



City of Richmond
Planning and Development Department

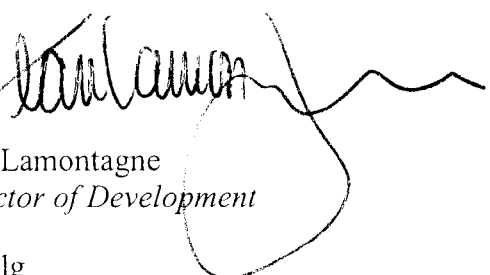
Report to Committee
Fast Track Application

To: Planning Committee
From: Jean Lamontagne
Director of Development
Re: **Application by Helen Chuk for Rezoning at 11860 Dunavon Place from Single-Family Housing District, Subdivision Area E (R1/E) to Single-Family Housing District, Subdivision Area A (R1/A)**

To Council - July 10, 2006
To Planning - July 05, 2006
Date: June 12, 2006
RZ 06-336459
File: 12-8060-20-8089.

Staff Recommendation

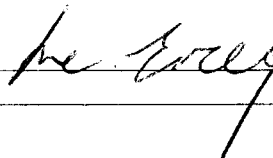
That Bylaw No. 8089, for the rezoning of 11860 Dunavon Place from "Single-Family Housing District, Subdivision Area E (R1/E)" to "Single-Family Housing District, Subdivision Area A (R1/A)", be introduced and given first reading.


Jean Lamontagne
Director of Development

GL:blg
Att.

FOR ORIGINATING DEPARTMENT USE ONLY

CONCURRENCE OF GENERAL MANAGER



Item	Details
Application	RZ 06-336459
Location	11860 Dunovan Place (Attachment 1)
Owner	Shirley & Yuk Tong Yu
Applicant	Helen Chuk

Date Received	May 10, 2006
Acknowledgement Letter	May 26, 2006
Fast Track Compliance	June 12, 2006
Staff Report	June 12, 2006
Planning Committee	July 5, 2006

Site Size	671 m ²
Land Uses	Existing: Single-family residential, single dwelling unit
	Proposed: Two (2) single-family lots, approximately 322.9 m ² and 347.7 m ² , each accommodating one single-family dwelling unit. (Attachment 2)
Zoning	Existing: Single-Family Housing District, Subdivision Area E (R1/E)
	Proposed: Single-Family Housing District, Subdivision Area A (R1/A)
Planning Designations	<ul style="list-style-type: none"> • OCP Schedule 2.4: Steveston Area Plan Land Use Map designation of Single-Family • 702 Single-Family Lot Size Policy 5470 designation permitting rezoning to "Single-Family Housing District, Subdivision Area A" (R1/A) (Attachment 3)
Surrounding Development	<p>To the North: Existing single-family homes zoned R1/E</p> <p>To the West: Existing single-family homes zoned R1/A</p> <p>To the South: Existing single-family homes zoned R1/E</p> <p>To the East: Across the cul-de-sac of Dunavon Place, single-family homes zoned R1/A and Two-Family zoned R5</p>

<p>Staff Comments</p>	<p>A tree survey was provided of the subject property, indicating the existence of three (3) trees with a dbh of 20 cm or greater. The tree at the front property line will be removed as it falls within the driveway location of the proposed development. According to an arborist's report provided by the applicant (Attachment 4), the tree at the centre of the subject property is in poor health and not suitable for retention. The tree at the rear of the property is in good health and will be retained.</p> <p>Four (4) trees with a dbh of 20 cm or greater are located on the adjacent property to the south (11891 Dunavon Place) with trunks, canopies and root structures that protrude into the subject property. According to an arborist's report provided by the applicant, retention of these trees would severely impact the development potential of the site. Excavation to accommodate the development of the subject property could not occur without serious impact to both the structural integrity and health of the trees.</p> <p>The applicant has met with the property owners of the adjacent property who have agreed to the removal of the trees, provided appropriate replacements are supplied by the applicant as identified in the arborist's report. The applicant and the adjacent property owners are in agreement with respect to the size, species and number of replacement trees to be replanted on the adjacent property (Attachment 5).</p> <p>The applicant has agreed to provide replacements for all on-site and off-site trees removed at a ratio of 2:1 and in accordance with Schedule A of the Tree Protection Bylaw (Attachment 6).</p>
<p>Analysis</p>	<p>The subject property falls within the 702 Lot Size Policy 5470 which permits rezoning to R1/A (9 m or 29.527 ft.) lots, and the proposal complies with the same. The Steveston Area Land Use Map designates this property as Single-Family.</p> <p>A number of properties within this area have rezoned and subdivided as per the 702 Lot Size Policy, creating a prevailing pattern of smaller single-family lots in compliance with Subdivision Area A requirements. This proposed rezoning continues the established subdivision pattern.</p> <p>The applicant has taken steps to ensure the retention of trees on site wherever possible, and where it has not been possible to retain trees due, has committed to providing 2:1 replacements for trees lost.</p> <p>A subdivision application has been submitted by the applicant in conjunction with this rezoning application.</p>

Attachments	Attachment 1: Location Map & Aerial Photo Attachment 2: Proposed Subdivision Plan Attachment 3: 702 Single-Family Lot Size Policy 5470 Attachment 4: Arborist's Report Attachment 5: Agreement for tree removal Attachment 6: Rezoning Requirements
Recommendation	Staff recommends support of the rezoning application with the attached conditions, as it complies with all applicable land use designations and policies, and is consistent with the redevelopment pattern of the surrounding area.

