



# City of Richmond

## Report to Committee Fast Track Application Planning and Development Department

**To:** Planning Committee

**Date:** June 17, 2015

**From:** Wayne Craig  
Director of Development

**File:** RZ 15-694974

**Re: Application by Jasdeep Mann and Harpreet Mann for Rezoning at  
10291 No. 5 Road from Single Detached (RS1/E) to Compact Single  
Detached (RC2)**


### Staff Recommendation

That Richmond Zoning Bylaw 8500, Amendment Bylaw 9243, for the rezoning of 10291 No. 5 Road from "Single Detached (RS1/E)" to "Compact Single Detached (RC2)", be introduced and given first reading.



Wayne Craig  
Director of Development

CE:blg  
Att.

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

**Staff Report**

<b>Item</b>	<b>Details</b>				
Applicant(s)	Jasdeep Mann and Harpreet Mann				
Location	10291 No. 5 Road (See Attachment 1)				
Development Data Sheet	See Attachment 2				
Zoning	Existing: Single Detached (RS1/E)				
	Proposed: Compact Single Detached (RC2)				
OCP Designation	Neighbourhood Residential	Complies:	X	Yes	No
Lot Size Policy	Single-Family Lot Size Policy 5434 (See Attachment 3)	Complies:	X	Yes	No
Arterial Road Policy Designation	Compact Lot or Coach House	Complies:	X	Yes	No
Affordable Housing Strategy Response	Consistent with the Affordable Housing Strategy for single-family rezoning applications, the applicants propose to include a secondary suite in the dwelling on one (1) of the two (2) lots proposed. Prior to rezoning, the applicants are required to register a legal agreement on Title to secure the secondary suite. Details on the nature of the legal agreement are included in Attachment 4.	Complies:	X	Yes	No
Agricultural Land Reserve (ALR) Buffer Zone	Consistent with the Official Community Plan (OCP) guidelines, the applicants will be required to register a covenant on Title prior to rezoning to secure a 4 m wide landscaped buffer along the No. 5 Road frontage of both proposed subdivided properties.				
Floodplain Management Implementation Strategy	The proposed redevelopment must meet the minimum requirements of Richmond Flood Plain Designation and Protection Bylaw No. 8204. Registration of a flood indemnity covenant on Title is required prior to final adoption of the rezoning bylaw.				
Surrounding Development	North: Two (2) residential lots zoned "Single Detached (RS1/E)", which front on to Seacliff Road.				
	South: One (1) residential lot zoned "Single Detached (RS1/B)".				
	East: Directly across No. 5 Road, is the site of the Richmond Christian School on a large agricultural lot in the Agricultural Land Reserve (ALR), split-zoned "Assembly (ASY)" and "Agriculture and Golf Zones (AG1)".				
	West: Directly across the existing rear lane, are residential lots under Land Use Contract 014.				
Rezoning Considerations	See Attachment 4				

**Analysis**

The proposed rezoning would enable subdivision of the subject property into two (2) lots zoned "Compact Single Detached (RC2)" with vehicle access to and from the existing rear lane. A survey showing the proposed subdivision plan is provided in Attachment 5.

### **Existing Legal Encumbrances**

There is an existing statutory right-of-way (ROW) on Title for utilities in the northwest corner of the subject site. Encroachment into the statutory right-of-way is not permitted.

There is also a Land Tax Deferment Act Agreement registered on Title. This agreement allows the property owner to defer payment of taxes. The deferred taxes must be paid and the agreement discharged from Title prior to the preparation and registration of any legal documents associated with this rezoning application.

### **Transportation Requirements and Site Access**

In accordance with Residential Lot (Vehicular) Access Regulation Bylaw No. 7222, vehicle access to the proposed lots is to be from the existing rear lane only.

#### *British Columbia Ministry of Transportation and Infrastructure (MOTI) Referral*

The subject site is located within 800 m of a controlled access highway, and the rezoning application was referred to the BC Ministry of Transportation and Infrastructure (MOTI). Preliminary approval of the subject rezoning was granted on April 9, 2015 for a period of one (1) year pursuant to Section 52(3)(a) of the Transportation Act. Prior to final adoption of the rezoning bylaw, final approval from MOTI is required.

### **Tree Retention and Replacement**

A Certified Arborist's Report was submitted by the applicants, which identifies on and off-site tree species, assesses their structure and condition, and provides recommendations on tree retention and removal relative to the proposed development. The Report assesses 23 trees on the subject property and four (4) trees on the adjacent property to the south at 10311 No. 5 Road.

The City's Tree Preservation Coordinator has reviewed the Arborist's Report, conducted visual tree assessment, and provides the following comments:

- Two (2) trees are recommended for removal due to poor condition (Trees # 43 and # 37).
- Eight (8) trees are in fair condition, but are in conflict with proposed development such that the trees cannot be successfully retained (Trees # 30, 35, 36, 38, 39, 40, 41, 42).
- Seven (7) Black Locust trees in the front yard of the subject site are in good condition and must be retained and protected (Trees # 44, 45, 46, 47, 48, 49, 50).
- Six (6) trees in the rear yard of the subject site are in good condition and must be retained and protected (Trees # 28, 29, 31, 32, 33, 34).
- Three (3) of the trees on the adjacent property to the south at 10311 No. 5 Road must be retained and protected as recommended in the Arborist's Report (Trees A, C, D).
- Tree B on the adjacent property to the south at 10311 No. 5 Road is recommended for removal via a Permit because a significant portion of the canopy hangs over the subject site, which would become unbalanced with any pruning required to provide clearance for proposed building on the subject site. The property owner of the adjacent lot to the south

at 10311 No. 5 Road has requested that Tree B be removed at the applicants' cost. The applicants have agreed to obtain a Permit to remove Tree B at their cost at future development stage. The applicants are required to obtain written authorization from the neighbouring property owner prior to applying for a Tree Removal Permit.

Since Trees # 37 and 39 are located on shared property lines, the applicants have submitted a copy of written authorization from the adjacent property owners to the north at 11820 and 11840 Seacliff Road for the removal of the trees at future development stage.

### *Tree Protection*

A total of 13 trees on-site are to be retained and protected. The proposed Tree Management Drawing is shown in Attachment 6.

To ensure tree protection, the applicants must complete the following items prior to final adoption of the rezoning bylaw:

- Submission of a contract with a Certified Arborist for supervision of all works conducted within close proximity to on-site and off-site tree protection zones at future development stage. The contract must include the scope of work, site monitoring inspections at specified stages of construction, and a provision for the Arborist to submit a post construction impact assessment report to the City for review.
- Submission of a survival security in the amount of \$13,000 for Trees # 28, 29, 31, 32, 33, 34, 44, 45, 46, 47, 48, 49, 50. The security will not be released until an acceptable impact assessment report is submitted by the Arborist and until a landscaping inspection has been passed by City staff.

Prior to demolition of the existing dwelling at the subject site, the applicants are required to install 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 and must remain in place until construction and landscaping on-site is completed.

### *Tree Replacement*

The Official Community Plan (OCP) tree replacement ratio of 2:1 requires a total of 20 replacement trees. However, due to limited space available in the yards of the proposed lots and in recognition of the 13 trees on-site that are to be retained, staff recommend that a cash-in-lieu contribution to the City's Tree Compensation Fund in the amount of \$3,000 be required prior to final adoption of the rezoning bylaw for the planting of trees in the City. The value of the recommended compensation amount is based on the number of replacement trees that could be otherwise accommodated on the proposed lots [e.g., a total of six (6) replacement trees valued at \$500/tree].

