PUBLIC HEARING BINDER

756 and 778 Forsman Avenue

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3)	Bylaw 8225 which changes the land use designation of the subject site Residential Single- Family 7200 (RS3) to Comprehensive Development 101 (CD101) to enable an eight-unit townhouse project.	
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	Arborist report for the trees and hedge on site and immediately adjacent to the
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13)	Report explains basic design features to facilitate building access and useability for
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Public Input	t
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-	Information Report on Public Information Meeting dated January 4, 2017
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17)	Dublic Incut
1/)	Public input
	by Council on May 29, 2017
	by Council off May 23, 2017.

AGEND	AINFORMATION	2
 Regular Meeting Workshop (open to public) 	Date: <u>May 29, 2017</u> Date:	Dept. Manager



The District of North Vancouver REPORT TO COUNCIL

May 17, 2017 File: 08.3060.20/061. 16

AUTHOR: Darren Veres, Development Planner

BYLAWS 8225 AND 8226: REZONING AND HOUSING AGREEMENT FOR SUBJECT: AN 8 UNIT TOWNHOUSE PROJECT: 756-778 FORSMAN AVENUE

RECOMMENDATIONS:

THAT "District of North Vancouver Rezoning Bylaw 1351 (Bylaw 8225) is given FIRST Reading;

AND THAT "Housing Agreement Bylaw 8226, 2017 (756 and 778 Forsman Avenue) is given FIRST reading;

AND THAT Bylaw 8225 be referred to a public hearing.

REASON FOR REPORT:

The proposed project requires Council's consideration of:

- Bylaw 8225 to rezone the subject properties; and
- Bylaw 8226 to authorize entry into a Housing Agreement to ensure that owners are not prevented from renting their units.

SUMMARY:

The applicant proposes to redevelop two single-family lots located at 756-778 Forsman Avenue for an eightunit townhouse project which requires rezoning and issuance of a development permit. The Rezoning Bylaw and Housing Agreement Bylaw are recommended for Introduction and the Rezoning Bylaw is recommended for referral to a Public Hearing.



May 17, 2017

BACKGROUND:

Official Community Plan

The subject properties are designated as *Residential Level 3: Attached Residential* in the District Official Community Plan (OCP), which envisions ground-oriented multifamily housing up to approximately 0.8 FSR.

The proposed townhouse units are all threebedroom units and one four-bedroom unit, which will be attractive to families, and as such, the proposal responds to Goal #2 of the OCP to "encourage and enable a diverse mix of housing types...to accommodate the lifestyles and needs of people at all stages of life." It also addresses the intent of the housing diversity policies in Section 7.1 of the OCP by providing units suitable for families (Policy 7.1.4).



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The Lynnmour Inter-River Local Plan reference policy document designates this site as "Low Density Multi-Family Housing" up to 0.7 FSR. A goal of the Lynnmour Inter-River Local Plan reference policy document is "to support the primarily family orientation of the residential area, while ensuring any new development contributes directly to the overall improvement of the community".

The density of the proposal is 0.69 FSR with exclusions for parking, storage and balconies and therefore compliant with the Official Community Plan and the Lynnmour Inter-River Local Plan reference policy document. The Lynnmour Inter-River design guidelines support the proposed exemptions for storage areas and garages.

Zoning:

The subject properties are zoned Residential Single-Family 7200 Zone (RS3) and therefore require rezoning to permit this multi-family project. Bylaw 8225 proposes the establishment of a new Comprehensive Development Zone (CD101) which is tailored specifically to this project.

Development Permit

The subject properties are located within Development Permit Areas for the following purposes:

- · Form and Character of Multi-Family Development (Ground-Oriented Housing);
- Energy and Water Conservation and Greenhouse Gas Emission Reductions; and
- Protection from Natural Hazards (Creek Hazard).

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A detailed development permit report, outlining the projects' compliance with the applicable DPA guidelines, will be provided for Council's consideration at the Development Permit stage should the rezoning advance.

Strata Rental Protection Policy

Corporate Policy 8-3300-2 "Strata Rental Protection Policy" applies to this project as the rezoning application would permit development of more than five units. This policy requires a Housing Agreement to ensure that future strata bylaws do not prevent owners from renting their units and Bylaw 8226 is provided to implement that Policy.

Housing Affordability and Diversity

In accordance with the Rental and Affordable Housing Strategy, this application is meeting goal number one of expanding the supply and diversity of housing through the provision of family-oriented townhouse units which are in high demand and short supply in the District. These town homes offer ground-oriented family alternatives to single-detached home ownership and will be attractive to young couples who are part of the District's "missing generation." The Strata Rental Protection Policy will be applied through a Housing Agreement to ensure that no restrictions are placed on strata rentals. Community amenity contributions from the site can be used toward the District's affordable housing goals.

Previous Application

In early 2016 Council considered and defeated a 9 unit townhouse proposal for this site. At that time, concerns expressed by council included:

- · the need for an area transportation review;
- too many units;
- · the need for an onsite play area;
- · tandem parking was not supported; and,
- some building changes were desired (windows onto the school).

In response, staff have concluded an area transportation review and assessed this application against that review. The applicant has reduced the number of units from 9 to 8, they have removed all tandem parking, they have added a children's play area onsite and they have added windows and balconies to address a better interface with the school.

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ANALYSIS

The Site and Surrounding Area:

The site consists of two single-family lots on the east side of Forsman Avenue. Adjacent properties consist of single-family lots (zoned RS3) to the west and south, Lynnmour Elementary School to the north, and townhouses (under construction) to the east. The OCP designates the surrounding singlefamily properties as Residential Level 3: Attached Residential.



Project Description:

The project is eight townhouses with an onsite children's play area.

Site Plan/Building Description:

As seen in the site plan to the right, the project includes three buildings configured as follows: two duplexes are located at the front of the lot facing Forsman and a four-unit building is located at the rear of the lot. The four-unit building is connected at the second floor but open to the outside at the ground floor. A child's play area and gathering space is located under the second floor connection and this play space extends to the east portion of the property.



The townhouses are three storeys and each has their own at-grade parking garage. The garages are accessed off one central driveway from Forsman Avenue. Seven of the units have three bedrooms on the upper floor and range in size from 125m² (1,348 sq ft) to 140.9 m² (1,517 sq ft), excluding the garages. One of the units has four bedrooms on the upper level and is 206m² (2,221 sq ft) in size, excluding the garage. The individual buildings are approximately 11.3m (37 ft) in height.

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Inter-River Sub-Area Transportation Study

This application was reviewed in context with Transportation Planning's Inter-River Sub-Area Transportation Study, provided to Council in September, 2016. This study, which involved local stakeholders and residents, determined locations for future road circulation improvements, and demonstrated that no changes were required to this application to improve connectivity in the area.

Parking

Vehicle access to the site is off Forsman Avenue and located between the two duplex buildings. The project includes 18 parking stalls each with direct drive aisle access. Each unit is provided two private parking spaces in a side-by-side arrangement. No tandem parking is included in this proposal. Two additional onsite visitor spaces are provided.

Landscaping

The landscaping is included at the perimeter of the site and along the interior drive aisles. A swale is proposed around the exterior of the site to aid in storm water management for the project (in addition to the required connections).

A children's play space and gathering area is proposed for the east side of the property. The design for this space includes logs, boulders, and an arbour, and is proposed to be planted with native plantings. Benches are included in the weather-protected space under the second floor connection of the fourplex building to create an all-weather area for residents to sit, socialize and supervise their children (see elevation on the next page).

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The landscaping will also provide an improvement to Forsman Avenue and the entrance to the Lynnmour Elementary school. School staff has verbally expressed support for this better looking Forsman Avenue environment.

Engineering

The off-site engineering works include the creation of half of a cul de sac in front of the site. The west side of Forsman will finish the cul de sac when it redevelops in future. The proposal will also install sidewalk, street lighting, and improvements to the storm network.

The site is located within a Development Permit area for Creek Hazard with regard to flooding. The applicant has submitted a report from GeoCan Engineering that states that the design conforms to the flood construction level requirements established by the Lynnmour Inter-River Flood Protection Assessment prepared by Kerr Wood Leidal Consulting Engineers (2006). The project and the GeoCan report have been reviewed and accepted by the Section Manager of Public Safety.

Acoustic Regulations

Bylaw 8225 includes the District's residential acoustic regulations for maximum noise levels in the bedrooms, living areas and other areas of the units. The applicant will be required to submit a report from a qualified noise consultant confirming the building design will enable these standards to be met.

Accessible Design

The applicant is proposing to provide basic design features to facilitate building access and usability for people of all ages and abilities, and enhanced features, where appropriate to facilitate ageing in place and support people with mobility and sensory impairments.

Reduced copies of site, architectural and landscaping plans are included as Attachment A for Council's reference.

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IMPLEMENTATION:

Implementation of this project will require consideration of a rezoning bylaw, Bylaw 8225, and a Housing Agreement Bylaw, Bylaw 8226, as well as issuance of a development permit and registration of legal agreements.

Bylaw 8225 (Attachment B) rezones the subject properties from Single Family Residential 7200 Zone (RS3) to a new Comprehensive Development 101 Zone (CD101) which:

- establishes the multi-family residential use;
- · allows home occupations as an accessory use;
- establishes a base density FSR (Floor Space Ratio) of 0.45;
- establishes a density bonus to an FSR of 0.69 subject to payment of a \$105,817 community amenity contribution (CAC) and entering into a housing agreement to restrict future strata rental restrictions;
- establishes setback, height, building coverage and site coverage regulations;
- · incorporates acoustic requirements; and
- · establishes parking regulations specific to this project.

Bylaw 8226, (Attachment C) authorizes the District to enter into a Housing Agreement to ensure that the proposed units remain available as rental units.

A contribution of \$24,135.96 will be required to the dyke infrastructure fund for future maintenance of the flood works installed in the Inter-River area. This contribution will be collected prior to adoption of Bylaw 8225. Development Cost Charges for this project have been estimated at \$72,205.

In addition, the following legal agreements will be required prior to zoning bylaw adoption to secure:

- · a housing agreement to ensure that owners are not prevented from renting their units;
- a green building, accessible and acoustical covenant;
- a stormwater management covenant;
- · a covenant to ensure that the project is built in accordance with the flood report;
- an engineering servicing agreement (including construction management); and
- · a consolidation plan with road dedication.

COMMUNITY AMENITY CONTRIBUTION:

The District's Community Amenity Contribution (CAC) Policy requires an amenity contribution for projects including an increase in residential density. In this case, a CAC of \$105,817 has been calculated and this amount is included in the proposed CD101 Zone. It is anticipated that the CACs from this development will include contributions toward public art; park, trail, environmental, pedestrian or other public realm, infrastructure improvements; municipal, recreation or social service facility or service / facility improvements; and/or the affordable housing fund.

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GREEN BUILDING MEASURES:

Compliance with the Green Building Strategy is mandatory given the need for rezoning and the project is targeting an energy performance rating of Energuide 80 and will be required to meet a target equivalent to the "Gold" standard.

CONCURRENCE:

Staff

The project has been reviewed by staff from Environment, Permits, Parks, Engineering, Community Planning, Urban Design, Transportation Planning, the Fire Department, School District 44 and the Arts Office.

Advisory Design Panel

The application was considered by the Advisory Design Panel on January 17, 2013 and the panel recommended approval of the project subject to a review of enhanced weather protection; the drive court / play area; the material palette; and opportunities for additional glazing on the north and south elevations. In response, the applicant has added weather protection over unit entrances, revised the drive court and added windows / balconies to the north and south elevations.

The District Urban Design Planner has reviewed the most recent proposal and is satisfied that the design meets the previous recommendations of the ADP. He is also satisfied with the design of the child's play area.

PUBLIC INPUT:

Public Information Meeting

The applicant held a facilitated Public Information Meeting on January 18, 2017. The meeting was attended by six members of the public and two comment sheets were submitted. Both comment sheets expressed support for the project but concern with onsite and visitor parking. The proposal includes two on-site visitor parking stalls as well as a combination of garage and outdoor parking to encourage use of onsite parking.

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CONSTRUCTION MANAGEMENT PLAN:

This neighbourhood currently has three townhouse applications being processed. This is the only application located on Forsman Avenue. In order to reduce the development's impact on pedestrian and vehicular movements, the developer will be required to provide a construction traffic management plan as a condition of the development covenant and Development Permit. The Construction Management Plan must minimize construction impacts on pedestrian and vehicle movement. The plan is required to be approved by the District prior to issuance of a building permit.



In particular, the 'construction traffic management' must:

- 1. Coordinate with other construction projects in the area;
- 2. Provide safe passage for pedestrians, cyclists, and vehicle traffic;
- 3. Outline roadway efficiencies (i.e. location of traffic management signs and flaggers);
- 4. Provide a point of contact for all calls and concerns;
- 5. Provide a sequence and schedule of construction activities;
- 6. Ascertain a location for truck marshalling and trade vehicle parking which is acceptable to the District and minimizes impacts to neighbourhoods;
- Develop a plan for trade vehicle parking which is acceptable to the District and minimizes impacts to neighbourhoods;
- 8. Address silt/dust control and clean-up;
- 9. Provide a plan for litter clean-up and street sweeping adjacent to the site; and
- 10. Include a communication plan to notify surrounding school and residents.

Particular attention will be paid to the impact on the adjacent Lynnmour School regarding pedestrian movement and student drop-off and pick-up.

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CONCLUSION:

This project is consistent with the directions established in the OCP and the Lynnmour Inter-River Local Plan. It addresses OCP housing policies related to the provision of a range of housing options, in this case, family housing in a townhouse format. The project also addresses Council's previous input for this site. The project is now ready for Council's consideration.

Options:

The following options are available Council's consideration:

- Introduce Bylaws 8225 and 8226 and refer Bylaw 8225 to a Public Hearing (staff recommendation); or
- 2) Defeat Bylaw 8225 and 8226 at First Reading.

Darren Veres Development Planner

A – Reduced project plans B – Bylaw 8225 C – Bylaw 8226

	REVIEWED WITH:	
Sustainable Community Dev.	Clerk's Office	External Agencies:
Development Services	Communications	Library Board
Utilities	G Finance	S Health
Engineering Operations	G Fire Services	RCMP
Parks & Environment		Recreation Com.
Economic Development	Solicitor	D Museum & Arch.
Human resources	GIS	Other:



ATTACHMENT







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LANDSCAPE STATEMENT OF INTENT

The intent of the landscape design is to have a landscape treatment that is sustainable and reflects the natural heritage of the Lynnmour area in North Vancouver. The front yard is framed by a boxwood hedge, black metal raining and the delicate branches of the beautiful witchhazel shrub, behind which are Rhododendrons, azaleas, fragrant Choisya and vanous groundcovers. Along the perimeter is a delicate bran garden that catches water from the site, with biofirtation by sedges, rushes, ferns and other moist loving species. Under the shade of cedars and vine maples is the natural understory of native salmonberry, huckleberry, red twig dogwood and native roses. The children's nature playspace with logs, boulders, arbour and riative plantings is an appealing play space for kids and gathering/community place for residents. This unique landscape treatment is environmentally sensitive and will also be a delight to the senses.

MATERIALS LIST

BENCHES 'Camille backless bench, 16.5 inch by 48 inch by Victor Stanley Ipe wood slats on powder coated steel frame. Surface mounted on a concrete pad.

WOOD FENCE : 1 X6 cedar boards finished with Sikkens semi-transparent cedar stain

METAL FENCE AND GATE(front) Powder coated medium gloss black alumnum

ARBOUR. All wood members to be cedar, finished Sikkens semi-transparent cedar stain

WOOD DECKS 6 inch cedar deck boards, finished Sikkens semi-transparent cedar stain

PAVERS: by Abbotsford Concrete Products, Standard Senes, 4.5 by 9.0 by 2.4 inches, natural colour, hemingbone pattern, with charcoal soldier coarse on perimeters and accent banding

PERMEABLE PAVERS: 'AquaPave' By Abbotsford Concrete Products Abbotsford or equivalent

CONCRETE. Sidewalk, walkways, driveway aprons, front perches finished in a medium broom finish. Concrete sidewalk on public property to be installed to municipal standards.

GRANITE SCREENINGS 9 mm crushed granite over compacted base layer

CHILDREN'S NATURE PLAYSPACE surface- Engineered wood fiber to be FIBAR or equivalent, boulders- 2-3 men granite boulders, 1-2 men granite boulders; logs - 1.5 ' diameter peeled without roots, log rounds-2 ft, diameter rounds set 1.0 feet above ground

FLANT MATERIAL All plant material are to meet current BCLNTA #1 standard and installed according to current BCLNTA standards.

GROMING MEDIUM by Veratec Engineered Products or equivalent to BCLINTA standards and prepared off site: specifications are for high traffic lawn and shrub planting areas. Deptits are 18 inches in shrub beds and 12 inches in lawn areas.

STRUCTURAL SOIL: by Veratec Engineered Products or equivalent, to contain graded aggregate, growing medium and stabilizer

ROOT BARRIER BY Deep Root or equivalent, 24 inch in depth. NOTES

- a. The District of North Vancouver is responsible for the on-going maintenance of street trees on off-site areas. Please ensure that the developer is aware that ongoing maintenance of shrubs/ groundcovers on the off-site areas (i.e. boulevards) is the responsibility of the future property owner.
- b The project landscape contractor the project landscape architect and a District of North Vancouver Parks (DNV parks) representative must be present at the project pre-construction meeting. If this is not possible, the developer must ensure that all three groups meet before any landscape construction work takes place onsite.
- c <u>ALL plantstrees</u> used in this project must first be inspected by a representative of the District of North Vancouver parks department (DNV Parks) before installation <u>The District of North Vancouver has the right to refuse any or if</u> of the selected plant material # it does not meet current BCLNA guidelines.

1009198 Ltd.	SWI and capa Architect	'
Attn.: Kenny Gu	919 Melbourne Avenue	
7532 Conway Ave Burnaby, BC, Canada	North Vancouver, B.C. V7R 1NB	



The Corporation of the District of North Vancouver

Bylaw 8225

A bylaw to amend District of North Vancouver Zoning Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as the "District of North Vancouver Rezoning Bylaw 1351 (Bylaw 8225)".

2. Amendments

- 2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:
 - a) Section 301 (2) by inserting the following zoning designation:

"Comprehensive Development Zone 101 CD101"

b) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B:

"4B101 Comprehensive Development Zone 101 CD 101

The CD 101 zone is applied to:

756 Forsman Avenue, LOT C OF LOT 6 BLOCK A DISTRICT LOT 613 PLAN 20979, PID: 005-225-957 778 Forsman Avenue, LOT A BLOCK A DISTRICT LOT 613 GROUP 1 NEW WESTMINSTER DISTRICT PLAN BCP39525, PID: 027-780-228

4B 101-1 Intent

The purpose of the CD 101 Zone is to establish specific land use and development regulations for a 8 unit townhouse project.

4B 101- 2 Permitted Uses:

The following *principal* uses shall be permitted in the CD 101 Zone:

(a) Uses Permitted Without Conditions:

Not Applicable

(b) Conditional Uses:

Residential building, multiple-family townhouse

4B 101-3 Conditions of Use

Balcony enclosures are not permitted.

4B 101-4 Accessory Use

(a) Accessory uses are permitted and may include but are not necessarily limited to:

(i) Home occupations in accordance with the regulations in Section 405 of the Zoning Bylaw, 1965

4B 101-5 Density

- (a) The maximum permitted density in the CD101 Zone is limited to a floor space ratio (FSR) of 0.45, inclusive of any density bonus for energy performance, and a maximum of 2 units;
- (b) For the purposes of calculating floor space ratio, a maximum of 285 m² of individual parking garages (3068.1 sq ft) in total on the lot and a maximum of 74.3 m² of individual unit storage (a maximum of 100 sq ft per unit) in total on the lot as well as balconies and landscape trellis are excluded.
- (c) Balcony enclosures are not permitted.

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4B 101-6 Amenities

(a) Despite subsection 4B101-5, density in the CD101 Zone is increased to a maximum floor space of 1,135.98 m² (12,228 sq ft), inclusive of any density bonus for energy performance and a maximum of 8 units, if the owner:

1. Enters into a Housing Agreement prohibiting any restrictions preventing the owners in the project from renting their units; and

service facility or service / facility improvements; and/or the affordable housing fund.

4B 101-7 Maximum Principal Building Size:

Not applicable

4B 101-8 Setbacks:

 Buildings shall be set back from property lines to the closest building face as established by development permit and in accordance with the following regulations:

Setback	Buildings (Min Setback)	
Front (west property line)	4.88m (16 ft) to the building face	
Rear (east property line)	6.10m (20 ft) to the building face	
Side (north)	1.83m (6 ft) to the building face	
Side (south)	3.05m (10 ft) to the building face	

b) Projections at the ground level are permissible as follows:

Setback	Maximum Setback Reduction	
Front Yard	1.52 m (5.0 ft)	

c) Balconies and trellises are excluded from any setback requirements.

4B 101-9 Building Orientation:

Not applicable

4B 101-10 Building Depth and Width:

Not applicable

4B 101-11 Coverage:

- (a) Building Coverage shall not exceed 36%.
- (b) Site Coverage shall not exceed 61%.

4B 101-12 Height:

The maximum permitted height for each building is 11.3m (37 ft);

4B 101-13 Acoustic Requirements:

In the case of residential purposes, a development permit application shall require evidence in the form of a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements, demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units:

Portion of Dwelling Unit	Noise Level (Decibels)	
Bedrooms	35	
Living and Dining rooms	40	
Kitchen, Bathrooms and Hallways	45	

4B 101-14 Flood Construction Requirements:

No basement, or habitable floor space, other than garage and storage space, shall be constructed below the established flood construction levels as identified in a flood hazard report prepared by a qualified registered professional engineer.

4B 101-15 Landscaping:

- (a) All land areas not occupied by buildings, structures, parking spaces, loading spaces, driveways, manoeuvring aisles and sidewalks shall be landscaped or finished in accordance with an approved landscape plan; and
- (b) All electrical kiosks and garbage and recycling container pads not located underground or within a building shall be screened with landscaping.

4B 101-16 Subdivision Requirements:

Not applicable

4B 101-17 Additional Accessory Structure Regulations:

Not applicable.

4B 101-18 Parking and Loading Regulations:

- (a) Parking spaces shall be provided on the basis of 2 spaces/unit plus 2 visitor spaces;
- (b) Not more than 5 spaces may be small car spaces;

- (b) Not more than 5 spaces may be small car spaces;
- (c) All parking spaces shall meet the minimum length and width standards established in Part 10 of the District of North Vancouver Zoning Bylaw."
 - 2.1 The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from the Residential Single Family 7200 Zone (RS3) to Comprehensive Development Zone 101 (CD 101).

READ a first time May 29, 2017

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "Rezoning Bylaw 1351 (Bylaw 8225)" as at Third Reading

Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8225



The Corporation of the District of North Vancouver

Bylaw 8226

A bylaw to enter into a Housing Agreement (756 and 778 Forsman Avenue)

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as "Housing Agreement Bylaw 8226, 2017 (756 and 778 Forsman Avenue)".

2. Authorization to Enter into Agreement

- 2.1 The Council hereby authorizes a housing agreement between The Corporation of the District of North Vancouver and 1009198 B.C Ltd., Inc.No. BC1009198 substantially in the form attached to this Bylaw as Schedule "A" with respect to the following lands:
 - a) LOT C OF LOT 6 BLOCK A DISTRICT LOT 613 PLAN 20979, PID: 005-225-957
 - b) LOT A BLOCK A DISTRICT LOT 613 GROUP 1 NEW WESTMINSTER DISTRICT PLAN BCP39525, PID: 027-780-228

3. Execution of Documents

The Mayor and Municipal Clerk are authorized to execute any documents required to give effect to the Housing Agreement.

READ a first time May 29, 2017

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8226

SECTION 219 COVENANT - HOUSING AGREEMENT

This agreement is dated for reference the _____ day of ______, 20_____

BETWEEN:

1009198 B.C. LTD. (Inc. No. BC1009198), a company incorporated under the laws of the Province of British Columbia having an office at 1108 West 8th Avenue, Vancouver, BC V6H 3Z5

(the "Developer")

AND:

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER, a municipality incorporated under the *Local Government Act*, RSBC 2015, c.1 and having its office at 355 West Queens Road, North Vancouver, BC V7N 4N5

(the "District")

WHEREAS:

- 1. The Developer is the registered owner of the Lands (as hereinafter defined);
- The Developer wishes to obtain development permissions with respect to the Lands and wishes to create a condominium development which will contain residential strata units on the Lands;
- Section 483 of the Local Government Act authorises the District, by bylaw, to enter into a housing agreement to provide for the prevention of rental restrictions on housing, and provides for the contents of the agreement; and
- 4. Section 219 of the Land Title Act (British Columbia) permits the registration in favour of the District of a covenant of a negative or positive nature relating to the use of land or a building thereon, or providing that land is to be built on in accordance with the covenant, or providing that land is not to be built on except in accordance with the covenant, or providing that land is not to be subdivided except in accordance with the covenant;

NOW THEREFORE in consideration of the mutual promises contained in it, and in consideration of the payment of \$1.00 by the District to the Developer (the receipt and sufficiency of which are hereby acknowledged by the Developer), the parties covenant and agree with each other as follows, as a housing agreement under Section 483 of the *Local Government Act*, as a contract and a deed under seal between the parties, and as a covenant under Section 219 of the *Land Title Act*, and the Developer hereby further covenants and agrees that neither the Lands nor any building constructed thereon shall be used or built on except in accordance with this Agreement:

1. DEFINITIONS

1.01 Definitions

In this agreement:

- (a) "Development Permit" means development permit No. _____ issued by the District;
- "Lands" means land described in Item 2 of the Land Title Act Form C to which this agreement is attached;
- (c) "Owner" means the Developer and any other person or persons registered in the Lower Mainland Land Title Office as owner of the Lands from time to time, or of any parcel into which the Lands are consolidated or subdivided, whether in that person's own right or in a representative capacity or otherwise;
- (d) "Proposed Development" means the proposed development containing not more than eight units to be constructed on the Lands in accordance with the Development Permit;
- (e) "Short Term Rentals" means any rental of a Unit for any period less than 30 days;
- (f) *"Strata Corporation"* means the strata corporation formed upon the deposit of a plan to strata subdivide the Proposed Development pursuant to the *Strata Property Act;*
- (g) "Unit" means a residential dwelling strata unit in the Proposed Development; and
- (h) "Unit Owner" means the registered owner of a Dwelling Unit in the Proposed Development.

2. <u>TERM</u>

This Agreement will commence upon adoption by District Council of Bylaw 8226 and remain in effect until terminated by the District as set out in this Agreement.

3. RENTAL ACCOMODATION

3.01 Rental Disclosure Statement

No Unit in the Proposed Development may be occupied unless the Owner has:

(a) before the first Unit is offered for sale, or conveyed to a purchaser without being offered for sale, filed with the Superintendent of Real Estate a rental disclosure statement in the prescribed form (the "Rental Disclosure Statement") designating all of the Units as rental strata lots and imposing at least a 99 year rental period in relation to all of the Units pursuant to the *Strata Property Act* (or any successor or replacement legislation), except in relation to Short Term Rentals and, for greater certainty, stipulating specifically that the 99 year rental restriction does not apply to a Strata Corporation bylaw prohibiting or restricting Short Term Rentals; and (b) given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit before the prospective purchaser enters into an agreement to purchase in respect of the Unit. For the purposes of this paragraph 3.01(b), the Owner is deemed to have given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit in the building if the Owner has included the Rental Disclosure Statement as an exhibit to the disclosure statement for the Proposed Development prepared by the Owner pursuant to the Real Estate Development Marketing Act.

3.02 Rental Accommodation

The Units constructed on the Lands from time to time may always be used to provide rental accommodation as the Owner or a Unit Owner may choose from time to time, except that this section 3.02 does not apply to Short Term Rentals which may be restricted by the Strata Corporation to the full extent permitted by law.

3.03 Binding on Strata Corporation

This agreement shall be binding upon all Strata Corporations created by the subdivision of the Lands or any part thereof (including the Units) pursuant to the *Strata Property Act*, and upon all Unit Owners.

3.04 Strata Bylaw Invalid

Any Strata Corporation bylaw which prevents, restricts or abridges the right to use any of the Units as rental accommodations (other than Short Term Rentals) shall have no force or effect.

3.05 No Bylaw

The Strata Corporation shall not pass any bylaws preventing, restricting or abridging the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.06 <u>Vote</u>

No Unit Owner, nor any tenant or mortgagee thereof, shall vote for any Strata Corporation bylaw purporting to prevent, restrict or abridge the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.07 Notice

The Owner will provide notice of this Agreement to any person or persons intending to purchase a Unit prior to any such person entering into an agreement of purchase and sale, agreement for sale, or option or similar right to purchase as part of the disclosure statement for any part of the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act.*

3.08 Release of Covenant [optional clause]

The District agrees that if the District of North Vancouver Rezoning Bylaw 3210 (Bylaw 8197), is not adopted by the District's Council before [*date*], the Owner is entitled to require the District to execute and deliver to the Owner a discharge, in registrable form, of this Agreement from title to the Land. The Owner is responsible for the preparation of the discharge under this section and for the cost of registration at the Land Title Office.

4. DEFAULT AND REMEDIES

4.01 Notice of Default

The District may, acting reasonably, give to the Owner written notice to cure a default under this Agreement within 30 days of delivery of the notice. The notice must specify the nature of the default. The Owner must act with diligence to correct the default within the time specified.

4.02 <u>Costs</u>

The Owner will pay to the District upon demand all the District's costs of exercising its rights or remedies under this Agreement, on a full indemnity basis.

4.03 Damages an Inadequate Remedy

The Owner acknowledges and agrees that in the case of a breach of this Agreement which is not fully remediable by the mere payment of money and promptly so remedied, the harm sustained by the District and to the public interest will be irreparable and not susceptible of adequate monetary compensation.

4.04 Equitable Remedies

Each party to this Agreement, in addition to its rights under this Agreement or at law, will be entitled to all equitable remedies including specific performance, injunction and declaratory relief, or any of them, to enforce its rights under this Agreement.

4.05 No Penalty or Forfeiture

The Owner acknowledges and agrees that it is entering into this Agreement to benefit the public interest in providing rental accommodation, and that the District's rights and remedies under this Agreement are necessary to ensure that this purpose is carried out, and the District's rights and remedies under this Agreement are fair and reasonable and ought not to be construed as a penalty or forfeiture.

4.06 Cumulative Remedies

No reference to nor exercise of any specific right or remedy under this Agreement or at law or at equity by any party will prejudice, limit or preclude that party from exercising any other right or remedy. No right or remedy will be exclusive or dependent upon any other right to remedy, but any party, from time to time, may exercise any one or more of such rights or remedies independently, successively, or in combination. The Owner acknowledges that specific

performance, injunctive relief (mandatory or otherwise) or other equitable relief may be the only adequate remedy for a default by the Owner under this Agreement.

5. LIABILITY

5.01 Indemnity

Except if arising directly from the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its board members, officers, directors, employees, agents, and elected or appointed officials,, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities that all or any of them will or may be liable for or suffer or incur or be put to any act or omission by the Owner or its officers, directors, employees, agents, contractors, or other persons for whom the Owner is at law responsible, or by reason of or arising out of the Owner's ownership, operation, management or financing of the Proposed Development or any part thereof.

5.02 Release

The Owner hereby releases and forever discharges the District, its elected officials, board members, officers, directors, employees and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns from and against all claims, demands, damages, actions or causes of action by reason of or arising out of advice or direction respecting the ownership, operation or management of the Proposed Development or any part thereof which has been or hereafter may be given to the Owner by all or any of them.

5.03 <u>Survival</u>

The covenants of the Owner set out in Sections 5.01 and 5.02 will survive termination of this Agreement and continue to apply to any breach of the Agreement or claim arising under this Agreement during the ownership by the Owner of the Lands or any Unit therein, as applicable.

6. GENERAL PROVISIONS

6.01 District's Power Unaffected

Nothing in this Agreement:

- (a) affects or limits any discretion, rights, powers, duties or obligations of the District under any enactment or at common law, including in relation to the use or subdivision of land;
- (b) affects or limits any enactment relating to the use of the Lands or any condition contained in any approval including any development permit concerning the development of the Lands; or
- (c) relieves the Owner from complying with any enactment, including the District's bylaws in relation to the use of the Lands.
6.02 Agreement for Benefit of District Only

The Owner and District agree that:

- (a) this Agreement is entered into only for the benefit of the District:
- (b) this Agreement is not intended to protect the interests of the Owner, any Unit Owner, any occupant of any Unit or any future owner, occupier or user of any part of the Proposed Development, including any Unit, or the interests of any third party, and the District has no obligation to anyone to enforce the terms of this Agreement; and
- (c) The District may at any time terminate this Agreement, in whole or in part, and execute a release and discharge of this Agreement in respect of the Proposed Development or any Unit therein, without liability to anyone for doing so.

6.03 Agreement Runs With the Lands

This Agreement burdens and runs with the Lands and any part into which any of them may be subdivided or consolidated, by strata plan or otherwise. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its successors and assigns, and all persons who acquire an interest in the Lands or in any Unit after the date of this Agreement.

6.04 <u>Release</u>

The covenants and agreements on the part of the Owner and any Unit Owner and herein set forth in this Agreement have been made by the Owner and any Unit Owner as contractual obligations as well as being made pursuant to Section 483 of the *Local Government Act* (British Columbia) and as such will be binding on the Owner and any Unit Owner, except that neither the Owner nor any Unit Owner shall be liable for any default in the performance or observance of this Agreement occurring after such party ceases to own the Lands or a Unit as the case may be.

6.05 Priority of This Agreement

The Owner will, at its expense, do or cause to be done all acts reasonably necessary to ensure this Agreement is registered against the title to each Unit in the Proposed Development, including any amendments to this Agreement as may be required by the Land Title Office or the District to effect such registration.

6.06 Agreement to Have Effect as Deed

The District and the Owner each intend by execution and delivery of this Agreement to create both a contract and a deed under seal.

6.07 <u>Waiver</u>

An alleged waiver by a party of any breach by another party of its obligations under this Agreement will be effective only if it is an express waiver of the breach in writing. No waiver of a

breach of this Agreement is deemed or construed to be a consent or waiver of any other breach of this Agreement.

6.08 <u>Time</u>

Time is of the essence in this Agreement. If any party waives this requirement, that party may reinstate it by delivering notice to another party.

6.09 Validity of Provisions

If a Court of competent jurisdiction finds that any part of this Agreement is invalid, illegal, or unenforceable, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

6.10 Extent of Obligations and Costs

Every obligation of a party which is set out in this Agreement will extend throughout the Term and, to the extent that any obligation ought to have been observed or performed prior to or upon the expiry or earlier termination of the Term, such obligation will survive the expiry or earlier termination of the Term until it has been observed or performed.

6.11 <u>Notices</u>

All notices, demands, or requests of any kind, which a party may be required or permitted to serve on another in connection with this Agreement, must be in writing and may be served on the other parties by registered mail or by personal service, to the following address for each party:

If to the District:

District Municipal Hall 355 West Queens Road North Vancouver, BC V7N 4N5

Attention: Planning Department

If to the Owner:

1009198 B.C. LTD. 1108 West 8th Avenue Vancouver, BC V6H 325

If to the Unit Owner:

The address of the registered owner which appears on title to the Unit at the time of notice.

Service of any such notice, demand, or request will be deemed complete, if made by registered mail, 72 hours after the date and hour of mailing, except where there is a postal service disruption during such period, in which case service will be deemed to be complete only upon actual delivery of the notice, demand or request and if made by personal service, upon personal service being effected. Any party, from time to time, by notice in writing served upon the other parties, may designate a different address or different or additional persons to which all notices, demands, or requests are to be addressed.

6.12 Further Assurances

Upon request by the District, the Owner will promptly do such acts and execute such documents as may be reasonably necessary, in the opinion of the District, to give effect to this Agreement.

6.13 Enuring Effect

This Agreement will enure to the benefit of and be binding upon each of the parties and their successors and permitted assigns.

7. INTERPRETATION

7.01 <u>References</u>

Gender specific terms include both genders and include corporations. Words in the singular include the plural, and words in the plural include the singular.

7.02 Construction

The division of this Agreement into sections and the use of headings are for convenience of reference only and are not intended to govern, limit or aid in the construction of any provision. In all cases, the language in this Agreement is to be construed simply according to its fair meaning, and not strictly for or against either party.

7.03 <u>No Limitation</u>

The word "including" when following any general statement or term is not to be construed to limit the general statement or term to the specific items which immediately follow the general statement or term similar items whether or not words such as "without limitation" or "but not limited to" are used, but rather the general statement or term is to be construed to refer to all other items that could reasonably fall within the broadest possible scope of the general statement or term.

7.04 Terms Mandatory

The words "must" and "will" and "shall" are to be construed as imperative.

7.05 Statutes

Any reference in this Agreement to any statute or bylaw includes any subsequent amendment, re-enactment, or replacement of that statute or bylaw.

7.06 Entire Agreement

- (d) This is the entire agreement between the District and the Owner concerning its subject, and there are no warranties, representations, conditions or collateral agreements relating to this Agreement, except as included in this Agreement.
- (e) This Agreement may be amended only by a document executed by the parties to this Agreement and by bylaw, such amendment to be effective only upon adoption by District Council of a bylaw to amend Bylaw 8226.

7.07 Governing Law

This Agreement is to be governed by and construed and enforced in accordance with the laws of British Columbia.

As evidence of their agreement to be bound by the terms of this instrument, the parties hereto have executed the *Land Title Act* Form C that is attached hereto and forms part of this Agreement.

GRANT OF PRIORITY

WHEREAS COAST CAPITAL SAVINGS CREDIT UNION (the "Chargeholder") is the holder of the following charges which are registered in the Land Title Office:

- (a) Mortgage CA3936408; and
- (b) Assignment of Rents CA3936409 (together, the "Charge");

AND WHEREAS the Chargeholder agrees to allow the Section 219 Covenant herein to have priority over the Charge;

THIS PRIORITY AGREEMENT is evidence that in consideration of the sum of \$1.00 paid by THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER (the "District") to the Chargeholder, the receipt and sufficiency of which are hereby acknowledged, the Chargeholder covenants and agrees to subordinate and postpone all its rights, title and interest in and to the lands described in the Form C to which this Agreement is attached (the "Lands") with the intent and with the effect that the interests of the District rank ahead of the Charge as though the Section 219 Covenant herein had been executed, delivered and registered against title to the Lands before registration of the Charge.

As evidence of its Agreement to be bound by the above terms, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed the Form C to which this Agreement is attached and which forms part of this Agreement.

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The Corporation of the District of North Vancouver

Bylaw 8225

A bylaw to amend District of North Vancouver Zoning Bylaw 3210, 1965

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as the "District of North Vancouver Rezoning Bylaw 1351 (Bylaw 8225)".

2. Amendments

- 2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:
 - a) Section 301 (2) by inserting the following zoning designation:

"Comprehensive Development Zone 101 CD101"

b) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B:

"4B101 Comprehensive Development Zone 101 CD 101

The CD 101 zone is applied to:

756 Forsman Avenue, LOT C OF LOT 6 BLOCK A DISTRICT LOT 613 PLAN 20979, PID: 005-225-957 778 Forsman Avenue, LOT A BLOCK A DISTRICT LOT 613 GROUP 1 NEW WESTMINSTER DISTRICT PLAN BCP39525, PID: 027-780-228

4B 101-1 Intent

The purpose of the CD 101 Zone is to establish specific land use and development regulations for a 8 unit townhouse project.

4B 101- 2 Permitted Uses:

The following *principal* uses shall be permitted in the CD 101 Zone:

(a) Uses Permitted Without Conditions:

Not Applicable

(b) Conditional Uses:

Residential building, multiple-family townhouse

4B 101-3 Conditions of Use

Balcony enclosures are not permitted.

