

September 24, 2014

To: Mayor and Council

From: Municipal Clerk

Re: **Tree Protection Bylaw Application for Reconsideration of Permit Refusal – 757/767 St Patrick Street**

2014-236-1

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Under the *Tree Protection Bylaw*, adopted in 2006, the *Cedrus deodara* tree, located at 757/767 St. Patrick Street, for which a permit to remove was denied, would be considered protected.

Pursuant to the Bylaw, the Manager of Parks Services would issue a permit for the removal or damage of a protected tree where such removal or damage was required as per the various criteria laid out in the bylaw, which are as follows:

6. (1) to eliminate a hazard caused by a tree or part thereof which is dead, dying, severely damaged, unstable or severely leaning and in danger of falling;
- (2) to eliminate a hazard caused by interference with utility wires;
- (3) to eliminate a situation where a water line, sewer pipe or drain pipe is being chronically blocked or damaged by roots, or where pressure or penetration from tree growths above or below ground is causing damage to a building or part thereof, or to a significant structure, and there is no other reasonable solution that would not impose an undue hardship;
- (4) subject to Section 9, to allow the construction of a principal building in the location shown on a building permit application which complies with all applicable enactments and bylaws, and where the plans for the same have been approved by the building permit issuing authority for the Municipality;
- (5) to allow the construction of an accessory building or structure in a location complying with all applicable bylaws and regulations where a requirement to construct the building or structure in an alternate location would impose an undue hardship;
- (6) to prevent a foreseeable hazard that would be created by damage to the root system of a tree attributable to the construction of a building or structure in a location approved by the building permit issuing authority for the Municipality;
- (7) to allow the installation of underground or overhead services where a requirement to install the same in an alternate location would impose an undue hardship;
- (8) to allow the installation of a driveway or required off-street parking area where a requirement to install the same in an alternate location would impose an undue hardship;
- (9) or warranted because the tree, due to disease, decay, dieback or other pathological condition, mishap or pest attack is in an advanced and irreversible state of decline:
  - (a) that will on balance of probability cause the death of the tree within 5 years or less; or

- (b) which has already caused the tree to deteriorate to the point that its continued retention can no longer reasonably be considered to serve the tree protection objectives of this Bylaw;
- (10) , in accordance with sound arboricultural principles and practices, and pursuant to the goal of maintaining the native urban forest in a state of ongoing renewal, to promote and protect the health and vigour of any one tree of the species Garry Oak (*Quercus garryana*), Arbutus (*Arbutus menziesii*), Pacific (Western) Yew (*Taxus brevifolia*), Black Hawthorn (*Crataegus douglasii*) or Pacific (Western Flowering) Dogwood (*Cornus nuttallii*), which has either a basal diameter greater than 10 centimetres or a height above the point of germination in excess of 2 metres.
  - (11) to prevent foreseeable damage to a building, or to a significant structure, from:
    - (a) a limb, trunk or stem failure; or
    - (b) pressure or penetration from tree growths above or below ground, which the Manager of Parks Services has identified as a substantial based on his examination of the tree in the context of its location, characteristics and general environment, notwithstanding that the tree may not at the time of application exhibit any of the hazardous conditions set out in Section 6(1) or actually be causing damage as described in Section 6(3); or
  - (12) to remedy an undue hardship attributable to the material and deleterious effect of the tree on an improvement of significant value located on the subject parcel, or on land adjoining the subject parcel.

In the case at hand, the Manager of Parks Services has determined that none of the criteria under which he has the authority to issue a permit apply (see additional information attached). Therefore, the owner of 757/767 St. Patrick Street is seeking Council reconsideration of the decision to refuse to issue a permit.

In this regard, Section 21.1 of the Tree Protection Bylaw provides that in the case of a request for reconsideration of a decision of the Manager of Parks Services, Council would review the Manager's interpretation and application of the permit-issuing criteria set out in Section 6 and, if supported by the facts and in harmony with the scheme of this Bylaw generally and the language of that section in particular, may substitute its own interpretation or application and order the issuance of a permit where it is satisfied that the issuance of the permit having regard to:

- (1) the species of the tree;
- (2) the form of the tree;
- (3) the condition of the tree; or
- (4) the general density of protected trees on the subject parcel, would not defeat the intent of this Bylaw.

  
 Lorraine Hilton  
 Municipal Clerk

## Memo

To: Lorraine Hilton

From Chris Hyde-Lay,

Date: September 23/2014

Subject: 757/767 St Patrick

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### Assignment

To visually examine the 83.5 cm Cedrus deodora (Deodar cedar)

### Observations

On August 6th, 2014, I visually examined the large 83.5 cm Cedrus deodar tree located at the front of the properties at 757/767 St Patrick street. The Cedar tree is mature and is generally symmetrical. The tree has been pruned recently with the majority of the pruning focusing on the removal of deadwood and some tree limbs.

Overall, the Cedar tree shows excellent health. Foliage color and annually shoot growth is good. Woundwood development on old pruning cuts reflects excellent tree vigor. There are no visual major pests or diseases present. All stems and large limbs appear well attached to the parent stem. There are no signs of stem or root decay. The tree removal request does not meet any of the criteria set out in section 6 of tree protection bylaw. This is a visually healthy and structural sound tree that contributes to the urban forest.

To answer the statements in Mrs. Hubbard's letter.

1. All trees have the possibility to lose limbs in windstorms; especially if winds exceed 70 k. Removing more branches to eliminate the possible threat of failing branches only increases the incidences of more branch or limb failure. This is especially true in this tree species.
2. Deciduous and coniferous trees all shed needles or leaves. Deodar cedars a bit more than some. Needle or leaf drop is rarely a reason to remove trees.
3. All trees block sunlight. The cedar needles do create an acid soil but some plants selections will grow in this acidic environment.
4. and 5. Parks always allow pruning for 3 meters of roof and building clearance to enhance air and light circulation. This helps preserve roofs and buildings exteriors.



# A Photographic Guide to the Evaluation of Hazard Trees in Urban Areas

## TREE HAZARD EVALUATION FORM 2nd Edition

Site/Address: 757/767 ST PATRICK  
 Map/Location: \_\_\_\_\_  
 Owner: public \_\_\_\_\_ private  unknown \_\_\_\_\_ other \_\_\_\_\_  
 Date: AUG 6/14 Inspector: CHRIS HYDE-LAY  
 Date of last inspection: N/A

HAZARD RATING:						
<u>1</u>	+	<u>1</u>	+	<u>1</u>	=	<u>3</u>
Failure Potential		Size of part		Target Rating	=	Hazard Rating
_____ Immediate action needed						
_____ Needs further inspection						
_____ Dead tree						

### TREE CHARACTERISTICS

Tree #: \_\_\_\_\_ Species: CEDRUS DEODARA  
 DBH: 83.5 # of trunks: \_\_\_\_\_ Height: 60 Spread: 30  
 Form:  generally symmetric  minor asymmetry  major asymmetry  stump sprout  stag-headed  
 Crown class:  dominant  co-dominant  intermediate  suppressed  
 Live crown ratio: \_\_\_\_\_ % Age class:  young  semi-mature  mature  over-mature/senescent  
 Pruning history:  crown cleaned  excessively thinned  topped  crown raised  pollarded  crown reduced  flush cuts  cabled/braced  
 none  multiple pruning events Approx. dates: \_\_\_\_\_  
 Special Value:  specimen  heritage/historic  wildlife  unusual  street tree  screen  shade  indigenous  protected by gov. agency

### TREE HEALTH

Foliage color:  normal  chlorotic  necrotic Epicormics? Y N  
 Foliage density:  normal  sparse Leaf size:  normal  small  
 Annual shoot growth:  excellent  average  poor Twig Dieback? Y N  
 Woundwood development:  excellent  average  poor  none  
 Vigor class:  excellent  average  fair  poor  
 Major pests/diseases: NONE

#### Growth obstructions:

stakes  wire/ties  signs  cables  
 curb/pavement  guards  
 other \_\_\_\_\_

### SITE CONDITIONS

Site Character:  residence  commercial  industrial  park  open space  natural  woodland/forest  
 Landscape type:  parkway  raised bed  container  mound  lawn  shrub border  wind break  
 Irrigation:  none  adequate  inadequate  excessive  trunk wetted  
 Recent site disturbance? Y  N  construction  soil disturbance  grade change  line clearing  site clearing  
 % dripline paved: 0%  10-25% 25-50% 50-75% 75-100% Pavement lifted? Y  N   
 % dripline w/ fill soil: 0%  10-25% 25-50% 50-75% 75-100%  
 % dripline grade lowered:  0% 10-25% 25-50% 50-75% 75-100%  
 Soil problems:  drainage  shallow  compacted  droughty  saline  alkaline  acidic  small volume  disease center  history of fail  
 clay  expansive  slope \_\_\_\_\_ aspect: \_\_\_\_\_  
 Obstructions:  lights  signage  line-of-sight  view  overhead lines  underground utilities  traffic  adjacent veg.  \_\_\_\_\_  
 Exposure to wind:  single tree  below canopy  above canopy  recently exposed  windward, canopy edge  area prone to windthrow  
 Prevailing wind direction: \_\_\_\_\_ Occurrence of snow/ice storms  never  seldom  regularly

### TARGET

Use Under Tree:  building  parking  traffic  pedestrian  recreation  landscape  hardscape  small features  utility lines  
 Can target be moved? Y  N  Can use be restricted? Y  N   
 Occupancy:  occasional use  intermittent use  frequent use  constant use

# TREE DEFECTS

## ROOT DEFECTS:

Suspect root rot: Y  N Mushroom/conk/bracket present: Y N ID: \_\_\_\_\_

Exposed roots:  severe  moderate  low Undermined:  severe  moderate  low

Root pruned: \_\_\_\_\_ distance from trunk Root area affected: \_\_\_\_\_% Buttress wounded: Y N When: \_\_\_\_\_

Restricted root area:  severe  moderate  low Potential for root failure:  severe  moderate  low

LEAN: \_\_\_\_\_ deg. from vertical  natural  unnatural  self-corrected Soil heaving: Y N

Decay in plane of lean: Y N Roots broken Y N Soil cracking: Y N

Compounding factors: \_\_\_\_\_ Lean severity:  severe  moderate  low

CROWN DEFECTS: Indicate presence of individual defects and rate their severity (s = severe, m = moderate, l = low)

DEFECT	ROOT CROWN	TRUNK	SCAFFOLDS	BRANCHES
Poor taper				
Bow, sweep				
Codominants/forks				
Multiple attachments				
Included bark				
Excessive end weight			L	L
Cracks/splits				
Hangers				
Girdling				
Wounds/seam				
Decay				
Cavity				
Conks/mushrooms/bracket				
Bleeding/sap flow				
Loose/cracked bark				
Nesting hole/bee hive				
Deadwood/stubs				
Borers/termites/ants			L	L
Cankers/galls/burls				
Previous failure			L	L

## HAZARD RATING

Tree part most likely to fail: STEMS AND LIMBS

Inspection period: \_\_\_\_\_ annual \_\_\_\_\_ biannual \_\_\_\_\_ other \_\_\_\_\_

Failure Potential + Size of Part + Target Rating = Hazard Rating

1 + 1 + 1 = 3

Failure potential: 1 - low, 2 - medium; 3 - high; 4 - severe

Size of part: 1 - <6" (15 cm); 2 - 6-18" (15-45 cm);

3 - 18-30" (45-75 cm); 4 - >30" (75 cm)

Target rating: 1 - occasional use; 2 - intermittent use;

3 - frequent use; 4 - constant use

## HAZARD ABATEMENT

Prune:  remove defective part  reduce end weight  crown clean  thin  raise canopy  crown reduce  restructure  shape

Cable/Brace: \_\_\_\_\_ Inspect further:  root crown  decay  aerial  monitor

Remove tree: Y  N Replace? Y  N Move target: Y  N Other: \_\_\_\_\_

Effect on adjacent trees:  none  evaluate

Notification:  owner  manager  governing agency Date: \_\_\_\_\_

## COMMENTS



Permit No. 3127

BYLAW NO. 4326, TREE PROTECTION BYLAW, 2006  
TREE WORK APPLICATION AND PERMIT

Permit not valid unless signed and stamped by authorized official. Prior to completing the application, it is recommended that the applicant refer to the Tree Protection Bylaw No. 4326 for all information regarding tree protection, available on the Municipal website at [www.oakbay.ca](http://www.oakbay.ca) or [www.recreation.oakbay.ca](http://www.recreation.oakbay.ca).

Date: Tues 24th

Name of Property Owner: SALLY HUBBARD Address: 757/767 ST. PATRICK Phone- Residence: 250-813-0210

Name of Applicant: [Signature] Address: 2084 Windsor Rd Phone:

Applicant's Signature: [Signature]

To be completed by Applicant: To be completed by Arborist:

Location	Diameter of tree	Description of work to be performed	Municipal Arborist comments:
Tree #1: Type of tree and location <u>Portuguese Pine</u>	<u>Big</u>	<u>Removal</u>	<input type="checkbox"/> Work Approved <input type="checkbox"/> Work Denied:
Tree #2: Type of tree and location <u>Cedrus Deodara front yard</u>		<u>removal</u>	<input type="checkbox"/> Work Approved <input checked="" type="checkbox"/> Work Denied: <u>does not meet criteria in section 6</u>
Tree #3: Type of tree and location			<input type="checkbox"/> Work Approved <input type="checkbox"/> Work Denied:
Tree #4: Type of tree and location			<input type="checkbox"/> Work Approved <input type="checkbox"/> Work Denied:

An accurate sketch of site plan in a suitable scale must accompany the application, detailing the proposed cutting of, damage to, or pruning of trees.

<p><b>OAK BAY PARKS SERVICES</b> <b>DENIED</b></p>	Replacement trees required: <input type="checkbox"/> No <input type="checkbox"/> Yes, number of trees required _____
	Date work to be performed: _____
	Work performed by: _____
	Date of Follow Up Inspection: _____
	Follow Up Inspection done by: _____
	Deposit Paid: _____ Permit Fee Paid: _____
	Municipal Arborist Signature: <u>[Signature]</u>

Applicant Notified:  In Person  By Phone  By Mail

Fines for contravention of the Tree Protection Bylaw can be found in the Ticket Information Utilization Bylaw, available on the Municipal Website at [www.oakbay.ca](http://www.oakbay.ca). Fines range from \$250 to \$1000.