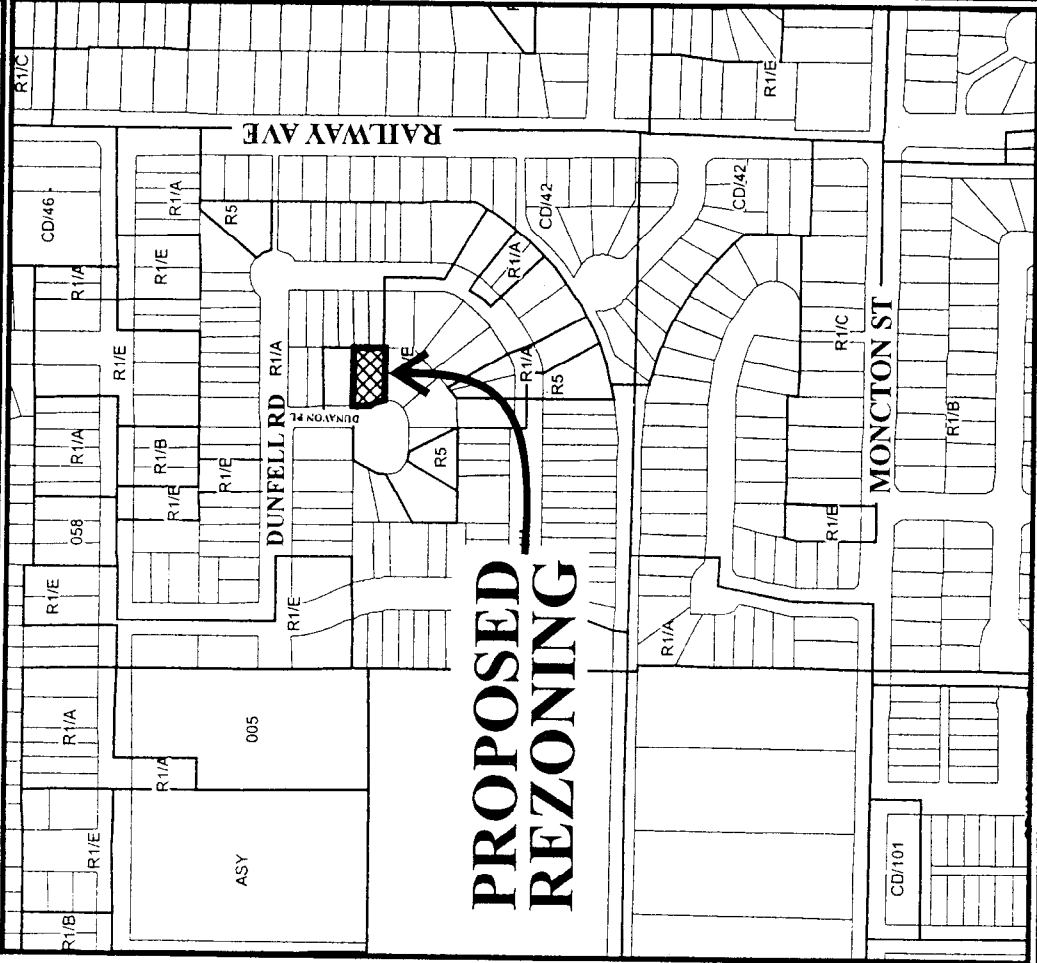


Grace Lui, M.U.R.P.
Planner
(Local 4108)

