AGENDA

COUNCIL WORKSHOP

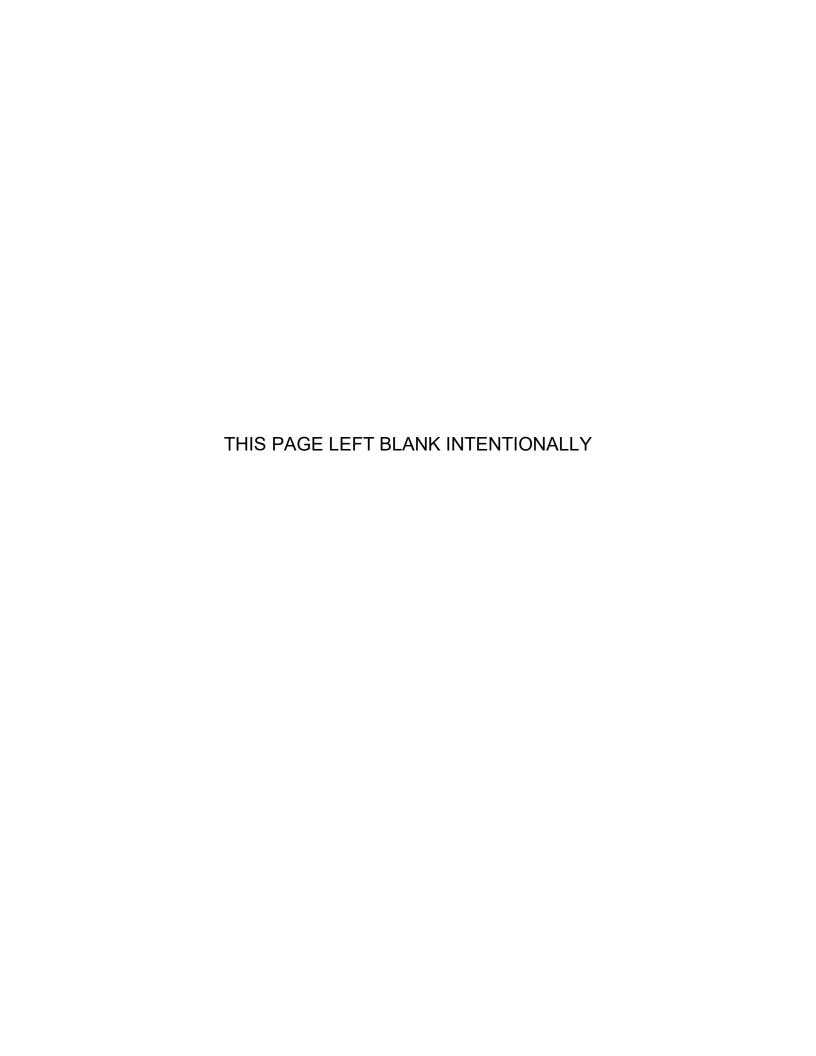
Tuesday, November 19, 2019 5:00 p.m. Committee Room, Municipal Hall 355 West Queens Road, North Vancouver, BC

Council Members:

Mayor Mike Little
Councillor Jordan Back
Councillor Mathew Bond
Councillor Megan Curren
Councillor Betty Forbes
Councillor Jim Hanson
Councillor Lisa Muri



www.dnv.org



District of North Vancouver

NORTH VANCOUVER

355 West Queens Road, North Vancouver, BC, Canada V7N 4N5 604-990-2311

www.dnv.org

COUNCIL WORKSHOP

5:00 p.m.
Tuesday, November 19, 2019
Committee Room, Municipal Hall,
355 West Queens Road, North Vancouver

AGENDA

1. ADOPTION OF THE AGENDA

1.1. November 19, 2019 Council Workshop Agenda

Recommendation:

THAT the agenda for the November 19, 2019 Council Workshop is adopted as circulated, including the addition of any items listed in the agenda addendum.

2. ADOPTION OF MINUTES

3. REPORTS FROM COUNCIL OR STAFF

3.1. Standards and Regulations in Single-Family Zones

p. 7-61

File No. 13.6700.20/000.000

Report: Assistant General Manager – Regulatory Review and Compliance, November 6, 2019

Attachment A: Chronology of Previous Council Workshops on Single-Family Home Renewal

Attachment B: Retaining Structures

Attachment C: Grade for Detached Garages

Attachment D: Nuisance Lighting Attachment E: Nuisance Noise

Attachment F: Landscape Retention and Hard Surfaces

Attachment G: Presentation

Recommendation:

THAT the November 6, 2019 report of the Assistant General Manager – Regulatory Review and Compliance entitled Standards and Regulations in Single-Family Zones is received for information;

AND THAT the proposed options for changes to the single-family standards and regulations is considered;

AND THAT Council provides direction to staff regarding preferred options.

4. PUBLIC INPUT

(maximum of ten minutes total)

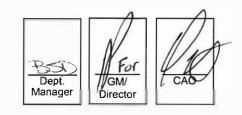
5. **ADJOURNMENT**

Recommendation: THAT the November 19, 2019 Council Workshop is adjourned.

REPORTS

THIS PAGE LEFT BLANK INTENTIONALLY

AGENDA INFORMATION				
Council Workshop	Date: NOV (9) 2019			
☐ Finance & Audit	Date:			
☐ Advisory Oversight	Date:			
Other:	Date:			



The District of North Vancouver REPORT TO COMMITTEE

November 6, 2019

File: 13.6700.20/000.000

AUTHOR: Brett Dwyer, Assistant General Manager Regulatory Review and

Compliance

SUBJECT: Standards and Regulations in Single Family Zones

RECOMMENDATION:

THAT the report entitled "Standards and Regulations in Single Family Zones" dated November 6, 2019 be received for information;

THAT the proposed options for changes to the single family standards and regulations be considered by Council; and

THAT Council provides direction to staff regarding preferred options.

REASON FOR REPORT:

At the September 16th, 2019, Council Workshop, the Council Committee provided direction to staff to explore options for making changes to District bylaws, policies and regulations to address concerns and/or issues raised with regards to the following single family residential standards and regulation areas:

- 1. retaining structures;
- height of accessory structures (particularly detached garages);
- 3. nuisance noise;
- 4. nuisance lighting; and
- 5. landscape retention and hard surfaces.

This report provides options for Council's consideration in each target area, as outlined under *options for consideration* within each section. Council may determine to provide alternate direction to staff, other than the options provided.

November 6, 2019 Page 2

BACKGROUND:

Background on Single Family Zones in the District:

The District's five single family (RS1–RS5) and 14 neighbourhood zones were created over many years through robust community engagement. This process sought a balance between individual property owners' rights and broad community interests.

Previous Council Workshops on Singe Family Home Renewal:

A chronology of previous Council Workshops on single family home renewal is provided as an attachment to this report (Attachment A).

ANALYSIS:

For each of the five target single family residential standards and regulation areas, staff completed the following research: review of the District's current approach, the legislative authority to regulate, and a municipal scan of other jurisdictions' approaches to regulating these areas. Staff have provided options for Council's consideration in the five identified areas.

Background research and supplementary information is included for each target area (Attachments B-F).

Target Area 1- RETAINING STRUCTURES

Issue Identification:

Council has identified retaining structures on single family residential lots to potentially cause negative impacts to neighbouring properties and residential streetscapes. Retaining walls, when too high, can cause concerns regarding overshadowing, single family neighbourhood aesthetic quality and character, and sightlines.

It is noted that the District has the authority to regulate siting and height of retaining walls. The District may not regulate retaining wall materials or method of construction beyond that prescribed in the *BC Building Code*. However, these matters may be regulated by the *BC Building Code*, enforced through the Construction Bylaw.

Municipal Comparison:

Retaining wall regulations in Metro Vancouver municipalities with similar topography to the District were surveyed by staff.

