjoy clean parks and public spaces. The City of Richmond has made efforts to ensure that there are garbage cans, and in many cases recycling options, in public spaces throughout the city.

In addition, City crews work seven days a week to collect litter from parks, school grounds, roadsides, sidewalks and boulevards. They inspect or service garbage and recycling from litter and recycling receptacles in the community 23,515 times every month. Crews also assist with removing graffiti from City garbage cans, and they collect illegally-dumped materials found on City property and provide safe disposal and recycling of these items. Together, these measures help to support a safe and appealing community.

DID YOU KNOW?

In 2017, litter crews cleaned up 799 sites where materials were dumped illegally.

**BINS INSPECTED
OR SERVICED 23,515** TIMES PER MONTH
OR APPROXIMATELY **282,000** TIMES
PER YEAR

CREWS TRAVEL 2,932 KILOMETRES PER WEEK
TO INSPECT AND SERVICE BINS

2017 REPORT • IMPROVING RECYCLING QUALITY

It's important to think of recycling as a commodity to sell – not waste.

LET'S RECYCLE CORRECTLY!

Richmond introduced a new information and awareness campaign – Let's Recycle Correctly! – to help inform residents about how to improve the quality of their recycling by reducing contamination.

It is becoming increasingly critical to generate quality recycling as China, the world's largest purchaser of recycled materials, is setting high standards for recycling quality under its National Sword campaign and will not purchase contaminated recycling. As well, the City is subject to fines and other penalties when contamination is found in recycling, which increases taxpayer costs.

The City's Let's Recycle Correctly! campaign began in the fall, and the goal is to help increase awareness about how to sort recycling correctly and reduce contamination. The campaign includes information kits for residents, as well as advertising, social media, promotion of the City's Recycling Wizard and other outreach. City recycling teams conducted random recycling audits throughout the community and worked with residents to help them improve the quality of their recycling. The results from the first phase of this program are already showing significant improvement in recycling quality as phase two of the program continues in 2018.



VISITED **6,387** HOMES IN TOTAL

5,320 SINGLE-FAMILY HOMES AND
1,067 HOMES IN MULTI-FAMILY COMPLEXES

WHAT TO WATCH FOR



2,519
GOLD STARS AWARDED

TYPES OF CONTAMINATION	HOW TO RECYCLE CORRECTLY
Glass bottles and glass jars in the Blue Box	Recycle in grey Glass Recycling Bin (curbside) or Glass Recycling Cart (centralized).
Recyclable items that are not accepted in Blue Box / Blue Cart (Styrofoam, plastic bags, paints and solvents, batteries and cell phones, a non-packaging plastics like toys and coat hangers)	Drop off at Richmond Recycling Depot – 5555 Lynas Lane.
Non-recyclable plastic (Ziplock bags, straws and plastic cutlery)	These are not recyclable. Please put in Garbage Cart.
Containers with food residue	Remove food and rinse before placing in recycling bin.
Propane tanks	Take to Husky Gas Stations: 8011 No. 3 Road (604-270-3822) or 9060 Bridgeport Road (604-278-0011). Or call 604-732-9253 for locations.
Electronics	Visit return-it.ca/electronics for drop-off locations.



2017 REPORT • IMPROVING RECYCLING QUALITY

OUTREACH AND CUSTOMER SERVICE

SUPPORTING AWARENESS AND EDUCATION

Richmond recognizes that providing recycling services is the first important step in reducing waste; however, the second critical step is communication and community engagement. This includes informing residents about City and partner programs and services available in the community, educating them on how to use the programs, raising awareness about why recycling and reducing waste is important, and engaging the community to help design programs that fit their needs and priorities. The third essential step is providing excellent customer service. With its commitment to community outreach and customer service, the City goes beyond providing services – it supports residents so they can be successful in reducing their waste.



In 2017, approximately 135 youth volunteered more than 3,520 hours in Richmond's Green Ambassador program to support recycling awareness at events and outreach displays.



CUSTOMER SERVICE

Richmond's successful outreach and customer service programs are designed to help turn information and education into action. By working with children and youth through school programs and the Green Ambassadors, Richmond creates a learning environment where students gain a better understanding about recycling and sustainable waste management, and then apply their skills as volunteers and through school activities. Providing outreach, customer support services and information materials also assists residents by increasing their understanding of how to recycle along with new tools and services to promote recycling at home and on the go.

The Environmental Programs Information Line staff assisted customers with almost 20,700 service requests in 2017, answering questions, assisting with requests relating to garbage and recycling and providing guidance on where to go for additional information and resources. Richmond also assists customers directly at the Recycling Depot, and through its outreach programs in the community.

At the Depot, staff provide assistance with where and how to recycle using its drop-off options, answer questions about City programs and services and sell products such as compost bins and rain barrels as well as Garbage Tags and Garbage Disposal Vouchers. Through outreach, Richmond goes into the community to connect with residents to share information and respond to questions.

20,693
CUSTOMER SERVICE
CALLS SUPPORTED

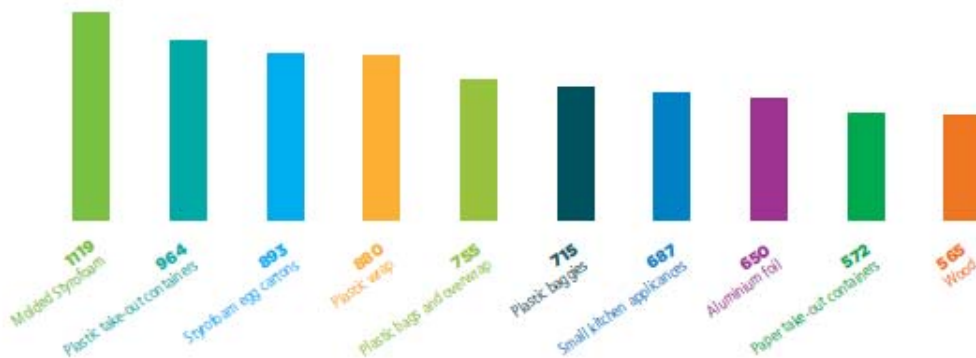
330 YOUTUBE
VIDEO VIEWS

69
COMPOST
BINS SOLD

11 RICHMOND RECYCLING
DEPOT TOURS COMPLETED

2017 REPORT • IMPROVING RECYCLING QUALITY

TOP MATERIALS SEARCHED IN THE WASTE WIZARD - ALL TIME



2017 HIGHLIGHTS

NEW SEARCH & TIPS TOOLS

Richmond now offers the Recycling Wizard to help residents search for where to recycle household items. The Recycling Wizard is available online at www.richmond.ca/recycdesearch and in the Richmond Collection Schedule app, which is available for free from the Apple and Android app stores. Since its launch, there have been 65,571 Recycling Wizard searches, 38,358 address searches and 7,482 active collection reminders. The City also launched a series of instructional videos, which have had 330 YouTube views since launched in the fall.

ENGAGING STUDENTS

In 2017, Richmond sponsored 10 DreamRider productions, engaging 1,129 students from kindergarten to grade seven to raise awareness about the importance of reducing waste and how to recycle correctly. The participants are taught a sense of personal responsibility for our city streets and natural spaces, and are inspired to feel that taking care of the planet is fun. In addition, a contest called "My School Sparkles" was held. The winning schools were Maple Lane Elementary, which won My School Always Sparkles and Diefenbaker Elementary, which won My School Now Sparkles.

RICHMOND GREEN AMBASSADORS

Richmond's Green Ambassadors are dedicated high school students who participate in monthly symposiums to learn about environmental sustainability and apply what they have learned as volunteers at City events and activities. In 2017, 135 students in the program contributed more than 3,520 volunteer hours to attend training symposiums, promote recycling at community events and organize the REaDY Summit. These energetic and environmentally conscious individuals also manage green initiatives in their school.

RICHMOND HOSTS 6TH ANNUAL EARTH DAY SUMMIT

The 2017 REaDY Summit showcased how community partners, students and residents can come together to celebrate sustainable actions that can trigger a positive change in our community. Summit participants included 32 student volunteers, as well as residents from local municipalities. This year's Summit featured two youth-led keynote presentations and the opening ceremony included speeches by three students from various grades who spoke on the topic "Growing Towards Another 150".

CITY OF RICHMOND



EVENT RECYCLING

Recycling stations are recommended for special event bookings taking place in Richmond. For some events, the City hosts recycling stations with assistance from the Green Ambassador volunteers. This involves setting up recycling stations and having recycling assistants at the event to advise people on how to recycle. In 2017, the City hosted recycling stations at 23 events, including the Public Works Open House, Children's Art Festival, Doors Open, COOL Expo, Halloween Fireworks, Ship to Shore Festival, Salmon Festival, Maritime Festival, Wild Things, Harvest Fest and World Festival. Typically, very high diversion rates are achieved thanks to the efforts of the City's Green Ambassadors. Examples include:

- Ship to Shore King of the Sea – 54% diversion rate
- Steveston Salmon Festival – 68% diversion rate
- Richmond Canada Day (Imperial Landing) – 70% diversion rate
- Richmond Canada Day (Steveston Village) – 76% diversion rate
- Maritime Festival – 78% diversion rate
- Harvest Festival – 70% diversion rate
- World Festival – 75% diversion rate

The City also supports events by providing organizers with recycling bins and garbage carts at no charge, as well as complimentary collection services. This makes it easy for event organizers to keep the venue clean and recyclables out of the landfill. In 2017, 69 event organizers used the City's event recycling program to help keep recyclable materials out of the garbage at events.

GREAT CANADIAN SHORELINE CLEAN-UP

Jointly led by the Vancouver Aquarium and World Wildlife Foundation, the Great Canadian Shoreline Clean-Up focuses on educating and empowering people to make a difference through community clean-up events. As part of this initiative, Environmental Programs partnered with Parks to support 19 community clean-up events on the City's waterfront.

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COMMUNITY WORKSHOPS

Richmond's free community workshops provide education and tips that support recycling and waste reduction techniques. In 2017, the City hosted 41 community workshops and Richmond Recycling Depot tours with a total of 674 participants. A summary of workshops that focus on helping residents towards the City's goal for 80% waste diversion is provided below.

For information on the workshops, email esoutreach@richmond.ca. To attend free workshops offered by the City, visit richmond.ca/register for workshop details and registration information.

COMMUNITY WORKSHOPS			
TYPE OF WORKSHOP	NUMBER OF WORKSHOPS	NUMBER OF PARTICIPANTS	DESCRIPTION
Food Waste Reduction Workshops	23	328	Reduce food waste by learning harvesting, freezing/canning, and fermenting techniques to store foods.
Recycling Workshops	7	128	Learn how to sort household recyclables properly to reduce contamination. Understand the recycling process and the importance recycling has on the environment.
Richmond Recycling Depot Tours	11	218	Interactive tour of the Richmond Recycling Depot designed to teach residents about the drop-off options available and materials accepted for recycling.
Total	41	674	



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TIPS AND RESOURCES

EASY STEPS TO INCREASE RECYCLING AND REDUCE WASTE

In Richmond, we care about our community, and we are working together to trim our waste. The City works with residents and community partners to make it easy and convenient to reuse and recycle at home and on the go. It's all about making recycling a way of life. This at-a-glance resource on the various types of recycling programs and services available through the City of Richmond is a valuable guide to support being recycling smart in Richmond. The Tips and Resources include highlights such as how and where to recycle, what to do with hazardous waste and where to find additional information.

Resources also include contact information and locations for Richmond services and community partners involved in take back collection through product stewardship programs. Together these Tips and Resources help to support maximum recycling with minimum contamination in the waste going to the landfill.



Richmond's Environmental Program staff share information on tips and resources by phone, through outreach events and on the website.

CITY OF RICHMOND



BLUE BOX

Richmond's Blue Box recycling program provides convenient collection for residents in single-family homes and some townhomes to recycle mixed paper, plastic containers, milk cartons, paper and plastic drink cups, flower pots, empty aerosol cans and spiral wound tins like frozen juice concentrate containers as well as glass bottles and glass jars, which are separated into the grey Glass Recycling Bin.

Recyclable materials from the Blue Box program are collected from single-family homes and some townhome complexes on the same day that garbage is collected. Containers are placed into the Blue Box, glass bottles and glass jars are placed in the grey Glass Recycling Bin and all paper products, including newspaper and flattened cardboard are placed in the yellow Mixed Paper Recycling Bag. Blue Boxes are available in two sizes: regular (16 gallons) and tall (22 gallons) for extra capacity.

It is important to ensure materials are sorted correctly into the proper recycling receptacles. For example, recyclables must be placed individually in bins – not stacked, nestled, or in plastic bags. Also, non-packaging plastics like toys, hangers and laundry hampers are not accepted in the Blue Box but can be brought to the Richmond Recycling Depot.

For a list of items accepted in Blue Box recycling, see page 33 or visit www.richmond.ca/recycle.

Set Out Time

Before 7:30 a.m. on collection day.

Report a Missed Collection

Call 604-276-4010 or email garbageandrecycling@richmond.ca.

How to Get a Mixed Paper Recycling Bag, Glass Recycling Bin or Blue Box

There is no charge for new or replacement Blue Boxes, Glass Recycling Bins or Mixed Paper Recycling Bags.

For additional Blue Box supplies call 604-276-4010 or pick them up at the following locations:

Richmond Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

City Hall

6911 No. 3 Road
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)
8:15 a.m. to 5:00 p.m.

Please note: Tall Blue Boxes are only available at the Richmond Recycling Depot.

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WHAT GOES WHERE:



MIXED PAPER RECYCLING BAG

ACCEPTED

- ✓ Newspapers, inserts & flyers
- ✓ Flattened cardboard boxes
- ✓ Catalogues & magazines
- ✓ Cereal boxes
- ✓ Clean pizza boxes
- ✓ Corrugated cardboard (small pieces)
- ✓ Envelopes
- ✓ Junk mail
- ✓ Paper bags
- ✓ Paper egg cartons
- ✓ Paper gift wrap & greeting cards
- ✓ Telephone books
- ✓ Shredded paper (place inside a paper bag to avoid scattering)
- ✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper)

HOW TO RECYCLE

- Remove plastic liners/covers.
- Remove any food residue.
- Flatten boxes.
- **Place in Mixed Paper Recycling Bag.**
- Cardboard bundle size: 3 ft x 2 ft x 4 in (90 cm x 60 cm x 10 cm)

Note: Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.

NOT ACCEPTED

- ✗ Cardboard boxes with wax coating
- ✗ Plastic bags used to cover newspapers/flyers
- ✗ Metallic wrapping paper
- ✗ Ribbons or bows
- ✗ Musical greeting cards with batteries
- ✗ Padded envelopes
- ✗ Plastic lined paper bags (pet food, tortilla chips)
- ✗ Plastic or foil candy wrappers

GLASS RECYCLING BIN

ACCEPTED

- ✓ Clear or coloured glass bottles & glass jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles)

HOW TO RECYCLE

- Remove lids & caps.
- Remove food residue.
- Empty & rinse.
- **Place in Glass Recycling Bin.**

NOT ACCEPTED

- ✗ Glasses, dishes, cookware, window glass or mirrors
- ✗ Ceramic products
- ✗ Lids & caps (place in Blue Box)

BLUE BOX FOR CONTAINERS

ACCEPTED

- ✓ Empty aerosol cans & caps (food items, air fresheners, shaving cream, deodorant, hairspray)
- ✓ Microwavable bowls, cups & lids
- ✓ Paper food containers & cartons (ice-cream, milk, liquid whipping cream)
- ✓ Paper & plastic drink cups with lids
- ✓ Plastic containers, trays & caps (bakery containers & deli trays)
- ✓ Plastic and paper garden pots & trays
- ✓ Spiral wound paper cans & lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula)
- ✓ Aluminium cans & lids
- ✓ Aluminium foil & foil containers (foil wrap, pie plates, food trays)
- ✓ Plastic bottles & caps (food items, condiments such as ketchup, mustard & relish, dish soap, mouthwash, shampoos, conditioners)
- ✓ Plastic jars & lids
- ✓ Plastic tubs & lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream)
- ✓ Tin cans & lids

HOW TO RECYCLE

- Remove food residue.
- Remove caps or lids; place loose in the Blue Box.
- Empty and rinse.
- **Place in Blue Box.**

Note: Flatten containers where possible.

NOT ACCEPTED

- ✗ Aerosol cans with hazardous materials (spray paint) or with remaining content*
- ✗ Ceramic plant pots
- ✗ Compostable/biodegradable plastic bags & containers
- ✗ Containers for motor oil, vehicle lubricant or wax products
- ✗ Foil-lined cardboard lids from take-out containers
- ✗ Garden hoses
- ✗ Plastic bags & over wrap*
- ✗ Plastic string or rope
- ✗ Styrofoam materials*

* Take to the Richmond Recycling Depot

CITY OF RICHMOND



BLUE CART

All multi-level multi-family complexes like apartments and condominiums and some townhomes have a mini-recycling depot with Blue Carts for recycling mixed paper, plastic containers, milk cartons, paper and plastic drink cups, flower pots, empty aerosol cans and spiral wound tins like frozen juice concentrate containers as well as glass bottles and glass jars, which are separated into the Glass Recycling Cart. They are generally located in the garbage room or other convenient location.

For sorting recycling, containers are placed in the Containers Recycling Cart, glass bottles and glass jars are placed in the Glass Recycling Cart and paper products including newspaper and flattened cardboard are placed in the Mixed Paper Recycling Cart. These recyclable materials are banned from landfill.

The carts are emptied once a week. Statutory holidays do not generally affect the collection; however, Christmas Day may delay collection by one day if it falls on a weekday. For information about the recycling depot location in your building, contact your building manager or property manager.

It is important to ensure materials are sorted correctly into the proper recycling carts. For example, recyclables must be placed individually in carts – not stacked, nestled, or in plastic bags. Also, non-packaging plastics like toys, hangers and laundry hampers are not accepted in the Blue Cart but can be brought to the Richmond Recycling Depot.

For a list of items accepted in Blue Cart recycling, see page 35 or visit www.richmond.ca/recycle.

Cart Emptying

Some carts are retrieved from their site, however, some are brought out to a collection area.

Carts brought out must be at the collection area before 7:30 a.m.

Report a Missed Collection

Call 604-276-4010 or email garbageandrecycling@richmond.ca.