4B 101-4 Accessory Use

(a) Accessory uses are permitted and may include but are not necessarily limited to:

(i) Home occupations in accordance with the regulations in Section 405 of the Zoning Bylaw, 1965

4B 101-5 Density

- (a) The maximum permitted density in the CD101 Zone is limited to a floor space ratio (FSR) of 0.45, inclusive of any density bonus for energy performance, and a maximum of 2 units;
- (b) For the purposes of calculating floor space ratio, a maximum of 285 m² of individual parking garages (3068.1 sq ft) in total on the lot and a maximum of 74.3 m² of individual unit storage (a maximum of 100 sq ft per unit) in total on the lot as well as balconies and landscape trellis are excluded.
- (c) Balcony enclosures are not permitted.

4B 101-6 Amenities

(a) Despite subsection 4B101-5, density in the CD101 Zone is increased to a maximum floor space of 1,135.98 m² (12,228 sq ft), inclusive of any density bonus for energy performance and a maximum of 8 units, if the owner:

1. Enters into a Housing Agreement prohibiting any restrictions preventing the owners in the project from renting their units; and

 Contributes \$105,817.00 to the municipality to be used for any or all of the following amenities (with allocation to be determined by the municipality in its sole discretion): public art; park, trail, environmental, pedestrian or other public realm, infrastructure improvements; municipal, recreation or social service facility or service / facility improvements; and/or the affordable housing fund.

4B 101-7 Maximum Principal Building Size:

Not applicable

4B 101-8 Setbacks:

a) Buildings shall be set back from property lines to the closest building face as established by development permit and in accordance with the following regulations:

Setback	Buildings (Min Setback)
Front (west property line)	4.88m (16 ft) to the building face
Rear (east property line)	6.10m (20 ft) to the building face
Side (north)	1.83m (6 ft) to the building face
Side (south)	3.05m (10 ft) to the building face

b) Projections at the ground level are permissible as follows:

Setback	Maximum Setback Reduction
Front Yard	1.52 m (5.0 ft)

c) Balconies and trellises are excluded from any setback requirements.

4B 101-9 Building Orientation:

Not applicable

4B 101-10 Building Depth and Width:

Not applicable

4B 101-11 Coverage:

(a) Building Coverage shall not exceed 36%.

(b) Site Coverage shall not exceed 61%.

4B 101-12 Height:

The maximum permitted height for each building is 11.3m (37 ft);

4B 101-13 Acoustic Requirements:

In the case of residential purposes, a development permit application shall require evidence in the form of a report and recommendations prepared by persons trained in acoustics and current techniques of noise measurements, demonstrating that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units:

Portion of Dwelling Unit	Noise Level (Decibels)
Bedrooms	35
Living and Dining rooms	40
Kitchen, Bathrooms and Hallways	45

4B 101-14 Flood Construction Requirements:

No basement, or habitable floor space, other than garage and storage space, shall be constructed below the established flood construction level as identified in a flood hazard report prepared by a qualified registered professional engineer.

4B 101-15 Landscaping:

- (a) All land areas not occupied by buildings, structures, parking spaces, loading spaces, driveways, manoeuvring aisles and sidewalks shall be landscaped or finished in accordance with an approved landscape plan; and
- (b) All electrical kiosks and garbage and recycling container pads not located underground or within a building shall be screened with landscaping.

4B 101-16 Subdivision Requirements:

Not applicable

4B 101-17 Additional Accessory Structure Regulations:

Not applicable.

4B 101-18 Parking and Loading Regulations:

(a) Parking spaces shall be provided on the basis of 2 spaces/unit plus 2 visitor spaces;

- (b) Not more than 5 spaces may be small car spaces;
- (c) All parking spaces shall meet the minimum length and width standards established in Part 10 of the District of North Vancouver Zoning Bylaw."
 - 2.1 The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from the Residential Single Family 7200 Zone (RS3) to Comprehensive Development Zone 101 (CD 101).

READ a first time May 29th, 2017

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "Rezoning Bylaw 1351 (Bylaw 8225)" as at Third Reading

Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8225





PUBLIC HEARINGS

Tuesday, June 20, 2017, at 7 pm

District of North Vancouver Municipal Hall 355 West Queens Road, North Vancouver, BC

Two public hearings will occur consecutively in the order noted below.

Child Care Facility Business License Application 1356 Frederick Road

What:

A Public Hearing for a proposed increase to the Group Child Care (School Age) Facility License from a maximum capacity of 10 children to 17 children at 1356 Frederick Road.

What changes?

Jelly Bean Academy, located at 1356 Frederick Road, proposes to amend the Group Child Care (School Age) Facility License by increasing the maximum capacity from 10 children to 17 children. The applicant is also licenced for a preschool at the same address. The maximum capacity for the preschool is 10, this will remain unchanged.

Who can I speak to?

Cristina Rucci, Social Planner, at 604-990-2274 or ruccic@dnv.org



1356 Frederick Road (Jelly Bean Academy) Site Map

756-778 Forsman Avenue 8 Unit Townhouse Project

What:

A Public Hearing for Bylaw 8225, a proposed amendment to the Zoning Bylaw, to permit the development of an eight unit townhouse project.

What changes?

Bylaw 8225 proposes to amend the District's Zoning Bylaw by creating a new Comprehensive Development Zone 101 (CD101) and rezone the subject site from Residential Single-Family 7200 Zone (RS3) to CD101. The CD101 Zone addresses use, density, amenities, height, setbacks, site coverage, acoustic requirements, flood construction requirements, landscaping and parking and loading regulations.

Who can I speak to?

Darren Veres, Development Planner, at 604-990-2487 or veresd@dnv.org



Proposed*



*Provided by applicant for illustrative purposes only. The actual development, if approved, may differ.

How can I provide input?

We welcome your input Tuesday, June 20, 2017, at 7 pm. You can speak in person by signing up at the hearing, or you can provide a written submission to the Municipal Clerk at <u>input@dnv.org</u> or by mail to Municipal Clerk, District of North Vancouver, 355 West Queens Road, North Vancouver, BC, V7N 4N5, before the conclusion of the hearing.

Please note that Council may not receive further submissions from the public concerning this application after the conclusion of the public hearing.

Need more info?

Relevant background material and copies of the bylaw are available for review at the Municipal Clerk's Office or online at dnv.org/public_hearing from May 30 to June 20. Office hours are Monday to Friday 8 am to 4:30 pm, except statutory holidays.





The Corporation of the District of North Vancouver

Bylaw 8226

A bylaw to enter into a Housing Agreement (756 and 778 Forsman Avenue)

The Council for The Corporation of the District of North Vancouver enacts as follows:

1. Citation

This bylaw may be cited as "Housing Agreement Bylaw 8226, 2017 (756 and 778 Forsman Avenue)".

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- 2.1 The Council hereby authorizes a housing agreement between The Corporation of the District of North Vancouver and 1009198 B.C Ltd., Inc.No. BC1009198 substantially in the form attached to this Bylaw as Schedule "A" with respect to the following lands:
 - a) LOT C OF LOT 6 BLOCK A DISTRICT LOT 613 PLAN 20979, PID: 005-225-957
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The Mayor and Municipal Clerk are authorized to execute any documents required to give effect to the Housing Agreement.

READ a first time May 29th, 2017

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8226

SECTION 219 COVENANT – HOUSING AGREEMENT

This agreement is dated for reference the _____ day of ______, 20_____

BETWEEN:

1009198 B.C. LTD. (Inc. No. BC1009198), a company incorporated under the laws of the Province of British Columbia having an office at 1108 West 8^{th} Avenue, Vancouver, BC V6H 3Z5

(the "Developer")

AND:

THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER, a municipality incorporated under the *Local Government Act*, RSBC 2015, c.1 and having its office at 355 West Queens Road, North Vancouver, BC V7N 4N5

(the "District")

WHEREAS:

- 1. The Developer is the registered owner of the Lands (as hereinafter defined);
- 2. The Developer wishes to obtain development permissions with respect to the Lands and wishes to create a condominium development which will contain residential strata units on the Lands;
- 3. Section 483 of the *Local Government Act* authorises the District, by bylaw, to enter into a housing agreement to provide for the prevention of rental restrictions on housing, and provides for the contents of the agreement; and
- 4. Section 219 of the *Land Title Act* (British Columbia) permits the registration in favour of the District of a covenant of a negative or positive nature relating to the use of land or a building thereon, or providing that land is to be built on in accordance with the covenant, or providing that land is not to be built on except in accordance with the covenant, or providing that land is not to be subdivided except in accordance with the covenant;

NOW THEREFORE in consideration of the mutual promises contained in it, and in consideration of the payment of \$1.00 by the District to the Developer (the receipt and sufficiency of which are hereby acknowledged by the Developer), the parties covenant and agree with each other as follows, as a housing agreement under Section 483 of the *Local Government Act*, as a contract and a deed under seal between the parties, and as a covenant under Section 219 of the *Land Title Act*, and the Developer hereby further covenants and agrees that neither the Lands nor any building constructed thereon shall be used or built on except in accordance with this Agreement:

1. **DEFINITIONS**

1.01 Definitions

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- (b) *"Lands"* means land described in Item 2 of the *Land Title Act* Form C to which this agreement is attached;
- (c) "Owner" means the Developer and any other person or persons registered in the Lower Mainland Land Title Office as owner of the Lands from time to time, or of any parcel into which the Lands are consolidated or subdivided, whether in that person's own right or in a representative capacity or otherwise;
- (d) *"Proposed Development"* means the proposed development containing not more than eight units to be constructed on the Lands in accordance with the Development Permit;
- (e) *"Short Term Rentals"* means any rental of a Unit for any period less than 30 days;
- (f) *"Strata Corporation"* means the strata corporation formed upon the deposit of a plan to strata subdivide the Proposed Development pursuant to the *Strata Property Act*;
- (g) "Unit" means a residential dwelling strata unit in the Proposed Development; and
- (h) *"Unit Owner"* means the registered owner of a Dwelling Unit in the Proposed Development.

2. <u>TERM</u>

This Agreement will commence upon adoption by District Council of Bylaw 8226 and remain in effect until terminated by the District as set out in this Agreement.

3. <u>RENTAL ACCOMODATION</u>

3.01 <u>Rental Disclosure Statement</u>

No Unit in the Proposed Development may be occupied unless the Owner has:

(a) before the first Unit is offered for sale, or conveyed to a purchaser without being offered for sale, filed with the Superintendent of Real Estate a rental disclosure statement in the prescribed form (the "Rental Disclosure Statement") designating all of the Units as rental strata lots and imposing at least a 99 year rental period in relation to all of the Units pursuant to the *Strata Property Act* (or any successor or replacement legislation), except in relation to Short Term Rentals and, for greater certainty, stipulating specifically that the 99 year rental restriction does not apply to a Strata Corporation bylaw prohibiting or restricting Short Term Rentals; and (b) given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit before the prospective purchaser enters into an agreement to purchase in respect of the Unit. For the purposes of this paragraph 3.01(b), the Owner is deemed to have given a copy of the Rental Disclosure Statement to each prospective purchaser of any Unit in the building if the Owner has included the Rental Disclosure Statement as an exhibit to the disclosure statement for the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.02 Rental Accommodation

The Units constructed on the Lands from time to time may always be used to provide rental accommodation as the Owner or a Unit Owner may choose from time to time, except that this section 3.02 does not apply to Short Term Rentals which may be restricted by the Strata Corporation to the full extent permitted by law.

3.03 Binding on Strata Corporation

This agreement shall be binding upon all Strata Corporations created by the subdivision of the Lands or any part thereof (including the Units) pursuant to the *Strata Property Act*, and upon all Unit Owners.

3.04 Strata Bylaw Invalid

Any Strata Corporation bylaw which prevents, restricts or abridges the right to use any of the Units as rental accommodations (other than Short Term Rentals) shall have no force or effect.

3.05 <u>No Bylaw</u>

The Strata Corporation shall not pass any bylaws preventing, restricting or abridging the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.06 <u>Vote</u>

No Unit Owner, nor any tenant or mortgagee thereof, shall vote for any Strata Corporation bylaw purporting to prevent, restrict or abridge the use of the Lands, the Proposed Development or the Units contained therein from time to time as rental accommodation (other than Short Term Rentals).

3.07 <u>Notice</u>

The Owner will provide notice of this Agreement to any person or persons intending to purchase a Unit prior to any such person entering into an agreement of purchase and sale, agreement for sale, or option or similar right to purchase as part of the disclosure statement for any part of the Proposed Development prepared by the Owner pursuant to the *Real Estate Development Marketing Act*.

3.08 <u>Release of Covenant</u> [optional clause]

The District agrees that if the District of North Vancouver Rezoning Bylaw 3210 (Bylaw 8197), is not adopted by the District's Council before [*date*], the Owner is entitled to require the District to execute and deliver to the Owner a discharge, in registrable form, of this Agreement from title to the Land. The Owner is responsible for the preparation of the discharge under this section and for the cost of registration at the Land Title Office.

4. **DEFAULT AND REMEDIES**

4.01 <u>Notice of Default</u>

The District may, acting reasonably, give to the Owner written notice to cure a default under this Agreement within 30 days of delivery of the notice. The notice must specify the nature of the default. The Owner must act with diligence to correct the default within the time specified.

4.02 <u>Costs</u>

The Owner will pay to the District upon demand all the District's costs of exercising its rights or remedies under this Agreement, on a full indemnity basis.

4.03 Damages an Inadequate Remedy

The Owner acknowledges and agrees that in the case of a breach of this Agreement which is not fully remediable by the mere payment of money and promptly so remedied, the harm sustained by the District and to the public interest will be irreparable and not susceptible of adequate monetary compensation.

4.04 Equitable Remedies

Each party to this Agreement, in addition to its rights under this Agreement or at law, will be entitled to all equitable remedies including specific performance, injunction and declaratory relief, or any of them, to enforce its rights under this Agreement.

4.05 <u>No Penalty or Forfeiture</u>

The Owner acknowledges and agrees that it is entering into this Agreement to benefit the public interest in providing rental accommodation, and that the District's rights and remedies under this Agreement are necessary to ensure that this purpose is carried out, and the District's rights and remedies under this Agreement are fair and reasonable and ought not to be construed as a penalty or forfeiture.

4.06 <u>Cumulative Remedies</u>

No reference to nor exercise of any specific right or remedy under this Agreement or at law or at equity by any party will prejudice, limit or preclude that party from exercising any other right or remedy. No right or remedy will be exclusive or dependent upon any other right to remedy, but any party, from time to time, may exercise any one or more of such rights or remedies independently, successively, or in combination. The Owner acknowledges that specific

performance, injunctive relief (mandatory or otherwise) or other equitable relief may be the only adequate remedy for a default by the Owner under this Agreement.

5. <u>LIABILITY</u>

5.01 <u>Indemnity</u>

Except if arising directly from the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its board members, officers, directors, employees, agents, and elected or appointed officials,, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities that all or any of them will or may be liable for or suffer or incur or be put to any act or omission by the Owner or its officers, directors, employees, agents, contractors, or other persons for whom the Owner is at law responsible, or by reason of or arising out of the Owner's ownership, operation, management or financing of the Proposed Development or any part thereof.

5.02 <u>Release</u>

The Owner hereby releases and forever discharges the District, its elected officials, board members, officers, directors, employees and agents, and its and their heirs, executors, administrators, personal representatives, successors and assigns from and against all claims, demands, damages, actions or causes of action by reason of or arising out of advice or direction respecting the ownership, operation or management of the Proposed Development or any part thereof which has been or hereafter may be given to the Owner by all or any of them.

5.03 <u>Survival</u>

The covenants of the Owner set out in Sections 5.01 and 5.02 will survive termination of this Agreement and continue to apply to any breach of the Agreement or claim arising under this Agreement during the ownership by the Owner of the Lands or any Unit therein, as applicable.

6. <u>GENERAL PROVISIONS</u>

6.01 District's Power Unaffected

Nothing in this Agreement:

- (a) affects or limits any discretion, rights, powers, duties or obligations of the District under any enactment or at common law, including in relation to the use or subdivision of land;
- (b) affects or limits any enactment relating to the use of the Lands or any condition contained in any approval including any development permit concerning the development of the Lands; or
- (c) relieves the Owner from complying with any enactment, including the District's bylaws in relation to the use of the Lands.

6.02 Agreement for Benefit of District Only

The Owner and District agree that:

- (a) this Agreement is entered into only for the benefit of the District:
- (b) this Agreement is not intended to protect the interests of the Owner, any Unit Owner, any occupant of any Unit or any future owner, occupier or user of any part of the Proposed Development, including any Unit, or the interests of any third party, and the District has no obligation to anyone to enforce the terms of this Agreement; and
- (c) The District may at any time terminate this Agreement, in whole or in part, and execute a release and discharge of this Agreement in respect of the Proposed Development or any Unit therein, without liability to anyone for doing so.

6.03 Agreement Runs With the Lands

This Agreement burdens and runs with the Lands and any part into which any of them may be subdivided or consolidated, by strata plan or otherwise. All of the covenants and agreements contained in this Agreement are made by the Owner for itself, its successors and assigns, and all persons who acquire an interest in the Lands or in any Unit after the date of this Agreement.

6.04 <u>Release</u>

The covenants and agreements on the part of the Owner and any Unit Owner and herein set forth in this Agreement have been made by the Owner and any Unit Owner as contractual obligations as well as being made pursuant to Section 483 of the *Local Government Act* (British Columbia) and as such will be binding on the Owner and any Unit Owner, except that neither the Owner nor any Unit Owner shall be liable for any default in the performance or observance of this Agreement occurring after such party ceases to own the Lands or a Unit as the case may be.

6.05 Priority of This Agreement

The Owner will, at its expense, do or cause to be done all acts reasonably necessary to ensure this Agreement is registered against the title to each Unit in the Proposed Development, including any amendments to this Agreement as may be required by the Land Title Office or the District to effect such registration.

6.06 Agreement to Have Effect as Deed

The District and the Owner each intend by execution and delivery of this Agreement to create both a contract and a deed under seal.

6.07 <u>Waiver</u>

An alleged waiver by a party of any breach by another party of its obligations under this Agreement will be effective only if it is an express waiver of the breach in writing. No waiver of a

breach of this Agreement is deemed or construed to be a consent or waiver of any other breach of this Agreement.

6.08 <u>Time</u>

Time is of the essence in this Agreement. If any party waives this requirement, that party may reinstate it by delivering notice to another party.

6.09 Validity of Provisions

If a Court of competent jurisdiction finds that any part of this Agreement is invalid, illegal, or unenforceable, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

6.10 Extent of Obligations and Costs

Every obligation of a party which is set out in this Agreement will extend throughout the Term and, to the extent that any obligation ought to have been observed or performed prior to or upon the expiry or earlier termination of the Term, such obligation will survive the expiry or earlier termination of the Term until it has been observed or performed.

6.11 Notices

All notices, demands, or requests of any kind, which a party may be required or permitted to serve on another in connection with this Agreement, must be in writing and may be served on the other parties by registered mail or by personal service, to the following address for each party:

If to the District:

District Municipal Hall 355 West Queens Road North Vancouver, BC V7N 4N5

Attention: Planning Department

If to the Owner:

1009198 B.C. LTD. 1108 West 8th Avenue Vancouver, BC V6H 3Z5

If to the Unit Owner:

The address of the registered owner which appears on title to the Unit at the time of notice.

Service of any such notice, demand, or request will be deemed complete, if made by registered mail, 72 hours after the date and hour of mailing, except where there is a postal service disruption during such period, in which case service will be deemed to be complete only upon actual delivery of the notice, demand or request and if made by personal service, upon personal service being effected. Any party, from time to time, by notice in writing served upon the other parties, may designate a different address or different or additional persons to which all notices, demands, or requests are to be addressed.

6.12 Further Assurances

Upon request by the District, the Owner will promptly do such acts and execute such documents as may be reasonably necessary, in the opinion of the District, to give effect to this Agreement.

6.13 <u>Enuring Effect</u>

This Agreement will enure to the benefit of and be binding upon each of the parties and their successors and permitted assigns.

7. **INTERPRETATION**

7.01 <u>References</u>

Gender specific terms include both genders and include corporations. Words in the singular include the plural, and words in the plural include the singular.

7.02 Construction

The division of this Agreement into sections and the use of headings are for convenience of reference only and are not intended to govern, limit or aid in the construction of any provision. In all cases, the language in this Agreement is to be construed simply according to its fair meaning, and not strictly for or against either party.

7.03 <u>No Limitation</u>

The word "including" when following any general statement or term is not to be construed to limit the general statement or term to the specific items which immediately follow the general statement or term similar items whether or not words such as "without limitation" or "but not limited to" are used, but rather the general statement or term is to be construed to refer to all other items that could reasonably fall within the broadest possible scope of the general statement or term.

7.04 <u>Terms Mandatory</u>

The words "must" and "will" and "shall" are to be construed as imperative.

7.05 <u>Statutes</u>

Any reference in this Agreement to any statute or bylaw includes any subsequent amendment, re-enactment, or replacement of that statute or bylaw.

7.06 Entire Agreement

- (d) This is the entire agreement between the District and the Owner concerning its subject, and there are no warranties, representations, conditions or collateral agreements relating to this Agreement, except as included in this Agreement.
- (e) This Agreement may be amended only by a document executed by the parties to this Agreement and by bylaw, such amendment to be effective only upon adoption by District Council of a bylaw to amend Bylaw 8226.

7.07 <u>Governing Law</u>

This Agreement is to be governed by and construed and enforced in accordance with the laws of British Columbia.

As evidence of their agreement to be bound by the terms of this instrument, the parties hereto have executed the *Land Title Act* Form C that is attached hereto and forms part of this Agreement.

GRANT OF PRIORITY

WHEREAS COAST CAPITAL SAVINGS CREDIT UNION (the "**Chargeholder**") is the holder of the following charges which are registered in the Land Title Office:

- (a) Mortgage CA3936408; and
- (b) Assignment of Rents CA3936409 (together, the "Charge");

AND WHEREAS the Chargeholder agrees to allow the Section 219 Covenant herein to have priority over the Charge;

THIS PRIORITY AGREEMENT is evidence that in consideration of the sum of \$1.00 paid by THE CORPORATION OF THE DISTRICT OF NORTH VANCOUVER (the "**District**") to the Chargeholder, the receipt and sufficiency of which are hereby acknowledged, the Chargeholder covenants and agrees to subordinate and postpone all its rights, title and interest in and to the lands described in the Form C to which this Agreement is attached (the "**Lands**") with the intent and with the effect that the interests of the District rank ahead of the Charge as though the Section 219 Covenant herein had been executed, delivered and registered against title to the Lands before registration of the Charge.

As evidence of its Agreement to be bound by the above terms, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed the Form C to which this Agreement is attached and which forms part of this Agreement.



GEOtools

756 and 778 Forsman Avenue



Land Use Designation Map

Printed on: Monday, May 29, 2017

The Lynnmour / Inter-River Local Plan Bylaw

1.0 INTRODUCTION

The Lynnmour / Inter-River Local Plan is intended to guide, enhance and protect the community's physical and social growth and development for approximately the next ten years. The Plan has been created through a partnership between the community residents, local public service providers and District staff representatives. It is expected that this local plan will be appended to the District Official Community Plan by bylaw and will replace the Central Inter-River Official Community Plan, adopted by Council on December 2, 1985.

The Official Community Plan is a municipal bylaw adopted by Council expressing the social, environmental and economic objectives and policies respecting the general form and character of future land use patterns and related servicing requirements. Sections 875 to 881 of the Local Government Act outline the contents of the Official Community Plan and Section 882 defines the adoption procedure for official community plans.

2.0 SCOPE OF PLAN

The Lynnmour / Inter-River Local Plan is intended to serve as a guide for all land use decisions and actions in the planning area. Map 1 identifies the planning area that is bounded by Lynn Creek to the west, the North Vancouver Cemetery to the north, Seymour River to the east and the Mount Seymour Parkway/Trans-Canada Highway to the south. It includes the two main residential communities of Lynnmour North and Riverside West.

Overall goals for the future of the planning area are set down in the section entitled Plan Goals. Broader planning objectives and specific policies and implementation or action statements to achieve these objectives are outlined in the five separate sections that make up the main body of the Plan.

3.0 PLANNING PROCESS

This Plan was undertaken in partnership with interested individual residents, community representatives, local service providers and District staff from Parks and Engineering Services and Community Planning. A Plan Steering Group was formed and community issues and views were sought by taking a travelling display tent around to nine local housing complexes and public locations in June 1999. Several key community issues were identified and subsequently investigated by Capilano College student researchers or by staff or specific service providers. The draft plan was then developed with the Steering Group to address these issues and opportunities and a public review was undertaken in September, 2000 – again using a display tent at various community locations.

Approximately 600 to700 local residents participated in the planning process during this period. In addition, the draft plan was reviewed by various Council appointed advisory committees and local service providers before being presented to Council at a tour and workshop in early 2001.

At that time Council expressed the preference to resolve several issues of local concern prior to adopting the draft plan. A public involvement process was commenced to explore solutions to these issues, which included expansion of the Fire Training Centre, revisions to the Inter-River Park Master Plan and forest preservation. Almost simultaneously, the Jaycee House was turned over to District ownership and preparations begun to renovate the facility and negotiations started with the Lynnmour/Inter-River Community Association to operate the building as a community centre. In June and July, 2002 Council adopted a revised Master Plan for Inter-River Park and a comprehensive development plan for the Fire Training Centre. The result of these actions was to formally expand the size of Inter-River Park and to preserve the majority of the forested area at its south end.

The draft plan was then updated to reflect these and other smaller changes and reviewed by the Plan Steering Group before again being presented to Council at a workshop in October 2003.

At the second workshop Council felt it would be prudent for the community to meet with Ministry of Transportation officials before sending the draft plan on to a public hearing. Council was concerned about community impacts of possible changes to the highway system if the Squamish Nation decided to proceed with its proposed shopping centre.

Provincial staff was reluctant to meet with the pubic to discuss what improvements or changes they would make only if the Squamish proposal were to proceed (and no such decision had yet been made). They did however agree to meet community representatives to review the wording in the draft local plan in order to better understand the residents' long term goals and general concerns. The meeting took place in May 2004 and did not result in any changes needing to be made to the draft Plan. Since then the Ministry has announced a series of changes to the road and highway network in order to provide improved access to the proposed shopping centre and has met with the local community to provide an opportunity for public comment on these changes. It is expected that construction of these changes will commence in late 2006 or early 2007.

Work on revised design guidelines for the proposed multipex and townhouse area surrounding Lynnmour School commenced and the draft Plan was prepared in bylaw format. Bylaw 7461 was subsequently introduced to Council on November 8th, 2004 and referred to a Public Hearing scheduled for February 22nd, 2005. In early January, 2005 a consulting engineering study of gravel removal in Lynn Creek was received (*The Lynn Creek Management Plan* prepared by Kerr Wood Leidal Consulting Engineers, December 2004). This study identified the proposed development area (Area 1) as a flood hazard zone. Staff then requested Council postpone the Public Hearing until further information was available. Subsequently, the consulting engineering firm was retained to provide a Flood Protection Assessment and the draft Plan and Area 1 Design Guidelines were revised to reflect the recommendations contained in the report, titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006.

With the incorporation of these changes and additional updating to keep the draft Plan current a final public review was undertaken with the Plan Steering Committee, a public open "tent" display arranged and Council advisory groups. Due to the number of changes made throughout this review stage Bylaw 7461 was abandoned and the Lynnmour/Inter-River Local Plan was re-introduced to Council as Bylaw 7623.

4.0 COMMUNITY HISTORY AND DEVELOPMENT

In the early days (1860 – 1900) there is little recorded history about most of the area included in this community plan. However, if one considers a slightly broader area by including all the lands between Lynn Creek and the Seymour River, then several items of interest come to light. In 1864, Hugh Burr was given a Crown grant of 169 acres on the east side of Seymour Creek, which he began to farm. He was joined in 1867 by John Linn, who received a military land grant for 150 acres of land just east of the mouth of Lynn Creek. He began to farm this property to supply the mill at Moodyville.

In 1873, construction began on a trail to connect the Lower Mainland with the Cariboo to the north. When it was finished in 1877, Robert Carson and Richard Hoey used it, in the first (and only) cattle drive from Lillooet to the Vancouver market. A cairn was erected near the Trial's terminus on East Keith and Lillooet Roads next to the Coach House Inn (now the Holiday Inn).

By 1893, the Municipality of North Vancouver had recognised the need to have a cemetery, and the Province granted District Lot 1020 (60 acres) for this purpose. In 1907, the Municipality split into City and District, and the District granted and conveyed to the City, for one dollar, the cemetery (and municipal hall, pound, stables and public parks), provided residents of both municipalities would have the same burial rights and were charged the same fees.

From the turn of the last century until the early 1950's not much development occurred in this area. The opening of the original Second Narrows Bridge in 1925 did generate some industrial and commercial activity at the bridgehead to the south of the planning area. This was curtailed in 1930, when a shipping accident closed the bridge for four years. When re-opened in 1934 the combined car-and-train bridge served the North Shore until 1960, when the existing Second Narrows (Ironworkers Memorial) Bridge was opened. Also, during this period, the Trans-Canada Highway was developed. This effectively divided the Inter-River area into two communities – Lynnmour South (now in the Lower Lynn Community Plan), and Lynnmour North (included in this Plan). With the new highway came the Coach House Motor Inn, which was located at the intersection of Keith and Lillooet Roads.

By the 1960's, there were 30 or 40 houses in this planning area, including a farm on Premier Street (now Edgewater Estates), and a turkey farm on Grantham Road (now Heritage-in-the-Woods). The availability of large parcels of land meant that, by the late 60's and early 70's, several large townhouse projects and construction of Capilano College had begun and the residential future of the area was firmly established. In the 80's use of the Premier Street landfill site, first opened in 1956, was beginning to wind down and its future uses were being considered. The area was studied for a municipal golf course but when another site in Seymour was chosen it became park space and eventually designed for additional playing fields. By the early 90's a political decision was made by the District Council not to continue allowing long term residential development in the area above the Cemetery. This allowed these "Urban Reserve " lands to be dedicated as park space and added to Lynn Canyon Park. As well, some of the older single-family housing began to be redeveloped as low-density townhousing on Premier Street and, over on the Seymour River, large new single-family houses began to be built, particularly on the riverfront.

Over the past 140 years the Lynnmour/Inter-River area has gone from a small agricultural area to one of mostly affordable medium density housing located at the centre of the District. Once an isolated area not well

connected to the rest of the Municipality, it is now at the centre of the District and is bearing the impacts of being so close to the busy major road network.

5.0 PLAN GOALS

Initial consultation with the Lynnmour/Inter-River community identified five topics of prime concern for the Plan to address. These topics are:

- Traffic and Transportation
- Community Services
- Parks and Open Spaces
- Managing Community Growth
- Protecting the Natural Environment

Planning Goals related to these topics are:

- **Goal**: To create a safer, more convenient transportation network to better meet the needs of local residents and to better protect them from traffic and other impacts caused by major regional and District facilities located in the community.
- **Goal**: To strengthen the sense of belonging and community by providing more services locally, increasing local use of existing facilities and better recognizing the area's natural resources and heritage.
- **Goal**: To ensure existing park spaces better meet local needs, provide a more complete pathway system safely usable by all and preserve environmentally sensitive areas.
- **Goal**: To support the primarily family orientation of the residential areas, while ensuring any new development contributes directly to the overall improvement of the community.
- **<u>Goal</u>**: To protect the community from natural hazards such as flooding and landslides.
- **<u>Goal</u>**: To recognize, preserve and enhance the bio-physical and cultural values of the community's natural environment.

6.0 TRANSPORTATION, CIRCULATION AND UTILITIES

Lynnmour/Inter-River is a community isolated by the Provincial and District transportation networks. The Seymour River constricts circulation eastward to the two crossings on Mt. Seymour Parkway and Grantham Road; the Trans Canada Highway blocks access south; and Lynn Creek, with one vehicle crossing on Keith Road and one pedestrian crossing in Inter-River Park, limits convenient access westward.

Every morning, traffic from both east and west converges near this community in order to access the 2nd Narrows Bridge and Capilano College. Every afternoon the reverse flow also causes long backups and lengthy delays for commuters and local residents trying to move around and through the community. The Bridge is at or near capacity for significant parts of the day presently.

Other major transportation difficulties in this area involve vehicle and pedestrian safety at the Lillooet Road and Mt. Seymour Parkway intersection due to volume, speed, short weave areas, lack of advance signage and poor or incomplete pedestrian facilities. In the future, additional traffic may be drawn to this area if the Squamish Nation's plans to develop additional big box retail come to fruition. Most of these issues need to be addressed by the Ministry of Transportation in consultation with District staff and local residents in order to be successfully resolved. Community representatives have already met once directly with Ministry officials to make them aware of local concerns regarding the existing transportation network and of what improvements they would like to see if and when the Ministry does any work in the area.

Recreation facilities and attractions such as the existing playing fields at Inter-River Park and the Lower Seymour Conservation Reserve draw nonresident traffic into and through the community, particularly during weekends. In the future, this traffic is expected to increase substantially as the Park continues to be developed with additional fields and diamonds and use of the Reserve continues to grow (projected at 9% per annum). Additionally, due to waterworks-related projects in the LSCR and Seymour Watershed, significant heavy truck traffic will be drawn through the community on Lillooet Road for the next decade. A variety of actions to be taken by different authorities are recommended to address these issues.

The use of a residential street to access the College, pedestrian safety and improved connectivity are also neighbourhood issues, particularly for residents on Purcell Way and in the area around Lynnmour School where Keith Road and Forsman Avenue are only narrow strips of pavement without sidewalks. As well, a concern over speeding on Premier Street and the need to improve local transit connections to facilities and services in Seymour (Parkgate) and to Capilano College have also been identified. Access to the rivers located in this community for emergency and life safety reasons was also identified as needing improvement, especially on the Seymour River. Solutions to these issues are found in actions recommended primarily for the District to pursue.

The Greater Vancouver Regional District is undertaking major upgrades to the regional drinking water supply, treatment and distribution systems within the Seymour watershed. The Plan supports these initiatives and the preservation of the BC Hydro right-of-way for long term expansion. Major upgrading of District utility systems is not expected as a result of this Plan.

LI Map 1 outlines the traffic, transportation and circulation issues and solutions identified or proposed in this section of the Plan.

SECTION GOALS

- To improve transit service to the community.
- To minimise impacts of non-local traffic and to improve vehicle access and egress for local residents.
- To improve pedestrian safety and circulation.
- To integrate Inter-River into the Bicycle Master Plan network.
- To retain and improve existing utility networks.

POLICY

6.1 Continue to improve accessibility to public transit services

IMPLEMENTATION

- 6.1.1 Integrate the provision of convenient, accessible, well-lit, and safe access to bus services in the design of new developments and in local improvements.
- 6.1.2 Encourage Capilano College to update its 1991 Lynnmour Campus Traffic Study with District and Translink staff and pursue any transit improvements identified.

- 6.1.3 Work with Capilano College and TransLink to improve transit ridership and enhance service to the College by supporting:
 - the provision of the U-Pass program;
 - the extension of the #130 (Metrotown/Hastings/Kootenay Loop) route;
 - the extension of the #255 (Dundarave/Lynn Valley route; and
 - expansion or re-location of the on-campus bus facility to accommodate the removal of any temporary bus stop facilities provided on the public street.
- 6.1.4 Provide bus shelters and garbage bins at local stops without these facilities now.
- 6.1.5 Encourage TransLink to improve service between the Inter-River and Seymour Communities.
- 6.1.6 Work with Capilano College, TransLink, and the City of North Vancouver to investigate the feasibility of establishing transit to the North Vancouver Cemetery.

POLICY

6.2 Ensure all neighbourhoods are connected and well served by the pedestrian and bicycle circulation network and facilities in Inter-River

IMPLEMENTATION

- 6.2.1 Improve paving and lighting under the Highway #1 Bridge and in the vicinity of the Keith Road Bridge
- 6.2.2 Enhance pedestrian access and circulation from the main road system to major activity centres and recreation uses utilizing the District's Pedestrian Access Guidelines as appropriate.
- 6.2.3 Integrate trail marker signage with sidewalks.

- 6.2.4 Improve existing and identify new routes to better connect the Riverside West neighbourhood to the rest of the Lynnmour/Inter-River community.
- 6.2.5 Improve student pick-up and drop-off safety at Lynnmour School.

POLICY

6.3. Provide improved routes for cyclists accessing Capilano College and other parts of Inter-River.

IMPLEMENTATION

- 6.3.1 In the short term, formalise the trail connection from Lillooet Road to the College via the soccer field. In the longer term, improve access to this area and other District property by a new south service road.
- 6.3.2 Provide a minimum 4.3 metre wide lane (excluding curbing) on all major roads to accommodate cyclists' safety.
- 6.3.3 Implement safe cycling routes to Capilano College and other local destination in conjunction with the District Joint Bicycle Advisory Committee, Capilano College and the GVRD.
- 6.3.4 Consider provisions for cyclists in the development of any trail connection to Capilano College (e.g. V-grooves).
- 6.3.4 Request Ministry of Transportation improve the bicycle friendliness of the Highway 1/ Lillooet interchange and Keith Road.

POLICY

6.4 Protect local residential areas from impacts of traffic destined for District and Regional facilities located in Inter-River.

IMPLEMENTATION

6.4.1 Work with Capilano College to develop traffic and parking management strategies to minimise community impacts especially for residents along Purcell Way.

- 6.4.2 Consider provision of a new access road to Capilano College from Lillooet Road, south of Purcell Way, or other measures to reduce or eliminate a significant portion of College traffic from Purcell Way when considering the sale of District land on the northeast corner of Mt. Seymour Parkway and Lillooet Road.
- 6.4.3 Work with the Ministry of Transportation, Capilano College and TransLink to determine funding, design, and future operation of a south road connection between the College and Lillooet Road if this new road is built in the future.
- 6.4.4 Monitor and assess daily non-resident use of on-street parking near Capilano College and consider appropriate restrictions to ensure public safety.
- 6.4.5 Provide adequate enforcement of District "Resident Parking Only" zones and investigate alleged mis-uses of the parking system.
- 6.4.6 Retain the Grantham Street bridge crossing and continue to keep Seymour Boulevard closed south of Parkhurst Road unless the majority of local residents wish to consider changing this in the future.
- 6.4.7 Monitor and assess weekend non-resident use of on-street parking at access points to the Seymour River.
- 6.4.8 Monitor and assess impact of sports field development at Inter-River Park.
- 6.4.9 Encourage the Greater Vancouver Regional District to continue its impact mitigation plan and funding strategy to address local concerns throughout the final phases of the planned construction of the Seymour Watershed improvements (i.e., dam, filtration plant and watermain projects) and expansion of recreational uses in the Lower Seymour Conservation Reserve.
- 6.4.10 Encourage the Greater Vancouver Regional District to work in partnership with the District and City of North Vancouver, Capilano College and BC Hydro towards establishing a future staging area to the Lower Seymour Conservation Reserve, Seymour Watershed and City Cemetery at Capilano College and to develop a multi-use trail to the LSCR along the B.C. Hydro Right-of Way.
- 6.4.11 Encourage the Greater Vancouver Regional District to provide trail and / or sidewalk improvements on Lillooet Road, north of Purcell Way, to the main entry gate to the Lower Seymour Conservation Reserve.
6.5. Improve community access options and safety for local residents.

IMPLEMENTATION

- 6.5.1 Investigate alternative access points to the community other than via Lillooet Road.
- 6.5.2 Examine the possibility of making access at the intersection of Keith Road, Old Lillooet Road and the Highway #1 access ramp a Right In /Right Out to improve neighbourhood access.
- 6.5.3 Reserve unopened road allowances for pedestrian and cycle route improvements and access to local watercourses.
- 6.5.4 Monitor speed of vehicles along Premier Street and make cross-walk or other safety improvements as required.
- 6.5.5 Work with Heritage-in-the-Woods and local neighbours to improve pedestrian and vehicular safety at the Grantham Place and Seymour Boulevard intersection and at the Heritage-in the-Woods north driveway and Seymour Boulevard.