The results ranged from having no regulation other than the *BC Building Code* (to address structural integrity only), to a range of permutations in terms of height envelope angles and resulting heights permitted. Final permitted heights depend on factors such as zoning, location on a lot, whether the wall is shared between residential property lines, what grade the measurement is taken from, etc. Heights range from 2 ft. to approximately

11.8 ft. Retaining walls typically require a registered professional and a municipal building permit.

Further details on research can be found in Appendix B.

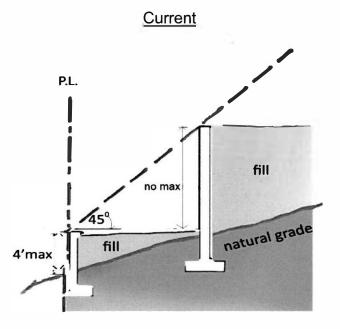
Current Approach:

The District regulates the siting and height of retaining walls through the Zoning Bylaw, in the following manner:

Section 409 Siting Exceptions

(3) Retaining Walls

Retaining walls may be constructed within the required setback area of a lot when the wall or walls do not extend above a line commencing 4.0 feet above the lesser of natural grade and finished grade at the outer face of the outermost wall and projected upward and inward on the lot at an angle of 45°...



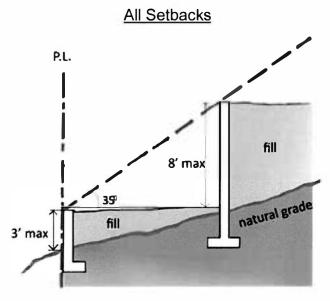
It is worth noting that the District's regulation establishes height from the lesser of natural or finished grade. This is beneficial in terms of managing impacts as it does not enable artificially raising the grade. Although the District's Zoning Bylaw currently regulates the angle and height of retaining walls, it does not have a maximum exposed height above finished grade. For example, if a secondary retaining wall is set back 4 ft., the wall can be 4 ft. in height, if it is setback 8 ft., it can be 8 ft. in height, and so on.

Options for Consideration:

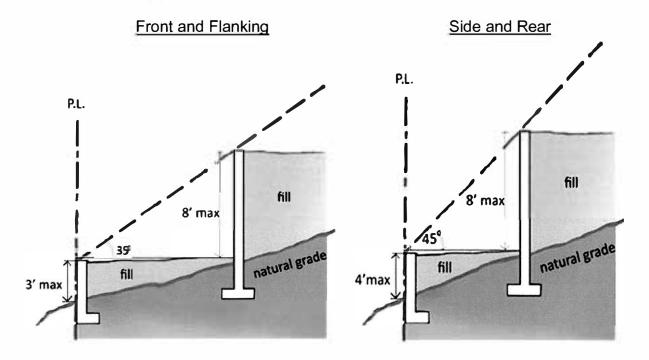
These options are stand-alone options for amendments to the District's Zoning Bylaw.

November 6, 2019

1) Amend the District's Zoning Bylaw to limit a retaining wall or the first retaining wall in a series of retaining walls to 3 ft. in height and subsequent retaining walls be limited by a height plane of 35° to a maximum height of 8 ft., in all setbacks.



2) Amend the District's Zoning Bylaw to limit a retaining wall or the first retaining wall in a series of retaining walls to 3 ft. in height and subsequent retaining walls be limited by a height plane of 35° to a maximum height of 8 ft., in front and flanking required setbacks. For side and rear required setbacks, the existing retaining wall regulation would still apply with no wall having a maximum exposed height greater than 8 ft.



November 6, 2019

Page 5

Comparison of Options:

These options would include amendments to the District's Zoning Bylaw and potentially the Construction Bylaw. Zoning Bylaw and Construction Bylaw changes would only apply to new retaining walls and would not retroactively apply to residential properties.

It is noted that existing permitted retaining structures that did not comply with the new regulation would benefit from legal non-conforming status.

Both options reduce visual impact of large wall faces from the front of a property by limiting exposed retaining wall height to 8 ft. In both options, properties with challenging topography may have difficulty meeting regulations, in particular, steeply sloped lots or narrow cross-sloping lots. This challenge may result in an increase of Zoning Bylaw variance applications either to the Board of Variance or Development Variance Permits to Council.

Option 1: (all required setbacks 3 ft. for first wall, 35° angle and 8 ft. subsequent max wall height)

- Lots with a significant slope that require retaining walls in the side yards may have difficulty meeting new regulation.
- Buildable area may be reduced more than option 2, for those lots with challenging topography.
- Sloping lots would not be able to achieve the same amount of level yard space.

Option 2: (front and flanking required setbacks same as option 1, in side and rear required setbacks 4 ft. for first wall, 45° angle and 8 ft. subsequent max wall height)

- Does less to reduce visual impact for neighbours sharing side or rear yard property lines than option 1 while still introducing a maximum 8 ft. exposed height.
- Potentially less impact to buildable area than option 1, for those lots with challenging topography.
- Potentially less variances than option 1.

Target Area 2- HEIGHT OF DETACHED ACCESSORY BUILDINGS (INCLUDING GARAGES)

Issue Identification:

Council has identified that height measurement of detached accessory buildings (including garages) on single family residential lots with sloping topography may result in large lengths of exposed foundation wall between floor or slab elevation and grade. This may cause negative visual impacts to neighbouring and nearby properties. Detached garages having large amounts of exposed foundation walls have been cited to be inappropriate to neighbourhood aesthetic quality and character.

Municipal Comparison:

Accessory structure height regulations in Metro Vancouver municipalities with similar topography to the District were surveyed by staff.

The results ranged from accessory buildings and structures being limited to one storey, measured from finished grade or in the case of detached garages, measured from finished grade at vehicular access. Although some variation was found, detached garages are mostly measured from finished grade at vehicular access. This is the same as the District's current regulation.

Further details on research can be found in Appendix C.

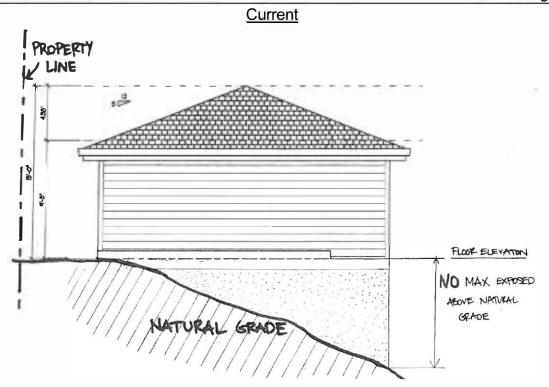
Current Approach:

The District regulates how the height of accessory buildings and structures are measured through the Zoning Bylaw in the following manner:

Part 2 Interpretation

"height" means:

(i) With respect to a building or structure in a single family residential zone...in the case of an accessory building or structure it shall be the vertical distance measured from the floor level to the highest point of the building or structure;



This height measurement is used for both detached and attached garages and accessory structures. The District uses top of slab as the floor elevation which is the finished grade at vehicular access. This means that height for accessory buildings is measured from the floor or slab surface regardless of natural or pre-existing grades.

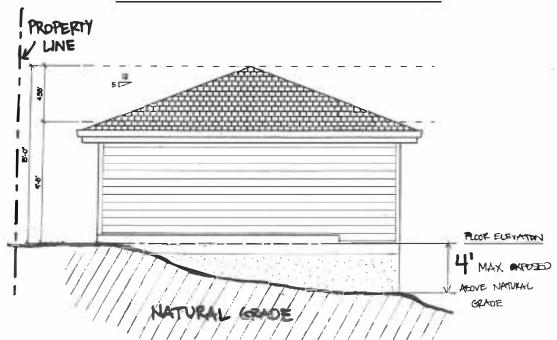
There is no current regulation related to exposed foundation wall face between floor elevation and grade resulting from a sloping lot.

Options for Consideration:

These options are stand-alone options for amendments to the District's Zoning Bylaw.