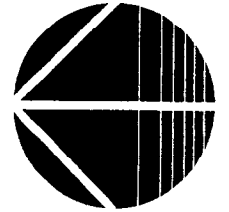
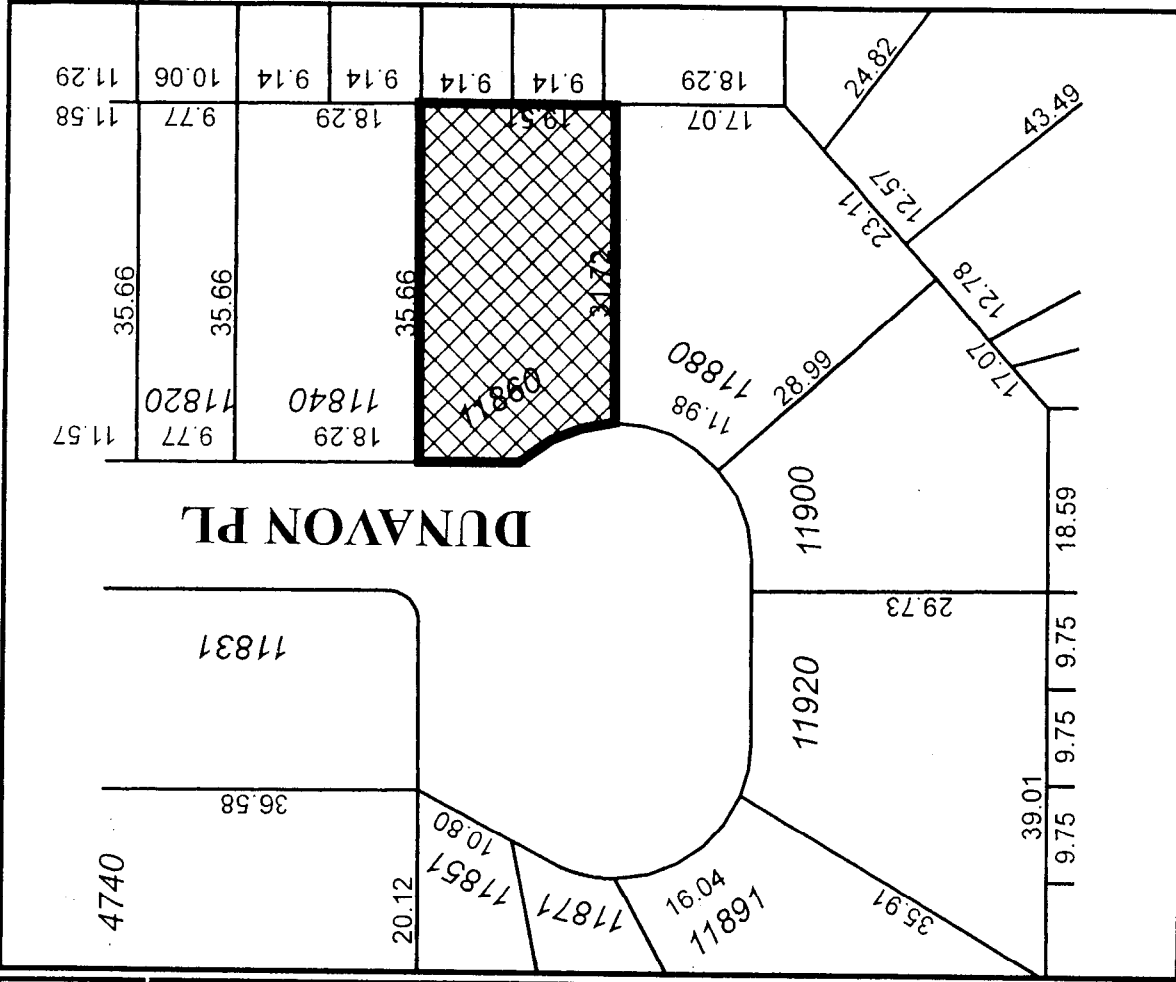
GL:blg



City of Richmond



PROPOSED REZONING



RZ 06-336459

Original Date: 05/23/06

Revision Date:

Note: Dimensions are in METRES



**SUBJECT
PROPERTY**



RZ 06-336459

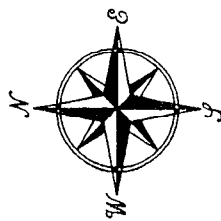
Original Date: 05/24/06

Amended Date:

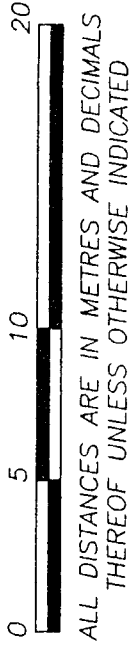
Note: Dimensions are in METRES

**PLAN OF PROPOSED SUBDIVISION AND TREE SURVEY OF LOT 126 SECTION 2
BLOCK 3 NORTH RANGE 7 WEST NEW WESTMINSTER DISTRICT PLAN 40395**