2014-237

**MEMORANDUM**

**TO: Mayor and Council**  
**FROM: Director of Building and Planning**  
**DATE: September 19, 2014**  
**RE: Floor Area Review Committee Report**

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**BACKGROUND:**

Council created the Oak Bay Floor Area Review Committee in 2013 to address concerns that had been raised in regards to large houses on small lots where the current Zoning Bylaw has fixed floor area limits for four different lot sizes in the RS-4 and RS-5 zones. The FAR Committee has worked for many months and has produced the RS-4 and RS-5 Bylaw Recommendations Report attached.

**DISCUSSION:**

The FAR Committee was established to:

- Review the permitted size of residential dwellings in RS-4 and RS-5 zones;
- Review other jurisdictions method of regulating floor areas;
- Review the fixed floor area method and possible ways to address the inconsistencies of the method as it relates to smaller lots;
- Review the floor area ratio method, with exclusion or exemption of floor area by formula, addressing homes older than January 1993;
- Consider how floor area regulations impact environmentally-friendly building practices;
- Consider the benefits and impacts of measuring gross floor area from the interior of the outside wall of a dwelling;
- Consider the extent of the public engagement required at the committee level for this process;
- Consider whether further planning input is required before a final recommendation is made to Council; and
- Advise Council on the options available and make a recommendation on the most appropriate regulatory method.

As this report involves the majority of single family residential properties in Oak Bay being the RS-4 and RS-5 properties we would recommend advertising when this will be coming back for further discussions.

**OPTIONS:**

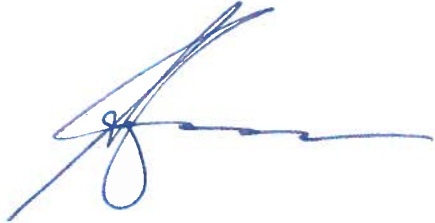
1. That Council receive this report for information.

2. That Council refer the Floor Area Review Committee RS-4 and RS-5 Bylaw Recommendations Report to the October COW meeting or a future Committee of the Whole meeting as directed for further discussion and public input, and further, that the meeting be advertised.
3. That Council direct staff to draft the Zoning Bylaw Amendments as recommended in the FAR Committee Report dated July 2014 to be brought back to a future COW meeting.

**RECOMMENDATION(S):**

That Council refer the Floor Area Review Committee RS-4 and RS-5 Bylaw Recommendations Report to the October COW meeting or a future Committee of the Whole meeting as directed for further discussion and public input, and further, that the meeting be advertised.

Respectfully Submitted,



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Roy Thomassen  
Director of Building and Planning

I concur with the recommendation of the Director of Building and Planning.



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Lorraine Hilton  
Municipal Clerk/Deputy Chief Administrative Officer



DISTRICT OF  
**OAK**  **BAY**

Floor Area Review (FAR) Committee

RS-4 RS-5 Bylaw Recommendations Report

July 2014

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## INTRODUCTION

The Oak Bay Floor Area Review (FAR) Committee was formed by motion of Council in 2013 to look at zoning bylaw regulations in RS-4 and RS-5 lots. This review was held in parallel with the Official Community Plan Review. At the outset, the FAR Committee made a decision to take a holistic look at the land use regulations rather than just controversial aspects of the current regulations.

Through the summer and fall months of 2013, the FAR Committee collected information related to zoning bylaw regulations from sources and other jurisdictions in BC and around North America. A thorough review of all possible options and resulting impacts was compiled through this process. At the end of this "Data Collection" phase, the FAR Committee hosted two public input sessions on December 11<sup>th</sup>, 2013. These were well attended by around 75 individuals from both industry and the general public. The feedback from these sessions helped round out the large volume of ideas, suggestions, and concerns collected prior.

In January 2014, the FAR Committee moved on to the "Analysis and Recommendation" phase, in which the various options were considered for merit. A number of tools were developed internally to test and compare different scenarios, with the intent to seek consensus on the final recommendation. It should be noted that the core Committee was frequently joined by other interested members of the community who contributed greatly to the discussions and whose consensus was sought as well. These guests brought valuable additional expertise in urban planning, housing design, and engineering. In May 2014, another two public input sessions were held to present the high-level draft recommendations for comment.

Throughout the Assessment and Recommendation Phase, the Committee asked the following questions to guide the recommendations: *Do the specifics of the regulations:*

- *Help maintain the legal, conforming status of the vast majority of existing housing stock?*
- *Create equivalent rules for equivalent parcels of land?*
- *Facilitate the preservation of heritage homes?*
- *Provide clear guidelines that minimize "interpretation"?*
- *Minimize possible risk (unintended consequences)?*
- *Encourage excellence in building function, including environmentally-friendly design?*
- *Have a positive effect on neighbours and streetscape?*

With that background, the members of the Oak Bay Floor Area Review Committee submit their report.

Regards,



Kevin Murdoch, Chair

On Behalf of the Oak Bay Floor Area Review Committee (2013-2014)

## BYLAW RECOMMENDATIONS

The recommendations are broken down by bylaw topics, each with a summary of recommendations highlighted in a box, followed by a brief explanation of rationale for specific points.

### 1. Floor Area Measure

**Recommendation: Change from a “Fixed Floor Area” model to a “Floor Area Ratio” model.**

- Set floor area ratio at 0.4 to 1.0
- Include accessory buildings in floor area ratio calculation

#### Background

**Change from a “Fixed Floor Area” model to a “Floor Area Ratio” model.**

*Rationale: A ratio model is (a) inherently equitable for all landowners, (b) provides proportional house sizes by default, (c) clarifies the rules for builders, staff, and Council, (d) reduces the number of variances, and (e) addresses concerns raised about large houses on small lots. The potential issues that can arise in older homes with the more rigid (non-variable) FAR definition is managed through a “sliding scale” basement exemption model plus targeted exemptions for items such as verandahs, decks, etc. The Ratio model was used in Oak Bay until 2007, and is the primary method used throughout North America.*

- Set floor area ratio at 0.4 : 1.0

*Rationale: 0.4 : 1.0 was the ratio in place for the longest period of Oak Bay's history and has generally worked well to control massing. Some basements and all accessory buildings were included in the FAR from 1986 to 1993, with a sliding scale of basement exemption based on depth in place from 1993-2007. A more complete history, model comparison, and explanation of rationale can be found in the section “[ADDITIONAL BACKGROUND INFORMATION](#)”*

- Include accessory buildings in floor area ratio calculation

*Rationale: this is the model used prior to 2007. Including accessory buildings in floor area calculation allows homeowners to prioritize the land use based on need and captures the total land use impact in a single calculation.*

*Note that between 0% and 100% of qualifying basements, as well as some other floor areas, may be exempted from this calculation. Specific exemptions are detailed throughout the recommendations in this document.*

## 2. Floor Area Definition:

### **Recommendations:**

- Floor Area to be measured to outside face of building sheathing (*current*)
- Exclude exterior stairs from building envelope measure (*current*)
- Exclude "low" Decks from Floor Area measure (*new*)

### Background

- Floor Area to be measured to outside face of building sheathing (structure behind exterior cladding)

*Rationale: (a) aligns with most other jurisdictions, (b) maintains consistency between lot coverage and floor area measures, and (c) allows for insulation renovations of older homes without penalty*

- Exclude "low" Decks (*new*) from gross floor area measure

*Rationale: See [Section 12: Deck and Balcony Exemptions](#) for more details.*

## 3. Lot Coverage

### **Recommendation: Set total Lot Coverage to 30%** (*modification of current*)

- Include accessory Buildings in Lot Coverage calculation (*modification of current*)
- Limit accessory buildings to a maximum of 7% of lot (*modification of current*)

### Background

#### **Set total Lot Coverage for standard RS-4 and RS-5 lots to 30%**

*Rationale: This is a slight revision of the 1986-2007 25+5% lot coverage and current 25%+5-7% lot coverage allowance*

- Include accessory Buildings in Lot Coverage calculation

*Rationale: Combining lot coverage encourages a rational prioritization of land use by need, rather than encouraging the maximizing of accessory buildings only because the lot coverage can't be used elsewhere. This also has the effect of encouraging more floor area on the first storey of the primary building rather than pushing massing to the second storey.*

*Note: the inclusion of decks and patios in lot coverage has changed. See [Section 12: Deck and Balcony Exemptions](#) for details.*



#### 4. **Lot Coverage Definition**

**Recommendations:**

- Special allowance in setbacks for 100mm of additional cladding (insulation, brick, other) (modification of current)
- Include decks in lot coverage measure (current)

Background

- Special allowance in setbacks for 100mm of additional cladding (insulation, brick, other):  
*Rationale: (a) maintains alignment of floor area measures with most other jurisdictions, (b) maintains consistency between lot coverage and floor area measures, and (c) allows for retrofit insulation renovations of older homes without impacting floor area or lot coverage calculation.*
- Include decks in lot coverage measure.  
*Rationale: While low decks are excluded from floor area calculation (see "Decks" section for more details), decks still reduce green space on lots and this definition captures that impact.*

#### 5. **Height Controls**

**Recommendations:** Keep Building Heights, Roof Height, and Occupiable Heights the same as the current bylaw, with the following adjustments:

- Definitions of heights will be updated to better clarify regulations, particularly with non-traditional designs
- Building, Roof, and Occupiable Height regulations for "single-storey" designated lot
- General improvement of definitions and inclusion of diagrams for better clarity

Background:

- Definitions of heights will be updated to better clarify regulations with non-traditional designs  
*Rationale: current definitions work well, but some building designs lack the architectural elements used to define certain heights. Better clarity of language to update will clarify the guidelines.*
- Set unique building height, roof height, and occupiable height regulations for "single-storey" designated lots  
*Rationale: see [Section 14: Single Storey Lot Designation](#)*

## 6. Setbacks

**Recommendations:** Keep Current Setbacks, with the following modifications:

- Allow Eaves to extend 0.76m (30") into side-yard setbacks
- Modify primary building rear-yard setback to the greater of:
  - 7.62 meters (25') (current regulation), or
  - 20% of lot depth
- Setbacks for Accessory Buildings maintained at current values
- Below-Grade structures require a side-yard setback of 1.5m (5') (New)\*

### Background:

- Allow Eaves to extend 0.76m (30") into side-yard setbacks  
*Rationale: the current 18" limit can create overhangs inadequate for rain protection and limit architectural styling. Eaves larger than 30" may run afoul of building code requirements for building separation.*
- Modify primary building rear-yard setback to the greater of:
  - 7.62 meters (current)
  - 20% of lot depth*Rationale: Modifying the rear-yard setback to include a percentage of lot depth prevents extremely long houses from breaking up the continuity of backyard green space from property to property on deep lots. Percentages up to 35 percent are used in other jurisdictions; the choice of 20 percent is a conservative implementation of the rule and may be modified in future after assessing its effectiveness.*
- Setbacks for Accessory Buildings\* will be kept as they are.  
*\*Note: Should the OCP change to allow secondary living quarters in accessory buildings, the current accessory building definitions (setbacks, etc.) are not in compliance with building code for occupied buildings, and would have to be rewritten to meet that use.*
- Below-Grade structures require a side-yard setback of 1.5m (5') (New)\*.  
*Rationale: below-grade patios or stairs occupying the entire side-yard setback can have negative consequences for ground stability of neighbouring properties and for safe passage from front to rear. The exact wording of this change is subject to finalization, to ensure reasonable implementation of stairs on steep property and changes to existing stairwells is not overly restrictive. This rule change would be subject to change under a bylaw variance application process.*

## 7. **Atriums**

**Recommendations:** Atrium space Gross Floor Area measurement defined and changed to:

- Atrium space with ceiling height up to 4.3m (14') counted only once as part of gross floor area
- Atrium space with a ceiling height over 4.3m (14') counted 2x as gross floor area

### Background:

Atrium is defined as interior space with elevated ceiling height.

- Atrium space with a ceiling height over 4.3m (14') counted 2x as gross floor area

*Rationale: 2-storey atrium space creates massing equivalent to 2x the actual floor area currently counted. These rules reflect the impact of an atrium on external massing. The 4.3m (14') limit is derived from the combined height of first and second storey under a sloped roof where floor area is counted 2x (i.e. 9' ceiling height + 1' joists + 4' under roof). Interior stairs are excluded from this definition.*

## 8. **Interior Stairs**

**Recommendations:**

- Floor Area of interior stairs are counted only once per floor (current)
- The basement floor under stairs with less than 1.2m of height excluded from floor area

### Background:

**Recommendation:** Interior Stair Measurement

- Gross Floor Area for each flight of interior stairs is counted once for purposes of floor area.

*Rationale: this codifies the measurement model currently used in practice.*

## 9. Grade Regulations

**Recommendations:** Generally maintain current grade regulations, with specifics below:

- Use Natural Grade (current)
- Use "Smallest Rectangle" measure of primary building excluding decks (modification of current)
- For deck height calculations, the natural grade will be calculated for the area directly below the deck (*NEW*)

### Background:

- Use Natural Grade (current)  
*Rationale: The use of natural grade remains the best measure of realistic impact on neighbours. The consideration of "lower or natural or final" grade has some good qualities, but could result in odd impacts if a corner of a building were excavated.*
- Use "Smallest Rectangle" measure of primary building excluding decks (modification of current)  
*Rationale: The difference between the "smallest rectangle containing the primary building" and "actual building outline" means of measuring grade is very minor. On almost all Oak Bay lots the actual difference in allowable height between the current and more complicated formulas would be measured in inches or fractions of inches, and was not deemed to be worth changing. As decks are exempted from floor area calculation based on their height, decks have been removed from the "smallest rectangle" calculation of average grade and only the primary building is used.*
- For deck height calculations, the natural grade will be calculated for the area directly below the deck.  
*Rationale: decks on sloped land can extend well beyond the main building. Decks should not be counted in the calculation for the main building height. Further, "Height above grade" for decks should reflect their actual height on sloped land.*

## 10. Garages

### **Recommendations:**

- Garage exemption will be changed from 19m<sup>2</sup> to 22m<sup>2</sup>
- The 22m<sup>2</sup> Garage exemption will only apply where the garage is in line with or behind the front face of the primary building, or where the garage door is turned at a right angle to the street.