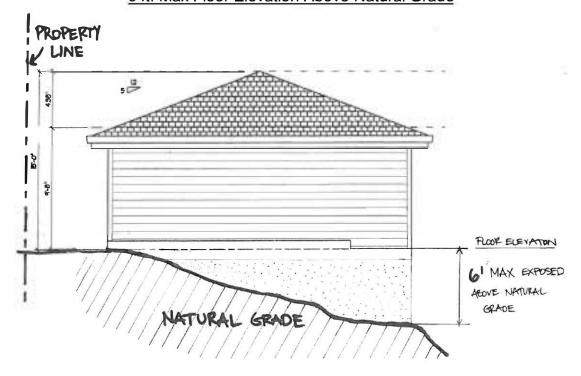
1) Amend the District's Zoning Bylaw to require that detached parking structures and other accessory buildings and structures be measured from the floor level to the highest point of the building or structure, but in no case shall the floor level of the structure be more than 4 ft. above natural grade at any point.

4 ft. Max Floor Elevation Above Natural Grade



2) Amend the District's Zoning Bylaw to require that detached parking structures and other accessory buildings and structures be measured from the floor level to the highest point of the building or structure, but in no case shall the floor level of the structure be more than 6 ft. above natural grade at any point.

6 ft. Max Floor Elevation Above Natural Grade



November 6, 2019

Page 9

Comparison of Options:

These options would require amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new detached parking and accessory buildings and structures and would not retroactively apply to permitted structures that do not comply with new regulations.

It is noted that existing detached accessory buildings and structures that did not comply with the new regulation would benefit from legal non-conforming status.

New regulation may increase the difficulty in constructing accessory buildings and structures on sloping lots as the buildings will be 'pushed' into the ground to avoid exposed foundation walls. The proposed change may present challenges for lots which are down-sloping and provide vehicular access from a lane or street. This is due to the Development Servicing Bylaw maximum driveway grade. This could result in additional Board of Variance applications or Development Variance Permit applications to Council.

In steeply cross-sloping lots, pushing the structure into the ground may result in the need for more retaining walls; however, these would be 'down' retaining walls rather than 'up' retaining walls meaning visual impacts would be limited.

Option 1: (no greater than 4 ft. exposed foundation wall)

- Will be easier for lots with minimal grade changes to comply than those with steep slopes.
- Provides for better interface with neighbouring properties.

Option 2: (no greater than 6 ft. exposed foundation wall)

- Allows more flexibility than option 1.
- Will likely cause less need for variances than option 1.
- Does less to reduce visual impact for neighbours than option 1 while still creating a modest maximum where one currently does not exist.

Target Area 3- NUISANCE LIGHTING

Issue Identification:

Council has expressed concern regarding the placement and intensity of outdoor lighting in single family residential areas particularly in relation to new construction of single family homes. This nuisance light may negatively impact residents' quality of life and may have other negative impacts such as to wildlife, dark sky and increased energy consumption.

In the last five years (including 2019 thus far), 21 single family lighting complaints have been received by the Bylaw Department. These complaints each represent an individual property where a complaint about lighting was made. It is noted that multiple complaints may have been received in relation to an individual lighting complaint. Where a subsequent complaint differed in nature, for example, different lights were being complained about, this counted as a separate complaint. This results in an average of approximately four per year.

Recalled the second second	Light	ting Comp	laints			
Complaints by Type	2015	2016	2017	2018	2019	Total
Recessed	0	0	2	0	0	2
Flood/Spot/Motion	1	5	4	3	0	13
Seasonal	0	1	1	1	0	3
Grouped/Other	1	0	0	1	1	3
Total	2	6	7	5	1	21

Municipal Comparison:

Residential outdoor lighting regulations in Metro Vancouver municipalities were surveyed by staff.

Five Metro Vancouver municipalities have regulation related to outdoor nuisance lighting. Regulations include requiring outdoor lights to be shielded by a shade or fixture and prevention of direct shining into living or sleeping areas of adjacent residential properties. Allowances for holiday lighting is generally permitted. Further details on research can be found in Appendix D.

Current Approach:

The following general application regulations in the District's Nuisance Abatement Bylaw apply to regulate nuisance lighting:

"Light Source" means a light bulb, light tube or floodlight lamp;

"Outdoor Light" means any Light Source that is not fully enclosed in a building or structure:

November 6, 2019 Page 11

"Shade" means a non-transparent light shade that does not form part of a Light Source;

Prohibitions

6. d) No person shall allow an Outdoor Light to be placed or lit on a parcel such that the Light Source is visible from a different parcel in a Residential Zone;

Requirements

- 8. Without limiting the generality of section 7, every person who is the owner or occupier of Real Property or their agent shall
 - e) ensure that an Outdoor Light on the Property is shielded by a Shade or fixture such that the Light Source is not visible from another parcel located in a Residential Zone.
- 9. The prohibitions in section 6(e) and the requirement in section 8(e) do not apply to the following:
 - a) Christmas or holiday lights between November 15 and January 15;

This is the current regulation Bylaw Enforcement Staff use to address light complaints caused by a residential house. It is effective to address the direct impact on a neighbour from unshielded fixtures or poorly directed flood lighting. In recent years, installation of purpose based, low output landscape lighting has taken the place of some of these brighter house-mounted fixtures, and staff have seen a decrease in complaints of this type.

In April 2002, the District's Nuisance Abatement Bylaw was amended to include glaring light regulations in residential zones. This amendment described types and wattages of various light sources and placed a maximum bulb wattage in a given light fixture. It also stipulated the length of time an outdoor light may be lit and between what hours. In September 2002, these regulations were removed, as aspects of the bylaw had proved to be difficult to enforce.

Bylaws must be easily understood and applied, enforceable and accomplish the desired goal. Differences in properties such as density and maturity of landscaping, topography, and other factors such as family schedules, lifestyles, individual personal sense of security are factors to also be considered to prevent unintended consequences and challenges to enforcement.

Options for Consideration:

Due to the complexities of measuring and regulating residential lighting, staff have contracted a lighting professional to aid with understanding the issues and developing options for consideration. For light spillage or light trespass typically occurring on residential properties, it can be difficult to determine the source of the light when measuring on the ground. Lighting can originate from several sources including

November 6, 2019 Page 12

landscape lighting, security lighting, decorative lighting and sources from outside the property.

The colour temperature or sometimes called 'temperament' of a particular light can contribute to its perceived intensity or brightness. Colour temperature is measured in degrees Kelvin with the brightest white light (appearing as white-blue) being in the 6000K range, while warmer light is in the 3000K range (appearing as yellowish-orange).

LED lighting can add to impact due to the bright point source of the fixture. The whiteblue colour temperature of LED lighting adds to its perceived brightness, whereas the yellowish-orange colour temperature of high pressure sodium lighting is perceived as softer.

Lighting is measured in lux or lumens and there are challenges with setting a maximum lux/lumens level for residential properties. Measuring light output on site would not be accurate as other light sources outside of the property contribute to the readings. Attempting to measure the light level is time consuming, requires some technical training and the equipment can be costly. Attempting to model the light output from a residence is also difficult (for example, at the Building Permit stage), as most fixtures do not have readily available photometric files that are required to undertake digital modelling. In addition, how the light is mounted and orientated impacts the overall light output and distribution.

Having regard to the above, the following options may be used as stand-alone amendments to the District's Nuisance Abatement Bylaw or be used together.

1) Amend the District's Nuisance Abatement Bylaw to require that all outdoor single family residential light sources be pointed downwards.

Staff have identified lighting that is installed to shine up, onto the house as having a potential impact to neighbours. They must also comply with existing regulations that light source is shielded i.e., not visible from a different parcel.

 Amend the District's Nuisance Abatement Bylaw to require that all outdoor holiday/seasonal/decorative lighting must be turned off during certain hours.

The Nuisance Abatement Bylaw contains regulation to do with holiday lighting based on time of year (November 15 to January 15). This would add a time of day to the bylaw.

3) Work with a lighting professional to develop further options.

This option would include continuing to work with a lighting expert to create alternative solutions.

November 6, 2019 Page 13

Comparison of Options:

Depending how these options are drafted, Nuisance Abatement Bylaw changes could retroactively apply to all single family residential properties.