### **Landscaping**

Consistent with the guidelines in the Arterial Road Policy, the applicants are required to submit a Landscape Plan, Cost Estimate, and a Landscaping Security prior to final adoption of the rezoning bylaw to ensure that the front yards of the proposed lots are enhanced. The Landscape

Plan must be prepared by a Registered Landscape Architect to the satisfaction of the Director of Development, and the Landscaping Security must be based on 100% of the cost estimate provided by the Landscape Architect (including any fencing and hard surfaces proposed in the front yards, and installation costs).

### **Site Servicing and Frontage Improvements**

There are no servicing concerns with the proposed rezoning. Prior to subdivision, the developer will be required to:

- Provide a cash-in-lieu contribution in the amount of \$22,790 for future lane drainage improvements.
- Pay Development Cost Charges (City and GVS & DD), School Site Acquisition Charge, and Address Assignment Fees.
- Pay servicing costs associated with the water, storm, and sanitary works identified in Attachment 4.
- Enter into a Servicing Agreement for the design and construction of frontage improvements along No. 5 Road, to include: a 1.5 m wide treed/grass boulevard behind the existing curb/gutter, and a 1.5 m wide concrete sidewalk at the property line. This may trigger the need for a 0.1 m wide right-of-way for public-right-of-passage over the sidewalk along the development frontage (to be determined at the Servicing Agreement design review stage);

### **Financial Impact**

This 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**

This rezoning application complies with the land use designations and applicable policies contained with the OCP for the subject site, and with Lot Size Policy 5434.

The proposed rezoning would enable subdivision of the subject property into two (2) lots zoned "Compact Single Detached (RC2)" with vehicle access to and from the existing rear lane.

It is recommended that Zoning Bylaw 8500, Amendment Bylaw 9243 be introduced and given first reading.



Cynthia Lussier  
Planning Technician - Design  
(604-276-4108)

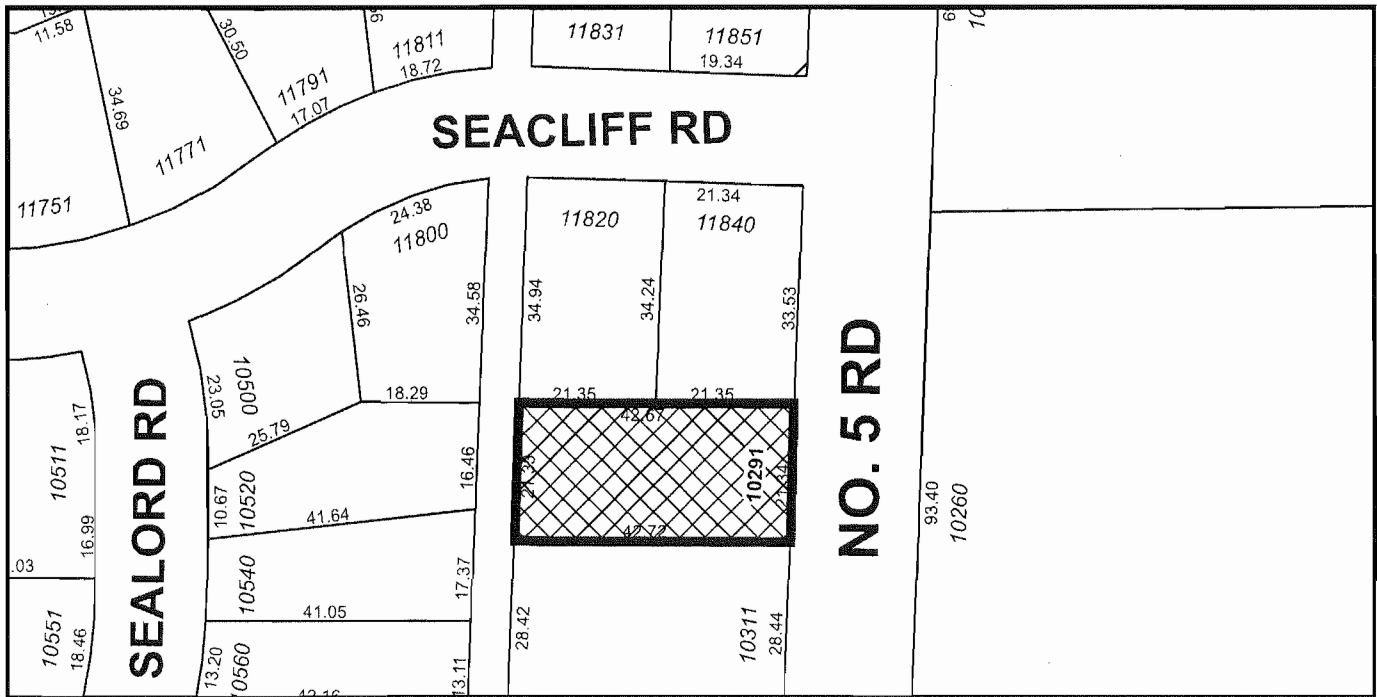
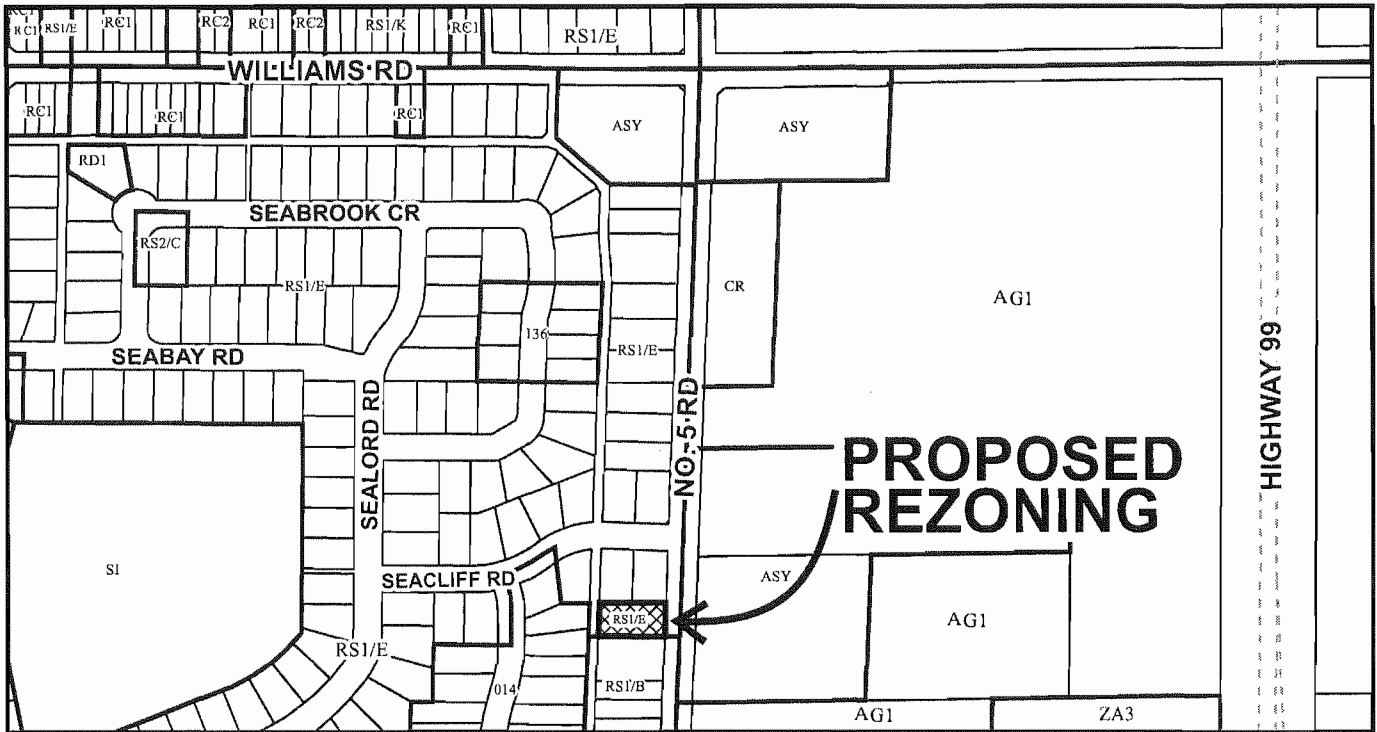
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Attachments:

- Attachment 1: Location Map/Aerial Photo
- Attachment 2: Development Application Data Sheet
- Attachment 3: Single-Family Lot Size Policy 5434
- Attachment 4: Rezoning Considerations
- Attachment 5: Survey and Proposed Subdivision Plan
- Attachment 6: Proposed Tree Management Drawing



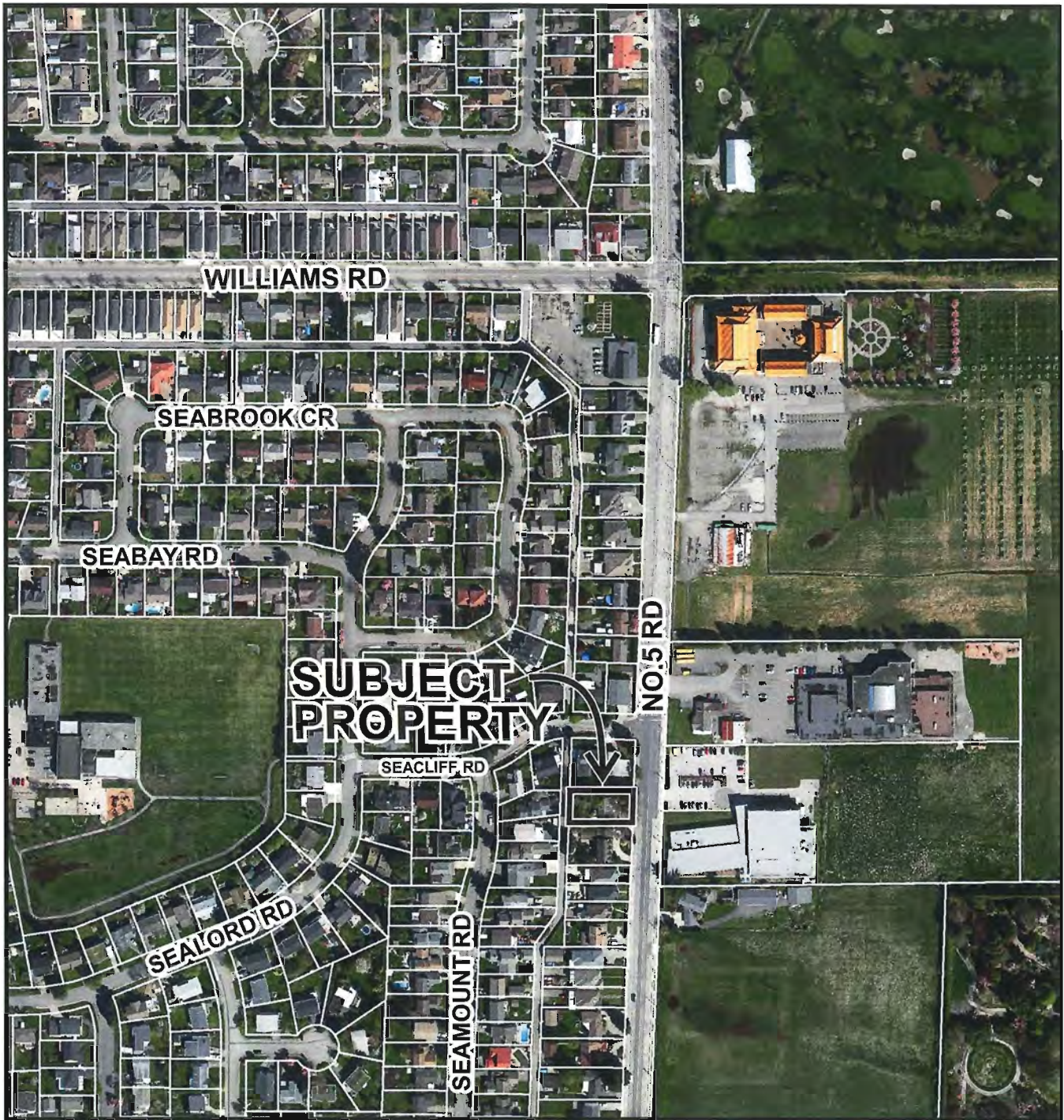
# City of Richmond



	<h2>RZ 15-694974</h2>	Original Date: 03/19/15
		Revision Date:
		Note: Dimensions are in METRES



City of  
Richmond



RZ 15-694974

Original Date: 03/19/15

Revision Date:

Note: Dimensions are in METRES

CNCL - 402





**RZ 15-694974**

**Attachment 2**

Address: 10291 No. 5 Road

Applicant(s): Jasdeep Mann and Harpreet Mann

Date Received: March 12, 2015      Fast Track Compliance: April 27, 2015

	<b>Existing</b>	<b>Proposed</b>
<b>Owner</b>	Elizabeth Ann Bates	To be determined
<b>Site Size (m<sup>2</sup>)</b>	912 m <sup>2</sup> (9,816 ft <sup>2</sup> )	Two (2) lots, each 456 m <sup>2</sup> (4,908 ft <sup>2</sup> )
<b>Land Uses</b>	Single-family residential	No change
<b>Zoning</b>	Single Detached (RS1/E)	Compact Single Detached (RC2)

<b>On Future Subdivided Lots</b>	<b>Bylaw Requirement</b>	<b>Proposed</b>	<b>Variance</b>
Floor Area Ratio	Max. 0.60	Max. 0.60	none permitted
Lot Coverage – Building	Max. 50%	Max. 50%	none
Lot Coverage – Building, structures, and non-porous	Max. 70%	Max. 70%	none
Lot Coverage – Landscaping	Min. 20%	Min. 20%	none
Setback – Front & Rear Yards (m)	Min. 6 m	Min. 6 m	none
Setback – Side Yards (m)	Min. 1.2 m	Min. 1.2 m	none
Height (m)	Max. 2 ½ storeys	Max. 2 ½ storeys	none
Lot Size	Min. 270 m <sup>2</sup>	Two (2) lots, each 456 m <sup>2</sup>	none
Lot Width	Min. 9 m	Min. 9 m	none

Other: Tree replacement compensation required for loss of bylaw-sized trees.