### **Background:**

- Garage exemption will be changed from 19m<sup>2</sup> to 22m<sup>2</sup>  
*Rationale: Garage exemptions have been changed many times over the decades in response to changing needs and to encourage specific goals. The restriction of paving to 25% of the front yard, for example, was implemented to restrict wide driveways and hence front-facing double garages. 22m<sup>2</sup> is considered the current minimum workable standard for a single-car garage.*
- The 22m<sup>2</sup> Garage exemption will only apply where the garage is in line with or behind the front face of the primary building, or where the garage door is turned at a right angle to the street.

*Rationale: In the previous bylaw, there was incentive to discourage garages from dominating the front façade of houses, by allowing the lot coverage for accessory buildings to be added to the house if turned at right angles. With the removal of separated accessory building lot coverage, that former incentive is removed. This change re-instates the incentive.*

*The actual wording will reflect the original bylaw: the exemption is applied where:*

- a) the garage is sited so that the vertical plane of the vehicle entrance makes an angle between 85 degrees and 90 degrees, both inclusive, with a straight line connecting the endpoints of the front lot line; or
- b) the garage is sited entirely within the area of the lot bounded by the rear lot line, the side lot lines and the front face of the principal building projected in a straight line to both side lot lines;

*Note: The exemption being tied to these restrictions reflect a cautious decision to maintain these incentives. While current architectural styles do not typically present garages in front of the house, there was seen to be some value in providing a small incentive to encourage non-dominant garages in front yards.*

## 11. Verandah, doorway, and Porte Cochere Exemptions from Gross Floor Area

### **Recommendations:**

- Exempt verandahs and door overhangs from gross floor area (new), with the following specifics:
  - Verandahs and overhangs can be contiguous or separated
  - Exempt up to 2.5% of the Lot size to a maximum of 17m<sup>2</sup>
  - Exempt Verandahs only where the following attributes are in place:
    - The verandah abuts the primary building, and
    - The verandah is in alignment with first floor, and
    - The verandah is facing the street, and
    - The verandah is open to the street except for a railing or guard, and
    - The verandah railing height is no more than 4 cm above the minimum railing height required by building code
    - The verandah is covered by a roof, and
    - The verandah ceiling is less than 3.2m above verandah, and
    - The verandah has no habitable living space above or below
- Porte Cocheres excluded from Floor Area and included in Lot Coverage (current)

### **Background:**

- Exempt verandahs and door overhangs.

*Rationale: Current regulations include verandahs in the floor area calculations, and since adding a verandah takes away from allowed interior living space, few owners choose to build verandahs on new buildings. Furthermore, many original verandahs have been enclosed on older buildings over the years. Verandahs are seen to have a positive community benefit, in that they present a welcoming "face" to the street and tie inside living space to the broader community. For this reason, the recommendation is to allow some relief from floor area calculations for verandahs and door openings. The many specifics of the regulation are intended to prevent negative consequences through misinterpretation.*

## 12. Deck and Balcony Exemptions

**Recommendations:** Remove some decks from gross floor area calculations (new), per the following:

- Decks higher than 1.2m (approximately 4 feet) above natural grade are counted towards both gross floor area and lot coverage
- Decks equal to or lower than 1.2m (approximately 4 feet) above natural grade are exempt from gross floor area calculations, but are counted in lot coverage
- Patio space is exempt from floor area and lot coverage calculations, where such patio is comprised of landscaping material and where the highest point is less than .6m (approximately 2 feet) from average natural grade.
- Decks must meet setback requirements
- Balconies are considered equivalent to decks for purposes of floor area calculation
- "Natural Grade" for decks and patios to be calculated separately, specifically for the area used by the deck (new, see [Section 9: Grade Regulations](#)).

### Background:

Remove "low" decks from floor area calculations, but continue to include in lot coverage. "High" decks continue to be counted in floor area.

*Rationale: Oak Bay regulations currently include decks in floor area calculations, which very few jurisdictions do. The "Community Benefit" of decks and balconies is seen in encouraging the use of outdoor space, however high decks can impinge on the enjoyment and privacy of neighbours, and take up space that would otherwise be green space. The approach recommended here is a cautious exclusion of decks which incents lower decks.*

- Balconies are considered equivalent to decks for regulations

*Rationale: This has the effect of maintaining current regulation where most first-storey and all second-storey balconies are included in floor area and lot coverage calculations*

- Patio space is exempt from floor area and lot coverage calculations, where such patio is comprised of landscaping material and where the highest point is less than .6m (approximately 2 feet) from average natural grade.

*Rationale: this clarifies the current regulations by better defining "patio"*

- For further clarification and diagrams, see the following section "ADDITIONAL BACKGROUND INFORMATION"

### 13. **Basement Exemptions**

#### **Recommendations:**

Basements will be exempted from the calculation of gross floor area on a sliding scale depending on the height of the first floor above average grade.

- For New Homes (Post-1986):
  - 100% exclude basement if first storey floor height is less than 1.22m (4') above average grade
  - Sliding scale of exemption up to 1.52m (5') above average grade
  - Exemption limited to lesser of actual basement square footage or 25% of lot area
- For Older Homes (1986 and earlier):
  - 100% exclude basement if first storey floor height is less than 1.22m (4') above average grade
  - Sliding scale of exemption up to 2.24m (7' 4") above average grade.
  - Exemption limited to lesser of actual basement square footage or 25% of lot area

#### Background:

Basements will be exempted from the calculation of floor area on a sliding scale depending on the height of the first floor above average grade. There are two different measures, depending on the age of the home. 1986 is the cut-off age for new homes

*Rationale: 1986 marked the implementation of floor area limits and the modern building code, and makes a logical divide*

*When house size limits were initiated in Oak Bay in 1986, basements were included in the total floor area. In the 1990's, basements became either 100% or 0% exempted based on their depth. This model had negative impacts on older homes, many of which have shallow but short basements and reasonable changes could not be accommodated under the bylaws. Change to a sliding scale exemption, combined with the allowable living height reduction from 7' to 6'7," allowed many older basements became both usable and largely exempt from the floor area calculations. Some large old homes on small lots, however, still presented problems, and the inability to address some homes was a driving factor towards the "Fixed Floor Area" model, which allows floor area to be varied under the BC Local Government Act.*

*With a recommendation to return to the Floor Area Ratio model, the issue of large older homes on small lots requires detailed consideration. The bylaw as drafted is intended to address 95-98% of older home needs. For severe outliers, which would be houses considerably larger than would be allowed if built new, it should be noted that exemptions can still be made to floor area for older homes either under a Heritage Revitalization Agreement or rezoning process, which allows for any changes under a Council-based process, and can be tied more specifically to verified heritage value.*



**14. Single Storey Lot Designation**

**Recommendation:** Create a new “Single Storey” lot definition within the RS-4 and RS-5 zoning.

- “Single Storey” houses would qualify for larger combined lot coverage of 35%
- Would be limited to a maximum of one storey
- Have unique height definitions
- Exempt Basements are permitted

Background

**Create a new “Single Storey” definition within the RS-4 and RS-5 zoning.**

*Rationale: There is a demand for single-storey living but 30% lot coverage restricts a single-storey home on a standard 6,000 sq. ft. lot to just 1800 sq. ft including all outbuildings. A larger footprint of 35% allows for a 2100 sq. ft. home, which allows for two bedrooms plus living space and makes single-storey design more viable. As a “community amenity” for the larger coverage, a house so designated would be restricted to a single storey, increasing natural light and privacy for neighbouring lots.*

*To qualify for increased lot coverage, a home must meet the following guidelines:*

- Maximum lot coverage: 35%
- Maximum occupiable height (floor height) restricted to 0.61m (2’) on all lots
- Maximum building height (exterior wall height) and roof heights restricted according to the following table:

<b>Lot Width</b>	<b>Building Height</b>	<b>Roof Height</b>
15m-18.3m (50’-60’):	3.96m (13’)	5.79m (19’)
18.3m-21.34m (60’-70’):	4.12m (13’ 6”)	5.94m (19’ 6”)
21.34m (70’) or larger :	4.27m (14’)	6.10m (20’)

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## ADDITIONAL BACKGROUND INFORMATION

### 1. Floor Area Background:

Prior to 2007, Oak Bay, like most other communities in North America, used "Floor Area Ratios" to limit house sizes. This meant that the maximum buildable area of a house on any lot was directly proportional to lot size: the smaller the lot, the smaller the house size allowed. In 2007 Oak Bay went to a "Fixed Floor Area" model for lots in RS-4 and RS-5 zones (which make up the large majority of lots in the municipality.) This meant that for a specific zone, any lot above a certain size could have one fixed amount of floor space and any lot below that size could have another, smaller fixed amount of floor space.

Some of the drivers of this new system were to provide size flexibility in older homes (Council is not permitted by provincial law to give variances on Floor Area Ratios, but is permitted to give variances on Fixed Floor Areas), and to limit the size of houses that could be built without design review. Under the previous Floor Area Ratio system, the owner of a large lot could build a large house without Council having any say in the design. Under the Fixed floor area system, an owner who wants a larger house than the Fixed Floor Area has to apply to Council for a Development Variance.

The Fixed Floor Area system has now been in place for almost 7 years and public feedback has suggested the changes have solved some problems such as reducing the number of larger houses built without design review, but has created other problems such as increasing floor area and building mass on smaller lots without design review.

**Current (2007) Zoning:** uses a "Fixed Floor Area" model and has floor area limited to:

RS-4:

On Lots < 1,100m<sup>2</sup>: house size = max 420m<sup>2</sup> total, with max 300m<sup>2</sup> > 0.8m above grade

On Lots > 1,100m<sup>2</sup>: house size = max 480m<sup>2</sup> total, with max 360m<sup>2</sup> > 0.8m above grade

Accessory Bldgs: 2 units, max size=GREATER OF: (lower of 44m<sup>2</sup> or 7% lot coverage) AND 5% lot area

Accessory Structures (non-roofed): 2 units, max, size= 5% of lot area

RS-5:

On Lots < 750m<sup>2</sup>: house size = max 360m<sup>2</sup> total, with max 240m<sup>2</sup> > 0.8m above grade

On Lots > 750m<sup>2</sup>: house size = max 420m<sup>2</sup> total, with max 300m<sup>2</sup> > 0.8m above grade

Accessory Buildings: 2 units, size=GREATER OF: (lower of 44m<sup>2</sup> or 7% lot coverage) AND 5% lot area

Accessory Structures (non-roofed): 2 units max, size= 5% of lot area

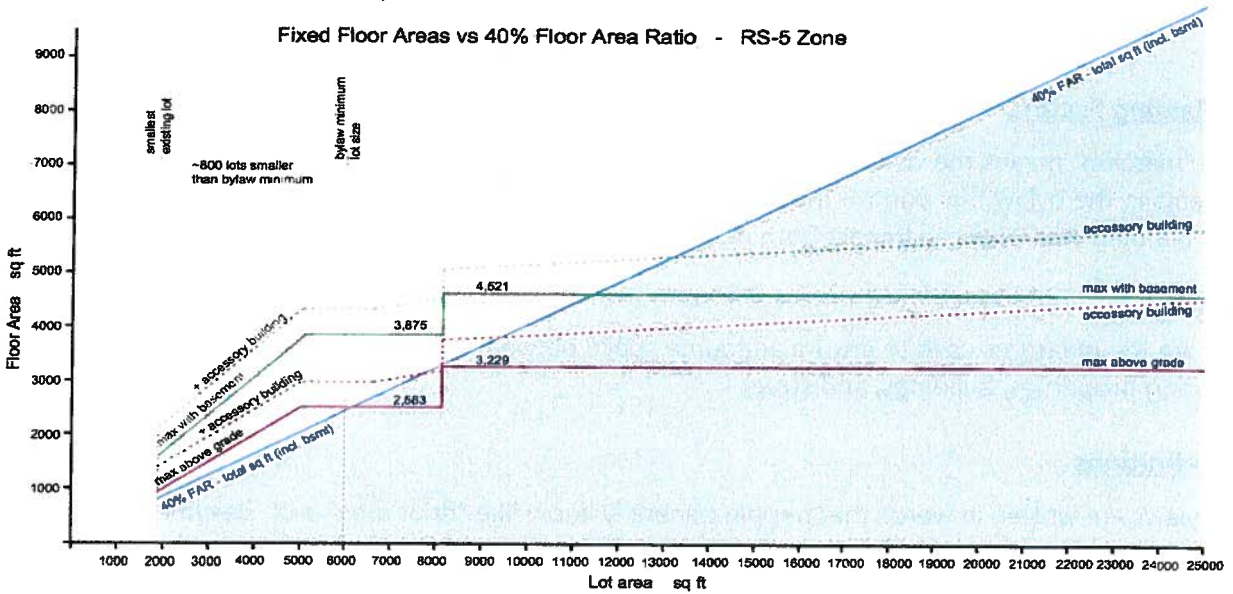
**Accessory buildings Zoning:** An Accessory Building is currently defined as "a building of secondary use; the uses of such buildings are limited to that of a garage, carport, toolshed, greenhouse, gazebo or enclosed swimming pool." (Bylaw 3864)

The inclusion or exclusion of out-buildings can have an impact on the massing of buildings and lot coverage. The current bylaw allows for accessory building to have square footage and lot coverage over

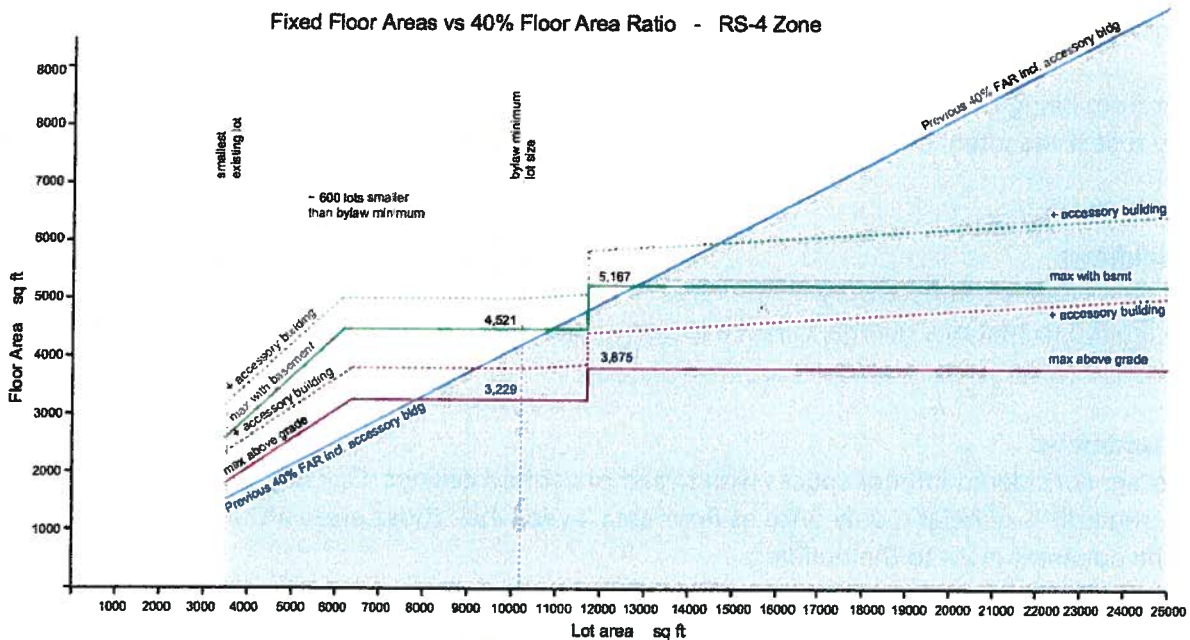
and above the allowable lot coverage and floor area of the primary building, but the two amounts cannot be combined.