Option 1: (all outdoor lights pointed downwards)

- Creates a similar regulation to that already existing in the Nuisance Abatement Bylaw which staff may visually inspect from the ground.
- May impact ability of residents to have particular types of decorative lighting that cannot be directed downwards such as string lights.

Option 2: (all outdoor seasonal lighting turned off during certain times)

- Will require careful consideration of what is considered decorative/ holiday/ seasonal lighting.
- Will require staff to create parameters for time restrictions.

Option 3: (staff to continue working with a lighting professional to develop further options)

- Would allow staff to work with a lighting expert who can advise on feasibility and technical aspects of regulations.
- Staff must report back to Council on this option.

Target Area 4- NUISANCE NOISE

Issue Identification:

Council has expressed concerns regarding nuisance noise originating from outdoor mechanical equipment in single family residential zones in the District. Nuisance noise is cited as having negative impacts to residents' quality of life.

In the last five years (including 2019 thus far), 37 noise complaints have been recorded by District staff to do with outdoor mechanical equipment (air conditioning units, heat pumps, pool equipment, hot tub equipment, and generators). This gives an average of approximately seven per year. Note that one complaint received was repetitive (same complainant against the same property) and so this one complaint has been taken out of the below table.

Equipment Complaint	2015	2016	2017	2018	2019	Total
Air Conditioning Unit	1	3	4	0	3	11
Heat Pump	2	1	1	0	0	4
Pool	2	3	0	0	3	8
Hot tub	0	0	2	2	1	5
Emergency Generator	3	3	1	1	1	9
Total	8	10	8	3	8	37

Noise generating mechanical equipment is often located in side yard setbacks as these side yards provide for limited functional utility to homeowners. This placement, while convenient for home owners, is often in close proximity to an existing neighbouring dwelling.

Municipal Comparison:

Residential outdoor mechanical equipment regulations in Metro Vancouver municipalities were surveyed by staff.

Four municipalities were found to have siting regulations for residential outdoor mechanical equipment in their Zoning Bylaws. Some municipalities have general decibel level regulation, which would include this type of outdoor mechanical equipment.

Further details on research can be found in Appendix E.

Current Approach:

The District regulates the nuisance of single family residential outdoor mechanical equipment at night with the Noise Regulation Bylaw in the following manner:

Objectionable Noises or Sounds

- 5. Without limiting the generality of section 3, the following noises or sounds are believed by the Council to be objectionable or liable to disturb the quiet, peace, rest, enjoyment, comfort or convenience of individuals or the public and are prohibited:
 - (b) any of the following noises or sounds during the Night, where such noise or sound is audible from Premises other than the Premises from which the noise or sound originates:
 - (iii) noise or sound from mechanical equipment, including heat pumps, ventilation equipment, air conditioning systems, vents or pool or hot tub pumps, compactors or other ancillary equipment or vehicles;
 - (f) any noise that exceeds the Sound Levels set out below:
 - (i) any Continuous Sound that exceeds the following Sound Levels at the Point of Reception:

	Sound Level
a. in a Quiet Zone during the Day	55
b. in a Quiet Zone during the Night	45

Bylaw staff enforce these sound levels with the use of sound meters, however, operationally these provisions are generally not enforced during power outages for the operation of equipment such as backup generators in these emergency situations.

Recommended Options:

These options may be used as stand-alone amendments to the District's Zoning Bylaw.

 Amend the District's Zoning Bylaw to require that residential outdoor mechanical equipment such as air conditioning units, heat pumps, pool equipment, hot tub equipment and generators are located to the rear of single family homes in single family residential zones.

This option places outdoor mechanical equipment to the rear of the home.

2) Amend the District's Zoning Bylaw to require that residential outdoor mechanical equipment such as generators, heating systems for pools and hot tubs, air conditioning units, etc. are setback from shared lot lines in single family residential zones a minimum of 8 ft.

This option places outdoor mechanical equipment a minimum distance from all lot lines.

November 6, 2019 Page 16

Comparison of Options:

These options would include amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new mechanical equipment and would not retroactively apply.

It is noted that existing permitted mechanical equipment that did not comply with the new regulation would benefit from legal non-conforming status.

Introducing siting regulation for outdoor mechanical equipment may impact design and siting of structures.

Option 1: (siting outdoor mechanical equipment to the rear of the house)

- Reduces noise in the front yard of properties.
- May not reduce impact for neighbours sharing a rear lot line bearing in mind this type of lot configuration provides greater separation.

Option 2: (siting outdoor mechanical equipment a minimum of 8 ft. from shared lot lines)

Reduces noise between all shared property lines.

Target Area 5- LANDSCAPE RETENTION AND REDUCATION OF HARD SURFACES

Issue Identification:

Council has expressed concern regarding an increase of impermeable surface area and a loss of landscaping/greenspace on single family residential lots. These changes may negatively impact neighbourhood aesthetic quality and character and the natural environment through loss of vegetation and reduction in groundwater infiltration.

Municipal Comparison:

Hard surface and landscaping regulations in Metro Vancouver municipalities were surveyed by staff.

Ten Metro Vancouver municipalities have zoning bylaw regulations related to impermeable or permeable surface area coverages in single family residential lots. Two municipalities had regulations applicable to the front yard of a property. Nine municipalities have a definition for landscaping. Some require that areas not covered by structures and other permitted surfaces in a residential front yard be landscaped.

Further details on research can be found in Appendix F.

Current Approach:

The District's Zoning Bylaw regulates the siting of structures on a lot and the portion of a lot that may covered with structures.

The Zoning Bylaw restricts the percentage of required front yards that may be covered with parking structures and surfaces capable of supporting parking in the RS1-5, RSE, RSCH and RSEW single family residential zones. These percentages differ depending on the zone. The existing language in the Zoning Bylaw may lead to difficulty in preventing more surfaces capable of supporting parking in required front yards than the Zoning Bylaw intended. At times, it has been unclear for staff and applicants which surfaces count towards these maximums, such as with gravel/permeable pavers, etc. or in the case of shared driveway access. For example, it is desirable to limit areas outside paving from having materials such as permeable pavers or gravel in that vehicles could then park on this surface in addition to a paved area. At the same time, allowance should be given for these materials to be used in place of paving. It is recommended that staff revise the existing language surrounding this regulation as a means of limiting front yard hard surfaces and bringing clarification for staff and applicants. This should be done at the same time as the recommended options.

The District is currently completing an Integrated Stormwater Management Plan (ISMP) with the primary goal of improving watershed health. One way to achieve this will be to mitigate the impacts of stormwater runoff from development. Single family residential lots will have an important role in helping to achieve the goals of the ISMP. One option being considered as part of the ISMP is to introduce a maximum impermeable surface area for single family residential lots to align with Metro Vancouver's targets.

Staff recommend to use the ISMP, once completed, to implement appropriate infiltration measures for single family residential lots. This will ensure regulation is introduced which is based on scientific study and community feedback. It is anticipated the ISMP will be completed in 2020.

Options for Consideration:

These options may be used as stand-alone amendments to the District's Zoning Bylaw or be used together.

1) Amend the District's Zoning Bylaw to add maximum coverage regulations for front yard coverage (parking-related structures, paving and other buildings) to the eleven single family residential zones without such regulation.

Establishment of different percentages based on zoning, due to differing lot sizes, will likely be required.

This option should also include clarifying language surrounding which structures, surfaces and paved areas count towards maximums.

2) Amend the District's Zoning Bylaw to add a definition of landscaping and require this to be applied to the remainder of required front yard areas after permitted coverages are deducted, in single family residential zones.

This option would include the creation of a definition for landscaping with the intention to focus on including permeable or natural materials/surfaces and decorative features. Further research by staff will be needed to establish an appropriate definition.

Comparison of Options:

These options would include amendment to the District's Zoning Bylaw. Zoning Bylaw changes would only apply to new development and would not retroactively apply to residential properties.