# City of Richmond

# Policy Manual

Page 1 of 2

Adopted by Council: February 19, 1990  
 Amended by Council: November 18, 1991  
 Amended by Council: October 16, 2006

**POLICY 5434**

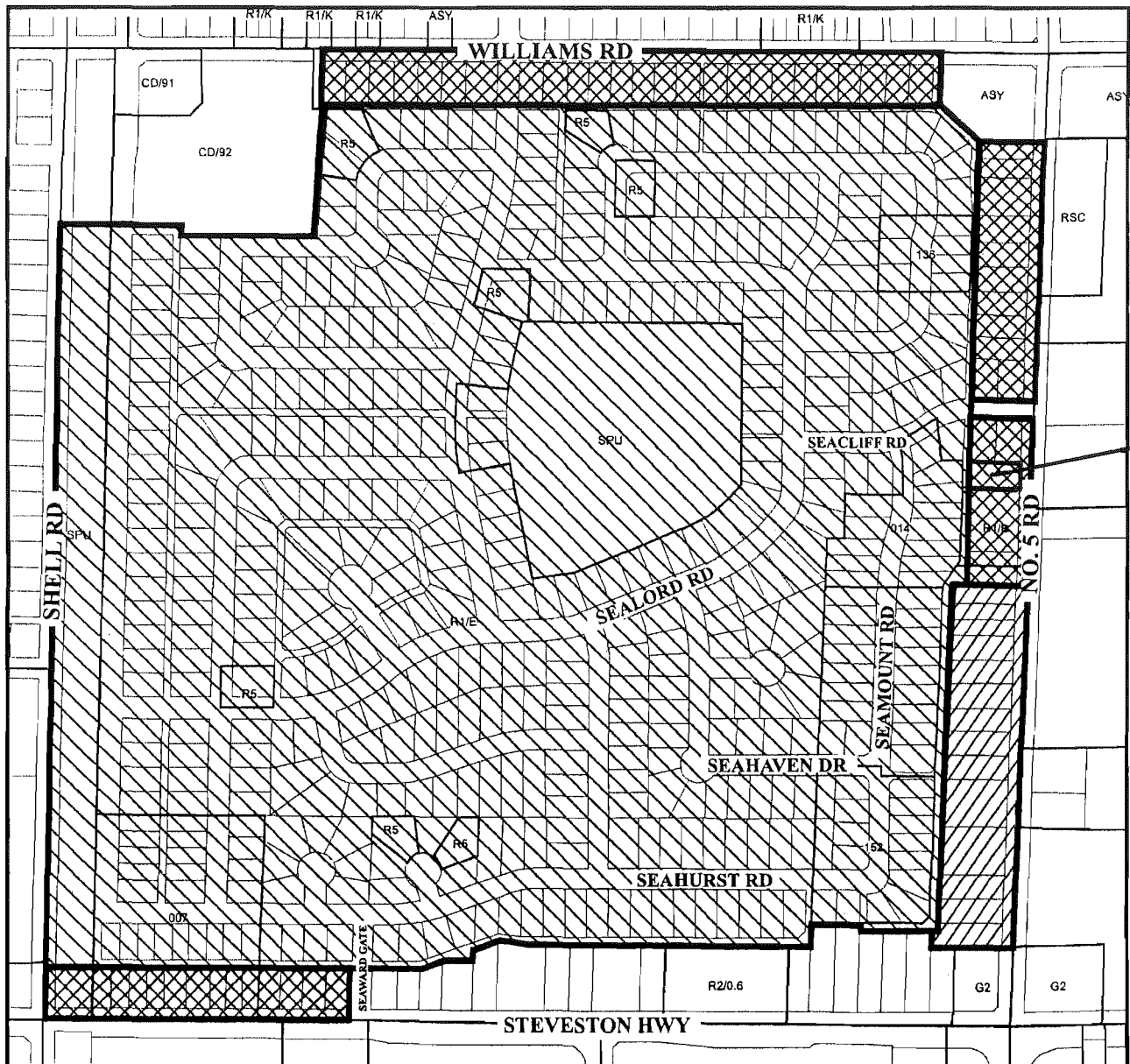
File Ref:




SINGLE-FAMILY LOT SIZE POLICY IN QUARTER-SECTION 36-4-6

**POLICY 5434:**

The following policy establishes lot sizes in a portion of Section 36-4-6, within the area bounded by **Steveston Highway, Shell Road, No. 5 Road, and Williams Road:**

1. That properties within the area bounded by Shell Road, Williams Road, No. 5 Road, and Steveston Highway, in a portion of Section 36-4-6, be permitted to subdivide in accordance with the provisions of Single-Family Housing District (R1/E), with the exception that:
  - a) Properties fronting on Williams Road from Shell Road to No. 5 Road, properties fronting on Steveston Highway from Seaward Gate to Shell Road, and properties fronting on No. 5 Road from Williams Road to approximately 135 m south of Seacliff Road to rezone and subdivide in accordance with the provisions of Single-Family Housing District (R1-0.6) or Coach House District (R/9) provided that vehicle accesses are to the existing rear laneway only. Multiple-family residential development shall not be permitted in these areas.
  - b) Properties fronting on No. 5 Road from Steveston Highway to approximately 135 m south of Seacliff Road be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area B (R1/B) provided that vehicle accesses are to the existing rear laneway only.
2. This policy, as shown on the accompanying plan, is to be used to determine the disposition of future rezoning applications in this area, for a period of not less than five years, unless changed by the amending procedures contained in the Zoning and Development Bylaw.



-  Subdivision permitted as per **R1/E** (18 m wide lots)
-  Subdivision permitted as per **R1-0.6 or R/9**  
(access to lane only) (No Multiple-family residential development is permitted.)
-  Subdivision permitted as per **R1/B**



**Policy 5434**  
**Section 36-4-6**

Adopted Date: 02/19/1990  
Amended Date: 11/18/1991  
10/16/2006



**Address:** 10291 No. 5 Road

**File No.:** RZ 15-694974

**Prior to final adoption of Richmond Zoning Bylaw 8500, Amendment Bylaw 9243, the applicants are required to complete the following:**

1. Provincial Ministry of Transportation & Infrastructure Approval.
2. Submission of a Landscape Plan, 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 installation costs. The Landscape Plan should:
  - comply with the guidelines of the OCP's Arterial Road Policy and should not include hedges along the front property line;
  - include the dimensions of tree protection fencing as illustrated on the Tree Retention Plan attached to this report; and
3. City acceptance of the developer's offer to voluntarily contribute \$3,000 to the City's Tree Compensation Fund for the planting of replacement trees within the City.
4. Submission of a Contract entered into between the applicants 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 Trees # 28, 29, 31, 32, 33, 34, 44, 45, 46, 47, 48, 49, 50, and off-site Trees A, C, D). 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.
5. Submission of a Tree Survival Security to the City in the amount of \$13,000 for on-site Trees # 28, 29, 31, 32, 33, 34, 44, 45, 46, 47, 48, 49, 50.
6. Payment of deferred taxes and the submission of a title search demonstrating that the Land Tax Deferment Act Agreement (BB2018881) has been discharged from title. Note: this is required prior to the preparation of any legal documents associated with this rezoning application.
7. Registration of a flood indemnity covenant on title.
8. Registration of a legal agreement on title to ensure that landscaping planted along within the ALR buffer area along the east portion of the property (4.0 m wide, as measured from the east property line) is maintained and will not be abandoned or removed. The legal agreement is to identify the ALR buffer area and to indicate that the subject property is located across from active agricultural operations and is subject to impacts of noise, dust, and odour.
9. Registration of a legal agreement on Title to ensure that no final Building Permit inspection is granted until a secondary suite is constructed on one (1) of the two (2) future lots, to the satisfaction of the City in accordance with the BC Building Code and the City's Zoning Bylaw.

**Note:** Should the applicants change their mind about the Affordable Housing option selected prior to final adoption of the Rezoning Bylaw, the City will accept a voluntary contribution of \$1.00 per buildable square foot of the single-family developments (i.e. \$5,890) to the City's Affordable Housing Reserve Fund in-lieu of registering the legal agreement on Title to secure a secondary suite.

**At Demolition stage, the applicant(s) must complete the following requirements:**

- install tree protection fencing around all trees to be retained (on-site Trees # 28, 29, 31, 32, 33, 34, 44, 45, 46, 47, 48, 49, 50, and off-site Trees A, C, D). Tree protection fencing must be installed to City standard in accordance with the City's Tree Protection Information Bulletin TREE-03 and must remain in place until construction and landscaping on-site is completed.