A comparison of allowable floor area between the 2007 regulations and the 40% Floor Area Ratio which preceded it can be seen in the following graphs:

**Diagram 1: RS-5 House Size Comparison: current Fixed-Floor-Area vs. Previous Floor-Area-Ratio.**



**Diagram 2: RS-4 House Size Comparison: current Fixed-Floor-Area vs. Previous Floor-Area-Ratio.**



**Lot Coverage** is currently defined as: "the area covered by all parts of a building or structure, including balconies, bay windows and sundecks; but excluding belt courses, sills, cornices, eaves, gutters and fire escapes." (Bylaw 4335).

**Floor Area** is currently defined as "the area of all portions of a building serving an occupancy that have a clear height above the floor of more than 1.2 m (3.9 ft)." (Bylaw 3561)

## 2. Massing Factors

The term "massing" means the visible bulk of the primary and secondary buildings. "Massing factors" are the elements in the bylaw that control the size and location of buildings. Setbacks of buildings and height of building elements can impact both massing and design.

### **Setbacks:**

Setbacks are the measures used to ensure adequate space between the buildings on the site and the neighbouring properties, buildings, and street.

## 3. Definitions

Zoning bylaws are written in words that people generally know like "floor area" and "basement". But these words often have meanings that are different than people expect. "Floor area", for example, can include areas that don't have floors such as walls and roof overhangs. There are good reasons for these differences but the reasons aren't always intuitively clear. To ensure everyone can understand the bylaws the same way, every zoning bylaw defines the key terms in a very specific way, and those definitions are often different from municipality to municipality.

Terms benefit from being clearly defined and the definitions should benefit the community. Definitions should clearly reflect the intent of the bylaw regulations. Some background on terminology is outlined in this section:

### **Accessory Buildings**

The Current bylaws defines an Accessory Buildings as "a building of secondary use; the uses of such buildings are limited to that of a garage, carport, toolshed, greenhouse, gazebo or enclosed swimming pool."

### **Atrium Measurement:**

Atrium spaces are considered interior spaces with raised or vaulted ceilings. Oak Bay currently counts all atrium space, regardless of height, only once as floor area, even when those areas are double height and add double the apparent mass to the building.

### **Deck, Patio, Verandah, Balcony, Rooftop Decks:**

The general terms used here are:

*Patio:* At-grade outdoor living area

*Deck:* Above-Grade (raised) outdoor living area

*Balcony:* Outdoor living area enclosed by a wall or balustrade on the outside of a building, with access from an upper-floor window or door.

*Verandah:* First-floor covered attached outdoor living area

*Rooftop Deck:* Outdoor living area on roof of building

### **Grade Definition**

All Building heights are measured from “grade” – but grade can be defined in a number of ways, most commonly as either finished or natural grade, or some calculation between those two. Oak Bay has historically measured from natural grade (i.e. the grade of the land prior to landscaping). The area used for the calculation can also vary, from “the smallest rectangle that encompasses the whole building” to the specific height of each facet of the building itself.

### **Interior Stair Measurement**

As an internal staircase between floors uses floor area from both stories, the amount of floor area can be measured in a number of ways. Some jurisdictions measure the floor area for both stories, Oak Bay currently measures a staircase just once per flight.

#### 4. Exemptions

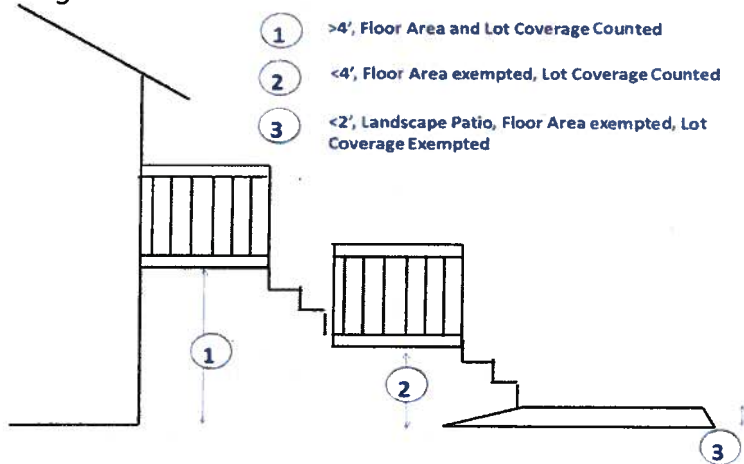
For simplicity, "floor area" is defined as everything within the defined living space of a building. But in reality that's not a complete definition because it may include things that aren't really floor area, like bay windows, front steps and many other things which are not useful to include in floor area. To deal with this, zoning bylaws generally include a list of items which do not have to be counted as floor space, and these are called "exemptions."

Exemptions are intended to "fine tune" the land use bylaw. By exempting items from inclusion in the gross floor area or lot coverage, more massing is added to the building(s), so a fine balance must be met between the benefits and "cost" of the cumulative effect of the exemptions. Also note that exempting items from gross floor area but not lot coverage has the effect of "squeezing" the building higher by having the same mass in a smaller footprint.

##### Deck exemptions

Oak Bay regulations currently include decks in floor area and lot coverage calculations, which very few jurisdictions do.

Diagram:



##### Exterior Finishes

Standard exterior finishes (i.e. stucco, shingles, etc.) have traditionally been excluded from floor area, lot coverage, and setback calculations in Oak Bay. Thicker finishes have counted against lot coverage and setbacks. The definitions in the current bylaw do not provide great clarity with regard to the finishes, thicknesses, and their calculation.

##### Basement Exemptions

When house size limits were initiated in Oak Bay in 1986, basements were included in the total gross floor area allowed (initially 50% then quickly reduced to 40%). When basement exemptions were introduced in the 1990's, they were exempted based on how deep the basement floor was put into the ground. Initially,

basements deeper than 1m were exempted and those shallower than 1m were 100% included in gross floor area calculations. All these models had negative impacts on older homes, many of which have shallow but short basements; reasonable changes could not be accommodated under the bylaws. The exempted depth was later changed to 0.8m, and a sliding scale used to exempt up to 50% of the basement based on depth into the ground. Combined with the allowable living height reduction from 7' to 6'7," many older basements became both usable and largely exempt from the floor area calculations. Some large old homes on small lots, however, still presented problems, and this inability to address some issues was a driving factor towards the "Fixed Floor Area" model with allows floor area to be varied under the BC Local Government Act.

Exemption of Basements from floor area can be considered either universally (new and old buildings) or separately.

With a recommendation to return to the Floor Area Ratio model, the issue of large older homes on small lots requires a great deal of detailed consideration. It should be noted that exemptions can still be made to gross floor area for older homes under a Heritage Revitalization Agreement or rezoning which allows for any changes under a Council-based process, and can be tied more specifically to verified heritage value.

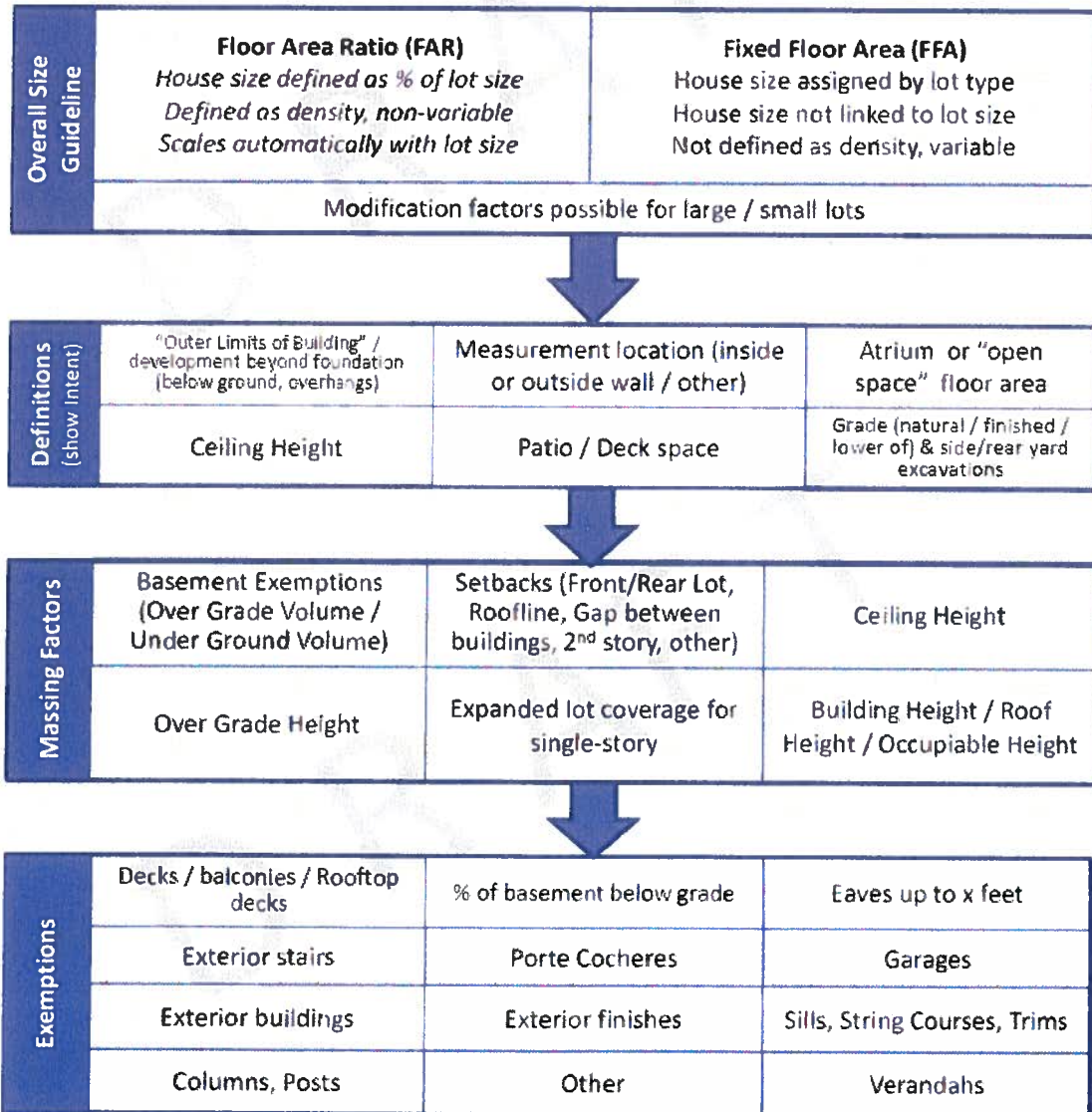
**5. Bylaw Planning Flowchart**

The following flowchart was used to define the elements necessary for a complete zoning bylaw.

**FAR Committee Draft Bylaw Planning Flowchart**

Version 1.2 - December 11, 2013

To minimise unforeseen impacts of bylaw changes, the drafting of land use regulations must consider all aspects of the bylaws. The draft flowchart below illustrates the areas of consideration by the Floor Area Review Committee. The Public Input Sessions on December 11<sup>th</sup> will capture related to these subjects. Some details and background on each section are included in the following pages.





**6. Options Considered / Pros and Cons**

**1. Floor Area Ratio**

Used in Oak Bay until 2007 and the most common form of massing control, this was dropped in 2007 bylaw revisions.

POSITIVES	<ul style="list-style-type: none"> <li>• Very clear and well understood rules</li> <li>• Reduces Variance requests</li> <li>• In alignment with broader region</li> <li>• "Fairer" – equal rules for all</li> <li>• Non-Variable reduces staff time, politicization of process, and pitting neighbour against neighbour</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>• Non-variable rule could lead to reasonable needs being unreasonably refused</li> <li>• Bylaws must ensure that exemptions be kept to a minimum</li> <li>• Steep slope average grade hard to have "basement" qualify (older homes specifically)</li> <li>• Concerns over older homes being torn down due to inflexible rules</li> <li>• May lead to "variance by rezoning" seen in other jurisdictions</li> <li>• Caution required to prevent widespread "legal non-conforming" existing houses</li> </ul>
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**2. Fixed Floor Area**

POSITIVES	<ul style="list-style-type: none"> <li>• Variances allow for case-by-case interpretation</li> <li>• Variance process allows neighbours to provide input on design and impact</li> <li>• Small reasonable variances to gross floor area can be allowed, even if over limits</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>• Small and large lots can have "unfair" home sizes (too small/too large)</li> <li>• Inject political process into house sizes</li> <li>• Inconsistency in rules</li> <li>• Can encourage square homes on small lots</li> <li>• Use of "multi-stepped" zones for various lot sizes not feasible</li> <li>• Can put neighbours in awkward position with good or bad neighbor</li> </ul>
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**Individual Options / Exemptions to above approaches:**

**3. Basement depth:**

At what depth should basements stop being counted in floor area (currently 0.8m) for purposes of massing?