POLICY

6.6 Improve local conditions through facilitating changes to the major road network.

- 6.6.1 Work with Ministry of Transportation in the short term to improve pedestrian crossing safety at Mt. Seymour Parkway, Lillooet Road and Fern Street by:
 - examining solutions to signalise dual northbound right turn with advance warning signs on the Highway #1 / Lillooet Road exit in the short term;
 - providing a safer pedestrian route along Fern Street and its overpass; and
 - pursuing a pedestrian overpass, intersection re-design or signal changes at the east leg of the Lillooet and Mt. Seymour Parkway intersection in conjunction with other major upgrades at this location in the medium to long term.

- 6.6.2 Work with Ministry of Transportation in the short term to provide signage at the Lillooet and Mt. Seymour intersection directing motorists to:
 - access the Holiday Inn from Lillooet and Old Lillooet Road;
 - egress that property via a right turn on to Old Lillooet Road and provide overhead lane signage on the northbound Highway #1 off-ramp and on the Fern Street /Highway #1 off-ramp to minimise vehicle weave; and
 - the Lynnmour Jaycee House.
- 6.6.3 Support longer term upgrading of the Lillooet Road and Mount Seymour Parkway intersection and other road network improvements to service increasing area demands by working with Ministry of Transportation to ensure that:
 - a traffic signal progression strategy is developed ;
 - access to the Lynnmour/ Inter-River community is enhanced from its current operation; and
 - impacts of any future development on Indian Reserve #2 are mitigated to provide least impact to the Lynnmour/ Inter- River community.
- 6.6.4 Address short-term needs at the intersection of Purcell and Lillooet Rd. by:
 - improving timing and phasing for pedestrians;
 - lighting the crosswalk; and
 - improving paint markings (drip line).
- 6.6.5 Ensure the Ministry of Transportation provides noise abatement measures along Highway 1 in any re-development of the Lillooet Rd /Mt. Seymour Parkway / Keith Road interchange.
- 6.6.6 As an interim measure request Ministry of Transportation plant trees in those portions of the existing interchange and road allowance where driver safety would not be affected.
- 6.6.7 Work with the Greater Vancouver Regional District and City of North Vancouver on the possible re-alignment of the access route to the North Vancouver Cemetery, Lower Seymour Conservation Reserve and the Seymour watershed facilities to the proposed Selkirk and Monashee Drive route in order to limit impacts on the District and Capilano College road networks.

6.6.8 Investigate the feasibility of imposing latecomer charges in favour of the GVRD for the future re- development of the private properties fronting Monashee Drive which benefit from the construction of the Selkirk Road extension by the GVRD.

POLICY

6.7 Maintain services (water, roads, hydro, gas, telephone, sanitary, storm, garbage collection and storm water management) at their existing level of quality and provide for future upgrading.

IMPLEMENTATION

- 6.7.1 Review current and proposed developments and ensure that existing services can be maintained at their present levels.
- 6.7.2 Retain the opportunity to expand the B.C. Hydro right-of-way in the planning area.
- 6.7.3 Support the Greater Vancouver Regional District projects for seismic upgrades to the Seymour Falls Dam, to construct the Seymour-Capilano Drinking Water Filtration Project near Rice Lake and to install new water pipes for the Seymour Water Main from the Dam to tidewater.

POLICY

6.8 Services to new development should be as unobtrusive as possible.

IMPLEMENTATION

- 6.8.1 Electrical transformers, connection boxes, gas meters, and other utilities should be located or screened so as to minimize visibility.
- 6.8.2 Electrical services to new development will be placed underground.

POLICY

6.9 Improve emergency access points to the riverfronts.

IMPLEMENTATION

6.9.1 Provide regular emergency access points to the Lynn and Seymour watercourses.

7.0 COMMUNITY FACILITIES AND SERVICES

Lynnmour/Inter-River residents are not generally well or conveniently served by community services. Lynnmour Elementary School continues to provide K to 7 education for Lynnmour students living north and south of the Highway, while Riverside West elementary students now have to attend either Lynnmour School or travel to Blueridge or Seymour Heights Schools in Seymour as the Maplewood School is now closed and leased for private school use

Lynnmour School has completed the first of several planned construction phases to remove portable classrooms and rebuild other parts of the school but the continual decline in school age children in the District means school closures will likely continue and unless the local school population stabilizes or increases this building programme may be jeopardized. The school is also in the floodplain of Lynn Creek and the plan recommends certain protective measures be provided in the future.

Some local programs and services (e.g. Cubs and Brownies) are available at this school and all local high school age children must travel to Windsor Secondary in Seymour.

Before and after school care is available from Norvan Boys and Girls Club, who operate from a portable on the Lynnmour School grounds. Licensed daycare and a Moms and Tots Drop-in Program are also available at the Lynnmour Jaycee House. The Lynnmour/Inter-River Community Association has now successfully operated part of this facility for four years through a lease from the District. The building has been extensively renovated under direction of a special community management committee and is used for many local meetings, special community events, various recreational and social programs and commercial rentals. Currently, there are almost no services for young teens or seniors provided locally but with local control over this facility there is the opportunity for many more services and programs to be provided right in the community. The plan supports the continuation of these services and for additional resources to address unmet community service needs.

Other facilities or services in the community tend to serve primarily regional functions. There are two private funeral and crematoria operations on Lillooet Road that have recently been upgraded. The City of North Vancouver, which operates the North Vancouver Cemetery, has developed a long-term plan to upgrade and expand services at this facility and to provide improved access to the Lower Seymour Conservation Reserve and watershed.

Capilano College is located just east of Lillooet Road. Current enrolment is approximately 5200 full time equivalent (FTE) students, which translates into some 7,000 students when the part-time students are included. Current growth is in the order of 60 – 70 FTE's, or 100 total students per year. During the last ten years the College has undergone a major expansion phase, adding a 9,290 metre square (100,000 square foot) administration and classroom building, and separate library and theatre facilities. Further expansion will require that the College's Transportation Study to be updated to address any traffic, parking or transit-related issues identified. Current issues of concern from the community's perspective include campus access from Purcell Way, transit use of Purcell Way, overflow parking, and opportunities for local community use of College facilities jointly funded with the District (Sportsplex and weight room). The Plan provides several ways to realize improvements in these areas of concern.

The District's Fire Training Centre is also located in this community, just south of Inter-River Park. The future of the forested lands in this area, provision for the long term training needs of the Fire and Rescue Services and the need to revise the original development plan for Inter-River Park have recently been the subject of an extensive public process and has resulted in several recent Council actions being incorporated into this Plan. The Training Centre is also in the Lynn Creek floodplain and the provision of some flood protection measures is recommended.

The plan also suggests several ways to support the few local organisations that serve this community and recommend the use of local history and public art to strengthen community identity.

SECTION GOALS

- To define and promote community identity for Lynnmour/Inter-River neighbourhoods.
- To increase community accesses to District of North Vancouver facilities, other community facilities and programs for Lynnmour/Inter- River residents.
- To develop new local programming and services within the Lynnmour/ Inter —River community.
- To support families and those who provide care and other services to families, in developing and maintaining safe, quality environments and activities that promote healthy, active families.

- To ensure that Lynnmour/Inter- River children and youth have access to safe, appropriate programs at the local level.
- To support expansion of institutional uses where necessary so long as it is achieved with minimal environmental damage and tree loss and minimal disruption to the adjoining neighbourhoods.

7.1 Through community consultation describe what defines Lynnmour/ Inter River and identify ways to incorporate these factors into gateways and other design elements to create a unique sense of place.

IMPLEMENTATION

- 7.1.1 Consult with community groups and individuals to identify and promote the defining characteristics of the Lynnmour / Inter- River neighbourhood, including its heritage.
- 7.1.2 Explore ways to incorporate identified neighbourhood characteristics through public art or other design with District staff and the arts community.
- 7.1.3 Re-instate the historic Lillooet Trail cairn marker as a focal point for the community.
- 7.1.4 Encourage and support volunteer efforts to establish a local community festival and/or other neighbourhood events.
- 7.1.5 Support local organizations in their community development efforts.

POLICY

7.2 Promote communication between and among people living in various Lynnmour/ Inter-River neighbourhoods.

IMPLEMENTATION

7.2.1 Use a range of communication tools to advise local residents about services and programs available in or near the community, (e.g. community newsletters, web sites and strata council minutes).

- 7.2.2 Identify other means of communicating with residents of Riverside West and further north on Lillooet Road, such as additional community bulletin boards.
- 7.2.3 Encourage the local community association to access the District Healthy Neighbourhood Fund and/or other funding to increase communication with all area residents.

7.3 Preserve and enhance the natural river and forest settings of the Lynnmour/ Inter - River community.

IMPLEMENTATION

- 7.3.1 Encourage local environmental groups such as Morten Creek Salmon Enhancement Program and North Shore Streamkeepers to educate local residents and the broader community about local environmental assets and issues.
- 7.3.2 Promote community efforts to foster respect and stewardship for the local environment by supporting local environmental groups or initiatives.

POLICY

7.4 Through collaboration with public and private organizations, promote access to and full usage of existing facilities (including Capilano College, Jaycee House, Lynnmour School, Seylynn Hall & others) for local residents of all ages and pursue the development of new community space for meetings, activities or local service delivery.

- 7.4.1 Retain District control of the Lynnmour Jaycee House, continue to provide financial support necessary to upgrade and have the local community operate the facility and work with community representatives, the RecCommission and local service providers to develop the facility as a local-serving community centre.
- 7.4.2 Explore partnership opportunities to enhance or improve operating and facility conditions and service possibilities for Norvan Boys & Girls Club possibly by utilizing the Lynnmour Jaycee House.

- 7.4.3 Encourage and support School District 44, Lynnmour Parent Advisory Committee and other efforts to keep Lynnmour Elementary School open and to improve it for the benefit of the whole community (e.g. investigate Joint Use Agreement possibilities).
- 7.4.4 Encourage School District No.44 to incorporate the recommendations found in the Kerr Wood Leidal report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment Final*, March 6, 2006 into any future renovations of Lynnmour School.
- 7.4.5 Improve community awareness of the availability of Capilano College facilities for community use.
- 7.4.6 Explore opportunities to improve local residents' access to Capilano College weight room facilities and for partnerships to enhance or expand this facility.
- 7.4.7 Request that the Recreation Commission, in consultation with the local community, identify and develop additional local recreation programs to be delivered at Capilano College and other community facilities.
- 7.4.8 Request that the District and Recreation Commission staff, in consultation with the local community, explore opportunities for increased use of Seylynn Hall by Lynnmour/Inter- River residents.
- 7.4.9 Work with School District No. 44 to upgrade and increase community use at Lynnmour School.

7.5 Identify resources and encourage collaboration to support local providers of child and family services.

- 7.5.1 Direct increased District resources to support Norvan Boys & Girls Club efforts to maintain and enhance service to elementary students in the Inter-River community.
- 7.5.2 Explore opportunities for collaboration among local childcare providers to enhance local childcare (e.g. access to facilities, information or expertise associated with Capilano College, Vancouver Coastal Health Authority, North Shore Childcare Resource Program, the Recreation Commission or others).

- 7.5.3 Continue to support use of a portion of Jaycee House for group day care, pre-school and out-of-school care.
- 7.5.4 Continue to encourage Vancouver Coastal Health Authority, in partnership with others, in maintaining and enhancing infant and toddler services to meet local needs.
- 7.5.5 Encourage strata councils to support efforts of Norvan Boys & Girls Club and others providing services to local children and youth.

7.6 In collaboration with Youth Outreach programs and other partners, provide a continuum of local, age-appropriate programming for a range of children, youth and their families.

- 7.6.1 Direct increased District resources to support Parkgate Community Services Society, Norvan Boys and Girls Club, or other agencies in improving community outreach services for Lynnmour/ Inter - River youth.
- 7.6.2 Encourage Seymour Community Services Society, Norvan Boys and Girls Club, RecCommission and other service providers to use Capilano College Sportsplex and weight room in programming for local youth, where these venues respond to local youth needs and interests.
- 7.6.3 Develop, in consultation with other service providers and community representatives, a Lynnmour/ Inter-River Children & Youth Services Strategy, beginning with an assessment of the current delivery of such services.
- 7.6.4 Develop an implementation plan to realise the Lynnmour/ Inter River Children & Youth Services Strategy.

7.7 Explicitly consider the needs of children, youth and families and people with disabilities in the design of new community facilities, traffic/pedestrian circulation and park facilities.

IMPLEMENTATION

- 7.7.1 Identify and seek improvements to transit service in Lynnmour/Inter River so that local youth can better access existing youth services and centres in Seymour and Lynn Valley.
- 7.7.2 With Seymour Community Services Society, the Recreation Commission, Vancouver Coastal Health Authority and other community partners, investigate the feasibility of improving local youth services through a minivan/shuttle service to Seymour Youth Centre.

POLICY

7.8 Support expansion of existing institutional uses when demand warrants provided this is achieved with minimal disruption to nearby residents and contributes to the community's development objectives.

IMPLEMENTATION

7.8.1 Work with Capilano College and Fire Training Centre staff to reduce existing neighbourhood impacts before considering further development or expansion of this campus or facility.

- 7.8.2 Request Capilano College update its Lynnmour Campus Site Master Plan, consider providing on-site student housing and improve other student and community services as necessary.
- 7.8.3 With the provision of a southern access road or other changes to the road network to reduce College traffic use of Purcell Way, continue to support increased growth and development at Capilano College.

7.8.4 Ensure the treed buffer and natural landscaping at Capilano College is retained to buffer adjacent residential uses from campus activities and to provide an attractive area for local residents to walk through and enjoy.

- 7.8.5 Request District staff and others to continue working with College staff to explore options and methods to reduce student-parking demand as the campus enrolment increases.
- 7.8.6 Support the short term development plan for the Fire Training and Maintenance Centre as approved by District Council on July 8th,2002 and shown on Sketch A attached, and the re-allocation of District lands adjacent to this facility to provide for the long term training needs of Fire and Rescue Services as shown on Sketch B attached.
- 7.8.7 Encourage Fire and Rescue Services to minimize environmental impacts and consult with local residents and Council advisory groups as and when it needs to further develop its lands in the future.
- 7.8.8 Encourage Fire and Rescue Services to incorporate the recommendations found in the Kerr Wood Leidal report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment Final*, March 6, 2006 into any future renovations of the Fire Training Centre.
- 7.8.9 Encourage Fire and Rescue Services to consider local needs and opportunities for community use in any expansion of the Fire Training Centre (meeting rooms, lecture theatre, etc.)

8.0 PARKS AND OPEN SPACES

Lynnmour/Inter-River contains a variety of different types of park and open spaces. These are used and enjoyed by local residents and the many others who come to use the major District and Regional sport and recreation facilities located here. This community serves as the gateway to the Lower Seymour Conservation Reserve (LSCR) and to many of the Alpine Area hiking and biking trails. Larger volumes of recreational and weekend traffic are expected to be attracted to the area. Solutions to this issue are found in the recommendations that the District monitor local parking situations and in support for initiatives in the LSCR Management Plan. Figure 1 below illustrates how the preferred access to the LSCR relates to the Lynnmour/Inter-River area although it is now recognized that negative environmental impacts prevent development of the proposed trail between Bow Court and the Capilano College parking lot. An alternate connection is expected to be developed in conjunction with the south campus access road in the future and the trail network planning has now been extended all the way south to tidewater with the creation of the Seymour River Greenway.

While Inter-River Park will continue to be developed as a District-wide playing field centre, Council recently approved a revised conceptual design plan to guide the completion of this Park's re-development (see Figure 2). This Park is also in the Lynn Creek floodplain and the provision of some flood protection measures is recommended.

The community is lacking in some basic amenities generally found in neighbourhood parks and, while lands have already been designated to meet these shortcomings, funds to develop these spaces have not yet been made available. This is particularly relevant for the residents on the east side of Lillooet Road and in the Riverside West neighbourhood and the Plan recommends these deficiencies be addressed as a priority.

While access to Lynn Creek on the west is virtually unlimited, access to the Seymour River on the east is reduced to a very few opportunities related to existing streetends because all the land is developed as singlefamily housing. The Plan also seeks to improve access to the Seymour for rescue and recreation purposes by working co-operatively with the GVRD, Squamish Nation and City of North Vancouver, by selective acquisition of riverfront property and by opening up existing road allowances to the river.

Part of the unique attraction of this area stems from having the North Shore Equestrian Centre located there. The Plan supports retention of the Centre and the continuation of these types of activities. Several issues and opportunities concerning the trails in the community were identified. The Plan envisions filling in some missing trail linkages to facilitate better circulation within and across the community and to resolve several conflicts and concerns between various trail users (dog-walkers, cyclists, equestrians, etc.) by working with those groups to develop trialuser protocols.

The Plan also recognises the need to protect the community's environmentally sensitive areas, to raise environmental awareness by supporting redesign of Inter-River Park, to retain its forested area and to protect Morton Creek, and by looking for partnership opportunities to provide interpretative nature and heritage signage throughout the area.

The need to strengthen the sense of identity in the community is also recognised in this part of the Plan. The creation of several planting and signage gateways are recommended, one involving the re-instatement of a historic cairn back to its original spot in the community.

Map LI-02 illustrates the Park and Open Space issues and solutions proposed in this section of the plan.

SECTION GOALS

- To improve facilities in existing parks or other locations so as to better meet local residents' park and recreation needs.
- To improve pathway and circulation routes between existing parks, open spaces, community facilities and services, and between neighbourhoods.
- To continue development of major parks and open spaces for the use and enjoyment of all users, while at the same time looking for opportunities to better serve local park and recreation needs.
- To retain the look and feel of a naturally forested environment within identifiable residential enclaves
- To recognize and protect environmentally sensitive areas such as the floodplains, escarpments and forested areas of our community.

8.1 Design and develop existing park spaces to address needs of local residents.

IMPLEMENTATION

- 8.1.1 Undertake a design exercise with local residents (and particularly those living on the east side of Lillooet Road) to determine appropriate future uses and activities to be located in Lillooet Park. Include any costs in the District Capital Plan as a priority.
- 8.1.2 As a priority re-examine the needs of youth in determining future activities in existing parks. Specifically consider adding basketball and skateboard improvements at appropriate locations.
- 8.1.3 Subject to community initiation and neighbourhood consultation, consider feasibility of establishing a community garden site to be developed and operated by a non-profit society at Lillooet Park or other suitable location.
- 8.1.4 Identify a suitable location and design a tot-lot with provision fror children with disabilities in the Riverside West neighbourhood.

POLICY

8.2 Consider the involvement of other groups or organizations in developing opportunities to meet community recreation needs.

- 8.2.1 Explore partnership opportunities with Capilano College or the Lynnmour Jaycee House to develop a community recreation facility on or near either of those properties.
- 8.2.2 Support any community initiative at Lynnmour School to improve the school playground by considering joint partnership funding with the District and participation of School District No.44.
- 8.2.3 Encourage the Capilano Landscape and Horticultural Program to become involved in the development and operation of a community garden if local residents initiate such a project.

8.2.4 Identify partnership opportunities with environmental or other groups and sponsors to provide interpretative nature and heritage signage in Inter-River.

POLICY

8.3 Continue development of the public trail and pathway system for the use and enjoyment of all users.

IMPLEMENTATION

8.3.1 In consultation with immediate neighbours and other community representatives consider developing the necessary links to complete the pedestrian pathway system shown on Map LI- 02, including:

- Connection from the GVRD Beach Yard to Capilano College and the Lower Seymour Conservation Reserve (Seymour River Greenway);
- Connection from Mount Seymour Parkway/Seymour Boulevard to the Baden Powell Trail or other local trail; and
- Formalising the pathway in park (PRO) strip along eastside of Lillooet Road, in a safe and environmentally responsible manner.
- 8.3.2 Investigate routes and formalise trail access to improve connections between Lynn Creek and the Seymour River.
- 8.3.3 Retain and continue support for the commuter bike route connecting Arborlynn Drive and Capilano College.
- 8.3.4 Support improvements to the multi-use trail system in order to reduce user conflicts by developing new protocols, signage and other physical improvements.
- 8.3.5 Continue to support equestrian uses of local parks and encourage the District to work with those users to develop, designate and upgrade appropriate trails to ensure improved safety and signage for all users.
- 8.3.6 Support District efforts to maintain trails and encourage safe and responsible use through the establishment of a signage program.
- 8.3.7 Encourage the improvement of the trail on the eastside of the skateboard bowl in Seylynn Park as a means to improve connections to Lynnmour North.

- 8.3.8 Support in principle the North Vancouver Cemetery Master Plan Option 2-Monashee Drive Alternative Access (see Sketch C), subject to the continued use of the Lillooet Road alignment for pedestrian and cyclist uses if vehicle access to the City and Regional District 's facilities shifts to the Selkirk – Monashee alignment and an alternate route for equestrian users is provided.
- 8.3.9 Work with Capilano College, the City of North Vancouver and Greater Vancouver Regional District in order to formalise a safe equestrian corridor and other recreational pathways in implementing the City's Cemetery Master Plan and the Region's Lower Seymour Conservation Reserve Management Plan.
- 8.3.10 Improve directional and interpretative signage on the Lynn Creek Sea to Sky trail connections from Lynn Canyon Park south to Harbourview Park.
- 8.3.11 Provide signage with a distinctive Lynnmour/Inter-River motif and interpretative plaques along local trails.
- 8.3.12 Improve existing wheelchair accessible trails and provide additional facilities for people with physical challenges.
- 8.3.13 Ensure the local trail network links to trail systems in adjacent communities.

8.4 Continue to support broad community use of the major park, open spaces and special areas within this community.

- 8.4.1 Support new open space zoning for the City Cemetery and private land on the west side of Lillooet Road as indicated on LI Map 02.
- 8.4.2 Retain equestrian uses at their current Lillooet Road location.
- 8.4.3 Encourage the retention of the dog kennel use on Monashee Drive but support only a limited range of public assembly or institutional uses so that peak period traffic flows are not added to significantly if redevelopment of the property is pursued in the future.

- 8.4.5 Ensure that Morten Creek is adequately protected from any impacts resulting from the addition of another playing field in the northern section of Inter-River Park.
- 8.4.6 Support the Greater Vancouver Regional District's Lower Seymour Conservation Reserve Management Plan and ensure that the Lynnmour Inter-River community is represented on the proposed Stewardship Forum or alternative public involvement program.
- 8.4.7 Establish an inter-jurisdictional planning process between the District, City of North Vancouver, Squamish Nation and GVRD to improve coordination and communication in developing each jurisdiction's respective lands for recreational purposes.
- 8.4.8 In the short term improve public access to Seymour River by providing minor improvements to existing streetends and other District property along this watercourse.
- 8.4.9 In the longer term, consider expanding these public riverfront spaces through the strategic acquisition of a limited number of adjacent private properties as they become available for sale or by bequest.

8.5 Develop landscaped gateways or entry points to help identify the Inter-River community and major residential neighbourhoods.

- 8.5.1 Retain and upgrade or enhance boulevard landscaping on both private and public lands at the corner of Mount Seymour Parkway and Lillooet Road to establish a community gateway.
- 8.5.2 Develop residential area gateways at Keith Road and Premier, Purcell Way and Lillooet and the north end of the Grantham Bridge and support residents' initiatives to take-over annual planting and maintenance of these neighbourhood gateways.

- 8.5.3 With the support of the Community Heritage Commission re-instate the Lillooet Trail cairn marker from Seylynn Park to a "Heritage Corner" in the vicinity of the original location at the corner of Old Lillooet and Keith Roads and install an interpretative sign.
- 8.5.4 Incorporate public art components into the community gateways projects and include community representatives in the project advisory development/steering group associated with the public art project.

8. 6 Ensure that dykes, drainage and flood protection measures inside park areas are recognized as part of the flood prevention program.

IMPLEMENTATION

8.6.1 Encourage the Parks Department to incorporate the recommendations in Kerr Wood Leidal's, *Lynn Creek Management Plan* (December 2004) and the *Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final*, March 6, 2006. into any future improvements to be made in Inter-River Park.

9.0 HOUSING AND GROWTH MANAGEMENT

Lynnmour/Inter-River is a community comprised of two distinct residential neighbourhoods – Lynnmour North and Riverside West. While both neighbourhoods share a family orientation, some factors that create these distinctions are vehicle access and elementary school catchment areas. Within these larger areas some additional differences can be noted (single family versus multi-family forms of development, topography, etc.) which has created enclaves of similar housing sharing similar circumstances. Overall there are approximately 1,100 households in the planning area.

The latest residential re-developments to occur in this neighbourhood have taken place on Premier Street, where an assisted family housing project and two low-density townhouse projects have been built, and on St. Denis Street where a 6-unit duplex project has been built since the last plan was adopted.

The other recent major developments in this part of the community have been the Holiday Inn project (1999), which replaced the Coach House Inn and the opening of a Real Canadian Superstore (1997) on the Squamish Nation Reserve.

In Lynnmour North most of the single-family housing is older stock in fair to reasonable condition and is located on lots that vary significantly in size and shape. This housing surrounds Lynnmour Elementary School, which has the capacity to accept increased enrolment that would help assure its continued operation. Given the community's expressed wish to " upgrade but retain its single family appearance" and to retain its school as a centre of community activity, a proposal to allow for duplex, triplex or townhouse built forms based on a sliding scale of density determined by lot size is recommended. This policy should encourage existing owners to add small units to their existing properties, address housing affordability issues, provide amenities such as sidewalks and street lights and allow a wider variety of housing types suitable for families with young children.

In March, 2006, the District of North Vancouver received a report entitled "Lynnmour/Inter-River Local Plan Flood Protection Assessment", prepared by the engineering consultants, Kerr Wood Leidal. This report pertains to proposed new development in Area 1, LI Map 4 specifically and outlines the potential flood risks from Lynn Creek, and methods of reducing those risks. Key recommendations include:

> It is not necessary to modify the proposed type or density of redevelopment proposed for this Area due to the identified flood risk; however

- It is necessary, as redevelopment begins, to make provisions so that in the long term the following protective measures are provided:
 - Establishing a Flood Construction Level and lot grading for all lots at the time of redevelopment;
 - Raising the height of St. Denis and Keith Road for dyke purposes;
 - Building a deflection berm at the Fire Training Centre;
 - Creating drainage channels and floodways; and
 - Building a berm at Lynnmour School.

See Sketch D in this Plan to view the proposed construction levels for new development and locations of proposed dyking, berming and other protective measures recommended by these consultants. Also, see the "Lynnmour/Inter-River Area One Design Guidelines for Multiplexes and Townhouses" for further details.

Provisions to obtain these protective measures have been included in the relevant sections of this Plan. The estimated cost to construct these flood protection and drainage works is \$1,000,000 (in 2006 dollars). It is expected that the District will pay for the design of the recommended protective measures and will provide for the deflection berm at the Fire Training Centre and the floodway in Inter-River Park while the rest of the recommended measures will be provided over time through the redevelopment of the identified area.

The majority of the existing multi-family units were built in the late '70's and '80's, and are in reasonable to good condition. Widespread redevelopment of these properties is not generally foreseen within the term of this plan and owners are encouraged to maintain their properties to a high standard. The Plan does allow for some limited re-development of existing properties by amending the Plan Map's Land Use Designations (see LI Map 3) to permit modest increases in density over what has been developed through the existing zoning. This opportunity would be pursued though individual rezoning applications in the future. The community's intention in this matter is to ensure that most of the new housing is suitable for families with children, that the form of development does not change drastically and that adequate open space continues to be provided on these sites. The locations, types of housing and densities supported in this Local Plan are anticipated to meet the housing needs of this area for the planning period. The Riverside West neighbourhood is a relatively isolated enclave comprised of approximately 120 single family and 145 multi-family dwellings. The older single-family houses, particularly those north of the Grantham Bridge where there are some large lots on the riverfront, are being re-built with very expensive homes. In recent years many new single- family houses have also been built on smaller lots south of the bridge. A few larger lots remain in this area, which the majority of local residents do not wish to see developed as a new multi-family development, because the traffic generated would severely impact the quiet nature of this cul-de-sac street. Due to the lot size, low density and site layout of the existing Heritage-in-the-Woods multi-family development, there may be a possibility that additional units could be built on this property in the future.

In the development of this Plan the local residents and staff considered many housing and development issues and opportunities. In recognition that this community lacks certain basic infrastructure, amenities and services needed to support additional development, the Plan proposes to adopt a philosophy that any new development can only be supported if it contributes directly to this community's overall improvement. The Plan outlines what the community's Development Objectives are and recommends a Public Benefits Strategy be developed to ensure that the few remaining development opportunities in Lynnmour/Inter-River contribute to the community's betterment. The Plan also proposes to apply the District's Mandatory Public Art policy so that the benefits of public art are focussed on achieving these Community Development Objectives.

In general the Plan supports the retention of several existing land uses in the community. The Plan recommends that a site on Monashee Drive now zoned for mausoleum use be rezoned to permit a limited range of public assembly or institutional uses that do not bring additional traffic into the community during peak traffic periods.

In discussing various housing issues with the community, it was recognised that the area is already well serviced by income assisted family housing which needs to be protected and that, due to its lack of services and congested transportation routes, it was not well-suited for new seniors independent housing. It might, however, be suitable for some sort of seniors institutional care facility and a need was recognised for some additional local serving commercial space. This might be combined with a limited number of small apartment units suitable for student housing at an appropriate location. However, the conversion of individual unit's living space into additional sleeping rooms in existing developments is not supported in the Plan and changes to the appropriate regulations to prevent this practice are recommended. Perhaps the biggest growth management issue to face this community will come from the future development by the Squamish Nation of their Seymour Creek (I R # 2) Reserve. Located directly across Mount Seymour Parkway from this community the current scheme will see approximately 430,000 square feet of new retail development that includes several regional serving big box uses and associated commercial spaces. As development of this Reserve is outside the jurisdiction of the District's ability to control, it is hoped the Squamish Nation will be good neighbours and ensure that any negative impacts from its development on the Lynnmour / Inter-River community are minimised.

The District owns some undeveloped land in this community and the Plan establishes new land use designations to guide their future use and development.

During the course of developing the Plan, there was substantial support for allowing the future sale (or lease) of the eastern site (Area 3, LI Map 4) for a broad range of uses including some small apartments suitable for students over local serving commercial uses, local institutional or industrial uses like film studios, subject to this development also providing a new access road to the south parking lot of Capilano College.

The community had greater concerns and was less supportive of future development of the District land on the westside of Lillooet (Area 4, LI Map 4). This well treed land rises steeply from the Holiday Inn, would require extensive environmental and geo-technical studies and the provision of substantial setbacks from nearby residential housing before a new use could be supported. Suitable uses might include those ancillary to the adjacent hotel use or a small care facility of some type that does not generate substantial traffic. Any new development would also be expected to provide a public viewpoint on part of the site.

With policies to retain or expand existing institutional uses and provisions to allow new industrial, institutional and commercial uses in the future the needs of the community should be accommodated for this planning period.

SECTION GOALS

- To protect and enhance the essentially affordable family orientation of the existing residential neighbourhoods
- To meet residents' changing housing needs in a limited way
- To direct any new development to designated areas or sites only

- To manage new development to protect it from natural hazards such as flooding and landslides
- To beautify and make local streets safer
- To ensure any new development contributes to the overall improvement of the community

9.1 Protect and enhance the character of all residential neighbourhoods while accommodating residents' changing housing needs.

- 9.1.1 Except under conditions or locations specified in this Plan, no changes in uses, densities or zoning will be supported unless the new built form and type of housing proposed is compatible with the existing community, and a substantial local community benefit can be demonstrated.
- 9.1.2 Height, bulk and lot coverage characteristics of replacement single family homes must be compatible with the general neighbourhood context.
- 9.1.3 Maintain the character of the existing neighbourhood when considering subdivision approval of any new residential lots.
- 9.1.4 Consolidation of lots with road allowances or portions thereof for the purposes of subdivision will not be permitted unless there is a public benefit to be obtained.
- 9.1.5 Owners of small lots or lots with less than 40 foot frontages are encouraged to follow the "Design Principles for Small Lot Developments" (Appendix B to the Small Lot Infill Report) in re-development of their property. These provide guidance in the massing, height, window locations and facades for new dwellings.
- 9.1.6 The District, in consultation with seniors groups, developers, and the North Shore Advisory Committee on Disability Issues and other disability groups, will develop and promote use of voluntary Adaptable Building Design and Universal Access Guidelines to enable new construction to more easily meet a broader range of needs of persons with disabilities or by seniors.

- 9.1.7 Encourage local strata councils and other property owners to continue maintaining their properties to a high standard (e.g. participate in "Communities in Bloom").
- 9.1.8 Direct District staff to develop regulations to prevent the conversion of shared living spaces (i.e. living or dining rooms) into additional bedrooms within individual units in existing multi-family developments.
- 9.1.8 Encourage the Ministry of Transportation, District of North Vancouver, and other owners of undeveloped lands to maintain them to community standards.
- 9.1.9 Utilize Development Cost Charge funding to design the drainage and flood control measures and to provide the Inter-River Park floodway recommended in the "Lynnmour/Inter-River Local Plan Flood Protection Assessment" report by Kerr Wood Leidal.
- 9.1.10 Include in future District capital budgeting funding to construct protective flood control measures (berm) for the Fire Training Centre.
- 9.1.11 Establish a Lynnmour/Inter-River Flood Protection Levy to be funded as a condition of redevelopment of properties in Area 1 in order to provide the other flood mitigation and drainage measures recommended in the "Lynnmour/Inter-River Local Plan Flood Protection Assessment" report by Kerr Wood Leidal.
- 9.1.12 Retain the development at 1055 Premier for income assisted housing indefinitely.

9.2 Encourage new residential development to occur primarily through infill and small-scale redevelopment in identified areas.

- 9.2.1 Designate the single family zoned lots on Premier and Orwell Streets, East Keith Road, Forsman and St. Denis Avenues shown as Area 1 on LI Map 4 as suitable for ground oriented multiple unit built forms having a range of permitted densities such that on **single lots** of record:
 - of less than 5000 square feet single family houses are permitted;

- between 5001 and 7000 square feet duplexes to a maximum density of 0.4 floor space ratio are permitted;
- between 7001 and 8000 square feet duplexes to a maximum density of 0.5 floor space ratio are permitted; and
- greater than 8001 square feet triplexes to a maximum density of 0.5 floor space ratio are permitted, provided that :
- all multiple unit projects are designed to provide vehicle access for future development on an adjacent single lot;
- all multiple unit projects consider accessible design principles and provide for improved pedestrian circulation where appropriate;
- all multiple unit projects comply with the Lynnmour/ Inter-River Area One Design Guidelines for Multiplexes and Townhouses;;
- all multiple unit projects meet environmental standards and individual units meet acoustic standards;
- all multiple unit projects contribute to the achievement of the Community Development Objectives, and.
- all individual development meets prescribed standards for drainage and flood protection and contributes to the shared flood protection measures as described in the Kerr Wood Leidal study titled Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final, completed in March 2006.
- 9.2.2 Designate the single family zoned lots on Premier and Orwell Streets, East Keith Road, Forsman and St. Denis Avenues shown as Area 1 on LI Map 4 as suitable for ground oriented Townhouse development to a maximum density of 0.7 floor space ratio where **lots of record are consolidated** to provide development sites greater than 15,000 square feet and provided that:
 - The number of units per project does not exceed 24 units per acre;
 - all multiple unit projects consider accessible design principles and provide for improved pedestrian circulation where appropriate;
 - all multiple unit projects comply with the Lynnmour/ Inter-River Area One Design Guidelines for Multiplexes and Townhouses;
 - all multiple unit projects minimize vehicle access points to the site;
 - all multiple unit projects meet environmental standards and individual units in the vicinity of Highway #1 meet CMHC acoustic standards;
 - all multiple unit projects contribute to the achievement of the Community Development Objectives; and

- all individual development meets prescribed standards for drainage and flood protection and contributes to the shared flood protection measures as described in the Kerr Wood Leidal study titled Lynnmour / Inter-River Local Plan, Flood Protection Assessment – Final, March 6, 2006.
- 9.2.3 Support in principle a replot of Ministry of Transportation lands to low density multi-family development in this area where an improved pedestrian and vehicle circulation pattern is achieved and the new development is better integrated into the existing community.
- 9.2.4 Apply Local Plan Development Guidelines as appropriate to ensure all new development achieves the goals and objectives set out in this community plan (see Schedule A, Section 4.3: Local Plan Guidelines)
- 9.2.5 Amend Development Permit Map 1 as necessary to incorporate new, or amend existing, Development Permit Areas as a result of this Local Plan.

9.3 Improve streetscapes and provide safer streets

- 9.3.1 Include in the design and upgrading of collector and arterial streets provision for sidewalks and pedestrian lighting wherever possible.
- 9.3.2 Encourage provision of a Street Tree Maintenance Program and fund it in the annual Municipal Budget.
- 9.3.3 Include the provision of street trees where feasible in the future road works in Lynnmour/ Inter-River.
- 9.3.4 Provide curb drops and other facilities to aid circulation of all residents.

9.4 Control and manage development of the areas identified on LI Map 4 in the manner set out below.

- 9.4.1 At the initiative of the owners, allow consideration of a limited increase in density in any redevelopment proposals for the Heritage-in-the-Woods and Edgewater Estates housing complexes provided that the new built forms and types of housing proposed are compatible with the community, conforms with the overall density specified in the Plan Map (LI Map 3) and such development contributes to the Community Development Objectives.
- 9.4.2 Retain the large single family lots north of the Grantham Bridge.
- 9.4.3 Designate the large lots in the 600-Block Seymour Boulevard (Area 2, LI Map 4) for single family uses only.
- 9.4.4 Ensure that all new and infill residential development on the Seymour River and Lynn Creek flood plains meet current regulations pertaining to the District's Environmental Protection By-law and relevant design or development guidelines, the federal government's Land Development Guidelines for the Protection of Aquatic Habitat and any requirements as set by the Provincial Government for flood protection and riparian areas.
- 9.4.5 Retain the District owned lot adjacent to IR No. 2 on Seymour Boulevard as an open space buffer to any uses located on these Squamish Nation lands.
- 9.4.6 Discourage provision of seniors' independent housing in the Lynnmour/Inter-River area until such time as there are suitable support services available to sustain that type of housing.
- 9.4.7 Discourage the provision of any additional assisted family housing in Lynnmour/Inter-River.
- 9.4.8 Consider development of the District land on the north east corner of Lillooet Rd and Mount Seymour Parkway (Area 3, Ll Map 4) for any of the following uses:
 - commercial with or without small residential units above;
 - multi-tenant office or industrial flexi-space (where all uses are contained within the building and all industrial processes are compatible with the nearby residential and institutional uses;
 - film studio;

- hotel and/or uses customarily ancillary to that use; or
- local serving church or institutional use;

Provided that:

- a new south access road to the playing field, neighbourhood park and College, is provided or other provisions are put in place to improve park access and significantly reduce future use of Purcell Way as the principal access to the College as part of this development,
- site access is taken off Lillooet Road and provides access and parking for the public park (to be developed) and the existing playing field ,
- a significant landscaped strip is retained along both Lillooet and Mt. Seymour Parkway,
- residual land north of the new access road is added to the existing neighbourhood park, and
- the development contributes to other Community Development Objectives.
- 9.4.9 Subject to environmental and geo-technical studies, consider part of the District land south of the intersection of Old Lillooet and Lillooet Roads (Area 4, LI Map 4) for uses ancillary to the adjacent commercial development or for a limited range of institutional uses such as seniors care facility;

Provided that:

- the proposed use is compatible with the existing residential developments;
- the proposed use does not generate significant traffic demand;
- a significant landscape buffer is retained or provided ;
- a public open space and viewpoint is provided; and
- the development contributes to other Community Development Objectives.
- 9.4.10 Rezone the portion of District land on the north side of Old Lillooet Road from I4 (Industrial) to PRO (Park Recreation and Open Space) or the appropriate new park zone.
- 9.4.11 Support rezoning of 1388 Monashee Drive from the existing Cemetery zoning (CM) to Public Assembly (PA) to permit vehicle parking as an accessory use to Capilano College.
- 9.4.12 Rezone the small triangular portion of District owned NPL (Natural Park) land immediately south of the new Selkirk Road and west of the existing

Capilano College parking lot to PA (Public Assembly) to rationalize the current parking use.