How to Get an Indoor Collection Bag for Blue Cart Recycling

There is no charge for new or replacement Blue Cart recycling bags. For additional bags call 604-276-4010 or pick them up at the following locations:

City Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

City Hall

6911 No. 3 Road
Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays)
8:15 a.m. to 5:00 p.m.

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WHAT GOES WHERE:



MIXED PAPER RECYCLING CART

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Newspapers, inserts & flyers ✓ Flattened cardboard boxes ✓ Catalogues & magazines ✓ Cereal boxes ✓ Clean pizza boxes ✓ Corrugated cardboard (small pieces) ✓ Envelopes ✓ Junk mail ✓ Paper bags ✓ Paper egg cartons ✓ Paper gift wrap & greeting cards ✓ Telephone books ✓ Shredded paper (place inside a paper bag to avoid scattering) ✓ Writing paper (notepads, loose leaf paper, white or coloured paper, printed paper) 	<ul style="list-style-type: none"> • Remove plastic liners/covers. • Remove any food residue. • Flatten boxes. • Cut cardboard into small pieces – 12 in x 12 in (30 cm x 30 cm) • Place in Mixed Paper Recycling Cart. <p><i>Note: Oversized/excessive amounts of cardboard can be dropped off at the City's Recycling Depot at 5555 Lynas Lane.</i></p>	<ul style="list-style-type: none"> ✗ Cardboard boxes with wax coating ✗ Plastic bags used to cover newspapers/flyers ✗ Metallic wrapping paper ✗ Ribbons or bows ✗ Musical greeting cards with batteries ✗ Padded envelopes ✗ Plastic lined paper bags (pet food, tortilla chips) ✗ Plastic or foil candy wrappers

GLASS RECYCLING CART

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Clear or coloured glass bottles & glass jars (pickle jars, jam jars, spaghetti sauce jars, soy sauce bottles) 	<ul style="list-style-type: none"> • Remove lids & caps. • Remove food residue. • Empty & rinse. • Place in Glass Recycling Cart. 	<ul style="list-style-type: none"> ✗ Glasses, dishes, cookware, window glass or mirrors ✗ Ceramic products ✗ Lids & caps (place in Containers Recycling Cart)

CONTAINERS RECYCLING CART

ACCEPTED	HOW TO RECYCLE	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Empty aerosol cans & caps (food items, air fresheners, shaving cream, deodorant, hairspray) ✓ Microwavable bowls, cups & lids ✓ Paper food containers & cartons (ice-cream, milk, liquid whipping cream) ✓ Paper & plastic drink cups with lids ✓ Plastic containers, trays & caps (bakery containers & deli trays) ✓ Plastic and paper garden pots & trays ✓ Spiral wound paper cans & lids (frozen juice, potato chips, cookie dough, coffee, nuts, baby formula) ✓ Aluminium cans & lids ✓ Aluminium foil & foil containers (foil wrap, pie plates, food trays) ✓ Plastic bottles & caps (food items, condiments such as ketchup, mustard & relish, dish soap, mouthwash, shampoos, conditioners) ✓ Plastic jars & lids ✓ Plastic tubs & lids (margarine, spreads, dairy products such as yogurt, cottage cheese, sour cream, ice cream) ✓ Tin cans & lids 	<ul style="list-style-type: none"> • Remove food residue. • Remove caps or lids; place loose in the Blue Cart. • Empty and rinse. • Place in Containers Recycling Cart. <p><i>Note: Flatten containers where possible.</i></p>	<ul style="list-style-type: none"> ✗ Aerosol cans with hazardous materials (spray paint) or with remaining content* ✗ Ceramic plant pots ✗ Compostable/biodegradable plastic bags & containers ✗ Containers for motor oil, vehicle lubricant or wax products ✗ Foil-lined cardboard lids from take-out containers ✗ Garden hoses ✗ Plastic bags & over wrap* ✗ Plastic string or rope ✗ Styrofoam materials* <p>* Take to the Richmond Recycling Depot</p>

CITY OF RICHMOND

GREEN CART

Food scraps are banned from the garbage, which means they must be recycled or composted. With the Green Cart program, all Richmond residents have access to food scraps recycling and when you recycle with a Green Cart, you are helping turn food scraps and yard trimmings into compost for nutrient-rich soil.

Residents with curbside collection may continue to use Green Cans for excess food scraps and yard trimmings. Paper yard waste bags and tied bundles of yard trimmings are also accepted. Please visit www.richmond.ca/greencart for more information.

Please note that Green Carts stay with the property. Residents with curbside collection may exchange their Green Cart for a different size for \$25. If residents move to another house in Richmond, they will have a Green Cart at that location. If there is no cart, or to exchange a cart size, please call 604-276-4010.

WHAT GOES IN THE GREEN CART:

A collage of various food scraps and yard trimmings including coffee grounds, eggshells, meat, vegetables, and yard waste, next to a green Green Cart bin and a bag of ECO compost.

ACCEPTED		HOW TO RECYCLE	NOT ACCEPTED
FOOD SCRAPS & FOOD SOILED PAPER <ul style="list-style-type: none">✓ Breads, pasta, rice & noodles✓ Coffee grounds & filters✓ Dairy products✓ Fruit✓ Eggshells✓ Meat, poultry, fish, shellfish & bones✓ Paper towels/napkin/plates✓ Pizza delivery boxes✓ Small amounts of grease/oil absorbed into paper towel✓ Solid grease✓ Table scraps & food scrapings✓ Tea bags✓ Vegetables	YARD TRIMMINGS <ul style="list-style-type: none">✓ Flowers✓ Leaves✓ Grass clippings✓ Other organic yard materials✓ Plants (living or dead/dried)✓ Plant trimmings✓ Tree & hedge prunings	<ul style="list-style-type: none">• Collect food scraps in your kitchen container.• Empty materials from your kitchen container into your Green Cart.• Place yard trimmings into Green Cart along with your food scraps (Extra yard trimmings can go in large paper bags or additional labelled Green Cans).• Place your Green Cart at the curb along with unlimited paper yard trimmings bags and/or Green Cans, Blue Box recycling and garbage by 7:30 a.m. on your regular collection day. <p><i>Note: For centralized Green Cart service, the collection details are arranged between the City and the strata council or property manager. Residents do not have to set the carts out for pick up.</i></p>	<ul style="list-style-type: none">✗ Coffee cups✗ Compostable and biodegradable plastic bags✗ Styrofoam cups, meat trays or takeout containers✗ Garden hoses or flower pots✗ Liquid grease✗ Lumber✗ Pet feces or kitty litter✗ Plastic bags and plastic overwrap✗ Plastic wraps✗ Prunings over 4 inches (10 cm) in diameter✗ Rocks, dirt or sod

Yard Trimmings Drop-off Locations

Richmond residents and commercial landscapers can drop off yard trimmings (see above for materials accepted) at the following locations.

Ecowaste Industries

15111 Triangle Road
Open Monday to Friday from 7:00 a.m. to 4:30 p.m. (last load in at 4:15 p.m.)

Open Saturday from 8:00 a.m. to 4:00 p.m. (last load in at 3:45 p.m.). Closed Sundays.

Commercial operators will be charged a fee unless pre-approved for servicing residential properties in Richmond.

Visit ecowaste.com or call 604-277-1410 for detailed information.

City Recycling Depot

5555 Lynas Lane
Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays)
9:00 a.m. to 6:15 p.m.

There is no charge for dropping off amounts less than one cubic yard (a car, station wagon or minivan load). Large loads are charged a fee of \$20 per cubic yard. Commercial operators will be charged a fee of \$20 per cubic yard at the Richmond Recycling Depot.



HOME COMPOSTING

Home composting turns your food scraps and yard trimmings into nutrient-rich soil that can be spread on lawns and flowerbeds.

BACKYARD COMPOST BIN

Compost bins are available to Richmond residents at the Recycling Depot for \$25 plus tax. The bin dimensions are 32 inches (81 cm) high, 28 inches (71 cm) wide and 28 inches (71 cm) deep. They are suitable for residential backyard composting of grass, leaves, vegetable trimmings, fruit trimmings and other miscellaneous organic garden trimmings.

COMPOST HOTLINE

The Compost Hotline offers support and tips for best practices in home composting. It is operated by City Farmer, which has researched and promoted the best methods of urban composting since 1978.

Compost Hotline

Phone: 604-736-2250

Email: composthotline@telus.net

COMPOST DEMONSTRATION GARDEN

A compost demonstration garden is located at 2631 Westminster Highway in the Terra Nova Rural Park. Composting demonstration units are on display for viewing year-round, from dawn to dusk.



Nitrogen Rich Green Materials:

- PLANT TRIMMINGS
- FRUIT & VEGETABLE PEELINGS
- FRESH GRASS CLIPPINGS
- COFFEE GROUNDS & TEA LEAVES

Carbon Rich Brown Materials:

- DRY LEAVES
- SAWDUST
- STRAW
- SHREDDED NEWSPAPER CLIPPINGS

HOW TO COMPOST

- 1 USING A BACKYARD COMPOST BIN, START WITH A GOOD LAYER OF COARSE ORGANIC MATERIAL, SUCH AS STRAW, LEAVES OR PRUNING AT THE BOTTOM TO ALLOW AIR TO CIRCULATE.
- 2 ADD A GOOD LAYER OF NITROGEN-RICH GREEN MATERIAL FOLLOWED BY ONE LAYER OF CARBON-RICH BROWN MATERIAL, UNTIL THE BIN IS FULL.
- 3 COMPOST REQUIRES AIR. TURN AND STIR YOUR COMPOST WEEKLY SO THE ORGANISMS GET NECESSARY OXYGEN.
- 4 COMPOST REQUIRES MOISTURE. WATER YOUR COMPOST BIN FREQUENTLY TO ENSURE IT STAYS AS MOIST AS A WRUNG-OUT SPONGE.
- 5 GIVE IT TIME - IN 12-18 MONTHS, MATERIAL AT THE BOTTOM AND MIDDLE OF THE BIN SHOULD BE COMPOSTED. USE THIS THROUGHOUT YOUR GARDEN. USE THE UN-COMPOSTED MATERIAL TO START A NEW BATCH. CHIPPING OR CHOPPING THE MATERIAL CAN INCREASE THE SPEED OF THE PROCESS. REGULAR AERATION IS KEY TO SUCCESSFUL COMPOSTING.

CITY OF RICHMOND

GARBAGE COLLECTION

CURBSIDE COLLECTION SERVICE

Biweekly Garbage Cart Program

Garbage Carts are collected biweekly (every other week). Annual curbside garbage collection fees are based on the size of the cart – the smaller the cart, the lower the fees. Residents may exchange their Garbage Cart for a different size for \$25 by calling 604-276-4010.

For cart size options, visit www.richmond.ca/garbage.

Preparing Garbage for Collection

It's important to secure or wrap loose garbage to prevent loose materials from being scattered by wind or animals. Garbage must be securely packed in plastic bags. This includes ashes, kitty litter, disposable diapers, vacuum cleaner sweepings and other loose household garbage.

All garbage must be placed at curbside before 7:30 a.m. on collection day but no earlier than 8:00 p.m. the day before. Do not place receptacles or other items on the road.

Residents are responsible for cleaning up any loose materials that have been scattered over the ground by animals, wind or vandalism.

Extra Item Disposal Options

Purchase Garbage Tags or Garbage Disposal Vouchers to dispose of extra garbage.

\$2 Garbage Tags

Garbage Tags for curbside collection are available for purchase at all City facilities. One Garbage Tag is good for an additional garbage bag or can.

Garbage Disposal Vouchers

Richmond residents may purchase a Garbage Disposal Voucher for \$5 at all City facilities. These vouchers are good for up to \$25 at the Vancouver Landfill, and are valid anytime. They are limited to one per household. Visit www.richmond.ca/recycle for a list of City facilities selling Garbage Tags and Garbage Disposal Vouchers.

Large Item Pick-Up Program

Residents in single-family homes, some townhomes and multi-family complexes with City Garbage Cart and/or Blue Box service, can arrange for curbside collection of four large household items each year. See page 39 for details.

Sign Up for the Richmond Collection Schedule App

Get weekly collection reminders by downloading the free Richmond Collection Schedule app at the Apple or Android app stores to receive reminders about curbside garbage and recycling collection, and to use the Recycling Wizard for tips on where to recycle.

The following items are **not** accepted in the garbage:

MATERIAL	HOW TO RECYCLE OR DISPOSE
X DEMOLITION WASTE	<ul style="list-style-type: none"> Take to Ecowaste Industries at 15111 Triangle Road, or call the RCBC Recycling hotline at 604-RECYCLE (732-9253).
X DIRT, ROCK, CONCRETE OR BRICKS	<ul style="list-style-type: none"> Take to Ecowaste Industries. Visit ecowaste.com or call 604-277-1410 for accepted items & hours.
X DRYWALL (Gypsum, sheetrock, plasterboard, gyproc & wallboard)	<ul style="list-style-type: none"> Special restrictions apply. Please call the RCBC Recycling Hotline for details at 604-732-9253.
X HAZARDOUS WASTE	<ul style="list-style-type: none"> Call RCBC Recycling Hotline at 604-732-9253, visit www.metrovancouverrecycles.org or see page 46 - 52 for drop-off locations.
X MATERIALS THAT ARE TOO BIG OR MAY DAMAGE GARBAGE TRUCK	<ul style="list-style-type: none"> See Large Item Pick Up program on page 39 for disposal options.
X PROVINCIAL PRODUCT STEWARDSHIP COLLECTION (TAKE BACK) ITEMS	<ul style="list-style-type: none"> Visit bcstewards.com or call 604-732-9253.
X RECYCLABLE MATERIALS (Mixed paper, cardboard, plastic containers, empty aerosol cans, tin & aluminium cans, glass bottles & jars, and other materials accepted in the Blue Box/Blue Cart program)	<ul style="list-style-type: none"> Recycle with the Blue Box or Blue Cart program. Remember to recycle glass separately using the Glass Recycling Bin/Cart. See pages 32 - 35 for details.
X YARD TRIMMINGS & FOOD SCRAPS	<ul style="list-style-type: none"> Place in Green Carts or for yard trimmings only, paper yard waste bags. For yard trimmings only, one cubic yard or less may be dropped off at Recycling Depot. Unlimited amounts of yard trimmings can be dropped off at Ecowaste Industries with proof of residency. Check Green Cart section for restrictions and accepted materials on page 36.

For a list of drop-off locations, use the City's Recycling Wizard available on the Richmond Collection Schedule app and at www.richmond.ca/recyclesearch or call the RCBC Recycling Hotline at 604-732-9253.

COLLECTION SERVICE FOR LARGE HOUSEHOLD ITEMS

Richmond's Large Item Pick Up program provides a convenient collection service for up to four large household items per year, including mattresses, furniture and appliances. The program is available to residents in single-family homes, as well as townhomes and multi-family complexes with the City's garbage collection service and/or Blue Box program.

This program is designed to make it more convenient for residents to dispose of large household items and to help reduce illegal dumping. As well, through this program, large household items that can be recycled will be diverted from the landfill, which will help Richmond achieve its goal for 80% waste diversion from the landfill by 2020.

STEPS ON HOW THE PROGRAM WORKS:

- 1** To schedule collection of up to four items per year, residents can contact the City's service provider, Sierra Waste Services at 604-270-4722 or schedule online at www.richmond.ca/largeitem.
- 2** Sierra Waste Services will contact you to provide a pick up date and confirmation number.
- 3** On your scheduled pick up date only, place items at the curb or for multi-family complexes, in the area designated by the strata or property manager, before 7:30 a.m. or no earlier than 8:00 p.m. the night before.

Safety Consideration: If the large item is a freezer, refrigerator, icebox or other container that is equipped with a latch or locking device, the door/latch must be removed and placed beside the large item for safety reasons.



DID YOU KNOW?

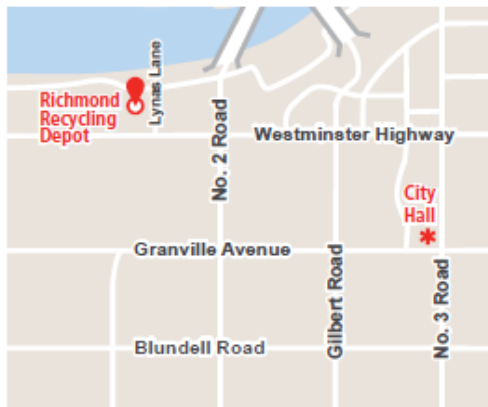
Water-logged mattresses cannot be recycled and pose safety hazards for lifting. Mattresses must be covered in plastic to ensure they can be collected and recycled. Reuse the bag from newly-purchased mattresses or purchase bags from home hardware and supply stores.

LIST OF ITEMS ACCEPTED

ACCEPTED	NOT ACCEPTED
<ul style="list-style-type: none"> ✓ Appliances (e.g. stove, dishwasher, washer and/or dryer, hot water tank, refrigerator, freezer, microwave, cooler) ✓ Barbecues (remove propane tank and/or lava rock briquettes) ✓ Bed frame ✓ Electric lawnmowers ✓ Furniture (e.g. couch, coffee table, chair, desk, dresser, TV stand, cabinet, drawer, table, hutch, crib, high chair, entertainment centre) ✓ Headboard ✓ Outdoor furniture (e.g. chairs, patio tables, patio umbrellas) ✓ Small household goods, which must be in boxes or bundled and are a reasonable size (one box or bundle is equal to one of the resident's four allotted items) ✓ Weight training equipment (e.g. treadmills, ellipticals, stationary bikes, stair masters, weight sets) ✓ Mattresses or boxsprings – please cover your mattress with a plastic bag. 	<ul style="list-style-type: none"> ✗ Car bodies or parts ✗ Carpets ✗ Construction materials ✗ Drywall ✗ Gas lawnmowers ✗ Hazardous waste ✗ Lumber, demolition or home renovation materials ✗ Propane tanks ✗ Tree stumps ✗ Tires <p>Note: Items that contain any hazardous liquids such as gas, oil, etc. will not be accepted.</p> <p>See page 47 - 52 for disposal locations or call the RCBC Recycling Hotline at 604-732-9253.</p>

Note: The item(s) must be able to be safely handled from the curbside in order to qualify for collection.

CITY OF RICHMOND



RECYCLING DEPOT

The Richmond Recycling Depot is located at 5555 Lynae Lane and is open from Wednesday through Sunday from 9:00 a.m. to 6:15 p.m. The Depot accepts Styrofoam, batteries, cell phones, used cooking oil, large appliances, large metal items and yard trimmings, as well as recyclables normally placed curbside.

Residents are encouraged to use the curbside recyclables collection for glass bottles and glass jars, rigid plastic containers, newsprint and mixed paper. Businesses are encouraged to subscribe to onsite collection services if a large quantity of recyclables is produced. Residents and small business operators can drop off one cubic yard of recyclables and three large appliances at the Depot per day.

In addition, the Depot is a Product Stewardship (take back) Collection site for paint, solvents, flammable liquids, pesticides, lights, lighting fixtures and small appliances.