POSITIVES	<ul style="list-style-type: none"> <li>• Building deeper has minimal impact on streetscapes / massing</li> <li>• Clearly recognize difference between "under ground volume" and "over grade volume"</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>• First (main) Floor / occupiable / roof height the key impact on neighbours</li> <li>• Very large basements add numerous sub-grade items such as patios, window wells, stairs, etc.</li> <li>• Requires careful definition of basement "ceiling height"</li> <li>• If % volume model, deeper basement gains more credit for same above-grade volume</li> <li>• Grade definition important (i.e. finished/natural/lower of)</li> </ul>
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**Age Based Bylaw:**

An age-based bylaw would provide different rules for older homes. Depending on the approach taken, age-based exemptions may be required to preserve older housing stock that does not comply with the new rules. May be based on pre- and post-1993 building dates (when the 0.4 ratio w/ basement exclusion was implemented). General consensus was the *preferred approach* is to address heritage needs within the main bylaw, but this would be a viable option *if necessary*.

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>• Can facilitate the unique needs of older buildings and preserve heritage</li> <li>• Allows for exemptions of low-ceilinged basements</li> <li>• Allows bylaw to “look forward” and not have to accommodate older buildings</li> <li>• “bonus” model for keeping older homes</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>• Creates a two-tier rule</li> <li>• Current houses still require a bylaw revision</li> <li>• Two bylaws must be created and administered</li> <li>• Should massing be different for different aged houses?</li> <li>• Massive remodeling of older homes could still qualify for bonus, not heritage goal</li> </ul>
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**4a. First-floor height (“Above Ground Formula”)**

Used only for older homes to recognize unique issues with low basements, this was #2 option behind “fixed floor area” in 2007 review. Adds a formula for first-floor height to encourage lower houses.

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>• Older homes only – recognizes unique needs of older homes</li> <li>• Keeping first floor closer to ground level reduces impact on streetscape/neighbours</li> <li>• Rewards efforts to keep massing below grade</li> <li>• Keeps “Floor Area Ratio” intact for clarity of rules</li> <li>• Automatically provides additional floor area for low-ceilinged basements</li> <li>• Encourages set-back top storey</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>• Complicated formula (for home owners, not professionals)</li> <li>• Requires very accurate “average grade” calculation, as so much is based on this</li> <li>• Uniqueness of rule may result in unanticipated consequences</li> <li>• Encouraging deep/large basements increases demand for sub-grade development (patios, window wells, stairwells, etc.)</li> <li>• Calculations on steep slopes may cause issues</li> </ul>
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**4. Grade Calculation: Natural Grade vs. Finished Grade**

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>• Natural grade prevents manipulation of grade</li> <li>• Finished Grade is reflective of real-world massing</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>• Natural Grade may not reflect the finished reality of the lot</li> <li>• Finished grade can be manipulated upwards to gain exemption</li> <li>• Finished grade from corners only allows deep yard excavations between without penalty.</li> <li>• Significant slope, rock outcroppings, and other unusual features need to be considered</li> </ul>
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**Notes:**

- Current “grade” calculations use the smallest rectangle that can encompass the whole building, but this can be changed to the actual grade of the building footprint (more accurate)
- Consideration for “Lesser of” clause (i.e. lesser of the natural or finished grade)
- Grade measurements used for exemptions on steeply sloping lots can cause unwanted results.

**5. Accessory Buildings (exempted 2007)**

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>Allows additional buildings without penalizing homeowner for Sq footage</li> <li>Flexibility of land use</li> <li>Recognizes need for yard storage, play areas, separate garages, etc.</li> <li>Garage space encourages off-street parking, safer biking, better views</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>Increases lot coverage from 25% to 32%, reducing drainage and green space</li> <li>Adds to massing</li> <li>Location near property line (2 foot setback) impacts neighbours</li> <li>Change to internal garages may lead to large street-facing garages</li> </ul>
<p>Notes:</p> <ul style="list-style-type: none"> <li>Consider percentage of lot for external buildings (i.e. % to a m<sup>2</sup> maximum)</li> <li>Combine garage/building exemptions (currently garage exemption is 205 ft<sup>2</sup>)</li> <li>Consider eliminating exemption – change from 25% + 5% to 30% total</li> <li>Consider setback implications</li> <li>Consider “underground” garage bonus</li> </ul>			

**6a. Garage Exemptions**

In many cases internal garage floor area is exempt from the floor-area calculation. Addition exemption is granted for garages with entrances away from street side. External garages are measured under “Accessory Building” 5% additional lot coverage.

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>Recognizes off-street parking benefit of garages</li> <li>Side-access benefit improves streetscapes with windows, not garage doors</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>Garages still add to massing</li> <li>Only single-car garage space recognized, small by modern standards</li> </ul>
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**6. Front Verandah Exemptions**

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>Encourage friendly streetscape</li> <li>Helps older homes to retain existing verandahs</li> <li>May encourage “de-enclosure” of some verandahs.</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>Complicated to write into bylaw, may require significant rework of several bylaws.</li> <li>Verandah space still adds to massing.</li> <li>Unclear whether this would fit under age exemptions or global exemptions</li> <li>May provide massing bonus for standard door entrances – could be good or bad if encouraging more entrance space adds to streetscape</li> </ul>
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**7. Count Atrium Space in Floor Area**

Atrium space, while contributing to massing, is not counted under floor area calculations as it has no “floor”

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>More directly addresses massing impact</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>Would be different from other jurisdictions</li> <li>Penalizes atrium space</li> <li>Would require careful wording of bylaws as to what is considered “atrium” space (i.e. what height would kick in “atrium”</li> </ul>
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**8. Measurement to inside walls**

POSITIVES	<ul style="list-style-type: none"> <li>Encourage high-R-Value insulation walls for max energy efficiency of buildings</li> <li>Massing still limited by lot coverage limitations</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>Massing controls hampered by reduced control over outside walls</li> <li>May encourage blocky homes</li> <li>Overall floor area loss under current bylaw fairly minimal (100-200sq feet on average home)</li> <li>Requires feedback from builder community</li> <li>Defined point difficult (i.e. "exterior sheathing" does not apply to some building materials)</li> <li>Care needed to exempt "reasonable thickness"</li> </ul>
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**Alternative Options:**

**9. More descriptive wording in bylaws**

Bylaws should show intent and be clear in their wording. While bylaw enforcement staff (building or other) will tend to be consistent in their interpretation, making the bylaws more specific and clear can help ensure the intent is achieved.

P POSITIVES	<ul style="list-style-type: none"> <li>"Gross Floor Area" could be better defined, with exceptions more clearly defined</li> <li>Would allow for more granular control over massing</li> <li>Could better manage deck heights, atriums, etc.</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>Bylaws fairly functional as they are, architects and builders understand the rules as-is</li> <li>More complexity for builders</li> <li>Extra work for staff to re-write</li> <li>Relies more tightly on enforcement to control floor space "grabs" by enclosing "outdoor" space</li> </ul>
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**10. Exclusion or control of stairs/excavation in side-yard setbacks**

POSITIVES	<ul style="list-style-type: none"> <li>Reduce impact on neighbours</li> <li>Ensure setbacks truly provide a "buffer" to neighbouring properties</li> <li>Ensures emergency access along sides of homes</li> <li>Impact of current bylaw gap needs addressing in some way</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>Unclear consequences of such a change</li> <li>Grandfathering of existing stairs needs to be managed (hard to change access point to basements)</li> </ul>
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**11. Green Space Rules**

POSITIVES	<ul style="list-style-type: none"> <li>Ensure green space in front and back yards is maintained</li> <li>Improve percentage of "permeable surface" on each lot</li> <li>Reduce runoff to storm drains</li> </ul>	CAUTIONS	<ul style="list-style-type: none"> <li>Is it necessary?</li> <li>Definition of hard surface would need to be carefully considered (i.e. interlocking pavers)</li> <li>May need filter pool or other guides for runoff</li> <li>How to recognize trees?</li> </ul>
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**12. Decks**

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>• Decks as floor areas unique to Oak Bay</li> <li>• High decks do have impact on neighbours</li> <li>• Encouraging lower decks seen as positive</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>• Decks as floor areas unique to Oak Bay</li> <li>• Decks as landscaping vs. structure needs definition (affects floor area and site coverage)</li> </ul>
<p>Notes:</p> <ul style="list-style-type: none"> <li>• Idea: Use building code as guide for landscape vs. structure: 2' or lower drop does not require railing, treated as landscape.</li> </ul>			

**13. Heritage as bonus**

<b>POSITIVES</b>	<ul style="list-style-type: none"> <li>• "Carrot" to heritage get registrations</li> <li>• Improve heritage register</li> </ul>	<b>CAUTIONS</b>	<ul style="list-style-type: none"> <li>• Cannot vary density, so must vary bylaw (i.e. calculation)</li> <li>•</li> </ul>
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**14. Increased Overhangs**

<b>POSIT</b>	<ul style="list-style-type: none"> <li>• Better design and building practices</li> </ul>	<b>CAUTI</b>	<ul style="list-style-type: none"> <li>• Setback intrusion issues</li> </ul>
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**7. Bylaw Comparison Summary by Jurisdiction**

Floor Area Regulation Comparison					
Jurisdiction	# of SF Zones	FSR	Lot Coverage	Gross Floor Area	Form Controls / Notes
Victoria	4	N/A	25% 40%	N/A (control by LC) GFA Max by lot size, small lots > GFA	Max reduced by 1st/2nd FA and form (1.5 vs 2 story)
Saanich	20	Varies 0.5 - 1	40%	FSR or Set Max GFA by zone, varied by large non-conforming lots	GFA reduced by % non-basement (<S below grade)
Esquimalt	5	0.35:1	30%		
Langford	+/- 18	N/A	10% - 50%		Envelope controls (setbacks and height)
Cowood	8	0.4:1	35% (25% duplex)		
View Royal	4	40% (or set max)	35% (40% single story)		
Metchosin	4 (mostly acreage)	N/A	20% or max 186m <sup>2</sup> on lots <930m <sup>2</sup>		
Central Saanich	5	0.4:1 - 0.5:1 varies by lot size	2-5% rural, 20-40% urban, varies by lot size		
North Saanich	3	0.25-0.3:1	15-25%	Max Floor area by zone	
Sidney	7 (some multi-unit)	N/A	Varies		Lot coverage decreases as height increases
Sooke	5	N/A	25-45%		Envelope controls (setbacks and height)
CVRD	6	N/A	30%, 35% impervious		Envelope controls (setbacks and height)
RD of Nanaimo	4	N/A	35%		Envelope controls (setbacks and height)
Parksville	2 (reg & small lot)	Reg: 0.5:1 Small: 0.50-0.55:1	Reg: 33% Small: 33%-50%		
Qualicum Beach	14 (3 SFD only)	N/A	35%		Envelope controls (setbacks and height)
West Vancouver	10	0.35:1 if > 677m <sup>2</sup> 237m <sup>2</sup> if 474m <sup>2</sup> - 677m <sup>2</sup> 0.5:1 if < 474m <sup>2</sup>	30% for large lots, 40% for lots under 7000 sq ft		Note: Sliding scale allows higher ratio on smaller lots
Vancouver	10	Wide variety, up to 0.75:1 with specific bonuses	40% (some special zones 35%)		0.2:1 FSR + 130m <sup>2</sup> per floor (1.8m above grade), reward floors < 6' above grade; neighbourhood character requirements, lots of exemptions and bonuses; NOTE: acts under Vancouver Charter, not Municipal Act, so has more powers to regulate
North Vancouver	3	Lesser of: 0.5:1 or 0.3:1 plus 92.9m <sup>2</sup>	30% for principle building, 40% total		sliding scale for slightly bigger houses on small lots and slightly smaller houses on big lots; exemptions for exterior cladding systems so people are not penalized for using stone or other thick materials
Richmond	10 + 10 w/ suites	SF: 0.55 on first 464m <sup>2</sup> , 0.3:1 on remainder SF: 0.4 on first 464m <sup>2</sup> , 0.3:1 on remainder unless ste (then 0.55:1)	45% for all buildings		incentive to build suites in suite zoning
Delta	11	Large: 0.3:1 + 93m <sup>2</sup> Med: 0.25:1 + 125m <sup>2</sup>	45% (infill housing zones 41%)		Equates to "0.4:1 on 1000m <sup>2</sup> lot, "lesser of" provisions to handle odd lot sizes Equate to "0.45:1 on 600m <sup>2</sup> lot, "lesser of" provisions to handle odd lot sizes

**8. History of Floor Area Regulations**

Although extensively amended, the general form of the modern Zoning Bylaw dates back to 1986.

<b>Timeline:</b>	<b>Description</b>	<b>Formulae</b>
<b>1986-1990</b>	Max allowable FAR for single family property was 0.5 : 1. Entire basement counted unless ceiling height < 1.2m	0.5 : 1 Ratio, Fixed. Everything included.
<b>1990-1993</b>	"Monster House" term arrives, FAR reduced to 0.4 : 1. Basements with floors >1m below grade excluded from calculations. "Hard" 1m measure causes some fairness issues as a home 1.1m below grade allowed much more floor area than one 0.9m below grade.	0.4 : 1 ratio, fixed. Basements w/ floors 1m below grade excluded
<b>1993-2007</b>	New sliding formula for measuring basement floor area of older homes (pre-1993) created, formula based on depth and size. This determined the amount of floor area > 0.4:1 allowed. Still in place for RS-1, RS-2, and RS-3 lots	0.4 : 1 ratio, fixed, with addition floor area calculated: (Basement Floor Area/2)*Depth of Basement. i.e. 100m <sup>2</sup> basement 0.9m below grade = 100/2*0.9= 45m <sup>2</sup> additional Floor Area
<b>2007-Current</b>	With older homes containing low basements still being demolished, a committee was struck to address issue. New bylaw resulted in move from Floor-Area-Ratio to a fixed house size based on lot type (RS-4/RS-5 Residential lots). Pre-1993 age recognition removed (universal rules for all homes)	RS4: Lot <= 1100m <sup>2</sup> = 420m <sup>2</sup> / 300m <sup>2</sup> above .8m below grade RS-4: Lot > 1100m <sup>2</sup> = 480m <sup>2</sup> / 360m <sup>2</sup> above .8m below grade  RS-5: Lot <= 750m <sup>2</sup> = 360m <sup>2</sup> / 240m <sup>2</sup> above .8m below grade RS-5: Lot > 750m <sup>2</sup> = 420m <sup>2</sup> / 300m <sup>2</sup> above .8m below grade

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## APPENDIX 1: RS-4 / RS-5 DUPLEX BYLAW REGULATIONS

In anticipation of applications for development of two-family housing (“duplexes”) in current RS-4 and RS-5 zones, the Floor Area Review (FAR) Committee has agreed to provide some “best practices” that can guide Council both in specific applications and perhaps even in the OCP development.