#11860 DUNAVON PLACE
RICHMOND, B.C.
P.I.D. 000-937-657



SCALE: 1:250

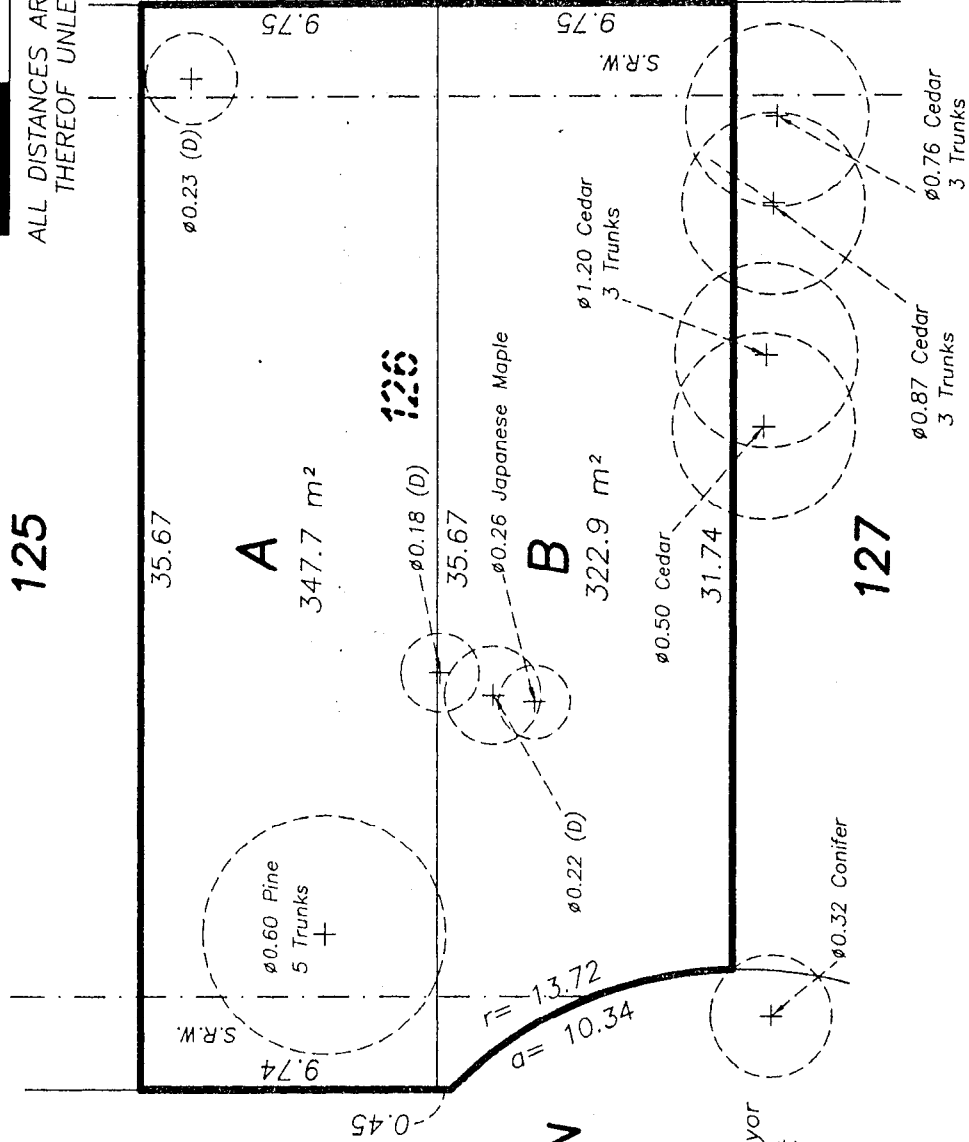


125

121

126

127



**DUNAVON
PLACE**

© Copyright
J. C. Tam 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: jctam@telus.net
Job No. 3007
FB-75 P137-138
Drawn By: GB

LEGEND:
(D) denotes deciduous tree.

DWG No. 3007-TREE

SURVEY COMPLETED ON MAY 2nd, 2006.



City of Richmond

Policy Manual

Page 1 of 2

Adopted by Council: July 15, 2002

POLICY 5470

File Ref: 4045-00

SINGLE-FAMILY LOT SIZE POLICY IN QUARTER-SECTION 2-3-7

POLICY 5470:

The following policy establishes lot sizes for properties within the area located along **Dunfell Road, Dunford Road, Duncliffe Road, and Dunavon Place**, in a portion of Section 2-3-7:

That properties located along Dunfell Road, Dunford Road, Duncliffe Road, and Dunavon Place, in the south-east quadrant of Section 2-3-7, be permitted to subdivide in accordance with the provisions of Single-Family Housing District, Subdivision Area A (R1/A) zoning of the Zoning and Development Bylaw 5300.

This policy is to be used to determine the disposition of future single-family 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.



**Froggers Creek
Tree Consultants Ltd.**

7763 McGregor Avenue Burnaby BC, V5J4H4
Telephone: 604-721-6002 Fax: 604-437-0970

City of Richmond
Policy Planning Department
6911 No. 3 Rd,
Richmond, BC, V6Y 2C1

June 12, 2006

Attention: Grace Lui

Re: 11860 Dunavon Place

Tree Protection Report

TREE PRESERVATION SUMMARY

5 On-site trees affected by this development.
4 Off-site trees affected by this development.
4 On-site trees proposed for removal.
1 On-site tree proposed for retention
4 Off-site tree proposed for removal
12 Replacement trees required by City of Richmond's Tree Bylaw
4 On-site Replacement trees proposed
8 Off-site Replacement trees proposed
0 Replacement trees in deficit

INTRODUCTION

The purpose of this report is two-fold: firstly, to describe the existing tree resource growing on site; secondly, to set forth measures to protect some or all of this resource; or, in the absence of any opportunities for meaningful tree retention, to explain why it is not feasible.