FOR SALE AT THE RECYCLING DEPOT

Residents can purchase the following items:

- Compost bins - \$25 each + GST
- Rain barrels - \$30 each + GST
- Extra Garbage Tags - \$2 each
- Garbage Disposal Vouchers (cost is \$5 for Richmond residents and value is up to \$25 at the Vancouver Landfill)



TIP FOR RESIDENTS

Residents can purchase compost bins from the Richmond Recycling Depot. To learn more about how to compost, see page 37, or visit the Compost Demonstration Garden located at 2631 Westminister Highway in the Terra Nova Rural Park.

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**MATERIALS ACCEPTED AT THE RICHMOND RECYCLING DEPOT**

Please note: All materials must be sorted into different containers at the Recycling Depot. Please visit www.richmond.ca/depot for drop-off details.

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> ✓ Aluminium materials (aluminium foil, pie plates) ✓ Appliances (small and large electrical/battery operated appliances including dishwashers, washing machines, stoves, barbeques, ovens, microwaves, fridges, freezers, vacuums, hair dryers, toaster ovens, etc.) ✓ Batteries (small household batteries less than 5 kg) ✓ Books ✓ Cell phones (including batteries) ✓ Clean untreated wood ✓ Cooking oil and animal fat ✓ Corrugated cardboard (flattened, clean corrugated boxes) ✓ Exercise and hobby machines (treadmills, elliptical / cross trainers, cycling machines) | <ul style="list-style-type: none"> ✓ Flammable aerosols ✓ Flammable liquids ✓ Flower pots (paper/plastic garden pots) ✓ Gasoline (in approved ULC containers) ✓ Glass bottles and jars (clear and coloured) ✓ Lights (fluorescent tubes, compact fluorescent lights, light emitting diodes, halogen and incandescent lights, high intensity discharge and other mercury containing lamps) ✓ Lighting fixtures ✓ Magazines ✓ Metal items (bike frames, clean 45 gallon drums, clean automotive parts, lawn chairs, steel coat hangers, steel or lead piping) ✓ Paper (mixed paper products including flattened boxboards, envelopes, junk mail, flyers, inserts, office paper, paper egg cartons, telephone books, etc.) | <ul style="list-style-type: none"> ✓ Newspaper ✓ Paints (household paints) ✓ Paint aerosols ✓ Pesticides (domestic pesticides) ✓ Plastic containers ✓ Plastic grocery shopping bags and plastic overwrap ✓ Sewing, knitting and textile machines ✓ Styrofoam packaging ✓ Tin cans ✓ Tools (power tools such as angle saws, jigsaws, trimmers, drum machines, etc.) ✓ Yard and garden trimmings |
|--|---|---|

CITY OF RICHMOND



TIP FOR RESIDENTS

You can find drop-off locations and how to recycle a variety of household items using the Recycling Wizard on the free Richmond Collection Schedule App (available at the Apple and Android app stores). Plus, the app sends you weekly collection day reminders!

The Recycling Wizard is also available online at www.richmond.ca/recyclesearch.

COMMUNITY RESOURCES AND PARTNERS

METRO VANCOUVER RECYCLES — REUSE AND RECYCLE IN THE REGION

A convenient web tool called Metro Vancouver Recycles makes it easy to connect with people who could use products you don't need, or to find options for recycling products that cannot be included in your curbside collection, visit metrovanancouverrecycles.org.

There are also convenient links to online services if you want to sell or give away goods. The following are just a few examples in the Metro Vancouver region:

Metro Vancouver Recycling Directory
metrovanancouverrecycles.org

MetroVan Reuses
bc.reuses.com

Richmond Shares
richmondshares.bc.ca

Recycle BC
recyclebc.ca

RCBC COMMUNITY RESOURCES

Recycling Hotline
Monday to Friday, 9 a.m. to 4 p.m.
Phone: 604-RECYCLE (604-732-9253)
Email: hotline@rcbc.bc.ca
RCBC Recyclepedia at rcbc.bc.ca/recyclepedia
Smart Phone App: BC Recyclepedia App
(available at iPhone App Store and Android Market)

DID YOU KNOW?

Four, 2-litre plastic bottles can be recycled into one t-shirt, filling for a ski jacket and two ball caps.

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PRODUCT STEWARDSHIP PROGRAMS

The City of Richmond works with local companies and organizations like Product Care and Encorp to support BC's Product Stewardship Programs.

These programs are often called take back programs or Extended Producer Responsibility (EPR) programs, and they are based on the principle that whoever designs, produces, sells or uses a product is also responsible for minimizing that product's environmental impact. The key participants in these programs are the BC government, local governments, producers, retailers and consumers who bring their products to designated collection sites when they are at their end of life. The cost of these programs is covered by consumers and producers, sometimes in the form of a deposit or levy that is charged at the time of purchase. In the case of beverage containers, there are refunds available when they are returned at a collection site.

Take back programs are important as they expand the opportunities for recycling beyond the curbside collection services. There are many household items that can be recycled through businesses and organizations in the community who participate in BC's Product Stewardship Program. Many of these items are also considered hazardous waste, and they are restricted from garbage as they are not accepted at the landfill. The take back programs help to ensure that these expired or end-of-life products will be disposed of safely, and recycled where possible.



CITY OF RICHMOND

PRODUCT STEWARDSHIP PROGRAM CATEGORIES

The following categories highlight the products that can be returned to retailers and other community partners. For a list of drop-off locations for each category, please see pages 47 to 52.

TAKE BACK PROGRAMS	WHAT IS INCLUDED	STEWARDSHIP AGENCY
BATTERIES	Household batteries	Call2Recycle Contact call2recycle.ca 1-888-224-9764 info@call2recycle.ca Drop off site locator 1-877-273-2925
BEVERAGE CONTAINERS	Almost all types of beverage containers	Encorp Pacific (Canada) Contact return-it.ca/locations 1-800-330-9767 or 604-473-2400 returnit@returnit.ca Note: Beverage containers like pop and juice cans and bottles can be returned for a refund of the deposit at a number of Return-It Depot locations in Richmond.
CELL PHONES	Mobile/wireless devices that connect to a cellular or paging network, including all cell phones, smart phones, wireless personal digital assistants (PDAs), external air cards and pagers, as well as cell phone batteries and accessories, including headsets and chargers	Canadian Wireless Telecommunications Association Contact RecycleMyCell.ca 1-888-797-1740 info@recyclemycell.ca
ELECTRONICS	Televisions and computer and printer products such as desktop computers, display devices, portable (laptop) computers, desktop printers and fax machines and computer accessories like keyboards, pointing devices, track balls and mice	Encorp Pacific (Canada) Contact return-it.ca/electronics 1-800-330-9767 or 604-473-2400 returnit@returnit.ca
MEDICATION	All expired or leftover prescription medication, non-prescription medication and mineral supplements, anti-fungal and anti-bacterial creams	Health Products Stewardship Association Contact healthsteward.ca/returns/british-columbia 613-723-7282 or 1-844-535-8889 info@healthsteward.ca

DID YOU KNOW?

100% of brewer packaging is either reusable or recyclable, and in addition to standard beer cans and bottles, brewers reuse or recycle their aluminium kegs and their secondary packaging including plastic shrink wrap, cardboard and wooden pallets.

2017 REPORT • IMPROVING RECYCLING QUALITY

**DID YOU KNOW?**

A littered aluminum can takes 500 years to disintegrate, but it only takes six weeks to be manufactured, filled, sold, recycled, remanufactured, refilled and be back out on the marketplace.

TAKE BACK PROGRAMS	WHAT IS INCLUDED	STEWARDSHIP AGENCY
PACKAGING AND PRINTED PAPER	Aerosol cans, microwavable bowls/cups/lids, paper food containers & cartons, plastic & paper drink cups with lids, plastic containers/jars/tubs/trays, aluminium cans, tin cans, etc. Visit recyclinginbc.ca for a complete list	RecycleBC Contact recyclebc.ca 778-588-9504 or 1-855-875-3596 info@recyclebc.ca
PAINTS, SOLVENTS, PESTICIDES AND GASOLINE	Paints, solvents, pesticides and gasoline	Product Care Association Contact regeneration.ca 1-877-592-2972 contact@productcare.org
SMALL APPLIANCES AND POWER TOOLS	Kitchen countertop appliances (e.g. toasters, microwaves, coffee makers and food processors), electric bathroom scales, hair dryers, carpet cleaners, vacuum cleaners, portable fans, power tools, sewing and exercise machines	ElectroRecycle is a non-profit, province-wide, small electrical appliance recycling program in B.C. and the first of its kind in Canada through the Canadian Electrical Stewardship Association (CESA) with the help of BC's Product Care Association Contact electrorecycle.ca 1-877-670-2372 info@cesarecycling.ca
TIRES	Car tires, truck tires and some agricultural and logger/skidder tires	Tire Stewardship BC (TSBC) Contact tsbc.ca 1-866-759-0488
THERMOSTATS	Mercury-containing and electronic thermostats	Heating, Refrigeration and Air Conditioning Institute of Canada in partnership with the Canadian Institute of Plumbing and Heating, and delivered by Summerhill Impact. Contact switchthestat.ca 416-922-2448 (ext 232) jcourt@summerhillgroup.ca
USED OIL AND ANTIFREEZE	Motor oil, oil filters, empty oil containers, antifreeze and used antifreeze containers	BC Used Oil Management Association Contact usedoilrecycling.com/en/bc 1-866-254-0555 reception@usedoilrecycling.ca

CITY OF RICHMOND

HAZARDOUS WASTE AND OTHER DISPOSAL ITEMS


The careless handling of hazardous products can cause serious injury as well as damage to the environment. Hazardous products that are dumped in sewers or green spaces can injure livestock, wildlife and plant life. Careful and often specialized disposal is essential for these materials.

There are certain materials that Metro Vancouver disposal facilities do not accept, either because there are already disposal programs set up for these items, or because they are hazardous to waste collection workers, the public and the environment.

At disposal sites, garbage loads are inspected for banned and prohibited materials. Loads that arrive at the disposal sites containing prohibited materials are assessed a \$65 minimum surcharge, plus the cost of removal, clean-up or remediation. Loads containing banned materials are assessed a 50% tipping fee surcharge.

Many common hazardous household and automotive products must be recycled or disposed through special depots. Disposal sites and take back collection options for hazardous and banned materials are listed on the following pages. Please note that this information is provided as a reference for your convenience; however, it is not guaranteed. Please call first to confirm that the site is still open to accept these take back products and to check hours of operation.

For a list of drop-off locations, use the City's Recycling Wizard available on the Richmond Collection Schedule app and at www.richmond.ca/recyclesearch, or call the RCBC Recycling Hotline at 604-732-9253.

BANNED AND HAZARDOUS MATERIALS		
BANNED HAZARDOUS AND OPERATIONAL IMPACT MATERIALS	BANNED MATERIALS THAT CAN BE RECYCLED WITH CITY SERVICES	BANNED PRODUCT STEWARDSHIP MATERIALS
<ul style="list-style-type: none"> x Agricultural waste x Asbestos x Automobile parts and bodies x Barrels, drums, pails or other large (205 litre or greater) liquid containers, whether full or empty x Biomedical waste x Dead animals x Gypsum x Hazardous waste x Inert fill material including soil, sod, gravel, concrete and asphalt exceeding 0.5 cubic metres per load x Liquids or sludge x Mattresses x Propane tanks x Refuse that is on fire, smoldering, flammable or explosive x Wire and cable exceeding 1% of load 	<ul style="list-style-type: none"> x Beverage containers x Clean wood x Containers made of glass, metal or banned recycled plastic  x Corrugated cardboard x Food waste x Green waste x Recyclable paper 	<ul style="list-style-type: none"> x Antifreeze and antifreeze containers x Batteries x Electronics and electrical products, including metal household and commercial appliances x Fluorescent lights x Gasoline x Lead-acid batteries x Oil, oil filters and oil containers x Packaging and printed paper x Paint x Pesticides x Pharmaceutical products and medications x Solvents and flammable liquids x Thermostats x Tires
For a complete list of banned materials, please visit www.metrovancouver.org/services/solid-waste/bylaws-regulations/banned-materials		

2017 REPORT • IMPROVING RECYCLING QUALITY

**TIP FOR RESIDENTS**

To spot hazardous waste, look for the words Danger, Warning, or Caution on the product label, and any of the symbols shown above.

**ANTIFREEZE AND EMPTY CONTAINERS^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Cowell Motors Ltd. - Volkswagen	13611 Smallwood Place	604-273-3922
Jaguar Land Rover Richmond*	5660 Parkwood Way	604-273-6068
Jiffy Lube	10991 No. 4 Road	604-448-0142
Mobil 1 Lube Express*	3011 No. 5 Road	604-278-1999
Rainbow Auto Service	142 - 11788 River Road	604-276-2820

For a complete list of antifreeze or containers accepted, visit <http://usedoilrecycling.com/en/bc> or call 604-732-9253.

APPLIANCES - SMALL^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171
Richmond Return-It Depot	135 - 8171 Westminster Hwy	604-232-5555

For a complete list of small appliances accepted, visit electrorecycle.ca or call 604-732-9253.

AUTOMOTIVE BATTERIES^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Kal Tire	2633 No. 5 Road	604-278-9181
Regional Recycling *	13300 Vulcan Way	1-855-701-7171

Note: All retail locations accept a used car battery for each new one purchased. For a list of collection sites, please visit www.recyclemybattery.ca

BABY CAR SEATS

DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill *	5400 72nd Street, Delta	604-873-7000
Pacific Mobile Depots (occurs third Saturday of every month)	Britannia Community Centre, 1661 Napier Street, Vancouver	604-718-5800
Queensborough Landing Return-It Depot	Unit A - 409 Boyne Road, New Westminster	604-540-4467

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND

**BATTERIES AND MOBILE PHONES ^{DB}**

Batteries weighing five kilograms or less.

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700-5300 No. 3 Road	604-273-7335
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Dr Battery	102 - 4460 Jacombs Road	604-273-8248
Home Depot (batteries only)	2700 Sweden Way	604-303-9882
London Drugs	5971 No. 3 Road	604-448-4811
	3200 - 11666 Steveston Highway	604-448-4852
Pharmasave	116 - 10151 No. 3 Road	604-241-2898
Rona	7111 Elmbridge Way	604-273-4606
Staples	8171 Ackroyd Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850

For a complete list of batteries accepted, please visit call2recycle.ca or call 1-888-224-9764.For a complete list of mobile phones drop off locations, visit call2recycle.ca/locator.

All cellular/mobile phone stores accept used cellular/mobile phones for refurbishing or recycling.

To erase information from your device, including text messages, contacts and personal files, use Cell Phone Data Erasers by recyclemycell.ca/recycling-your-device available for free.**CARBON MONOXIDE (CO), SMOKE AND COMBINATION SMOKE AND CO ALARMS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
London Drugs (smoke detectors only)	5971 No. 3 Road	604-448-4811
	3200 - 11666 Steveston Highway	604-448-4852
Regional Recycling	13300 Vulcan Way	1-855-701-7171

For a complete list of alarms accepted, please visit regeneration.ca or call 604-732-9253.**ELECTRONICS: AUDIO VISUAL EQUIPMENT, COMPUTERS, MONITORS, TVs, PRINTERS, FAX MACHINES, SCANNERS, VIDEO GAMES & ACCESSORIES**

DROP-OFF LOCATION	ADDRESS	PHONE
Best Buy	700 - 5300 No. 3 Road	604-273-7335
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171
Staples	8171 Ackroyd Road	604-270-9599
	110 - 2780 Sweden Way	604-303-7850

For a complete list of materials accepted, please visit return-it.ca/electronics or call 604-473-2400.**EXERCISE & HOBBY MACHINES ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171

EYEGLASSES

DROP-OFF LOCATION	ADDRESS	PHONE
Drop off at a local optometrist or eye care professional.		

FIRE EXTINGUISHERS

DROP-OFF LOCATION	ADDRESS	PHONE
Vancouver Fire*	22131 Fraserswood Way	604-232-3473

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

DID YOU KNOW?

The Product Stewardship Program helps with take back of many recyclable materials and is guided by the principle that whoever designs, produces, sells or uses a product takes responsibility for minimizing that product's environmental impact. The costs for

recycling these products are covered through environmental handling fees that are charged on the sale of products and through refundable deposits on items like beverage containers.

**FLAMMABLE LIQUIDS^{DB}, PESTICIDES^{DB}, SOLVENTS^{DB}, GASOLINE^{DB}**

(Gasoline must be in approved ULC container)

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	1-855-701-7171

For a complete list of flammable liquids, gasoline, pesticides and solvents accepted, please visit regeneration.ca or call 604-732-9253.

GENERAL HAZARDOUS MATERIALS

DROP-OFF LOCATION	ADDRESS	PHONE
Tervita*	160 - 13511 Vulcan Way	604-214-7000
Terrapure Environmental*	9 - 7483 Progress Way, Delta	604-952-1220

GYPSUM DRYWALL^{DB}

No other materials attached to or on drywall

DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill *	5400 72nd Street, Delta	604-873-7000
Ecowaste Industries Ltd. *	15111 Triangle Road	604-277-1410
New West Gypsum Recycling *	38 Vulcan Street, New Westminster	604-534-9925
Vancouver Transfer Station (Maximum 1/2 sheet with a paid load of garbage)	377 W. Kent Avenue N.	604-326-4600

HYPODERMIC NEEDLES

Purchase a "Sharps Container" from a pharmacy and return the container to same pharmacy when full.

**LIGHTS & LIGHTING FIXTURES^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
London Drugs (lightbulbs only)	5971 No. 3 Road 3200 - 11666 Steveston Highway	604-448-4811 604-448-4852
Rona	7111 Elmbirdge Way	604-273-4606

For a complete list of lighting products accepted, please visit regeneration.ca or call 604-732-9253.

LUBRICATING (USED) OIL^{DB}, OIL FILTERS^{DB}, PLASTIC OIL CONTAINERS^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Cowell Motors Ltd - Volkswagen	13611 Smallwood Place	604-273-3922
Jaguar Land Rover of Richmond*	5660 Parkwood Way	604-273-6068
Jiffy Lube	10991 No. 4 Road	604-448-0142
Mobil 1 Lube Express*	3011 No. 5 Road	604-278-1999

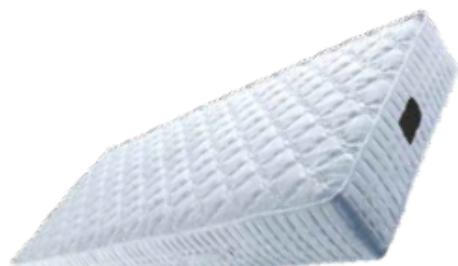
For a complete list of lubricating oil, oil filters and plastic oil containers accepted, visit bcusedoil.com or call 604-732-9253.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND

Working together with the City of Richmond, producers, retailers and residents can divert hazardous waste and other special disposal items from the landfill. Producers and retailers who support product stewardship and related take back programs assist with recycling and proper disposal, and residents can use these programs to help turn waste into resources.