In looking at duplex regulations in other jurisdictions, the OCPs of those communities directly addressed the intent and general guidelines for location, acceptable lots, and design of duplexes, with a range or granularity. In general, the allowed massing, setbacks, etc. in duplex zones are equal to single-family residences. Duplex zoning, particularly as it is “injected” into fully developed streets with single-family homes, needs to be carefully controlled and match OCP intentions.

In the bylaw regulations, it is standard practice to clearly articulate specific controls for duplex zoning. The members of the FAR Committee would recommend that any future zoning bylaw regulations contain most or all of the attributes listed below – NOTE THAT THE NUMBERS HERE ARE ONLY GENERAL SUGGESTIONS, AND THAT FINAL DETERMINATION OF APPROPRIATE ZONING GUIDELINES SHOULD GO THROUGH A THOROUGH DUPLEX ZONE DEVELOPMENT PROCESS.

- **Process:** The committee recommends two-family homes require a rezoning or other process described as in bylaw to be subject to a rezoning and/or Development Permit Area process. This would allow review by the Advisory Design Panel or other planning advisory panel – a process that can happen at staff level that should result in an approved design scheme prior to the rezoning request reaching Council. This process is considered important, as duplexes can be difficult to design in a way that integrates with the surrounding housing. Importantly, the rezoning process also allows for community input.
- **Minimum Lot Size:** the committee would recommend a minimum duplex lot size for both RS-4 and RS-5 lots. The exact minimum lot size would be determined in the careful process of bylaw creation, but would be recommended to be larger than the minimum lot size for each zone. Most jurisdictions require a lot 15%-35% larger than a “normal” lot to allow for adequate floor area, green space, parking, etc. An example of possible lot size minimums in Oak Bay:
  - a. RS-5: 670m<sup>2</sup> / 7,200 sq. feet (+20%)
  - b. RS-4: 1140m<sup>2</sup> / 12,250 sq. feet (+20%)
- **Minimum Lot width:** The committee recommends a minimum lot width (“frontage”) larger than the minimum width in the existing RS-4 and RS-5 zones, with some possible exemptions for specific lot configurations. This is consistent with other jurisdictions. The extra width allows for better design and reduced impact of garage/driveway doubling. RS-5 lots currently have a minimum lot width of 50’, and RS-4 lots a minimum lot width of 70’ (Bylaw 3531, Schedule A). Example lot width minimums could be:
  - a. RS-5 Minimum Lot Widths:
    - i. 18.3m / 60’-70’ for normal interior lots



- ii. 15.24m / 50'-60' for corner lots
    - iii. 15.25m / 50'-60' for interior lots with lane access.
  - b. RS-4 Minimum Lot Widths:
    - i. 24.4m / 80'-90' for normal interior lots
    - ii. 21.34m / 70'-80' for corner lots
    - iii. 21.34m / 70'-80' for interior lots with lane access
- **Maximum Lot Coverage:** Same as single family in existing RS-4 or RS-5 zone
- **Maximum Floor Area:** same as single family
- **Maximum Height, Occupiable Height, Building Height:** same as single family
- **Setbacks:** Same as single family, see "Design Comments" below for more detailed consideration
- **Parking:** Committee recommendations are that Duplexes require parking for each unit – most jurisdictions require two parking spots per unit, Victoria only one. The Committee noted that inadequate parking can have significant direct impact on neighbours, and reduction in required parking could be seen a negative by neighbours. The committee recommends that the same exemptions for garage square footage be applied to the whole of a duplex (i.e. same as single-family dwelling on the same lot).
- **Expansion or Secondary Suites:** It should be noted that Duplexes cannot house secondary suites, as this is contrary to building code.
- **Design Comments:** The Committee noted that duplexes can integrate very well with established neighbourhoods, but in addition to ensuring adequate "space" defined in bylaw, success requires careful design and consideration of the neighbouring properties. Design guidelines should be developed to inform developers and future advisory panels. Some general comments were agreed upon as high-level guidelines to help designers, developers, design panels, and Councils determine appropriate proposals. These include:
  - a. Look like a single family dwelling
  - b. Side/side duplexes were generally preferred, some upper/lower or front/back designs can work well on specific lot configurations
  - c. Garages should not dominate the front of the house
  - d. Non-symmetrical design is encouraged, recognizing that symmetric design can be appropriate on the right property.
  - e. Buildings should not overlook or intrude upon neighbour's rear yards
  - f. Glazing (windows) should minimize loss of privacy to neighbours.

**Table of Duplex Comparative Values**

	<b>Saanich</b>	<b>Esquimalt</b>	<b>Victoria</b>	<b>Oak Bay (example)</b>
<b>Lot Size</b>	130% of min. lot size of adjacent lots or 750m <sup>2</sup>	668m <sup>2</sup>	555m <sup>2</sup> min	RS-5: 670m <sup>2</sup> RS4: 1140m <sup>2</sup>
<b>Lot Coverage</b>	30%	30% all buildings (accessory blgs < 10%)	40%	30%-32% all buildings (current bylaw)
<b>Lot Width</b>	Greater of 20m or 1.3x the minimum width of the largest adjacent lot zone	Min 18.3m (front)	15m minimum	RS-5: >18.5m (consider ~16m for corner/lane lots) RS-4: 24.5m (consider ~22m for corner/lane)
<b>FAR:</b>	.35 to 1 .5 to 1 max gross FA Garage exempt: 75m <sup>2</sup>	>800m <sup>2</sup> = .35 to 1 <800m <sup>2</sup> = .4 to 1	0.5 to 1 (280m <sup>2</sup> first and second floors, 380m <sup>2</sup> all floors)	Same floor area as RS-5 and RS-4 lots
<b>Setbacks</b>	7.5m front 10.5m rear	7.5m front / 7.5m rear / 4.5m sides combined	Lesser of 7.5m or neighbours	7.62m / contextual (same as current zones)
<b>Heights</b>	7.5m (3.75m accessory) 6.5m for flat roofs	7.3m (3.6m accessory)	7.6m (1½ storey w/ basement, 2 storeys without)	Same as current zones
<b>Parking</b>	2 spaces per dwelling unit	2 spaces per dwelling unit	2 car total, spots farther from road than front face of building	1.5 - 2 spaces per dwelling unit
<b>Zoning Process</b>	Rezoning process	No new zoning, just redevelop existing duplex zones		Rezoning process / Development Permit Area w/ design review
<b>Notes:</b>	Corner lots given preference	Home occupation use only		Design or Planning Panel process to be implemented

## Contributors

We would like to recognize all those who contributed so much time and expertise to the process, including:

- All who attended one or more of the public input sessions
- All who attended the committee discussions
- The many committed Oak Bay Staff who contributed their time and expertise

The Floor Area Committee was struck by motion of Council to include 3 members at large, two councillors, and the head of Building and Planning. Additional members attended regularly ex-officio and contributed greatly to the content of the report. Together, the committee members contributed over two hundred person-hours to researching and developing this report.

*Committee Members:*

- Nigel Banks
- Pam Copely
- John Graham
- Kevin Murdoch
- Tim Taddy
- Roy Thomassen

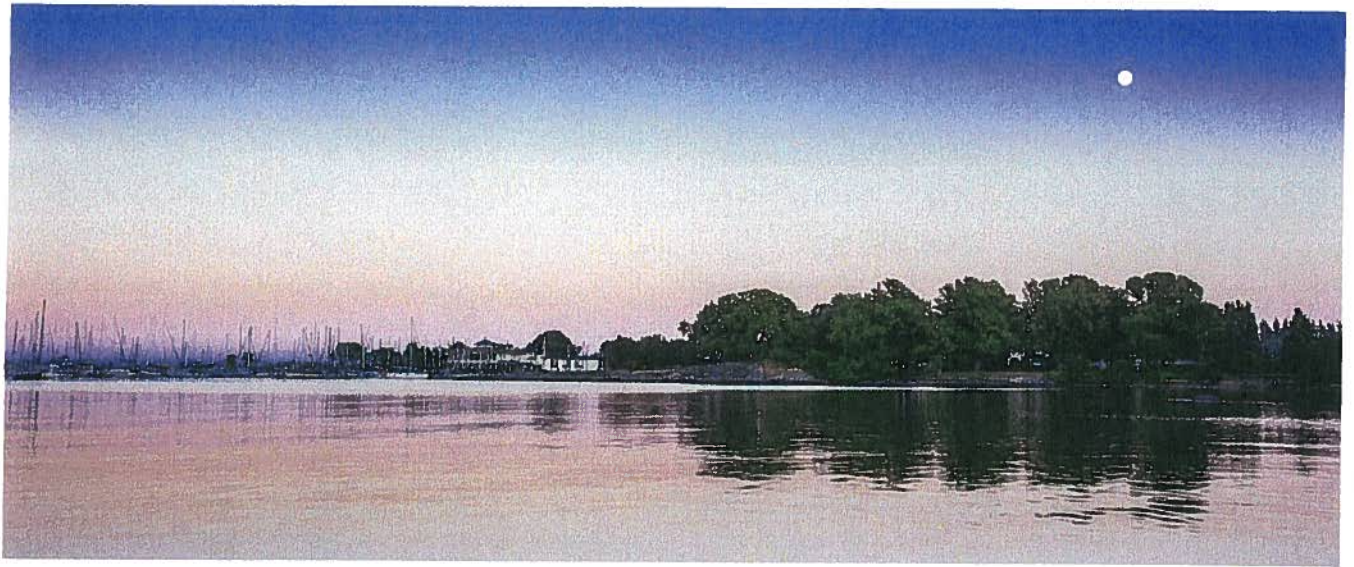
*Ex-Officio attendees:*

- Hope Burns
- Rus Collins
- Roger Tinney
- Eric Zhelka

A special thanks to Roy Thomassen, Oak Bay's Director of Building and Planning, for his many long hours, late nights, and detailed research to ensure information was accurate and relevant.

Photos provided by K. Murdoch.





2014 Oak Bay Floor Area Review Report  
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2014-238

MEMORANDUM

**TO:** Mayor and Council  
**FROM:** Director of Engineering Services  
**DATE:** September 15, 2014  
**RE:** Foul Bay Road at Lansdowne Road Intersection Upgrade  
[ Project Update and Request for permission to 'sole-source']

**BACKGROUND:**

This intersection is the last one in Oak Bay to be upgraded and converted from a 'timed-phase' controller to an 'actuated-phase' controller. With this proposed upgrade, traffic will be sensed by the controller and the traffic-light phases will adjust accordingly, based on demand. Typically this will eliminate drivers having to sit through an otherwise empty intersection waiting for the 'timed-phase' to complete. The overall operation of the intersection will be much more efficient. The purpose of this report is to update Council on the status of this project and request Council's approval of the geometric modifications and for staff to sole-source the electrical component of the works to Raylec Power LP.

**DISCUSSION:**

The upgrading of this intersection has been considered but not approved during the budget process for almost 10 years now. However, for the 2014 budget, council approved the \$220,700 necessary to undertake the work.

Grants

For the past few years, staff has been seeking cost assistance for this project from various sources. The following table summarizes the grant request efforts.

<u>Grant #</u>	<u>Details</u>	<u>Outcome</u>
1.	CRD: The Regionally Significant Project Fund (RSPF).	Denied
2.	CRD: Active Transportation Innovative Infrastructure Funding	<b>Granted \$75,000</b>
3.	BC Provincial Government: Bike BC 2014.	Denied
4.	ICBC: (Have stated they will fund "up to \$50,000") [ note: additionally, ICBC funded the Foul Bay/Lansdowne & Foul Bay/Haultain Traffic Study (see excerpt-attach # 1)]	<b>Granted up to \$50,00</b> [ project needs to be completed by Dec 31,/2014]
5.	Bike BC: (application in progress-due by end of September)	<b>Potential grant up to \$52,000</b>

The funding contributions from both ICBC and CRD (and possibly BikeBC) will reduce Oak Bay's net cost for the upgrading of this significant regional intersection. The District of Saanich will be making significant improvements at the north-west corner of this intersection so will be effectively contributing to the overall intersection improvement.

**Retrofit Details:**

Currently this intersection is not actuated, there are no bike lanes and the traffic signal system is outdated. This intersection is at the border of Oak Bay and the District of Saanich – the border line is close to the west curb of Foul Bay Road. According to an historical agreement between the two municipalities, all the traffic signals are maintained by Oak Bay.

For the last few months, staff has been working with OPUS Consultants, ICBC, ATAC, and the District of Saanich staff to finalize the design and all details. Some of the proposed features of this project include:

Item	Details
1.	Actuated traffic signals.
2.	New signal heads, controller, and poles.
3.	Four new bike lanes.
4.	Combined travel lanes for north-bound through & right turn.
5.	Combined travel lanes for south-bound through & left turn <i>(Please note: the above combination of 4 &amp; 5 will result in a minor lower 'Level Of Service' for some movements at this intersection).</i>
6.	Saanich will construct a new bike path on the north side of Lansdowne Road from Foul Bay Road to Shelbourne Street. Saanich staff is working towards a construction schedule to coincide with Oak Bay's project.

**Sole-Source Consideration:**

Our purchasing policy states that purchases over \$35,000 must be made by way of written tender or request for proposals. The tenders or RFPs may either be solicited by public advertising or by selective invitation to not less than 3 qualified suppliers. The Trade, Investment and Labour Mobility Agreement (TILMA) regulations and rules state that any good or services over \$75,000 must be advertised. Our purchasing policy and TILMA both have exceptions to this rule; 1. Where it can be demonstrated that only one supplier is able to meet the requirements of procurement or 2. Where an unforeseeable situation of urgency exists and the goods, services or construction could not be obtained in time by means of open procurement procedures.