Option 1: (add minimum coverage regulations for front yard coverage to those single family zones currently without)

- Extends regulation restricting required front yard coverages across single family residential zones in the District. This will limit some hard surface in front yards which in turn may help to create permeable or soft landscaped space.
- Provides opportunity to clarify which materials and structures count towards required front yard parking structures, surfaces and paved areas and how this coverage may be calculated.

Option 2: (add a definition of landscaping and require landscaping covers those areas not covered by other surfaces and structures)

- Introduces a method for achieving front yard landscaped area.
- Works to address Council's concern regarding the lack of landscaping.
- May be difficult to enforce, outside of a building permit system linked to single family home redevelopment.

NEXT STEPS AND PUBLIC ENGAGEMENT:

Once Council direction is received, staff will work with the District's Communication Department to carry out appropriate public engagement on the changes. The proposed changes have the potential to impact numerous households depending on the nature and extent of the proposed changes. The type of public engagement is expected to differ depending on the selected options.

Staff will then prepare bylaw amendments, as required, and bring these changes with results of the public engagement for consideration at a Regular meeting of Council.

November 6, 2019

Page 19

If Council selects options that require amendments to the Zoning Bylaw, a public hearing will also be required.

CONCLUSION:

This report outlines options to address the five target areas identified at the September 16, 2019 Council Workshop.

Respectfully submitted,

Brett Dwyer

Assistant General Manager Regulatory Review and Compliance

Attachment A: Chronology of previous Council Workshops on single family home

renewal

Attachment B: Retaining structures

Attachment C: Grade for Detached Garages

Attachment D: Nuisance lighting Attachment E: Nuisance noise

Attachment F: Landscape Retention and Hard Surfaces

Attachment G: Presentation

	REVIEWED WITH:		
□ Community Planning □ Development Planning □ Development Engineering □ Utilities □ Engineering Operations □ Parks □ Environment □ Facilities □ Human Resources	□ Clerk's Office □ Communications □ Finance □ Fire Services □ ITS □ Solicitor □ GIS □ Real Estate □ Bylaw Services	External Agencies Library Board NS Health RCMP NVRC Museum & Arch. Other:	=======================================

THIS PAGE LEFT BLANK INTENTIONALLY

Attachment A: Chronology of Previous Workshops

September 16, 2019 – Council discussed Standards and Regulations in Single Family Zones, directing staff to research five key areas: nuisance lighting; nuisance noise; landscape retention and hard surfaces; retaining structures; and grade for accessory buildings/garages.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=4085524

Minutes: file:///C:/Users/adamsh/Downloads/190916CW.MIN%20(1).pdf

Video:

http://app.dnv.org/council/default.aspx?filename=20190916CR&type=MP4&start=0&end =10042

July 8, 2019 – Council discussed three areas of interest: nuisance noise; nuisance lighting; size, density, form and character of single family homes. Other topics were deferred to a planned future Workshop in the fall of 2019.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=4005346
Minutes: https://app.dnv.org/OpenDocument/Default.aspx?docNum=4041291

Video: http://app.dnv.org/council/default.aspx?filename=20190708CC-

1&type=MP4&start=0&end=5137 and

http://app.dnv.org/council/default.aspx?filename=20190708CC-

2&type=MP4&start=0&end=4861

March 19, 2018 - Council discussed options to address four priority issues related to single family home renewal including improving enforcement, erosion and sediment control, preserving landscaping, and regulating the size, form and character of homes.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=3512238 Video:

http://app.dnv.org/council/default.aspx?filename=20180319cr&type=MP4&start=0000&end=6716

September 18, 2017 - Staff presented the results from a survey of Councillors to help prioritize issues related to single family home renewal in order to further define the issues and expand measures to mitigate impacts to the community.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=3333314 Minutes: https://app.dnv.org/OpenDocument/Default.aspx?docNum=3374889 Video:

http://app.dnv.org/council/default.aspx?filename=20170918cr&type=MP4&start=0&end=3023

March 6, 2017 - Staff provided an update on District initiatives and received direction from Council to prepare a list of issues to help prioritize future efforts.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=3140512 https://app.dnv.org/OpenDocument/Default.aspx?docNum=3166532

Video:

http://app.dnv.org/council/default.aspx?filename=20170306cr&type=MP4&start=0&end=2588

June 21, 2016 - Staff presented the results of a public survey on issues and potential solutions related to single family home renewal.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=2913310 Minutes: https://app.dnv.org/OpenDocument/Default.aspx?docNum=2931870

Video:

http://app.dnv.org/council/default.aspx?filename=160621cc&type=MP4&start=0000&end=9308

October 5, 2015 - Staff provided a report to Council which summarizes key issues related to single family home renewal as well as policies and tools the District uses to manage these issues, and suggested actions to further mitigate negative impacts to residents.

Agenda: https://app.dnv.org/OpenDocument/Default.aspx?docNum=2739843

Minutes and Video: https://app.dnv.org/OpenDocument/Default.aspx?docNum=2756569

Attachment B: Retaining Structures

Legislative Authority:

Municipal governments may regulate the siting and height of residential retaining structures under Section 8 of the *Community Charter*.

Municipal governments may not regulate materials, construction standards, etc. that fall under Provincial authority- the *BC Building Act*- or other regulatory standards. Municipalities may enforce the *BC Building Code* through regulation. The District relies on the *BC Building Code*, other regulatory standards and qualified professionals to ensure some types of retaining structures are planned and constructed in an appropriate, safe manner.

Municipal Comparisons:

The relevant Zoning Bylaw sections for the City of Burnaby, City of Coquitlam, City of New Westminster, City of North Vancouver and District of West Vancouver are included below as these municipalities have topographical similarities to the District. Links are included to Zoning Bylaw sections or public handouts.

City of Burnaby

Permitted retaining wall heights for individual walls range from 3.51 ft. for walls located anywhere on a lot and 5.91 ft. located to the rear of a required front yard. Some differences exist dependant on zoning.

https://www.burnaby.ca/Assets/city+services/building/Brochures+\$!26+Bulletins/Building+Technical+Information/Fences+and+Retaining+Walls.pdf

City of Coquitlam

Permitted retaining wall heights range from 3.28 ft. within 19.69 ft. of an exterior lot corner to 7.87 ft. under certain conditions for individual walls. An individual retaining wall up to 11.8 ft. maximum is permitted between lots sharing a side or rear yard lot line, with two of these walls combined not being permitted higher than 15.75 ft.

https://www.coquitlam.ca/docs/default-source/zoning-bylaw/Part 05 - General Regulations.pdf

City of New Westminster

Permitted retaining wall heights include 2 ft. for walls running along a shared interior or rear lot line, 6 ft. for a window well, 9.84 ft. for bounding pedestrian entrances and 4 ft. for all other retaining walls.

https://www.newwestcity.ca/database/files/library/Guide Retaining Walls(2).pdf

City of North Vancouver

No regulations found in the Zoning Bylaw, relies on the BC Building Code.

District of West Vancouver

Permitted retaining wall heights are measured by angles, with a requirement of 3.94 ft. in with a 75% slope for front site line or flanking side site lines. 3.94 ft. in with 100% slope is permitted for other site lines. The exposed face of any permitted retaining wall heights may not exceed 7.87 ft. Retaining walls exceeding 3.94 ft. in height must be at least 7.87 ft. from a front or rear site line.

https://westvancouver.ca/sites/default/files/bylaws/ZONING BYLAW 4662 SECTION 120 GENERAL REGULATIONS FOR ALL ZONES 2.pdf

https://westvancouver.ca/sites/default/files/bylaws/ZONING BYLAW 4662 SECTION 130 GENERAL REGULATIONS FOR RESIDENTIAL ZONES AND USES ONLY 0 .pdf

Attachment C: Grade for Detached Garages

Legislative Authority:

Municipal governments may choose the method of measuring height for detached accessory structures under their regulatory bylaws under Section 8 of the *Community Charter*.

Municipal governments may not regulate materials, construction standards, etc. falling under Provincial authority- the *BC Building Act*- or other regulatory standards. The District relies on the *BC Building Code*, other regulatory standards and qualified professionals to ensure buildings are designed and constructed in an appropriate, safe manner.