POLICY

- 9.5 Ensure new development in Lynnmour / Inter- River contributes to the following Community Development Objectives:
 - to improve community services or access to those services;
 - to retain or enhance the natural environment;
 - to improve the public trail and pathway system;
 - to improve traffic management and pedestrian safety;
 - to improve local park and open spaces;
 - to increase or improve public access to the waterfront;
 - to reduce impacts of growth or development on the community
 - to enhance community identity through the provision of public art and other features or amenities; and
 - to improve flood protection in the Lynn Creek flood plain.

- 9.5.1 Develop a detailed Public Benefits Strategy that considers community needs, project costs and funding strategies as a means to achieving the Community Development Objectives.
- 9.5.2 Consider the extent to which any re-development proposal meets the Community Development Objectives.
- 9.5.3 Accept community amenity contributions in the amount of up to 2% of the estimated cost of building construction, or the equivalent amount provided in-kind, as part of rezoning applications in order to meet Community Development Objectives. The nature and details of the community amenity projects and their priority will be determined in consultation with local community representatives, other District staff and the developer.

- 9.5.4 Accept contributions towards the construction of flood protection works, including dyke improvements, berms and floodways, and ensure that new construction is built to flood construction levels, as outlined in Kerr Wood Leidal's report titled *Lynnmour / Inter-River Local Plan, Flood Protection Assessment Final*, March 6, 2006.
- 9.5.4 Allow the Lynnmour/Inter-River community to work with the developer to determine whether contributions from the Developer Public Art Program are made in cash and deposited into a Lynnmour/Inter-River Public Art Fund, are used for a specific community art project, or applied to an art project associated with the proposed new development.
- 9.5.5 Focus funding received from local redevelopment under the District's Developer Public Art Program to projects such as the development of Community Gateways, restoration and re-location of the Lillooet Trail historic cairn, and to other projects which enhance or develop a stronger sense of community identity or environmental stewardship as given priority in the Community Development Objectives.
- 9.5.6 Ensure the Lynnmour/Inter-River community is strongly represented on any management or steering group or committee formed for any project related to the Developer Public Art Contribution.

10.0 ENVIRONMENTAL PROTECTION

Two major watercourses – Lynn Creek, which forms the west boundary of the planning area, and the Seymour River, which forms the east boundary, dominate Lynnmour/Inter-River. These watercourses and their tributaries support both fresh water and salmonid fish species.

Aside from the now-closed landfill site that is developing as active play spaces, the community is generally well treed – even in its developed areas. The District has completed a Landfill Closure Plan and has installed a drainage and leachate collection system to contain run-off. The District also periodically collects and burns off the methane gas produced when the decomposition and settlement of the site permits.

The natural environment is an important reason why many residents live in this community as it provides an attractive backdrop view, treed character, and easy access to nature. The watercourses provide wildlife and recreation corridors that require protection and enhancement where possible. There is also the potential of destruction of both the natural and man-made environments by a variety of natural hazards such as flooding, landslides, and erosion of steep slopes that can be minimized in extent and in impact on development with appropriate human actions.

These concerns are shared generally by all District communities and as such are already managed through the District's Environmental Protection and Preservation Bylaw. This regulates stream corridors and protective setbacks, the safe use of soils and the placement/removal of contaminated soils, development standards on sloping terrain, and tree retention on slopes and of particular species and sizes. In addition, the District OCP contains designated Development Permit Areas (DPA) for the protection of the natural environment and protection of development from natural hazards. This Plan incorporates several changes to the DP maps to protect sensitive areas from new development and to protect new development from newly identified hazards such as flooding.

In 2002 the District hired consultants to undertake River Management Plans for the two major watercourses in the Plan Area and to develop a gravel removal program for Lynn Creek. This later study identified a potential flood risk to development in the Lynn Creek floodplain. In March 2006, a Flood Hazard Assessment of Lynn Creek was completed by Kerr Wood Leidal Consulting Engineers. These studies identified flood risks from both watercourses and recommended that new development in these areas incorporate or provide various protective measures identified in the studies. These recommendations are reflected in Section 9: Housing and Growth Management, in the Design Guidelines for Area 1 and in the policies set out below.

SECTION GOALS

- to protect and enhance major watercourses as important bio-physical and cultural resources
- to protect, preserve and enhance tributary or minor streams and creeks in the area
- to protect and enhance unique natural and forested areas
- to improve air, land and water quality
- to ensure new development is environmentally sound
- to increase environmental stewardship

POLICY

10.1 Protect and enhance the Seymour River and Lynn Creek.

- 10.1.1Ensure that any development within the designated Seymour River floodplain and Lynn Creek floodplain areas comply with the current legislation and guidelines for environmental preservation and flood protection.
- 10.1.2 Support completion and implementation of the Lynn Creek and Seymour River Management Plans as these relate to the Lynnmour/Inter-River Planning Area.
- 10.1.3 Retain and enhance where possible or practical the natural riverbank vegetation on the Seymour River and enhance the riparian area to improve ecological functions.

- 10.1.4 Encourage Federal Fisheries, GVRD, Seymour Salmonid Society or others to document the fish bearing capacity of the Seymour River and Lynn Creek and develop a plan to increase their capacities over the next ten years for inclusion into the Seymour River and Lynn Creek Management Plans.
- 10.1.5 Encourage Park Services and others to enhance the riparian area of Lynn Creek in Inter-River, Lynn Canyon Park, Bridgman/Seylynn and Harbourview Parks by working toward integrated management plans for parks within the planning area.
- 10.1.6 Support Engineering Services' Premier Street Landfill Closure Plan and efforts to monitor leachate collection. Support any efforts that prevent leachate overflow discharge into Lynn Creek.
- 10.1.7 Encourage the completion of Integrated Stormwater Management Plans for the smaller tributary watersheds so as to reduce the effects on Seymour River and Lynn Creek.

10.2 Preserve, protect and enhance local streams and creeks.

- 10.2.1 Retain natural streamside or creekside vegetation and enhance the riparian areas. Ensure development complies with the District's Environmental Bylaw and meets the Riparian Area Regulation requirements.
- 10.2.2 Document the fish bearing capacity of all streams and creeks and put a plan in place to increase such capacity over the next ten years.
- 10.2.3 Place identification signs at prominent locations of all streams and creeks providing the stream/creek name and information about its environmental and habitat qualities.
- 10.2.4 Control access to Morten Creek from nearby playing fields and preserve its water quality.
- 10.2.5 Identify storm water discharge sources and develop a plan to protect natural waterways from harm caused by the quantity and quality of this discharge.

- 10.2.6 Protect both water quality and quantity in streams and creeks by utilising innovative engineering and stormwater management designs and by developing plans to maintain regional groundwater tables for all land development projects.
- 10.2.7 Ensure road and trail development is sensitive to the surrounding natural environment.
- 10.2.8 Ensure the Parks Department develops a fertilizer and pesticide management plan for Inter-River Park.

10.3 Preserve and enhance the natural and vegetative qualities of the community to the greatest extent possible.

IMPLEMENTATION

10.3.1 Work with community representatives and park-user groups to ensure as much of the southern-forested area of Inter-River Park is preserved as is possible.

- 10.3.2 Work with Fire and Rescue Services to maximize the preservation of the forested area north and east of the Fire Training Centre currently designated for future training needs while ensuring that Fire and Rescue training needs are met.
- 10.3.3 Follow Ministry of Environment, Lands and Parks standards in replanting trees removed from this forested area.

10.3.4 Investigate with the Community Heritage Commission the possibility of designating at least a portion of this forested area as a preservation area under B.C. Heritage legislation.

10.3.5 Retain extensive landscape setbacks on the District properties in the vicinity of the Lillooet Road and Mt Seymour Parkway, and Lillooet Road and Old Lillooet Road intersections.

10.3.6 Prepare a forest protection and management plan for the urban and native forest of Lynnmour / Inter-River.

- 10.3.7 Promote proper management and maintenance of native trees through publications and display materials.
- 10.3.8 Require developers, tree work companies and contractors to conform to required standards for tree protection and preservation.
- 10.3.9 Ensure effective protection of trees during land development activities.

10.4 Preserve and enhance local wildlife species to the greatest extent possible.

IMPLEMENTATION

- 10.4.1 Retain or develop "old field" habitat to support and enhance local raptor populations and ground nesting species.
- 10.4.2 Support the Bear Awareness Program, installation of interpretative signage, and protective fencing around identified nesting areas.
- 10.4.3 Design and improve local trails in such a manner as to encourage the preservation and isolation of concentrated nesting areas.
- 10.4.4 Encourage Park Rangers and others involved with bylaw enforcement to become knowledgeable about local nesting grounds and encourage stricter enforcement of relevant bylaws in these areas.

POLICY

10.5 Reduce the impacts on the community from the Trans-Canada Highway and from gaseous emissions from the landfill site.

IMPLEMENTATION

10.5.1 Encourage the Ministry of Transportation to increase plant materials in the landscaped areas adjacent to Highway 1.

10.5.2 Ensure the District's Landfill Closure Plan meets current standards and is regularly monitored.

- 10.5.3 Ensure overflow from the leachate collection system at Inter-River Park does not flow into Lynn Creek.
- 10.5.4 Improve air quality at Inter-River Park by reducing or filtering landfill gas emissions.

10.6 Consider support for new development only if it is based on principles of environmental sustainability.

IMPLEMENTATION

10.6.1 Require a tree inventory and site plan containing information on tree size and location, location of streams and creeks, and slope information prior to development or redevelopment of land.

- 10.6.2 Require a wildlife survey and bio-inventory of natural or forested areas being considered for alternative uses.
- 10.6.3 Examine surface and groundwater flow patterns on steep slopes when considering development applications.
- 10.6.4 Require adequate tree retention on steep slopes as a condition of development approval.
- 10.6.5 Require developers and construction workers to implement effective sediment and erosion control techniques for development on steep slopes.
- 10.6.6 Install oil and grit interceptors at all new and re-developed sites and require maintenance programs be developed for review by District staff.
- 10.6.7 Encourage the incorporation of on-site infiltration measures such as permeable surfaces and vegetation swales into construction plan to reduce urban run-off.

10.6.8 Install catch basin sediment traps in the vicinity of all new development activities.
- 10.6.9 Ensure landscaping of development parcels reflects and complements the community's natural setting.
- 10.6.10 Encourage the development of Green Buildings which conserve energy, water and other resources and uses recycled and environmentally responsible materials.

POLICY

10.7 Promote and support local efforts to increase environmental stewardship.

IMPLEMENTATION

- 10.7.1 Support efforts of North Shore Streamkeepers and other groups to enhance streams and rivers in Lynnmour / Inter-River and continue public education efforts on proper streamside protection and management.
- 10.7.2 Promote community stewardship through park volunteer projects (garbage pickup, stream cleanup, etc.)
- 10.7.3 Provide educational materials on proper sediment and erosion control techniques for land development.
- 10.7.4 Replant damaged or historically lost riparian areas.
- 10.7.5 Survey streams to ensure adequate gravel for spawning and woody debris for rearing salmonid.

11.0 PLAN IMPLEMENTATION

There are a number of specific major steps that need to be taken following the completion of this Local Plan and its incorporation into the District Official Community Plan. These steps are separate from and additional to the many Policy and Implementation Statements needed to realize the benefits of this plan. These are:

- 1. **Annual Monitoring of Plan -** staff need to establish an on-going liaison with the community and should undertake an annual audit to assess what steps have been taken to implement this Plan and to consider it in the context of the ever changing priorities and needs of the community.
- 2. Public Benefits Strategy such Community Development Objectives as listed in Part 9 and articulated throughout this Plan shall be the measure against which all new development requiring rezoning is considered. Achieving maximum density provisions shall be based, at least in part, on contributions new development makes to achieving these Community Development Objectives. The Public Benefits Strategy will be developed in consultation with local community representatives and will identify appropriate community improvements needed, the costs associated with these projects and their priority for the community.
- Flood Protection Contributions Area 1 is within the Lynn Creek Flood Plain and will therefore need to address flood protection and mitigation measures as part of any redevelopment. This will include a cash contribution towards the construction of flood protection works (dyke improvements, berms and floodways) and construction to flood construction levels (FCLs). Cash donations are estimated to be in the order of \$14.31 per square metre (\$1.33 per square foot) of land area.
- 4. **Community Involvement and Participation** special provisions and care needs to be taken to ensure that the views of this community are taken into account in the planning and development of the several major regional recreational, commercial and institutional facilities located in this community.



Transportation Study



August, 2016

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EXECUTIVE SUMMARY

STUDY PURPOSE

Recent development interest and design work on the Ministry of Transportation and Infrastructure (MOTI)'s nearby Highway 1 Lillooet Interchange Improvement Project has prompted District staff to reconsider the transportation network in the Inter-River neighbourhood. These recent initiatives have provided the District of North Vancouver (District) with an opportunity to develop a plan that provides a network that addresses redundancy, circulation, and permeability for people walking, bicycling, driving, or taking transit in this neighbourhood.

The study provides an overview of the range of options considered and provides recommendations that address the study's goals.

METHODS

Using feedback obtained from stakeholder groups consulted, District staff developed a range of potential options to serve the collective goals and needs for the area. Each option was evaluated as a segment using a set of refined criteria designed to help achieve the study's objectives. Options were formulated to improve the network with key study goals in mind, as found in the green box to the right.

RECOMMENDATIONS

New connections identified through the planning process include facilities for people walking, biking and driving and will be local streets that will carry relatively low volumes of vehicular traffic (less than 1,500 vehicles per day).

The following new connections are recommended:

- St. Denis Avenue to Forsman Avenue (south of Lynnmour Elementary School);
- Forsman Avenue to Orwell Street (proximate to the south of Lynnmour Elementary School); and

STUDY GOALS

- Provide safe & efficient access to all key destinations within and outside of the neighbourhood;
- Minimize neighbourhood traffic impacts & improve livability;
- Provide secondary access were feasible to provide redundancy, better circulation, better emergency access and ability to disperse vehicle traffic;
- Further develop formal and informal walking and cycling networks;
- Provide improved safety and connectivity of commuter & recreational routes & trail networks;
- Preserve and enhance existing natural areas;
- Provide alternative access to St. Denis Avenue; and
- Provide flexibility with ongoing development and highway interchange design work.
- St. Denis Avenue to Orwell Street (proximate to the north of Lynnmour Elementary School).

ADDITIONAL RECOMMENDATIONS

• Continue to meet the needs of people who walk and cycle to and through the sub area by enhancing and/or formalizing informal trails throughout the site;

- Enhance the existing pathway from Premier Street to Orwell Street, south of 'Digger Park' and dedicate space for a utility corridor;
- Support a Drive-to-Five program to encourage physical activity to and from school; and
- Improve circulation for pick-up and drop-off at Lynnmour Elementary.



FIGURE I: Summary map of proposed connections.

NOTE: Proposed connections are consolidated for convenience purposes only. Each connection may be implemented individually or collectively. Exact alignment is subject to further study.

LIMITATIONS OF THE STUDY

The study recognizes that due to adjacent unknowns, the timing of each individual segment will vary. While some segments may be realized through development, other segments may be completed in conjunction with District initiatives. Although new connections have been identified, further study is required to determine the exact alignment of each connection. Lastly, each segment is contingent upon successful partnerships with the stakeholders in this community.

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I. STUDY PURPOSE

In recent months, the District of North Vancouver (District) has received notice of further development interest in the Inter-River neighbourhood. It is timely to consider opportunities to improve the transportation network in the neighbourhood since options for providing additional connection(s) may become limited as redevelopment proceeds. Occurring simultaneously, recent design work being undertaken by the Ministry of Transportation and Infrastructure (MOTI) on the nearby Highway 1 Lillooet Interchange is expected to have an impact on the existing road network.

II. CONTEXT

a. LOCAL CONTEXT

The Inter-River sub-area is defined as being north of Highway 1, east of Lynn Creek, south of Inter-River Park and west of Premier Street, as shown in **Figure 1** below. This sub-area has been undergoing redevelopment characterized primarily from low-density single family to newer low density multi-family housing. Ongoing guidance for change in the area has been in accordance with the 2011 Official Community Plan and the 2006 Lynnmour/Inter-River Local Plan.



FIGURE 1: Inter-River Sub-area Map

b. KEY DESTINATIONS

The Inter-River sub-area is within close proximity to a range of destinations and amenities, as shown above in **Figure 1**. Lynnmour Elementary is at the heart of the sub-area, with the fire training centre and Inter-River Park located just north of the school. The southern portion of the park, known locally as 'Digger Park', is characterized by play structures and picnic tables. The northern and western portions of Inter-River Park consist of a series of recreational trails, an off-leash dog park, a bike skills park, and sports fields, which often host sports tournaments. Traffic generated by tournaments in the park are encouraged to enter and leave from the park's main access on Lillooet Road. People driving to the lower fields can either enter from the park's main entrance on Lillooet Road or from Premier Street.

One of the key destinations within this sub-area is Lynnmour Elementary School, serving a catchment area of families generally residing between Lynn Creek and Seymour River, as far north as Lynnmour North and as far south as Lynnmour South. It also serves families east of Seymour River toward the Maplewood Conservation Area and south of Mount Seymour Parkway. The school's primary pick-up and drop-off is located at the end of Forsman Avenue, with people walking, cycling, driving, and taking transit to access the school. Circulation is poor for parents who drive to this primary entrance on Forsman Avenue, with minimal space to turn around at the end of the street for travel back to E Keith Road.

Outside of the sub-area boundaries, residents have access to Real Canadian Superstore, Capilano University and the Lynn Creek Town Centre. Phibbs Exchange, the key transit hub in North Vancouver, is located approximately 1.5 kilometres south, or a 15 minute walk from Lynnmour Elementary School. Residents maintain access to these amenities by either by foot, bicycle, transit or vehicle.

c. EXISTING PEDESTRIAN, CYCLING, TRANSIT & VEHICULAR NETWORK

Passage to and through the Inter-River sub-area from the south can be accessed by foot or bicycle using a highway underpass south of East Keith Road and St. Denis Avenue (see **Figure 1**). People cycling and walking often travel up St. Denis Avenue through the park and further north, or east along East Keith Road to other destinations.

Several informal east-west pathways exist for people walking and cycling from St. Denis Avenue to Premier Street and from Premier Street to internal street networks off of Lillooet Road (see **Figure 2** below). Students of Lynnmour Elementary often access 'Digger Park' using an informal path behind the school's gravel field, while all other users access 'Digger Park' either from Orwell Street or along the informal powerline trail that runs between St. Denis Avenue and Premier Street. Dog walkers often access the offleash dog park from St. Denis Avenue or through the park's internal network.

In 2009, Council endorsed the Spirit Trail Route Planning Report. The Spirit Trail is envisioned as a 35kilometre long, accessible, lowing trail that will link Horseshoe Bay and Deep Cove. In June of 2016, Council indicated general agreement with a route that would travel north through Seylynn Park and along E Keith Road before moving onto Mount Seymour Parkway, as shown in Figure 2 below.



FIGURE 2: Existing Walking, Cycling, Driving and Transit Connections and Spirit Trail Alignment

There are currently two bus stops within walking distance on the eastern side of the site (see **Figure 2** above). The stop located on Old Lillooet Road services route 239 to Capilano University, while the stop located on Lillooet Road at Mount Seymour Parkway (west side) services routes 239 and 255 to Park Royal and Dundarave via Capilano University respectively. The stop on the east side of Lillooet Road services the 255 route to Dundarave. Access to the bus stop on Lillooet Road is taken from south of the site along the road to the Highway 1 Westbound off-ramp or through the Holiday Inn parking lot.

The existing street network in the sub-area is comprised of mostly north-south public roads, with the exception of East Keith Road and Old Lillooet Road. This street configuration does not provide any redundancy¹ for vehicles trying to access key destinations and residences on St Denis Avenue, Forsman Avenue, Orwell Street, and Premier Street, providing only one access in and out within the sub-area. Minimal connectivity with the surrounding street network limits access into the sub-area from Old Lillooet Road and the E Keith Road ramp.

c. EXISTING GUIDING POLICY

Key goals and recommendations from this study received general direction from Council-approved documents that outline overarching District priorities. The following policies and documents were used to inform the parameters of this study:

¹ 'Redundancy' – refers to the provision of alternative access in and out of a street (i.e. two ways in and out of a street) Document: 2961899 Page | 3

- Official Community Plan (OCP) (2011) aims to increase the mode share of walking and cycling by 2020.
- **Zoning Bylaws** provide information on existing and intended land uses for the Inter-River sub-area and District as a whole.
- Form & Character Development Permit Area (DPA) Guidelines are contained within Schedule B of the 2011 OCP and address the need for improved pedestrian connectivity through and around developments.
- **Transportation Plan (2012)** outlines the need to manage the existing road network to optimize safety and efficiency, while ensuring the integration of sustainable travel modes into the system.
- **Pedestrian Master Plan (2009)** emphasizes a need to provide a well-connected network of pedestrian facilities to encourage active modes of travel throughout the District.
- **Bicycle Master Plan (2012)** identifies one of its key goals as establishing a bicycle network that strengthens community connections and improves safety. Additional supporting goals and objectives include: promoting cycling as a key part of a sustainable transportation system and making all municipal streets more appealing to cyclists in addition to accommodating pedestrians and vehicles.
- **Road Network Study (2011)** addresses the need to identify opportunities for roadway reconfiguration to accommodate other modes and points to the benefits in circulation when improvements to road networks are effective.

III. ASSUMPTIONS

The following assumptions provide parameters for this study. These assumptions are guided by Council approved documents like the Official Community Plan and Zoning Bylaw, where applicable. Due to adjacent uncertainties with regard to existing land uses and ongoing development, these assumptions allow District staff to plan for network improvements under the following conditions:

• St. Denis

Due to ongoing MOTI work on the Lillooet Highway Interchange, it is assumed that access to St. Denis Avenue would no longer be provided from E. Keith Road, as per preliminary highway improvement designs.

• Lynnmour Elementary School

It is assumed that Lynnmour Elementary School would remain open and on this site.

• Fire Training Centre

It is assumed that access to the fire training centre site would continue to be provided.

• Park Access

It is assumed that primary access to Inter-River Park would continue to be from Lillooet Road.

• Property Access

It is assumed that access to all properties must be maintained.

• Existing Pedestrian and Cycling Commuter Routes

It is assumed that existing commuter and recreational routes that go through and to the Inter-River neighbourhood would be maintained and/or enhanced where appropriate.

Additional Connections

It is assumed that staff will continue to look for viable proximate connection options as opportunities arise and where such connections provide increased benefit to the community.

IV. STUDY GOALS

The following goals have been developed to guide the study. These goals have been reviewed and refined using feedback and input from internal and external stakeholders:

- Provide safe and efficient access to all key destinations within and outside of the neighbourhood;
- Minimize neighbourhood traffic impacts and improve livability;
- Provide secondary access where feasible to provide the following: redundancy, better circulation, better emergency access and ability to disperse vehicle traffic;
- Further develop formal and informal walking and cycling networks;
- Provide improved safety and connectivity of commuter and recreational routes as well as trail networks;
- Preserve and enhance existing natural areas;
- Provide alternative access to St. Denis Avenue; and
- Provide flexibility with ongoing development and highway interchange design work.

V. RECOMMENDATIONS

The following recommendations were based on discussions with stakeholders and meet the goals of the study.

NOTE: The alignments shown are schematic. Exact alignments for the proposed connections below are subject to additional detailed review. Each option has been evaluated individually due to timing and phasing, but can be implemented in isolation or together.

a. ROAD CONNECTIONS

Connections identified in this section include facilities for people walking, biking and driving. The road connections are classified as a local street and generally carry lower volumes of vehicular traffic. The form of the road connection should be designed to reflect the classification and volume. Conceptual road configurations as shown **in Figures 3** and **4** may be considered.



FIGURE 3: Olympic Village, Vancouver



FIGURE 4: Henry Hudson Elementary School, Kitsilano

Connection A: St. Denis Avenue – Forsman Avenue

- > Purpose: Provides direct access to St. Denis Avenue from E. Keith Road.
- ➢ Benefit
 - Provides users with options for accessing St. Denis Avenue; and
 - Can occur independently or in conjunction with other proposed segments.
- > Impact
 - Depending on final alignment, school and assembled properties would need to accommodate the new connection.
- Timing: Would coincide with development of residential housing south of the proposed connection and/or renewal of the school.
- > Collaboration: School District 44, residents and developers.



FIGURE 5: St. Denis Avenue to Forsman Avenue Segment

Connection B: Forsman Avenue – Orwell Street

- > Purpose: Provides redundancy to the road network, specifically to Forsman Avenue.
- ➢ Benefit:
 - Provides users with options for accessing the school (and to St. Denis Avenue if connected).
- > Impact:
 - Requires coordination between the school and DNV to develop the segment.
- > Timing: Would occur when the school renews.
- > Collaboration: School District 44 and residents.



FIGURE 6: Forsman Avenue to Orwell Street

Connection C: St. Denis Avenue – Orwell Street

- > Purpose: Provides access and/or redundancy to St. Denis Avenue users and fire training site.
- > Benefit
 - Provides users with options for accessing St. Denis Avenue and Orwell Street;
 - In conjunction with the southern connection, enables ease of traffic flow through the site for parents picking up/dropping off their child(ren) at school while minimizing impact on residents along Forsman Avenue;
 - If the fire training site is redeveloped per the land-use zoning designation, this connection may provide a more direct access to the site; and
 - Can occur independently or in conjunction with other proposed segments.
- > Impact
 - Would intersect the existing informal pathway that exists between Lynnmour Elementary School and 'Digger Park'; and
 - Would require DNV to purchase property located at the northern end of Orwell Street or from the school district.
- > Timing: Would occur when the DNV is able to acquire property.
- > Collaboration: School District 44, Fire Training Centre site operators and residents.



FIGURE 7: St. Denis Avenue to Orwell Street

b. WALKING & BICYCLING CONNECTIONS

Connection D: Maintain and Improve Existing Walking and Cycling Connections

- > Purpose: To continue to meet the needs of people who walk and cycle to and through the sub-area.
- ➢ Benefit:
 - Allows users to use existing routes for recreational and commuter purposes; and
 - Encourages continued active travel through the site;
 - Encourages linkages with the proposed Spirit Trail route, which provides an important East-West connection through the District of North Vancouver and other North Shore Municipalities
- ➤ Impact: Minimal/none.
- > Timing: As opportunities arise.
- > Collaboration: Residents.



FIGURE 8: Pathway on Cardero Street, West End



FIGURE 9: Pathway on Guildford Street, West End



FIGURE 10: Trails and Pathways Document: 2961899

c. ADDITIONAL RECOMMENDATIONS: OTHER ELEMENTS

Enhanced Pathway & Utility Corridor

- Purpose: To ensure space is available for pathway enhancements and to reserve additional land required for a utility corridor.
- > Benefit:
 - Provides an improved walking space for pedestrians and users of 'Digger Park';
 - Provides additional space for those who walk, cycle and require mobility aids with minimal competition for space; and
 - Provides the required space for maintaining and storing underground utilities.
- ➤ Impact: Minimal/none.
- > Timing: Space to be reserved immediately, with enhancement occurring when opportunities arise.
- Collaboration: Residents.



FIGURE 11: Enhanced Pathway & Utility Corridor

Support Drive-to-Five Program

- Purpose: This program is aimed at encouraging students to use more active modes of travel to school. Parents are encouraged to drop their children off a five-minute walk away from school, allowing students to get physical exercise and to learn how to become more safe and aware as pedestrians.
- > Benefit:
 - Encourages parents and students to incorporate limited physical activity to and from school; and
 - Reduces traffic in and around the school drop-off/pick-up zone.
- ➢ Impact: Minimal/none.
- Timing: Would be contingent upon interest of the Parent Advisory Committee (PAC) to work on this issue.
- > Collaboration: PAC possibly in collaboration with local businesses.



FIGURE 12: Drive-to-Five Walking Distances

Lynnmour Elementary Internal Circulation

- > Purpose: Improve circulation of parents dropping off and picking up students during peak times.
- ➤ Benefit:
 - Improves neighbourhood livability for nearby residents; and
 - Allows for efficient and safe circulation near the school.
- > Impact: May impact site design for the school's future development.
- > Timing: When the school renews.
- > Collaboration: School District 44, PAC, students, residents.



FIGURE 13: Example of Internal Circulation: Highlands Elementary School



FIGURE 14: Example of Internal Circulation: Highlands Elementary School

d. ADDITIONAL RECOMMENDATIONS: OUTSIDE STUDY AREA

Formalize Walking and Pedestrian Connections between Lillooet Road and Premier Street

- > Purpose: Provides formal indication of a trail from Lillooet Road to Premier Street.
- ➢ Benefit
 - Provides improved access from Premier Street to Lillooet Road for users trying to access the transit stop on Lillooet Road;
 - Provides improved access for students walking to Lynnmour Elementary School from the east; and
 - Formalizes an already existing informal route through a residential complex to serve the greater neighbourhood, as well as the complex's residents, using wayfinding signage.
- > Impact
 - Some residents may not support users from neighbouring areas using a path through private development.
- > Timing: As opportunities arise.
- Collaboration: School District 44, Edgewater Estate residents and property managers, and Lynnmour West residents and property managers.

Vehicle Connection from Lillooet Road to Premier Street

- > Purpose: Provides access and redundancy for Premier Street and the neighbourhood.
- ➤ Benefit
 - Currently, there are two ways into the neighbourhood and one way out. This segment provides improved redundancy and egress from the site.
- > Impact
 - Would be designed with redevelopment to have a minimal impact to future residents.
 - Further studies need to be completed to determine alignment with grade and development.
- Timing: Would occur if and when the existing developments between Lillooet Road and Premier Street redevelop. (possible 10-20 year timeframe)
- Collaboration: Edgewater Estate residents and property managers, Lynnmour West Estate residents and property managers, future developers.

V. LIMITATIONS

The study recognizes that due to adjacent unknowns, the timing of each individual segment will vary. While some segments may be recognized through development, others can be completed in conjunction with District initiatives (i.e. property acquisition). Although specific segments have been identified, further study is required to determine the exact alignment of each connection. The proposed connections outlined in this Study are intended solely to show through connections in a general area. Lastly, each segment is contingent upon successful partnerships with stakeholders in this community. Ensuring that local residents and development interests have an opportunity to influence positive changes in this community is a priority.

VI. CONCLUSION

As communities in the District continue to grow and densify, the existing street network needs to advance in order to meet current and future needs for improved access and redundancy. Due to development interest in the Inter-River neighbourhood, the District has identified key opportunities to improve the quality of life of its existing and future residents.

The District recognizes that streets in the Inter-River sub-area should be designed to ensure that they are safe, comfortable, and welcoming for all users, including people walking, cycling, driving or taking transit. New streets that are introduced into the area need to be sensitive to the existing neighbourhood, and should reflect the other local streets. In addition, the new connections need to improve vehicular access through the site as well as increase permeability and access for all users.

In order to reflect the interests of the neighbourhood's residents, the District further recognizes the need to maintain the neighbourhood character in all improvements to the existing network. This work will be done in consultation with local residents and developers to ensure key stakeholders are involved throughout this process.

The proposed recommendations require further studies to determine the most appropriate and cost effective alignment with the least impact to current residents. The proposed connections identified in this report were developed using stakeholder feedback. Each connection serves the purpose of improving circulation and redundancy in the neighbourhood, while providing required access to St. Denis Avenue.

These proposed connections, whether taken individually or collectively, serve to create a more complete and finer grained network in the neighbourhood. These connections intend to address a range of ongoing transportation related issues and help improve the quality of life of local residents, school-goers, and recreational trail users in the Inter-River sub-area.

Inter-River Sub-Area Transportation Study

APPENDIX

APENNDIX A: PLANNING PROCESS

Planning Process

As part of the transportation review process, District staff consulted a total of 12 internal and external stakeholders, listed below in Table 1. Stakeholders from group #1 were chosen from internal departments to provide input on ongoing issues in the neighbourhood. Stakeholders from group #2 were chosen to represent the varying interests in the neighbourhood.

Stakeholder Group #1	Stakeholder Group #2
Engineering	Fire
Environment	Neighbourhood Representatives (2)
Parks (2)	School District #44
Planning	Transportation Consultation Committee
Public Safety	Vancouver Coastal Health

TABLE 1: Stakeholder Consultation Groups

In the first set of meetings, stakeholders were requested to review the goals, assumptions, and criteria used to evaluate the options proposed for the study area. Stakeholders were also asked to collectively identify opportunities and barriers with the existing transportation network. Stakeholder input also played a key role in refining criteria to meet the needs of all representatives and identifying key priorities in the neighbourhood.

District staff reviewed the feedback and input of both stakeholder groups and worked to develop potential transportation options that best met the goals outlined for the study. These options were evaluated to determine the highest-ranking options. The criteria included below were used to evaluate a total of seven options.

TABLE 2: Evaluation Criteria

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
ety	 Improves safety for all users walking, cycling and driving. Minor or no impact on safety for all users walking, cycling and driving. Reduced safety for all users walking, cycling and driving. 	• • •								
Public Saf	 Improves ease of access for emergencies throughout whole site. Improves ease of access for emergencies to part of the site. Does not improve ease of access for emergencies for most of the site. 	•								
nectivity	 Improves access and circulation of all modes Has a minimal impact on access and circulation of all modes. Reduces ease of access and circulation of all modes 	•								
Mobility and Cor	 Provides improved access for all users to key destinations (e.g. natural areas, school etc). Provides improved access for only some users to key destinations (e.g. natural areas, school etc). Reduces ease of access for all users to key destinations (e.g. natural areas, school etc) 	•								
Natural	 No impact on parkland/natural areas. Minimal impact on parkland/natural areas. Negative impact on parkland/natural areas. 	• • •								
Livability	 Positively enhances neighbourhood livability. Has minimal to no impact on neighbourhood liveability. Negatively impacts neighbourhood livability. 									

TABLE	2:	Evaluation	Criteria
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	Criteria Description							Comments
ာ င		Rat		Opti	Opti		Opti	
Costs	 The cost of implementation is low. The cost of implementation is medium. The cost of implementation is high.	• • •	-					
Private Interests	 Has a positive impact on existing landowners and/or the development potential of land. Has a neutral impact existing landowners and/or the development potential of land. Has a negative impact on existing landowners and/or the development potential of land. 	• • 0	-					

The second set of stakeholder meetings was used to confirm the revised goals and assumptions. District staff shared draft options and draft recommendations informed by an evaluation of each option. Stakeholders provided feedback on the preferred set of transportation improvements in the neighbourhood. The options that best reflect stakeholder input and analysis completed by staff are summarized in Chapter V: Recommendations. In September, 2016, District staff consulted the Inter-River Community Association with proposed recommendations. The results and minutes of this consultation are provided in Appendix C.

APPENDIX B: METHODOLOGY

Options for Consideration

Using stakeholder feedback as the foundation for further analysis, District staff developed a range of potential options to serve the goals and needs for the area. Each option was evaluated as a segment, with the understanding that combined options would serve to better improve the network as a whole. Staff presented options with two key objectives in mind:

- 1. Better connect and improve the existing network for current and future transportation needs; and
- 2. Provide required access to St. Denis Avenue.

The range of proposed options considered for further analysis and evaluation are shown below in **Figure 15**. These options are intended to delineate a general location for a proposed east-west connection. Further details on the exact alignment will need to be discussed with relevant property owners and upon Council's direction.

Although the options presented in **Figure 15** serve the purpose of providing vehicular access, the District supports creating streets that are safe for all users that walk, cycle, use transit, and drive to and through the site. Stakeholder feedback further highlighted the need to maintain and enhance existing formal and informal walking and cycling routes through the site. This study does not aim to detract from the existing walking and cycling network, but rather aims to highlight opportunities that improve the range of options for accessing various destinations in and adjacent to the sub-area.



5: Map of Options Considered

EVALUATION

VEHICLE ACCESS

Stakeholders were asked to consider each option individually to determine which options best served the most needs in the neighbourhood. Although this study assumes Lynnmour Elementary School will remain open on site, the School Facilities Plan highlights the possibility that Lynnmour Elementary School may renew. The District believes access should be maintained, as a decision on its final location, whether on- or off-site, is still undecided.

Using the goals and assumptions as parameters for this study, stakeholders generally agreed with the following:

- Option 1b plays a key role in providing improved circulation and access to the school's existing entrance, should the school remain in its current location. Combining option 1a is a logical connection through to St. Denis Avenue;
- A combination of options 1a and 1b with 2 will provide a similar connection to 4a and 4b with less impact on the park;
- Option 4b is a favourable option but, option 4a will have an impact on the southern portion of Inter-River Park, otherwise known as 'Digger Park';
- Options 3 and 5 have minimal support due to their impact on existing parkland and their minimal impact to overall network improvement; and

The meeting minutes that document the discussion can be found in **Appendix C**.

District staff used the feedback collected from both sets of stakeholder meetings to refine the options and present the most widely recommended 'scenarios'. These scenarios are presented in **Chapter V**: **Recommendations**.

Scenarios that provided redundancy within the street network and improved circulation were ranked more favourably than those that had fewer overall benefits to the network. Scenarios that had the biggest impact to Inter-River Park and to existing development were not ranked favourably amongst stakeholders.

The highest ranking scenario from this evaluation was Scenario 4, which recommends a combination of options 1a, 1b, 2 and 4b. This scenario was preferred because it provides redundancy for access to St. Denis road while providing improved circulation and additional alternatives into/out the site. Option 2 provides a second option for users into and out of the sub-area by providing access via Premier Street or Orwell Street, and has a lower impact on the park than option 4a. It was however recognized that option 2 would place greater pressure on existing traffic patterns along Premier St. Option 2 was subsequently removed from the final recommendations.

A range of additional transportation needs were highlighted by stakeholders during the consultation process. These needs were not highlighted in any of the presented scenarios, but are addressed below.

PEDESTRIAN, CYCLING, AND TRANSIT ACCESS

Maintain and Enhance Existing Pedestrian and Cycling Commuter and Recreational Networks

- Stakeholders highlighted the importance of formal and informal pedestrian and cycling trails that travel to and through the site.
- Commuter and recreational trails that run through the site should be maintained to provide opportunities for active travel.

Improved Connections to Transit

• Stakeholders identified barriers to accessing the existing transit stops located southeast of the sub-area on Old Lillooet Road and Lillooet Road.

- District staff recommend exploring opportunities to put in more formalized paths that provide improved access to the existing bus stop locations.
- Stakeholders also identified opportunities to improve transit stop infrastructure for all abilities and for all weather conditions.

SCHOOL CONGESTION

Drive to Five Program

- The intent of Drive-to-Five programs is to provide locations where parents can park approximately a 5 minute walk away from school and encourage their children to engage in active modes to school.
- Stakeholders requested that opportunities for Drive-to-Five locations at existing parking lots in the adjacent area be explored.
- The Holiday Inn parking lot or existing Ministry land were recommended as two potential locations for this use.
- The District recommends that the Lynnmour Elementary PAC work with the local businesses to identify potential locations for short term-parking in support of Drive-to-Five.

ADDITIONAL CONSIDERATIONS

PROPERTY ACQUISITION

• The District understands that as part of this transportation review, network improvements will likely be timed with redevelopment opportunities. Where redevelopment opportunities do not exist, the District would need to consider acquiring properties to help create a complete network.