If either of the exemptions can be established, the specific purchase (sole-source) can be recommended and approved by Mayor and Council. In this situation, we have determined that both exceptions have been established to request sole-sourcing this project.

Through staff research, we are not aware of any contractors on southern Vancouver Island other than Raylec Power LP who have the capability to install traffic signals to meet our specifications, requirements and needs. Raylec Power LP are the Ministry of Transportation maintenance contractor, as well as the maintenance contractor for many municipalities on Vancouver Island. We conclude Raylec Power LP is the only qualified company in the Greater Victoria area for this kind of work.



We are also under a time constraint as our major funding grant from ICBC is contingent on the project being completed by December 31, 2014. To meet this date, the project must commence as soon as possible. Tendering or soliciting bids from companies outside of the Greater Victoria area will most likely cause major delays and we will not meet the deadline for the ICBC grant.

**Consultant's Report:**

The overall design including the District of Saanich' work, is shown in Attachment # 2. The new configuration reflects best practices as ensured by our consultant. The final consultant's report is available for review and the summaries are attached as Attachment #1. This report has been extensively viewed and reviewed by Oak Bay engineering staff, ICBC and ATAC. Additionally, the contents of the report as reflected on the design drawing have been discussed with the District of Saanich Engineering staff.

**OPTIONS:**

1. That
  - a) The proposed design of the intersection at Foul Bay Road and Lansdowne Road as laid out in the memo by the Director of Engineering Services dated September 15th, 2014, be approved.
  - b) Raylec Power LP be awarded the contract for the electrical work for the traffic signal upgrade project at Foul Bay Road and Lansdowne Road at a cost of \$162,314.00.
2. That Council give alternate directions to staff.
3. That Council approve the design but go to Request for Proposal (R.F.P.)

**FINANCIAL IMPACT:**

The full amount of \$220,700 for the traffic signal upgrade project at the intersection of Foul Bay Road and Lansdowne Road is included in the 2014 Budget. This amount will be reduced by way of the grants from ICBC (Up to \$50,000 ), CRD (\$75,000) and possibly BikeBC. (Up to \$52,000)

**RECOMMENDATION(S):**

Engineering staff recommend that:

- a) The proposed design of the intersection at Foul Bay Road and Lansdowne Road as laid out in the memo by the Director of Engineering Services dated September 15th, 2014, be approved.
- b) Raylec Power LP be awarded the contract for the electrical work for the traffic signal upgrade project at Foul Bay Road and Lansdowne Road at a cost of \$162,314.00.

Respectfully Submitted,



---

D. Marshall B.Sc., A.Sc.T.  
Director of Engineering Services

Source of Funds/ I concur with the recommendation of the Director of Engineering Services.



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Fernando Pimentel  
Deputy Treasurer / IT Manager

I concur with the recommendation of the Director of Engineering Services.



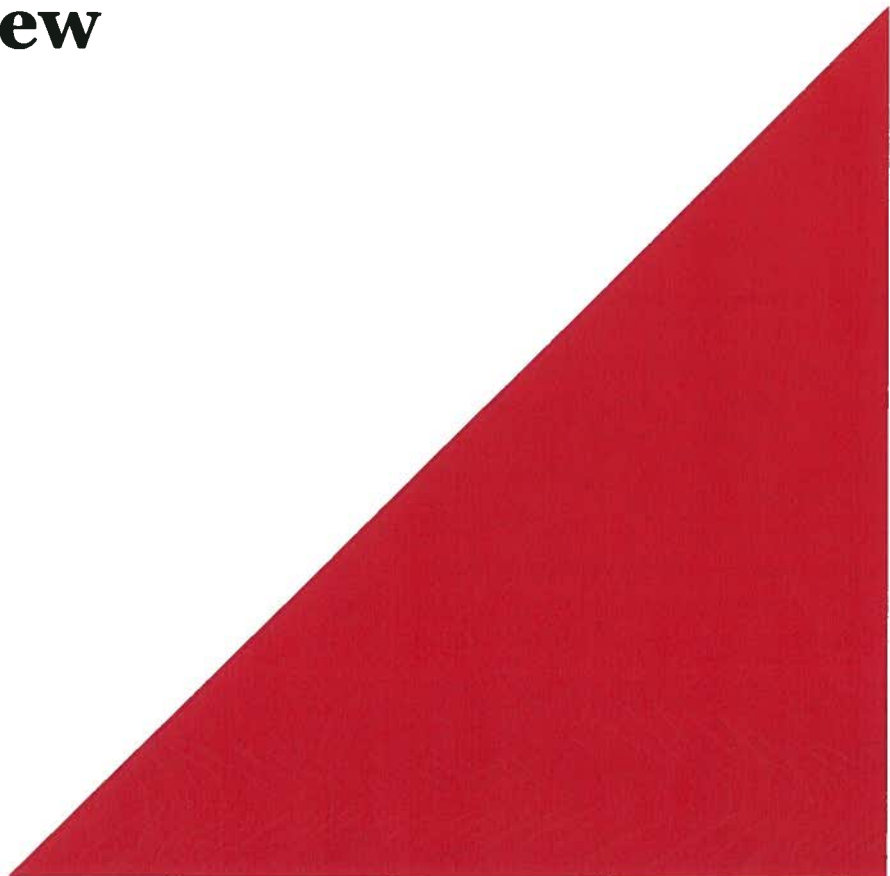
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Lorraine Hilton  
Municipal Clerk & Deputy CAO



*Corporation of the District of Oak Bay and Insurance  
Corporation of British Columbia*

**Foul Bay Road  
Intersections  
Multi-Modal Traffic  
Operations and Safety  
Review**



*The Corporation of the District of Oak Bay and The Insurance Corporation of BC*

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# **Foul Bay Road Intersections Multi-Modal Traffic Operations and Safety Review**

Prepared By



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Date: February 2014  
Reference: H-V0150.00  
Status: Issue 2

Approved for  
Release By



Brendan Sterling  
Business Manager, Opus West

*The Corporation of the District of Oak Bay and The Insurance Corporation of BC*

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# **Foul Bay Road Intersections Multi-Modal Traffic Operations and Safety Review**



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**Appendix A: Foul Bay / Lansdowne Intersection Features**

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**Appendix E: Capacity Analysis and Signals Optimization**

**Appendix F: Cycle Facility Standards and Plans**

**Appendix G: Site Observations**

**Appendix H: Lansdowne Rd and Foul Bay Rd Existing Layout, Issues, and Proposed Layout Drawings**

**Appendix I: Haultain St. and Foul Bay Rd Existing Layout, Issues, and Proposed Layout Drawing**

## Executive Summary

The District of Oak Bay and the Insurance Corporation of British Columbia (ICBC) have commissioned Opus International Consultants (Canada) Limited to conduct a traffic operations and safety review of two intersections with Foul Bay Road, at Lansdowne Road and Haultain Street.

The District intends to upgrade the existing signal operation at the Foul Bay Road / Lansdowne Road intersection and is interested in improving both its operational and safety efficiency. Haultain Street is part of a cycling route which crosses Foul Bay Road, a busy Arterial Route, where the District is seeking options to improve cycling safety and better solutions for traffic crossing.

The goal of this study is to examine the current operational performance of both intersections, review the collision history and identify potential mitigation measures to improve the operational and safety performance of both intersections for vehicles and cyclists.

## Safety and Operational Issues and Mitigations

For each of the intersections, identified issues and proposed mitigation to improve the operational performance and safety at the intersections are discussed in greater detail and illustrated within the report and appendices. A summary of findings for each section is as follows:

### Lansdowne Road / Foul Bay Road Intersection

The District of Oak Bay intends to upgrade the signals equipment at the Foul Bay Road intersection with Lansdowne Road to provide modern displays and enable the intersection to be actuated with the installation of detector loops to better respond to fluctuations in traffic volumes during peak and off peak periods. At present, the AM and PM peak period signal timing plans reflect the traffic volume patterns so no changes are proposed to the cycle time or green time allocation. The signals operation favours the heavy traffic movements on Foul Bay Road north and south and Lansdowne Road west approaches, while providing reduced level of service for Lansdowne Road east approach traffic.

At present, both Foul Bay Road approaches have left, through and right turning lanes marked. This report recommends incorporating the Foul Bay Road northbound right turn into the through lane and the Foul Bay Road southbound left turn into the through lane to allow space to continue the existing on-street cycle lanes from the approaches to the intersection. There is little change in operational performance resulting from lane combinations at this intersection because the turning movements that are being combined are low volume. Overall the intersection will continue to operate at a Level of Service (LOS) C. The Synchro modelling indicates that the increase in approach delay caused by combining these movements is in the order of 5 seconds at peak times (reducing the level of service for the through movements from B to C during the AM peak). This would be far outweighed by the safety benefits provided by the new cycle lanes on i) the northbound approach along Foul Bay Road (providing a connection to the existing cycle lane north of the intersection), and ii) the southbound approach and departure along Foul Bay Road providing cycle lanes both sides of the intersection. Oak Bay have received a number of complaints regarding the westbound left turn into Foul Bay Road, however the Synchro modelling indicates that there will be little impact on this movement which will continue to operate at LOS C. Further consideration will be given to the configuration of the traffic signal timings

during the detailed design phase, and optimisation / improvement of the Lansdowne Road through and left movements will be considered to appease public concerns.

Commuter cyclists are a significant presence in the AM and PM peak traffic periods with north-south and west-north patterns. Cyclists observed using the intersection were predominantly confident cyclists who used the vehicle lanes rather than sidewalks and took their place in vehicle queues. Extending the Foul Bay Road cycle lanes to the intersections and providing bike lanes for cyclists will enhance their experience in using this busy commuter route and improve their safety.

### **Haultain St / Foul Bay Road Intersection**

Haultain Street is a low volume Collector road, traffic calmed to the west of Foul Bay Road that also a Primary on-street Bikeway. Due to the low traffic volumes it does not meet warrant criteria for pedestrian or intersection signals but as a Primary Bikeway should be providing a better level of service for commuter and recreational cyclists, who currently find it difficult to find safe gaps in Foul Bay Road traffic during peak traffic periods.

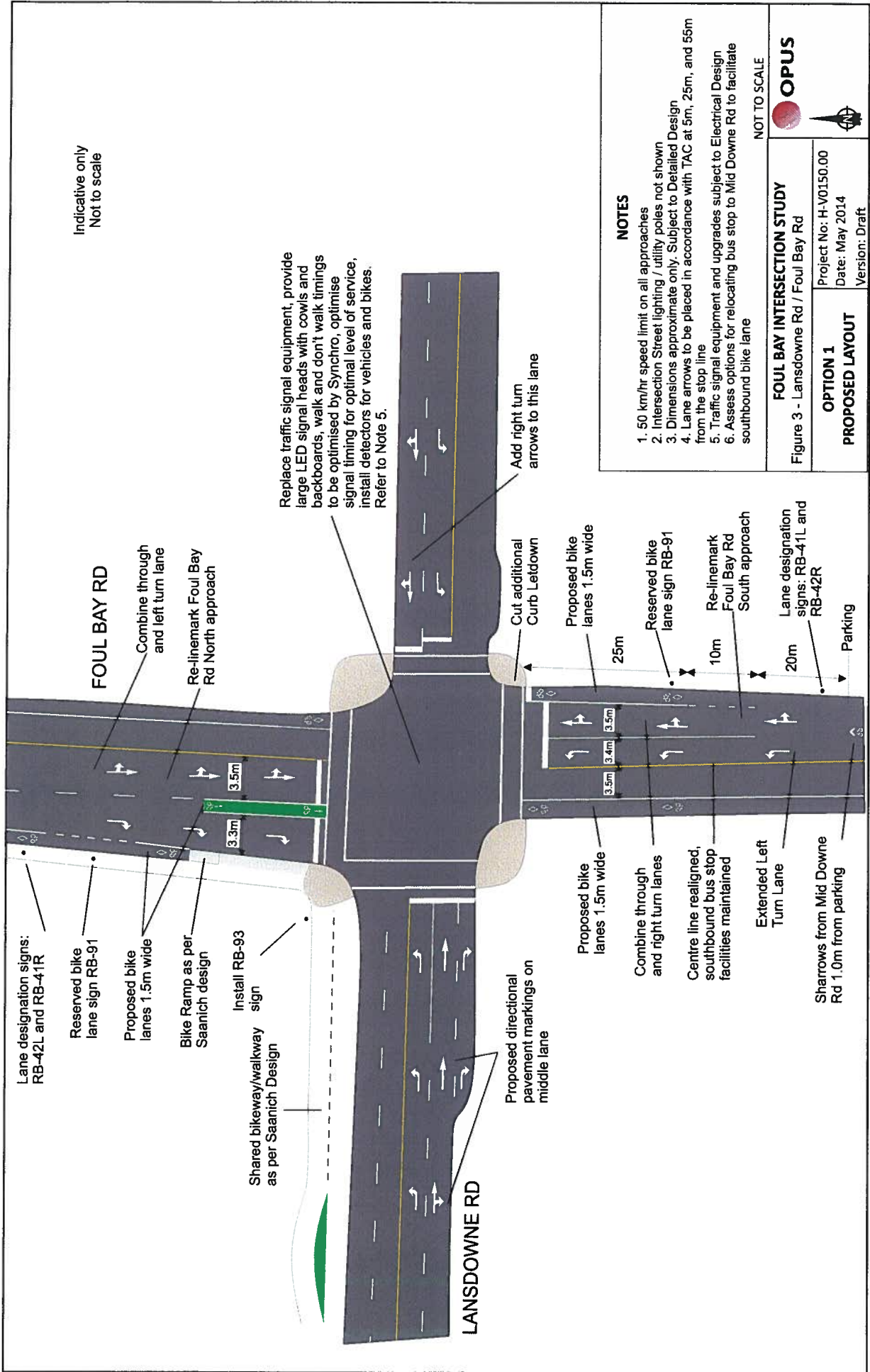
Cyclists currently have the option to cross Foul Bay Road as a pedestrian at a marked crosswalk immediately to the south of the intersection. The crosswalk has flashing beacons activated by push button and is well marked and signposted and visible to oncoming traffic both day and night.

The current analysis has identified an approach to intersection safety and cyclist/pedestrian mobility improvements. An improved refuge and raised signs should encourage cyclists to use the signal controlled crosswalk where safe gaps are limited. With yield markings for southbound traffic, some vehicles and cyclists will also be able to exit Haultain safely during the signaled crossing time.