The report will document the following:

1. the extent, character and condition of all surveyed on-site and off-site trees that may be potentially impacted by the development;
2. trees proposed for removal and retention;
3. measures proposed to minimize tree loss and maximize successful tree conservation;

I have been provided with a tree survey of the existing properties and adjacent lands.

I have visited the site and assessed the surveyed trees located on the 11860 Dunavon Place and on lands immediately adjacent. All trees have been inventoried and evaluated for health and structure.



Figure 1. Aerial photo of subject properties - from the City of Richmond's online mapping and GIS website - <http://www.richmond.ca/discover/maps.htm>

OBSERVATIONS

Current Site Conditions

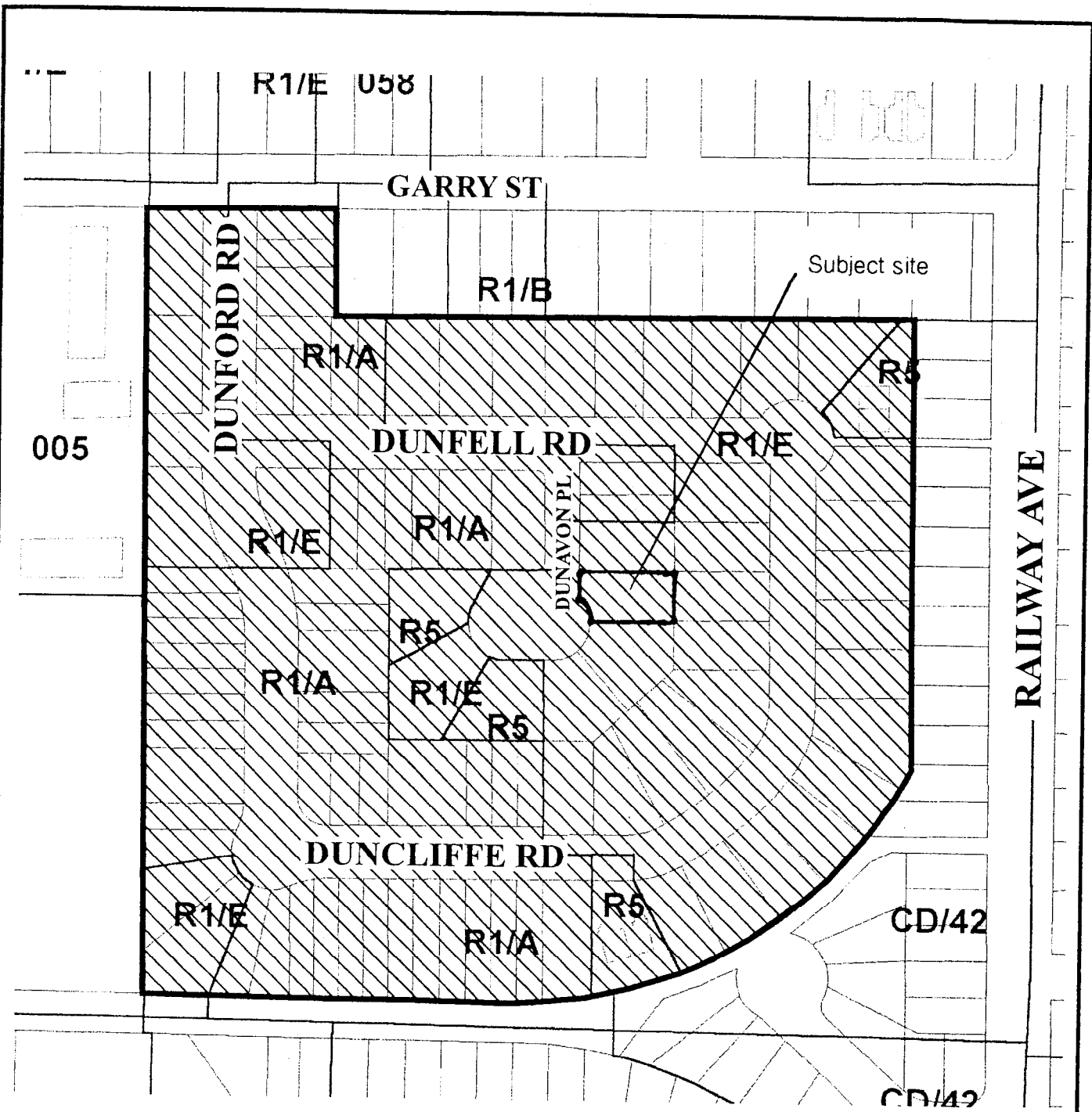
The site is a flat lot with most of the trees located in the front yard. The existing house is located in the middle of the lot.

Proposed Development Plans

The proposed development will subdivide the existing lot creating a total of 2 lots.

Tree Resource

9 trees are inventoried in total. 5 of them are on-site, and 4 of them are located on the neighbouring property to the south (11880 Dunavon Place). The 5 on-site trees have been neglected and poorly pruned. The majority of the on-site tree resource is in fair to poor health. The 4 off site trees are in good condition.