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
Safety	 Improves safety for all users walking, cycling and driving. Minor or no impact on safety for all users walking, cycling and driving. Reduced safety for all users walking, cycling and driving. 	• • 0	•	•	•	0	0	0	0	 All options being considered will be low-volume, low-speed streets, and will therefore have reasonably safe traveling conditions. None of the options 'reduce' safety however, Options 3-5 present more opportunity for conflicts between users than Options 1-2.
Public 3	 Improves ease of access for emergencies throughout whole site. Improves ease of access for emergencies to part of the site. Does not improve ease of access for emergencies for most of the site. 	• • 0	•	•	•	0		•	0	 Options 1a &1b collectively provide the best access and circulation for emergency vehicles through the site. Option 2 as well as 4a & 4b collectively also provide good access and circulation but may not be the most efficient route for emergency access. Option 3 and 5 provide access for emergency vehicles but provide the least circulation and efficiency of travel through the site.
	Provides required access to St. DenisDoes not provide required access to St. Denis	0		0	0	0				 Providing access to St. Denis is a required component of this study. At a minimum, the chosen scenario must include an option that provides this required access.
nd Connectivity	 Improves access and circulation of all modes Has a minimal impact on access and circulation of all modes. Reduces ease of access and circulation of all modes 	• • 0		•			•			 All options, with the exception of 1b, provide access and connectivity to other streets but do not provide improved circulation. Option 1b improves both access and ease of circulation for all modes as well for parents dropping off/picking up children at school.
Mobility ar	 Provides improved access for all users to key destinations (e.g. natural areas, school etc). Provides improved access for only some users to key destinations (e.g. natural areas, school etc). Reduces ease of access for all users to key destinations (e.g. natural areas, school etc). 	•		•			•	•		• This criterion is not an effective indicator.
Natural Areas	 No impact on parkland/natural areas. Minimal impact on parkland/natural areas. Negative impact on parkland/natural areas. 	•	•		•		•		0	 Option 1 a/b and 2 do not impact parkland or natural areas. Option Options 3 and 4a/b would require removal of some park trees. Option 5 would impact the Riverine Forest.

Category	Criteria Description	Rating	Option 1a	Option 1b	Option 2	Option 3	Option 4a	Option 4b	Option 5	Comments
Li va bi	 Positively enhances neighbourhood livability. Has minimal to no impact on neighbourhood liveability. Negatively impacts neighbourhood livability. i ≚ > 	• • •			0		0		0	 Options 1a and 1b provide improved circulation and flow of traffic for school pick-up/drop-off Option 2 would divert traffic from any new development onto Premier St and negatively impact residents who take access off of Premier St. Options 3 and 4b provide no benefit to the community. Options 4a and 5 would have an impact on the park and the quality of the park as a public space.
Costs	The cost of implementation is low.The cost of implementation is medium.The cost of implementation is high.	• • •			•	0	0	0	•	 The cost of implementing options 1-2 are considered low because of the narrow road widths and no impact to utilities. Options 3-4 are considered high because of utility costs and the length of the segment. Option 5 would be costly due to the length of the segment.
Private Interests	 Has a positive impact on existing landowners and/or the development potential of land. Has a neutral impact existing landowners and/or the development potential of land. Has a negative impact on existing landowners and/or the development potential of land. 	• • 0	0		0		0		0	 Options 1a & 2 may impact the size of developable land. Option 1b may have a minor impact depending on size and location of public meeting place/square. Option 4a would have a negative impact on existing landowners. Option 5 would impact existing landowners and may have an impact if properties were redeveloped.
APPENDIX C: MEETING MINUTES & ATTACHMENTS

NOTE: A total of four meetings were held with internal and external stakeholders. All participants were given the same reference material, consisting of the study area map, study goals, assumptions, and criteria for evaluation. These study components were refined using stakeholder feedback and are presented in this report to provide context for the proposed recommendations.

JUL .	Inter-River Sub-area Transportation Study District of North Vancouver Stakeholder Meeting #1a Meeting Minutes & Attachments	
NORTH VANCOUVER DISTRICT		
Held at:	Municipal Hall - Meeting Room 'C'	
Date/Time:	May 17 th at 2:00 pm	Adjourned: 3:05 pm
Attended By:	Douglas Rose – Parks Fiona Dercole – Public Safety Pouya Behzadi – Engineering Richard Boase – Environment Susan Rogers – Parks Tamsin Guppy – Planning Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation	
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

- 1) Introductions
- 2) Review Study Purpose
- 3) Discussion of Goals, Assumptions, Criteria
- 4) Existing Conditions & Issues
- 5) Wrap-Up & Next Steps

✤ REVIEW STUDY PURPOSE

- Weisenbach spoke about the purpose of the transportation study, which included a need to clarify the transportation needs for this area in advance of future development proposals.
- The boundaries of the study area were discussed. Weisenbach went over the study area and the tight timeframe. Group discussed that the boundary may not be an exact line as the study should also consider users that pass through the study area or people within the neighbourhood that need to access key destinations outside the study area.

✤ DISCSUSSION OF ASSUMPTIONS, GOALS & CRITERIA

- Assumptions
 - Weisenbach shared the draft assumptions with the group.
 - The group discussed the assumptions and provided additional suggestions that should be considered: a) park access, b) property access and c) commuter routes and active travel networks.
- Goals
 - Weisenbach shared the draft goals and asked for feedback.
 - Group suggested adding in goals that addressed protection of active travel networks and preservation of natural areas and recreational space.
- Criteria
 - Tejani reviewed the draft criteria to be used for options evaluation.
 - Group recommended additional criteria about protection of natural areas, flood protection, connection of trail networks, impact on utilities, and cost of option implementation.

✤ EXISTING CONDITIONS & ISSUES

- Group recorded strengths and weaknesses of the existing transportation network on the study area map.
- Group then summarized issues into key themes. (See Attachment A on page 29)

Wrap Up & Next Steps

- Meeting minutes to be dispersed for confirmation of understanding
- Draft evaluation of options for presentation at next meeting, and layout of May 30th meeting provided.

NEXT MEETING: Monday, May 30th at 10:30 am in Meeting Room 'C'

NORTH VANCOUVER DISTRICT

Inter-River Sub-area Transportation Study

District of North Vancouver Stakeholder Meeting #1b Meeting Minutes

Held at:	Municipal Hall - Meeting Room 'A'	
Date/Time:	May 17 th at 7:00 pm	Adjourned: 8:00 pm
Attended By:	Antje Wahl – Transportation Consultation Brenda Barrick – Neighbourhood Repre Erin Black – Vancouver Coastal Health Mark Thomson – School District 44 Victor Penman – Fire Ingrid Weisenbach – Transportation Shazeen Tejani – Transportation	on Committee sentative
Regrets:	Elise Roberts – Neighbourhood Represe	entative
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

- 1) Introductions
- 2) Review Study Purpose
- 3) Discussion of Goals, Assumptions, Criteria
- 4) Existing Conditions & Issues
- 5) Wrap-Up & Next Steps

✤ INTRODUCTIONS

• Participants introduced themselves and their roles relevant to this meeting.

REVIEW STUDY PURPOSE

- Weisenbach spoke about the purpose of the transportation study, which included a need to clarify the transportation needs for this area in advance of future development proposals.
- The boundaries of the study area were discussed. Weisenbach went over the study area and the tight timeframe. Group discussed that the boundary may not be an exact line as the study should also consider users that pass through the study area or people within the neighbourhood that need to access key destinations outside the study area.

DISCSUSSION OF ASSUMPTIONS, GOALS & CRITERIA

- Assumptions
 - Weisenbach shared the draft assumptions with the group.

- The group discussed the assumptions and provided additional suggestions that should be considered: a) park access, b) property access and c) commuter routes and active travel networks.
- Goals
 - Weisenbach shared the draft goals and asked for feedback.
 - Group suggested adding in goals that addressed protection of active travel networks and preservation of natural areas and recreational space.
- Criteria
 - Tejani reviewed the draft criteria to be used for options evaluation.
 - Group recommended additional criteria about protection of natural areas, livability of the neighbourhood to enhance social cohesion and sense of community, and health indicators.

✤ EXISTING CONDITIONS & ISSUES

- Group recorded strengths and weaknesses of the existing transportation network on the study area map.
- Group then summarized issues into key themes. (See Attachment A on page 29)

Wrap Up & Next Steps

- Meeting minutes to be dispersed for confirmation of understanding
- Draft evaluation of options for presentation at next meeting, and layout of June 2nd meeting provided.

NEXT MEETING: Thursday, June 2nd at 7:00 pm in Meeting Room 'A'

ATTACHMENT 'A': KEY THEMES IDENTIFIED BY TEAM

Summary of Existing Conditions & Opportunities (Both Groups):

- Study area not bound by the sub-area boundaries; issues like bike commuter routes and pedestrian paths outside and through the site seen as being important
- **Congestion:** Seen as potentially worsening with new development near Lynnmour Elementary school.
- **Transit accessibility:** Seen as being in 'poor' condition walking distances to transit stops seem too far, with no transit connections in the internal network.
- **Cycling Routes:** Seen as being effective near the southern portion of the site, under the highway, but being very poor along Old Lillooet Road and crossing Keith Road. There was also a need for improved connections leading into and out of the sub-area.
- **Pedestrian connections:** Generally, the trail and footpath network through the site was seen as being excellent. There was an expressed need for continued maintenance of these trails and a desire for improved pedestrian connections immediately outside of the sub-area. Pedestrian connections should be emphasized for key destinations throughout the site.
- Environmental Assets: Both Inter-River and 'Digger Park' play a huge role in establishing a sense of community for residents an assumption should be that both parks will be protected from disturbance. Lynn Creek is also a recreational and ecologically valued asset. The environmental & ecosystem health of the Riverine Forest should also be maintained.
- **Parking:** Seen primarily as an issue closer to Inter-River Park.

NORTH VANCOUVER DISTRICT	Inter-River Sub-area Transportation Study District of North Vancouver Stakeholder Meeting #2a Final Meeting Minutes	
Held at:	Municipal Hall - Meeting Room 'C'	
Date/Time:	May 30 th at 10:30am	Adjourned: 11:30am
Attended By:	Pouya Behzadi – Engineering Richard Boase – Environment Tamsin Guppy – Planning Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation	
Regrets:	Fiona Dercole – Public Safety Douglas Rose – Parks	
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

- 1) Meeting #1 Recap & Approval of Minutes
- 2) Review Revised Goals & Assumptions
- 3) Review Options & Criteria Evaluation
- 4) Recommendations
- 5) Wrap-Up & Next Steps

✤ MEETING RECAP & APPROVAL OF MINUTES

- Weisenbach summarized key ideas that arose in the previous May 17th Stakeholder meeting and confirmed feedback received by the group.
- Group added that improved transit facilities and connections to transit were needed.
- Weisenbach addressed the potential for a pedestrian bridge on Crown Street to provide improved connections from Lynn Creek to Park and Tilford Centre.

✤ DISCUSSION OF GOALS & ASSUMPTIONS

- Goals
 - Weisenbach shared the revised goals; making note of new additions based on feedback.
- Assumptions
 - Weisenbach shared the revised assumptions with the group.
 - Group recommended a change of wording regarding the Fire Training Site.
 - Group also recommended adding the assumption that 'recreational' routes would be maintained.

✤ OPTIONS & CRITERIA EVALUATION

- Options
 - i. Weisenbach shared each of the draft options and rationales with the group.
 - ii. Group discussed the opportunities for utilizing existing parking facilities to accommodate 'Drive to Five' locations, with the Holiday Inn Parking Lot, Premier Street, and Ministry Land being potential options.
- Criteria Evaluation
 - i. Weisenbach & Tejani shared the draft evaluation of the proposed options, providing rationale for scoring on several criteria.
 - ii. Group recommended:
 - 1. Adding utility impacts as a separate category; and
 - Revisiting scoring regarding improved safety for all users for options 1a and 1b; Recognizing that the introduction of cars by way of street, where none travelled before, has implications for the safety of pedestrians and cyclists.

RECOMMENDATIONS

- Weisenbach summarized key recommendations produced using the evaluation criteria.
- Group discussed the potential of combining options and the benefits of each.
- Group recommended:
 - i. Placing 4a and 4b at a higher priority than currently ranked;
 - ii. Creating a hybrid option out of 4a and 4b that forms a 'T' junction;
 - iii. If selected, implementing 1a and 1b together;
 - iv. Beginning a discussion with the School District about options 1a, 1b and 4b;
 - v. Factoring impacts to utilities at an earlier stage.
 - vi. (By general agreement from all participants) that option 5 not be pursued, since it provided the least benefit and at the highest social and environmental cost;

✤ WRAP-UP & NEXT STEPS

- Draft meeting minutes to be dispersed for confirmation of understanding.
- Transportation to present recommendations for Council's consideration this July*.

*NOTE: Presentation of recommendations to Council was delayed to the fall of 2016. Date of presentation to be decided.



Inter-River Sub-area Transportation Study

District of North Vancouver Stakeholder Meeting #2b Meeting Minutes

Held at:	Municipal Hall - Meeting Room 'A'	
Date/Time:	June 2 nd 2016 at 7:00pm	Adjourned: 8:30pm
Attended By:	Antje Wahl – Transportation Consultation Comm Brenda Barrick – Neighbourhood Representative Elise Roberts – Neighbourhood Representative Mark Thomson – School District #44 Victor Penman – Fire Department Ingrid Weisenbach - Transportation Shazeen Tejani – Transportation	nittee e
Regrets:	Erin Black – Vancouver Coastal Health	
Minutes taken by:	Shazeen Tejani	

Meeting Agenda Topics:

- 1) Meeting #1 Recap & Approval of Minutes
- 2) Review Revised Goals & Assumptions
- 3) Review Options & Criteria Evaluation
- 4) Recommendations
- 5) Wrap-Up & Next Steps

✤ MEETING RECAP & APPROVAL OF MINUTES

• Weisenbach summarized key ideas that arose in the previous May 17th Stakeholder meeting and confirmed feedback received from Antje Wahl.

✤ DISCUSSION OF GOALS & ASSUMPTIONS

- Goals
 - Tejani shared the revised goals; making note of new additions based on feedback.
- Assumptions
 - Tejani shared the revised assumptions with the group.
 - Group recommended a change of wording to include 'Inter-River' with regard to the bullet on park access. Group further recommended specifying that access to the park will be maintained from "Inter-River Road".
 - Group also recommended revising the word 'commuter' to make it more clear that these routes are used for people accessing key destinations, not just those who commute to work.

- Group also required further clarification on assumptions related to park use. Weisenbach informed the group that the District's Parks Department was currently reviewing any future uses.
- School District Facilities Plan indicates redevelopment potential for Lynnmour Elementary. The final location, whether on- or off-site, is still undecided.

✤ OPTIONS & CRITERIA EVALUATION

- Options
 - i. Weisenbach shared each of the draft options and rationales with the group.
 - ii. Group expressed concern about the impacts to the park with options 4a & 5, and for new residents that front the park, south of option 4a.
 - iii. Group was also concerned that option 1b would provide direct vehicular access to the school, thereby reducing the likelihood that children will walk or bike to school.
 - iv. Group further expressed concern with Option 1a as potentially increasing access and traffic along St. Denis Ave, a road currently used heavily by pedestrians and cyclists.
- Criteria Evaluation
 - i. Weisenbach shared the draft evaluation of the proposed options.

RECOMMENDATIONS

- Weisenbach summarized key recommendations produced using the evaluation criteria.
- Group discussed the potential of combining options and the benefits/impacts of each.
- Group recommendations:
 - i. 1a + 1b provides circulation for school pick up/drop off and direct access to St. Denis;
 - ii. Doing a combination of options 1a + 1b, 4b, and 2, all as public roads was most preferred;
 - iii. 4a provides improved access if the school were to have primary pick up/drop off on Orwell;
 - iv. 4a would be considered feasible if designed to reduce speeds and road widths;
 - v. Group agreed option 5 was not reasonable; and
 - vi. Group suggested considering a 6th option that bisects the school site from Forsman through to Option 4b, if the school relocates.
- Group acknowledged that improved connectivity to transit stops and improved transit infrastructure were needed adjacent to the sub-area.

✤ WRAP-UP & NEXT STEPS

- Draft meeting minutes to be dispersed for confirmation of understanding.
- Transportation to present recommendations for Council's consideration this July.

*NOTE: Presentation of recommendations to Council was delayed to the fall of 2016. Date of presentation to be decided.

APPENDIX D: DISTRICT OF NORTH VANCOUVER E-DOCS REFERENCE LIST

Lynnmour/Inter-River Local Plan: 836865

Internal Stakeholder Meeting Minutes & Attachments – Meeting 1: 2896702

External Stakeholder Meeting Minutes & Attachments – Meeting 1: 2896686

Internal Stakeholder Meeting Minutes & Attachments – Meeting 2: 2906517

External Stakeholder Meeting Minutes & Attachments – Meeting 2: 2906422

3745 Delbrook Avenue North Vancouver, B.C. Canada V7N 3Z4

October 6, 2016



Tel: (604) 983-0458 Fax: (604) 983-0459 www.webstereng.net

File: 3542

District of North Vancouver 355 West Queens Road North Vancouver, BC V7N 4N5

Attention: Mr. Darren Veres, MCIP

Re: Construction Traffic Management Plan (CTMP) 756-778 Forsman Avenue, North Vancouver

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1.0 Project Details

- 1.1 Introduction and Background
- 1.1.1 Contractor Information:

To be determined.

1.1.2 Owner Information

Kenny Gu	
Phone:	778-822-8100
Address:	150-11480 River Road
	Richmond, BC
	V6X 1Z7

1.1.3 General Work Description

Civil works will include:

- Site clearing, grubbing, common excavation
- Sanitary sewer installation complete with manholes and terminal clean-outs
- Stormwater Management features including permeable pavers, exfiltration trenches, swales, catch basins, lawn basins, and culvert
- Minor Waterworks (all to be performed by DNV crews)
- Roadworks including road structure, paving, permeable paving, curbs, and sidewalk
- Streetlight installation
- Hydro, Telus, Shaw, and FortisBC civil works
- 1.1.4 Area Affected by Construction

Area affected by construction will be the four (4) homes along Forsman Avenue and Lynnmour Elementary School extending from the dead end of Forsman Avenue. Residents from 771, 775 Forsman Ave, and 1538 E Keith Road will be most affected. During curbing and asphalt works, vehicle access to driveways and homes could be restricted for 48 hours and 4 hours respectively. The Contractor will notify neighbours of any closures with written notification no less than 48 hours in advance.

1.1.5 On-street Building Zone

Works will be conducted across the entire frontage of the subject property. This totals a length of approximately 44 metres and will include repaying the full width of Forsman Avenue.

- 1.2 Construction Overview
- 1.2.1 Sequence of Construction Operations

To be provided by the contractor and enclosed in Appendix A.

1.2.2 Expected Truck Volumes

Generally, during common excavation and bulking material out from the site, truck volumes will be approximately 3 per hour, or 24 per day.

During subsequent works, truck traffic should be reduced to approximately 0.25 per hour, or 2 per day.

1.2.3 Truck Routing and Communication Plan

A Construction Vehicle Site Access Map is shown on the Construction Traffic Management Plan (CPMT) provided in Appendix B. Copies of this plan will be provided to all contractors and subcontractors prior to start of truck traffic.

1.2.4 Truck Queuing

Trucks will be scheduled to avoid queuing.

1.2.5 Construction Delivery and Receiving Area

The proposed development will host the majority of the staging activities or along the proposed development's side of new roadway which will not obstruct traffic.

1.2.6 Truck Traffic Schedule

Truck traffic will only commence during the allowable construction hours outlined by the District of North Vancouver Bylaw as described in Section 2.2 below.

2.0 Schedule

2.1 Construction Schedule and Duration

To be provided by the contractor and enclosed in Appendix A.

2.2 Hours of Work

As per DNV Bylaw, construction will only be permitted during the hours of 7:00am to 8:00pm during weekdays; and 9:00am to 5:00pm Saturdays. No work shall be permitted outside these hours or on Sundays nor Statutory Holidays.

3.0 Mobility Impact

3.1 Impact to Mobility of Local Traffic

Since construction only occurs on the 756-778 Forsman Avenue frontage, there is only minor impact to mobility of local traffic along Forsman Avenue.

3.2 Mitigation Measures for Impact to Mobility of Local Traffic

The contractor is to maintain access to all adjacent lots at all times during construction unless written notification from local residents is provided.

3.3 Truck Routes

Trucking routes will be as follows:

To Site Westbound:

Trans-Canada Highway to Fern Street via exit 22B. Left on Mt. Seymour Parkway, right on Keith Road to Forsman Avenue.

To Site Eastbound:

Trans-Canada Highway to Fern Street via exit 22. Left on Mt. Seymour Parkway, right on Keith Road to Forsman Avenue.

From Site Westbound: Access Trans-Canada Highway via Keith Road and Old Lillooet Road.

From Site Eastbound: Access Trans-Canada Highway via Keith Road, Old Lillooet Road, and Fern Street.

Please see Construction Vehicle Site Access Map on drawing CTMP enclosed in Appendix B.

3.4 Truck Traffic Volumes

For expected truck traffic volumes see section 1.2.2.

4.0 Community Impact

4.1 Anticipated Construction Worker Parking

It is anticipated that the work crew size will be 4 to 6 persons. Street parking along the east side of Forsman Avenue is not permitted during school hours and parking along the west side of Forsman Avenue is seldom available. Therefore, the contractor must provide six (6) on-site parking spaces. Parking spaces to be shifted to suit construction activity as required.

4.2 Noise, Dust, and Litter Control

The Contractor will abide to the DNV noise, dust, and litter bylaws to control this nuisance.

5.0 Work Zone Traffic Control Devices

5.1 Traffic Control Plans

A Construction Traffic Management Plan (CTMP) is provided in Appendix B.

5.2 Monitoring Strategy

Neighbours will be kept up to date by the Contractor. Notifications of road closures / partial closures will be provided to the neighbours & DNV Engineering.

5.3 Flagging

Traffic Control Person(s) will be on site as outlined on drawing CTMP enclosed in Appendix B.

6.0 Communications Plan

6.1 Public Notification

A notification to neighbours letter will be provided by the contractor as required and enclosed in Appendix C.

6.2 Construction Updates

Contractor to provide neighbours with updates as required. See Section 5.2 above for more information.

All of which is respectfully submitted by:

WEBSTER ENGINEERING LTD.

H. Kalana Gunawardana, P.Eng. Civil Engineer To Be Determined Contractor Appendix A:

Construction Schedule (To be provided by Contractor when identified) Appendix B:

Construction Traffic Management Plan (CTMP)



LEGAL DESCRIPTION	LEGAL	DESCRIPTION	
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- 5. COURS OF READING COMPLICATION STORES OF SERVICE

Appendix C:

Notifications to Neighbours Letter (To be provided by Contractor when identified)

C Guidelines for Ground-Oriented Housing

The built-form of ground-oriented multi-family *development* should be integrated with existing neighbourhoods.

1. Public Realm, Streetscape Elements and Neighbourhood Fit

Discussion:

The built-form of ground-oriented multi-family *development* should be integrated with existing neighbourhoods, while enhancing architectural variety. *Development* should reflect the streetscape character of the neighbourhood in which it is located, or in the case of larger *developments*, it should create its own successful streetscape character.

Ground-oriented housing should be designed so that it complements the neighbourhood character, with minimum impact on adjacent properties. *Development* will often occur incrementally as pre-existing lots on record are assembled and consolidated. Accordingly, the design must carefully consider both the existing and future relationships to surrounding properties.





Figure 81

C1.1: Height and Massing: The height and massing of buildings should be in keeping with a single family dwelling or townhouse height, which is typically less than 12 metres. Architectural treatments that reduce apparent building height such as the use of trim, colour accents, secondary roof elements, building recesses and stepped building forms are encouraged (see Figure 81).

C1.2: Roof Treatment: The gable orientation and roof pitch should be sympathetic to the design of neighbouring buildings and help to maximize the space and light between buildings (see Figure 81).

C1.3: Street Orientation: Units are encouraged to be oriented towards, and have a visual connection to the street (see Figure 82).

C1.4: Corner Lots: Buildings on corner lots should "wrap the corner" providing an opportunity to have units facing both streets (see Figures 83).

C1.5: Minimum Frontage: Generally, *development* parcels should have a minimum frontage of 20 metres.

C1.6: Setbacks: The front yard setback should relate to, or appropriately transition from, the established pattern in the area.





Figure 82





Figure 84

Figure 85

2. Site Planning and Landscaping

Discussion:

Good site planning and landscaping contribute to neighbourhood character and aesthetics, resident livability and environmental sustainability. In principle, site planning should strive to minimize building coverage, preserve natural features and minimize rainwater run-off. Mature trees shade and cool homes in the summer and absorb carbon dioxide and trap dust particles. Trees and other landscaping provide habitat, aid with energy conservation and absorb rain water, reducing stormwater run-off into creeks. Landscape plans should complement the building design and harmonize with the local setting and be prepared by a BC Registered Landscape Architect.

C2.1: Tree Retention: Healthy mature trees and natural features should be retained where possible.

C2.2: Sustainable Landscape Design: Sustainable landscape design should incorporate best practices for tree planting, rainwater management, accessibility and feature native and drought tolerant species. Sustainable landscape design should also be coordinated with building design, site servicing and utility placement.

C2.3: Street Interface: Landscaping and fencing should be kept low and open in the front yard to foster a strong relationship to the street and maintain visibility through to the front of the building (see Figure 84).

C2.4: Privacy: Incorporate planting and fencing to maximize privacy between dwelling units and neighbouring sites (see Figure 85).

C2.5: Shared Outdoor Space: Units should be clustered to create interesting shared outdoor spaces as well as usable and accessible private outdoor spaces. Encourage/integrate informal gathering, play and urban gardening opportunities (see Figure 86).

C2.6: Private Outdoor Space: At least 9 square metres of usable private outdoor space should be provided for all units (see Figure 87).

C2.7: Outward Facing Aspect: Units should be oriented such that windows from the principle living space of each unit are separated by a minimum of 9 metres from those of any other unit (see Figure 88)







Figure 87

C2.8: Rear Yard Setbacks: Rear yard setbacks should be at least 6 metres, with some variation so that a visual wall is not created along the rear property line.

C2.9: Side Yard Setbacks: Side yard setbacks should be a minimum of 1.2 metres, and up to 3 metres when facing a side street or a single family home.

C2.10: Pedestrian Access: The main pedestrian access route should be from the street rather than the lane or parking area.

C2.11: Parking: Parking spaces should be located off a private driveway, and should not be visible from the street (see Figure 89).

C2.12: Parking access: When parking is accessed from the front street the number of driveways should be kept to a minimum (see Figure 89).

C2.13: Shared Driveways: Where adjacent to another potential redevelopment site, the driveway should be designed so that it could in future be shared with the adjacent property (see Figure 89).

C2.14: Oil and Grit Separators: Oil and grit separators are required in all parking areas.





Figure 88

Figure 89



3. Architectural Character

Discussion:

The built form and character of new ground-oriented multi-family *development* should be consistent with and in harmony with the general rhythm, scale and height of the existing buildings in the neighbourhood. Groundoriented housing is usually located in or adjacent to single family neighbourhoods. Building design therefore should generally have a single family character and incorporate west coast references while responding to local conditions such as topography, vegetation and heritage resources.

Consideration should be given to unit identity, roofscape, and other architectural elements, including fenestration, materials, and colour. Dormers and similar roof projections should read as subordinate or secondary architectural elements.

Ground-oriented housing should be designed in consideration of the needs of all residents regardless of their state of health, mobility or disabilities. Units should incorporate basic features that allow the units to be adapted to accommodate special needs without expensive retrofitting.

C3.1: Massing: The front façade of buildings should be broken up and portions stepped back to reduce the impression of bulk (see Figure 90).

C3.2: Variations in Design: Subtle design variations should be incorporated between neighbouring buildings to avoid a repetitive appearance.

C3.3: Cladding: Buildings should be clad primarily in natural materials although stucco accents may be used as a subordinate finish.

C3.4: Varied Rooflines: Varied roof lines with overhangs are encouraged.

C3.5: Roofing Materials: Laminated asphalt shingles or fire retardant treated cedar shakes are recommended as roofing materials. Tile roofing is discouraged.



Figure 90



C3.6: Noise Levels: Designs should demonstrate that the noise levels (A-weighted 24-hour equivalent LEQ sound level (the average sound level over the period of the measurement) in those portions of the dwelling listed below should not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. Examples include use of triple glazing, improved insulation etc.

PORTION OF DWELLING UNIT	NOISE LEVEL (DECIBELS)
bedrooms	35
living, dining, recreation rooms	40
kitchen, bathrooms, hallways	45

C3.7: Heating and Ventilation Systems: Ventilation, heating and cooling systems should be designed and insulated to minimize noise and located to be visually unobtrusive to neighbouring *developments*.

C3.8: Accessible Entrance: A level, no step entrance should be provided to each dwelling. If not possible, then platform areas should be provided at the top and bottom of ramps to facilitate the turning of wheelchairs, strollers and other mobility devices (see Figure 91).

C3.9: Weather Protection: A canopy should be provided over the front entrance.

C3.10: Front Door Width: The front door opening should be no less than 0.9 metre in width.

C3.11: Accessible Doorbell: The front doorbell should be no higher than 1 metre above the entry way

C3.12: Legible Address: The address should be indicated in easy-to-read, 10 centimetre or taller numbers, shown in a clearly contrasting colour.



Figure 91



LYNNMOUR / INTER-RIVER AREA ONE DESIGN GUIDELINES FOR MULTIPLEXES AND TOWNHOUSES

ADOPTED NOV.20/06

DESIGN GUIDELINES

Contents	pages
Design Guidelines	1-21
Engineering Services	22
Potential Improvements	23-27
Sample Layouts	28-34

INTENT

The Lynnmour / Inter-River Plan broadens the housing choices for the area around Lynnmour Community School enabling the neighbourhood to renew the single family character while providing a greater mix of family oriented housing. These housing choices will include garden suites behind existing homes, building new duplexes and triplexes on single family lots, or combining properties to build townhouses, like those on Premier Street.

The Design Guidelines are intended for use with every redevelopment application in this area, to help ensure good quality design that maintains the charm and liveability of the area. This package also provides some reference material on the engineering services in the area, and the anticipated changes for the neighbourhood.

If you are anticipating redeveloping your lot, please read this document, and review it with your consultants (architects, landscape architects and engineers) to ensure that their work is also in line with the requirements discussed here.

MAP 1 - GUIDELINE AREA



BUILDING IN A FLOOD PLAIN

The neighbourhood surrounding Lynnmour Community School (shown on the attached map) lies within the river valley for Lynn Creek. Historically the creek meandered through this area. In more recent times, modifications to the creek banks including rip rap, and raising the level of the bank, have helped ensure the creek maintains its course. Furthermore, the District of North Vancouver maintains a program of regular gravel removal from the creek bed, which reduces the risk of flooding. None the less, a recent study by Kerr Wood Leidal Engineering Consultants demonstrated that in an extreme rain event (the 200 year storm event) there is the potential for some flooding in this neighbourhood. The Province recommends that renovations or new construction within flood plains be built to *flood construction levels* so that all living space is above the potential height of any flood waters. In this neighbourhood, this would mean raising the living space approximately 2 feet above the height of the adjacent roadway.

As there is no insurance for damage from flood waters, it is best for all new construction to be designed in a way that reduces the risk of flood damage, even though that risk is very low, and is something that may not happen in our lifetime.

To ensure that homes are not at risk of flood damage the following should be considered:

- All living space must be constructed above the *flood construction level* assigned to each property.
- Basements will not be permitted (unless tanked).
- Homes should step up from the grade.
- Lots should be regraded so that the finished grade is higher than the street.
- Driveways should not cut into the grade in such a way that flood water would be directed towards living space.







GOOD NEIGHBOUR POLICY

All new projects need to consider their neighbours and design in a manner that fits with the harmony, scale and character of the area. We recommend that designers meet with the neighbours early in the process so that new designs can balance community objectives with neighbours' concerns about such things as privacy, views and sunlight.

Neighbourly development should:

- Retain trees and mature vegetation where possible, to minimise the impacts of change.
- Maximise the sunlight to both the development's own outdoor garden areas, and the neighbours' garden areas.
- Minimise over-viewing, and reduce loss of privacy from side windows, through the use of skylights, translucent glass, and stepping back portions of the building.
- Use landscaping and fences to enhance backyard privacy, and privacy between developments.
- Use wider side yard setbacks next to single family zoned land, particularly if the proposed building height at the side yard exceeds the height of the adjacent single family house.
- Carefully site and enclose garbage and recycling containers to reduce the impact of noise and smell on adjacent properties.
- Design lot grading so that there is no run-off onto the adjacent properties.





This is the garbage area for a triplex on Fromme Road, it is boxed in and screened so as to minimise its impact on both the project and the neighbours.

MAXIMUM UNITS AND BUILDING SIZE

In the Lynnmour / Inter-River Local Plan, the maximum number of units and size of building is established for lot redevelopment as follows:

- With a lot size of less than 5000 square feet single family houses are permitted;
- With a lot size between 5001 and 7000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex with a maximum density of 0.4 floor space ratio;
- With a lot size between 7001 and 8000 square feet a single family lot may be in-filled with a second unit or redeveloped as a duplex to a maximum density of 0.5 floor space ratio; and
- With a lot size between 8001 and 12000 square feet single family lot may be in-filled with a second and third unit or redeveloped as a duplex or triplex to a maximum density of 0.5 floor space ratio.

Where property owners choose to redevelop as a group in a consolidated fashion to create a **redevelopment parcel** of 15,000 square feet or greater, then the potential for townhouses exists with a maximum density of 0.7 floor space ratio and 24 units per acre.

Though the plan establishes maximum building potential, not everyone may wish to build to either the maximum number of units or the maximum size of building. For example, a single family home owner on an 8,500 square foot lot has the potential for a triplex, but may prefer to retain their home and construct a single garden suite in the rear.

BUILDING COVERAGE

To help ensure designs maximise open space on the lot, building coverage for all buildings and structures proposed on the lot is limited to 40%.

What are Floor Space Ratio and Building Coverage?

The tool that is traditionally used to measure building size is floor space (also called floor area). This is the measurement from wall to wall of all above ground floors. The floor space is then compared with the lot size to determine the floor space ratio. Floor space ratios are usually written as decimals eg. 0.5 = 50%.

By comparison building coverage represents the percentage of the lot that is covered in buildings and structures, including the dwelling units, garages, garden sheds and garden structures like gazebos.

This diagram shows a site area (A) or lot size of 100 squares (100%). The lower block (B) or main floor of the diagram covers 40 squares, equal to 40% building coverage. The second floor (C) covers another 10 squares. Combined the main floor (B) and upper floor (C) add up to 50 squares or 50% of the total, or a floor space ratio of 0.5.

In most residential zones, including single family homes and town houses, some parts of the building are excluded from floor space area calculations. Typically, these exclusions include the basement areas, garages, and garden sheds. In this neighbourhood basements are not recommended (because of the flood risk) but exclusions for single car garages with some storage space will be considered. Since new development will not include basement space, some designers may wish to make use of the attics for additional living space. Attic floor space is excluded where the floor- to-ceiling height is less than 7 feet.



The figure above represents a site area (A) of 100.5quaress (100%)

The main lower block (6) represents a building coverage of 40 squares (40%)

The Upper and lower blocks (B+C) combine to represent 50 squares (50% of sile area) typically referred to as a Floor Space Ratio (FSR) of 0.5

LOT CONSOLIDATION

The Lynnmour / Inter River-Plan was written with a flexible density so that properties could develop independently. However, there are some locations within Inter-River where lot consolidation is recommended in order to best address other types of design issues:

Noise Abatement:

One method of reducing the noise that spills into this community from the highway, is to design row housing along Keith Road so that there is a continual wall of residential buildings blocking the noise from spreading into the community. This would be more easily accomplished if properties along Keith Road redeveloped two or more at a time.

Lot Grading, Storm Water and Flood Water:

Every time a lot is redeveloped, there is a requirement that all grading and landscaping is done in a manner that does not cause storm water from the typical rain fall to flow onto adjacent lots. When building in a flood plain, the need to ensure rainwater doesn't run onto other properties must be carefully balanced against the desire to raise level of the lot so that floodwater is directed away from the buildings. Careful drainage and landscape plans ensure that a proper balance is met. However, in the south east portion of the Inter-River neighbourhood, along Forsman and between Forsman and Saint Denis, there is a low lying area where it will prove more difficult to meet this balance on individual lots, and therefore lot consolidation is recommended.

Flood Protection Works:

Saint Denis Avenue functions as a dyke, helping protect the neighbourhood against the risk of flooding. The recent study completed by Kerr Wood Leidal Consulting Engineers, recommends modest improvements along Saint Denis that would raise the roadway above its existing elevations. For 820 and 840 Saint Denis Avenue, where the road improvements will be the most dramatic, consolidation is recommended so that together the lots can find the most appropriate means of accessing their site.


SETBACKS AND SITING

When considering where to place a building on a site it is important to consider the potential impacts on neighbours and the street. Setback regulations are aimed at protecting and enhancing the neighbourhood, but all designers should consider the impacts of their designs in terms of privacy, over-viewing, and shading, as well the potential for enhancing the streetscape, and look of the site.

Front Yard Setbacks

To fit into the existing neighbourhood, a minimum front yard setback of 15 feet should be considered, unless an alternative pattern of setbacks already exists, like that found along Premier Street.

Rear Yard Setbacks

A minimum rear yard setback of 20 feet from the rear property line to building face is recommended to ensure that some area be set aside for rear gardens and open space.

Where townhouse sites are proposed a staggered setback combined with a varied design should be considered so that the project does not create a visual wall along the rear property, and so that successive townhouse projects do not create a feeling of a canyon running down the middle of the block.

Side Yard Setbacks

Side yards are used to provide access to the site, landscaping around the site, and provide a buffer to the adjacent properties. A larger building will tend to need a larger setback, especially if it is placed further back on the lot, where the impact of over-shadowing, and over-viewing may need to be reduced. The following table sets out recommendations for side yard setbacks.

This photo of 989 Premier Street has the setbacks and property line marked on to illustrate how front yard setbacks are measured



2 or 2 1/2 Storey Buildings	
Side yard setback, in the front	Minimum 6 foot side yard
50 feet of the lot	
Side yard setback, after the	Minimum 10 foot side yard
front 50 feet of the lot	
Side yard setback for a side	Minimum of 15 foot, as it
yard facing a road	would function as a second
	front yard.
1 Storey Building Elements	
Side yard Setback	Minimum 4 foot side yard
Side yard Setback, for a side	Minimum of 15 foot side
yard facing a street (corner	yard, as it would function as
lots)	a second front yard.



Keith Road – Setbacks

Careful design along Keith Road can help reduce the highway noise impacting both the properties along Keith Road and the larger neighbourhood. Row house design with no side yard setback is encouraged to create a residential wall that will block the noise from the highway, and help create more liveable outdoor space in the rear.

Varying Setbacks

The setbacks listed above may be varied if:

- a) Different setbacks will fit with established pattern of development, like that found along Premier Street with the existing townhouses;
- b) Tree preservation or other environmentally benefits can clearly be demonstrated with the use of an alternative setback; or
- c) Noise reduction from the highway can be enhanced.

This photograph of some row housing in the City of North Vancouver, illustrates how low density homes can be placed side by side, to form a wall of housing.

RELATIONSHIP TO THE STREET

Streets feel safe and look great when buildings and landscaping are designed to relate to the street; allowing a passer-by to wave hello or chat with a neighbour. The following guidelines offer suggestions for ways to ensure new development "faces" the street.

- At least one unit's front door should be directly oriented towards the street. High visibility of the front doors and paths to the rear units is also recommended.
- Prominent pathways should lead from the sidewalk to the front door of at least one unit to emphasize the building face. (Though pathways are required to each unit, designers must be careful not to clutter the open space with excessive pathways.)
- Buildings constructed on corner lots should "wrap the corner" providing an opportunity for multiplexes to have each unit face the street.
- Design details such as the use of verandas, porches, arbours, and decorative gates, should be considered to ensure each development has a visual connection to the street.
- On wide lots, or those lots that do not have to provide a driveway, designing either a wider front unit, or fitting
 additional units at the front of the development should be considered in order to maximise the street presence.
- Ensure living space at the front of the building is directed towards the street.
- New developments may choose to copy roof lines, building materials, or other design elements in order to blend with the harmony and scale of the street, however, "cookie cutter" and mirror-image design, is discouraged.
- In the front yard landscaping and fences should ensure openness and visibility through to the front of the building.