**At Subdivision\* stage, the applicant(s) must complete the following requirements:**

- Provide a cash-in-lieu contribution in the amount of \$22,790 for future lane drainage improvements.
- Pay Development Cost Charges (City and GVS & DD), School Site Acquisition Charge, and Address Assignment Fees.
- Enter into a Servicing Agreement for the design and construction of frontage improvements along No. 5 Road, to include (but is not limited to): a 1.5 m wide treed/grass boulevard behind the existing curb/gutter, and a 1.5 m wide concrete sidewalk at the property line. This may trigger the need for a 0.1 m wide right-of-way for public-right-of-passage over the sidewalk along the development frontage (to be determined at the Servicing Agreement design review stage).
- Pay servicing costs associated with the following water, storm, and sanitary works:

*Water Works*

- Using the OCP Model, there is 507.2 L/s of water available at a 20 psi residual at the No. 5 Road frontage. Based on your proposed development, your site requires a minimum fire flow of 95 L/s.
- The applicant 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 onsite fire protection. Calculations must be signed and sealed by a Professional Engineer and be based on Building Permit Stage and Building designs. If adequate flow is not available, the Developer shall be required to upgrade the existing water system that may extend beyond the development site frontage.
- At the applicant's cost, the City is to cut and cap the existing water service connection at the watermain along the No. 5 Road frontage.
- Install two new 25 mm water service connections complete with meter and meter boxes along the No. 5 Road frontage (the meter boxes to be located within a new 1.5m wide utility right-of-way (refer to *General Items* below).

*Storm Sewer Works*

- The applicant is required to provide a cash-in-lieu contribution of \$22,790.00 for the design and construction of lane drainage upgrades in accordance with the Subdivision and Development Bylaw 8751.
- At the applicant's cost, the City is to cut and cap the existing storm service connections fronting the No. 5 Road frontage, and install a new 450 mm diameter Type II Inspection Chambers complete with two 100 mm diameter connections at the common property line within a new 1.5m wide utility right-of-way (refer to *General Items* below).

*Sanitary Sewer Works*

- At the applicant's cost, the City is to cut and cap the existing service connection at the property's northwest corner and install a new 450 mm diameter Type II Inspection Chamber complete with two 100 mm diameter connections at the common property line.

*General Items*

- The applicant is required to provide a 1.5 m wide utility right-of-way across the entire No. 5 Road frontage to accommodate storm inspection chambers and water meter boxes. No permanent structures such as fences, and storage sheds with concrete foundations, are allowed to be built on or across the utility right-of-way.
- The applicant may be required to provide a 0.1 m wide right-of-way for public-right-of-passage over the sidewalk along the No. 5 Road frontage (to be determined through the Servicing Agreement design review).
- The applicant is required to coordinate with BC Hydro, Telus and other private communication service providers:
  - To underground proposed 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).
- Ensure driveway locations do not conflict with existing street lights and/or utility poles. Requests to relocate street lights and/or utility poles will not be considered other than under exceptional circumstances.
- Additional legal agreements, as determined via the subject development's Servicing Agreement(s) and/or Development Permit(s), and/or Building Permit(s) to the satisfaction of the Director of Engineering may be required, including, but not limited to, site investigation, testing, monitoring, site preparation, de-watering, drilling, underpinning, anchoring, shoring, piling, pre-loading, ground densification or other activities that may result in settlement, displacement, subsidence, damage or nuisance to City and private utility infrastructure.

**Prior to Building Permit issuance, the applicant must complete the following requirements:**

- Submission of a Construction Parking and Traffic Management Plan to the Transportation Department. The 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.
- 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 original on file]

Signed \_\_\_\_\_

Date \_\_\_\_\_

**TOPOGRAPHIC SURVEY AND PROPOSED SUBDIVISION OF LOT 392 SECTION 36  
BLOCK 4 NORTH RANGE 6 WEST NEW WESTMINSTER DISTRICT PLAN 45712**

SCALE: 1:200



ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF UNLESS OTHERWISE INDICATED

#10291 NO. 5 ROAD,  
RICHMOND, B.C.  
P.I.D 003-480-631



**LEGEND:**

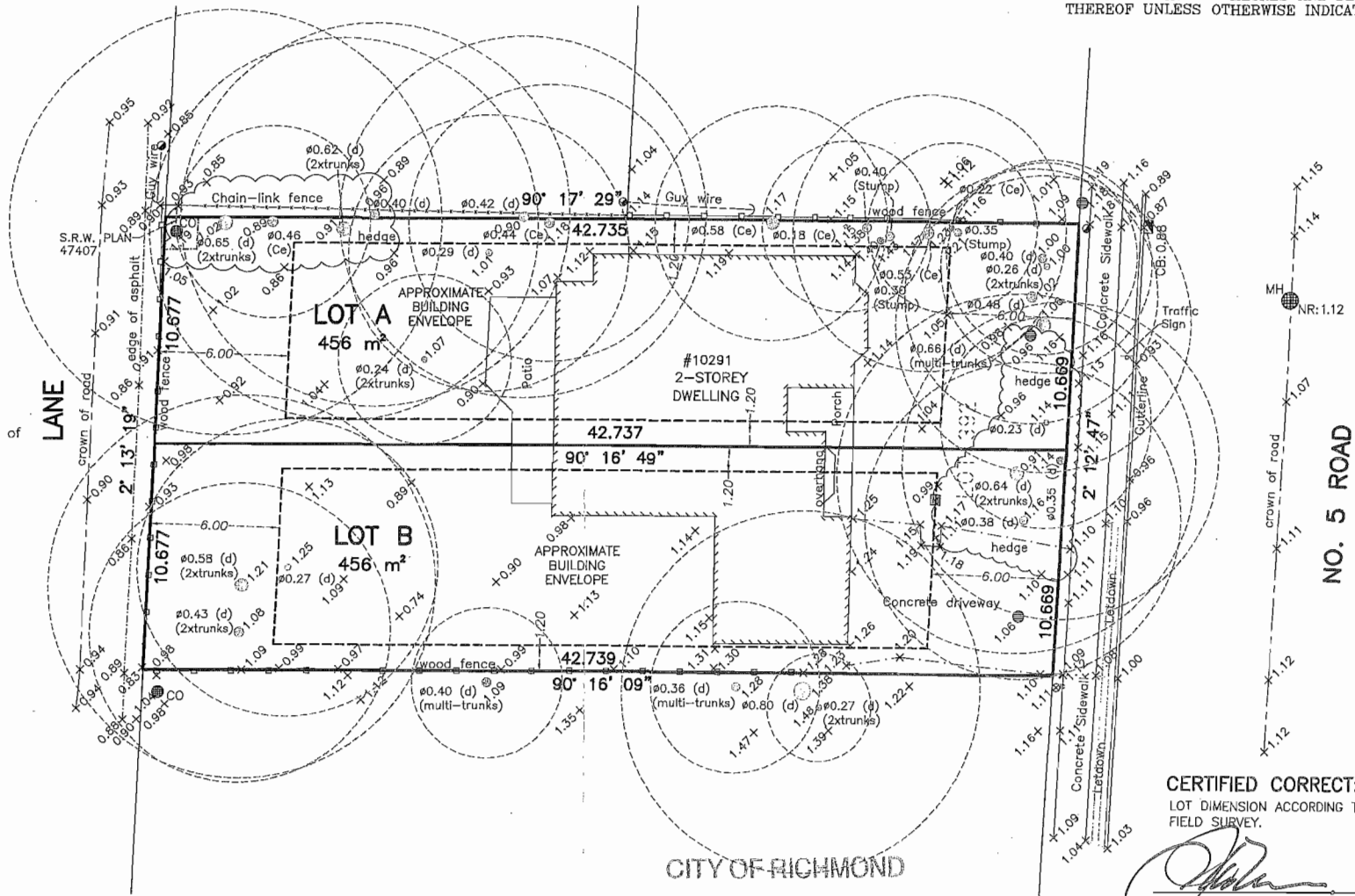
- (Ca) denotes cedar
- (D) denotes deciduous
- CB denotes catch basin
- ⊙ denotes power pole
- ⊙ denotes round catch basin
- ⊙ denotes water meter
- CO denotes cleanout
- ⊙ denotes inspection chamber
- MH denotes manhole
- NR denotes north rim