Rezoning would be permitted to R1/A
(9 m or 29.527) wide lots)



Policy 5470

Section 02, 3-7

Adoped Date: 07/15/02

Amended:

Note: Dimensions are in METRES



#	Type	Action	Rationale	Stem Diameter (cm)	Drip line (m)	Height (m)	Health	Structural Condition
1	Mugo Pine	Remove	Will be critically impacted by the construction	4@16	4	7	Fair	Multi-stemmed
2	Cherry	Remove	Within building envelope	16	2	2	Poor	No apparent defects
3	Pieris	Remove	Within building envelope	14	2	2	Good	No apparent defects
4	Japanese Maple	Remove	Within building envelope	26	2	2	Fair	Heavily topped
5	Cherry	Retain		23	2	4	Poor	No apparent defects
6	Western Red Cedar	Remove	Will be critically impacted by the construction	30	4	15	Good	No apparent defects
7	Western Red Cedar	Remove	Will be critically impacted by the construction	33&20	4	15	Good	Multi-stemmed
8	Western Red Cedar	Remove	Will be critically impacted by the construction	35&20	4	15	Good	Multi-stemmed
9	Western Red Cedar	Remove	Will be critically impacted by the construction and removal of other trees	35&20	4	15	Good	Multi-stemmed

DISCUSSION

Tree Removals

4 on site trees are proposed for removal. These trees are either located within the building envelope or will be critically impacted by the construction.

The four off-site trees are located along the property line. These trees have grown very large. The four trees are growing together as one. The roots of the trees are growing well into 11860 Dunavon Place. The Cedars would be located within a half a metre of the excavation required for the foundation of a house built on lot B. The Critical Root Plate¹ for these trees is 1.4m from the centre of the trees. The Critical Root Plate is the minimum intact root plate radius required for a tree to remain stable. This radial value represents the bending moment of the tree under maximum wind load. Roots that are decayed or cut within this limit reduce the bending moment and hence the wind load that the tree can sustain without failure.

¹ According to Dr. Claus Mattheck (*The Body Language of Trees*, pp. 82 - 84), trees of the type and stem size (measured at the base) of the subject trees require a minimum intact root plate radius to remain stable.



The Critical Root Zone² (CRZ) for these 4 off-site trees is:

Tree #	CRZ
#5	4.2m
#6	5.3m
#7	5.5m
#8	5.5m

The Critical Root Zone is considered the amount of soil and root area required to ensure the long-term biological viability of the tree. Any excavation or grade changes within the critical root zones could impact the future health of the tree. Generally healthy trees can handle losing up to 25% of its critical root zone

Based on this information any excavation within 3m would heavily stress the trees and might result in one or more of the trees dieing. Any excavation within 1.5m of the trees would compromise the stability of the trees making them hazardous. On a lot that is only 10m wide this does not leave any room to build a house.

The owner of 11860 Dunavon Place has talked to the owners of the trees and they have agreed to allow the 4 Cedars to be removed and replaced.

Tree Retention

Tree #5 is recommended for retention. It will need to be protected during all phases of construction. Failure to protect the tree adequately could result in the death of the trees.

Tree Protection Fencing

Tree # 5 needs to be surrounded by Tree Protection Fencing. Tree protection fencing should be built outside the dripline of the protected tree. For details on protection fencing see the Appendix.

Replacement Trees

The City of Richmond requires 2 replacement trees for every tree that is removed over 20cm. The size of the replacement trees is based on the size of the tree being removed. See table:

#	Type	Stem Diameter (cm)	Consolidated ³ Stem Diameter	Replacement Tree Size	# of trees required
1	Mugo Pine	4x16	45	9cm	2
2	Cherry	16	16		0
3	Pieris	14	14		0
4	Japanese Maple	26	26	6cm	2
6	Western Red Cedar	33	33	4m	2
7	Western Red Cedar	33&20	45	5m	2
8	Western Red Cedar	35&20	47	5m	2
9	Western Red Cedar	35&20	47	5m	2
				Total	12

² Critical Root Zone - I have calculated this area using the method approved by the International Society of Arboriculture and the American Society of Consulting Arborists, which calculates the CRZ on the basis of biomass, species, age and condition. See Methaney, Nelda and James Clark, Trees and Development, A Technical Guide to Preservation of Trees During Land Development (International Society of Arboriculture, Champaign, Illinois. 1998.)

³ The City of Richmond calculates the stem diameter of multiple stemmed trees using: the sum of 100% of the diameter of the largest trunk and 60% diameter of each additional trunk



4 replacement trees are required on site. One tree will be planted in the front yard and backyard of each lot.

On Site Replacement Trees

Type	Quantity of trees	Size
Katsura	2	6cm
Crimson King Maple	2	9cm

To replace the existing Cedar hedge on the neighbouring property I am recommending 8 Thuja plicata Excelsas be planted along the property line.

Off Site Replacement Trees

Type	Quantity of trees	Size
Excelsa Cedar	6	5m
Excelsa Cedar	2	4m

Cost Of Replacement Trees

I have been asked to provide a cost estimate⁴ for planting the replacement trees.