Front porches, doorways, window style, roof lines with gables facing the street, and pathways all help make the building appear to face and watch over the street.

DRIVEWAYS

In this neighbourhood there are no back lanes, and therefore all parking is accessed from driveways leading off the street. It is beneficial to reduce the numbers of driveways because:

- The sidewalk becomes safer with fewer driveway crossings;
- More emphasis is placed on people and buildings and less on cars and garages, with more room at the front of the lot given to buildings and front gardens, making for a pleasant looking street; and
- There is more room for on street parking.

A lot choosing to redevelop by itself must design the driveway so that it may be shared with the adjacent property. However, no driveway need be shared with more than three units from a neighbouring property, as larger townhouse developments combining two or more lots, may have one driveway for their own development.

PARKING

Two parking spaces per unit is the recommended requirement. Parking spaces must be located off the private driveway, and should be located behind the front unit so they are not as visible from the street.

Though visitors may park on site, there is no formal requirement for additional visitor parking spaces, and most visitors will park on the street as they do now in the single-family areas.

Driveways and Parking Areas

- Driveways and parking areas should be designed in a manner that minimises their impact on the street and the development.
- Paved areas for driveways and parking have a significant impact on storm water run-off and therefore, paving methods that reduce the impact of the hard surface should be considered.



The parking for the units is located behind the front unit, to reduce itsvisibility from the street.

- As many rear units will require pathways along side or through the driveway, pavers may also serve to delineate the pathway system.
- Where developments are sharing a driveway, every effort should be made to match and coordinate with the materials and design of the existing driveway.

In these sketches the parking for the units is located behind the front unit, to reduce its visibility from the street.





REDUCING THE IMPACT OF DEVELOPMENT ON THE ENVIRONMENT

With careful planning, development can occur in a manner that is more environmentally sustainable.

Construction and Design

New development should consider ways of ensuring that is energy efficient. Where appropriate guidelines and ideas outlined in the LEED and REAP and other sustainable building programs should be considered.

Rain Water

In order to develop more sustainably, new projects should consider ways of landscaping and grading so that rain water has a chance to soak into the ground, and is diverted away from the storm sewer system, where it would otherwise add to the erosion of the creeks.

Tree Preservation

Trees provide a number of environmental benefits beyond their aesthetic value including their role in shading homes in the summer, providing habitat for birds, absorbing rain water, absorbing carbon dioxide (a green house gas) and producing oxygen, trapping dust particles and pollutants from the air, and modestly reducing noise. For all these reasons, the preservation of mature trees, and planting of new trees is encouraged in North Vancouver. However, in some cases where flood protection measures require the grade to be changed, it may not always be possible to preserve a mature tree and replacement planting should be considered instead.

It is therefore recommended that new development:

- Retain as many healthy mature trees as possible.
- Plant new trees.
- Add a thicker layer of gardening quality soil, to the ground prior to landscaping, to increase water retention.
- Introduce "rain gardens" where appropriate so that garden areas can help soak up rain water and reduce storm water run-off.
- Consider using permeable paving material for pathways, driveways and parking areas, or grading the area so that the water can run-off into suitable garden areas.
- If water from the driveway and parking areas is not able to percolate through to the ground, include an oil and grit separator, and / or establish a car washing area to reduce the pollutants that are directed into the storm water system.





These multiplexes were built around existing trees.

LANDSCAPING

Each redevelopment proposal is required to provide a landscaping plan that will compliment the building design and harmonize with the local setting. Landscape plans must be prepared by a BC Registered Landscape Architect. Landscape plans are to show how each site will be designed and landscaped once the construction is completed. In preparing landscape plans the following criteria should be considered:

- Use landscaping to soften the impacts of new development and help new development harmonize with the area.
- Ensure that landscape plans are prepared in conjunction with the project team, with input from the arborist, engineer and building designer.
- Ensure that the lot grading is consistent with flood proofing measures.
- Include street trees and boulevard planting on the landscape plan.
- Keep the landscaping and fencing low and open in the front yard to foster a strong relationship to the street.
- Preserve healthy trees where possible, and plant new trees where reasonable.
- Design each unit with private outdoor space that is large enough for barbequing and dining outside (100 square feet or larger).
- Use planting and fences to create a buffer, and maximise privacy between on-site units, and between the subject property and neighbouring sites.
- Use low maintenance "xeriscaping" landscaping practices, with native plant materials suited to the local climate.
- Provide a grading and drainage plan which will assist in the safe on-site management of surface water and rain water (storm water).
- Use porous materials on pathways, patios, and parking spaces to maximise rain-water infiltration.





- Minimise the amount of land used for pathways through careful building and landscape design.
- Consider roof decks or "green roofs" over top of parking structures where privacy will not be adversely impacted.
- Provide details for the method of screening the garbage containers and any other service structures.
- Implementation is to use current BCSLA/BCNTA standards for landscaping.



DEALING WITH NOISE

Finding methods of blocking the noise from the highway is a key issue for improving the liveability of this neighbourhood.

The impacts of noise may be reduced by:

a) Incorporating noise standards into the design and construction of new development to ensure a quiet interior environment for residents as follows:

Designs must demonstrate that the noise levels in those portions of the dwelling listed below shall not exceed the noise levels expressed in decibels set opposite such portions of the dwelling units. For the purpose of this section the noise level is the A-weighted 24-hour equivalent (Leq) sound level and will be defined simply as the noise level in decibels:

1. Portion of Dwelling Unit Noise Level (Decibels)

2.	bedrooms	35
3.	living, dining, recreations rooms	40
4.	kitchen, bathrooms, hallways	45

- b) Using building design to create noise buffers in certain locations; and
- c) By encouraging the Provincial Ministry of Transportation to provide noise fencing along Highway #1.

New development should also consider the impacts of their own ventilation and heating systems on neighbouring developments and ensure that design, style, and placement eliminate any additional noise pollution.



Buildings as Buffers

Designing row housing along Keith Road could serve as a barrier to noise from the highway.

PRIVACY

It is recommended that all new development consider maximising the privacy between units, and between new and existing developments. To this end the following items should be considered:

- Use building setbacks, landscaping, building design, and window placement to maximise privacy and reduce over-viewing.
- Use translucent frosted or stained glass in side windows, or replace windows with glass block, or skylights where privacy will be impacted.



This elegant fence provides a pleasent privacy screen.



The careful location of windows makes this patio area in the middle of a triplex project feel private.

BUILDING HEIGHT

In order to harmonize with the existing single family and townhouse character of the area, building height should be limited to **two and half storeys**.

Building height is measured from the lesser of natural or finished grade to the peak of the roof. In this area where all new development will be raised up to meet flood construction levels, house heights may be 1-2 feet taller than would normally be anticipated for a two and half storey building, and therefore heights may range from 22 feet for a flat roofed two storey home to 35 feet for a steeply pitched roofed two and half storey home.

Roof Pitch

Steeply sloped roofs are recommended but not mandatory. Roof pitches of 8:12 (rise over run) for the main structure of the roof are widely popular in North Vancouver and work well with the wet climate. However, alternative roof pitches are acceptable provided that flatter roofs have a lower height and compliment the architectural style of the building.



Building height is measured to the roof peak.

ADAPTABLE DESIGN

Many residents of North Vancouver have expressed a desire to stay in their homes regardless of the onset of illness, frailty or disabilities. It is therefore beneficial when designing new homes to ensure that they are built with basic features that allow the units to be adapted to help residents deal with disabilities without expensive retrofitting. To this end, redevelopment must comply with the District of North Vancouver 's Adaptable Design Guidelines.

PUBLIC ART

Since 2003 the District's Public Art Program has encouraged developers to commission works of public art as part of their development application. The District policy applies to applications that require rezoning, and is for residential building proposals with five or more units.

In Lynnmour/Inter-River, District staff undertook a public art mapping exercise with local residents to identify and prioritize potential sites, and to record themes that the community considers appropriate for future public art. The results can be seen on the following map.

Several clear community priorities emerge. For example, residents have identified the corner of Old Lillooet and East Keith Roads as the key location for a community gateway feature. Other clear priorities include art features integrated with the park and pathways, possibly as an enhancement to the Highway underpass, possibly as interpretive route-markers for the extensive net of park trails. As a whole, the map reveals a number of exciting and innovative projects-in-waiting — a loose "master plan" of possible projects of different type and scope. As applicants come forward with different proposals, they will be encouraged to work through the project options and possible themes endorsed through this community process, and to develop a project-specific public art plan that respects community priorities.





Public Art Map

1 Mt. Seymour Pkwy Intersection

Located on the outskirts of residential Lynnmour/Inter River, this important traffic corridor presents a number of challenges for pedestrians, especially for those crossing to the local super market. Public Art could play an interesting role, integrated as an attractive and functional component as part of a traffic safety solution.

2 Mt. Seymour Pkwy & Old Lilloet

An opportunity to site a gateway or garden feature.

3 E.Keith/Old Lilloet Triangle

At this historic intersection of Lillooet and Keith Roads, an interesting opportunity emerges to acknowledge and to interpret the diverse histories that have shaped the North Shore. Today, this site is the "gateway" to a thriving residential community, and local residents have expressed the desire to: "clean up and develop this green space into something we can use and be proud of."

4 Trans-Canada Bridge Underpass

Much used by local residents, this currently neglected underpass could incorporate public art to create a pleasant "gateway" to the community.

5 Lynnmour School

Residents have suggested creating a "Welcome Carving" in a project that would involve students in expressing ownership & pride in the community.

6 Lynnmour School

Public Art could play an effective role in the re-design of this outdoor refuge/play area for the students.

7 Lilloet Shopping Plaza

A highly visible retail area with potential to create an interesting community space.

8 Shortcut Footpath to Old Lilloet

Community trails and pathways provide many interesting opportunities to integrate interpretive markers.

9 Premier Street

Residents have expressed an interest in seeing traffic calming measures on this busy residential street. 10 Premier Street Pathway

Gateway and path improvement at East and West sides of Premier Street. Creative public art treatments can provide a functional and innovative response to community infrastructure needs.

11 Inter River Park Playground

Playgrounds provide an interesting opportunity to integrate public art in the design of the park space and/or playground amenities.

12 Inter River Park

Residents like the existing simple parkscape, describing it as "a magical area to walk and explore." Opportunities for public art could be integrated with the trail network and reflect multiple uses.

13 Inter River Park - St Denis Entrance

An important entry or "gateway" to Inter-River Park and to the trail network.

14 Pathway: St Denis to Orwell

Community trails and pathways provide many interesting opportunities to integrate interpretive markers.

15 River Pathway

River path improvements and amenities: public art with picnic tables, benches, BBQ areas.



ENGINEERING SERVICES

Throughout the District of North Vancouver, as properties redevelop, they are required to upgrade the services in front of their property to modern standards. This work normally includes:

- Upgrading to the centre of the road all aspects of the roadway including pavement, curb and gutter;
- Constructing sidewalks;
- Planting street trees;
- Installing street lights; and
- Extending services to the subject site; including water, and sanitary & storm lines.

Water and Sanitary Sewer

In anticipation of redevelopment in this neighbourhood, staff undertook an analysis of the water supply and sanitary sewer capacity, which showed that there is sufficient supply and capacity to meet the demands of the school, existing development and all potential redevelopment that could be considered in this area under the Lynnmour / Inter-River Community Plan.

Storm Sewer

Storm sewers do not exist on all streets in the study area. For anyone considering redeveloping the storm line may need extending to your property. If you are interested in redeveloping, please discuss the need for storm sewer upgrades with the District's engineering staff.



ROADWAY IMPROVEMENTS

Each development will be responsible for upgrading the road, sidewalk, curb and gutter, and planting in the boulevard in front of their own site. Over time, this has the potential to add sidewalks, and street trees throughout the neighbourhood.

This section details the road standards currently anticipated for each road.



Saint Denis Avenue	Design Standards
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Saint Denis Avenue functions as a dyke providing flood protection to the adjacent neighbourhood. In the March 2006, Kerr Wood Leidal report on flood protection, the engineering consultants recommended further improvements to Saint Denis, including a slight change in grade, and the construction of a floodway. These improvements may cause some of the design work originally anticipated and described below to be undertaken a little differently.

	8 metres / 26 feet
Road Width	Two travel lanes and one parking lane
	Boulevard sidewalk, 1.5 – 2.0 metres wide on east
Sidewalk Width and	side.
Location	Gravel path at curb, on west side, next to the top of
	the riverbank.
Hydro and Tel	Underground
Additional Features	Provides connection under the bridge and to the
	park.



Forsman Avenue	Design Standards
Road Width	8 metres / 26 feet two travel lanes and one parking
	lane
Sidewalk width and	Boulevard sidewalks, 1.5 – 2.0 metres wide on
location	both sides.
Hydro and Tel	Underground
Additional Features	To enhance pedestrian safety, the street will
	narrow at the entrance, and the sidewalk will bulge
	out on either side.





Orwell Street	Design Standards
Road Width	8 metres / 26 feet. Two travel lanes and a parking
	lane
Sidewalk width and	Boulevard sidewalks, 1.5 – 2.0 metres wide on both
location	sides.
Hydro and Tel	Underground to each unit, but poles will remain as the upper tier of wires carries service beyond the neighbourhood.
Additional Features	To enhance pedestrian safety, the street will narrow at the entrance, and the sidewalk will bulge out on either side.
	The potential for an improved school drop off area exists, and could be considered should Lynnmour Community School be further renovated.





Premier Street	Design Standards
Road Width	10 metres / 33 feet
	Two travel lanes and two parking lanes
Sidewalk width and	Boulevard sidewalks, 1.5 – 2.0 metres wide on both
location	sides.
Hydro and Tel	Underground to each unit, and eventually poles will
	be shifted to the east side, if not removed
	completely.
Additional Features	To enhance pedestrian safety, the street will narrow
	at the entrance and the alignment be shifted so that
	traffic must slow down when turning into the street.
	Possible improvements to the pedestrian crossing at
	mid block are also under consideration.





Keith Road	Design Standards
Road Width	8 metres / 26 feet
	Two travel lanes, one parking lane on the north side.
Sidewalk width and	Boulevard sidewalk, 1.5 – 2.0 metres wide on north
location	side
Hydro and Tel	Underground to each unit, and eventually poles will
	be shifted removed.
Additional Features	Potential road realignment at intersection with Old
	Lillooet Road



SAMPLE LAYOUTS

In order to ensure that these guidelines are feasible, staff worked closely with Mr. R. A. Spencer a local designer who provided the following sketches to show how development on different size lots could be achieved. The following sketches do not show the details and ornamentation that is necessary, but do show the potential massing, layout and parking for different redevelopment options including rear yard infill, duplex and triplex development.



Infilling the Backyard

This drawing shows how some homes could accommodate an additional building in the rear yard.



Duplexes

For smaller lots between 5,000 and 8,000 square feet in size, this illustration shows a potential duplex design.





Layouts for Triplexes on 8,500 square foot lots

For lots between 8,000 and 12,000 square feet triplexes are permitted at a density of 0.5 floor space ratio. The first illustration shows the potential for a smaller triplex on a 8,500 square foot lot.



Layouts for Triplexes on 10,000 square foot Lots

Here are four alternative designs for triplexes on 10,000 square foot lots. Each one is shown in the bird's eye view, and the site plan.

















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NORTH VANCOUVER, B.C. V7N 3Z4

A0.0	COVER SHEET / DRAWING INDE
A0.1	PERSPECTIVE
A0.2	PERSPECTIVE
A1.1	SITE PLAN
A1.2	SHADOW STUDY
A1.3	SHADOW STUDY
A1.4	SHADOW STUDY
A2.1	FLOOR PLANS
A2.2	FLOOR PLANS
A2.3	FLOOR PLANS
A3.1	ELEVATIONS
A3.2	ELEVATIONS
A3.3	ELEVATIONS
A3.4	ELEVATIONS
A4.1	SECTIONS
A5.1	MATERIAL BOARD-1
A5.2	MATERIAL BOARD-2



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REVISIONS ISSUES DATE ISSUED FOR REZONING 2016-OCT. APPLICATION PROJECT NUMBER A070 DRAWN BY AY CHECKED BY ΡY DATE CHECKED CONSULTANT PROJECT FORSMAN GARDEN 756 & 778 FORSMAN AVE. NORTH VANCOUVER DRAWING TITLE



DRAWING No.

A0.0

COVER



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Unit Type		No. of Units	Gross Floor Area / Unit (excluding parking & storage)	GFA x No. of Units	
PLEX		1	1348	1348	
PLEX		1	1348	1348	
PLEX		1	1348	1348	
PLEX		1	1348	1348	
D UNIT		1	1548	1548	
D UNIT		1	1550	1550	
D-BLOCK		1	1517	1517	
D-BLOCK		1	2221	2221	
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Standard Car Stalls	11		6		
Small Car Stalls	5				
H/C Stalls			5		
Total Residential		16	4		
			3		
Visitor Standard Car Stalls			2 REISSUED FOR REZONING APPLICATION		2017-APRIL 25
Visitor Small Car Stalls	2		1 ISSUED FOR REZONING		2016-OCT.
Total Visitor		2		 A070	
Total Parking Stalls		18	DRAWN BY	CF	
Residential Ratio	2.00		CHECKED BY	PY	
Visitor Ratio	0.25		DATE CHECKED		
Total Off Street Parking Ratio	2.25		CONSULTANT		
Percentage of Small Car Stalls	38.9%				

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			main	second	upper		Garage	Storage		
			floor	floor	floor	Area	00.080	0101080	DRAWING TITLE	
e	Building #	No. of Un	it (ft.²)	(ft.²)	(ft.²)	(ft.²)	(ft.²)	(ft.²)		
	Building 1	1	89	594	665	1348	412	100		
	Building 1	1	89	594	665	1348	412	100		
	Building 2	1	89	594	665	1348	412	100	SITE PLAN	
	Building 2	1	89	594	665	1348	412	100		
t	Building 3	1	149.2	677	722	1548	330.3	100		
t	Building 3	1	150.6	677	722	1550	330.3	100	DRAWING No.	
ck	Building 3	1	78.7	657	781	1517	225.6	100		
ck	Building 3	1	76.2	1017	1128	2221	533.9	100		



BUILDING 1 EAST ELEVATION Scale: 3/16"= 1'-0"









BUILDING 1 NORTH ELEVATION Scale: 3/16"= 1'-0"





BUILDING 1 SOUTH ELEVATION Scale: 3/16"= 1'-0"



pacific west architecture

1200 West 73rd Ave (Airport Square) Suite 1120 Vancouver B.C. V6P 6G5

Office: 604 267 7072 Fax: 604 267 7056 Email: info@pwaarchitecture.com www.pwaarchitecture.com

REVISIONS

EXTERIOR MATERIAL LEGEND

- 1 ASPHALT ROOF
- 2 HARDI-PLANK SIDING
- 3 CEDAR SHINGLE
- 4 STONE VENEER
- 5 DOUBLE GLAZED VINYL WINDOW
- 6 ALUMINUM RAILINGS
- 7 METAL GARAGE DOOR
- 8 WOOD POST
- 9 WOOD TRIM
- 10 WOOD SIDING
- 11 WOOD SCREEN
- (12) CONC. BASE

ISSUES DATE REISSUED FOR REZONING APPLICATION 2017-MARCH ISSUED FOR REZONING APPLICATION 2016-OCT PROJECT NUMBER A070 DRAWN BY AY CHECKED BY PY DATE CHECKED CONSULTANT PROJECT FORSMAN GARDEN 756 & 778 FORSMAN AVE. NORTH VANCOUVER DRAWING TITLE

ELEVATIONS







3 **BUILDING 2 WEST ELEVATION**

Scale: 3/16"= 1'-0"









BUILDING 2 SOUTH ELEVATION Scale: 3/16"= 1'-0"



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DRAWING TITLE

ELEVATIONS

DRAWING No.



EXTERIOR MATERIAL LEGEND

- 1 ASPHALT ROOF
- 2 HARDI-PLANK SIDING
- 3 CEDAR SHINGLE
- 4 STONE VENEER
- 5 DOUBLE GLAZED VINYL WINDOW
- 6 ALUMINUM RAILINGS
- 7 METAL GARAGE DOOR
- 8 WOOD POST
- 9 WOOD TRIM
- 10 WOOD SIDING
- 11 WOOD SCREEN
- 12 CONC. BASE









BUILDING 3 NORTH ELEVATION Scale: 3/16"= 1'-0"

EXTERIOR MATERIAL LEGEND

- 1 ASPHALT ROOF
- 2 HARDI-PLANK SIDING
- 3 CEDAR SHINGLE
- 4 STONE VENEER
- 5 DOUBLE GLAZED VINYL WINDOW
- 6 ALUMINUM RAILINGS
- 7 METAL GARAGE DOOR
- 8 WOOD POST
- 9 WOOD TRIM
- 10 WOOD SIDING
- 11 WOOD SCREEN
- 12 CONC. BASE



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REVISIONS

DATE

AY

PY

2017-MARCH

2016-OCT

ISSUES

REISSUED FOR REZONING APPLICATION

ISSUED FOR REZONING APPLICATION

PROJECT NUMBER A070

DRAWN BY CHECKED BY

DATE CHECKED CONSULTANT

PROJECT



756 & 778 FORSMAN AVE. NORTH VANCOUVER

DRAWING TITLE

ELEVATIONS







2 BUILDING 3 SOUTH ELEVATION Scale: 3/16"= 1'-0"



EXTERIOR MATERIAL LEGEND

1 ASPHALT ROOF

- 2 HARDI-PLANK SIDING
- 3 CEDAR SHINGLE
- 4 STONE VENEER
- 5 DOUBLE GLAZED VINYL WINDOW
- 6 ALUMINUM RAILINGS
- 7 METAL GARAGE DOOR
- 8 WOOD POST
- 9 WOOD TRIM
- 10 WOOD SIDING
- 11 WOOD SCREEN
- 12 CONC. BASE



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REVISIONS

DATE

2017-MARCH

2016-OCT

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ISSUES

- 5
- 4
- 3

REISSUED FOR REZONING APPLICATION

ISSUED FOR REZONING APPLICATION

PROJECT NUMBER A070
DRAWN BY AY

CHECKED BY

DATE CHECKED

PROJECT



PY

756 & 778 FORSMAN AVE. NORTH VANCOUVER

DRAWING TITLE

ELEVATIONS













BUILDING MATERIAL -1



SOFFIT

VINYL SOFFIT COLOUR: WHITE

ROOF FASCIA

SHERWIN WILLIAMS COLOR: USEFUL GREY

CEDAR SHINGLE

SOLID STAIN COLOR: GREY-BROWN

TYPICAL WINDOWS: DOUBLE GLAZING IN VINYL FRAMES. COLOUR: BEIGE

STONE VENEER

CULTURED STONE PRO-FIT LEDGESTONE

GARAGE DOOR

SHERWIN WILLIAMS COLOR: USEFUL GREY

CONC. BASE

















ASPHALT SHINGLE

IKO -ARPHALT SHINGLES COLOUR: CHARCOAL GREY



CEDAR SHINGLE

SOLID STAIN COLOR: GREY-BROWN

JAMES HARDIE COLOUR: BEIGE

HARDI-PLANK SIDING

JAMES HARDIE COLOUR: CORMWELL GRAY

WOOD TRIM

SHERWIN WILLIAMS COLOR: USEFUL GREY

WOOD FEATURES

SOLID STAIN COLOUR: WOOD



STONE VENEER

CULTURED STONE PRO-FIT LEDGESTONE



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REVISIONS

ISSUES

REISSUED FOR REZONING APPLICATION

ISSUED FOR REZONING APPLICATION

PROJECT NUMBER

DRAWN BY

CHECKED BY

DATE CHECKED

CONSULTANT

FORSMAN GARDEN

DATE

2017-APRIL 25

2016-OCT.

A070

CF

ΡY

756 & 778 FORSMAN AVE. NORTH VANCOUVER

DRAWING TITLE

MATERIAL BOARD



BUILDING MATERIAL -2



ROOF FASCIA

SHERWIN WILLIAMS COLOR: USEFUL GREY

HARDI-PLANK SIDING

JAMES HARDIE COLOUR: CORMWELL GRAY

TYPICAL WINDOWS:

DOUBLE GLAZING IN VINYL FRAMES. COLOUR: BEIGE

ROOF FASCIA

SHERWIN WILLIAMS COLOR: USEFUL GREY

STONE VENEER

CULTURED STONE PRO-FIT LEDGESTONE

GARAGE GATE

WOOD SIDING COLOR: WOOD

STONE VENEER

CULTURED STONE PRO-FIT LEDGESTONE

CONC. BASE













AN AN		

ASPHALT SHINGLE

IKO -ARPHALT SHINGLES COLOUR: CHARCOAL GREY



CEDAR SHINGLE

SOLID STAIN COLOR: GREY-BROWN



HARDI-PLANK SIDING

JAMES HARDIE COLOUR: BEIGE

aller .

HARDI-PLANK SIDING

JAMES HARDIE COLOUR: CORMWELL GRAY

WOOD TRIM

SHERWIN WILLIAMS COLOR: USEFUL GREY

WOOD FEATURES

SOLID STAIN COLOUR: WOOD



STONE VENEER

CULTURED STONE PRO-FIT LEDGESTONE



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REVISIONS

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PROJECT NUMBER

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CHECKED BY

DATE CHECKED

CONSULTANT

FORSMAN GARDEN

DATE

2017-APRIL 25

2016-OCT.

A070

CF

ΡY

756 & 778 FORSMAN AVE. NORTH VANCOUVER

DRAWING TITLE

MATERIAL BOARD




<u>v</u>	LEGEND - SERVICES	
	SYM	BOLS
DESCRIPTION	PROPOSED	EXISTING
PROPERTY LINE		
RIGHT-OF-WAY		
EDGE OF ASPHALT		
CURB		Hoolog (Martine Control of Contro
VATERMAIN		
TRE HYDRANT		+
GATE VALVE	M	\boxtimes
SANITARY SEWER	200 SAN	EX. 250 SAN
STORM SEWER	³⁰⁰ STM ^{D9}	EX. 250 STM
CULVERT	><	$\succ - \prec$
CATCH BASIN		
DITCH	· ·	·
CAS	63 GAS	EX. 63 GAS
IYDRO		
STREET LIGHT CONDUIT		
STREET LIGHT	*	な
CANITARY INSPECTION CHAMBER		0
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BUILDING SUMP	0	0
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AWN BASIN	0	

chk'd no.

date

revision

chk'd

revision

date



3745 DELBROOK AVENUE, NORTH VANCOUVER, B.C. V7N 3Z4 983-0458

LEGAL DESCRIPTION

LOT A, BLOCK A, DISTRICT LOT 613, GROUP 1, NEW WESTMINSTER DISTRICT, PLAN BCP39525 AND LOT C OF LOT 6, BLOCK A, DISTRICT LOT 613, PLAN 20979

BENCHMARK CONTROL

ELEVATIONS ARE IN METRES, TO GEODETIC DATUM (GVRD MARCH 15, 2005 READJUSTMENT) REFERRED TO DISTRICT OF NORTH VANCOUVER MONUMENT 73H1106 SIUTATED ON C/L OF PREMIER STREET AT ITS JUNCTION WITH LILLOOET ROAD. ELEVATION = 143.431m.

GENERAL NOTES

- 1. ALL CONSTRUCTION IN DISTRICT OF NORTH VANCOUVER (DISTRICT) ROAD R.O.W. MUST CONFORM TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (MMCD) AND MUST PASS THE DISTRICT'S AND ENGINEER'S INSPECTION. THE CONTRACTOR WILL GIVE THE DISTRICT 48 HOURS NOTICE PRIOR TO HIS REQUIREMENT FOR INSPECTIONS.
- 2. ALL CONSTRUCTION WITHIN THE PROPERTY MUST CONFORM TO THE MASTER MUNICIPAL CONSTRUCTION DOCUMENT'S SPECIFICATIONS AND THE B.C. PLUMBING
- 3. THE CONTRACTOR SHALL ENSURE THAT ALL APPROVALS REQUIRED FOR THE PROPOSED WORK HAVE BEEN OBTAINED PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION.
- 4. LOCATIONS OF EXISTING UNDERGROUND SERVICES DETERMINED FROM THE DISTRICT AND UTILITY AS-CONSTRUCTED DRAWINGS. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING SERVICES PRIOR TO CONSTRUCTION AND TO NOTIFY ENGINEER OF ANY DISCREPANCIES, CONFLICTS OR OMISSIONS.
- 5. ALL CUTS IN EXISTING ASPHALT REQUIRED FOR TRENCHING SHALL BE VERTICAL, 100mm DEEP, WITH A DIAMOND SAW & REPLACED WITH MINIMUM 100mm ASPHALT AFTER BACKFILL AND COMPACTION. ALL PAVEMENTS, BOULEVARDS, DRIVEWAYS, FENCES ETC. ARE TO BE RESTORED TO ORIGINAL OR BETTER CONDITION WHEN NO IMPROVEMENT IS PROPOSED UNDER THIS CONTRACT.
- 6. THE CONTRACTOR SHALL USE EXTREME CARE WHEN WORKING NEAR EXISTING SERVICES AND ANY SERVICES DISTURBED ARE TO BE REPLACED TO THE SATISFACTION OF THE DISTRICT AND/OR APPROPRIATE UTILITY CORPORATION.
- 7. THE CONTRACTOR'S SURVEYOR WILL RECORD & CERTIFY CORRECT ALL INFORMATION REQUIRED FOR THE ENGINEER TO PROVIDE A COMPLETE SET OF AS-CONSTRUCTED DRAWINGS.
- 8. THE CONTRACTOR MUST NOTIFY THE DISTRICT'S CONSTRUCTION OFFICE, MR. SCOTT MOYES, WORKS INSPECTOR @ 604-990-3886, 48 HOURS PRIOR TO STARTING CONSTRUCTION TO ESTABLISH AN INSPECTION SCHEDULE.
- 9. RESIDENTS DIRECTLY AFFECTED BY CONSTRUCTION OF THIS PROJECT SHALL BE GIVEN 48 HOURS WRITTEN NOTICE OF THE PROPOSED START OF CONSTRUCTION. IF CONSTRUCTION ENTERS ONTO PRIVATE PROPERTY, THE CONTRACTOR OR DEVELOPER'S AGENT WILL REQUIRE WRITTEN AUTHORIZATION FROM THE PRIVATE PROPERTY OWNER.
- 10. RETAINING DESIGNATED TREES IS OF PRIME IMPORTANCE. WHEN WORKING IN PROXIMITY TO A DESIGNATED TREE OR WHEN ROOTS ARE ENCOUNTERED, THE CONTRACTOR SHALL CONSULT A CERTIFIED ARBORIST BEFORE PROCEEDING TO PREVENT DAMAGE TO TREES.
- 11. COVERS FOR INSPECTION CHAMBERS, VALVE RISERS, BUILDING SUMPS AND SUMP PUMPS IN DRIVEWAY SHALL BE SUITABLE FOR TRAVELED AREAS.
- 12. THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THAT NO SILT IS DISCHARGED TO THE STORM DRAINAGE SYSTEM, ROADWAYS OR ADJACENT PROPERTIES DURING THE COURSE OF CONSTRUCTION IN ACCORDANCE WITH DFO/ MOELP'S "LAND DEVELOPMENT GUIDELINES FOR THE PROTECTION OF AQUATIC HABITAT".
- 13. A PRE-CONSTRUCTION MEETING BETWEEN DISTRICT STAFF, THE CONSULTANT AND CONTRACTOR IS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION.

5

FOR ROADWORKS NOTES SEE DWG. RD-1 FOR STORM & SANITARY NOTES SEE DWG. S-1

EX. ASPHALT SIDEWALK	EX. ASPHALT CURB	EX. 150 SAN	EX. 200 DI WM	EX. 150 WM (ABANDONED)										
	EX. 375 LEACHATE			EX. 150 WM	240									
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D OR IOUT NT. R	483	GINEE	P.2.2.2.2.2.	date MA	J.A.T.	-		NLI FL				drawing no.	(-1	rev.
TD.	AP	K 24	2017	1717-	11.20.14								• 44 ²⁵	JU

Excerpt from January 17, 2013 ADP Meeting

Detailed Application for Townhouse Project – 756 and 778 Forsman Avenue

Ms. Casey Peters of the District Planning Department provided a brief review of the application. Ms. Peters noted that the application is for a rezoning and development permit to allow a project of nine townhouse units. The surrounding land uses were reviewed as well as the applicable OCP guidelines

Ms. Peters introduced Mr. Robert Kleyn, the project architect.

The Chair thanked Ms. Peters for her presentation and welcomed the applicant team to the meeting. The Chair outlined the procedure to be followed in presenting the proposal and the review by the Panel.

Mr. Kleyn, noted that the project is for nine family-oriented townhouse units. The project is arranged with access from Forsman Avenue with two duplexes on Forsman and a five-plex on the east side of the site. A new vehicle turnaround will be created on Forsman Avenue as part of this project.

Mr. Kleyn noted that the interior courtyard can be used for car traffic and as a play area for children through the use of traffic control strips and pavers. The site is within the identified flood plain and swales and other measures have been incorporated into the site as per the Kerr Wood Liedel flood management recommendations. Swales are proposed on the three edges of the property and the grades for the site have been set by the need for flood control and stormwater management.

It was noted that the surrounding area is still largely single family but successful townhouse projects have been completed nearby. The width of the duplexes on Forsman Avenue has been designed to keep the feel of a single family dwelling and a porch is included on each of the Forsman units to create eyes on the street.

The five-plex on the east side of the site has been articulated into quite a narrow massing to reduce effect of scale and give visual identity to the units. All of the garages are accessed from the proposed courtyard and with pedestrian access to the five-plex units immediately adjacent to the garages.

Flood level requirements set the first floor higher than the average grade on the site so in order to mitigate the effect of raising the building the parking garage has been dropped below the flood construction level. The entry and storage uses are located above the FCL.

The building design vernacular is that of a suburban house rather than a formal architectural style and the material choices include a selection of shingles and horizontal siding. The use of brick at lower levels attempts to make the buildings seem less massive and the lighter materials above the brick give a sense of variety to the buildings.

The alternating flat and pitched roofs allow for a lower overall building height and set up a variation in the building façade. The building section shows the separation between the two duplexes and 5-plex with the strategy of putting as much space between buildings as possible. At their closest, the buildings are 36.5 feet away from each other which gives a good sense of

privacy. The five-plex layout includes a kitchen facing courtyard which provides surveillance to the area and kitchens in the duplexes provide "eyes" on Forsman Street.

Over 200 square feet of exterior space is proposed per unit. The proposal includes 18 parking spaces, 13 covered and 5 open, three tandem spaces and 2 possible visitor spaces.

Mr. Steve Wong, the landscape architect for the project noted that the flood construction levels presented some challenges for the project. The north/south driveway will function as a flood way as required by the flood management recommendations and the project design also works to maintain stormwater on site and only discharge to the municipal system in extreme cases. Mr. Wong described the swales that are proposed on three sides of the site and the significant dispersal channel. Water from the roof will be directed into a sump and then into the dispersal trench or swales.

The landscape plan includes indigenous species so there is no requirement for irrigation. There will be a more formal feel off of Forsman Avenue with red maples proposed in the boulevard and boxwood along the fence. The front of the units will have a more uniform texture with salal, oregon grape, and snowberry hedge.

The aim is to create a community on this site with areas to bring residents out to enjoy the landscaping. An arbour with picnic benches is proposed and the adjacent natural area will be accessible.

The Chair thanked the project team for the presentation and asked if there were any questions of clarification from the Panel members.

Questions of clarification were asked regarding the following topics:

North elevation facing school: Mr. Kleyn noted that there are minimal windows but enough for variety and to allow light in.

Window and roofing materials: Mr. Kleyn clarified that they are proposing to use vinyl windows as it addresses cost issues and creates a residential feel and they are proposing a standing seam metal roof for durability reasons.

Access to school site: Ms. Peters noted that the proposal has been sent to the school board for their review but staff have not to date received comments.

Public art: Mr. Kleyn noted that given the small size of the site, they have not yet determined whether the public art will be on-site or if they will make a contribution the District's art fund.

Sustainability strategy: Mr. Kleyn noted that they are targeting LEED Gold and a calculation for the project has shown they are above the minimum requirements. The project will not be certified.

Street improvements: The turn-around bulb on the street was required by the District and designed by the civil engineer for the project. It is anticipated that in future the access to the school may change to Orwell and that Forsman would become a cul-de sac.

Water from roofs: Mr. Wong confirmed that a sump will collect water from roof and perimeter drains with discharge to the dispersal trench.

The Chair thanked the applicant team and staff for their clarifications and asked for comments from the District Urban Design Planner, Mr. Alfonso Tejada.

Mr. Tejada acknowledged the impact of the flood hazard requirements on the architecture. It was noted that the Lynnmour Inter-river Guidelines indicate that the design should harmonize with surrounding neighbourhood which is currently transitioning from single family to multi-family uses. The guidelines require a 2-1/2 storey character and the proposal shows a 3 storey mass. Mr. Tejada also noted the need for weather protection at each unit entrance - the current proposal presents instead a trellis at each entrance, and this requires some attention.

Mr. Kleyn noted that on the 5-plex the trellis includes glazing and this will also be included on the duplex units. It was further noted that it is very hard to get 3 bedrooms together on the upper floor without creating a three storey building mass.

The Chair invited comments from the members of the Panel, and observations on the project as presented were provided as noted below.

Generally the Panel indicated support for the architecture but expressed some concerns regarding the proposed picket railing, size of overhangs and the use of brick. It was noted that consideration should be given to a different colour for the vinyl windows (other than white). It was further noted that colours on the rendering and materials board appeared significantly different, and a clear indication should be provided as the project moves through the design process.

The importance of successful detailing was stressed, including the guard rails, window placement, and trellises. Panel members suggested that the minimal roof overhang should be reviewed and questioned the durability of the proposed exposed wood.

Panel members indicated support for the roof articulation proposed, as well as for the proposed three storey elevation – this appeared to be a suitable solution to providing three bedrooms on one floor.

In general, it was noted that stormwater was being addressed creatively and Panel members supported the use of native plants. Some questions were raised regarding whether there was the opportunity for more substantial tree species on the site.

Some concern was expressed with the proposal to encourage children to use the same space as travelling vehicles and it was noted that care should be taken to ensure that children and drivers are aware of the shared users of this space. It was suggested that the common driveway access could be narrower as a way to improve safety.

Some discussion took place regarding the dwelling unit layouts, and Panel members indicated that care should be taken to ensure sufficient natural light for the interiors of the units, particularly at the second floor level. Some concern was expressed regarding the north elevation, as it is important given the relationship with the school.

The Chair thanked the Panel for their comments, and invited the project architect to respond to the comments made by the Panel.

Mr. Kleyn thanked the Panel for their input and noted that the colour choices are still under consideration - the general aim is for the project to be light in colour. Regarding the overhangs, it was noted that to have the project appear light, it was felt that the overhangs should be narrow. Mr. Kleyn noted that he had also considered stucco as an alternative finish to the brick currently proposed, and will explore that further.

Mr. Kleyn noted that the use of high tall windows can be very effective at bringing light into spaces and he will review the elevations to see if there is an opportunity to provide more glazing and more light.

Mr. Wong agreed with the comments regarding the importance of safety for children using the driveway space and will review the option of a narrower driveway.

The Chair thanked the project team for their comments, and invited the Panel to compose a motion.

MOVED by Cedric Burgers and **SECONDED** by Lynne Werker:

THAT the ADP has reviewed the proposal and recommends **APPROVAL** of the project **SUBJECT** to addressing the following items to the satisfaction of staff:

- Confirmation of appropriate detailing to maintain design intent as presented to the Panel with particular attention to the balcony rails, downspouts, and enhanced weather protection;
- A design for the drive court area to ensure the area can function effectively for both vehicles and children's play;
- Improved harmony in the selected material palette, with particular attention to the use of brick;
- A review of options for additional glazing on north and south elevations.