**MATTRESSES AND BOXSPRINGS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Canadian Mattress Recycling*	1210 Cliveden Avenue, Delta	604-777-0324
City of Vancouver Landfill*	5400 72nd Street, Delta	604-873-7000

Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. Visit www.richmond.ca/largeitem for program details.

MEDICAL DEVICES & EQUIPMENT ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171

**MUSICAL INSTRUMENTS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot (electrical instruments only)	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171

PAINT & PAINT AEROSOL CONTAINERS ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	1-855-701-7171
Rona	7111 Elmbriidge Way	604-273-4606

For a complete list of paint & paint aerosol containers accepted, please visit regeneration.ca or call 604-732-9253.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

2017 REPORT • IMPROVING RECYCLING QUALITY

**PHARMACEUTICAL^{DB}**

All pharmacies accept left over or outdated prescription drugs, non-prescription medications, herbal products, mineral supplements, vitamin supplements and throat lozenges for safe disposal.

For a list of pharmacies and/or drugs, medications, herbal products and mineral supplements accepted, visit healthsteward.ca/returns/british-columbia or call 604-732-9253.

Note: Please do not wash these items down the drain or throw them in the garbage.

PROPANE TANKS - REFILLABLE (EMPTY)

DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill*	5400 72nd Street, Delta	604-873-7000
Husky Gas Stations*	8011 No. 3 Road	604-270-3822
	9060 Bridgeport Road	604-278-0011

PROPANE TANKS (SMALL) - DISPOSABLE (EMPTY)

DROP-OFF LOCATION	ADDRESS	PHONE
City of Vancouver Landfill	5400 72nd Street, Delta	604-873-7000
Husky Gas Stations*	8011 No. 3 Road	604-270-3822
	9060 Bridgeport Road	604-278-0011

OUTDOOR POWER EQUIPMENT^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Regional Recycling	13300 Vulcan Way	1-855-701-7171

**SEWING, KNITTING & TEXTILE MACHINES^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010
Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
OK Bottle Depot	7960 River Road	604-244-0008
Regional Recycling	13300 Vulcan Way	1-855-701-7171
Richmond Return-It Depot	135 - 8171 Westminster Hwy	604-232-5555

STYROFOAM - MOLDED PACKAGING & FOOD CONTAINERS

DROP-OFF LOCATION	ADDRESS	PHONE
City's Recycling Depot	5555 Lynas Lane	604-276-4010

London Drugs customers can return the moulded packaging Styrofoam from their appliance, computer and accessories products to any London Drugs store with proof of purchase.

STYROFOAM CHIPS (PEANUTS)

DROP-OFF LOCATION	ADDRESS	PHONE
Packaging Depot	6360 Kingsway, Burnaby	604-451-1206
	5524 Cambie Street, Vancouver	604-325-9966

TELUS EQUIPMENT (RENTAL OR RETAIL)^{DB}

All TELUS rental or retail equipment such as cordless/corded phones, Voice Over IP (VOIP) phones, Global Positioning System (GPS) equipment and video/telephone conference equipment can be returned via Canada Post, call 604-310-2255 for more information.

DB: Disposal ban | * A fee is charged

Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.

CITY OF RICHMOND

DID YOU KNOW?

Recycled tires are used in products such as athletic tracks, playground safety surfaces, synthetic turf fields and roofing products.

**THERMOSTATS ^{DB}**

DROP-OFF LOCATION	ADDRESS	PHONE
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Andrew Sheret Ltd.	4500 Vanguard Road	604-278-3766
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For more information, call 1-800-267-2231 ext. 224.

TIRES ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
Island City Automotive*	180 - 5400 Minoru Blvd	604-273-4023
Canadian Tire	3500 No. 3 Road 11388 Steveston Highway	604-273-2939 604-271-6651
Express Lube & Tune Centre*	2840 No. 3 Road	604-278-1018
Kal Tire	2633 No. 5 Road	604-278-9181
Metro Tires Ltd.	13320 Mitchell Road	604-321-9004
Midas Auto & Tire Service	4660 No. 3 Road	604-273-9664
OK Tire Store	5831 Minoru Boulevard	604-278-5171
Redline Automotive Ltd.	1 - 11711 No. 5 Road	604-277-4269
Roadrunners Dial A Tire Ltd.	125 - 11780 River Road	604-274-8473
Vancouver Landfill (Passenger/light truck, with/ without rims limit of 10)	5400 72nd Street, Delta	604-873-7000

Note: All retail locations accept a used tire for a new one purchased.

For a complete list of tires accepted, visit tsbc.ca or call 1-866-759-0488.

BICYCLE TIRES AND TUBES

DROP-OFF LOCATION	ADDRESS	PHONE
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Village Bikes	3891 Moncton Street	604-274-3865
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For more information, visit tsbc.ca/bike.php or call 1-866-759-0488.

TOOLS - POWER (ELECTRONIC & ELECTRICAL) ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
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City's Recycling Depot	5555 Lynas Lane	604-276-4010
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Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
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OK Bottle Depot	7960 River Road	604-244-0008
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Regional Recycling	13300 Vulcan Way	1-855-701-7171
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Richmond Return-It Depot	135 - 8171 Westminster Hwy	604-232-5555
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TOYS (ELECTRONIC & ELECTRICAL) INCLUDING VIDEO GAMING SYSTEMS & ACCESSORIES ^{DB}

DROP-OFF LOCATION	ADDRESS	PHONE
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Best Buy	700 - 5300 No. 3 Road	604-273-7335
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Ironwood Bottle & Return-It Depot	110 - 11020 Horseshoe Way	604-275-0585
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OK Bottle Depot	7960 River Road	604-244-0008
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Regional Recycling	13300 Vulcan Way	1-855-701-7171
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UPHOLSTERED FURNITURE (COUCHES, ARMCHAIRS, ETC)

DROP-OFF LOCATION	ADDRESS	PHONE
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Canadian Mattress Recycling*	1210 Cliveden Avenue, Delta	604-777-0324
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City of Vancouver Landfill*	5400 72nd Street, Delta	604-873-7000
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Richmond's Large Item Pick Up Program: Contact Sierra Waste at 604-270-4722. Please note some restrictions apply. Visit www.richmond.ca/largeitem for program details.

DB: Disposal ban | * A fee is charged


Please note: Drop-off locations may change without notice. Please call individual locations to confirm address and hours of operation.



CITY OF RICHMOND

Environmental Programs Information Line:
604-276-4010

www.richmond.ca/recycle

 Printed on recycled paper.



City of Richmond

Memorandum Finance and Corporate Services Division Finance Department

To: Mayor and Councillors
From: Venus Ngan
Manager, Treasury and Financial Services
Date: April 19, 2018
File: 12-8060-20-00984
Re: 2018 Proposed DCC Amendment Bylaw No. 9844

At the April 9, 2018 Council Meeting, the Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw 9844 was introduced and given first reading. As per Council's resolution, staff communicated the proposed DCC rate increase of 2.2% to the general public and to the development industry for their comments and feedback.

As of the closing of the consultation period on April 18, 2018, no comments were received. Therefore, the Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw 9844 has been forwarded to the April 23, 2018 Council meeting for second and third readings.

However, due to the original anticipated timing of adoption of the bylaw, a housekeeping amendment is required to remove reference to the effective date of May 8, 2018. With the removal of the effective date, the bylaw will be effective upon adoption, which is targeted for May 14, 2018.

A red-lined version of the amended bylaw is attached for reference.

If you have any questions, please do not hesitate to contact me at 604-276-4217.

Venus Ngan
Manager, Treasury and Financial Services

Cc: SMT, City Clerk, Law



**DEVELOPMENT COST CHARGES IMPOSITION BYLAW NO. 9499,
AMENDMENT BYLAW NO. 9844**

The Council of the City of Richmond enacts as follows:

1. Schedule B of the **Development Cost Charges Imposition Bylaw No. 9499** be deleted and be replaced with Schedule A attached to and forming part of this amendment bylaw.
2. This Bylaw is cited as "**Development Cost Charges Imposition Bylaw No. 9499, Amendment Bylaw No. 9844**" ~~and is effective May 8, 2018.~~

FIRST READING

SECOND READING

THIRD READING

ADOPTED

MAYOR

CORPORATE OFFICER

CITY OF
RICHMOND

APPROVED
for content by
originating
dept.

APPROVED
for legality
by Solicitor

SCHEDULE B City-Wide Development Cost Charge

Richmond Zoning Bylaw 8500											
Description	Standard Zones	Site Specific Zones	Site Specific Mixed Use Zones (1)	Road Works	Drainage Works	Water Works	Sanitary Sewer	Parks Acquisition	Parks Development	Total DCC	Units for each column
Agricultural	AG, CR, GC	ZA		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	-
Marina (2)	MA										
Single Family	RS, RC, RCH, RD, RI, RE, RCC	ZS, ZD		\$16,005.88	\$ 7,222.16	\$ 1,091.53	\$ 2,568.13	\$ 7,749.20	\$ 5,726.07	\$40,362.97	per lot
Townhouse	RTL, RTM, RTH, RTP	ZT		\$ 7.67	\$ 3.11	\$ 0.71	\$ 1.68	\$ 5.05	\$ 3.73	\$ 21.95	per sq. ft. of DU
Apartment	RAL, RAM, RAH	ZLR, ZHR	ZR, RCL, ZMU, CS, ZC	\$ 9.42	\$ 2.21	\$ 0.74	\$ 1.72	\$ 5.19	\$ 3.83	\$ 23.11	per sq. ft. of DU
Commercial (3)	CL, CC, CA, CDT, CEA, CG, CN, CP, CV IB, IL, IR, IS	ZC ZI	ZR, RCL, ZMU, CS, ZC	\$ 11.43	\$ 2.15	\$ 0.28	\$ 0.65	\$ 0.19	\$ 0.14	\$ 14.84	per sq. ft. of BA
Light Industrial (4)	IB, IL, IR, IS	ZI		\$ 8.17	\$ 2.15	\$ 0.28	\$ 0.65	\$ 0.19	\$ 0.14	\$ 11.58	per sq. ft. of BA
Major Industrial	I			\$42,673.51	\$ 42,743.74	\$ 3,915.22	\$ 9,211.71	\$ 760.22	\$ 561.75	\$99,866.15	per acre of gross site area
Institutional	AIR, SI, ASY, HC	ZIS		\$ 11.43	\$ 2.15	\$ 0.28	\$ 0.65	\$ 0.19	\$ 0.14	\$ 14.84	per sq. ft. of BA

(1) For site specific mixed-use residential and commercial zones, the development cost charge (DCC) payable shall be calculated separately for each portion of the development. DCC for residential uses are charged at the appropriate multi-family residential rate, and any commercial space is charged at the appropriate commercial rate.

(2) Waterborne residential development permitted under MA zone is exempt from DCC. Any upland buildings in this zone are required to pay the Commercial DCC Rate.

(3) Commercial rate is applicable to all uses permitted in these zones, except for the following, which will be charged the industrial rate: (i) general industrial, (ii) custom indoor manufacturing, (iii) minor utility, (iv) transportation depot, and (v) truck or railroad terminal.

(4) For industrial developments with a mix of commercial and industrial permitted uses (including site-specific industrial zones), the DCC payable shall be calculated separately for each portion of development contained in the building permit or subdivision application in accordance with actual uses. The total payable will be the sum of the DCC for each portion of the development at the applicable DCC rates.



**Public Health Protection Bylaw No. 6989,
Amendment Bylaw No. 9830**

The Council of the City of Richmond enacts as follows:

1. **Public Health Protection Bylaw No. 6989**, as amended, is further amended by:
 - (a) deleting subsection 6.1.1(d) and replacing it with the following:

“(d) in, or within nine (9) metres of, an enclosed or partially enclosed shelter where persons wait to board a **vehicle for hire** or public transit;”
 - (b) deleting subsection 6.1.1(e) and replacing it with the following:

“(e) within nine (9) metres of a sign post or sign indicating where persons wait to board a **vehicle for hire** or public transit;”
 - (c) deleting subsection 6.1.1(f) and replacing it with the following:

“(f) within nine (9) metres measured on the ground from a point directly below any point of any opening into any **building** including any door or window that opens or any air intake;”
 - (d) deleting subsection 6.1.1(h) and replacing it with the following:

“(h) within nine (9) metres of the perimeter of a **customer service area**.”
 - (e) deleting section 6.3 and replacing it with the following:

“PART 6.3: PUBLIC PARK, SCHOOL GROUND AND OUTDOOR RECREATION REGULATIONS

6.3.1 A person must not **smoke**:

 - (a) in a **public park** or **school ground**; or
 - (b) on or within twenty-five (25) metres of any **outdoor sport facility** or **playground**.”

- (f) adding the following definition to section 8.1 in alphabetical order:

**“ACTIVATED
E-CIGARETTE** means an **e-cigarette** in which an **e-substance** is being vapourized.

E-CIGARETTE means:

- (a) a product or device, whether or not it resembles a cigarette, containing an electronic or battery-powered heating element capable of vapourizing an **e-substance** for inhalation or release into the air; or
- (b) a product or device similar in nature or use to a product or device described in paragraph (a).

E-SUBSTANCE means a solid, liquid or gas that, on being heated, produces a vapour for use in an **e-cigarette**, regardless of whether the solid, liquid or gas contains nicotine.

PUBLIC PARK means a Public Park described in the **City’s Public Parks and School Grounds Regulation Bylaw No. 8771**, as amended or replaced from time to time.

SCHOOL GROUND means a School Ground described in the **City’s Public Parks and School Grounds Regulation Bylaw No. 8771**, as amended or replaced from time to time.”

- (g) deleting the following definitions in section 8.1 and replacing it with the following definition in alphabetical order:

“SMOKE OR SMOKING means to inhale, exhale, burn or carry:

- (a) a lighted cigarette, cigar, pipe, hookah pipe or other lighted smoking equipment that burns tobacco, cannabis or other weed or substance; or
- (b) an **activated e-cigarette**.”

2. This Bylaw is cited as "**Public Health Protection Bylaw No. 6989, Amendment Bylaw No. 9830,**" and is effective May 1, 2018.

FIRST READING

SECOND READING

THIRD READING

ADOPTED

APR - 9 2018

APR - 9 2018

APR - 9 2018

CITY OF RICHMOND
APPROVED for content by originating Division
SL
APPROVED for legality by Solicitor
LB

MAYOR

CORPORATE OFFICER

CNCL - 373



Housing Agreement (9211/9251/9271/9291 Odlin) Bylaw No. 9850

The Council of the City of Richmond enacts as follows:

1. The Mayor and City Clerk for the City of Richmond are authorized to execute and deliver a housing agreement, substantially in the form set out as Schedule A to this Bylaw, with the owner of the lands located at 9211/9251/9271/9291 Odlin and legally described as:

PID: 012-030-830	East half lot 26 Block "A" Section 34 Block 5 North Range 6 West New Westminster District Plan 1224
PID: 011-654-066	West half lot 25 except: Part subdivided by Plan 85360, Block A Section 34 Block 5 North Range 6 West New Westminster District Plan 1224
PID: 003-888-975	South half of the east half lot 25 except: Parcel "A" (Explanatory Plan 11474); Block "A" of Section 34 Block 5 North Range 6 West New Westminster District Plan 1224
PID: 016-036-344	Lot 1 Section 34 Block 5 North Range 6 West New Westminster District Plan 85360

This Bylaw is cited as "**Housing Agreement (9211/9251/9271/9291 Odlin) Bylaw No. 9850**".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

APR - 9 2018

APR - 9 2018

APR - 9 2018

CITY OF RICHMOND
APPROVED for content by originating dept.
<i>SR</i>
APPROVED for legality by Solicitor
<i>LB</i>

MAYOR

CORPORATE OFFICER

Schedule A

To Housing Agreement (9211/9251/9271/9291 Odlin) Bylaw No. 9850

HOUSING AGREEMENT BETWEEN POLYGON BERKELEY HOUSE LTD. AND THE
CITY OF RICHMOND

HOUSING AGREEMENT

(Section 483 *Local Government Act*)

THIS AGREEMENT is dated for reference _____, 2018,

BETWEEN:

POLYGON BERKELEY HOUSE LTD. (INC. NO. BC0938970), a company duly incorporated under the laws of the Province of British Columbia and having its registered office at 20th Floor, 250 Howe Street, Vancouver, British Columbia, V6C 3R8

(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 483 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,

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 Strategy**" means the Richmond Affordable Housing Strategy approved by the City on May 28, 2007, and containing a number of

recommendations, policies, directions, priorities, definitions and annual targets for affordable housing, as may be amended or replaced from time to time;

- (b) **"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;
- (c) **"Agreement"** means this agreement together with all schedules, attachments and priority agreements attached hereto;
- (d) **"Building A"** means a six-storey high-density, residential development to be constructed on the Lands as part of Phase 1 of the Development;
- (e) **"Building B"** means a six-storey high-density, residential development to be constructed on the Lands as part of Phase 2 of the Development;
- (f) **"Building Permit Building A"** means the building permit authorizing construction of Building A on the Lands, or any portion(s) thereof;
- (g) **"Building Permit Building B"** means the building permit authorizing construction of Building B on the Lands, or any portion(s) thereof;
- (h) **"City"** means the City of Richmond;
- (i) **"CPI"** means the All-Items Consumer Price Index for Canada published from time to time by Statistics Canada, or its successor in function;
- (j) **"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;
- (k) **"Development"** means a two-phase, high-rise, high-density, mixed-use residential and commercial development to be constructed on the Lands;
- (l) **"Development Permit"** means the development permit authorizing development of the Lands, or any portion(s) thereof;
- (m) **"Director of Development"** means the individual appointed to be the chief administrator from time to time of the Development Applications Division of the City and his or her designate;
- (n) **"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;

(o) **"Eligible Tenant"** means a Family having a cumulative annual income of:

- (i) in respect to a bachelor unit, \$34,650 or less;
- (ii) in respect to a one-bedroom unit, \$38,250 or less;
- (iii) in respect to a two-bedroom unit, \$46,800 or less; or
- (iv) in respect to a three or more bedroom unit, \$58,050 or less

provided that, commencing January 1, 2019, the annual incomes set-out above shall be adjusted annually on January 1st of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the annual incomes set-out above for the subsequent year shall remain unchanged from the previous year. 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;

(p) **"Family"** means:

- (i) a person;
- (ii) two or more persons related by blood, marriage or adoption; or
- (iii) a group of not more than 6 persons who are not related by blood, marriage or adoption;

(q) **"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, dated for reference _____, 2018, and registered under number CA _____, as it may be amended or replaced from time to time;