The following pages show the proposed layout drawings for both intersections.



Indicative only  
Not to scale



Replace traffic signal equipment, provide large LED signal heads with cowls and backboards, walk and don't walk timings to be optimised by Synchro, optimise signal timing for optimal level of service, install detectors for vehicles and bikes. Refer to Note 5.

**NOTES**

1. 50 km/hr speed limit on all approaches
2. Intersection Street lighting / utility poles not shown
3. Dimensions approximate only. Subject to Detailed Design
4. Lane arrows to be placed in accordance with TAC at 5m, 25m, and 55m from the stop line
5. Traffic signal equipment and upgrades subject to Electrical Design
6. Assess options for relocating bus stop to Mid Downe Rd to facilitate southbound bike lane

NOT TO SCALE



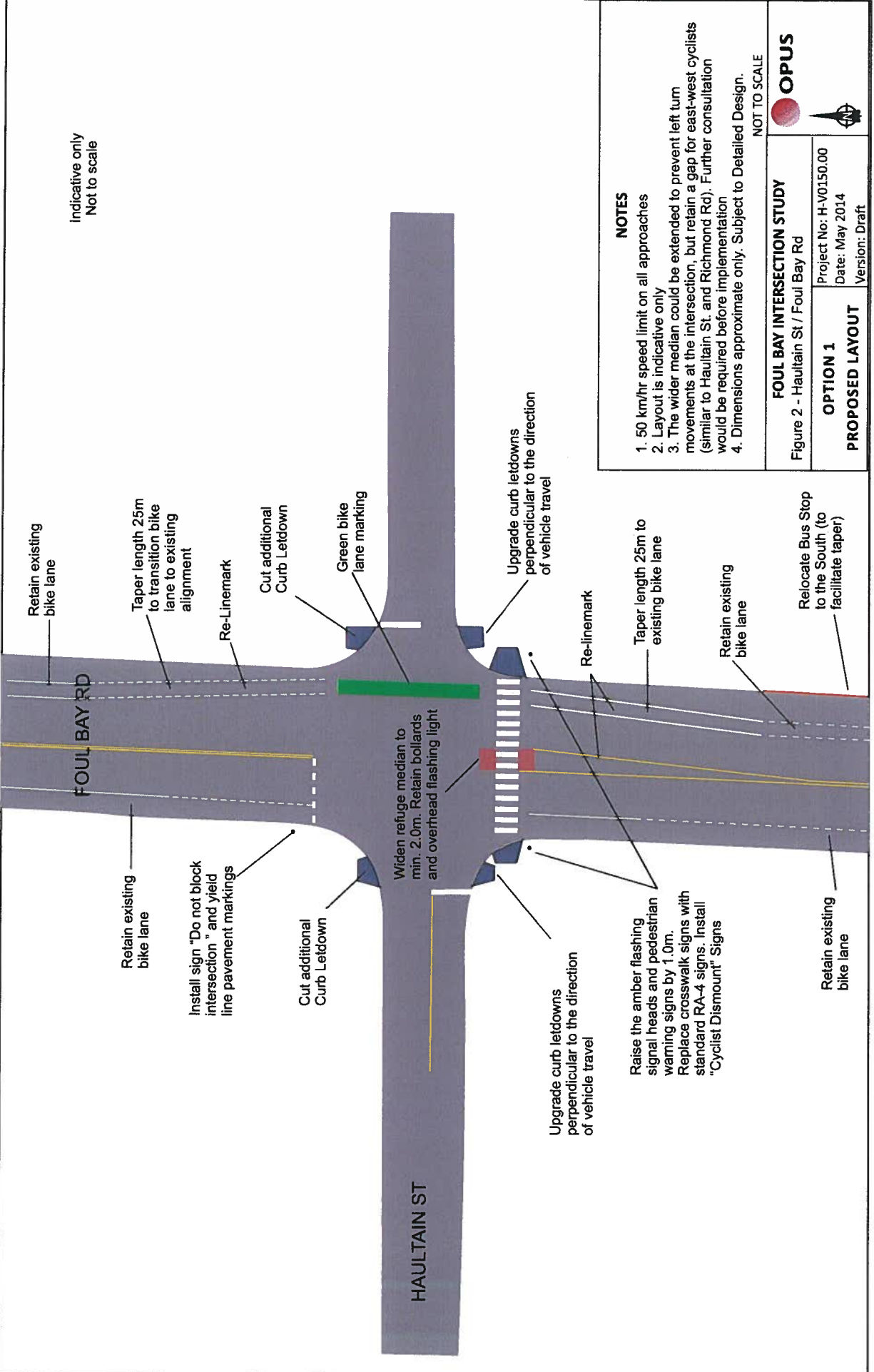
**FOUL BAY INTERSECTION STUDY**

Figure 3 - Lansdowne Rd / Foul Bay Rd

Project No: H-V0150.00  
Date: May 2014  
Version: Draft

**OPTION 1**

**PROPOSED LAYOUT**



Indicative only  
Not to scale

**NOTES**

1. 50 km/hr speed limit on all approaches
2. Layout is indicative only
3. The wider median could be extended to prevent left turn movements at the intersection, but retain a gap for east-west cyclists (similar to Haultain St. and Richmond Rd). Further consultation would be required before implementation
4. Dimensions approximate only. Subject to Detailed Design.

NOT TO SCALE



**FOUL BAY INTERSECTION STUDY**

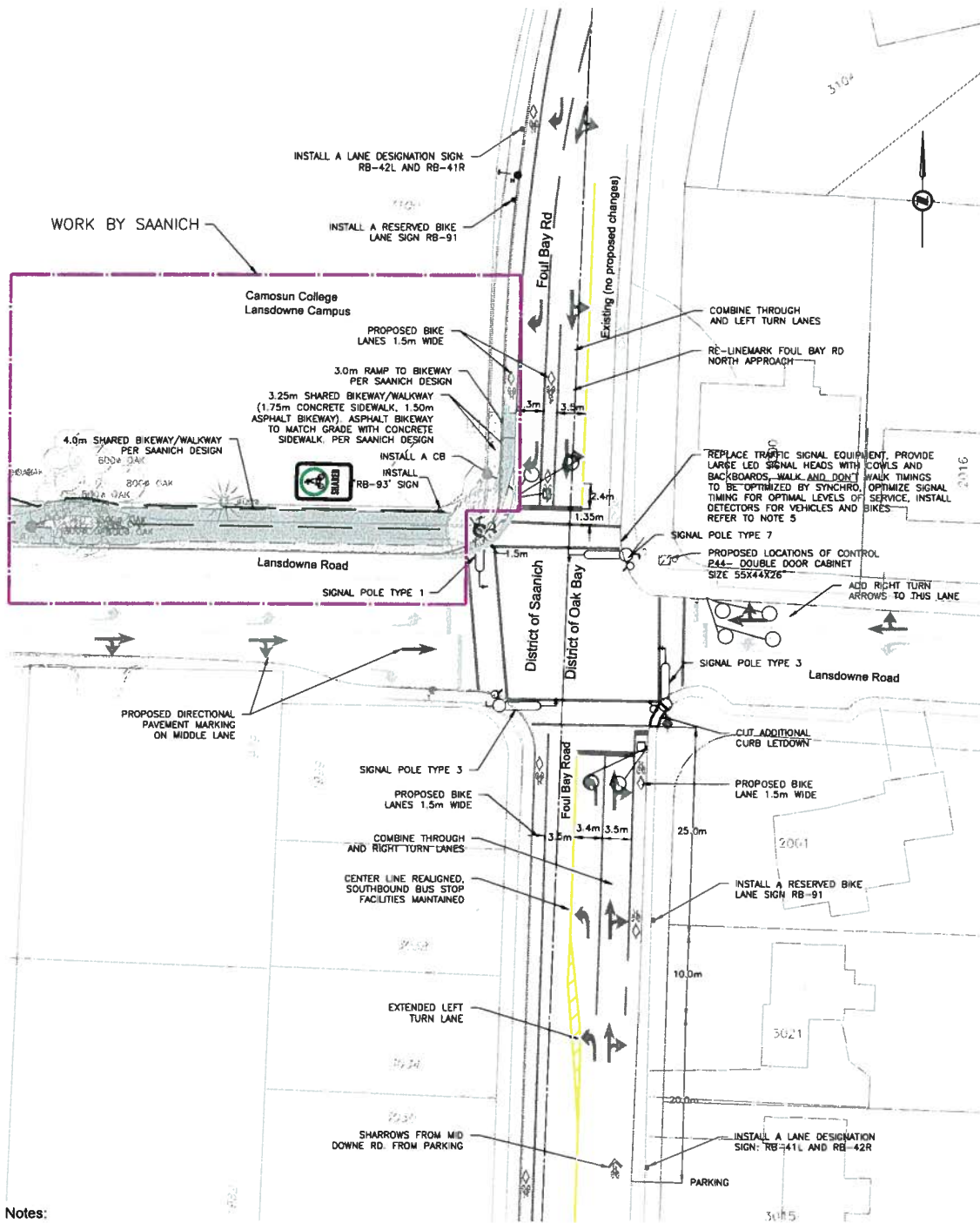
Figure 2 - Haultain St / Foul Bay Rd

Project No: H-V0150.00  
Date: May 2014

Version: Draft

**OPTION 1**

**PROPOSED LAYOUT**



Notes:

- This is a drawing showing the proposed traffic signal system and bike lanes upgrading at the intersection of Foul Bay Road and Lansdowne Road in the District of Oak Bay.
- The reasons for the upgrading are:
  - Low visibility, no actuation
  - Foul Bay Road is a major bike route for cyclist to UVIC
  - Foul Bay Road is a major bike route for cyclist to downtown via Hualtain Street
  - Camosun College and UVIC, generate a lot of traffic
  - Foul Bay Road is a major regional corridor for transit and regional bike networks
  - Existing overhead cables allow signal heads to blow around in the wind
- The proposed work include:
  - Bikeways traffic signs and pavements markings
  - Bike loop detectors
  - Pedestrian countdown timers and audible signals
  - Spring mount primary heads with back board
  - Electronic controller
  - Underground conduits, complete with new wire
  - Concrete mounting pad for the controller
  - New electrical service
  - Loops and wiring for actuation
  - 3 new davit poles
- Benefits to cyclist and pedestrians
  - New bike lanes for NB & SB cyclists
  - New detective loops for bikes
  - New pedestrian timers and audible signals

LEGEND-EXISTING SERVICES SHOWN SOLID

WATER	CURB	C	DRAIN MANHOLE	⊕	DRAIN VENT	⊕	D. INSPECTION CHAMBER	⊕	FIRE HYDRANT	⊕	IRON PIN	⊕
DRAIN	SIDEWALK	S/W	DRAIN CLEANOUT	⊕	SEWER VENT	⊕	S. INSPECTION CHAMBER	⊕	WATER VALVE	⊕	LEAD PLUG	⊕
DITCH	EDGE PAVE	⊕	CULVERT	⊕	TERMINAL CLEAN OUT	⊕	REDUCER	⊕	WATER METER	⊕	TRAVERSE HUB	⊕
SEWER	UG UTL	H/C/T	SEWER MANHOLE	⊕	HEADWALL	⊕	REDUCER	⊕	AIR VALVE	⊕	P.K. NAIL	⊕
GAS	G	⊕	SEWER CLEANOUT	⊕	TEL/HYDRO POLE	⊕	STAND PIPE	⊕	FLUSH VALVE	⊕	SURVEY MONUMENT	⊕



APPROVED:	DM	PROJECT	
DESIGN:	RD	FOUL BAY - LANSDOWNE INTERSECTION UPGRADES	
CHECKED:	DM	DATE:	SCALE:
DRAWN:	AV	SEP 2014	1:500
DWG No.:	2014-06-01	SHEET No.:	ISSUE:
		01 OF 01	



2014-239

To: Mayor and Council, For Information

From: Municipal Clerk

Subject: Opinion Question on the 2014 General Local Election Ballot – Amalgamation

Date: September 24, 2014

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## BACKGROUND

At the meeting held September 8, 2014, Council received notice that a member of Council would be bringing forward a resolution to the September 29<sup>th</sup> Council meeting to add a non-binding opinion question on amalgamation to the 2014 General Local Election ballot.

Staff was requested to provide information on the potential costs of including an opinion question on the ballot, and to summarize the decisions of other local governments in the region in respect to whether a question would be placed on their ballots, and what those questions are.

## DISCUSSION

Staff is aware that the following local governments have resolved to add opinion questions in relation to amalgamation to their ballots as follows:

Central Saanich: *"That the District of Central Saanich place a non-binding referendum question on the November 15 ballot asking residents if the District should petition the Province to fund a cost/benefit analysis of amalgamation of Central Saanich, North Saanich, and Sidney".*

Esquimalt: Proposed Question: *"Are you in favour of exploring the reduction of the number of municipalities within the Capital Regional District through amalgamation?"*

Langford: Question not yet determined.

Sidney: *"That, pursuant to Section 83 of the Community Charter, the following non-binding question of amalgamation be included in the 2014 Local Government Election on November 15, 2014: "Are you in favour of a provincially funded study to investigate the feasibility, costs and implications of amalgamating the three municipalities of the Saanich Peninsula?"*

Victoria: *"Are you in favour of reducing the number of municipalities in Greater Victoria through amalgamation?"*

## FINANCIAL IMPACT

If Council resolves to add an opinion question to the 2014 ballot, it is anticipated that the increase in costs compared to the overall 2014 election budget would be minimal *if* the advertising is kept to a relatively small addition to the statutory *Notice of Election*. If Council resolves to ask electors the question that is described later in the agenda under resolutions, unless otherwise directed, the information in the recitals of the resolution would provide direction on advertising content. There is no communication plan or budget for any extensive advertising of an opinion question.

Seeking public opinion on a non-binding question outside of the General Local Election process (i.e. stand alone) would cost in the neighbourhood of \$35,000 (the amount of the 2014 election budget) *if* it is conducted in the same way as a General Local Election. However, there is no specific requirement for this and Council could choose a less extensive process which would reduce the costs. A detailed analysis has not been done in this regard.



Lorraine Hilton  
Municipal Clerk