Municipal Comparisons:

Accessory buildings are typically either measured from finished grade, or finished grade at point of vehicular access.

The relevant Zoning Bylaw section for the City of Burnaby, City of Coquitlam, City of New Westminster, City of North Vancouver and District of West Vancouver are included below as these municipalities have topographical similarities to the District.

City of Burnaby

Zoning Bylaw Section 6.4(6)- Height of Buildings or Structures

The height of a detached accessory building shall be measured from the calculated average natural grade of all sides of the building to the highest point of the structure, subject to the applicable exceptions in subsections (3) and (4), except that the height of a detached garage or carport may be measured from the finished grade at the point used for vehicular access.

City of Coquitlam

Zoning Bylaw Section 1001 10(6)- RS-1 One-Family Residential

Detached buildings and structures for accessory residential or accessory offstreet parking must not exceed a height, measured from finished grade, of:

- (i) 3.7 metres: or
- (ii) 4.6 metres, for an accessory building that has a roof with a pitch of 4 in 12 or greater for an area of at least 80% of all roof surfaces.

City of New Westminster

Zoning Bylaw Section 310.21- Detached Accessory Building without Detached Accessory Dwelling Unit Regulations

Detached accessory buildings that do not contain a detached accessory dwelling unit:

- (a) shall not exceed one storey, and:
- (i) in the case of a peaked roof, no portion of the roof shall exceed a height of 4.57 metres(15 feet), or
- (ii) in the case of a roof having a pitch of 4:12 or less, no portion of the roof shall exceed a height of 3.6 metres (12 feet);

City of North Vancouver

Zoning Bylaw Section Part 2- Interpretation

"Height" with reference to an Accessory Structure or a Landscape Screen means the vertical distance between the top of such Structure and the highest finished ground elevation within 0.014 metres (3 feet) of such Structure;

District of West Vancouver

Zoning Bylaw Section 130.01(3)- Accessory Buildings and Structures

An accessory building or structure shall not exceed a height of:

- (a) one storey plus basement; and
- (b) 3.7 metres from the lower of the average natural or average finished grade, measured around the accessory building or structure, except on sites which include lands identified in Section 204.14 accessory buildings or structures located entirely in the rear 10 metres of the site shall not exceed a height of 3.7 metres from the elevation of the travelled lane surface directly adjacent the subject site.

Attachment D: Nuisance Lighting

Legislative Authority:

Municipal governments may regulate nuisance caused by illumination under Sections 8(3)(h) and 64(b) of the *Community Charter*.

Municipal governments may not regulate aspects of residential lighting that falls under Provincial authority or other regulatory/manufacturing/safety standards. The District relies on these standards and qualified professionals to ensure lighting is installed in an appropriate, safe manner.

District Residential Lighting Complaints:

Lighting Complaints	2015	2016	2017	2018	2019	Total
Total	2	6	7	5	1	21

Complaints by Permanence	2015	2016	2017	2018	2019	Total
Permanent	2	5	6	4	1	18
Seasonal	0	1	1	1	0	3
Total	2	6	7	5	1	21

Complaints by Type	2015	2016	2017	2018	2019	Total
Recessed	0	0	2	0	0	2
Flood/Spot/Motion	1	5	4	3	0	13
Seasonal	0	1	1	1	0	3
Grouped/Other	1	0	0	1	1	3
Total	2	6	7	5	1	21

Municipal Comparisons:

Of the 22 surveyed Metro Vancouver municipalities, and the City of Victoria, approximately five had regulation or policy to do with regulating nuisance lighting on single family residential properties.

The relevant regulations for the City of New Westminster, City of Vancouver, District of West Vancouver, Village of Belcarra and Village of Lions Bay are included below as these municipalities were found to have regulation to do with residential outdoor lighting.

City of New Westminster

Light Intrusion Bylaw Section 2.

No owner or occupier of real property shall allow or permit an outdoor light to shine directly into the living or sleeping areas of an adjacent residential property in such a way as to disturb the quiet, peace, rest, enjoyment, comfort or convenience of an occupant of the premises.

https://www.newwestcity.ca/database/files/library/7277 Light.pdf

City of Vancouver

Following an extensive Outdoor Lighting Strategy public process, the City of Vancouver recently amended the Untidy Premises By-law No. 4548.

A By-law to amend Untidy Premises By-law No. 4548 regarding outdoor lighting practices Section 2

An owner or occupier of a parcel of real property shall not cause, permit or allow an outdoor light fixture to be placed or lit in such a way that:

- (a) the light fixture casts light directly onto a window or other opening of a residential structure located across a street, or adjacent to, the real property; and
- (b) the light unreasonably disturbs the peace, rest, enjoyment, comfort or convenience of the owner or occupier of the neighbouring real property."

https://bylaws.vancouver.ca/consolidated/12521.PDF

District of West Vancouver

Good Neighbour Bylaw

5.1.4

(f) no Owner may allow an outdoor light to be placed or lit on a parcel of the Owner such that the light source creates a nuisance in any residential zone;

5.3 Exceptions:

- 5.3.1 The prohibitions in section 5.1 and the requirement in section 5.2€ do not apply to the flowing:
 - (a) Christmas or holiday lights between November 15 and January 15;

https://westvancouver.ca/sites/default/files/bylaws/4380%20GOOD%20NEIGHBOUR%20BYLAW%204380%202004%20%28CONSOLIDATED%20UP%20TO%20AMENDMENT%20BYLAW%204965%202018%29.PDF

Village of Belcarra

Good Neighbour Bylaw

Similar to West Vancouver

https://belcarra.ca/assets/media/2019/05/vob-bylaw-361_good-neighbour.pdf

Village of Lions Bay

Good Neighbour Bylaw

Similar to West Vancouver

http://files.lionsbay.ca/Bylaw%20412%20-%20Good%20Neighbor.pdf

Additional Resources

International Dark-Sky Association https://www.darksky.org/

Royal Astronomical Society of Canada https://www.rasc.ca/

Both sites provide public education in the selection of lighting to promote the goal of dark night skies. As noted, some municipalities further restrict the lighting from municipal facilities and new developments in zones directly surrounding an observatory, such as found in Saanich's Zoning Bylaw.

THIS PAGE LEFT BLANK INTENTIONALLY

Attachment E: Nuisance Noise

Legislative Authority:

Municipal governments may regulate nuisance caused by noise under Sections 8(3)(h) and 64(b) of the *Community Charter*.

Municipal governments may regulate the siting of outdoor mechanical equipment through their Zoning Bylaw under Section 8(I) of the *Community Charter*.

Local governments may not regulate aspects of outdoor mechanical equipment falling under Provincial authority or other regulatory/manufacturing/safety standards. Depending on the equipment, the District relies on regulatory standards and qualified professionals to ensure this equipment is installed in an appropriate, safe manner.

District Residential Noise Complaints:

Equipment Complaint	2015	2016	2017	2018	2019	Total
Air Conditioning Unit	1	3	4	0	3	11
Heat Pump	2	1	1	0	0	4
Pool	2	3	0	0	3	8
Hot tub	0	0	2	2	1	5
Generator	3	3	1	1	1	9
Total	8	10	8	3	8	37

Municipal Comparisons:

Of the 22 Metro Vancouver municipalities, and the City of Victoria, none were found, except the District, having specific regulation of the listed residential outdoor mechanical equipment in a noise control or regulation bylaw. Some municipalities have general decibel level regulations in these bylaws, which would work to regulate noise levels of outdoor mechanical equipment.

Four municipalities were found to have siting regulations for residential outdoor mechanical equipment in a Zoning Bylaw.

The relevant Zoning Bylaw sections for the City of Coquitlam, City of North Vancouver, City of Pitt Meadows and City of Port Moody are included below as these municipalities were found to have regulation in their Zoning Bylaw to do with the siting of residential outdoor mechanical equipment.