(r) **"Interpretation Act"** means the *Interpretation Act*, R.S.B.C. 1996, Chapter 238, together with all amendments thereto and replacements thereof;

(s) **"Land Title Act"** means the *Land Title Act*, R.S.B.C. 1996, Chapter 250, together with all amendments thereto and replacements thereof;

(t) **"Lands"** means Lot A, Section 34, Block 5 North, Range 6 West, New Westminster District, Plan EPP81073 and including a building or a portion of a building, into which said land(s) is or are Subdivided;

(u) **"Local Government Act"** means the *Local Government Act*, R.S.B.C. 2015, Chapter 1, together with all amendments thereto and replacements thereof;

- (v) “**LTO**” means the New Westminster Land Title Office or its successor;
- (w) “**Manager, Community Social Development**” means the individual appointed to be the Manager, Community Social Development from time to time of the Community Services Department of the City and his or her designate;
- (x) “**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;
- (y) “**Permitted Rent**” means no greater than:
 - (i) \$975.00 a month for a one-bedroom unit; and
 - (ii) \$1,218.00 a month for a two-bedroom unit,

provided that, commencing January 1, 2019, the rents set-out above shall be adjusted annually on January 1st of each year this Agreement is in force and effect, by a percentage equal to the percentage of the increase in the CPI for the period January 1 to December 31 of the immediately preceding calendar year. 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*. If there is a decrease in the CPI for the period January 1 to December 31 of the immediately preceding calendar year, the permitted rents set-out above for the subsequent year shall remain unchanged from the previous year. 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;

- (z) “**Phase 1**” means the first phase (of a maximum of two phases) of construction on the Lands, which phase will comprise Building A of the Development to be constructed on the Lands;
- (aa) “**Phase 2**” means the second phase (of a maximum of two phases) of construction on the Lands, which phase will comprise Building B of the Development to be constructed on the Lands;
- (bb) “**Phase 1 Affordable Housing Units**” means those Affordable Housing Units to be constructed within Building A, comprising of at least 4,756 ft² or 45% of the required affordable housing habitable floor area for the Development, whichever is greater, in accordance with the Development Permit, Building Permit Building A, and the Housing Covenant;
- (cc) “**Phase 2 Affordable Housing Units**” means those Affordable Housing Units to be constructed within Building B, comprising of at least 5,955 ft² or 55% of the required affordable housing habitable floor area for the Development, whichever is greater, in accordance with the Development Permit, Building Permit Building B, and the Housing Covenant;

- (dd) **"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;
- (ee) **"Residential Tenancy Act"** means the *Residential Tenancy Act*, S.B.C. 2002, Chapter 78, together with all amendments thereto and replacements thereof;
- (ff) **"Strata Property Act"** means the *Strata Property Act* S.B.C. 1998, Chapter 43, together with all amendments thereto and replacements thereof;
- (gg) **"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*;
- (hh) **"Tenancy Agreement"** means a tenancy agreement, lease, license or other agreement granting rights to occupy an Affordable Housing Unit; and
- (ii) **"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;
- (g) time is of the essence;
- (h) grammatical variations of words and expressions (capitalized or not) which are defined in this Agreement shall be construed in like manner;

- (i) all provisions are to be interpreted as always speaking;
- (j) 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;
- (k) 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
- (l) 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. For the purposes of this Article, "permanent residence" means that the Affordable Housing Unit is used as the usual, main, regular, habitual, principal residence, abode or home of the 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 a Development Permit unless the Development Permit includes the Affordable Housing Units;
 - (b) be issued with a Building Permit Building A or Building Permit Building B unless the Building Permit Building A or Building Permit Building B includes the requisite number of Affordable Housing Units in Building A or Building B, as the case may be;

- (c) occupy, nor permit any person to occupy any Dwelling Unit in Building A or any portion of Building A and the City will not be obligated to permit occupancy of any Dwelling Unit in Building A or any portion of Building A until all of the following conditions are satisfied:
 - (i) the Phase 1 Affordable Housing Units and related uses and areas have been constructed to the satisfaction of the City;
 - (ii) the Phase 1 Affordable Housing Units have received a permit 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; and
- (d) occupy, nor permit any person to occupy any Dwelling Unit in Building B or any portion of Building B and the City will not be obligated to permit occupancy of any Dwelling Unit in Building B or any portion of Building B until all of the following conditions are satisfied:
 - (i) the Phase 2 Affordable Housing Units and related uses and areas have been constructed to the satisfaction of the City;
 - (ii) the Phase 2 Affordable Housing Units have received a permit 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.

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 If the Owner sells or transfers one (1) or more Affordable Housing Units, the Owner will notify the City Solicitor of the sale or transfer within 3 days of the effective date of sale or transfer.
- 3.4 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) the 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 move-in/move-out fees, 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, bicycle storage, electric vehicle charging stations or related facilities, or for sanitary sewer, storm sewer, water, other utilities, property or similar tax; provided, however, that 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 cable television, 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(o) 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
 - (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 3.4(g)(ii) of this

Agreement, the notice of termination shall provide that the termination of the tenancy shall be effective thirty (30) days following the date of the notice of termination. In respect to section 3.4(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 thirty (30) consecutive days or more than forty-five (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.

3.5 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 indoor or outdoor 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, bicycle storage, electric vehicle charging stations or related facilities, notwithstanding that the strata corporation may levy such parking, bicycle storage, electric vehicle charging stations or other related facilities 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; provided, however, that the electricity fees, charges or rates for use of electric vehicle charging stations are excluded from this provision.
- 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 or amenities of the strata corporation, including parking, bicycle storage, electric vehicle charging stations or related facilities, 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 and other common areas, facilities or amenities of the strata corporation, including parking, bicycle storage, electric vehicle charging stations and related facilities, 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 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, 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 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 483 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
- (c) where the Lands have not yet been Subdivided to create the separate parcels to be 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 483 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.

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 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 development permit, 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, 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 development permit, 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 483(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.

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.

7.24 Limitation on Owner's Obligations

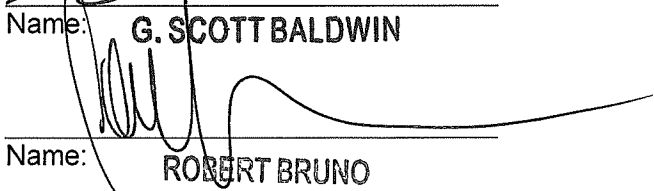
The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands provided however that notwithstanding that the Owner is no longer the registered owner of the Lands, the Owner will remain liable for breaches of this Agreement that occurred while 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 BERKELEY HOUSE LTD. (INC.
NO. BC0938970)**

by its authorized signatory(ies):



Per: 
Name: G. SCOTT BALDWIN

Per: 
Name: ROBERT BRUNO

CITY OF RICHMOND
by its authorized signatory(ies):

Per: _____
Malcolm D. Brodie, Mayor

Per: _____
David Weber, Corporate Officer

CITY OF RICHMOND
APPROVED for content by originating dept. 
APPROVED for legality by Solicitor 
DATE OF COUNCIL APPROVAL

**Appendix A
to Housing Agreement**

STATUTORY DECLARATION

CANADA)	IN THE MATTER OF HOUSING AGREEMENT
)	WITH THE CITY OF RICHMOND
PROVINCE OF BRITISH COLUMBIA)	("Housing Agreement")
)	
)	

TO WIT:

I, _____ of _____, British Columbia, do solemnly declare that:

1. I am the owner (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____.)

 A Commissioner for Taking Affidavits in the)
 Province of British Columbia)

 DECLARANT

PRIORITY AGREEMENT

THE BANK OF NOVA SCOTIA (the "**Chargeholder**") is the holder of the following Mortgages and Assignments of Rents (and any related extensions thereof):

- Mortgage no. CA5802473 (extended by CA6182661) and Assignment of Rents CA5802474 (extended by CA6182662); and
- Mortgage no. CA6182661 (extension of CA5802473) and Assignment of Rents CA6182662 (extension of CA5802474);

all registered in the Land Title Office (collectively, the "**Bank Charges**") against title to the Lands (as further defined and legally described in the agreement to which this priority agreement is attached), as applicable.

The Chargeholder, being the holder of the Bank Charges, by signing the Form C General Instrument attached hereto as Part I, 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 this Housing Agreement and hereby covenants that this 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 registered 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.

THE BANK OF NOVA SCOTIA

by its authorized signatory(ies):

Per: _____
Name:

Per: _____
Name:



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9611 (RZ 16-722173)
9771 Seavale Road**

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. 003-486-231

Lot 68 Section 25 Block 4 North Range 6 West New Westminster District Plan 35759

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9611"**.

FIRST READING

SEP 26 2016

A PUBLIC HEARING WAS HELD ON

OCT 17 2016

SECOND READING

OCT 17 2016

THIRD READING

OCT 17 2016

OTHER CONDITIONS SATISFIED

APR 16 2018

ADOPTED

MAYOR

CORPORATE OFFICER





Richmond Zoning Bylaw 8500
Amendment Bylaw 9687 (RZ 16-726337)
10475, 10491, 10511, 10531, 10551, 10571, 10591 and 10631 No. 5 Road

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 “**MEDIUM DENSITY TOWNHOUSES (RTM3)**”.

P.I.D. 007-732-554

Lot 3 Section 36 Block 4 North Range 6 West New Westminster District Plan 74727

and

P.I.D. 003-896-285

Lot 467 Section 36 Block 4 North Range 6 West New Westminster District Plan 59290

and

P.I.D. 003-930-220

Lot 468 Section 36 Block 4 North Range 6 West New Westminster District Plan 59290

and

P.I.D. 003-558-975

Lot 431 Section 36 Block 4 North Range 6 West New Westminster District Plan 48580

and

P.I.D. 003-506-738

Lot 430 Section 36 Block 4 North Range 6 West New Westminster District Plan 48580

and

P.I.D. 004-216-661

Lot 320 Section 36 Block 4 North Range 6 West New Westminster District Plan 38486

and

P.I.D. 008-509-948

Lot 321 Section 36 Block 4 North Range 6 West New Westminster District Plan 38486

and

P.I.D. 009-816-186

Lot 6 Except: Part Subdivided by Plan 56313; Section 36 Block 4 North Range 6 West New Westminster District Plan 13375

2. This Bylaw may be cited as **“Richmond Zoning Bylaw 8500, Amendment Bylaw 9687”**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

MINISTRY OF TRANSPORTATION AND
INFRASTRUCTURE APPROVAL

ADOPTED

APR 24 2017

MAY 15 2017

MAY 15 2017

MAY 15 2017

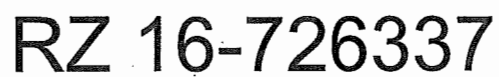
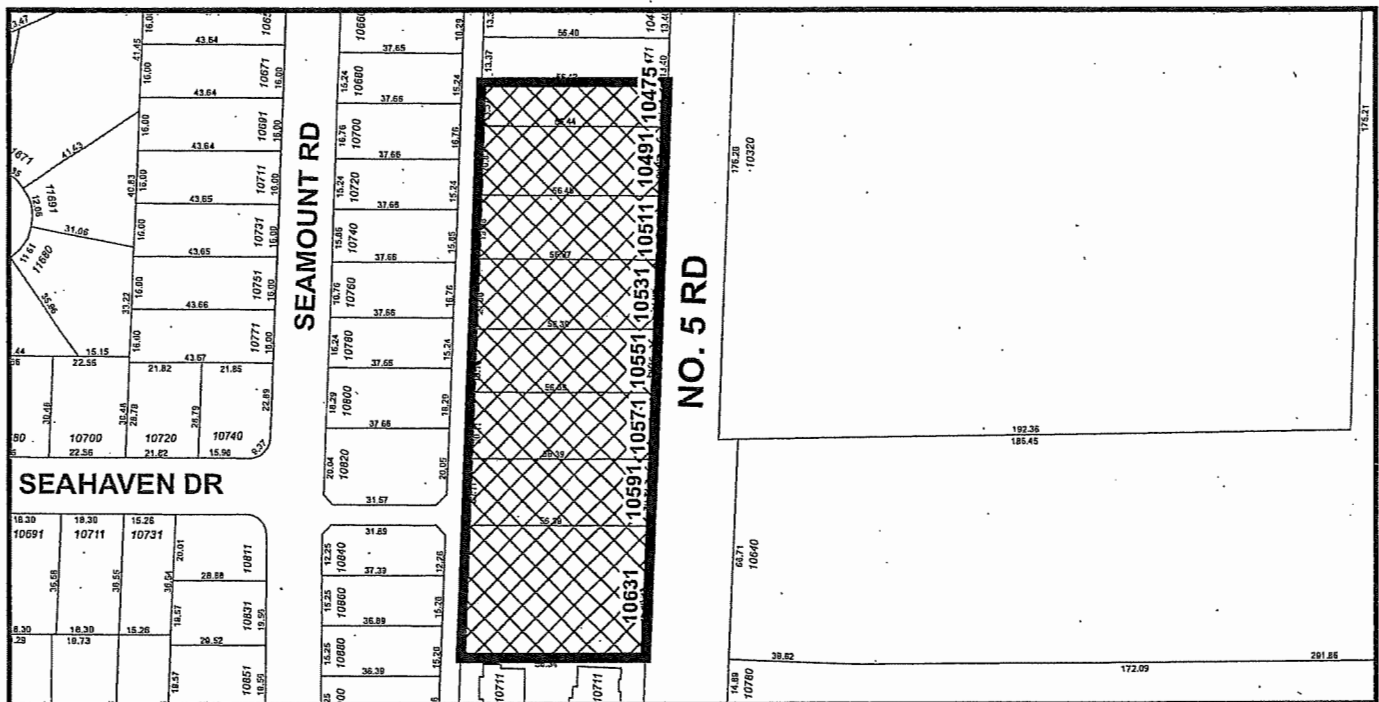
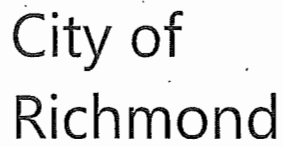
APR 18 2018

JUN 14 2017



MAYOR

CORPORATE OFFICER



Note: Dimensions are in METRES



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9773 (RZ 17-781064)
12431 McNeely 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. 004-138-872

Parcel "B" (Reference Plan 17289) North Half Lot 4 Except: Part Dedicated Road on Plan LMP4855, Section 31 Block 5 North Range 5 West New Westminster District Plan 946

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9773"**.

FIRST READING

OCT 23 2017

A PUBLIC HEARING WAS HELD ON

NOV 20 2017

SECOND READING

NOV 20 2017

THIRD READING

NOV 20 2017

OTHER CONDITIONS SATISFIED

APR 18 2018

ADOPTED

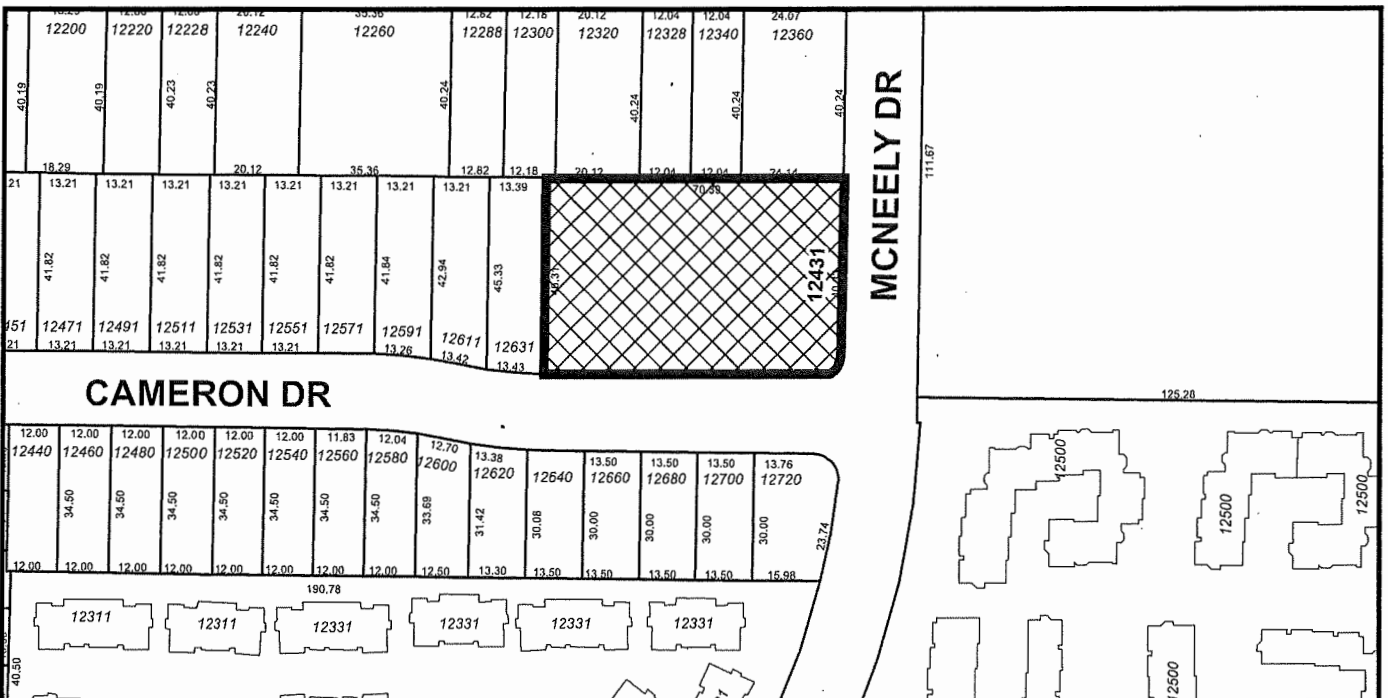
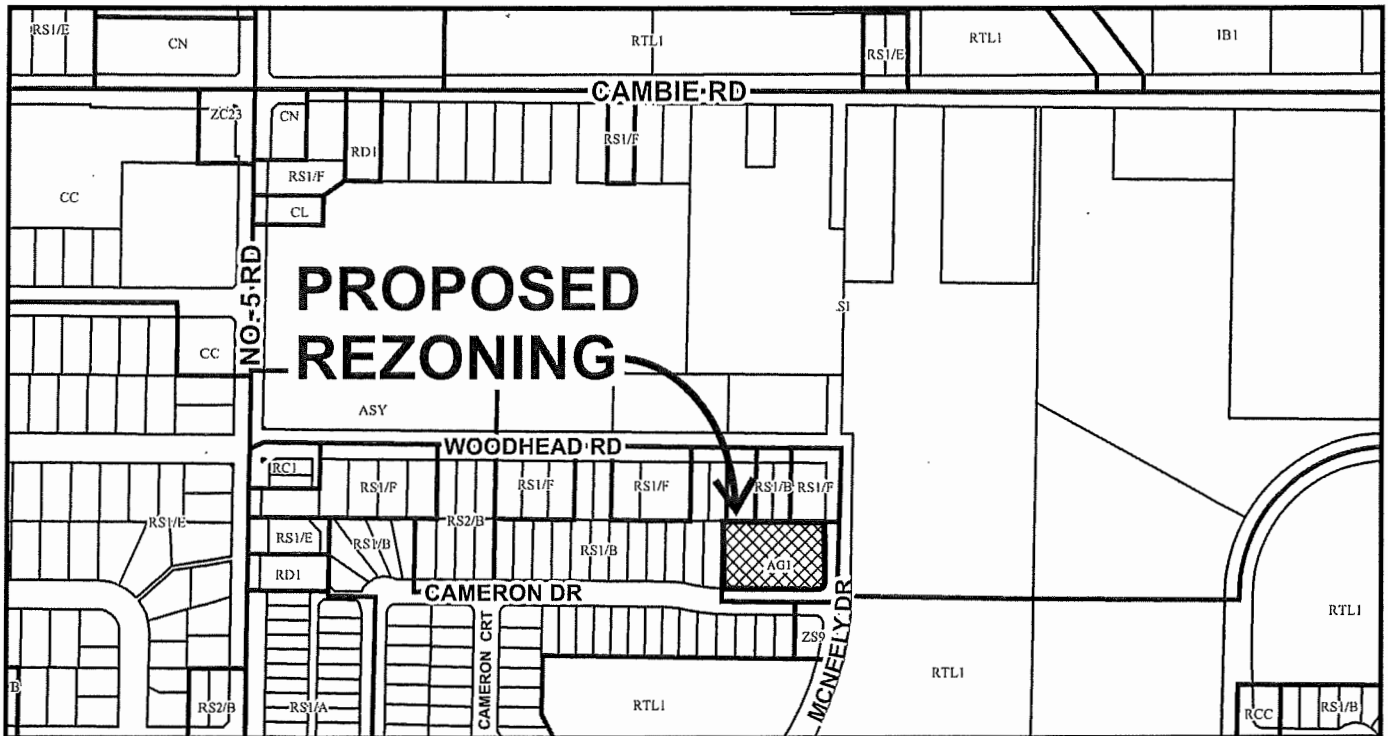