**NOTE:**

Elevations shown are based on City of Richmond HPN Benchmark network.  
Benchmark: HPN #191,  
Control Monument 02H2453  
Located at S edge traffic island @  
Riverside Dr & Featherstone Way  
Elevation = 1.664 metres

(Benchmark: HPN #190,  
Control Monument 94H1624  
Elevation = 2.353 metres)

© copyright  
J. C. Tom and Associates  
Canada and B.C. Land Surveyor  
115 - 8833 Odlin Crescent  
Richmond, B.C. V6X 3Z7  
Telephone: 214-8928  
Fax: 214-8929  
E-mail: office@jctam.com  
Website: www.jctam.com  
Job No. 5887  
FB-274 P58-62  
Drawn By: MY



CITY OF RICHMOND

**CERTIFIED CORRECT:**  
LOT DIMENSION ACCORDING TO  
FIELD SURVEY.

*Johnson C. Tam*  
JOHNSON C. TAM, B.C.L.S.

February 3rd, 2015.

**CNCL - 409**

APR 21 2015

RECEIVED

DWG No. 5887-TOPO

ATTACHMENT 5

**TREE INVENTORY AND ASSESSMENT LIST:**

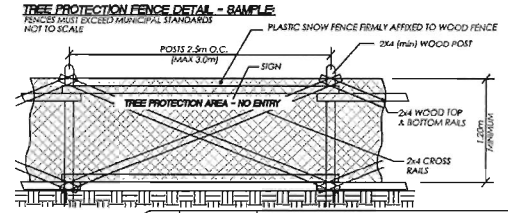
- Tag # denotes the tag affixed to the tree for reference in report and on drawings.
- DAB denotes the diameter of the trunk measured at 1.4 m above ground or as per international standards (i.e. for small stem trees).
- Cand denotes health and structural status based on Visual Tree Assessment (VTA) procedures.
- U denotes (Healthy) = a tree in very good condition that is deemed not viable for retention in a residential use area due to low existing advanced health decline or significant structural defects.
- M denotes (Marginal) = a tree in poor to fair condition that has a pre-existing moderate rated defect that may affect its stability considering the proposed land use but is considered for retention conditional to certain special measures.
- S denotes (Stable) = a tree in good or excellent condition with no onset or identifiable significant defects, and is well suited for consideration of retention if the project design can accommodate it.
- Action denotes the proposed treatment of the tree within the current development design. See report and drawing for tree details.

Tag #	DAB (cm)	Tree Type	Cand	Observations	Action
29	46+15	European larch	U	Asymmetrical crown due to proximity of adjacent tree. Historically crown raise pruned to 4m above grade. Historically pruned over the same via reduction cuts. Large clear kinked high in the crown.	Retain
29	43+19	European larch	U	Two divergent stems attach at the root crown. Asymmetrical crown due to proximity of adjacent trees. Historically pruned with heading cuts. Dead wood in the crown.	Retain
30	32	Pine oak	M	Asymmetrical crown and sweep to the east due to proximity of and suppression from adjacent trees. Proportionally large scaffold limbs.	Remove
31	55+32	Black locust	M	Multiple stems attach at 1.5m. Vines overtake crown and obscuring slant.	Retain
32	51	Western redcedar	M	Narrow crown due to the proximity of adjacent trees. Embedded in crown of adjacent trees.	Retain
33	41+37	Black locust	M	Multiple stems from base. Asymmetrical crown due to the proximity of adjacent trees. Scaffold limb damaged with decay 15m above grade on the south side of crown.	Retain
34	43	Black locust	FA	Asymmetrical crown biased to the northeast, due to proximity of adjacent trees.	Retain
35	18+12	Holly	U	Multiple leaders attach at base, one of which with a longitudinal decayed injury. Historically topped at 2m, resulting in reaction growth and an asymmetrical crown.	Remove
36	33	European larch	U	Embedded in the crown of adjacent trees. High crown with a series of kinks in the stems.	Remove
37	46	Sycamore maple	M	Multiple large leaders attach at 2m with long bark inclusion. High crown and asymmetrical crown due to proximity of adjacent trees.	Remove
38	61	Western redcedar	FA	High, asymmetrical crown due to proximity of building and adjacent trees. Historically pruned via heading cuts for building clearance.	Remove
39	62	Western redcedar	FA	Asymmetrical crown due to proximity of existing building and historic clearance pruning. Asymmetrical root system due to the growing space being restricted by the existing concrete foundation.	Remove
40	23	Sawm cypress	M	Suppressed by adjacent trees. Sub-dominant leader attached at 1.5m with bark inclusion.	Remove
41	61	Western redcedar	U	Two leaders attach at 3m with long bark inclusion. Large radial opening wound at 1.5m on south side of stem. Serious long internal crack at 1m with corresponding longitudinal reaction wood on the opposite side of the stem - this is likely an active shear-plane crack.	Remove
42	24	Black locust	FA	Embedded in the crown of the adjacent tree, and dependent on that tree for stability. Severe sweep to north due to proximity and suppression of adjacent trees.	Remove
43	22	Plum	U	Asymmetrical crown and severe sweep to north due to proximity and suppression of adjacent trees.	Remove
44	47	Black locust	M	Asymmetrical crown with sweep and bias to north due to proximity of adjacent trees.	Retain
45	51	Black locust	M	Longitudinal crack at base with decay. Asymmetrical crown due to proximity of adjacent trees.	Retain
46	35+35+31+29	Sycamore maple	M	Multiple leaders attach at the root crown with long bark inclusion. Embedded in the crown of adjacent trees.	Retain
47	24	Black locust	M	Slightly asymmetrical crown with sweep to the east, due to proximity and suppression of adjacent trees.	Retain
48	46+42	Black locust	M	Two stems attach at the root crown. Longitudinal reaction wood on stem at base. Asymmetrical crown with bias to the west due to proximity of adjacent trees.	Retain
49	41	Black locust	M	Asymmetrical crown biased to the east due to proximity of adjacent trees. Scaffold limbs spread well over the road envelope forming a long lever arm.	Retain
50	47	Black locust	M	Asymmetrical crown biased to the south due to the proximity of adjacent trees.	Retain
A	22+16	Holly	M	Two stems attach at the root crown with long bark inclusion. Asymmetrical crown biased to the south due to proximity of adjacent tree. East stem bifurcated at 2m with long bark inclusion and embedded at 3m. Suppressed by one embedded in the crown of the adjacent tree.	Protect
B	75	Black locust	M	Two leaders attach at 2.5m with long bark inclusion. Crown spreads over the existing building.	Protect
C	11+10+8	Ulm	U	Severe historical pruning via heading cuts. Multiple stems from base. Historically crown raise pruned to 2.5m above grade.	Protect
D	61 22+15+12	Holly	S	Multiple stems attach at 1m with bark inclusion. Well embedded in the crown.	Protect