City of Coquitlam

Zoning Bylaw-Current amendment

	Siting Exceptions	Exception Permitted	Additional Requirements
(4)	Exterior heating and cooling equipment and associated venting terminations, Heat pumps, Ancillary swimming pool heating and filtering equipment, Emergency generators	May be sited on any portion of a lot, except as otherwise limited by this or another bylaw.	For one-family residential, two-family residential, triplex residential, quadruplex residential and street-oriented village home residential uses, the subject equipment must be located a minimum of 1.0 metre from the required interior side lot line setback for the zone the building is located in.
			Venting terminations for entral heating and ecoling equipment must be located such that they do not vent into the area of a lot adjacent to an interior side lot line.
			Ancillary swimming pool heating and filtering equipment is restricted to a maximum height of 1.3 metres above grade.

City of North Vancouver

Zoning Bylaw Section 421- Noise Mitigation

- (3) recommends exterior and interior design and construction features and practices including, without limitation, the installation of a mechanical heat recovery ventilation system, to mitigate the impact of external and structure borne sound penetration between:
 - (a) neighbouring industrial, residential, commercial, community, entertainment, traffic, street pedestrian activities and other uses situated on or off the Lands; and
 - (b) the interior space of all residential dwelling units to be constructed on the Lands.

City of Pitt Meadows

Zoning Bylaw Section 4.15- Mechanical Equipment Mechanical equipment that produces noise, vibration, smoke, dust, heat, glare, electrical interference, or other offence or nuisance is permitted only in a rear or exterior side yard but not closer than 1.2 m to any lot line.

City of Port Moody

Zoning Bylaw Section 5.2.15- Mechanical Equipment

Mechanical Equipment For all Residential zones, mechanical equipment located outside of a Building, including but not limited to heat pumps, air conditioners, and pool pumps, shall be located in the Rear Yard or directly adjacent to the rear Building face of the principal Structure with a minimum separation of 1.8m from the Interior Side Lot Line.

THIS PAGE LEFT BLANK INTENTIONALLY

Attachment F: Landscape Retention and Hard Surfaces

Legislative Authority:

Municipal governments have the ability to regulate open space on residential lots through Zoning Bylaw regulations to do with lot coverage and siting of structures. Further, residential lots may have impermeable area maximums regulated under a municipal Zoning Bylaw.

Municipal governments have limited ability to regulate landscaping on single family residential lots. Screening and Landscaping to mask or separate uses under Section 527 of the *Local Government Act* may be used to establish minimum screening and landscaping standards for single family homes. However, it is anticipated that outside of a building permit system linked to single family home redevelopment, routine compliance monitoring, and complaint-based enforcement mechanisms would be cost prohibitive for the District and divisive for neighbours.

Municipal governments may use Development Permits under Section 488 to 491 of the *Local Government Act* to protect the natural environment, protect development from hazards, establish objectives for the form and character of commercial, industrial and multi-family development, promoted energy & water conservation, and promote the reduction of greenhouse gas emissions. Legislation does not provide local governments with the authority to require form and character development permits for single family homes. Therefore, development permits provide a very limited opportunity to preserve and protect trees and shrubs that merely provide aesthetic benefits without also being required to achieve some other objective like protecting development from hazardous conditions.

Municipal Comparisons:

Of the 22 surveyed Metro Vancouver municipalities and the City of Victoria, nine had zoning bylaw regulation to do with impermeable or permeable surface area regulations in single family residential lots. The following table represents the largest maximums for impermeable surfaces areas, permeable area requirements and/or front yard landscaping requirements found in single family residential zones of municipal Zoning Bylaws. Note each municipality may consider different materials permeable/impermeable.

Municipality	% Permeable Required		% Impermeable Maximum			Front Yard Landscapin	
	Front Yard	Back Yard	Entire Lot	Front Yard	Back Yard	Entire Lot	Requirement
City of Burnaby						70%	
City of Delta						60%	50%
City of Pitt Meadows						70%	
City of Port Coquitlam	1 3		65-70%				
City of Port Moody				50%			
City of Richmond	50-55%						50-55%
City of Vancouver						60%	
District of West Vancouver				50%			
Village of Anmore			30%				
Village of Bellcara	0 - 0		30%				

The relevant Zoning Bylaw sections for the City of Burnaby and District of West Vancouver are included below as these municipalities share topographical similarities to The District and had regulation related to permeable surfaces/front yard landscaping in their zoning bylaws.

City of Burnaby

Zoning Bylaw Section 6.24- Impervious Surfaces

- (1) This section applies only to Lots in R (Residential) Districts for which an application for a building permit has been made after July 1, 2005 for the construction of a new principal building, whether on new or existing building foundations.
- (2) Not more than 70 per cent of the total area of a lot to which this section applies shall be covered by impervious materials.
- (3) In this section "impervious materials" include
 - (a) buildings and structures;
 - (b) asphalt;
 - (c) concrete;
 - (d) grouted pavers;
 - (e) subject to subsection (f), ungrouted pavers having a surface area on their largest face of more than 0.21 m2 (2.25 sq.ft)

but does not include:

- (f) ungrouted pavers having a surface area on their largest face of not more than 0.372 m2 (4 sq.ft.) arranged in a line of single pavers to form a pedestrian walkway with a permeable gap between the pavers;
- (g) water surfaces of structures designed to retain water, including swimming pools, reflecting pools, and ornamental ponds.

District of West Vancouver

Zoning Bylaw Section 130.15(7)- Site Landscaping

Impermeable surfaces in front yards must not exceed 50% of the area of the front yard as defined in this Zoning Bylaw, provided that in all cases a pedestrian sidewalk with a maximum width of 1.5 m, a driveway with a maximum width of 4.5 m, and a sufficient area for turning passenger vehicles are permitted in the front yard or the flanking yard on a corner flanking site to provide access by impermeable surface from the abutting street to the principal building on the site.

Zoning Bylaw Section 110- Definitions

Impermeable Surface means any consolidated surface such as asphalt or concrete that prevents the absorption of precipitation into the soil, but excludes any area of a lot comprising of exposed bedrock.