MAYOR

CORPORATE OFFICER



City of Richmond



RZ 17-781064

Original Date: 08/15/17

Revision Date:

Note: Dimensions are in METRES

CNCL - 401



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9818 (RZ 13-644678)
5400 Granville Avenue**

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. 004-265-271

West Half Lot 8 Except: Part Subdivided by Plan 78346; Section 13 Block 4 North Range 7
West New Westminster District Plan 2863

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9818"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

MAYOR

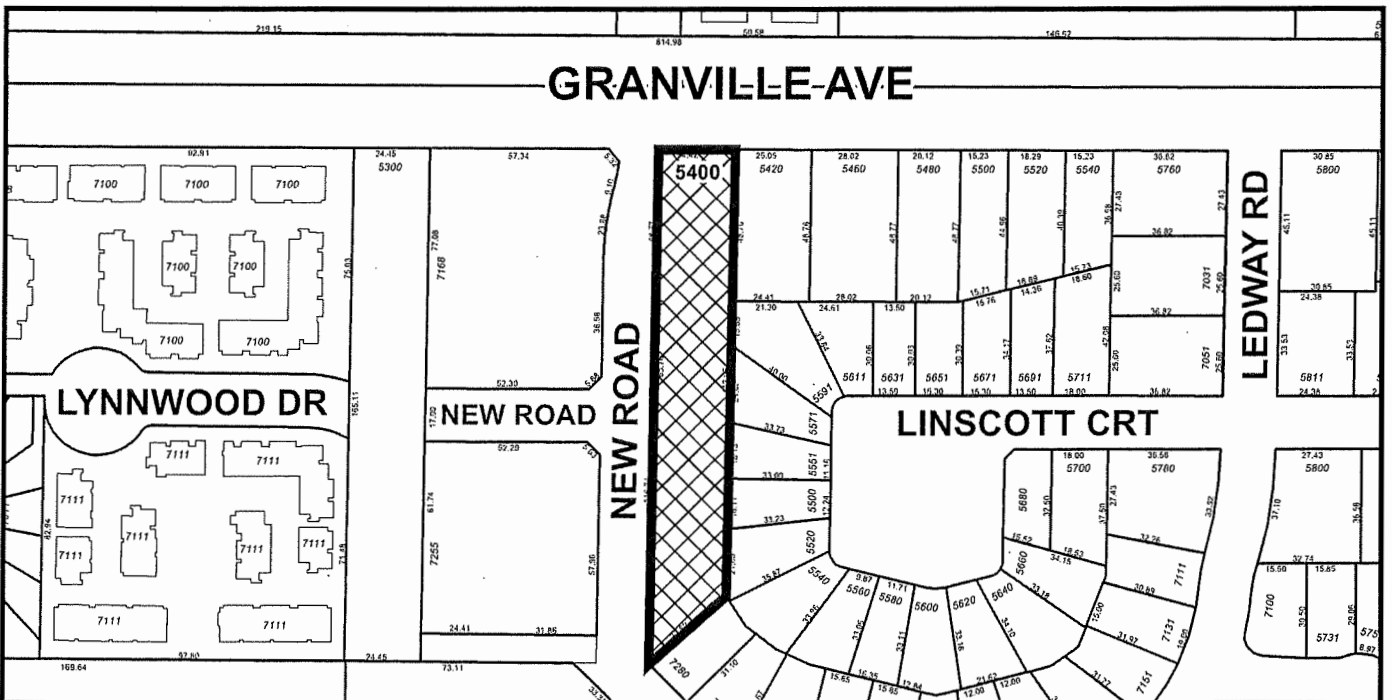
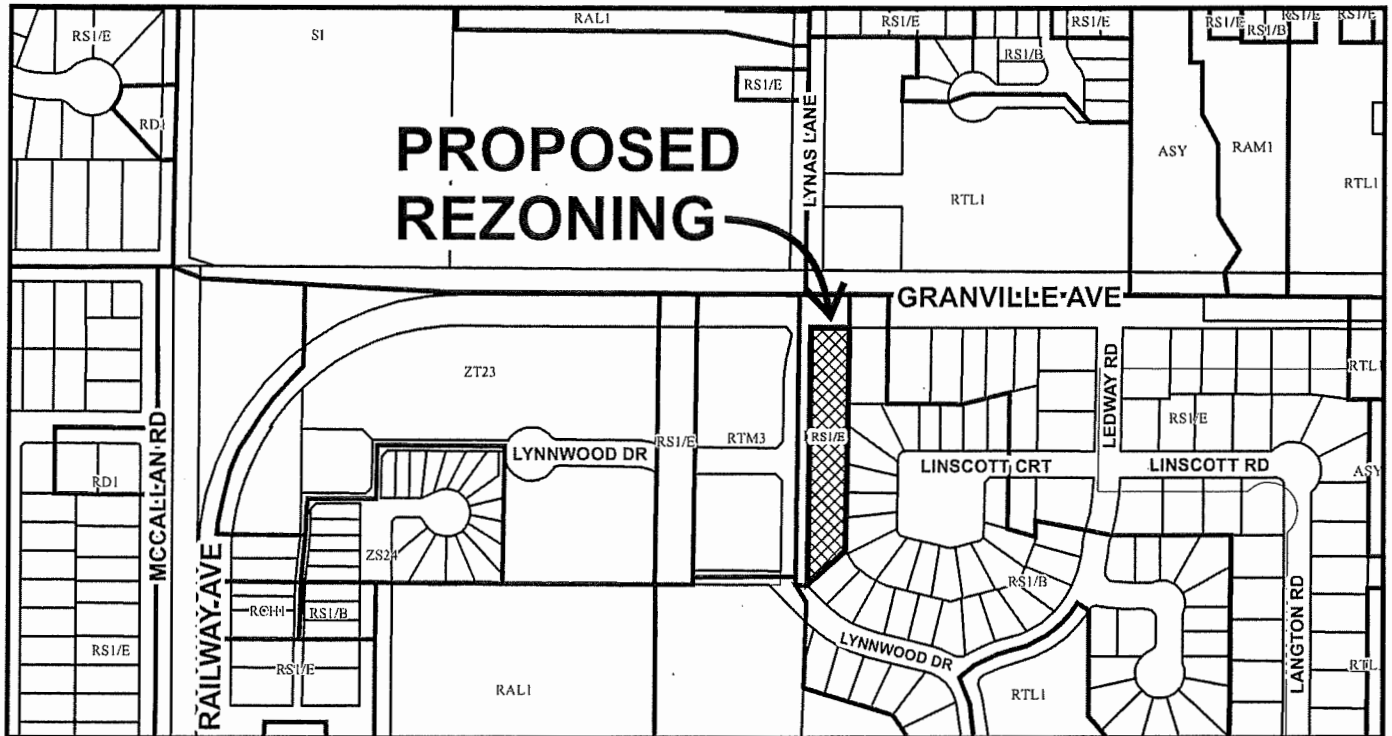
CORPORATE OFFICER

JAN 29 2018
FEB 19 2018
FEB 19 2018
FEB 19 2018
APR 16 2018

CITY OF RICHMOND
APPROVED by
SB.
APPROVED by Director or Solicitor
BK



City of Richmond



RZ 13-644678

Original Date: 09/04/13

Revision Date: 01/02/18

Note: Dimensions are in METRES

CNCL - 403



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9200 (RZ 13-647246)
9611, 9631 and 9651 Blundell Road**

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 **"TOWN HOUSING (ZT60) – NORTH MCLENNAN (CITY CENTRE)"**.

P.I.D. 003-089-410

Lot 76 Section 15 Block 4 North Range 6 West New Westminster District Plan 47089

P.I.D. 003-612-805

Lot 77 Section 15 Block 4 North Range 6 West New Westminster District Plan 47089

P.I.D. 003-971-481

East Half Lot 10 Except: Part Subdivided by Plan 36473, Block "E" Section 15 Block 4 North Range 6 West New Westminster District Plan 1207

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9200"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

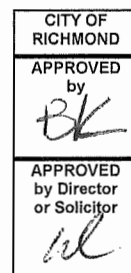
DEC 17 2014

JAN 19 2015

JAN 19 2015

JAN 19 2015

APR 11 2018

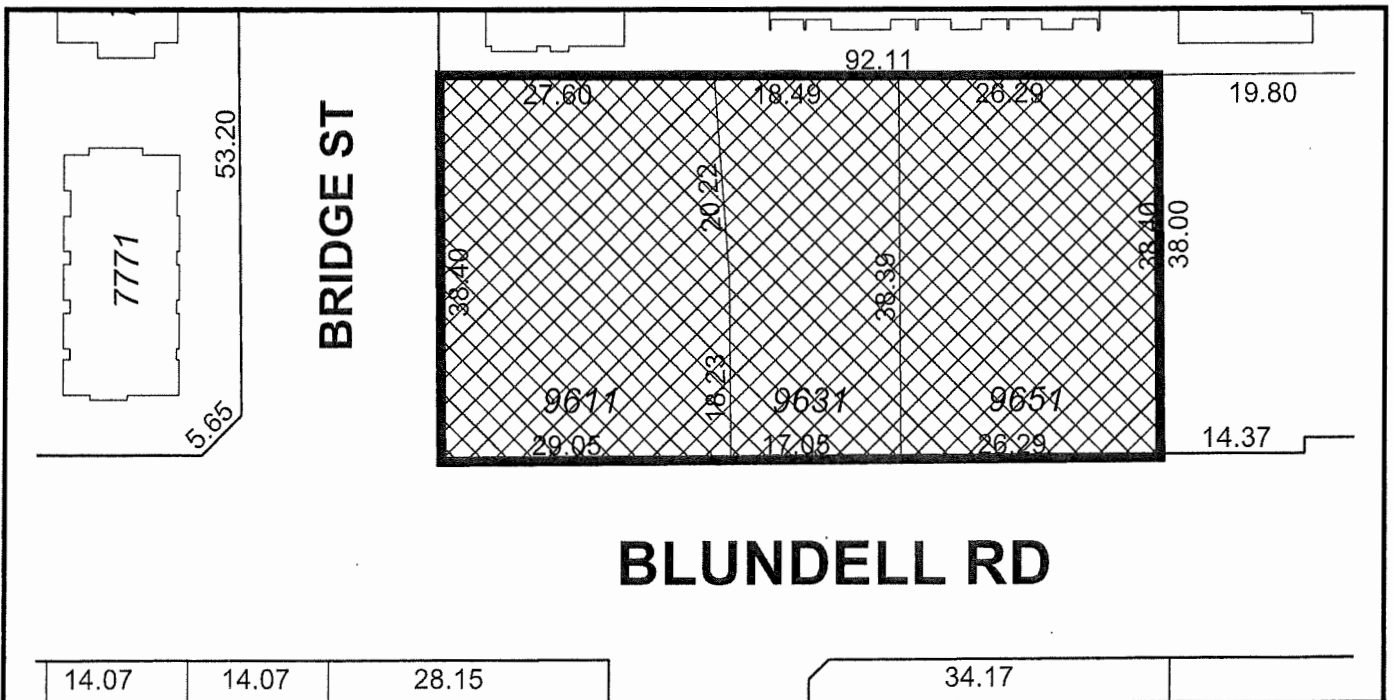
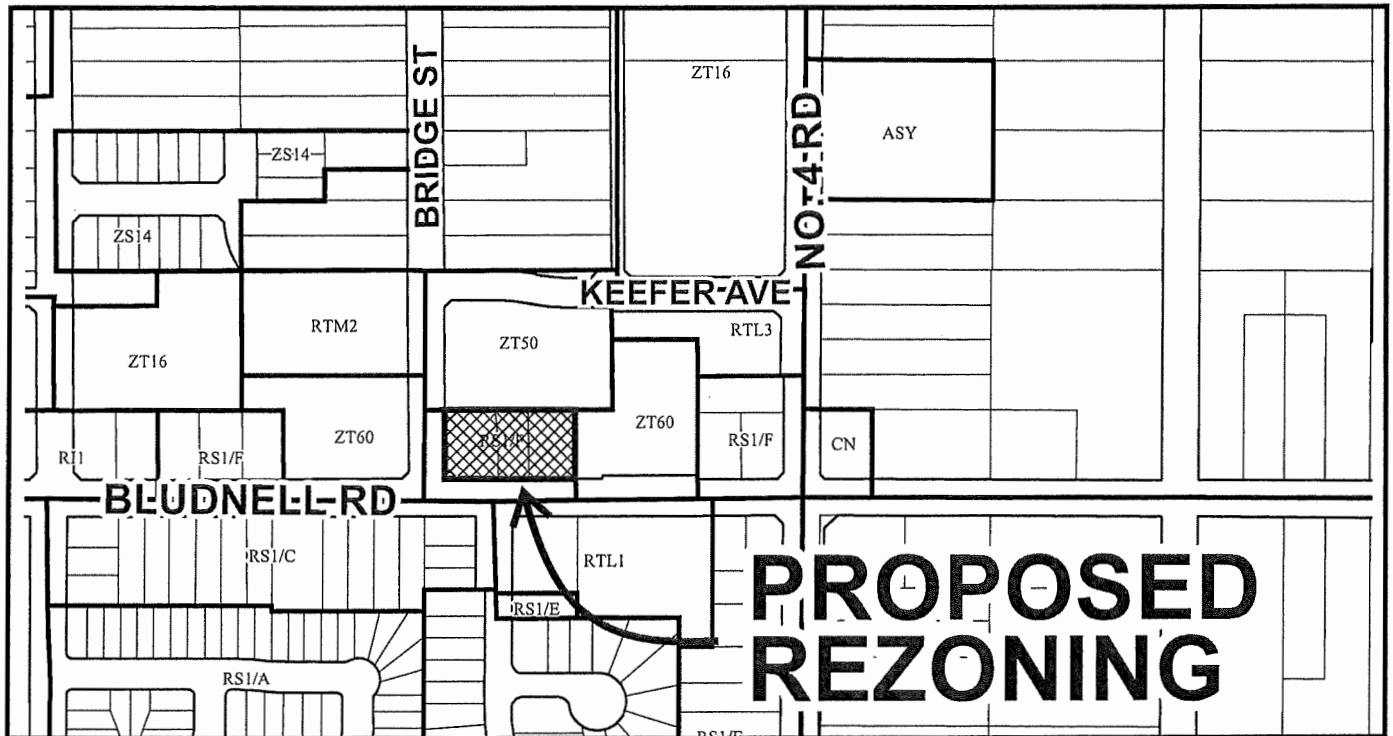


MAYOR

CORPORATE OFFICER



City of Richmond



RZ 14-647246

CNCL - 405

Original Date: 12/04/14

Revision Date:

Note: Dimensions are in METRES



**Richmond Zoning Bylaw 8500
Amendment Bylaw 9682 (RZ 15-701939)
7760 Garden City Road**

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 **"TOWN HOUSING (ZT49) - MOFFATT ROAD, ST. ALBANS SUB-AREA AND SOUTH MCLENNAN SUB-AREA (CITY CENTRE)"**.