CARRIED

MOUNTAIN MAPLE GARDEN & TREE SERVICE LTD. 10972 MCADAM ROAD DELTA, BC V4C 3E8 PHONE: 604 – 488 – 4455 MOUNTAIN.MAPLE@HOTMAIL.COM

November 10, 2012

RE: Arborist Report for Steve Wong - For property located at 756 & 778 Forsman Ave., North Vancouver, BC

Due to a development proposal, it was requested that a report be compiled discussing the trees at the site named above. This site was inspected on November 7, 2012. Twenty-eight trees were assessed; in this report they have been identified according to the tags physically attached to the trees. Twenty-one photographs, a copy of the site survey and a copy of the landscape site plan have been included as part of this report. The full Landscape Plan will identify the quantity and species of the proposed replacement trees; therefore a Tree Replacement Plan has not been included as part of this report.

Not included: An original copy of the Site Plan indicating trees marked for removal, and the locations of the Tree Protection Zone fencing; this will be provided separately by the developer if required.

The land on the lot is relatively flat. Most of the trees on site are in typical condition. There does not appear to any be environmental issues associated with this development proposal.

NOTE: No grade changes are to occur within the Critical Root Zones of any retained trees. Construction materials are not to be stored within the Tree Protection Zones (TPZ) of trees to be retained. Signage to be clearly posted on each side of the barrier indicating 'TREE PROTECTION ZONE – DO NOT ENTER OR MODIFY'

Limitations: This report is based on a visual assessment, from the ground only. No core or tissue samples were taken; no root crown excavations were performed. This report provides no undertakings regarding the future condition or behaviour of the trees reviewed in it. Tree hazards and conditions do change over time, and the evaluation period for this report is valid for the day on which it was performed only. Recommendations are to serve only as a guideline for the retention and protection of the tree(s), and are made according to commonly accepted arboricultural practises, and do not guarantee the survival and/or safety of the specimen(s). No responsibility is assumed for any legal matters as a result of this report. The consultant shall not be required to give testimony or attend court by any reason of this report unless subsequent contractual arrangements are made, including payment of additional fees for such services. Loss or alteration of any part of this report invalidates the entire report. Possession of this report or a copy thereof does not imply right of publication or use for any purpose by any other than the person to whom it is addressed, without verbal or written consent of the consultant. No part of this report shall be conveyed by anyone to the public by any means without prior written consent of the consultant.

Yours truly,

Kerin Matthews – sent electronically ISA Certified Arborist #PN-5648 ISA Certified Tree Risk Assessor #0123

TREE #	SPECIES	DBH (cm)	HEIGHT (m) est.	CONDITION	CRZ radius (m)	OBSERVATIONS & RECOMMENDATIONS
13	Cypress	43	12	Good	2.6	 Co-dominant stems commencing at about 15ft; stems divide again further up. Corrected lean to the west;
	(Chamaecyparis sp.)				(8.5')	otherwise appears typical of the species. - Existing driveway entrance is located 1ft from the base of the stem on the south side, and pavers are within 5ft of the base of the stem on the east side. - Entire area is proposed to undergo re-grading and new landscaping is proposed. - Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan
14	Cypress	40	12	Good	2.5	- Co-dominant stems commencing at about 12ft; stems divide again further up.
	(Chamaecyparis sp.)				(8.25')	 otherwise appears typical of the species. Existing pavers are within 3ft of
	E					 base of stem on the east side. Entire area is proposed to undergo re-grading and new landscaping is proposed. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan
15	Cedar	45	13	Good	2.8	 Does not present any major defects. Some ivy growing on stem. Entire area is proposed to undergo re-grading. New landscaping is and a pathway within close proximity is
					(9.2')	proposed. - Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan
16	Hemlock	18	9	Dead		- Tree is dead; has shed all needles and most of the fine twigs. Bark is starting to slough. RECOMMENDATIONS: Remove since it is dead.
17	Douglas fir	41	18	Good	2.5	 This tree does not present any major defects. There is yard waste debris piled around the base of the stem. Entire area is proposed to undergo
	(Pseudotsuga menziesii)				(8.25')	re-grading. New landscaping is and a pathway within close proximity is Page 2 of 16

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<u>TREE</u> ≝	SPECIES	DBH (cm)	HEIGHT (m) est	<u>CONDITION</u>	CRZ radius (m)	OBSERVATIONS & RECOMMENDATIONS
		(2007)	Citry Koli.			proposed. - Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan. Stump cannot be removed with excavation equipment, as this will cause damage to the roots of a tree on an adjacent site (Tree 'D'). Stump can be cut to grade and left to decay naturally, or can be removed with a stump grinder.
18	Sitka spruce (Picea sitchensis)	21	10	Fair	1.3 (4.2')	 This tree is tall and spindly; it has been suppressed by the adjacent larger trees. Entire area is proposed to undergo re-grading. New landscaping is and a pathway within close proximity is proposed. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan. Stump cannot be removed with excavation equipment, as this will cause damage to the roots of a tree on an adjacent site (Tree 'D'). Stump can be cut to grade and left to decay naturally, or can be removed with a stump grinder.
19	Norway spruce (Picea abies)	39	14	Good/Fair	2.4 (7.9')	 The canopy of this tree has also been suppressed due to the proximity of adjacent trees. Entire area is proposed to undergo re-grading. New landscaping is and a pathway within close proximity is proposed. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan
20	Cedar (Thuja plicata)	35	12	Good	2.1 (6.9')	 This tree appears rather typical of the species. Entire area is proposed to undergo re-grading. New landscaping is and a pathway within close proximity is proposed. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan

TREE #	<u>SPECIES</u>	DBH	<u>HEIGHT</u>	CONDITION	CRZ	OBSERVATIONS & RECOMMENDATIONS
		(cm)	(m) est.		(m)	
21	Cedar (Thuja plicata)	28	11	Good	1.75 (5.7')	 This tree does not present any major defects. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
22	Portuguese Laurel (Prunus lusitanica)	26	6	Good	1.6 (5.2')	 This tree does not present any major defects. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
23	Japanese maple (Acer palmatum sp.)	28 combined (8+7+7+6)	3	Good	1.25 (4.1')	 This tree has multiple stems commencing at about 1ft; it appears typical of the species. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
24	Cedar (Thuja plicata)	31	11	Good	1.9 (6.2')	 This tree has a Kiwi vine growing throughout the canopy; otherwise it does not present any major defects. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
25	Cedar (Thuja plicata)	84 combined (46+38)	16	Good/Fair	4.3 (14.1')	 This tree has co-dominant stems commencing at the base. It has been previously topped at about 15ft resulting in multiple tops. It is located within the proposed driveway entrance; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan

TREE #	SPECIES	DBH (cm)	HEIGHT (m) est.	<u>CONDITION</u>	CRZ radius (m)	OBSERVATIONS & RECOMMENDATIONS
26	Cedar (Thuja plicata)	60	16	Good/Fair	3.75 (12.3')	 This tree has been previously topped at about 15ft resulting in multiple tops. It is located within the driveway entrance; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
27 2284	Cherry (Prunus sp.)	27	4	Poor	1.6 (5.2')	 This tree is dead; it is a tall stump that is supporting an overgrown Kiwi vine. It is located within the proposed building envelope; therefore removal will be necessary. RECOMMENDATIONS: Remove since tree is dead.
28	Big Leaf maple (Acer macrophyllum)	106	22	Poor	6.6 (21.5')	 This tree has co-dominant stems commencing at the base; they are fused together to a height of about 12ft. There is dieback noted throughout the canopy. There is evidence of decay in the stem, and a cavity at the base on the southeast side. Kretzschmaria deusta fungus noted on stem Tree belongs to the District of North Vancouver School Board. Tree is located about 8ft from the property line. The Critical Root Zone radius is 21.5ft; therefore 13.5ft of its Critical Roots encroach into the subject site. The proposed building envelope is located 6ft from the property line (14ft from the base of the stem on the south side), not including the excavation required for forms, etc. This will pose too much of an encroachment into the CRZ. RECOMMENDATIONS: Remove tree. Condition poses a risk and removal is necessary to enable the proposed plan. Replant new trees on School property. PERMISSION TO REMOVE TREE MUST BE SOUGHT FROM DNV SCHOOL BOARD RISK RATING = 9 (High)

14

<u>TREE</u> <u>#</u>	SPECIES	DBH	<u>HEIGHT</u>	<u>CONDITION</u>	CRZ	OBSERVATIONS & RECOMMENDATIONS
		(cm)	(m) est.		radius (m)	
29	Hemlock	44	18	Good/Fair	2.75	 This tree appears typical of the species. It is located about 10ft from the property line. The Critical Root Zone radius is 9ft: therefore its
2289	(Tsuga heterophylla)				(9')	Critical Roots do not encroach into the subject site. - Tree belongs to the DNV school board. RECOMMENDATIONS: If required, install TPZ fencing at the property line; about 10ft from the base of the stem on the south, east and west sides. Fencing is to be installed on the subject site only.
						- This tree has multiple stems commencing at the base. The grade
30	Big Leaf maple	210	21	Poor	11.2	than the grade of this tree.
2287	macrophyllum)	combined			. (37')	 the canopy. There is dieback throughout the canopy. At some point the central leader failed or was removed: there
		(132+33+24+12+9)			179	appears to be decay. - Kretzschmaria deusta fungus noted on stem - Tree belongs to the District of North Vancouver School Board. - Tree is located about 8ft from the property line. The Critical Root Zone radius of this tree is 37ft (based on the diameter of 100% of the largest stem, and 60% of all others = 179cm); therefore 29ft of its Critical Roots encroach into the subject site. The proposed building envelope is located 6ft from the property line (14ft from the base of the stem on the south side), not including the excavation required for forms, etc. This will pose too much of an encroachment into the CRZ. RECOMMENDATIONS: Remove tree. Condition poses a risk and removal is necessary to enable the proposed plan. Replant new trees on School property. PERMISSION TO REMOVE TREE MUST BE SOUGHT FROM DNV SCHOOL BOARD RISK RATING = 8 (High)

<u>TREE</u> ≝	<u>SPECIES</u>	DBH (cm)	HEIGHT	<u>CONDITION</u>	CRZ radius (m)	OBSERVATIONS & RECOMMENDATIONS
2280	Cherry (Prunus sp.)	30	7	Poor	1.8	 Previously topped. Bacterial canker noted throughout the canopy; overall it presents poor health and condition and should be removed for this reason. Tree belongs to 763 Orwell St; but has been fenced off and maintained as part of the rear yard of 778 Forsman Ave. RECOMMENDATIONS: Obtain permission from DNV to remove due to poor health and condition. If retained, install TPZ fencing 6ft from the base of each stem on the north, west and south sides.
2281	Apple (Malus sp.)	43 combined (7+7+7+6+5+4+4+ 3)	5	Fair/Good	1.8 (6')	 This tree has multiple stems commencing at about 3.5ft; it appears typical of the species. It has been maintained as a topped specimen. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Bernaus to enable proposed plan
2282	Apple (Malus sp.)	50 combined (10+9+9+8+7+7)	6	Fair	2.1 (6.9')	 This tree has multiple stems commencing at about 3.5ft; it appears typical of the species. It has been maintained as a topped specimen. There is canker noted throughout the canopy. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
2283	Apple (Malus sp.)	54 combined (24+16+ 14)	7	Fair	2.6 (8.5')	 This tree has multiple stems commencing at about 3ft; it appears typical of the species. It has been maintained as a topped specimen. There is extensive canker throughout the canopy. It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan

TREE #	SPECIES	DBH	<u>HEIGHT</u>	CONDITION	CRZ radius	OBSERVATIONS & RECOMMENDATIONS
		(cm)	(m) est.		(m)	
2285	Walnut (Juglans sp.)	17	8	Good	1 (3.3')	 This tree appears to be a volunteer; it is located immediately adjacent to an existing shed. It has a phototropic lean to the north. Most of the stems have been previously topped It is located within the proposed building envelope; therefore removal will be necessary. Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to enable proposed plan
2286	Cherry (Prunus sp.)	45	15	Good	2.8 (9.2')	 Appears typical of the species. Area is overcome with blackberry. Belongs to 763 & 743 Orwell St. RECOMMENDATIONS: If retained, install TPZ fencing 9.2ft from the base of each stem on the north, west and south sides.
2288	Hemlock	61	16	Good/Fair	3.1	 This tree has co-dominant stems commencing at about 1ft; included bark is noted. It is located about 12ft from the property line. The Critical Root Zone radius is 10ft; therefore its
	(Tsuga heterophylla)	. (37+24)			(10.2')	Critical Roots do not encroach into the subject site. - Tree belongs to the DNV school board. RECOMMENDATIONS: If required, install TPZ fencing at the property line; about 12ft from the base of the stem on the south, east and west sides. Fencing is to be installed on the subject site only.
A	Tulip tree (Liriodendron tulipifera)	60	18	Fair	3.75 (12.3')	 This tree has a cavity on the northwest side; decay is evident. This tree is located 11ft from the property line. The Critical Root Zone radius is 12.3ft; therefore only 1.3ft of its Critical Roots encroaches into the subject site. Tree belongs to 750 Forsman Ave. RECOMMENDATIONS: Install TPZ fencing at the property line; 11ft from the base of the stem on the north and east sides, and adjacent to the existing sidewalk on the west side. Fencing is to be installed on the subject site only

TREE #	<u>SPECIES</u>	DBH (cm)	HEIGHT (m) est.	CONDITION	CRZ radius (m)	OBSERVATIONS & RECOMMENDATIONS
В	Cedar	33	18	Good	2	 This tree does not appear to present any major defects; however, it was viewed from the subject site only to avoid trespassing. The base of the stem is located 8.5ft from the property line. Its Critical Root Zone radius is 6.6ft;
	(Thuja plicata)	per survey			(6.6')	 Tree belongs to 750 Forsman Ave. RECOMMENDATIONS: If necessary, install TPZ fencing at the property line; 8.5ft from the base of the stem on the north, east and west sides. Fencing is to be installed on the subject site only.
С	Spruce	17	8	Good	1	 This tree does not present any major defects. Entire area is proposed to undergo re-grading. New landscaping is and
	(Picea sp.)				(3.3')	a pathway within close proximity is proposed. - Is not of a size or species that requires it to be retained under the Tree Protection bylaw. RECOMMENDATIONS: Remove to allow proposed plan
D	Cherry	40	6	Poor	2.5	 Canopy is sparse; tree was viewed from the subject site only to avoid trespassing. It is located about 4ft from the property line. Its Critical Root Zone radius is 8.25ft; therefore its Critical Roots encroach into the subject site
	(Prunus sp.)				(8.25')	by 4.25ft. - Tree belongs to 1570 East Keith Rd. RECOMMENDATIONS: Subsequent to the removal of Tree #17 & #18, install TPZ fencing 8.25ft from the base of the stem on the north, west and south sides. Fencing is to be installed on the subject site only.

Tree #13 &

#14

Tree #18 & #17

Tree #22 & #19

Tree #24, #2:

#23 & #21

Tree #25

Tree #26

Tree #27

Tree #29

Tree #2288

Tree #2285

Tree #2281, Tree #2282 & #2283

Tree 'A'

Tree 'A'

Tree 'D'

Tree #2286

SITE SURVEY

SITE SURVEY

LANDSCAPE/SITE PLAN

TREE PROTECTION ZONE - SCALE 1:250

BUILT GREEN™ CHECKLIST 2011

Effective January 1, 2011

To select points, click on boxes and select point value from drop-down list

Builder: House Address:

Section 1: 17 Section 2: 16 Section 3: 16 Section 4: 17 Section 5: 9 Section 6: 8 Section 7: 13 Section 8: 9 = TOTAL POINTS: 105

I. OPERATIONAL SYSTEMS

This section awards points for construction methods and types of products that contribute toward lower energy consumption, as well as alternative heating and electrical systems. **Minimum 10 Points Required**

1-1 Install a zoned heating system. Either, from a single HVAC source utilizing two or more, programable, thermostatically controlled zones or zoning separate systems through separate programable thermostats. (2 Zones = 2 points, 3 = points, 4 = points)

Efficiency can be significantly improved by only heating or cooling when occupants are present and by only heating/cooling to the exact desired temperature. Different desired temperatures can be set in each room or space and an individual zone can be turned off when not occupied. This type of system results in a dramatic reduction of energy consumption and operating costs.

1-2 Install high efficiency, sealed combustion heating appliance, with a minimum 94% AFUE (2 points) or 95% AFUE and above (3 points).

(Not for electric heat.) High efficiency furnaces or boilers, such as condensing systems, reduce energy consumption and consequently fossil fuel reliance. Because AFUE takes into account efficiency losses during start-up and cool down it's rating is slightly lower.

1-3 Install ground or water source heat pumps (10 points) or air source heat pumps (6 points) for heating and cooling.

Heat pumps can significantly reduce primary energy use for building heating and cooling. The renewable component displaces the need for primary fuels, which, when burned, produce greenhouse gases and contribute to global warming. Please Note: Cool climate heat pump systems are often more efficient due to the costs of electricity. However, cold climate heat pump systems are often not as efficient as typical boiler/furnace natural gas systems.

1-4 Programmable thermostat with dual set back & continuous fan setting.

A set back thermostat regulates the heating/cooling system to provide optimum comfort when the house is occupied and to conserve energy when it is not.

1-5 Install HVAC appliance with variable speed fan (ECM).

A variable speed fan motor (ECM or DC powered) is designed to vary its speed based on the homes heating and air conditioning requirements. Working in conjunction with the thermostat, it keeps the appropriate air temperature circulating through the home, reducing temperature variances in the home. It also provides greater air circulation and filtration, better temperature distribution, humidity control, higher efficiency and quiet performance.

1-6 Install sealed combustion 2 pipe tank system (2 points), or condensing DHW tank system (3 points)

Hot water heater is direct vented with a closed combustion system. All air for combustion is taken directly from the outside. A direct system utilizes a co-axial vent pipe (pipe inside a pipe) draws combustion air in through the outer pipe, and exhausts the products of combustion through the inner pipe. A power vented heater exhausts air out of the building via a positive exhaust during main burner operation. Both systems eliminate the need for conventional chimneys or flue systems.

1-7 Install instantaneous "tankless" hot water heater.

A tankless water heater does not have a storage tank to keep heated all day, or a pilot light; it burns gas only when you need hot water. This eliminates standby heat loss and its higher efficiency will save on utility costs.

1-8 Install high efficiency (AFUE 90 or better) boiler domestic hot water system.

1-9 Install Ground Source Heat Pump DHW heating system to supply a minimum of 25% of the peak DHW heating load and 70% of the total DHW energy load.

A Ground Source Heat Pump system uses the earths constant temperature to heat water for the home.

4

2, 3 or 4

2 or 3

6 to 10

2

3

2 or 3

1-10	Install drain water heat recovery units on the main drainage stack. 3 foot stack (1 point), 6 foot stack (2 points)		1 or 2
	Drain water heat recovery units transfer the heat from waste water to incoming water. This reduces the amount of energy needed for the DHW system.		
1-11	Sealed combustion fireplace with electronic ignition if gas fueled.	2	2
	Sealed combustion fireplaces involve a double-walled special vent supplied by the manufacturer that normally vents through a sidewall in a horizontal position. The unit must be Sealed Combustion, meaning that combustion gasses can not enter the home even if the home becomes depressurized.		
1-12	Install an EPA or CSA certified high-efficiency wood stove or pellet stove with a minimum efficiency of 72% (1 point) or 85% (2 points).		1 or 2
	State-of-the-art wood and pellet stoves are among the cleanest burning heating appliances and deliver a high overall efficiency. EPA and CSA certified stoves ensure reduced emissions.		
1-13	Install fireplace fan kit to circulate warm air into room (1 point per fan, maximum 2 points). A fan kit allows the heat generated by a fireplace to be transferred into the home more effectively.		1 or 2
1-14	All windows in home are ENERGY STAR labeled or equivalent for the climatic zone of home.	2	2
	ENERGY STAR labeled windows save energy by insulating better than standard windows, making the home more comfortable all year round, reducing outside noise and can result in less condensation forming on the window in cold weather.	2	
1-15	Electric range is self cleaning and/or Convection based		1
	Ranges that self clean or have convection are better insulated and sealed, performing at or less than 500 kwh (520 kwh for convection) when rated by EnerGuide.		
1-16	Refrigerator is an ENERGY STAR labeled product.	2	2
4 47	An ENERGY STAR label for refrigerator indicates the product has met strict requirements to reduce energy consumption.		
1-17	An ENERGY STAR label for a dishwasher indicates the product has met strict requirements to reduce energy consumption.	1	1
1-18	Clothes washer or combo washer dryer is an ENERGY STAR labeled product.	1	1
	An ENERGY STAR label for a clothes washer indicates the product has met strict requirements to reduce energy consumption.	_	
1-19	Clothes dryer has an energy performance "auto sense" dry setting which utilizes a humidity sensor for energy efficiency.	1	1
1-20	Home is built "Solar Ready" following Canadian Solar Industries Association (CANSIA) guidelines.	2	2
	Designing a home to be solar ready will make the addition of panels in the future much easier. Contact the Canadian Solar Industries Association for more info: www.cansia.ca.		
1-21	Install active solar hot water heating system. Sized for 30% of DHW load (4 points), 50% (6 points), 80% (8 Points)		4, 6,8
	System capacity must be verified by professional installer or engineer using modeling software such as RETScreen or better, data provided to Built Green Energy Advisor at time of modeling		

1-22	Install photovoltaic electrical generation system. Sized for 30% of electric load (4 points), 50% (6 points), 80% (8 points).		4, 6, 8
	A photovoltaic system will greatly reduce the reliance on fossil fuel energy and reduce greenhouse gas emissions. System capacity must be verified by professional installer or engineer.	—	
1-23	50% (2 points) or 100% (4 points) of electricity used during construction of home is generated by wind power or equivalent green power certificate.		2 or 4
1-24	50% (2 points) or 100% (4 points) of electricity used by homeowner during first year of occupancy is generated by wind power or equivalent green power certificate. (prepaid by builder)		2 or 4
1-25	A properly supported and wired ceiling fan and a wall mounted switch roughed in for future installation. Intended to allow for future temperature equalization.	1	1
1-26	Install interior motion sensor light switches. 1 point per switch to a maximum of 3 points.	3	1 to 3
	Motion sensor switches prevent lights from remaining on in rooms that are unoccupied. This helps reduce electricity consumption. Switches on closet doors and pantries are also acceptable.		
1-27	Install central, computerized control systems capable of unified automation control of lighting loads.		4
	Lighting and automation control systems prevent lights from remaining on in rooms without occupants, thereby reducing electricity consumption.		
1-28	Minimum 25% (1 point), 50% (2 points), 75% (3 points) or 100% (4 points) of interior and exterior light fixtures are fluorescent, compact fluorescent light bulbs or LEDs.	1	1 to 4
	Fluorescent, compact fluorescent and LED lamps use 50% less energy than standard lamps and last up to ten times longer.		
1-29	Minimum 50% of recessed lights use halogen bulbs.	1	1
	Halogen bulbs are slightly more energy efficient, last longer and provide a more effective task light than conventional bulbs.		
1-30	Air tight, insulation contact-rated recessed lights are used in all insulated ceilings, or insulated ceilings have no recessed lights.		1
	Prevents heated air from exhausting through ceiling. Air tight light fixtures lead to a more airtight, energy efficient home.		
	TOTAL SECTION POINTS	17	

II. BUILDING MATERIALS This section deals with building components that make up the structure of the home. Items involve alternatives to using large dimensional lumber, products with a recycled component, utilizing wood products that come from sustainably managed forests and reducing the overall amount of lumber used. Many Building Material items also improve thermal performance and EnerGuide scores **Minimum 15 Points Required** Insulated Concrete Form (ICF) system used for foundation walls. 2-1 2 Insulating Concrete Forms (ICF) are hollow building elements made of plastic foam that are assembled, often like building blocks, into the shape of a buildings exterior walls. The ICFs are filled with reinforced concrete to create structural walls. Unlike traditional forms, the ICFs are left in place to provide insulation and a surface for finishes. 2-2 Insulated Concrete Form (ICF) system used for 75% of above grade house walls. 3 See description in 2.1. Use of modest a amount of stick framing is allowable, i.e. at bay windows, pony walls and walk out walls. Non-solvent based damp proofing (seasonal application). 2-3 1 Water based damp proofing products use water as a thinner. Oil based damp proofing gives off a number of volatile organic compounds (VOCs) as the solvent evaporates after application. These VOCs can be a strong irritant and can add to air pollution. 2-4 Exterior and interior wall stud spacing at 19.2" on-center (1 point) or 24" on-center (2 points). 1 or 2 Increasing stud spacing reduced the thermal performance of homes while saving materials. 2-5 Use of insulated headers / lintels (either manufactured or site built insulated headers) with minimum insulation value of R10. 1 Headers can either be insulated on site or can be a pre-manufactured product (often insulated with a foamed plastic). 2-6 Install manufactured insulated rim/band joist, or build on-site built header wrap detail for continuous air barrier. Rim and band joists can either be insulated on site or can be pre-manufactured (often insulated with a foamed insulation). Elimination of headers at non-bearing interior and exterior walls. 2-7 1 It is not necessary to use the additional wood involved in header construction if the opening is less than 4' wide and is non-load bearing. For more details on Optimum Value Engineering framing principles see www.buildingscience.com. Use of header hangers instead of jack studs. 2-8 1 Using metal header hangers instead of jack studs allows for savings in wood use. For more details on Optimum Value Engineering framing principles see www.buildingscience.com. 2-9 Elimination of cripples on hung windows. For hung window openings, cripples are only necessary for siding or gypsum board attachment. For more details on Optimum Value Engineering framing principles see www.buildingscience.com. 2-10 Elimination of double plates, using single plates with connectors by lining up roof framing with wall and floor framing. Stack framing principles will allow for reduced wood usage. For more details on Optimum Value Engineering framing principles see www.buildingscience.com. 2-11 Use of two stud corner framing with drywall clips or scrap lumber for drywall backing instead of studs. Drywall clips can be used instead of a third corner stud allowing for reduced wood usage. For more details on Optimum Value Engineering framing principles see www.buildingscience.com.

2-12	Deck or veranda surfaces (1 point) and/or structure (1 point) made from a third-party certified sustainably harvested wood source.	2	1 or 2
	Wood must come from a sustainably harvested source with certification from Forest Stewardship Council (FSC), Sustainable Forestry Initiative (SFI), or Canadian Standards Association's Sustainable Forest Management Standard (CAN/CSA-Z809-02).		
2-13	Deck or veranda surfaces (1 point) and/or structure (1 point) made from a third-party certified sustainable concrete. Concrete produced from aggregates derived from a pit or quarry with a valid reclamation plan approved by Materials and Resources		1 or 2
2-14	Structural insulated panel system used for at least 75% of roof/ceiling (4 points), 75% of walls (6 points), exposed floors (2 points) and/or Foundation (2 points).		2 to 14
2-15	Factory built Stressed-skin Insulating Panels (SIPS) can reduce thermal migration and control air leakage – keeps heating and cooling costs to a minimum and can use less framing material compared to a conventionally framed wall. Dimensional lumber from a third-party certified sustainably harvested source used for floor framing.	1	1
	See 2-12		
2-16	Dimensional lumber from a third-party certified sustainably harvested source used for wall framing. See 2-12	2	2
2-17	Dimensional lumber from a third-party certified sustainably harvested source used for roof framing. See 2-12	1	1
2-18	Use manufactured wood products for floor systems instead of dimensional lumber (1 point), from third party certified sustainably harvested sources (2 points). Engineered wood floor systems saves old growth forests by using components from second generation forests and the use of recycled materials. See 2.42		1 or 2
2-19	Reduce dimensional lumber use by using engineered product for all load bearing beams & columns (1 point), from third party certified sustainable sources (2 points). Engineered products include wood products, concrete and recycled steel.		1 or 2
2-20	Reduce dimensional lumber use by using engineered products for all exterior window and door headers.		1
	Engineered products include wood products, concrete and recycled steel.		
2-21	Finger-jointed plate material and/or engineered plate material used for all framing plates.		1
	Use of recycled materials saves old growth forests.		
2-22	Reduce dimensional lumber use by using engineered stud material for 10% of structural stud wall framing.		1
	Use of engineered lumber products saves old growth forests by using components from second generation forests and the use of recycled materials.		
2-23	Finger-jointed studs for 90% of non-structural (1 point) and/or 90% of structural (1 point) wall framing. Use of recycled materials saves old growth forests.	1	1 or 2
2-24	Recycled and/or recovered content gypsum wallboard, minimum of 15% recycled content.		1
2-25	Recycled content exterior wall sheathing (minimum 50% pre- or post-consumer).		2
2-26	Use rain screen system separating cladding from the wall sheathing with a drainage plane (2 point), 60% or more recycled content (additional 1 point).	2	1 or 3
	Use of recycled content polypropylene, steel or aluminum rain screen strapping may replace the traditional use of wood strapping on rain screen systems.		
2-27	Advanced sealing package, non HCFC expanding foam around window and door openings and all exterior wall penetrations.	2	2
	Controls air leakage and keeps heating and cooling costs to a minimum.		
2-28	All sill plates sealed with foam sill gaskets or a continuous sandwiched bead of acoustical sealant.	1	1
2 20	Controls air leakage and keeps neating and cooling costs to a minimum.		
2-29	An insulation used in nome is certified by a time-party to contain a minimum recycled content. 40% (1 point) of 50% (2 points).		1 or 2
2-30	Install site applied spray foam to insulate entire rim joist area (1 point), Exposed floors (2 points) and/or house walls (4 points) and/or entire roof (3 points).		1 to 10
	Spray insulations provide excellent air sealing and insulation value. Spray foam must be fire protected and some types cannot come in contact with heating ducts or lines. Some foams meet requirements for vapour barriers. Consult supplier or installer for further information		
2-31	Replace exterior wood sheathing with insulating sheathing and structurally required metal bracing.		2
	Using less materials when possible saves the forest reserves, reduces thermal migration and controls air leakage and keeps heating and cooling costs to a minimum compared to a conventional wall.		-
2-32	Install R5 (1 point), R8 (2 points) or R12 (3 points) above building code required under entire basement slab.	2	1,2 or 3
	Insulation installed under the basement slab will reduce the downward heat transfer into the ground below the slab, especially when		

hydronic in-slab heating is installed. Insulation under the slab can reduce temperature swings in the heated space and respond quicker to new changes in thermostat settings.

2-33	Install additional rigid insulation on exterior of above grade walls, above code required framing cavity insulation. 1.5" (1 point) or 2" (3 points). Exterior insulation can greatly reduce thermal bridging, improving thermal performance. Care must be taken to ensure the wall cavity	1 or 3
2.24	remains permeable to the outside and foam must be fully protected from UV damage during and after construction. Refer to CHBA Builder Manual or Local Code Officals for additional information.	
2-34	code required interior insulation level	1, 2 or 3
	Insulation on the outside of a foundation system reduced energy loss	
2-35	Overhead garage door is made of 75% or greater recycled material.	1
2-36	Attached garage overhead door is insulated with R8 to R12 (1 point) or greater than R12 (2 points).	1 or 2
2-37	Attached garage is fully insulated.	1
	A fully insulated garage serves an additional insulating capacity for any walls encapsulated by it, further slowing heat loss through those	
	walls.	
2-38	Builder uses passive solar design shading devices for home. Permanent horizontal and/or vertical exterior shading devices for glazing (2 points), computer controlled devices (additional 1 point). Excludes interior blinds.	2 or 3
2-39	Install 100% recycled content carpet underlayment.	1
2-40	Install finished concrete interior floors instead of other types of finished floors (tile, carpet, hardwood, etc). For 300-500 ft ² (1 point), 501-1000 ft ² (2 points), 1001-1500 ft ² (3 points), 1501+ ft ² (4 points).	1 to 4
	in floor heat or basement slabs) provides a durable floor with less material usage.	
2-41	Install weather-stripped and insulated (R15 minimum) manufactured interior attic hatch (1 point), or no interior attic access (1 point)	1
	TOTAL SECTION POINTS 16	

This longe susta Mini	EXTERIOR and INTERIOR FINISHES section focuses on the finish materials used both inside and outside of the home. The items listed include using er lasting products, products with recycled content and products that are harvested from third-party certified ainably managed forests. mum 10 Points Required		
3-1	Exterior doors with a minimum of 15% recycled and/or recovered content.		1
	Recycled or recovered content ensures we keep our landfill use to a minimum. Not including overhead garage doors (see 2-33).		
3-2	Interior doors with a minimum of 15% recycled and/or recovered content.		1
3-3	Interior doors made from third-party certified sustainably harvested wood.		2
	Uses trees from forests managed sustainably, that prevent clear cutting and replant trees in areas from which they've been harvested.		
3-4	All exterior doors manufactured from fiberglass.		1
	Fiberglass doors insulate better than steel skinned or wood doors, have a longer lifespan, do not warp, twist or crack, and therefore reduce landfill use.		
3-5	Exterior window frames contain a minimum of 10% recycled content.		1
	Reusing materials such as plastics that may not be biodegradable reduces landfill usage.		
3-6	Exterior window frames made from third-party certified sustainably harvested wood.		2
	Uses trees from responsible sources and forests certified to an independent third party forest certification program.		
3-7	Natural, or artificial, cementitious stone/stucco/brick or fiber cement siding – complete or combination thereof for 100% of exterior cladding.	4	4
20	Strong, long lasting, lifeproof material.		1
3-0	Use of reclamined bricks, recycled content siding, etc. Intent is to replace siding materials, primarily exterior finish materials.		1 or 2
3-9	Fiber cement fascia and soffit.		2
	Fiber cement fascia and soffit, made with recycled content from sawmill waste and Portland cement, is a strong, long lasting and fireproof material.		
3-10	Recycled and/or recovered-content fascia and soffit (minimum 50% pre- or post-consumer).		1
	Recycled and/or recovered-content fascia and soffit reduces the amount of new material used in production by gluing up mill scraps		
3-11	Recycled and/or recovered-content siding (minimum 50% pre- or post-consumer)		4
0 11	Recycled and/or recovered-content stating reduces the amount of new material used in production by gluing up mill scraps into large pieces, which conserves natural resources and reduces landfill usage		7
3-12	Exterior trim materials are made from alternatives to solid lumber.		1
	Trim materials manufactured from OSB uses a laminating process to make larger pieces from smaller pieces or strands of wood. The process saves old growth forests by using trees from forests managed sustainably, that prevent clear cutting and replant trees in areas from which they've been bayested		
3-13	Exterior trim materials have recycled and/or recovered-content (minimum 50%).		3
	Recycled and/or recovered-content trim materials reduce the amount of new material used in production by gluing up mill scraps into large pieces, which conserves natural resources and reduces landfill usage.		
3-14	All exterior trim is clad with pre-finished metal (1 point over wood backings, 2 points without wood backings).		1 or 2
	Trim clad with pre-finished metal is a durable long lasting product that requires no maintenance and reduces waste in landfills due to long life of product.		
3-15	Deck or veranda surfaces made from low maintenance materials - deck surfaces do not need maintenance of any kind, including		2
	painting, for a minimum of 5 years. Materials that last longer reduce landfill usage and tend to require little to no maintenance, saving replacement costs and reducing		2
3-16	energy use. Minimum 25-year manufacturer warranty roofing material (2 points plus 1 point for each additional 5 years).	5	2 or more
	A 25-year roof system saves homeowners money in replacement costs, and reduces the use of landfills due to the longevity of the product.		
3-17	Minimum 25% recycled-content roofing system (1 point underlay and 2 points roofing finish).		1 to 3
	Recycled content roofing material reduces the use of new resources and waste in landfills.		
3-18	Domestic wood from reused/recovered or re-milled sources, 500 ft ² minimum for flooring or all cabinets or all millwork.		6
	Reused, recovered or re-milled sources eliminate the need for new resources, saving energy, transportation costs, and forestry from depletion.		
3-19	Natural or recycled-content carpet pad made from textile, carpet cushion or tire waste (rebond still qualifies).		2
	Natural or recycled-content carpet pad is a good use of reusable resources.		