Single-family Residential Standards & Regulations

Council Workshop - November 19, 2019

Brett Dwyer, Assistant General Manager, Regulatory Review & Compliance



Background

Five Target Areas



Retaining Structures



Height of Detached Accessory Buildings



Nuisance Lighting



Nuisance Noise

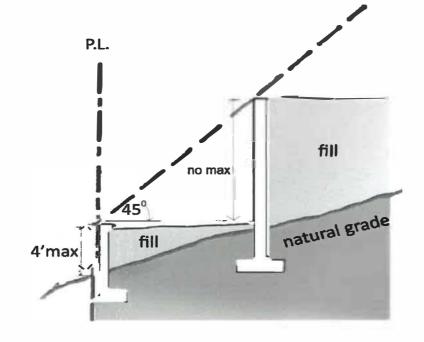


Landscape Retention/ Reduction of Hard Surfaces



Target Area 1: Retaining Structures

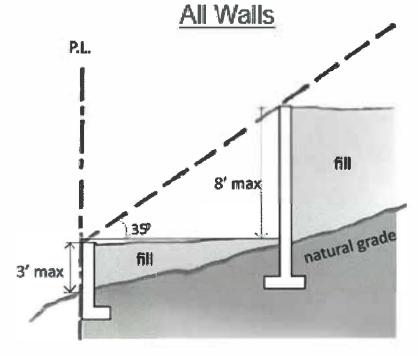
Current 4'/45° No **Max Height**





Target Area 1: Retaining Structures

Option 1 3'/35°/8' max **All Setbacks**





Target Area 1: Retaining Structures

Front and Flanking

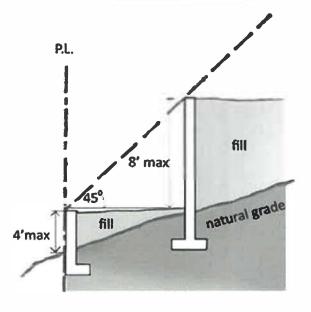
Option 2

3'/35°/8' max Front and **Flanking** 4'/45°/8' max 3' max

Side and Rear

P.L. fill natural grade fill

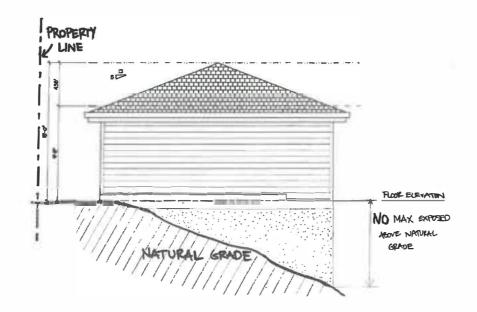
Side and Rear





Target Area 2: Height of Detached Accessory Buildings

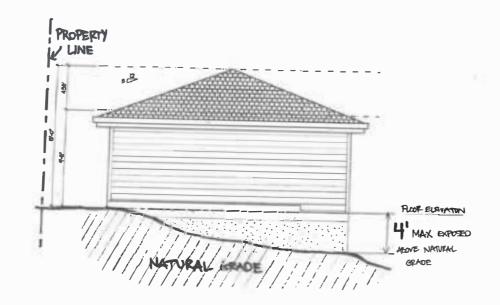
Current No max





Target Area 2: Height of Detached Accessory Buildings

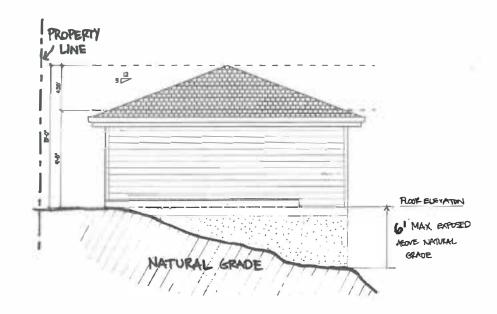
Option 1 4' max





Target Area 2: Height of Detached Accessory Buildings

Option 2 6' max







Current









Option 1 **Light source** pointed down







Option 2

Time limits on seasonal and decorative lighting







Option 3 Work with a lighting expert

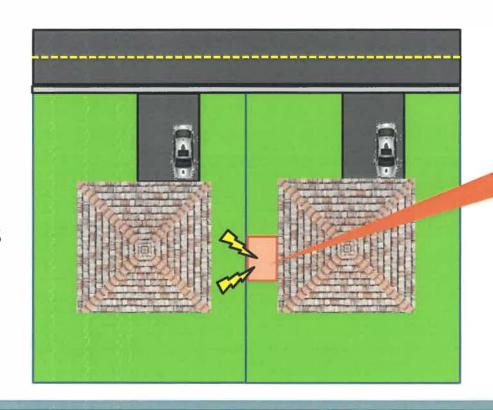






Target Area 4: Nuisance Noise

Current No siting requirements



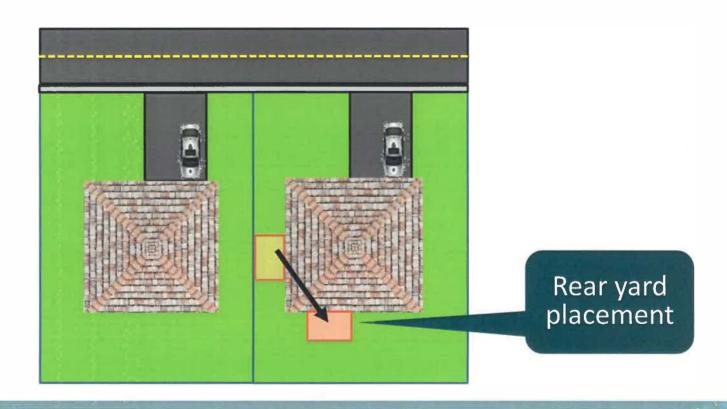
No setback requirement





Target Area 4: Nuisance Noise

Option 1 Require in rear yard

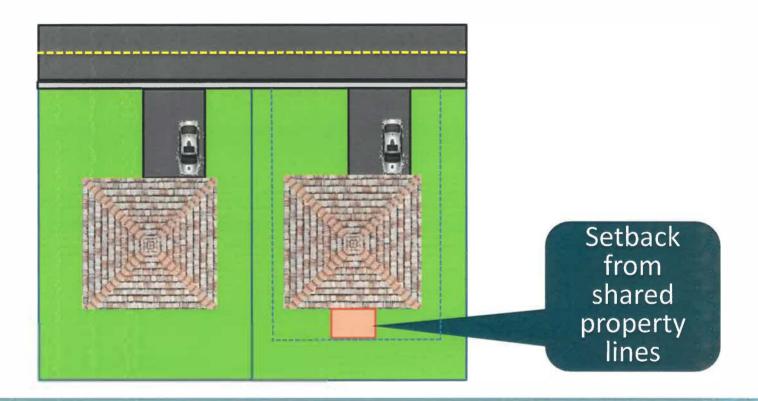






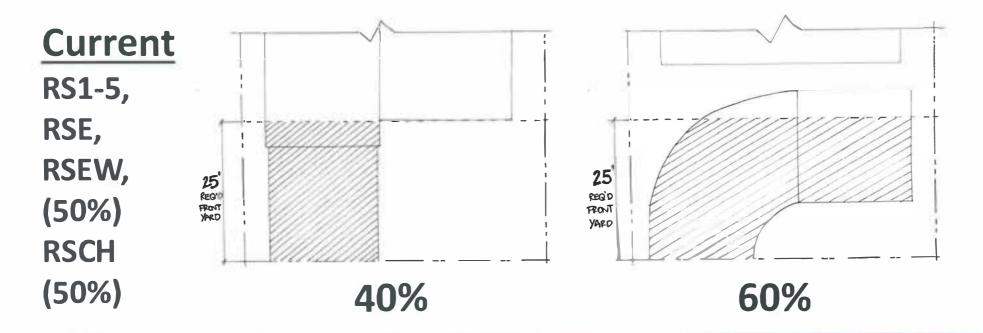
Target Area 4: Nuisance Noise

Option 2 **Minimum** setback





Target Area 5: Landscape Retention and Reduction of Hard Surfaces







Target Area 5: Landscape Retention and Reduction of Hard Surfaces

Option 1 Add to 11 Neighbourhood zones

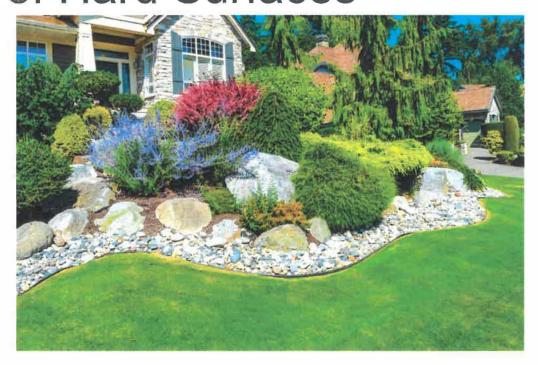






Target Area 5: Landscape Retention and Reduction of Hard Surfaces

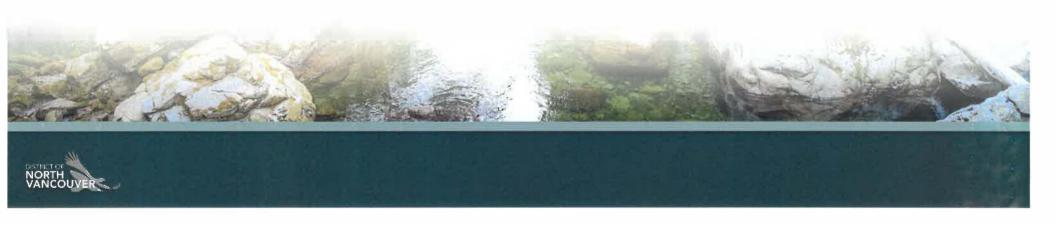
Option 2 Add Landscaping definition







Council Discussion



THIS PAGE LEFT BLANK INTENTIONALLY