P.I.D. 000-885-584

Lot 72 Section 15 Block 4 North Range 6 West New Westminster District Plan 46184

2. This Bylaw may be cited as **"Richmond Zoning Bylaw 8500, Amendment Bylaw 9682"**.

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

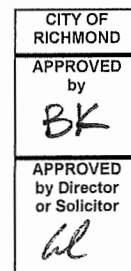
FEB 27 2017

MAR 20 2017 JUL 17 2017

JUL 17 2017

JUL 17 2017

APR 19 2018

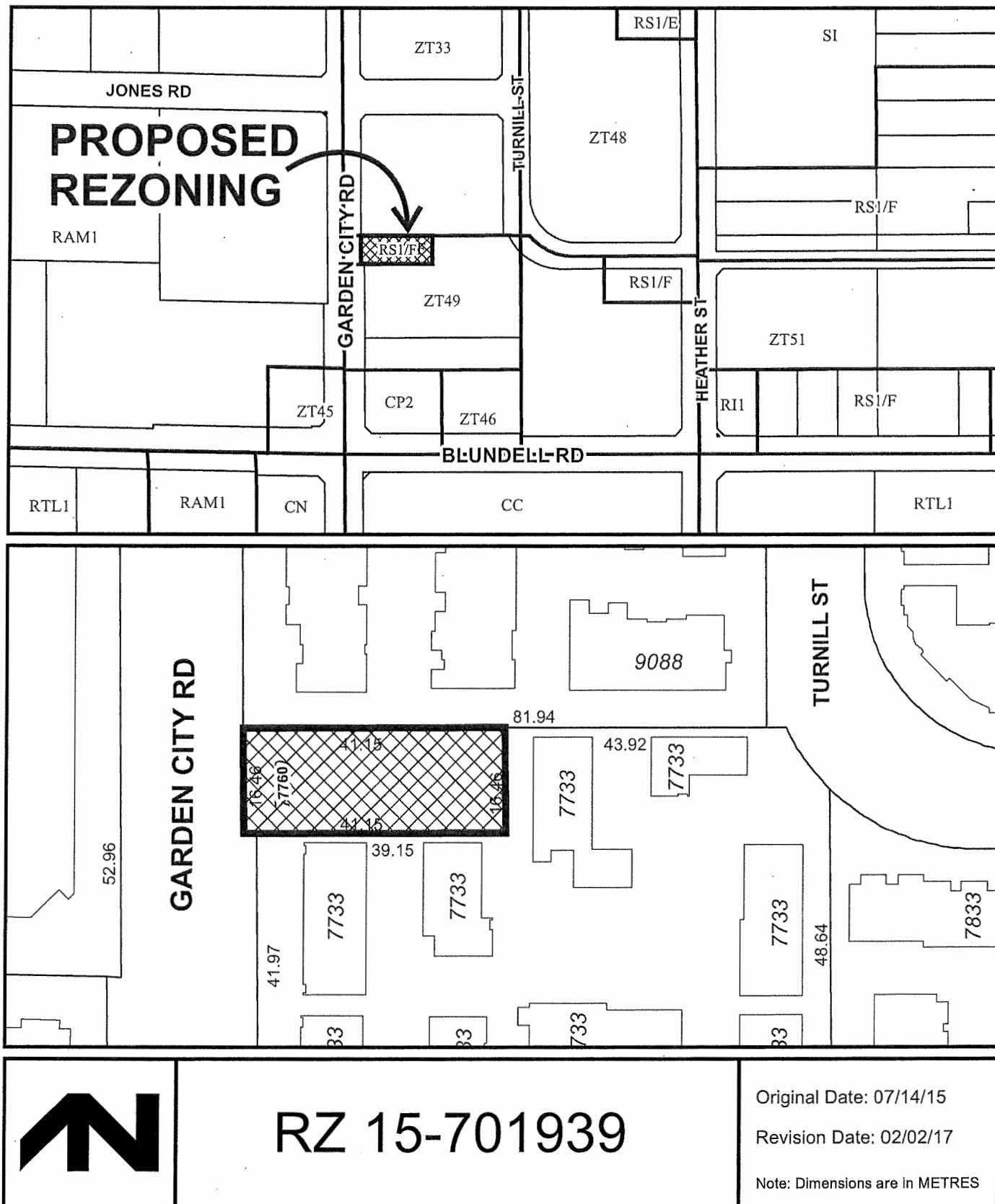


MAYOR

CORPORATE OFFICER



City of Richmond





**Development Permit Panel
Wednesday, March 28, 2018**

Time: 3:30 p.m.

Place: Council Chambers
Richmond City Hall

Present: Joe Erceg, Chair
Robert Gonzalez, General Manager, Engineering and Public Works
Cecilia Achiam, General Manager, Community Safety

The meeting was called to order at 3:30 p.m.

Minutes

It was moved and seconded

That the minutes of the meeting of the Development Permit Panel held on March 14, 2018 be adopted.

CARRIED

1. Development Variance 17-791500
(REDMS No. 5723669)

APPLICANT: Ken Hanna Holdings Ltd.

PROPERTY LOCATION: 18351 and 18360 McCartney Way

INTENT OF PERMIT:

Vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum permitted site coverage for buildings from 60% to 65%, in order to permit the construction of an addition to connect two existing buildings on a site at 18351 and 18360 McCartney Way zoned "Industrial (I)".

Development Permit Panel

Wednesday, March 28, 2018

Applicant's Comments

Andrew Peterson, Beedie Development Group, noted that the staff report for the subject development variance permit application is thorough and advised that he will answer questions from the Panel regarding the subject application.

Staff Comments

Wayne Craig, Director, Development, noted that (i) the proposed variance to increase the maximum permitted site coverage for buildings supports a more intensive use of the two subject properties which is supported by the Official Community Plan (OCP), (ii) the two subject properties will be consolidated into a single property prior to the development variance permit application proceeding to Council for issuance, and (iii) the cross access easement for shared driveway access registered on the title of each of the subject properties will be deemed redundant following consolidation and will be discharged as a condition of consolidation.

Gallery Comments

None.

Correspondence

None.

Panel Decision

It was moved and seconded

That a Development Variance Permit be issued which would vary the provisions of Richmond Zoning Bylaw 8500 to increase the maximum permitted site coverage for buildings from 60% to 65%, in order to permit the construction of an addition to connect two existing buildings on a site at 18351 and 18360 McCartney Way zoned "Industrial (I)".

CARRIED

2. Development Permit 17-791769

(REDMS No. 5703503)

APPLICANT: Polygon Berkeley House Ltd.

PROPERTY LOCATION: 9211/9251/9271/9291 Odlin Road

Development Permit Panel

Wednesday, March 28, 2018

INTENT OF PERMIT:

Permit the construction of 265 residential units in two four-storey to six-storey multi-family apartment buildings over a common parkade at 9211, 9251, 9271, 9291 Odlin Road on a site zoned “Low Rise Apartment (ZLR31) – Alexandra Neighbourhood (West Cambie)”.

Applicant's Comments

Scott Baldwin, Polygon Development, introduced the architect and landscape architect for the project.

James Bussey, Raymond Letkeman Architecture Inc., provided background information on the proposed development and highlighted the following:

- 265 residential units are proposed in two four-storey to six-storey multi-family apartment buildings over a common parkade;
- majority of the units are family-oriented and have two or three bedrooms;
- the proposed development includes 21 basic universal housing (BUH) units and 13 affordable housing units which are dispersed throughout the project;
- direct at grade entrances to the two buildings are provided off Odlin Road to the south of the project;
- the grand stairs fronting Odlin Road provide access to the internal landscaped courtyard;
- the greenway along the eastern edge of the site will be built along with the proposed development;
- the future Dubbert Street connection along the site's western frontage will be partially constructed to an interim “half-road” along with the project;
- there is an accessible pedestrian connection off the greenway into the middle of the internal courtyard;
- the two buildings have been stepped down to four storeys at the northern end to provide an appropriate interface with the townhouse development to the north currently under construction and the massing has been pushed back from the north property line to provide a generous separation from the townhouse development;
- proposed use of brick exterior wall framing structures help break up the massing into three distinct segments;
- the internal landscaped courtyard has been designed as a series of rooms with specialized uses; and
- the mechanical and electrical room is incorporated with the landscaping of the internal courtyard to mitigate its visual impact.

In response to a query from the Panel, Mr. Bussey acknowledged that the project will be built in phases and the greenway will be constructed concurrently with the project.

Development Permit Panel

Wednesday, March 28, 2018

Marina Rommel, Connect Landscape Architecture, briefed the Panel on the main landscaping features of the project, noting that the internal landscaped courtyard consists of, among others, an open lawn area, a central plaza provided with seating and catenary lighting, a mound and raised patio over a central mechanical/electrical room, a children's play area provided with play equipment and natural play opportunities, and social rooms which provide more intimate seating areas.

In addition, Ms. Rommel noted that (i) a semi-private walkway connects Dubbert Street to the greenway, and (ii) a central node area along the greenway will bring people up into the internal courtyard.

In response to a query from the Panel, Ms. Rommel noted that wheelchair access to the internal courtyard from Odlin Road is through an elevator in the lobby entrance to each building.

In response to a query from the Panel, Mr. Craig noted that there is a small townhouse development under construction to the north of the proposed development and the grade of the townhouse development will match up with the grade on the subject site in terms of the parkade height.

Staff Comments

Mr. Craig noted that there is a Servicing Agreement associated with the proposal for (i) the construction of future Dubbert Street, (ii) frontage improvements along Odlin Road, and (iii) reconstruction and modification of the greenway along the east side of the development to widen it to its ultimate design.

Mr. Craig further noted that (i) the proposed development will be connected to the Alexandra District Energy Utility (DEU) facility, (ii) the project has been designed to achieve the City's Aircraft Noise Sensitive Development requirements, (iii) a 1.5 meter wide walkway along the north side of Odlin Road from the new Dubbert Street to Garden City Road will be constructed as part of the Transportation Demand Management (TDM) package associated with the project, and (iv) the project includes 13 affordable housing units and 21 basic universal housing (BUH) units.

In response to queries from the Panel, Mr. Craig acknowledged that (i) the modification of an interim greenway to its ultimate configuration had been previously done in similar developments, and (ii) the proposed building height and massing are consistent with the proposal presented by the applicant at the rezoning process.

In response to a further query from the Panel, Mr. Craig confirmed that there are other six-storey multi-family developments in the West Cambie Area including one to the northeast and another further to the southeast of the subject development.

Gallery Comments

None.

Development Permit Panel

Wednesday, March 28, 2018

Correspondence

None.

Panel Discussion

The Panel expressed support to the project, noting that (i) the project design is well thought out, (ii) the proposed Traffic Development Management (TDM) initiatives are appreciated, (iii) the design of the internal courtyard is thoughtful, and (iv) the provision for a dog wash will be appreciated by future residents of the proposed development.

Panel Decision

It was moved and seconded

That a Development Permit be issued which would permit the construction of 265 residential units in two four-storey to six-storey multi-family apartment buildings over a common parkade at 9211, 9251, 9271, 9291 Odlin Road on a site zoned "Low Rise Apartment (ZLR31) – Alexandra Neighbourhood (West Cambie)".

CARRIED

3. Date of Next Meeting: April 11, 2018

4. Adjournment

It was moved and seconded

That the meeting be adjourned at 3:48 p.m.

CARRIED

Certified a true and correct copy of the Minutes of the meeting of the Development Permit Panel of the Council of the City of Richmond held on Wednesday, March 28, 2018.

Joe Erceg
Chair

Rustico Agawin
Committee Clerk



**Development Permit Panel
Wednesday, April 11, 2018**

Time: 3:30 p.m.

Place: Council Chambers
Richmond City Hall

Present: Joe Erceg, Chair
Robert Gonzalez, General Manager, Engineering and Public Works
Cecilia Achiam, General Manager, Community Safety

The meeting was called to order at 3:30 p.m.

Minutes

It was moved and seconded

That the minutes of the meeting of the Development Permit Panel held on March 28, 2018 be adopted.

CARRIED

1. Development Permit 17-792088
(REDMS No. 5763317)

APPLICANT: Interface Architecture Inc.

PROPERTY LOCATION: 9211 and 9231 Williams Road

Development Permit Panel

Wednesday, April 11, 2018

INTENT OF PERMIT:

1. Permit the construction of eight townhouse units at 9211 and 9231 Williams Road on a site zoned “Low Density Townhouses (RTL4)”; and
2. Vary the provisions of Richmond Zoning Bylaw 8500 to:
 - (a) reduce the front yard setback from 6.0 m to 5.4 m and allow an additional 0.9 m ground floor projection of the “C” units into the front yard setback; and
 - (b) allow one small car parking stall in each of the side-by-side garages (eight small car stalls in total) and allow small car parking stalls for the secondary suite units.

Applicant's Comments

Ken Chow, Interface Architecture Inc., provided background information on the proposed development and highlighted the following:

- the project will provide a total of eight units in four pairs of duplexes and meets the ideal lay-out for arterial road townhouses;
- the two front duplexes will each contain a secondary suite which will be provided with a small car surface parking stall;
- a front yard setback variance was requested by the applicant to allow the encroachment of the secondary suites into the front yard setback; and
- there are no overlook concerns for the immediately adjacent single-family homes to the east and west of the subject site.

In response to a query from the Panel, Mr. Chow acknowledged that the applicant's original proposal did not include the two secondary suites; however, during the rezoning review process, Council encouraged the applicant to incorporate secondary suites in the proposed development. Mr. Chow added that the secondary suites were accommodated by increasing the size of the ground floor bedrooms of the type “C” units in the front duplexes and pushing them forward into the front yard setback.

In response to a query from the Panel, Ken Phuah, Phuah Properties Development Group, stated that the adjacent single-family homes to the west and east of the subject site are in good condition and fairly new.

In response to a further query from the Panel, Jonathan Losee, Jonathan Losee Ltd. Landscape Architecture, noted that the central outdoor amenity area has been designed as a gathering place for the community and includes, among others, a covered mail kiosk, short-term bicycle parking, plant materials, a bench for caregivers, and a children's play area including a play structure and natural features which define small areas within the play area and provide natural play opportunities.

Development Permit Panel

Wednesday, April 11, 2018

Staff Comments

Wayne Craig, Director, Development, advised that there are two proposed variances associated with the subject development, noting that (i) the front yard setback variance is a function of road dedication that will be provided along Williams Road and allows for the inclusion of two secondary suites in the proposed development, and (ii) the parking variance to allow one small car parking stall in each of the side-by-side garages and small car parking stalls for the secondary suites is similar to the parking variances granted to other projects. He further advised that these proposed variances were identified during rezoning stage and no comments were received at the Public Hearing.

In addition, Mr. Craig noted that (i) the units will be designed to achieve EnerGuide 82 standards, (ii) a convertible unit will be provided on site, (iii) aging-in-place features will be provided in all units, and (iv) there will be a Servicing Agreement for frontage improvements along Williams Road.

Gallery Comments

None.

Correspondence

None.

Panel Decision

It was moved and seconded

That a Development Permit be issued which would:

1. *permit the construction of eight townhouse units at 9211 and 9231 Williams Road on a site zoned "Low Density Townhouses (RTL4)"; and*
2. *vary the provisions of Richmond Zoning Bylaw 8500 to:*
 - (a) *reduce the front yard setback from 6.0 m to 5.4 m and allow an additional 0.9 m ground floor projection of the "C" units into the front yard setback; and*
 - (b) *allow one small car parking stall in each of the side-by-side garages (eight small car stalls in total) and allow small car parking stalls for the secondary suite units.*

CARRIED

2. **Date of Next Meeting: April 25, 2018**

3.

Development Permit Panel
Wednesday, April 11, 2018

3. Adjournment

It was moved and seconded

That the meeting be adjourned at 3:41 p.m.

CARRIED

Certified a true and correct copy of the
Minutes of the meeting of the
Development Permit Panel of the Council
of the City of Richmond held on
Wednesday, April 11, 2018.

Joe Erceg
Chair

Rustico Agawin
Committee Clerk



City of Richmond

Report to Council

To: Richmond City Council
From: Joe Erceg
Chair, Development Permit Panel
Date: April 18, 2018
File: 01-0100-20-DPER1-
01/2018-Vol 01
Re: Development Permit Panel Meetings Held on November 16, 2016,
August 9, 2017, October 25, 2017, November 16, 2017 and January 17, 2018

Staff Recommendation

1. That the recommendation of the Panel to authorize the issuance of:
 - a) A Development Permit (DP 15-695475) for the property at 9611, 9631 and 9651 Blundell Road;
 - b) A Development Permit (DP 16-735564) for the property at 3328 Carscallen Road and 3233 & 3299 Sexsmith Road;
 - c) A Development Permit (DP 17-785221) for the property at 10019 Granville Avenue;
 - d) A Development Permit (DP 17-774043) for the property at 10475, 10491, 10511, 10531, 10551, 10571, 10591 and 10631 No. 5 Road; and
 - e) A Development Permit (DP 17-778607) for the property at 7760 Garden City Road;be endorsed, and the Permits so issued.


Joe Erceg
Chair, Development Permit Panel
(604-276-4083)

SB:blg

Panel Report

The Development Permit Panel considered the following items at its meetings held on November 16, 2016, August 9, 2017, October 25, 2017, November 16, 2017 and January 17, 2018.

DP 15-695475 – 0884100 BC LTD. – 9611, 9631 AND 9651 BLUNDELL ROAD
(November 16, 2016)

The Panel considered a Development Permit application to permit the construction of 14 townhouse units on a site zoned “Town Housing (ZT-60) – North McLennan (City Centre)”. No variances are included in the proposal.

Architect, Piyush Sanghadia, of Yamamoto Architecture Inc.; and Landscape Architect, Denitsa Dimitrova, of PMG Landscape Architects, provided a brief presentation, noting:

- The subject site is a consolidation of three lots and is the last site to be developed in the block.
- The proposed development is comprised of 14 townhouse units clustered in five buildings; buildings fronting the street have two-storey end units, and a duplex and detached unit are located along the north property line.
- An EnerGuide rating of 82 and pre-ducting for solar hot water heating are proposed.
- A 42-inch height transparent wood fence and gates to individual townhouse front entries provide a pedestrian-oriented streetscape character along Blundell Road and Bridge Street.
- An arbour with vines is proposed at each walkway connecting to the sidewalk.
- A trellis with vines is proposed at the east end of the east-west internal drive aisle.
- The outdoor amenity area includes a children’s play area; with play equipment for children aged two to five years, mail kiosks, and a bench for caregivers.
- Visitor parking, walkways, driveway, and portion of drive aisle include permeable pavers.

In response to Panel queries, Mr. Sanghadia and Ms. Dimitrova advised that: (i) the proposed sustainability features for the project, including the use of energy star appliances and double glazing, are part of meeting the target of EnerGuide 82 rating for the project; (ii) shrub planting provides screening to the visitor parking stalls from the children’s play area; (iii) wood fiber ground surface treatment is proposed for the children’s play area; (iv) picket fencing and shrub planting provide separation to the children’s play area from the internal drive aisle; and (v) the units will be pre-ducted for future potential solar water heating.

Staff advised that: (i) one convertible unit will be provided for the proposed development; (ii) no variances are being proposed for the subject application; and (iii) there will be a Servicing Agreement for frontage improvements on Blundell Road and Bridge Street.

In response to a Panel query regarding whether it is possible to fully install the solar water heating system at the outset rather than pre-ducting the townhouse units, developer, Jackson Lee, of 0884100 BC Ltd., advised that: (i) the cost of installing a solar water heating system would have to be determined first; (ii) more research needs to be done regarding the efficiency of harnessing solar energy in Richmond's weather; and (iii) a high efficiency water heating system using gas powered boilers is currently being proposed for the townhouse units.

In response to a query from the Panel whether the applicant has considered incorporating high voltage electric vehicle charging in indoor car garages, Mr. Lee noted that: (i) from a market demand perspective, provision for electric car charging in the subject development was not considered by the applicant; and (ii) the applicant will investigate the feasibility of installing a 240-volt receptacle for electric vehicle charging in individual indoor car garages.

Discussion ensued regarding the need for the applicant to enhance the project's proposed sustainability features prior to the development application moving forward to Council. Staff was then directed to work with the applicant to investigate the possibility of enhancing the project's sustainability features including installation of a solar water heating system during project construction or provision for electric vehicle charging.