#	Type	Size	Cost per tree	Total cost
2	Katsura	6cm	\$150	\$300
2	Crimson King Maples	9cm	\$250	\$500
2	Excelsa Cedars	4m	\$180	\$360
6	Excelsa Cedars	5m	\$260	\$1,560
12	Cost of planting (includes delivery)		\$150	\$1,800
	Total Cost			\$4,520

End Report.

CERTIFICATION:

This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant.

Dated: June 12, 2006

Glenn Murray – Board Certified Master Arborist
 I.S.A. Certification # PN-0795B
 Certified Tree Risk Assessor #0049
 Froggers Creek Tree Consultants Ltd.

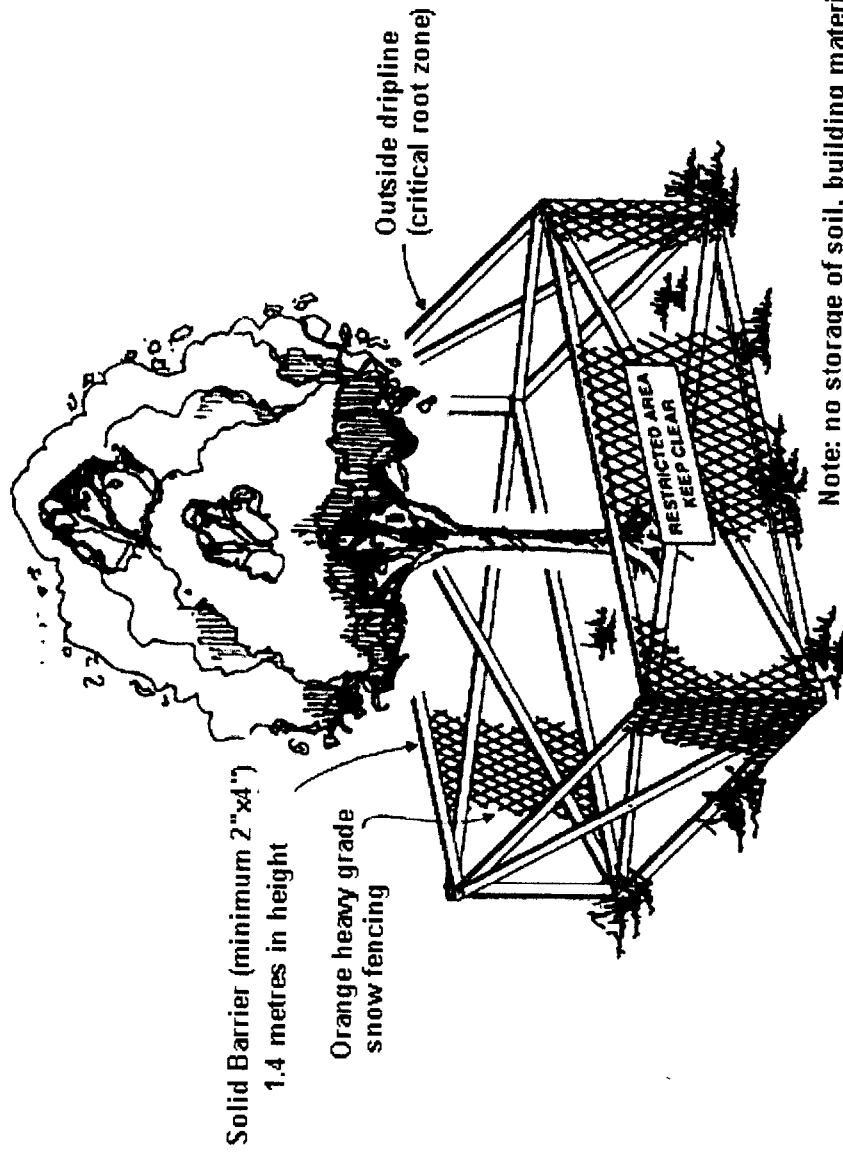
⁴ Replacement cost are from Piroche and Darshan Nurseries and are subject to availability.