3-20	Install carpet that has a minimum of 50% recycled content.		2
3-21	Install a minimum of 300 ft ² of laminate flooring		2
3-22	Bamboo, cork or hardwood flooring used in home, minimum of 300 ft ² installed. Products must be third-party certified from sustainably		2
	managed forests or certified sustainable sources.	3	3
	Cork flooring comes from stripping the bark off cork oak, which regenerates itself. The cork tiles are moisture, rot and mould resistant, providing a floor that can last over 30 years. Bamboo flooring is a good use of natural resources because it is fast growing, durable and flexible. All hard floorings promote better indoor air quality by not trapping contaminates.		
3-23	All ceramic tile installed in home has a minimum of 25% recycled-content.		2
	Reduces landfill usage.		
3-24	MDF and/or finger jointed casing and baseboard used throughout home (1 point), and all jambs (1 point)	2	1 to 2
	Medium Density Fiberboard (MDF) casing is created from sawdust and glues, utilizing all wood waste to create usable product.	I	
3-25	Solid hardwood trim from third-party certified sustainably harvested sources approved for millwork and/or cabinets (2 points per application – maximum of 4 points).		2 or 4
	Uses trees from responsible sources and forests certified to an independent third party forest certification program.		
3-26	Paints or finishes with minimum of 20% recycled content.		1
	Paints or finishes made from recycled content are environmentally friendly because recycling paint reduces the hazardous waste in landfills.		
3-27	Local natural stone or recycled content (30% of content) solid countertops for all kitchen counters (2 points), all other counter tops (1 point).		1 or 2
	Solid counter top product is more durable, easy to clean and maintain, resistant to heat and scoring. By quarrying and sourcing in Canada, the environmental cost of shipping is greatly reduced. Foreign stone cut or polished in Canada is not acceptable, quarry must		
3 20	be located within 800km of project, see item 8-1 for additinal point.		2
5-20	Products such as wheat heard are made from agricultural waste		2
3-29	PVD finish on all door hardware		1
0 _0	Physical Vapour Disposition provides a more durable product. No toxic wastes are produced making it.		
3-30	PVD finish on all faucets.		1
	Physical Vapour Disposition provides a more durable product. No toxic wastes are produced making it.		
3-31	Install only Type 1 or 2 grade door hardware with lifetime mechanical and coating warranty.	2	2
	High quality, durable Type 1 and 2 hardware will not require replacing for life of home.		
	TOTAL SECTION POINTS	16	

IV. INDOOR AIR QUALITY This section focuses on the quality of the air within the finished home. Products listed here include materials that are low in VOC's, products made from all natural materials as well as various air cleaning and ventilation systems. Minimum 15 Points Required		
4-1	Install pleated media filter on HVAC system with minimum MERV 7 rating.	1
	MERV rating system specifies allowable amounts and practical sizes that a filter must catch. The higher the MERV rating, the smaller and greater number of particulates are caught, providing better indoor air quality.	3
4-2	Install electrostatic air cleaner on HVAC system.	2
	Permanent washable air filter that traps and removes airborne particles from the air before being circulated through the furnace and into the home.	_
4-3	Install air filter on all fresh air inlets.	1
	A filter installed on the fresh air inlet will reduce the particulate that can be transferred from outside into the home. All air intakes must be easily accessible for maintenance. Bug screens are not considered a "filter". Check with funace or HRV manufacture prior to	-
4-4	Install electronic air cleaner on HVAC system.	3
	An electronic air cleaner offers a superior level of filtration by using advanced, 3-stage filtration technology to trap and filter airborne particles like dust, cat dander and smoke. It works by placing an electric charge on airborne particles, and then collecting the charged pollutants like a magnet. The air cleaner cells can be washed in your dishwasher or sink.	J
4-5	Install HEPA filtration system or MERV equivalent air filtration system in conjunction with an HVAC system.	6
	HEPA stands for High-Efficiency Particle Arresting. HEPA filtration offers the highest particulate removal available - 99.97% of particles that pass through the system including dust, cat dander, certain bacteria, pollens and more. The system is connected to the cold air return of the forced air heating/cooling system which provides a whole house filtration system.	_
4-6	Install thermostat that indicates the need for the air filter to be changed or cleaned.	1
4-7	This feature displays filter maintenance reminders on the thermostat. Regular furnace maintenance is required to keep your mechanical equipment running efficiently and problem free as well as ensuring a healthy indoor air environment.	2
	This process helps eliminate pollutants that drop into the HVAC ducting during the construction process from being circulated into the home.	
4-8	Central vacuum system vented to exterior as recommended by the Carpet and Rug Institute.	1
	A central vacuum system collects dust centrally, while exhausting to the exterior so that dust mites and bacteria do not have the opportunity to re-circulate. The result is cleaner, healthier air. Note: install far enough from air intake areas. See manufacturer's installation guidelines	
4-9	All insulation in the home is third-party certified or certified with low or zero formaldehyde.	2
4 10	Formaldehyde is colorless gaseous organic compound, water soluble, with a characteristic pungent and stifling smell. Products with low formaldehyde emission levels will improve indoor air quality of homes and long term owner health.	- 1 2
4-10	Formaldehyde is colorless gaseous organic compound, water soluble, with a characteristic pungent and stifling smell. Products with low formaldehyde emission levels will improve indoor air quality of homes and long term owner health. Industry Standard ANSI A208.1-1999 sets a 0.20 ppm limit. Built Green™ requires a 10% better level of performance at 0.18 ppm. Products using Phenol Formaldehyde, or PMDI or MDI will meet this standard without testing.	
4-11	Low formaldehyde underlayment is used in home (less than 0.18 ppm).	1
	Low formaldehyde (phenol) and formaldehyde-free binders (PMDI) are available and becoming more common. FSC certified OSB is becoming more common, reducing environmental impacts on air, water, social quality.	-
4-12	Low formaldenyde particle board/MDF (less than 0.18 ppm) = 1 point, or zero formaldenyde particle board/MDF (2 points) used for cabinets.	1 or 2
4-13	potential for water damage. Low formaldehyde particle board/MDF (less than 0.18 ppm) = 1 point, or zero formaldehyde particle board/MDF (2 points) for shelving.	, 1 or 2
	Urea formaldehyde-free fiberboard can be used in the same way as conventional fiberboard, but with the added caution of greater potential for water damage.	-
4-14	All interior wire shelving is factory coated with low VOC / no off gassing coatings	2
	Vinyl coating on conventional shelving units and site built MDF shelving off gas VOCs.	-
4-15	Water-based urethane finishes used on all site-finished wood floors. Water-based epoxy finish (generally referred to as epoxy-modified finish) differs from its solvent-based counterpart in that the epoxy resin is itself the catalyst for an acrylic or urethane resin	2

4-16	All wood or laminate flooring in home is factory finished.	2	2
	Installing a pre-finished floor eliminates the time, the dust and the odours associated with the on-site sanding and finishing of an		
4-17	Water-based lacquer or paints are used on all site built and installed millwork, including doors, casing and baseboards. (less then 200		2
	grams/litre of VOC's)		3
	Using water based interior finish products reduces VOC off-gassing which improves indoor air quality.		
4-18	Interior paints used have low VOC content (less than 200 grams/litre of VOCs).	2	2
	Volatile Organic Compounds (VOCs) are a class of chemical compounds that can cause short or long-term health problems. A high level of VOCs in paints/finishes off-gas and can have detrimental effects to a buildings indoor air quality and occupant health.		
4-19	Interior paints used have no VOC's in base paint prior to tint.	3	3
	Volatile Organic Compounds (VOCs) are a class of chemical compounds that can cause short or long-term health problems. A high level of VOCs in paints/finishes off-gas and can have detrimental effects to a buildings indoor air quality and occupant health.		
4-20	All ceramic tiles are installed with low VOC adhesives and plasticizer-free grout (low VOC standard is less than 150 grams per litre).	1	1
	Most adhesives are still based on SB latex which releases large quantities of VOCs. The volatile solvents are used to emulsify (or liquefy) the resin that acts as the bonding agent. However, water-based adhesives emit far less VOCs than their conventional solvent based counterparts. There are three types of low-VOC formulas: water-based (latex and acrylics); reactive (silicone and polyurethane); and exempt solvent-based (VOC-compliant solvents). While all three technologies yield low- or zero-VOC caulks, sealants, and adhesives, their performance is slightly different.		
4-21	All Vinyl flooring is replaced with natural linoleum installed with low VOC adhesives or other hard surface flooring		2
	(low VOC standard is less than 150 grams per litre). Hard surface flooring is generally more durable and improves the Indoor Air Quality within a building. Vinyl flooring typically releases VOC's as it ages and uses toxic glues in its application.		
4-22	Carpet and Rug Institute (CRI) IAQ label on all carpet used in home.		2
	To identify carpet products that are truly low-VOC, CRI has established a labeling program. The CRI Indoor Air Quality Carpet Testing Program green and white logo displayed on carpet samples in showrooms informs the consumer that the product type has been tested by an independent laboratory and has met the criteria for very low emissions.		
4-23	Carpet and Rug Institute (CRI) IAQ label on all underlay used in home.		1
	The adhesives used to install carpets and the latex rubber by some manufacturers to adhere face fibers to backing materials generate volatile organic compounds (VOCs). Carpets also cover large surfaces within an interior environment and can provide "sinks" for the absorption of VOCs from other sources.		
4-24	Natural material based carpet in all living areas.		2
	Natural wool carpets are durable and use less secondary backing materials and chemicals. Off-gassing is typically caused by the secondary backings and chemical additives in synthetic carpets, for controlling mildew, fungus, fire and rot.		
4-25	All carpet in home is replaced by hard surface flooring.		4
	Hard surface flooring is generally more durable and improves the Indoor Air Quality within a building. Carpets collect dust, dust mites and other allergens which when disturbed become airborne particulates- directly affecting the health of the occupants.		

TOTAL SECTION POINTS

V. VENTILATION

This section covers the mechanical ventilation systems in the home, including filtrations and heat recovery. **Minimum 6 Points Required** Platinum Level Note* Platinum level homes must use item 5-7 " Ventilation system is installed according to CSA Standard F326, as recommended by the Heating, Refrigeration and Air Conditioning Institute of Canada (HRAI)." as well as 6 additional points from this section. 5-1 All ductwork joints and penetrations sealed with low toxic mastic or aerosolized sealant system. 3 Duct mastic is a preferred flexible sealant that can move with the expansion, contraction, and vibration of the duct system components. A high quality duct system greatly minimizes energy loss from ductwork. The system should be airtight, sized and designed to deliver the correct airflow to each room. 5-2 Install motorized damper on fresh air inlet (must be interlocked with furnace system). 1 A constantly open fresh air supply (passive air) wastes energy. Positive control of this air will assure building comfort, safety and energy efficiency. 5-3 Install all ventilation fans (bath or in-line type) to meet or exceed the Energy Star requirements 2 Energy Star fans have to meet standards for efficiency, and sound transmission, providing guiet and effective ventilation fans. www.oee.nrcan.gc.ca/energystar/english Install a programmable timer or humidistat controlled ventilation fan meeting the Energy Star requirements for efficiency and sound 5-4 2 level A programmable timer ensures necessary, regular, automatic mechanical ventilation of the home. Install passive Heat Recovery Ventilator (HRV) and verify balanced installation. 5-5 2 A Heat Recovery Ventilator (HRV) is an air exchanger that exhausts humid, stale, polluted air out of the home and draws in fresh, clean outdoor air into the home. Invisible pollutants produced by common household substances, plus dust and excess humidity that get trapped in today's houses, can increase your risk of chronic respiratory illness and your homes risk of serious structural damage. A passive HRV unit does not have its own internal fan and is 100% furnace assisted. It works by tying the exhaust side of the unit to the supply air plenum which forces air to exhaust from the home and at the same time fresh air enters from outside through the unit and into the cold air return duct work. 5-6 Install an active Heat Recovery Ventilator or Energy Recovery Ventilator (HRV or ERV) and verify balanced installation. 4 A Heat Recovery Ventilator (HRV) is an air exchanger that exhausts humid, stale, polluted air out of the home and draws in fresh, clean outdoor air into the home. Invisible pollutants produced by common household substances, plus dust and excess humidity that get trapped in today's houses, can increase your risk of chronic respiratory illness and your homes risk of serious structural damage. Much like the HRV, the ERV recovers heat; however, it also recuperates the energy trapped in moisture, which greatly improves the overall recovery efficiency. In dry climates and humidified homes the ERV limits the amount of moisture expelled from the home. In humid climates and air conditioned homes, when it is more humid outside than inside, the ERV limits the amount of moisture coming into the home. 5-7 Ventilation system is installed according to CSA Standard F326, as recommended by the Heating, Refrigeration and Air Conditioning 5 Institute of Canada (HRAI). www.hrai.ca 5-8 All bath fans used throughout home have a noise level of 1 sone or less 2

TOTAL SECTION POINTS

9

Installing quiet fans will encourage use for home ventilation.

VI. WASTE MANAGEMENT This section deals with the handling of waste materials on the construction site and encourages recycling. Minimum 7 Points Required			
6-1	Comprehensive recycling program for building site including education, site signage and bins. A comprehensive recycling program that is strictly followed significantly reduces the amount of waste ending up in landfills. Currently it is estimated that up to 50% of landfill waste is construction related.	2	2
6-2	Collection of waste materials from site by a waste management company that is a current member of a provincial recycling council or equivalent association and verifies that a minimum of 10% of the materials collected from the construction site have been recycled.		4
	Not only does this reduce overall waste of product, it ensures that as much product as possible is being utilized for the production of future resources.		
6-3	Suppliers and trades recycle their own waste, including leftover material and packaging (1 point per trade - maximum 4 points). Trades being responsible for recycling and removal of waste not only reduces landfill waste, but also promotes a cleaner and safer working environment.		1 to 4
6-4	Minimum 15% (1 point) 25% (2 points) or 50% (6 points) by weight of waste materials collected from construction site is diverted from waste stream. Trades being responsible for recycling and removal of waste not only reduces landfill waste, but also promotes a cleaner and safer working environment.		1, 2 or 6
6-5	Use of recycled materials derived from local construction sites (1 point for each different product used, to max. of 3). Products recycled from the construction site, such as mulched clean dimentioal lumber free of metals, or mulched paperless gypsum are often useable as either clay/soil water retention additives.		1 to 3
6-6	Trees and natural features on site protected during construction. The protection of existing trees and other natural features such as streams, ponds and other vegetation reduces environmental and ecosystem impact. Many of these features can be protected simply by following good waste management procedures.	1	1
6-7	Metal or engineered durable form systems used for concrete foundation walls.		1
6-8	Concrete used in home has a minimum supplementary cementing material of 25% (1 point) or 40% (2 points) within the scope of proper engineering practices. For every one ton of Portland cement generated, eighth tenths of a ton of carbon dioxide is produced. Supplementary cementations produced fix achieves a woll as material of a ton of carbon dioxide is produced.		1 or 2
6-9	Install recycling center with two or more bins.	3	3
	By installing built in recycling centers, which can be as simple as labeled containers (paper, cardboard, cans, plastics, etc), homeowners are more likely to utilize the pre-existing facilities and thus contribute to the reduction in landfill waste.		
6-10	Provide composter to homeowner. Providing a composter promotes a reduction in wastes heading to the landfill by giving homeowners an option for organic waste such as food leftovers.	2	2
6-11	Existing dwellings onsite are recycled or moved instead of demolished (recycled 2 points, moved 4 points).		2 or 4
	TOTAL SECTION POINTS	8	

VII. This Minir	WATER CONSERVATION section encourages a reduction in the amount of water used in the home or in individual units within multi-story buildings. mum 7 Points Required		
7-1	Install a dual flush or pressure assisted toilet in one or more bathrooms (3 points for first, 1 additional point for each after)	5	3 or more
	Dual flush toilets offer a choice between two water levels for every flush; at minimum should use, 1.6 GPF (6 LPF) or 0.8 GPF (3 LPF).		
7-2	Install a 1.28 GPF toilet in one or more bathrooms (2 points for first, 1 additional point for each after)		2 or more
	1.28 GPF (Gallon per Flush) is general considered the new standard in water efficiency		
7-3	Install manufactured non-electric composting toilet (3 points each, max of 6 points).		3 or 6
	A composting toilet uses no water and is odourless. It uses a biological processes to break down the waste into organic compost material.		
7-4	Insulate the hot water lines with flexible pipe insulation, first three feet from hot water tank (1 point) or all hot water lines (2 points).	1	1 or 2
7 5	Minimizing the heat loss in the water line will decrease the initial water wasted by delivering hot water faster.		
7-5	install hot water recirculation system with all hot water lines insulated (4 points), or point-of-use instant DHW system (1 point each, max. 4)		1 to 4
	Having the hot water re-circulated from the hot water source to the fixture points will decrease the initial water wasted by delivery the hot water faster. Pump must be on program or timer to reduce stand-by losses. Kitchen counter top "boiling water taps" are not credited.		
7-6	Install low flow faucets for all kitchen faucets and lavatories (2 points), all showers & tub/showers (additional 1 point).	3	2 or 3
	Reduces water consumption by lowering the flow rate. Showers must use 9.8 L/min (2.2 imp. Gal/min) or less. Faucets, both kitchen and bath, must use 8.3 L/min (1.8 imp. Gal./min) or less.		
7-7	Install hands free lavatory faucets. 1 point per faucet/unit.		1 per unit
7 0	Battery powered electronic sensor minimizes the spread of germs and saves water.		
7-8	Frovide front loading clothes washer (3 points), or Condensing Combination wash/dry unit (4 points)		3 or 4
	effectively wash clothing. Additionally they use up to 75% less environmentally damaging laundry detergent, AND they also conserve electrical or gas energy by significantly reducing drying time for clothes with a more thorough spin cycle.		
7-9	Install water saving dishwasher that uses less than 20.0 L/water per load.	1	1
	Water saving dishwasher use technology to reduce both the amount of water required as well as electrical energy requirements. The EnerGuide appliance directory put out by Natural Resources Canada has a comprehensive listing of all manufacturers and models of dishwashers and other appliances with water usage and energy efficiency ratings.		
7-10	Install efficient irrigation technology that utilizes automatic soil moisture-based sensor technology at minimum		3
	Show storm water management plan & design; water efficient irrigation systems, sensors, regulators, micro drip feed systems etc.		
7-11	Install permeable paving materials for all driveways and walkways.	3	3
7 40	Permeable paving allows for storm water to flow back into the ground rather than into the storm sewers.		
7-12	Provide a list of drought tolerant plants and a copy of the local municipality water usage guide to nomebuyers with closing package.		1
	Most municipalities provide a guide that gives the water requirements of various plants and grasses. When properly designed, landscaping choices can significantly contribute to water conservation.		
7-13	Builder supplies a minimum of 8" of topsoil or composted yard waste, as finish grading throughout site.		2
	distributions which leads to higher hydraulic conductivity, water holding capacity, and aeration porosity.		
7-14	Builder incorporates water wise landscaping or xeriscaping in show home or customer home (customers 50% of lawn 2 points, 100% 4 points).		2 or 4
	Xeriscaping (or drought resistant landscaping) plans and options can be obtained from professional landscaping contractors, and once a xeriscaping landscape is in place, it requires no manual watering. (Rain barrel usage, astro turf ineligible.)		
7-15	Builder attaches water barrel with insect screen to downspout. Water barrel should also have a drain spout and overflow spout (1 point per barrel - maximum of 3 barrels). Supplying a water barrel encourages homeowners to use rainwater for landscaping needs and therefore save on potable water.		1, 2 or 3
7-16	Install grey water system collecting waste from sinks, shower and/or kitchen to capture and treat for use in toilets or irrigation (6 pts),		3 or 6
	By reusing waste water, consumption can be drastically reduced. Rough-in must include clearly identified grey water drain stack,		000

TOTAL SECTION POINTS 13

VIII. This : Minir	. BUSINESS PRACTICE section deals more with manufacturers and builders office and business practices. mum 6 Points Required		
8-1	Products used for home are manufactured within 800 km (1 point for each product - maximum of 5).	5	1 to 5
	Transportation of building materials is a substantial energy use, local manufacture reduces this embodied energy. Distances are calculated by road, not as the crow flies. Manufacturing or assembly must take place in a plant or factory, not on-site. Distance to raw material source is not included.		
8-2	Builder provides Built Green™ homeowner manual, completed Built Green™ checklist and educational walkthrough with sale or possession.		3
8-3	Builders office and show homes purchase a minimum of 50% (1 point) or 100% (2 points) solar, wind or renewable energy. Wind energy is a cleaner way to provide energy. Lower CO2 emissions will benefit the environment.		1 or 2
8-4	Manufacturers and/or suppliers purchase 50% or more solar, wind or renewable electricity.		1
	Wind energy is a cleaner way to provide energy. Lower CO2 emissions will benefit the environment.		
8-5	Builder has written an environmental policy which defines their commitment (must include an office recycling program and energy efficient lighting).	1	1
	A statement of commitment helps to emphasize priority and ultimately define a corporate culture.		
8-6	Manufacturer and/or supplier has written an environmental policy which defines their commitment (must include an office recycling program and energy efficient lighting). (1 point per supplier/manufacturer - maximum of 2 points).		1 or 2
8-7	Builder has written an environmental policy which prioritizes milestones for future net zero housing developments.		1
8-8	Builders' company vehicles are hybrid or bio-diesel vehicles (1 point per vehicle - maximum of 3 points).		1 to 3
	A commitment to the environment shouldn't stop at construction. Using a hybrid vehicle produces lower harmful emissions. Diesel construction vehicles converted to bio-diesel reduce fuel consumption by up to 75%.		
8-9	Environmental certification for builders place of business (building, office, etc).	3	3
	Many commercial buildings have been rated with various energy efficiency standards. Does your company work within an ENERGY STAR, EnerGuide for Houses (ERS), EnerGuide for New Houses (EGNH), REAP or LEED (or other certification standard) certified office building?		
8-10	Builder agrees to construct and label a minimum of 50% of all homes to the Built Green™ standard per calendar year. (3 points for 50%, 5 points for 100%).		3 or 5

8-11 Contracted trades and/or suppliers have successfully taken and maintained Built Green[™] Builder Training status (1 point per trade organization, Max 5).

TOTAL SECTION POINTS TOTAL CHECKLIST POINTS

northwest hydraulic consultants

P312090 5 December 2012

Robert Kleyn Architect/RK Studio 1409 Pendrell Street Vancouver, BC

Attention: Robert Kleyn

Dear Mr. Kleyn:

Subject: Forsman Avenue Townhouses Flood Hazard Assessment - DRAFT

1 INTRODUCTION

Robert Kleyn Architect (RKA) is submitting plans to the District of North Vancouver (DNV) to facilitate zoning changes for a proposed townhouse in the Lynnmour area on Lynn Creek (Figure 1). DNV has requested that the plans be reviewed with respect to recommendations made by KWL In March 2006¹ regarding flood hazards. The site of the proposed townhouse is in Area 1 Zone C identified in the KWL report. This letter addresses whether the proposed Forsman Avenue Townhouses meets the Flood Construction Level (FCL) and floodway requirements. The review is based on the drawings (November 2012) provided by Robert Kleyn Architect as follows:

- Project Data, A0
- Site Plan, A1
- Neighborhood Chacter, A2
- Topograhic Survey, C1
- Grading and Drainage Plan, C2

2 REQUIREMENTS

The KWL 2006 report updated the earlier KWL December 2004 *Lynn Creek Management Plan* and addresses long-term flood protection goals regarding extreme events with low probabilities of occurring. The report recommended raising roads to provide primary flood protection. Secondary flood protection measures include providing Flood Construction Levels (FCL's) for proposed building, and designation of floodways to route floodwaters through the area.

¹ KWL, March 6, 2006. Lynnmour/Inter-River Local Plan, Flood Protection Assessment - Final. Letter to District of North Vancouver.



Forsman Avenue Townhouses Flood Hazard Assessment - DRAFT Page 2 of 3

Forsman Avenue has been designated as a floodway with the intersection of Forsman Avenue and Keith Road set at 14.1 m GSC. For the proposed townhouse site, the recommended FCL is 14.7 m GSC, and should be 0.6 m higher than the surrounding grades, or should be graded to allow unimpeded flow of floodwaters to avoid ponding.

Area 1 Zone C is indentified in the KWL 2006 report as the area that presents a lot grading problem, with a requirement to submit a lot grading plan and that 35% of the lot would be left at least 0.6 m below the FCL. The areas to be kept low are the front, side and rear yards, with preference that areas be kept low across the lot in the predominantly floodway (north-south) direction. Figure 4 of the KWL 2006 report indicates that a minimum 3 m setback be provided between the edge of a new building and the designated floodway (Forsman Avenue).

3 SITE DESCRIPTION

The proposed townhouse is located on the east side of Lynn Creek upstream of Highway 1. The site is located on Lynn Creek fan that historically was a broad multi-thread channel system that occupied much of the area that is now developed. The east bank of Lyn Creek has been armoured with rock riprap and elevated above normal flood levels as a result of flooding and significant bank erosion upstream and downstream of Highway 1 in the 1980's.

The proposed townhouse is located in an area of mixed development, that includes playing fields, schools, multiand single family residences. Two lots have been consolidated to for the proposed townhouse development, and align in a north-south orientation. Forsman Road runs north-south and ties into Keith Road which runs eastwest along Highway 1.

4 REVIEW

Flood Construction Levels

The lowest habitable floor (entrance) for each unit is concrete on grade and set at 14.70 m GSC, which meets the FCL requirement.

Floodways

The buildings along Forsman Avenue (designated floodway) are setback more than 3 m from the edge of the road which meets the requirement.

The total area of the consolidated lots is $1,684 \text{ m}^2$. The area at or below 14.1 m GSC is estimated to be about 522 m², or 31% of the total area, which is near the 35% requirement. The 35% requirement can be achieved by lowering the perimeter of the northwest corner of the property to at or below 14.1 m, which would be a fairly simple adjustment.

The distance between the three sets of townhouses is about 6 m which addresses the requirement to maintain open flood paths between structures. A low wall at the between the buildings at the north edge of the property



Forsman Avenue Townhouses Flood Hazard Assessment - DRAFT Page 3 of 3

is at 14.38 m GSC. Lowering this to 14.20 m GSC would provide additional flood conveyance and better meet the preference that areas be kept low across the lot in the predominantly flood flow direction (north-south).

5 CLOSURE

This review has focused on the FCL and floodway requirements outlined in the KWL 2006 report. The proposed townhouses meet the FCL requirement with the habitable areas set above 14.7 m GSC. The proposed townhouses do not impede the proper function of the designated Forsman Avenue floodway, and the area is generally graded to allow unimpeded flow of floodwaters and avoid ponding. Some minor adjustments are required to meet the percentage of area below 14.1 m GSC and to better establish the north-south flood flow direction.

The plan, with the minor adjustments noted in Section 4, is in accordance with the ideal lot grading recommended by KWL so that the alternate strategy of lot consolidation does not need to be considered insofar as the two properties to the south of the project site can be similarly graded.

DNV may require additional review and a more detailed Flood Hazard Study that follows DNV SPE 106 as the project moves through into permitting, detailed design and construction.

Please call the undersigned should you have any questions regarding this assessment.

Sincerely,

northwest hydraulic consultants ltd.

Bruce Walsh, P.Eng. Principal

DISCLAIMER

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300143 2 September 2015

KDL Construction Inc. 1108 West 8th Avenue Vancouver, BC V6H 4C8

Attention: Mr. Demetre Lazos

Dear Mr.Lazos:

Subject: Forsman Avenue Townhouses Flood Hazard Assessment – Carport Elevation

Further to NHC's report dated 5 December 2012, it is our understanding that the District of North Vancouver has requested that clarification be provided regarding the Flood Construction Level and the level of the top of the carport slabs and adjacent storage areas.

Generally, the top level of the carport slab and adjacent storage areas will be below the FCL level of 14.7 m. These areas are not consider habitable areas and can be below the FCL provided that no electrical or mechanical equipment in these areas is located below the FCL.

It is anticipated that DNV will require additional review and a more detailed Flood Hazard Study that follows DNV SPE 106 and Appendix J as the project moves through into permitting, detailed design and construction.

Please call the undersigned should you have any questions regarding this assessment.

Sincerely,

northwest hydraulic consultants ltd.

B. Walsh

Bruce Walsh, P.Eng. Principal

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water resource specialists



GEOCAN ENGINEERING INC.

Phone: 778-987-7461 Email: geotechcanada.general@gmail.com 54 – 22865 Telosky Avenue Maple Ridge, BC, V2X 8Z9

> October 27, 2016 Updated December 19, 2016

1009198 BC Ltd. 7532 Conway Avenue Burnaby BC V5E 2P6

 Attention:
 Mr. Kenny Gu

 Re:
 Flood Hazard Level Review

 756, 778 Forsman Avenue, North Vancouver, BC

 Project No:
 16422

At your request, GeoCan Engineering Inc. (GeoCan) reviewed the flood hazard documents, architectural and landscaping designs for the townhouse development at 756 and 778 Forsman Avenue, North Vancouver. This letter provides the result of our review and the recommendations regarding the current design and the flood level at the above mentioned site.

The following documents were reviewed:

- 1. Flood Hazard Assessment by Northwest Hydraulic Consultants (NHC) dated December 5, 2012
- 2. Forsman Gardens Rezoning Design by Pacific West Architecture dated October 2016
- 3. Civil Design Drawings by Webster Engineering Ltd. dated May 20, 2014 and
- 4. Landscape Design Drawings by SW Landscape Architect dated October 11, 2016

Based on Lynnmour/Inter-River Local Plan, Flood Protection Assessment - Final by Kerr Wood Leidal Consulting Engineers (KWL) 2006, the NHC Flood Hazard Assessment pointed out:

- 1. The site of the proposed townhouse is in Area 1 Zone C identified in the KWL report.
- 2. The report recommended raising roads to provide primary flood protection. Secondary flood protection measures include providing Flood Construction Levels (FCL's) for proposed building, and designation of floodways to route floodwaters through the area.
- 3. Forsman Avenue has been designated as a floodway with the intersection of Forsman Avenue and Keith Road set at 14.1 m GSC. For the proposed townhouse site, the recommended FCL is 14.7 m GSC, and should be 0.6 m higher than the surrounding grades, or should be graded to allow unimpeded flow of floodwaters to avoid ponding.
- 4. Area 1 Zone C is identified in the KWL 2006 report as the area that presents a lot grading problem, with a requirement to submit a lot grading plan and that 35% of the lot would be left at least 0.6 m below the FCL. The areas to be kept low at the front, side and rear yards, with preference that areas be kept low across the lot in the predominantly floodway (north-south) direction. Figure 4 of the KWL 2006 report indicates that a minimum 3 m setback be provided between the edge of a new building and the designated floodway (Forsman Avenue).



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Phone: 778-987-7461 Email: geotechcanada.general@gmail.com 54 – 22865 Telosky Avenue Maple Ridge, BC, V2X 8Z9

Based on our review to the architectural, civil and landscape design drawings provided to us, we confirm that for the new construction, all inhabitable floor elevations, electrical, mechanical equipment are located above FCL (14.7m GSC). And the finishing grade is either 0.6m lower than the FCL (14.7m GSC) or graded to allow unimpeded flow of flood waters to avoid ponding. In addition, the lot grading plan shows that more than 35% of the lot was below the 14.1m GSC (0.6m below the FCL). And the front, side and rear yards were kept low. The edge of the new building is more than 4m away from Forsman Avenue, the designated floodway.

Based on the above, we confirm that the new design conforms to the FCL requirements set up by Lynnmour/Inter-River Local Plan, Flood Protection Assessment - Final by Kerr Wood Leidal Consulting Engineers (KWL) 2006. Therefore, is acceptable. A Flood Hazard and Risk Assurance Statement (Appendix J from APEGBC Flood Hazard Guidelines) was attached.

We trust that this letter meets your current request. If you have any more concerns, please feel free to contact the undersigned.

Regards, HAN Heqing Jian, P. Eng. Senior Geotechnical Engineer

C:\Users\GeoCan\Desktop\1_often\GeoCan Engineering Inc\projects\16422_756 778 Forsman Ave, North Vancouver\Flood Level Letter_20161219.docx

APPENDIX J: FLOOD HAZARD AND RISK ASSURANCE STATEMENT

Note: This Statement is to be read and completed in conjunction with the "APEGBC Professional Practice Guidelines - Legislated Flood Assessments in a Changing Climate, March 2012 ("APEGBC Guidelines") and is to be provided for flood assessments for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the APEGBC Guidelines.

To: The Approving Authority

Date: December 19, 2016

District of North Vancouver

355 West Queens Road, North Vancouver, BC V7N 4N5

Jurisdiction and address

With reference to (check one):

- □ / Land Title Act (Section 86) Subdivision Approval
- ☑ Local Government Act (Sections 919.1 and 920) Development Permit
- Community Charter (Section 56) Building Permit
- Local Government Act (Section 910) Flood Plain Bylaw Variance
- Local Government Act (Section 910) Flood Plain Bylaw Exemption

For the Property:

Lot A, Block A, DL 613, Group 1, NWD Plan BCP 39525 (778 Forsman Ave), Lot C of Lot 6, Block A, DL 613, Plan 20979 (756 Forsman Ave) Legal description and civic address of the Property

The undersigned hereby gives assurance that he/she is a Qualified Professional and is a Professional Engineer or Professional Geoscientist.

I have signed, sealed and dated, and thereby certified, the attached flood assessment report on the Property in accordance with the APEGBC Guidelines. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- 1. Collected and reviewed appropriate background information
- 2. Reviewed the proposed residential development on the Property
- 3. Conducted field work on and, if required, beyond the Property
- 4. Reported on the results of the field work on and, if required, beyond the Property
- 5. Considered any changed conditions on and, if required, beyond the Property
 - 6. For a flood hazard analysis or flood risk analysis I have:
 - 6.1 reviewed and characterized, if appropriate, floods that may affect the Property
 - 6.2 estimated the flood hazard or flood risk on the property
 - 6.3 included (if appropriate) the effects of climate change and land use change
 - _/_6.4 identified existing and anticipated future elements at risk on and, if required, beyond the Property
 - __6.5 estimated the potential consequences to those elements at risk
 - 7. Where the *Approving Authority* has adopted a specific level of *flood hazard* or *flood risk* tolerance or return period that is different from the standard 200-year return period design criteria⁽¹⁾, I have
 - $\frac{\sqrt{7.1}}{\sqrt{7.1}}$ compared the level of *flood hazard* or *flood risk* tolerance adopted by the *Approving Authority* with the findings of my investigation
 - 7.2 made a finding on the level of *flood hazard* or *flood risk* tolerance on the Property based on the comparison
 - $\sqrt{7.3}$ made recommendations to reduce the flood hazard or flood risk on the Property

⁽¹⁾ Flood Hazard Area Land Use Management Guidelines published by the BC Ministry of Forests, Lands, and Natural Resource Operations and the 2009 publication Subdivision Preliminary Layout Review – Natural Hazard Risk published by the Ministry of Transportation and Public Infrastructure. It should be noted that the 200-year return period is a standard used typically for rivers and purely fluvial processes. For small creeks subject to debris floods and debris flows return periods are commonly applied that exceed 200 years. For life-threatening events including debris flows, the Ministry of Transportation and Public Infrastructure stipulates in their 2009 publication Subdivision Preliminary Layout Review – Natural Hazard Risk that a 10,000-year return period needs to be considered.

- Where the Approving Authority has not adopted a level of flood risk or flood hazard tolerance I have:
 - _8.1 described the method of flood hazard analysis or flood risk analysis used
 - 8.2 referred to an appropriate and identified provincial or national guideline for level of flood hazard or flood risk
 - 8.3 compared this guideline with the findings of my investigation
 - _8.4 made a finding on the level of flood hazard of flood risk tolerance on the Property based on the comparison
 - 8.5 made recommendations to reduce flood risks
- 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one

- the findings from the investigation and the adopted level of flood hazard or flood risk tolerance (item 7.2 above)
- the appropriate and identified provincial or national guideline for level of flood hazard or flood risk tolerance (item 8.4 above)

I hereby give my assurance that, based on the conditions contained in the attached flood assessment report,

Check one

□ for subdivision approval, as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended".

Check one

- with one or more recommended registered covenants.
- without any registered covenant.
- M for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".
- for a <u>building permit</u>, as required by the Community Charter (Section 56), "the land may be used safely for the use intended".

Check one

- with one or more recommended registered covenants.
- without any registered covenant.
- for flood plain bylaw variance, as required by the Flood Hazard Area Land Use Management Guidelines associated with the Local Government Act (Section 910), "the development may occur safely".
- for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".

Name (print)	
Signature	
54-22865 Telosky Ave, Maple Ridge	
Address	
BC V2X 8Z9	
778-987-7461	
Telephone	



(Affix Professional seal here)

the following.

I am a member of the firm GeoCan Engineering Inc. and I sign this letter on behalf of the firm. (Print name of firm)



May 17, 2017

Pacific West Architecture Inc.

1200 West 73rd Ave (Airport Square) Suite 1100 Vancouver B.C. V6P 6G5

Office: 604 267 7072 Cell: 604 616 7892 Fax: 604 267 7056 www.pwaarchitecture.com

Re : Rezoning Application – 756 and 778 Forsman Avenue Accessible Design Consideration

The project will provide basic design features to facilitate building access and useability for people of all ages and abilities; and enhanced features, where appropriate, to facilitate ageing in place and to support people with mobility and/or sensory impairments. The project will provide basic Accessible Design Elements (as outlined in Attachment 1 of Accessible Design Policy for Multi-Family Housing) as follows:

Building Access and Main Entrances

1-B: An accessible path of travel is to be provided:

- An accessible path of travel is to be provided from the street and private parking area to at least one main entrance. For building 1 and building 2, the access could form the garage. In building 3, all units' main entries are accessible.
- An accessible path of travel is also to be provided to each common amenity area (e.g. playground, storage and garbage/ recycling areas)

2-B: Accessible path of travel

The accessible path of travel is to be:

- continuous with no steps
- have a permanent, firm, non-slip finish
- an uninterrupted clear width of 152cm (5ft)
- a gradient not more than 1:20
- a different/distinctive texture to adjacent paved surfaces
- be free of obstructions lower than 196cm (77in)
- be designed as a ramp where gradient exceeds 1:20 (5%)



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Office: 604 267 7072 Cell: 604 616 7892 Fax: 604 267 7056 www.pwaarchitecture.com • have no grating openings that will allow the passage of a sphere more than 13mm (0.5in) in diameter.

3-B/E : Lighting, weather protection, intercom, address numbering and mailbox Building entrances in accessible paths of travel are to:

- provide weather protection with a min. 152cm x152cm (60in x 60in) canopy over the main entrance and door-phone.
- have an intercom system installed with user functions located no more than 1375mm (54in) above paved area.
- have good lighting outside & inside building entrance 100 lux
- have mailbox units installed no more than 1375 mm (54 in) above the finished paved area.
- have address numbering that is glare free, approx. 60 in above finished floor, highly contrasting (color) and sized as follows depending on distance from the street: At 0-15 m from road, numbering are to be 10cm (4 in). At 15-20 m numbering are to be 15cm (6 in) and at >20m from road, numbering are to be 20cm (8 in).
- 4-B: Entrance door assembly and operation

Door assemblies in the accessible path of travel are to:

- provide a clear opening width of no less than 850mm (34in) if there is only 1 door leaf
- have the active leaf providing a clear opening of no less than 850 mm (34in) (in a doorway with multiple leaves)
- have power-operated doors, functioning for passage in both directions
- be operable by devices that do not require tight grasping or twisting
- have a push plate or latch releasing device.

5-B: Entry door clearance

- Doorways in accessible paths of travel are to have a clear and level area on either side of the door.
- Doorway thresholds in accessible paths of travel are to be no more than 13 mm (0.5in) above the floor and bevelled.
- The entry foyer shall have a non-slip surface.



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Office: 604 267 7072 Cell: 604 616 7892 Fax: 604 267 7056 www.pwaarchitecture.com 7-B: Tactile warning strip on stairs

• Provide contrasting colours on signs, address numbers, corridor walls and unit entries.

Residential Unit – Entry Door

10-B: Unit entry door assembly Unit entry doors will:

- have a clear opening width of no less than 850mm (34in)
- be operable by devices, such as lever door handles, that do not require tight grasping or twisting of the wrist
- operate when a force of not more than 22 N is applied at the handle, push plate or latch releasing device Where the threshold is not flush with the floor, the difference in level is to be not more than 13 mm and shall be bevelled.

11-B: Unit entry door clearance

Door assemblies for unit entry are to have a clear and level area*:

- when the door swing is away from this area, not less than 1220 mm (48 in) long by a width equal to the door assembly width plus not less than 300 mm (12 in) of clear space beside the latching jamb of the door
- when the door swing is toward this area, not less than 1500 mm (60 in) long by a width equal to the door assembly width plus not less than 600 mm (24 in) clear space beside the latching jamb of the door
- Alternative solutions (such as power door installation) will be considered for potential equivalency.

Residential Unit – Bathroom

12-B: Bathroom entry door assembly

At least one bathroom is to:

- provide a clear opening width of no less than 800mm (32in)
- be operable by devices, such as lever door handles, that do not require tight grasping or twisting of the wrist Where the threshold is not flush



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Office: 604 267 7072 Cell: 604 616 7892 Fax: 604 267 7056 www.pwaarchitecture.com with the floor, the difference in level is to be 13mm (0.5in) in height or less and bevelled.

13-B Bathroom door clearance

clearance Door assemblies for the above bathroom shall:

- open away from (or outside) the bathroom area
- have a clear and level area of*: not less than 1220 mm (48 in) long by a width equal to the door assembly width plus not less than 300 mm (12 in) clear space beside the latching jamb of the door. *Except where a pocket door is provided as an alternative to a swing door. The space under the sink (see 24-E) may be used towards meeting clearance requirements.

15-B: Bathroom space

At least one bathroom is to have enough floor space to be 'minimally accessible' per the following:

- A clear dimension from the front edge of the toilet to the facing wall is to be a min. of 800mm (32in). Space from the front edge of the bathtub to the centre of the toilet is to be a min. 508mm (20in).
- Clear floor area in front of the sink/lavatory is to be a minimum of 760mm (30in) wide by 1220mm (48in) deep centred on the sink/lavatory.

16-B: Bathroom flooring

• Slip resistant flooring – material as recommended by the applicant's architect.

17-B Bathroom wall reinforcement

Reinforcement provided in wall assemblies adjacent to a toilet* and bathtub or shower are to accommodate the future installation of vertical, horizontal or diagonal grab bars or towel bars and such reinforcement should provide sufficient support to the bars so they can resist a vertical or horizontal load of not less than 1.3 kiloNewtons (kN). *In at least one bathroom, the toilet is to be located next to a reinforced wall for future grab bar installation.



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18-B Adjustable height shower

At least one bathroom can accommodate an adjustable height shower head or hand held shower head on adjustable bracket.

21-B Bathroom Faucet levers

At least one bathroom is to have lever faucet handles that that do not require tight grasping or twisting.

Residential Unit – Kitchen

26-B Kitchen flooring

• Slip resistant flooring – material as recommended by the applicant's architect.

27-B Adjustable shelves

Kitchen cabinets are to include adjustable shelves

30-B Faucet handles

• All kitchen faucets within units and common amenity areas are to be operable by devices (e.g. "lever" handles) that do not require tight grasping or twisting. Residential Unit – Electrical

36-B Rocker switches

• All switch types shall be operable with a closed fist (such as rocker switches)

37-B Telephone jacks

- Include a telephone jack in at least one bedroom
- Telephone jacks are to be approx. 200 mm or less from an electrical outlet.

38-B Bedroom – 3-way switch

• Three way switched outlet near bed and doorway

40-B Visual alarminstallation

• Install visual alarm system in all common areas of the building. Wiring for a visual alarm is to be tied into the fire alarm system.