remove via Permit

**TREE PROTECTION GUIDELINES:**

- TREE PROTECTION ZONE SETBACKS:**  
The Tree Protection Zone (TPZ) alignment is established as directed by this office to provide a suitable setback to ensure adequate root protection to maintain tree health and tree stability. These alignments are based on site and tree conditions as determined by the project architect and the existing site plan. Tree Protection Zones (TPZ) are established in accordance with the Tree Protection Zone (TPZ) guidelines, and may be conditional to certain mitigation measures being undertaken (i.e. root pruning, compensatory treatment to remaining root zone). The tree protection guidelines also apply to the overhead portions of the tree (trunk, branches and foliage), even if these have been retained outside of the TPZ setback.
- TREE PROTECTION FENCES (BARRIERS):**  
Barriers must be erected at the specified alignments and setbacks, maintained in good condition until the project reaches substantial completion, and the restrictions and guidelines implemented as detailed herein through to the completion of the landscaping phase. The materials and installation of the fence must meet or exceed the municipal standards. Signs stating TREE PROTECTION ZONE - NO ENTRY must be placed on the tree protection fence at a suitable frequency at the direction of the project architect. Abarrier will install signs in cases that we are retained to provide field services for compliance during construction. The owner, contractor, subcontractors and trades should be made aware of the restrictions therein, and consult with this office for any access. If required, tree protection fencing must be inspected and approved by the municipality and/or the project architect prior to commencement of any demolition, site preparation or construction work.
- SURVEY OF FENCES:**  
If any tree protection fences are aligned with or within close proximity to a restrictive covenant, a property line, and/or an environmentally sensitive or protected area, the contractor must undertake a survey of the location of those property lines such that the tree protection fence can be installed and inspected accurately.
- TREE PROTECTION AND LAND CLEARING OPERATIONS:**  
If large scale land clearing areas contain TPZ and/or trees a swathing treatment required in new forest edge interfaces along the perimeter of the land clearing areas, and/or where certain trees within a TPZ are specified for removal, it is strongly recommended that the land clearing contractor should coordinate with the project architect in advance to review their work plan and to identify retained trees and the protection measures for them, as well as during the clearing process to improve compliance and to assess new forest edges and provide tree follow up mitigation prescriptions.  
For tendering purposes, the proponent should be required to provide unit costs for the following treatments (including disposal of waste in the forest interface zones):
  - Removal of defective trees in size categories of small (dab up to 20 cm dbh), medium (dab 21 cm to 45 cm), large (dab 46 to 75 cm) and very large (76 cm dbh and greater); and
  - Pruning services (industry).
 Note that approvals for logging chips or large woody debris created by the waste of these operations on the site will be investigated with affected property owners upon request.  
In certain cases, and subject to municipal approval, interim tree protection measures instead of standard tree protection fence installation may be acceptable, such as but not limited to:
  - Retaining the services of the project architect to advise and direct the compliance to protection measures during the clearing scope that is in proximity to the TPZ, or
  - Installing extensive demarcation of the TPZ such as survey stakes, painting lines on the ground, and/or placing rope and flagging.
- TREE PROTECTION GUIDELINES:**  
Any construction related work or activities within or directly adjacent to a TPZ requires advance approval and the on-the-direction of the project architect. The trunks, branches, foliage and roots of retained trees, as well as the soil within the tree protection zones, must not be damaged by excavation activities, except as approved and directed by the project architect. The TPZ is restricted during the site preparation, construction and landscape installation phases of the project as follows:
  - Maintained low impact methods for the removal of trees and stumps within or adjacent to TPZ.
  - No soil disturbance, including trenching for underground services or utilities, shipping of organic soil for hard landscape installation, excavation for building foundations, fill placement, or trenching for irrigation or conduit installation.
  - No storage or transport of soil, spoil, construction materials, waste materials, etc.
  - No waste or washing of concrete, sludge, diesel, paint, or other materials that may adversely impact the soil or roots.
  - No passage or operation of vehicles or equipment.
  - No placement of temporary structures or services.
  - No off-site lighting, signs, cables or any other devices to retained trees.
  - No unapproved pruning or cutting of retained trees. Any pruning or other treatment of a retained tree must be completed by a qualified arborist or tree service firm employing ISA Certified Arborists and in conformance with ANSI A300 Standards, and/or under the direction of the Project Architect from this office, and.
  - Any excavations adjacent to the TPZ will require the attendance of the project architect and root pruning to be undertaken as necessary.
  - The use of aerial lifts, cranes or other overhead equipment is restricted in proximity to retained trees and should be planned with the size and height of the crown of the tree considered.
 If it is recognized that certain unproductive construction conflicts with a TPZ, may arise that could interfere with the protection of the selected trees, however any encroachment into a TPZ and/or changes to the tree retention scheme are subject to approval in advance by the project architect and the municipality. Certain TPZ restrictions or guidelines noted herein may be waived if they are considered by the project architect to be favorable impacts, and/or if the impact to the trees can be successfully mitigated by implementing special measures, protection systems, compensatory treatments, and/or follow-up work, as specified and directed by this office.
- LANDSCAPING:**  
The landscaping phase if when retained trees can be severely damaged. The operation of equipment, the placement of growing medium, grading and sub-base preparation for hard landscape features (i.e. sidewalks and patios), site preparation for retaining walls and footings, excavation for fences, signs and other landscape features, digging of planting holes for new plants and trees, the digging of trenches for irrigation, drainage and lighting, and the placement of turf and other finishing work, all have a very high potential for tree and root damage. It is vital that the landscaping work respects the limitations on activities within the TPZ. Interim tree landscape installation work should be avoided. On-site direct care by the project architect is strongly recommended.



1	JUN 17, 2015	ADDITIONAL TREE RETENTION PER CITY REQUEST
0	MAR 2, 2015	INITIAL SUBMISSION
REV #	DATE	COMMENTS

SEE SHEET 2 FOR DRAWING DETAILS

oclgroup.co

**ARBORTECH CONSULTING** a division of

HEAD OFFICE: SERVING METRO VANCOUVER AND BRITISH COLUMBIA  
SUITE 200 - 3740 CHATHAM STREET, RICHMOND, BC CANADA V7E 2Z3 p.604.275.3484