ASSUMPTIONS AND LIMITING CONDITIONS

1. This report and the opinions expressed within it have been prepared in good faith and to accepted arboricultural standards within the scope afforded by its terms of reference and the resources made available to the consultant. The report provides no undertakings regarding the future condition or behavior of the trees reviewed within it. Tree hazard and condition assessments are not an exact science. Both qualities can and do change over time and should be reappraised periodically.
2. This assessment was limited to a visual tree evaluation only. No core samples were taken. No tissue samples have been cultured or analyzed by plant pathologists. No root crown excavations were undertaken. No aerial reconnaissance was attempted, beyond that made possible by binoculars. The evaluation period for this assessment is 12 months.
3. Any legal description provided to the consultant/appraiser is assumed to be correct. No responsibility is assumed for matters legal in character. Any and all property is appraised or evaluated as though free and clear, under responsible ownership and competent management.
4. It is assumed that any property is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
5. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the consultant/appraiser can neither guarantee nor be responsible for the information provided by others.
6. The consultant/appraiser shall not be required to give testimony or to attend court by reason of this report unless subsequent contractual arrangements are made, including payment of an additional fee for such services as described in the fee schedule and contract of engagement.
7. Loss or alteration of any part of this report invalidates the entire report.
8. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without the prior expressed written or verbal consent of the consultant/appraiser.
9. Neither all nor any part of the contents of this report, nor copy thereof, shall be conveyed by anyone, including the client, to the public through advertising, public relations, news, sales or other media, without the prior expressed written or verbal consent of the consultant/appraiser— particularly as to value conclusions, identity of the consultant/appraiser, or any reference to any professional society or institute or to any initiated designation conferred upon the consultant/appraiser as stated in his qualification.
10. It is impossible to predict exactly how a tree will react to any excavation near the tree. Sometimes underground soil water movement can be changed because of the building of a house and this could stress or kill a tree.

Tree Protection Fencing Detail



Note: no storage of soil, building materials
within or against barrier

AGREEMENT

This is an agreement made between the owner of 11880 Dunavon Place, Richmond, BC and Helen S. K. Chuk, new owner of 11860 Dunavon Place, Richmond, BC on the following:

1. The owners of 11880 Dunavon Place allow Helen S. K. Chuk to demolish the ~~three~~ ^{four} trees between 11880 and 11860, when they demolish the house on 11860 Dunavon Place. *PMB*
2. Helen S. K. Chuk agrees to put up at her expense a new six feet fence with ~~lattice~~ ^{LATTICE} between 11860 and 11880 Dunavon Place up to ~~their building envelope~~ ^{THE FRONT YARD SET BACK} when the new house on 11860 Dunavon Place is built. And a temporary vinyl fence will be built during the construction period. *PMB*
3. Helen S. K. Chuk agrees to replace the trees according to city requirement at her own expenses. The trees will be chosen from the following list which is recommended by the arborist:

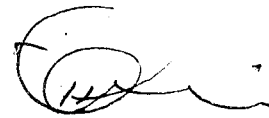
Signed in Richmond, BC on June 10, 2006 by:

Name: JACK ENEFER Signature: *Jack Enfer*
 Name: PAT McLEOD Signature: *Pat McLeod*
 Owner of 11880 Dunavon Place, Richmond, BC
 Name: Helen S. K. Chuk Signature: *Helen S. K. Chuk*
 New Owner of 11860 Dunavon Place, Richmond, BC

June 7, 2006

RZ 06-336459
Fast Track Application

1. Provide security to the City of Richmond in the form of cash or a clean, unconditional and irrevocable standby Letter of Credit drawn on a Canadian financial institution in an amount equal to \$1,400.00 for the provision of four (4) on-site replacement trees as specified by the attached arborist's report by Froggers Creek Tree Consultants Ltd., dated June 12, 2006.
2. Provide security to the City of Richmond in the form of cash or a clean, unconditional and irrevocable standby Letter of Credit drawn on a Canadian financial institution in an amount equal to \$3,120.00 for the provision of eight (8) off-site replacement trees as specified by the attached arborist's report by Froggers Creek Tree Consultants Ltd., dated June 12, 2006.
3. Establish tree protection barriers for the benefit of the existing tree at the front property line on the adjacent property to the south, AND the existing tree on the subject property located at the rear (north-east) corner, in such a manner to ensure that the trunk branches and root structure are not damaged by any construction activity on the subject property, and as specified in the attached arborist's report by Froggers Creek Tree Consultants Ltd., dated June 12, 2006. The tree protection barrier must be constructed prior to the issuance of a building permit and must remain intact for any construction or demolition activity throughout the entire period of construction or demolition.
3. All tree planting to be done to the British Columbia Society of Landscape Architects Landscape Standards.



Agreement by Applicant - Helen Chuk

* Applicant/developer is aware that they will be required to pay development cost charges, school site acquisition charges, address assignment fees, and servicing costs as assessed at future subdivision stage.



**Richmond Zoning and Development Bylaw 5300
Amendment Bylaw 8089 (RZ 06-336459)
11860 Dunavon Place**

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 and Development Bylaw 5300, is amended by repealing the existing zoning designation of the following area and by designating it **SINGLE-FAMILY HOUSING DISTRICT, SUBDIVISION AREA A (R1/A)**.

P.I.D. 000-937-657

Lot 126 Section 2 Block 3 North Range 7 West New Westminster District Plan 40395

2. This Bylaw may be cited as **“Richmond Zoning and Development Bylaw 5300, Amendment Bylaw 8089”**.

FIRST READING

JUL 10 2006

A PUBLIC HEARING WAS HELD ON

SECOND READING

THIRD READING

OTHER CONDITIONS SATISFIED

ADOPTED

CITY OF RICHMOND
APPROVED by <i>al</i>
APPROVED by Director or Solicitor <i>al</i>

MAYOR

CORPORATE OFFICER