No correspondence was submitted to the Development Permit Panel regarding the application.

Subsequent to the Panel meeting, the design was revised to include a 240V receptacle in every townhouse unit garage for electric vehicle charging.

The Panel recommends that the Permit be issued.

DP 16-735564 – PINNACLE LIVING (CAPSTAN VILLAGE) LANDS INC.
– 3328 CARSCALLEN ROAD AND 3233 AND 3299 SEXSMITH ROAD
 (August 9, 2017)

The Panel considered a Development Permit application to permit the construction of the second phase of a four-phase, high-rise, mixed-use development comprised of 418 residential units (including 12 affordable housing units), street-oriented commercial uses, and an Early Childhood Development (ECD) Hub on a site zoned "Residential/Limited Commercial and Artist Residential Tenancy Studio Units (ZMU25)". Variances are included in the proposal for balcony reduced road setbacks and projections.

Architect, John Bingham, of Bingham Hill Architects; and Landscape Architect, Peter Kreuk, of Durante Kreuk Ltd. Landscape Architecture, provided a brief presentation, noting:

- The design responds to the scale of the roads fronting all sides of the development and existing and proposed developments in the area.
- Townhouses with extended canopies at the entrances essentially surround the development.
- The retail unit and three-storey Early Childhood Development (ECD) Hub are located along Carscallen Road.
- Public Art is proposed at the corner of Carscallen Road and Hazelbridge Way; complementing the Public Art across the street and at the Neighbourhood Park.

- The two vehicular entries to the development are proposed off Hazelbridge Way and the Private Road along the northern edge of the site.
- The ECD area has direct access to parking and drop-off in the parking structure.
- The ECD outdoor amenity area faces the Neighbourhood Park to the west and is sited to receive maximum solar exposure and screened with coloured glazing.
- Shared outdoor amenity areas; including community gardens, gathering and seating areas, and children's play areas, are proposed over five roof top locations.
- Extensive green roofs are proposed on the roof decks of the three towers.
- The building elevations have been broken down into a series of elements to provide a varied streetscape and a neutral colour palette for the building elevations is proposed.

In response to Panel queries, the design team advised that: (i) a large hospital-sized elevator will be used to transport materials and equipment for maintenance of the outdoor amenity areas on the upper levels of the building; (ii) a pedestrian crosswalk will be installed to provide safe pedestrian connection from the ECD Hub to the Neighbourhood Park; (iii) streetscape enhancements are proposed to offset the reduced road setback; (iv) the balconies projecting into the required road setback are not enclosed; and (v) the siting of the proposed towers in the subject phase preserves the view corridors of Phase 1 towers.

Staff noted that: (i) there is a Servicing Agreement for frontage improvements along Carscallen Road and Hazelbridge Way, as well as design coordination for the Private Road; (ii) 12 Affordable Housing Units are dispersed on several levels of the proposed development; (iii) 85 Basic Universal Housing Units (BUH) units are proposed, including all of the Affordable Housing Units; (iv) proposed variances related to balcony and architectural projections into the required road setback are located above grade and will not impact pedestrian circulation around the perimeter of the site; (v) a transitional parking strategy and voluntary contribution for the future Capstan Canada Line Station will be provided by the applicant prior to issuance of Building Permit for the subject application; and (vi) the development has been designed to meet the City's aircraft noise acoustical standards and to be connected to a future City District Energy Utility (DEU) system.

In response to a Panel query, staff confirmed that: (i) construction of the Neighbourhood Park will occur in phases; (ii) interim and some ultimate works in the park are associated with Phase 1 of the overall development and are ongoing; and (iii) a significant portion of the park will be constructed in the subject phase.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel expressed support for the project and commended the design team for the significant work done for the project.

The Panel recommends that the Permit be issued.

DP 17-785221 – ARCUS CONSULTING LTD. – 10019 GRANVILLE AVENUE
(October 25, 2017)

The Panel considered a Development Permit application to permit the construction of a licensed child care facility for a maximum of 88 children with an accessory residential caretaker unit on a site zoned “Child Care (ZR8)- McLennan”. The proposal includes a variance for reduced landscape buffer width abutting a road.

Architect, Doug Massie, of Arcus Consulting Ltd., provided a brief presentation, noting:

- The current owner purchased the subject property with an approved Development Permit for child care facility for 88 children.
- The previously approved form and character of the development will be maintained and the residential character will enhance the adjacent single-family neighbourhood.
- The right-out vehicular exit on No. 4 Road was removed; improving the locations and programming for the playground spaces at the northern portion of the site.

In response to a Panel query, Mr. Massie advised that the wastewater in the proposed septic tank system will be processed and pumped out.

In response to a Panel query, staff advised that the accessory residential unit in the child care facility is intended for an employee or caretaker of the property.

Staff noted that:

- There is a Servicing Agreement associated with the project for frontage improvements along No. 4 Road and Granville Avenue and upgrade of the existing traffic signal at the No.4 Road and Granville Avenue intersection.
- The proposed child care facility must be licensed by the Vancouver Coastal Health (VCH) prior to operation. He added that VCH has been part of the review process for the project and will be further involved through the Building Permit application process.
- A localized landscape variance is proposed for a landscape width adjacent to the parking stalls close to the driveway on Granville Avenue and noted that while, the landscaped width is reduced, the planting intensity will provide adequate screening for parking stalls.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel recommends that the Permit be issued.

DP 17-774043 – ANTHEM PROPERTIES GROUP LTD.
– 10475, 10491, 10511, 10531, 10551, 10571, 10591 AND 10631 NO. 5 ROAD
(November 16, 2017)

The Panel considered a Development Permit application to permit the construction of 47 townhouse units on a site zoned “Medium Density Townhouses (RTM3)”. Variances are included in the proposal for reduced front yard setback and increased number of small car parking spaces.

Developer, Nicholas Kasidoulis, of Anthem Properties Group, Ltd.; Architect, Shamus Sachs, of Integra Architecture Inc.; and Landscape Architect, Mary Chan Yip, of PMG Landscape Architects, provided a brief presentation, noting:

- The design includes three-storey townhouses along No. 5 Road; including two secondary suites, and two-storey units at the rear fronting the internal drive aisle.
- Existing large trees on-site are proposed to be retained and protected including a group of five trees at the outdoor amenity area.
- The proposed contemporary West Coast architectural style of the townhouse units complements the character of neighbouring developments.
- The landscape design is focused on providing strong pedestrian connections and interactions.
- Rear unit proposed back yard landscaping has been intensified to provide a buffer to the adjacent single-family homes.
- Selected trees and shrubs will provide habitat to wildlife; including birds and pollinators.
- An agricultural landscape buffer and street trees will be provided along No. 5 Road.

In response to a Panel query, Ms. Chan advised that the southeast corner trees to be retained are on existing grade, and the outdoor amenity area will be slightly raised to interface with the street.

In response to Panel queries, Mr. Sachs advised: (i) entry doors of the three-storey end units along No. 5 Road face the street; and (ii) a statutory right-of-way (SRW) over the north-south internal drive aisle in the subject development will allow access to future developments to the north and the existing townhouse development to the south should it be redeveloped in the future.

In response to Panel queries, staff confirmed that extensive consultation was conducted in the surrounding single-family neighbourhood regarding the application and other proposed developments in the area and the residents had expressed strong preference not to have any physical connection to the rear lane regardless of the potential ease of access to bus stops and commercial developments in the area that such connection would provide.

Staff noted that: (i) the project has been designed to achieve an EnerGuide rating of 82; (ii) five convertible units are proposed; (iii) the proposed agricultural landscape buffer along No. 5 Road has been reviewed and supported by the City's Agricultural Advisory Committee (AAC); (iv) the front yard setback variance is necessary due to the required road dedication and to accommodate the required drive aisle width and retention of large on-site trees at the southeast corner of the site; (v) the small car parking variance is intended to provide a parking stall to each of the two secondary suites; (vi) there is a Servicing Agreement associated with the subject application for frontage improvements along No. 5 Road; and (vii) the triplex units at the rear of the subject site were part of the proposal at rezoning and have not been changed.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel recommends that the Permit be issued.

DP 17-778607 – INTERFACE ARCHITECTURE – 7760 GARDEN CITY ROAD
(January 17, 2018)

The Panel considered a Development Permit application to permit the construction of four townhouse units on a site zoned “Town Housing (ZT49) – Moffatt Road, St. Albans Sub-Area and South McLennan Sub Area (City Centre)”. A variance is included in the proposal for a reduced rear yard setback.

Architect, Ken Chow, of Interface Architecture, provided a brief presentation, noting: (i) the site is an orphan lot surrounded by multi-family housing developments; (ii) vehicle access is provided through the adjacent townhouse development to the south and residents’ concerns were addressed by the applicant at rezoning; (iii) two convertible units are proposed; and (iv) the architectural form and character will blend well with surrounding developments.

In response to Panel queries, Mr. Chow advised: (i) there will be no adjacency issues with regard to the townhouse unit immediately adjacent to the south of Building 2 as a result of retaining existing fencing and matching the three-storey building height; and (ii) the developer would be amenable to providing 240-volt power for electric vehicle charging in garages of the two convertible units.

Staff noted that: (i) the terms of the access agreement reached by the developer and the Strata Council of the adjacent development to the south will be secured as a consideration to rezoning; and (ii) the proposed rear yard setback variance relates only to the ground floor of Building 1, as the second and third floors of the building step back to meet the required minimum side yard setback.

In response to a Panel query, staff confirmed that the variance request was identified at rezoning.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel expressed support for the project subject to confirmation of the applicant’s commitment to install 240-volt power for electric vehicle charging in the dwelling units.

Subsequent to the Panel meeting, the design was revised to include the electric vehicle charging outlets.

The Panel recommends that the Permit be issued.



City of Richmond

Report to Council

To: Richmond City Council

Date: April 18, 2018

From: Cecilia Achiam
Chair, Development Permit Panel

File: 01-0100-20-DPER1-
01/2018-Vol 01

Re: Development Permit Panel Meeting Held on February 28, 2018

Staff Recommendation

1. That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 16-721500) for the property at 10311 River Drive, be endorsed, and the Permit so issued.

Cecilia Achiam
Chair, Development Permit Panel

SB:blg

Panel Report

The Development Permit Panel considered the following item at its meeting held on February 28, 2018.

DP 16-721500 – 10311 RIVER DRIVE – WESTERN-CITIMARK RIVER FRONT TOWNHOUSE PROJECT LTD.
(February 28, 2018)

The Panel considered a Development Permit application to permit the construction of 86 townhouse units and a two-storey mixed-use building with amenity space and a City-owned child care facility on a site zoned “Residential Mixed Use Commercial (ZMU17) – River Drive/No. 4 Road (Bridgeport)”. The proposal includes a variance for a reduced west side yard.

Architect, Wayne Fougere, of Fougere Architecture Inc.; and Landscape Architect, Mary Chan Yip, of PMG Landscape Architects, provided a brief presentation, noting:

- The project is the third phase of the four-phase Parc Riviera development which includes townhouses and a two-storey mixed-use building at the southwest corner of the site with amenity space and a City-owned child care facility.
- One public and two internal pedestrian walkways are provided from River Drive to the dike through the subject site.
- A one and a half-meter reduction of the required minimum setback for the west side yard for one building is requested. The variance is mitigated by park grade changes; which reduces the apparent height of the three-storey building adjacent to the park to a two-storey building.
- The depression between the dike and townhouse units on the north edge creates a symbolic slough design along the dike frontage.
- The two proposed planting schemes consist of native planting along the dike edge and urban planting along River Drive to provide transition to the neighbourhood.
- The Environmentally Sensitive Area (ESA) enhancement area planting along the north edge of the site is pulled into the site; providing a transition from natural to urban landscape.
- Primarily drought tolerant species are proposed for the project.
- While the project is located adjacent to a new Tait Park and in close proximity to the Tait Neighborhood School Park across River Drive, smaller scale on-site indoor and outdoor amenity spaces will also be provided.
- Separate outdoor play areas are provided for the child care facility.
- Pervious pavings are proposed in some areas on the site for groundwater recharge.
- Lighting will be provided for the mews and street edges.

In response to queries from the Panel, Mr. Fougere advised that: (i) raising the finished grade of the site to meet the future height of the dike was not considered due to potential additional cost to the project and height transition from the dike to the park and neighbourhood; (ii) all the townhouse units meet the required minimum floodplain elevation; (iii) the living spaces of the four-storey townhouse units adjacent to the dike and the three-storey units adjacent to the park are proposed to match the grades; (iv) there is elevator access to indoor and outdoor amenity areas at the second floor level of the mixed-use building; (v) the amenity area, stairs and elevator are separate from the child care facility; (vi) seven parking spaces are provided for the exclusive use of the child care facility; and (vii) the child care facility will have separate metering and electrical and mechanical room.

In response to Panel queries, staff noted that: (i) the proposed child care facility will be transferred to the City as a strata lot as part of the zoning requirements, and the strata plan will include, among others, general guidelines for maintenance; (ii) the applicant will not build affordable housing units on-site as the entire site provided funding towards the City's capital Affordable Housing Reserve; which was used to provide funding towards the Storeys project.

In response to a query from the Panel, Ms. Chan reviewed the extent of the ESA in the subject site, noting that townhouse decks along the north edge of the site will be contained with low rail fencing to provide separation between the semi-private outdoor amenity space and the ESA.

Staff advised that: (i) Servicing Agreements associated with the proposal include frontage works along River Drive, the construction of the public pedestrian walkway along the east edge of the site and dike improvements; (ii) the child care facility is a collaborative effort between City staff and the developer to fulfill zoning requirements; (iii) the ESA will be subject to a legal agreement to ensure maintenance by the future strata; (iv) five convertible units are proposed for the project; (v) the project has been designed to achieve EnerGuide 82 rating standards and the City's aircraft noise mitigation standards; and (vi) the proposed west side yard setback variance for the subject site is similar to the variance granted to Phase 2 development on the west side of the City park.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel recommends that the Permit be issued.



City of Richmond

Report to Council

To: Richmond City Council
From: Robert Gonzalez
Chair, Development Permit Panel
Date: April 18, 2018
File: 01-0100-20-DPER1-
01/2018-Vol 01
Re: Development Permit Panel Meeting Held on March 14, 2018

Staff Recommendation

1. That the recommendation of the Panel to authorize the issuance of a Development Permit (DP 15-718109) for the property at 6020 Steveston Highway, be endorsed and the Permit so issued.

Robert Gonzalez
Chair, Development Permit Panel
(604-276-4150)

SB:blg

Panel Report

The Development Permit Panel considered the following item at its meeting held on March 14, 2018.

DP 15-718109 – DOUGLAS L. MASSIE, ARCHITECT – 6020 STEVESTON HIGHWAY
(March 14, 2018)

The Panel considered a Development Permit application to permit the construction of second floor and roof top additions on a site zoned “Neighbourhood Commercial (CN)” and “Agriculture (AG1)”. Variances are included in the proposal for increased building height, reduced side yard setback for a mechanical closet, and reduced maneuvering aisle width.

Architect, Douglas Massie, of Chercover Massie and Associates Ltd., and Landscape Architect, Travis Martin, of van der Zalm + Associates Inc., provided a brief presentation, noting:

- The commercial zoned portion of the property currently contains two commercial units and two child care classrooms on the ground floor and child care use for the entire second floor.
- The applicant is proposing to add a complete second floor to the existing building for child care use and a small office, as well as two stair structures and elevator access to a roof top children’s play area.
- The existing septic field is located in the agricultural zoned portion of the property and its size could accommodate the proposed addition.
- Roof top mechanical units will be screened to mitigate noise and comply with the City’s Noise Bylaw.
- Some existing building materials will be replaced and new materials will be added to improve the appearance of the building.
- The applicant has agreed to various covenants and agreements to allow the future widening of No. 2 Road and Steveston Highway and the proposed landscape design responds to this future condition.
- Bollards will be installed along the edge of the reduced children’s play area opposite the surface parking area adjacent to the south property line to provide safety to children.
- Proposed landscaping at the intersection of Steveston Highway and No. 2 Road mimics the landscaping in the City’s Fire Hall No. 2 across the street to create a node at the focal intersection and enhance the gateway feel to the intersection.
- A pedestrian walkway is proposed to be installed from the Steveston Highway and No. 2 Road intersection towards the building to enhance pedestrian accessibility to the site.
- Special paving treatment is proposed for vehicular entry points into the site.
- An existing on-site tree on the proposed right-of-way (ROW) along No. 2 Road will be removed due to its poor condition.
- Two trees are proposed to be planted on-site in other locations outside of the ROW.

- A solid wood fence is proposed to be installed along the south property line to provide visual and noise buffer to the neighbouring property to the south.
- The existing outdoor children's play area will be reduced in size to accommodate a larger parking area on the south side.
- The larger children's play area proposed on the roof of the building includes a variety of active and imaginative play opportunities, as well as areas for seating and socialization.
- Different types of ground materials are proposed on the roof top children's play area.
- Trees in movable planters are proposed to be installed on the roof top children's play area to provide shade and opportunities for children to experience seasonal changes.

In response to Panel queries, Mr. Massie advised that: (i) the roof top mechanical equipment units are located quite a distance away from neighbouring residential homes and will not pose potential noise concerns; (ii) the increase in building height will not pose a concern to the existing single-family home to the east of the site due to the single-family home's significant setback from its west property line; (iii) the agricultural zoned portion of the subject site has been well developed by the owner and planted with fruit bearing trees, with the hope the area could provide gardening opportunities for children in the day care facility and become a future demonstration farm to children in the community; and (iv) there are no proposed changes to the existing septic field on the agricultural zoned portion of the subject site.

Staff noted that the proposed new roof top equipment has been reviewed by an acoustic engineer and an acoustic report has been received; which confirms that the new equipment will comply with the City's Noise Bylaw. Staff advised that there are three proposed variances associated with the project and noted that: (i) the height variances are limited to the access routes to the roof top play area and will allow for the more intensive use of the building; (ii) the proposed service closet setback variance on the east side yard is limited to a distinct area both vertically and horizontally; and (iii) the proposed drive aisle setback variance along the No. 2 Road and Steveston Highway frontages is a function of the statutory right-of-way (ROW) that the applicant is required to provide for future widening of No. 2 Road and Steveston Highway. Staff further noted that there will be a City Work Order required prior to Building Permit issuance for a bus pad installation along Steveston Highway.

In response to a Panel query, staff confirmed that the City's Transportation staff have reviewed the proposed variance for minimum maneuvering aisle width and noted that similar variances have been granted to other commercial projects.

The Panel then expressed support for the project, noting the creative design of the project; particularly, the proposed roof top children's play area.

No correspondence was submitted to the Development Permit Panel regarding the application.

The Panel recommends that the Permit be issued.