FRASER VALLEY REGIONAL OFFICE  
SUITE 109 - 1526 McALLUM ROAD, ABBOTSFORD, BC CANADA V3S 8A3 p.604.753.7152

**TREE MANAGEMENT DRAWING**

PROJECT: PROPOSED 2-LOT SUBDIVISION

ADDRESS: 10291 No.5 RD, RICHMOND

CLIENT: JAS MANN

ACL FILE: 15123 SHEET: 1 OF 2



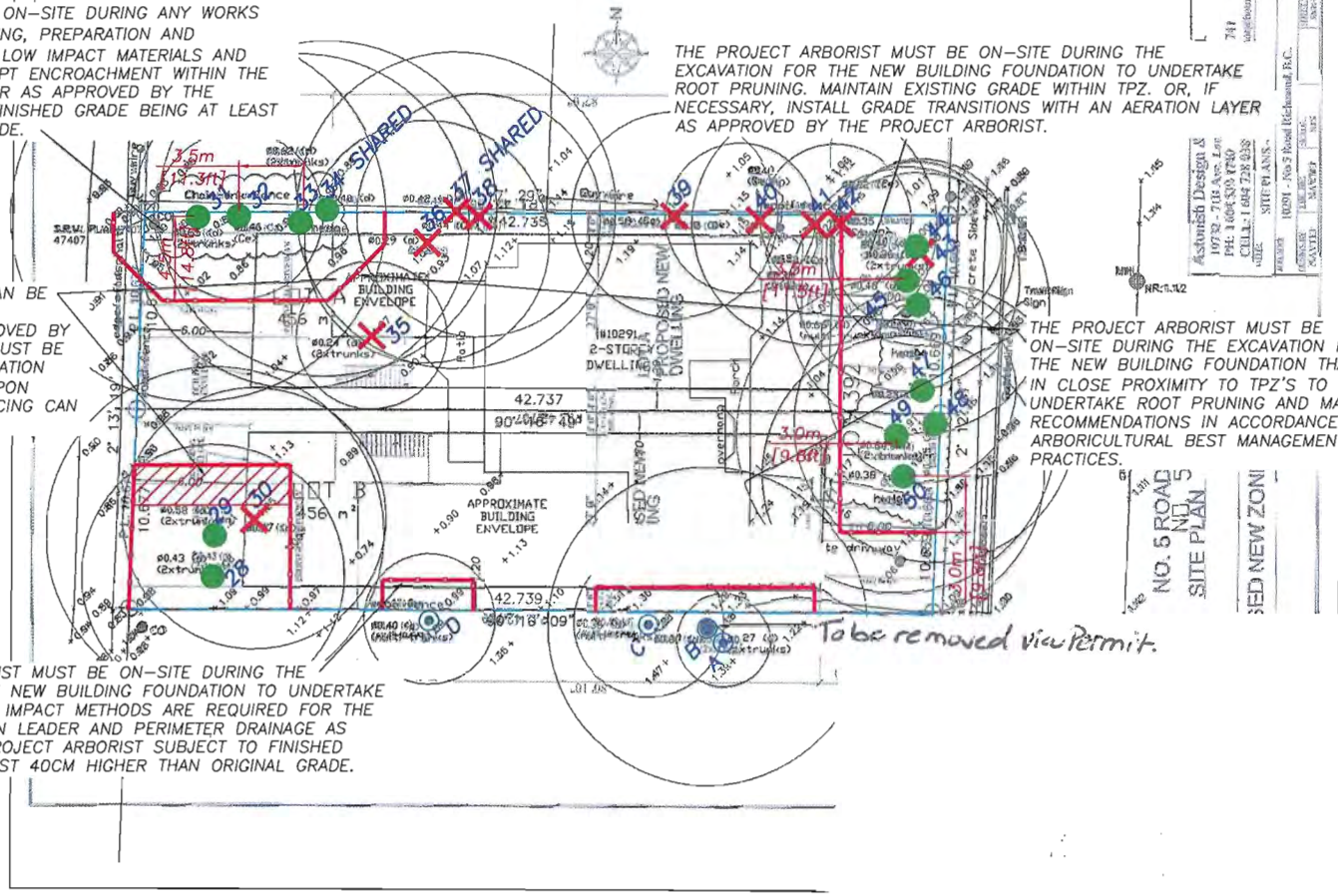
THE PROJECT ARBORIST MUST BE ON-SITE DURING ANY WORKS WITHIN THE TPZ (I.E. SOIL STRIPPING, PREPARATION AND INSTALLATION OF NEW DRIVEWAY). LOW IMPACT MATERIALS AND METHODS ARE REQUIRED TO ACCEPT ENCROACHMENT WITHIN THE TPZ INCLUDING AN AERATION LAYER AS APPROVED BY THE PROJECT ARBORIST SUBJECT TO FINISHED GRADE BEING AT LEAST 40CM HIGHER THAN ORIGINAL GRADE.

THE PROJECT ARBORIST MUST BE ON-SITE DURING THE EXCAVATION FOR THE NEW BUILDING FOUNDATION TO UNDERTAKE ROOT PRUNING. MAINTAIN EXISTING GRADE WITHIN TPZ. OR, IF NECESSARY, INSTALL GRADE TRANSITIONS WITH AN AERATION LAYER AS APPROVED BY THE PROJECT ARBORIST.

HARDSCAPE ENCROACHMENT INSIDE OF THE TPZ CAN BE MANAGED, SUBJECT TO LOW IMPACT CONSTRUCTION METHODS INCLUDING A SUB-BASE LAYER AS APPROVED BY THE PROJECT ARBORIST. THE PROJECT ARBORIST MUST BE ON-SITE DURING PREPARATION HARDSCAPE INSTALLATION (I.E. NEW DRIVEWAY, WALKWAY) WITHIN THE TPZ. UPON COMPLETION OF THE NEW DRIVEWAY, THE TPZ FENCING CAN BE RE-ALIGNED TO THE EDGE OF THE HARDSCAPE.

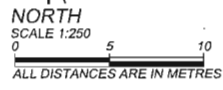
THE PROJECT ARBORIST MUST BE ON-SITE DURING THE EXCAVATION FOR THE NEW BUILDING FOUNDATION THAT IS IN CLOSE PROXIMITY TO TPZ'S TO UNDERTAKE ROOT PRUNING AND MAKE RECOMMENDATIONS IN ACCORDANCE WITH ARBORICULTURAL BEST MANAGEMENT PRACTICES.

THE PROJECT ARBORIST MUST BE ON-SITE DURING THE EXCAVATION FOR THE NEW BUILDING FOUNDATION TO UNDERTAKE ROOT PRUNING. LOW IMPACT METHODS ARE REQUIRED FOR THE INSTALLATION OF RAIN LEADER AND PERIMETER DRAINAGE AS DIRECTED BY THE PROJECT ARBORIST SUBJECT TO FINISHED GRADE BEING AT LEAST 40CM HIGHER THAN ORIGINAL GRADE.



74  
 Astorish Design &  
 197 St. - 718 Ave. - Lse  
 PHE 1004 518 7780  
 CELL: 1 604 238 0338  
 SITE PLAN  
 PROJECT: 10291 - No. 5 Road Richmond B.C.  
 DRAWN: [ ]  
 CHECKED: [ ]  
 DATE: [ ]

NO. 5 ROAD  
 NO. 5  
 SITE PLAN  
 RED NEW ZONE



- LEGEND:**
- denotes TAG NUMBER or ID REFERENCE.
  - denotes DRIFLINE (spread of the branches and foliage) of the tree.
  - denotes RETENTION tree (proposed).
  - denotes REMOVAL tree (proposed).
  - denotes HIGH RISK REMOVAL tree (proposed).
  - denotes OFF-SITE tree (to be protected and/or owner contacted as noted).
  - denotes NON-BYLAW underside tree (as measured by project arborist).
  - denotes SITE or STUDY AREA BOUNDARY.
  - denotes TREE PROTECTION ZONE (TPZ) setback alignment (as specified by project arborist).

**PLAN NOTES:**  
 This plan is based on drawings supplied by the project Services (BCCL), Engineer (P ENG) and the Design Professionals (not provided for contract) only as it relates to the proposed and implementing the management of existing trees. This plan does not warrant or certify the accuracy of locations of boundaries or elevations thereof. Refer to the original drawings from these professionals for those purposes.

SEE SHEET 1 FOR TREE DATA AND SPECIFICATIONS

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**ARBORTECH CONSULTING** a division of  
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1	JUN 19, 2015	ADDITIONAL TREE RETENTION PER CITY REQUEST
0	MAR 2, 2015	INITIAL SUBMISSION
REV #	DATE	COMMENTS
<b>TREE MANAGEMENT DRAWING</b>		
PROJECT:	PROPOSED 2-LOT SUBDIVISION	
ADDRESS:	10291 No. 5 RD, RICHMOND	
CLIENT:	JAS MANN	
ACL FILE:	15123	SHEET: 2 OF 2



Richmond Zoning Bylaw 8500
Amendment Bylaw 9243 (RZ 15-694974)
10291 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 "COMPACT SINGLE DETACHED (RC2)".

P.I.D. 003-480-631

Lot 392 Section 36 Block 4 North Range 6 West New Westminster District Plan 45712

- 2. This Bylaw may be cited as "Richmond Zoning Bylaw 8500, Amendment Bylaw 9243".

FIRST READING

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER REQUIREMENTS SATISFIED

MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE APPROVAL

ADOPTED

Series of horizontal lines for signatures and dates corresponding to the reading stages.

Approval stamp box containing 'CITY OF RICHMOND', 'APPROVED by [Signature]', and 'APPROVED by Director or Solicitor [Signature]'.

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER